

**FORUM FOR PUBLIC HEALTH IN SOUTH  
EASTERN EUROPE**

**Programmes for Training and Research in Public Health**

**MANAGEMENT IN HEALTH  
CARE PRACTICE**

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**A Handbook for Teachers, Researchers and Health Professionals**

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## CONTENTS

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<b>Preface</b> .....	VII
<b>List of authors</b> .....	VIII

### Chapter 1

#### PRINCIPLES IN PRACTICE OF HEALTH CARE

<b>1.0 Health and Development</b> .....	2
<i>L. Vončina, L. Kovačić</i>	
<b>1.2 Health Care as a System: Elements, Boundaries, Levels</b> .....	11
<i>L. Kovačić, Ž. Jakšić</i>	
<b>1.3 Public Health Services – Present Organization and Challenges for Tomorrow</b> .....	20
<i>I. Eržen, L. Zaletel Kragelj</i>	
<b>1.4 Socio-medical and Ethical Dimensions of the Health Practice</b> .....	43
<i>N. Milevska-Kostova, D. Done</i>	
<b>1.5 Quality of Health Care</b> .....	55
<i>V. Grujić, M. Cvejin</i>	
<b>1.6 Effectiveness, Efficiency and Equity</b> .....	67
<i>H. Wenzel</i>	
<b>1.7 Investing in Health and Market Regulation in the European Health Care Systems</b> .....	84
<i>E. Shipkovenska, T. Vodenicharov, M. Dyakova</i>	
<b>1.8 Terminology exercise</b> .....	101
<i>Ž. Jakšić, L. Kovačić</i>	

### Chapter 2

#### MANAGEMENT CYCLE: FROM PLANNING TO EVALUATION

<b>2.1 Management Cycle: from Planning to Evaluation</b> .....	110
<i>L. Kovačić, Ž. Jakšić</i>	
<b>2.2 “Health Needs” Concept</b> .....	125
<i>L. Zaletel-Kragelj, I. Eržen, M. Premik</i>	
<b>2.3 Health Organization Purpose and Strategic Intent: Creating Vision and Mission</b> .....	140
<i>M. Santrić-Miličević</i>	
<b>2.4 Health Policy Analysis and Development</b> .....	147
<i>N. Milevska-Kostova, E. Stikova, D. Donev</i>	
<b>2.5 Health Survey as a Powerful Tool for Planning Public Health Intervention</b> .....	164
<i>L. Zaletel-Kragelj, I. Eržen</i>	
<b>2.6 Economic Analysis as a Tool for Planning and Evaluation of Public Health Interventions</b> .....	181
<i>J. Farkaš-Laniščak, L. Zaletel-Kragelj</i>	

<b>2.7</b>	<b>Satisfaction of Needs and Patients` Expectations of Hospital Care: the Case of Bulgaria</b> .....	195
	<i>P. Trendafilova, K. Kirilov</i>	
<b>2.8</b>	<b>Economic Assessment and Management of Process of Aging in Bulgaria</b> .....	204
	<i>J. Pavlova</i>	
<b>2.9</b>	<b>Legislative Background for Marketing Authorization of the Biosimilar Medical Products in EU</b> .....	233
	<i>T. Benisheva-Dimitrova, P. Trendafilova</i>	
<b>2.10</b>	<b>Evidence Based Policy – Practical Approaches. The Bulgarian National Health Strategy 2007-2012</b> .....	247
	<i>P. Salchev, N.Hristov, L. Georgieva</i>	

### Chapter 3

#### **TECHNOLOGIES AND INTERVENTIONS IN HEALTH CARE AND HEALTH SERVICES**

<b>3.1</b>	<b>Technologies Used in Health Care</b> .....	264
	<i>Ž. Jakšić</i>	
<b>3.2</b>	<b>Community Health – Public Health Research Methods and Practice</b> .....	275
	<i>S. Šogorić, A. Džakula</i>	
<b>3.3</b>	<b>Screenings</b> .....	286
	<i>M. Krajc</i>	
<b>3.4</b>	<b>E-health</b> .....	308
	<i>I. Eržen</i>	
<b>3.5</b>	<b>New Potentials of Telecommunication Technologies in the Healthcare Services Framework</b> .....	317
	<i>D. Rudel, M. Fisk</i>	
<b>3.6</b>	<b>Complementary and Alternative Medicine: some Public Health Views</b> .....	329
	<i>M. Premik, L. Zaletel-Kragelj</i>	
<b>3.7</b>	<b>Alternative Medicine During Millennial Transition</b> .....	368
	<i>V. Stambolović</i>	
<b>3.8</b>	<b>Disease Management Programs. The Case of CVD Management in Bulgaria</b> .....	378
	<i>M. Dyakova, E. Karaslavova, D. Sidjimova</i>	
<b>3.9</b>	<b>Qualitative Naturalistic Approach</b> .....	393
	<i>S. Šogorić, T. Vukušić Rukavina, A. Džakula, O. Brborović</i>	

### Chapter 4

#### **IMPLEMENTATION AND CHANGE: LEADRESHIP PROGRAM, PLANS AND INOVATIONS**

<b>4.1</b>	<b>Strategies to develop and strengthen General practice/Family medicine: Primary health care PHC in the context of health reforms</b> .....	406
	<i>Ž. Jakšić</i>	

<b>4.2</b>	<b>Team Building</b> .....	423
	<i>A. Galan, S.G. Scintee</i>	
<b>4.3</b>	<b>Strategy "Health for all" – Nursing Role and Perspective</b> .....	441
	<i>M. Zaletel</i>	
<b>4.4</b>	<b>Quality of Nursing Care</b> .....	451
	<i>M. Zaletel</i>	
<b>4.5</b>	<b>Community Nursing Care</b> .....	465
	<i>O. Susteršič</i>	
<b>4.6</b>	<b>Human Development and Health Practice</b> .....	477
	<i>Ž. Jakšič</i>	
<b>4.7</b>	<b>Education and Training as Part of Health Practice</b> .....	488
	<i>Ž. Jakšič, H.R. Folmer, L. Kovačič</i>	
 Chapter 5		
<b>HEALTH SERVICES IN MEETING HEALTH GOALS</b>		
<b>5.1</b>	<b>Introduction to Primary Care</b> .....	508
	<i>I. Švab</i>	
<b>5.2</b>	<b>Primary Health Care</b> .....	514
	<i>Ž. Jakšič, L. Kovačič</i>	
<b>5.3</b>	<b>Selective vs. integrated PHC</b> .....	526
	<i>Ž. Jakšič</i>	
<b>5.4</b>	<b>Role of Hospitals at the Beginning of the New Millennium</b> .....	533
	<i>Ž. Jakšič</i>	
<b>5.5</b>	<b>Mental Health Care</b> .....	561
	<i>V. Švab, L. Zaletel-Kragelj</i>	
<b>5.6</b>	<b>Mental Health in Community Life</b> .....	590
	<i>S.G. Scintee, A. Galan</i>	
<b>5.7</b>	<b>Hospital in Meeting Comprehensive Health Goals</b> .....	606
	<i>M. Košnik, J. Farkaš-Laniščak</i>	
<b>5.8</b>	<b>Healthy City</b> .....	624
	<i>S. Šogorić, A. Džakula</i>	
<b>5.9</b>	<b>Occupational Health</b> .....	629
	<i>J. Bislimovska, J. Minov, S. Risteska-Kuc, S. Stoleski, D. Mijakoski</i>	
<b>5.10</b>	<b>Psychotherapeutic Service as Integral Part of Comprehensive Health Care</b> .....	642
	<i>M. Možina</i>	
<b>5.11</b>	<b>Palliative Care</b> .....	660
	<i>U. Lunder</i>	
<b>INDEX</b> .....		679

## Andrija Štampar

120 years ago, in 1888 in a village of Drenovac, Croatia, Dr Andrija Štampar was born. His work in the first half of the last century (he died in 1958) marked the milestones and ways of modern social medicine and public health.

Between two World Wars, Štampar started organizing and materializing his grandiose, revolutionary hygienic-epidemiological and preventive-prophylactic-curative programme. He paid the greatest attention to the control of serious social diseases, and to tuberculosis, malaria, endemic syphilis, typhus, and trachoma in particular.

In 1926 with the financial support of the Rockefeller Foundation he founded the School of Public Health with a task to study conditions which might have favourable or unfavourable impacts on people's health.

During that period he visited many countries in Europe, China (three times), India, the USSR and others. In 1936 he obtained the post of an expert at the Health Organization in Geneva. At the invitation from the Rockefeller Foundation in 1938, he delivered the Cutter lecture in Boston. After Boston, he toured a great part of North America and lectured on hygiene and social medicine at a series of universities (Yale, Cornell, Johns Hopkins, Cincinnati, Vanderbilt, McHarry, Tulane, Texas, Los Angeles, Berkeley).

Much of Dr Štampar's life energy and mental capacity was devoted not only to the establishment of a school of public health in his own country but also to the creation and shaping of the World Health Organization (WHO). He was called "the father of WHO" in Copenhagen, Geneva, Manila, in any place where WHO was active. He contributed to developing the Statute of WHO and through the letters of this international document he spread progressive ideas and fought against colonialism, racism, and for the equality of all nations and all people.

The International Health Conference held in New York in 1946, attended by official representatives of 51 nations, established an Interim Commission of 18 states, and Dr Štampar was elected its Chairman. The Interim Commission was in fact the World Health Organization but did not bear this name until its ratification by the United Nations. This Commission, under Dr Štampar's guidance, carried out an extremely important task of establishing collaboration in health issues and helping the economically weaker countries.

Dr Štampar was elected the President of the First World Health Assembly in 1948. In his later years, Dr Štampar again travelled to distant countries. In 1955, he was in Afghanistan where, at the request of WHO, he gave advice about the reorganization of the medical school in that country. The following year he visited Egypt and Sudan, as the leader of a seminar for public health administrators. In 1957, he went to Ethiopia to see the conditions under which the Medical School could be established there. Then he went to Sudan again to study the problem of health services.

In 1955 Professor Štampar was awarded the Leon Bernard Foundation Prize and Medal, the greatest international recognition of merit in the field of social medicine.

This year, when we celebrate the 120<sup>th</sup> Štampar anniversary, this book is devoted to memory of his work.

## Preface

This is the fifth book planned to be published in a series as a support to teachers and trainers in teaching public health in South Eastern Europe. Originally, planned to be on the internet platform only, the Public Health in South Eastern Europe (PH-SEE), Forum for Public Health in the Eastern Europe (FPH-SEE) and the MetaNET projects decided later to publish this training material also in hard copy form. The first four books were published with the support of the PH-SEE, and the last two with MetaNET project. Both projects are funded by the German Academic Exchange Services (DAAD) with funds from the Stability Pact for South Eastern Europe.

The book **Management in Health Care Practice** is collection of 45 teaching modules written by 49 authors from 8 countries. The teaching modules in this book covered areas of principles of public health, management cycle (planning, implementation and evaluation), technology and interventions, organization of health care and health services, change, leadership and some other fields of health care.

Authors had full autonomy in preparation the teaching modules, they were asked to present their own teaching/training materials with the idea to be as practical and lively as possible. Having that in mind the reader and the user of the modules of this book can sometimes find that some areas of management and organization of health services are not covered, some are just tackled and some are more deeply elaborated. The role of editors was more to stimulate the authors to write modules, than to conduct or edit the content. Preparing and publishing this teaching/training modules authors and editors expect and wish to support and improve public health education and training of public health professionals.

The editors asked and stimulate authors to incorporate in their teaching modules exercises, tests, questionnaires and other practical forms of training. We will be thankful for any comments on use of them in everyday practice.

Editors and Project coordinators:

**Doris Bardehle, Luka Kovačić, Ulrich Laaser, Oliver Razum and  
Lijana Zaletel-Kragelj**

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Forum for Public Health in South Eastern Europe and Hans Jacobs Publishing Company in this series published also the following books:

1. Vesna Bjegović and Dončo Donev (eds). **HEALTH SYSTEM AND THEIR EVIDENCE BASED DEVELOPMENT**. Belgrade 2004, second edition 2005
2. Silvia Gabriela Scîntee and Adriana Galan (eds). **PUBLIC HEALTH STRATEGIES: A TOOL FOR REGIONAL DEVELOPMENT**. Bucharest 2005
3. Lidia Georgieva and Genc Burazeri (eds). **HEALTH DETERMINANTS IN THE SCOPE OF NEW PUBLIC HEALTH**. Sofia 2005
4. Doncho Donev, Gordana Pavlekovic and Lijana Zaletel Kragelj (eds). **HEALTH PROMOTION AND DISEASE PREVENTION**. Skopje 2007

All books can be found at: <http://www.snz.hr/fph-see>

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## Chapter 1

# PRINCIPLES IN PRACTICE OF HEALTH CARE

- 1.1 Health and Development (L. Vončina, L. Kovačić)
- 1.2 Health Care as a System: Elements, Boundaries, Levels (L. Kovačić, Ž. Jakšić)
- 1.3 Public Health Services – Present Organization and Challenges for Tomorrow (I. Eržen, L. Zaletel-Kragelj)
- 1.4 Socio-medical and Ethical Dimensions of the Health Practice (N. Milevska-Kostova, D. Donev)
- 1.5 Quality of Health Care (V. Grujić, M. Cvejin)
- 1.6 Effectiveness, Efficiency and Equity (H. Wenzel)
- 1.7 Investing in Health and Market Regulation in the European Health Care Systems (E. Shipkovenska, T. Vodenicharov, M. Dyakova)
- 1.8 Terminology (exercise) (Ž. Jakšić, L. Kovačić)

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HEALTH AND DEVELOPMENT</b>
<b>Module: 1.1</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Health and Development, Health Inequalities, Public Health, Health Care
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of importance of relation between development and health;</li> <li>• recognize needs for doing analysis of health inequalities in the country;</li> <li>• know the areas of health related to development;</li> <li>• improve the knowledge and understanding of the function of the health care system.</li> </ul>
<b>Abstract</b>	Better health leads to faster economic growth which in turn, leads to healthier populations. Historical studies have shown that a substantial proportion of today's economic wealth can be attributed directly to past achievements in the health sphere. Health contributes to human capital through higher productivity, securing labour supply, through skills and the savings that become available for investment in physical and intellectual capital. Poor health negatively influences labour market productivity as measured by earnings and wages. At the same time, life expectancy increases with income across countries, but at a rate that becomes progressively lower as income increases due to diminishing health returns to income. However, the relationship between wealth and health is not as straightforward as was previously thought. Rather, it seems to be a more complex and multidimensional one and factors other than wealth exist that also influence the health of populations.
<b>Teaching methods</b>	Introductory lecture, small group, individual work and panel discussion.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 50%/50%;</li> <li>• facilities: teaching room;</li> <li>• equipment: standard teaching equipment.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# HEALTH AND DEVELOPMENT

Luka Vončina, Luka Kovačić

## THEORETICAL BACKGROUND

Although health is primarily described as an intrinsic good, it also has qualities of an investment good. One could hardly disagree with the notion that better health leads to faster economic growth which in turn, catalyzed by the equitable distribution of wealth, leads to healthier populations. In other words, richer and more equitable countries will have healthier populations which will in turn nourish their development. A quote from the World Bank's 2004 World Development Report clearly summarizes the point: "broad improvements in human welfare will not occur unless poor people receive wider access to affordable, better quality services in health, education, water, sanitation, and electricity. Without such improvements in services, freedom from illness and freedom from illiteracy - two of the most important ways poor people can escape poverty - will remain elusive to many" (1).

Table 1. Monetary value of life expectancy gains in selected CCEE-CIS countries, 1990 - 2003

Country (1)	Life expectancy at birth (years)		Real GDP per capita (PPP\$)		Monetary value		
	1970 (2)	2003 (3)	1970 (4)	2003 (5)	Life expectancy gains (PPP\$) (6)	Gains per life year gained (PPP\$) (7)	(7) as % of 2003 GDP per capita (8)
Albania	72.61	75.77	3 000	4 584	3 157	999	22
Armenia	72.08	73.08	4 741	3 671	777	777	21
Azerbaijan	71.35	71.93	3 529	3 617	454	783	22
Belarus	71.25	68.53	5 727	6 052	-4 329	1 592 <sup>a</sup>	26 <sup>a</sup>
Bulgaria	71.48	72.39	4 700	7 731	1 873	2 059	27
Czech Republic	71.53	75.4	11 531	16 357	18 978	4 904	30
Estonia	69.94	71.78	6 438	13 539	7 741	4 207	31
Georgia	72.97	72.00	4 572	2 588	-466	480 <sup>a</sup>	19 <sup>a</sup>
Kazakhstan	68.81	65.89	4 716	6 671	-5 658	1 938 <sup>a</sup>	29 <sup>a</sup>
Kyrgyzstan	68.82	67.91	3 520	1 751	-279	306 <sup>a</sup>	17 <sup>a</sup>
Latvia	69.54	70.95	6 457	10 270	4 331	3 072	30
Lithuania	71.55	72.24	4 913	11 702	2 353	3 410	29
Moldova	68.64	68.07	3 896	1 510	-139	243 <sup>a</sup>	16 <sup>a</sup>
Poland	71.01	74.74	4 900	11 379	12 088	3 241	28
Romania	69.79	71.32	2 800	7 277	3 053	1 996	27
Russian Federation	69.28	64.94	7 968	9 230	-12 559	2 894 <sup>a</sup>	31 <sup>a</sup>
Tajikistan	70.03	72.78	2 558	1 106	363	132	12
Ukraine	70.54	67.83	5 433	5 491	-3 894	1 437 <sup>a</sup>	26 <sup>a</sup>
Uzbekistan	69.71	70.36	3 115	1 744	189	290	17

<sup>a</sup> Indicates a loss of welfare.

Source: Marck Suhrcke, Regina Sauto Arce, Martin McKee and Lorenzo Rocco. The economic costs of ill health in the European Region. Background document for the WHO European

Ministerial Conference on Health Systems “Health Systems, Health and Wealth”. Tallin, Estonia, June 2008.

The evidence that human capital contributes to economic growth and development is abundant. Health contributes to human capital through higher productivity, securing labour supply, through skills and the savings that become available for investment in physical and intellectual capital (2). At the microeconomic level, poor health negatively influences labour market productivity as measured by earnings and wages (3). Evidence from the EU suggests that people reporting “very good” or “good” health have earnings as much as four times higher than those with “poor” or “very poor” health (4). The evidence that ill health reduces labour supply is also ample (5). At the macroeconomic level, historical studies have shown that a substantial proportion of today’s economic wealth can be attributed directly to past achievements in the health sphere. It has been estimated, for example, that about 50% of the economic growth experienced by the United Kingdom between 1780 and 1980 can be attributed to improved health and nutrition (6). Many studies have shown that health helps to explain economic growth differences between poor and rich countries. These findings can be used to predict future trajectories of per capita income on the basis of a country’s reduction in mortality. The outcome of such an exercise in five low- and middle income countries in CEE and the CIS showed that even relatively modest scenarios bring substantial increases in GDP.

When compared with the base scenario of no change, an annual reduction in mortality of just 2% would increase GDP by 26% in Kazakhstan and the Russian Federation and by 40% in Georgia and Romania over 25 years (2).

The relationship between income inequality and mortality, as Backlund and al. stated in a study in the United States, is only robust to adjustment for compositional factors in men and women under 65. This explains why income inequality is not a major driver of mortality trends in the United States because most deaths occur at ages 65 and over. This analysis does suggest, however, the certain causes of death that occur primarily in the population under 65 may be associated with income inequality. Comparison of analytical techniques also suggests coefficients for income inequality in previous multilevel mortality studies may be biased (7).

## **CASE STUDY**

**While it is common knowledge that, within countries, rich people are more likely to be healthy than poor people; are people in rich countries necessarily healthier than the ones in poor countries?**

The concept of health inequalities both within countries and among different countries is a particularly interesting one as it has the potential to provide insight into different factors that can influence health. As such, it has attracted a lot of attention. For example, it has been found that, within countries, levels of income individuals earn seem to play a significant role. According to Abel-Smith “the unskilled manual group in the United Kingdom has twice the rate of limiting long standing illness compared with the professional group” (8). Others, on the other hand, argue that factors such as social position, relative as opposed to absolute deprivation in wealth, control and social participation also seem to matter (9).

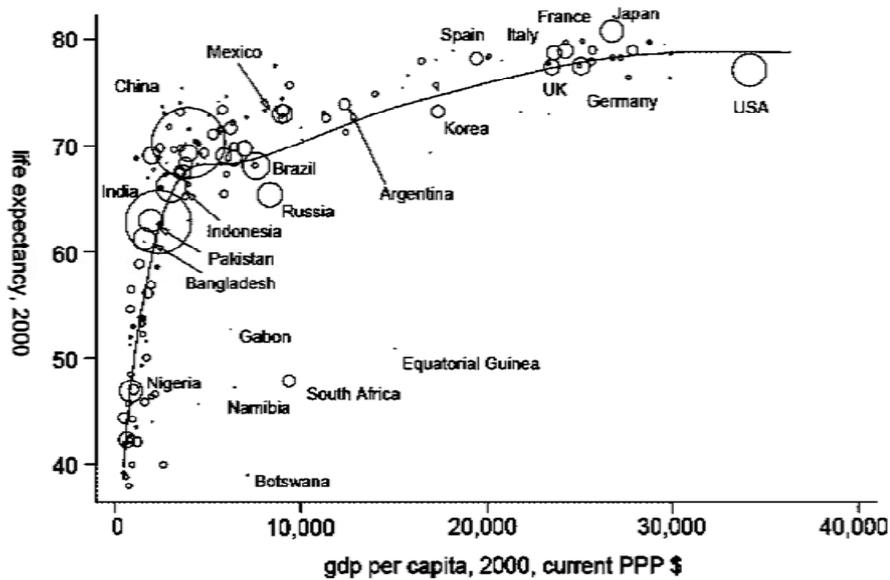
Before engaging into discussion about health and wealth, a few remarks should be made about the indicators used to describe both. WHO's 1948 definition of health defines it as "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". As Abel Smith lucidly points out the definition "expresses high rhetorical ideals but gives no indication of how health can be measured" (8). Furthermore, as the concept of health is a multidimensional one (Baxter lists five dimensions: disease, disability, frequency of illness, malaise and fitness (10)), it is hard to imagine a measure that would embrace them all and accurately measure health. In practice, statistics of morbidity and mortality are commonly used to measure ill health and give indications about health in general. Unfortunately, apart from methodological problems, the task of measuring health suffers also from practical ones. The quality of data collected varies widely across countries and regions. In the WHO published edition "Measuring Socioeconomic Inequalities in Health" Kunst and Mackenbach conclude that "data problems are common and can easily lead to incorrect conclusion". Therefore, data should be observed and countries should be compared with caution (11).

The link between levels of wealth and health of different countries is often regarded as a crucial one. In 1975 Preston showed that life expectancy increases with income across countries, but at a rate that becomes progressively lower as income increases due to diminishing health returns to income (12). Pritchett and Summers claim that country differences in income growth rates over the last three decades explain roughly 40 percent of the cross country differences in mortality improvements. They estimate that if income were one percent higher in the developing countries, as many as 33,000 infant and 53,000 child deaths would be averted annually (13). Samuel Preston's millennium curve (12) seems to follow the same pattern of thought. The curve is a non-parametrically fitted regression function, weighted by population. The slope of life-expectancy with respect to income, described by Deaton, is steep in the group of poorest countries suggesting that at low incomes, income itself could be strongly related to health (14). However, in the same article, plotting changes in life expectancy from 1960 to 2000 against the corresponding average annual rate of growth of GDP in real PPP dollars, Deaton finds that "the connection between income and life-expectancy at low incomes may be plausible but, even among the initially poorest countries, differences in income growth explain less than a sixth of the variance in improvements in life expectancy, and even an increase in the 30-year growth rate by 2 percent a year would add only 1 year to life-expectancy".

This finding clearly suggests that the relationship between wealth and health is not as straightforward as was previously thought. Rather, it seems to be a more complex and multidimensional one and factors other than wealth may exist that also influence health of populations.

The same conclusion could be drawn from the facts the health indicators of populations vary between countries that have similar GDPs and that some countries have similar health indicators at very different amounts of GDPs. Furthermore, some poorer countries seem to have healthier populations than some richer ones. For example, according to WHO data in 2000, Cuba had a life expectancy at birth of 76,8 years and a GDP per capita of USD 2723, while the United States of America with an almost thirteen times higher GDP per capita of USD 34602 had exactly the same

life expectancy. China is another good example. Although in the year 2000 it had a GDP of only USD 3,760, it had a life expectancy at birth (total population) of 70.8 years (3).



**Figure 1.** Millennium Preston Curve.

Note: Circles have diameter proportional to population size

Source: Angus Deaton. Health in an age of globalization. Research Program in Development Studies. Centre for Health and Wellbeing Princeton University. Prepared for the Brookings Trade Forum, Brookings Institution, Washington, DC. May 13th- 14th, 2004.

In the 1980s, the Rockefeller foundation selected five countries (China, Costa Rica, Cuba, Kerala and Sri Lanka) that appeared to have higher expectation of life than could have been expected from their level of wealth and commissioned studies of their health development to determine possible causes to these discrepancies. Common factors found in all of them were: above average equality of income, well developed primary education that covered females, a heavy emphasis on nutrition, land reforms, priority given to health and community participation and well developed rural health care (Halstead et al. 1987) (15). The importance of the findings the study discovered and their applicability to policymaking have since then attracted a lot of attention and stimulated a lot of research.

In the recent years, it has become widely acknowledged that inequalities in the distribution of income play a highly significant role in determining health of entire populations. Although some authors do not completely agree with this conclusion (see for example Mellor and Milyo, 2002) (16), most of the literature on the subject approves it. Le Grand argues that across countries, an association can be found between inequalities in health and inequalities in income (17). Wilkinson claims that the extent of income inequality in societies determines their average health status. He argues that as the gap between the incomes of the rich and poor increases, the health

status of citizens becomes worse and worse and that it undermines social cohesion (18). According to Kennedy et al., inequalities in income at the state level exert an independent effect on an individual's risk of reporting fair or poor health (19). The relationship between economic growth, income inequalities and health status is an even more interesting one. According to Dreze and Sen, economic growth per se does not automatically improve health and social well being. They claim that unless it is effectively distributed, it merely increases socio-economic differences (20).

Generally, two major interpretations exist about the exact way in which income inequalities affect health. They do not necessarily negate each other, but rather observe the problem from different angles. The first interpretation advocates the importance of psychosocial process based on perceptions of place in the social hierarchy (18). The advocates of this interpretation argue that such perceptions produce negative emotions like shame and distrust that affect health directly by psycho-neuro-endocrine mechanisms and indirectly through inducing behaviours like alcohol consumption and smoking. The second interpretation, known as the neo-material interpretation, sees income inequalities in a wider picture of historical, cultural, economic and political processes. It argues that these processes influence the general availability of food, education, health services, quality housing and other segments of infrastructure that influence health (21). Therefore, it sees income inequalities as a symptom of a wider array of social conditions and suggests that an unequal distribution of all of them influences health negatively on the deprived.

A closer look at the findings of the Rockefeller study also reveals that all of the "poor countries with good health" it examined gave high priority to education. Female education seems to be a particularly powerful tool for improving health. The World Bank's World development report 1993: Issues in health reveals that studies from 25 developing countries showed that even as little as one to three years of female education seem to be able to reduce child mortality by about 15 percent. Similar levels of male schooling showed to have a more limited effect, reducing child mortality by 6 percent. The effects of female education on good health are heterogeneous. On the one hand it is known that female education reduces fertility and that reduced fertility has a positive effect on infant mortality. It seems plausible that educated women take better care of themselves during pregnancy, pay more attention to hygiene; appreciate maternal health services better than the uneducated and thus act more positive to health in general.

The impacts of malnutrition, sanitation and other hygienic measures on health are historically well known. In the reduction of deaths from infectious diseases in England before 1935, these factors played a much more important role than immunization and health services (22). The World Bank's 1993 World Development Report claims that risks such as poor sanitation, insufficient and unsafe water supplies, poor personal and food hygiene, inadequate garbage disposal, indoor air pollution and crowded and inferior housing account for nearly 30 % of the global burden of disease (1). According to Halstead, most of the countries observed in the Rockefeller foundation funded studies developed programs that laid a heavy emphasis on food policies, water supplies and sanitation (15). The text has so far dealt with the health effects of wealth, wealth distribution, education, nutrition, sanitation etc. But, what is about healthcare? If all the above mentioned factors seem to play such important roles in determining health statuses of populations, how big of an effect can

it have? According to the World Bank's World Development Report 1993 (1), the developing countries as a group could reduce their burden of disease by 25% if they redirected a half of the funds they are currently spending on services of low cost effectiveness to public health programs. Primary healthcare delivered to the needy besides not being expensive seems to be especially important and effective. According to Gwatkin et al. a "well designed and carefully implanted interventions can reduce infant and child mortality by as much as one half, within five years, at a cost below two percent of per capita income" (23).

Arguments presented in this text strongly suggest policy guidelines primarily for developing, but also for developed countries. It could be argued that all of the above mentioned determinants of good health seem to be interdependent and that they seem to be a part of a bigger picture. It would appear that countries more orientated towards social justice, equity, equality and social welfare, rather than to the accumulation of power and capital in the hands of a minority, could expect their populations to be healthier. Social and political structures of societies could thus significantly influence health of populations. Most important determinants of good health would be sustained firstly through political commitment to social justice, equity and equality which would then manifest themselves by social commitment to welfare, universal healthcare, a strong emphasis on education and the will to ensure everybody decent living conditions, or in other words in a commitment to wellbeing for the whole population,

## **EXERCISE**

### **Task 1: Analysis of link between GDP and health in the region**

Course participants should be divided into groups of 4-6. Group should first come to the decision which health indicators are related to the income, investment and wealth. Group has to select 5-7 indicators. Group has also proposed 5-7 countries which will be analyzed. Their decision group has to present to others in plenary. In the plenary session the participants should come to the agreement on:

- a) Indicators to be collected
- b) Countries to be analyzed

### **Task 2: Collection of data**

Each participant has responsibility to collect GDP and health indicators from one country in the region. It is recommended to use WHO data base and HIT (Health in Transition) hard copy or electronic publication.

### **Task 3: Data analysis**

After collection of data the small group should construct the tables, graphs and figures. After discussion group has to come to conclusion, which will be presented in a plenary. To organize work in the group small group should elect the group chairmen and reporter.

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## **RECOMMENDED READINGS**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HEALTH CARE AS A SYSTEM: ELEMENTS, BOUNDARIES, LEVELS</b>
<b>Module: 1.2</b>	<b>ECTS (suggested): 0.2</b>
<b>Authors</b>	<b>Luka Kovačić, MD, PhD, Professor</b> Andrija Štampar School of Public Health, Medical School, University of Zagreb <b>Želimir Jakšić, MD, PhD, Professor Emeritus</b> Andrija Štampar School of Public Health, Medical School, University of Zagreb
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<b>Keywords</b>	Health Care, Public Health
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of advantages in applying system analysis;</li> <li>• recognize relation of boundaries and objectives of the system;</li> <li>• know to list the elements of the health care system;</li> <li>• improve the knowledge and understanding of the functions of the health care system.</li> </ul>
<b>Abstract</b>	Introduction to system analysis and health care system. A systematic examination of a system (situation, problem) is described. Elements and boundaries of health care system. Description and taxonomy of health care system. Levels of health care with characteristics of each level. Two exercises are given.
<b>Teaching methods</b>	Introductory lecture, exercises, field exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: teaching room;</li> <li>• equipment: transparencies, colour flow masters, overhead projection equipment;</li> <li>• training materials: readings, hand – outs;</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# HEALTH CARE AS A SYSTEM: ELEMENTS, BOUNDARIES, LEVELS

Luka Kovačić, Želimir Jakšić

## THERORETICAL BACKGROUND

### The system

System can be defined as a set of inter-related elements organized to achieve a common purpose in the environment in which the system exists. The elements should function as a functional whole.

Inter-related elements and common purpose are the key words of the quoted definition. Every element can be regarded as a subsystem, and on the other side, the system makes a subsystem of a larger system. This structure is known as hierarchical structure.

The term system is very much used in everyday language and because of that, it may have many connotations and different meanings. The most frequent understanding is that it means an organized hierarchical administrative structure. The term health system is often used instead of the terms health administration or health services. Health administration will sometimes be described as a “non-system” or “there is no system” to stress that it is not well organized. Theoretically, this is not quite correct, because it actually means that a system operates which does not meet our expectations, or we do not understand it. Another example of misunderstanding is to combine elements without any inter-relation or inter-dependency of components of the system. It is not correct because in the system a change in one element is bound to affect other parts and the functioning of the whole. The health care system is one of the subsystems of the broader social system.

### Systems analysis

In order to know how the system or subsystems work the process of analysis known as **systems analysis** could be applied. The term systems analysis has many different meanings. In general, it could be defined as a formal inquiry carried out to help someone (referred to as the decision maker) to identify a better course of action and make a better decision than he might otherwise have made.

The characteristic attributes of a problem situation where systems analysis is called upon are complexity of the issue and uncertainty of the outcome of any course of action that might reasonably be taken. Systems analysis usually has some combination of the following: identification and re-identification) of objectives, constraints, and alternative courses of action; examination of the probable consequences of the alternatives in terms of costs, benefits, and risks; presentation of the results in a comparative framework so that the decision maker can make an informed choice from among the alternatives.

The typical use of systems analysis is to guide decisions on issues such as national or corporate plans and programs, resource use and protection policies,

research and development in technology, regional and urban development, educational systems, health and other social services. The nature of these problems requires an interdisciplinary approach. There are several specific kinds or focuses of systems analysis for which different terms are used: A systems analysis related to public decisions is often referred to as a **policy analysis** (in the United States the terms are used interchangeably). A systems analysis that concentrates on comparison and ranking of alternatives on basis of their known characteristics is referred to as decision analysis (2).

System analysis is based on the notion of the systems. All situations in real life can lead us to the description of a system. It can be a social system, an administrative system, a biological system, or any other kind. One can describe the health services as a system, there are different systems in our body, and there are railway systems and systems of thoughts.

A systematic examination of a system (situation, problem) should be done in steps in which each step is made as explicit as possible. The steps are:

- **listing** all elements which can be related to the system or its environment;
- defining **goals and objectives** of the system, identifying also their hierarchy and the most important objective in an observed situation according to the purpose of the analysis;
- choosing elements which will be considered as the proper system (**bounding or bordering the system**) and others which will be regarded as environment according to defined goals and objectives;
- describing and examining **elements and their relations**;
- **generating optional solutions, alternatives** by manipulating elements and relations to fit better the objectives of the system or to find solutions for identified problems;
- **comparing and evaluating different alternatives and modelling** a complex new system.

The question is how to choose elements which are relevant for the system? The solution is to start from the common purpose. The element contributing directly to the purpose will be regarded as the element of the proper system and all others as elements of the environment in which the system exists. In that way different elements might make our proper health system when we consider the financial situation of health services, and different elements when we consider health status. The important point is that in both situations **all elements will be initially considered** and some of them deliberately chosen as elements of the proper system of our concern.

There are several advantages in using system analysis. First, it stimulates us to list all relevant factors which might be involved. This is very important, because it helps us to overcome a common mistake and to consider only few closest elements along with our usual thinking. For instance, very often when we examine the health services, the users are forgotten, the most important element of the system. Organizational structure, resources, manpower, equipment and facilities are examined, but not people who will use it.

Second, system analysis is forcing us to proceed systematically starting from specified objectives. Every step is performed deliberately and when shortcuts are used we are aware of them.

Third, system analysis stimulates us to think about different new approaches and alternatives, even out of usual ways of thinking. It is made easier because some elements which are considered “untouchable” in real life are also taken into account during “theoretical” consideration. For instance, new ways in mobilizing resources, new patterns of supervision and reporting, etc. might come into the picture.

### Organization

Organization (**as a process**) is the arrangement of parts which form an effective whole. The term is also used to describe a **structure**: a group of people with a special purpose, e.g. a unit of health services, an institution.

The organization may be regarded as an open dynamic **socio-technical system**. It is a dialectical relation of a given technology and social aspects of its application, i.e. work connected with that technology (division of labour, relations toward means of production, inter-personal and group relations). Because of that, the organization of health units with different types of technology has different work relations and different organizational problems, for instance, a big hospital in comparison with a health centre.

The organization may also be regarded as having different characteristics as the consequence of **size**, level of **complexity** and **phase** of development.

**Macro**-organization will deal with big overall systems, and **micro**-organization with small units (e.g. a rural hospital or a district health centre). In every-day life expressions such as “young organization”, “traditional organization”, “handicapped organization”, etc. are used and they indicate the lively social dynamics of organizations.

Because organization is a complex socio-technical system it may be understood from different points of view:

- as a **functional** system, in which the main importance is given to technology and the purpose of organization is to perform in the best way, i.e. in accordance with technological requirements and giving the maximal output of an acceptable quality;
- as a **rational** system, in which a rational order is of the main importance, i.e. neat division of tasks, clear responsibilities, hierarchical decision-making, disciplined subordination;
- as a group of people in which the **psychological relations**, individual behaviour and group dynamics play the essential role;
- as a **social system** in which the main influence have interests of individuals and groups, the power structure and permanent dynamic tension regarding domination and authority to decide about utilization of resources, personal and group benefits.

The described concepts reflect the relative importance given to different aspects of the same process. Consequently they will also influence the style of how organizational problems are solved.

**Organizing** implies the ability to coordinate activities necessary for implementation in such a way that: **the right things are done, in the right place, at the right time, in the right way, and by the right people**. To reach that, a manager has to observe:

- Objectives;

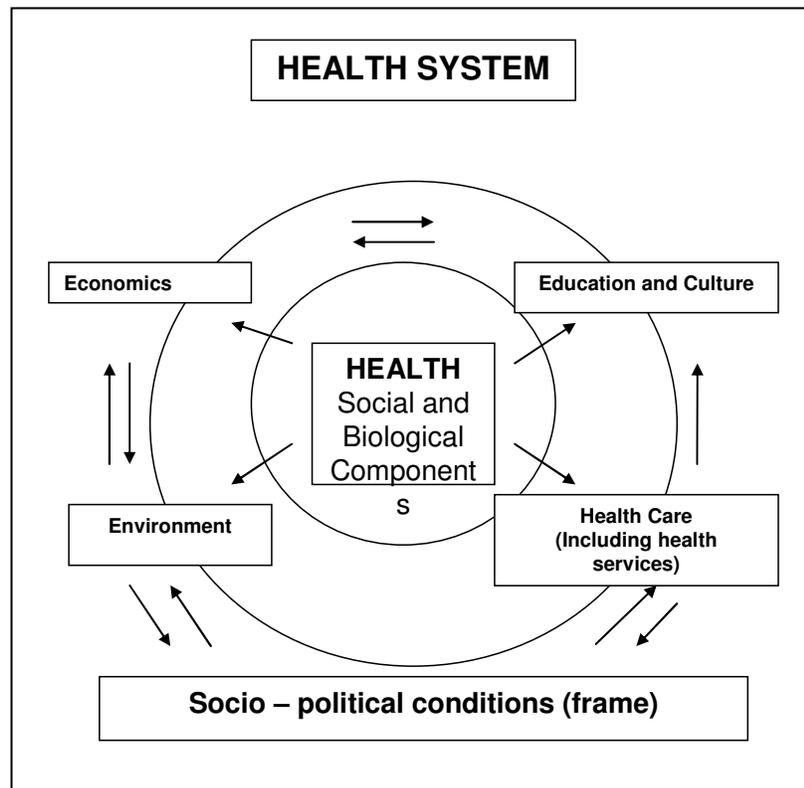
- Definition of tasks for each group and every individual;
- Clear line of authority, command, responsibility.

### Health care system

The health care system is a whole of political, economic and cultural, technical and organizational factors, relations, processes and elements, in which individuals, groups and communities interrelate, having the goal to satisfy their health needs.

Health and health care can be well understood only in the broadest context of human life. That includes social, economic and political issues besides understanding of biological facts. It also requires the understanding of environmental, historical and cultural circumstances.

These various aspects can be observed differently according to given situation and purpose of study. The depth of understanding will be influenced by our own experience, knowledge and ideology. Because of that, an active effort will be needed to observe, listen and compare, sometimes with patience and prudent tolerance. Without active involvement, honesty and openness the reward will be minor, or meaningless.



**Figure 1.** Relations of the health care system and other systems

The health care system is the subsystem of social organization system and it has various subsystems:

- **Socio-political subsystem** - the main health legislation is as a rule at the national level, but communities could be more or less self-reliant and responsible for planning and organization of health care. Solidarity and support is usually at higher levels;
- **Subsystem of users** (communities and individuals) - responsibility and participation of the community in planning, organization, operation and control;
- **Socioeconomic subsystem** - health insurance (obligatory, voluntary, private), and private relation of health providers and users;
- **Managerial subsystem** (decision making process): level of autonomy of health institutions, type of management (autocratic, biocratic, corporative laizess-fair);
- **Technological subsystem** - Comprehensive approach in provision of primary health care, segmented at secondary level;
- **Organizational subsystem** – levels of the health infrastructure (primary, secondary, tertiary), type of health institutions (individual practices, group practices, health centres, day hospitals, clinical hospitals);
- **Health care infrastructure** (health care facilities) - infrastructure could be a subsystem which supports the operations of an organization (health centre, health sub-centre, hospital, medical centre, institute of public health, rehabilitation centre and spas, pharmacy, specialized institutes - vaccine production, emergency services in large cities, blood supply, etc, private practice - dentists, physicians, nurses, herbalists and other alternative practitioners);
- **Supporting systems** - training and research institutes, health related industries (production of drugs, equipment, etc.).

### Levels of the health care system

All models of health care systems are imperfect and there is no a model which is the best and broadly accepted and recommended. There are big differences among countries influenced by history, tradition, socio-cultural, economic, and political and other factors. But, regardless of all present differences, there are some common characteristics, typical for the organized health care system (3). One of common characteristics of organization of health care is a level of organization. Health care systems are usually organized on three levels: primary, secondary and tertiary. The main characteristics of each level are presented in table 1.

On **primary level** we can recognize several sublevels with their characteristics:

- **Primary community (home) level** with 2-100 or more members. Primary community (or group) is one in which people are in permanent relations, have regular contacts and know each other well. Discussions and decisions are within the group itself and through direct personal communication. This type of communities is for example families, some neighbourhoods, small villages, workers in smaller workers' units, members of some societies, etc. These groups are often practicing self-help and mutual aid, traditional forms of health care. Volunteer promoters have sometimes an important role.

- **Local community level** (2000-3000+ members). Local communities are groups usually living in the same setting or otherwise sharing facilities or other resources or interests. This community is often formally recognized and some temporary social structures may exist with guiding and facilitating communication. The members know each other, but they do not live so close to have regular personal contacts. The decisions are often made at public meetings or in other organized ways. Besides, there are informal structures sharing information and exercising some power. The local communities are of a medium size which is limited by efficiency in running different common social services, like churches, shops, schools, etc. At this level the first recognized and established health worker may be found. He/she works at least partly on a professional basis. The first health facility is also established (dispensary, health posts, health stations and similar). A midwife, nurse, health technician or a general practitioner may be the typical health worker. In more developed areas health teams operate. Usually integrated preventive and curative service is provided, including simple common treatment.

**Table 1.** Characteristics of levels of health care

	Population	Type of community	Desired level of integration	Type of health providers
<b>Primary</b>	1-5+ 100-1000+ 50-1000+	Family Neighbourhood Municipality School Firm	Very high or high	Individual practice Group practice Health centre Pharmacy
<b>Secondary</b>	1000-10000 100000- 20000	District Larger city	Selective (specialized)	Municipal hospital County hospital Special hospital Polyclinic Public health institute
<b>Tertiary</b>	500000- 2000000 or more	Region Country	Highly selective (sub- specialized)	Regional Clinical hospital National public health institute

- **Intermediate (municipal) level** (population of 10.000- 50.000+people). The municipality (commune) or other similar social structure usually needs to function also as the basic administrative unit. Often the first official administrative needs are fulfilled, and an office exists which operates permanently. Very often the decision making is formally prescribed and implemented according to certain rules and laws. At this level the offices may exist, in which different governmental and local regulations are issued, data collected and other administration fulfilled. The established health unit is staffed with a team, having often some epidemiological duties (e.g. surveillance), and also guiding and coordinating work of health workers in the local communities.

The unit is often called the health centre. A medical assistant, a nurse or a general medical practitioner might be in charge.

- On the **secondary level**, the district (or region in some countries) with population of about 50.000-150.000 or more people) is a larger administrative centre, being also often a centre of trades, manufacture and more developed cultural and social institutions. A representative of the government in his office performs different governmental duties. Services start to be specialized, and local representatives of different central programs might be permanently present. It is often a small or larger hospital (depend on the population size) and/or a larger health centre, comprising also beds for maternity and short-term observation and treatment. Besides GPs, there might be several main medical specialists. The first referral services are provided. The guidance, management and supervision of health services is expected, and in training of health workers etc.
- The **tertiary level** is regional or national level (population of more than half of million) is usually regional or national administrative centre with regional or national authorities and legislation. Clinical hospitals or clinical centres located on that level have referral function for the health services located on lower levels, educational and research functions. These health institutions are usually responsible for development of national guidelines and standards. National institutes of public health are responsible for monitoring of national health, international communications and high specialized public health services (laboratories, blood supply, etc.).

## EXERCISES

### **Task 1: set-up the boundaries of an emergency health care system in a district of 70,000 inhabitants**

There are many ways to present a health care system. Many different elements may be chosen as essential for the system depending on problems we are dealing with and objectives of the exercise. A permanent thinking “forward-backward” is going on during designing a system: what are the objectives, which elements can help in satisfying them. All the time analytical and syntactical skills are involved. The exercise cannot be solved mechanically. Creativity is playing an important role, supported by imagination. It is difficult to decide how many details are needed and what can be regarded as a subsystem. During designing the system you are already stating your hypotheses and greatly determining the final conclusions.

Your task is:

1. Make individually a list of all relevant elements you think that they are in the system of emergency health care in a district of 70,000 inhabitants. You could make also a list of elements outside the emergency health care what can contribute to that system.
2. Draw a diagram presenting elements in and out the emergency health care system and connect the elements with the lines.
3. Comment and explain your findings in a small group.

## **Task 2: Levels inside primary health care**

As it was described earlier in this module, it is possible to identify three sublevels of social structures to which correspond levels of health care. There are however variations in size and relative importance of individual levels, as well as in health manpower and between rural and urban settings. It is important to identify these differences, explain them and discover if they influence outcomes of primary health services.

The students' task is to:

1. Describe a situation in your district or country: name, size, services and health manpower in different sublevels inside primary health care in urban and rural settings;
2. Compare your findings with those of other participants in your group and identify differences. Discuss the reasons and consequences;
3. Report to the plenary and consider advantages and disadvantages of different solutions.

In consideration of different solutions for the organization of services on the grass-root level of primary health care, the following factors have to be taken into account:

- The interface between population and services;
- The inter-relation between levels, communication and span of control;
- Differences between the rural and urban settings, and explanations of that;
- Practical problems in functioning of different levels.

Expected outcomes: List of comments and experiences gained during discussions. Each student should explain what changes are necessary in his/her circumstances. What type of changes students expect in his/her situation during further development?

## **REFERENCES**

This module is adapted from: Jakšić Z, Folmer H, Kovačić L, Šošić Z, eds. Planning and management of primary health care in developing countries. Training guide and manual. Zagreb: Andrija Štampar School of Public School, Medical School, University of Zagreb, 1996.

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2. Murray CJL, Evans DB, eds. Health systems performance assessment: debates, methods and empiricism. Geneva, World Health Organization 2003.
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## **RECOMENDED READINGS**

1. Bjegovic V, Donev D (editors). Health system and their evidence based development. Lage: Hans Jacobs Publishing Company, 2004.
2. WHO. Improving Performance. The World Health Report 2000, Health Systems: WHO, Geneva, 2000.

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>PUBLIC HEALTH SERVICES – PRESENT ORGANISATION AND CHALLENGES FOR TOMORROW</b>
<b>Module: 1.3</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Public health services, health policy, health promotion, project management
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• know the present health situation in Europe and the strategies that were taken or are actual in the present to help people to preserve their health,</li> <li>• be familiar with project management approach in conduction of health promotion projects.</li> </ul>
<b>Abstract</b>	In European society very important changes have occurred in recent decades. They brought different health problems. Different interventions were developed in order to preserve health in the society. Health promotion has proved to be one of the most important tools in this field. Implementation of health promotion is not possible without radical changes in approach to and method of work. As this is the case of intervention in several social subsystems, the project method is considered the most adequate tool for implementation of health promotion in organisations. Institutes of Public Health have, due to their role in the society of today, developed various kind of knowledge and skills to facilitate the implementation of project work. They are closely connected with several social subsystems so they stand a real chance of undertaking the role of project co-ordinators in health promotion. The benefits, gained by the institutes of public health through taking part in health promotion projects, will not only be those reflected in broader social community and other organisations. The new working methods will, above all, find their most rapid and positive expression in the very same institutes i.e. in the process of performing their regular professional tasks.

<b>Teaching methods</b>	<p>An introductory lecture gives the students first insight in characteristics of cross-sectional studies. The theoretical knowledge is illustrated by a case study.</p> <p>After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics local public health organisations and infrastructure. The students will discuss the about the appropriateness of the actual organisation and try to find out the weaknesses and strengths of that kind of approach.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaire examination.

# **PUBLIC HEALTH SERVICES – PRESENT ORGANISATION AND CHALLENGES FOR TOMORROW**

**Ivan Eržen, Lijana Zaletel Kragelj**

## **THEORETICAL BACKGROUND**

### **Some useful definitions and considerations for understanding the module**

#### *Public health*

When speaking of “public health”, to many people, even medical professionals, this term conjures up images of hospitals and ill people and has the same meaning as publicly funded health systems. However, public health is actually quite different from that - it has at its heart the aim of improving wellbeing, promoting positive health and preventing diseases. Thus, the main focus of public health is health and disease prevention. This is reached through its activities: it prevents epidemics and the spread of disease, protects against environmental hazards, prevents injuries, promotes and encourages healthy behaviours, responds to natural and societal disasters and assists communities in recovery, and assures the quality and accessibility of health services. According to this, public health has many subfields. Most typically is divided into following subfields or categories:

- epidemiology of communicable diseases,
- environmental health (hygiene),
- social and behavioural health (social medicine), and
- health statistics.

The role of public health is of major importance for the health of the population, since many diseases are preventable through simple, non-medical methods. Public health plays its role in prevention efforts through local health systems or through international non-governmental organizations.

#### *Public health services*

When we know what “public health” is, we can start discussion about public health services. There exist several definitions of “public health services”, among them being also the definition of Organisation for Economic Co-operation and Development (OECD) (1). According to OECD, prevention and public health services comprise services designed to enhance the health status of the population as distinct from the curative services which repair health dysfunction. Typical services are vaccination campaigns and programmes. But prevention and public health functions included in this definition do not cover all fields of public health in the broadest sense of a cross-functional common concern for health matters in all political and public actions. Some of these broadly defined public health functions (such as emergency plans and environmental protection) are not part of expenditure on health (1).

Since the main focus of public health is health and disease prevention, this is the main focus of public health services as well.

Activities, performed by public health services are so-called public health interventions. The focus of a public health intervention is among others to prevent a disease through surveillance systems of cases of various diseases (e.g. communicable diseases surveillance system), and the promotion of healthy life style. But in addition to these activities, in many cases treating of a disease can be vital to preventing it in others, such as during an outbreak of an infectious disease. Vaccination programs and distribution of condoms are examples of activities of public health services.

### *Essential tasks of public health services*

Essential tasks of public health services are to:

- monitor health status to identify community health problems;
- diagnose and investigate health problems and health hazards in the community;
- inform, educate, and empower people about health issues;
- mobilize community partnerships to identify and solve health problems;
- develop policies and plans that support individual and community health efforts;
- enforce laws and regulations that protect health and ensure safety;
- link people to needed personal health services and assure the provision of health care when otherwise unavailable;
- assure a competent public health and personal health care workforce;
- evaluate effectiveness, accessibility, and quality of personal and population-based health services; and
- research for new insights and innovative solutions to health problems.

### *Level of functioning of public health services*

The population, covered by a single public health service, can be as small as a group of people (a family or local community for instance) or as large as all the inhabitants of several continents (for instance, in the case of a pandemic). Thus the level of functioning of a public health service can be:

- local,
- regional,
- national,
- international, or
- global.

On the national level, countries have their own government public health agencies to respond to domestic health issues, on the top being ministries of health and national institutes of public health. We can present some very well known national agencies, which are not involved only with national duties, but also with several international health activities:

- maybe the most known public health system is the system of the United States of America (US). In the US, the agency responsible for the public health of the

US population is US Public Health Service (US-PHS), led by the Surgeon General of the United States. The US-PHS administers a number of critically important health agencies including the Food and Drug Administration (FDA), the Centres for Disease Control (CDC) (with its headquarters in Atlanta), and the National Institutes of Health (NIH).

The CDC is the primary federal agency for conducting and supporting public health activities in the United States. CDC's focus is to protect the health of all US people. CDC keeps humanity at the forefront of its mission to ensure health protection through promotion, prevention, and preparedness (2). It is composed of several units being National Institute for Occupational Safety and Health, and six Coordinating Centres/Offices, including environmental health and injury prevention, health information services, health promotion, infectious diseases, global health and terrorism preparedness and emergency response.

- an example of a national public health agency/institution is Finnish National Public Health Institute KTL (3). KTL is responsible as an expert body under the Finnish Ministry of Social Affairs and Health, for providing various professionals and citizens the best available public health information for their choices. This institution could be classified among the most important public health services in Europe. Its ideas have been spread even worldwide. An example is an intervention programme for combating non-communicable diseases known under its acronym CINDI (Countrywide Integrated Non-communicable Diseases Intervention) (4).

On the international and global level, there exist several very well known public health organizations/agencies:

- in the first place it is an organization which acts on the international and global level, and which is in fact a guiding body for public health services at national, regional and local levels – the World Health Organization (WHO) (5). WHO is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends (5);
- here, again, we have to mention CDC with its international activities,
- but not only US, also European Union (EU) established an agency, similar to CDC - the European Centre for Disease Prevention and Control (ECDC) (6), which was established in 2005. It is an EU agency with aim to strengthen Europe's defences against infectious diseases. It is seated in Stockholm, Sweden. ECDC's mission is to identify, assess and communicate current and emerging threats to human health posed by infectious diseases. The ECDC disease specific activities are organised within seven horizontal programmes with team members from all technical units: Programme on influenza, Programme on tuberculosis, Programme on food- and water-borne diseases, Programme on other diseases of environmental and zoonotic origin, Programme on vaccine preventable diseases and invasive bacterial infections, Programme on HIV, sexually transmitted diseases and blood-borne viruses,

and Programme on Antimicrobial resistance and healthcare-associated infections (6).

But not only national, international or global level is important. Regional and local levels are of principal importance, since they are gate-keepers for diseases which could spread over the borders of a country. This importance and an example of organizational scheme will be presented via case study from Slovenia. There is no average scheme how to organize public health services, since every country has its own scheme of public health services organization, which depends on its health care system organization.

Before introducing the case study, it is necessary to discuss some contemporary public health issues and the present and the future role of public health services in solving contemporary public health problems.

### **Some contemporary public health issues in Europe to challenge public health services**

Very important changes in society have occurred in Europe in recent decades: a falling birth-rate has resulted in small families where both parents work, and many children are cared for outside their home for most of the day. The divorce-rate is high, urbanization is increasing, and more and more people live in satellite towns with long travel times to their work. Further problems stem from the increasing proportion of older people in the population.

The changing disease and health care demand patterns, with increasing emphasis on the care of chronic diseases, are reflected both in morbidity and mortality statistics. The balance between primary care and hospital care is everywhere under review, with increasing stress on the importance on the long-term care and a well-developed primary care system. Reliable researches and statistical information is important for monitoring these changes as the need for planning and priority –making in public health grows.

The financial implications of the operations of health organizations are enormous; painstaking planning, prior evaluation, and a detailed subsequent research are increasingly necessary. All recent experiences show how difficult it is to achieve a satisfactory balance between completing priorities in health care, between the demands of effectiveness and equity, and between completing attitudes of different health professions.

### *Responses to contemporary pressure*

#### **Demographic trends**

Crude live births in most of Europe are about 13 per 1000 population per year, almost equal to mortality rates. As a consequence, the total population-size is essentially stable. Only a few countries have recorded a slight natural increase many other report an overall decline of the population. The population of Europe is, however, aging. The proportion of children in the age-group 0-14 decreasing, and the high-age groups are growing. These demographic changes have important consequences for public health policy and planning. Low fertility will undoubtedly continue, and the number of families with few children will further increase. The

number of large families will continue to be low, but they will tend to present health services with social, economic, and health problems.

The modernization of family planning and the spread of more efficacious and less hazardous methods have contributed to a decrease in the number of unplanned pregnancies. The use of more dangerous methods such as abortions is being discouraged but it is still quite high in a number of European countries. The youth group is declining in size but the problems facing young people are important for social and health policy. Accidents, drug abuse, smoking, unwanted pregnancy, and sexually transmitted disease are very important in youth groups as are the psychological and social effects of unemployment, family breakdown, loneliness, homelessness, and migration. The AIDS epidemic took its place among these major hazards.

The increase in the size of the older age groups also presents important specific health problems. These are due to higher chronic morbidity, the requirement for more visits by the physician and days in hospital, an increased use of drugs, and a heavier utilization of nurses, home-help, and nursing homes. These are all matters which will demand a high priority for resource allocations in the coming years (7).

Mean life expectancy at birth, in Europe, varies from 65.8 years (Russian Federation) to more than 80 years (Iceland) (Figure 1). In all European countries women have a higher life-expectancy than men: on average 6.5 years more. The gap seems indeed to be widening; women are tending to live even longer, whereas the life-expectancy for men seems to be levelling off. The national differences in length of life are probably to some extent due to differences in the standard of public health services, but the contributions of economic variation and unhealthy lifestyles are undoubtedly of much greater consequence. This is reflected, within different countries, in social class differences in mortality.

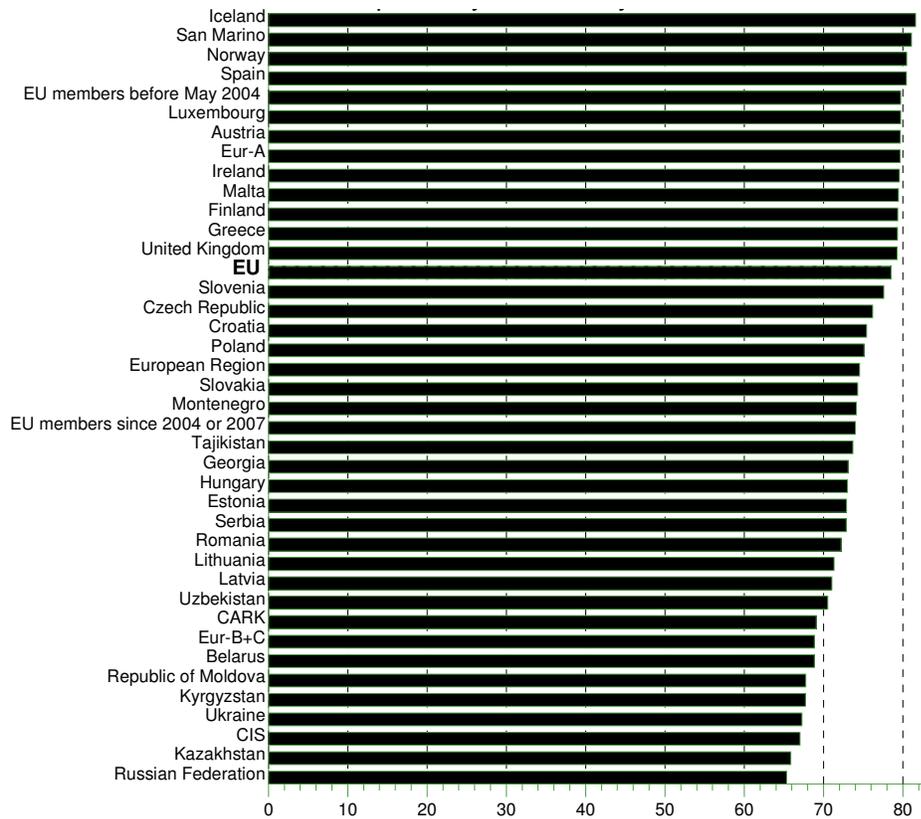
#### **Major Public Health Problems in Europe**

The main causes of death in the region in most age groups are diseases of the cardio vascular system, cancers, and accidents. Suicides are important and so is mortality from traffic accidents. The main causes of chronic disability are accidents, stroke and other vascular diseases, chronic lung diseases, mental diseases and disorders, senile dementia, arthritis, and the physical disabilities of extreme old age.

The main determinants of health lie outside the traditional health sector. Health policy cannot remain a matter for health centres, hospitals, or other health-care services, alone. Yet there are still serious problems in mobilizing the expertise of health professionals and applying their findings and recommendations in health policy areas outside their traditional framework of employment.

Meanwhile, the roles of national governments are chiefly restricted to controlling costs, guaranteeing equity in the distribution of resources, and developing local services. There is little evidence of engagement with true health objectives.

These deficiencies are serious, and acceptable solutions to these problems have not in general been found (8).

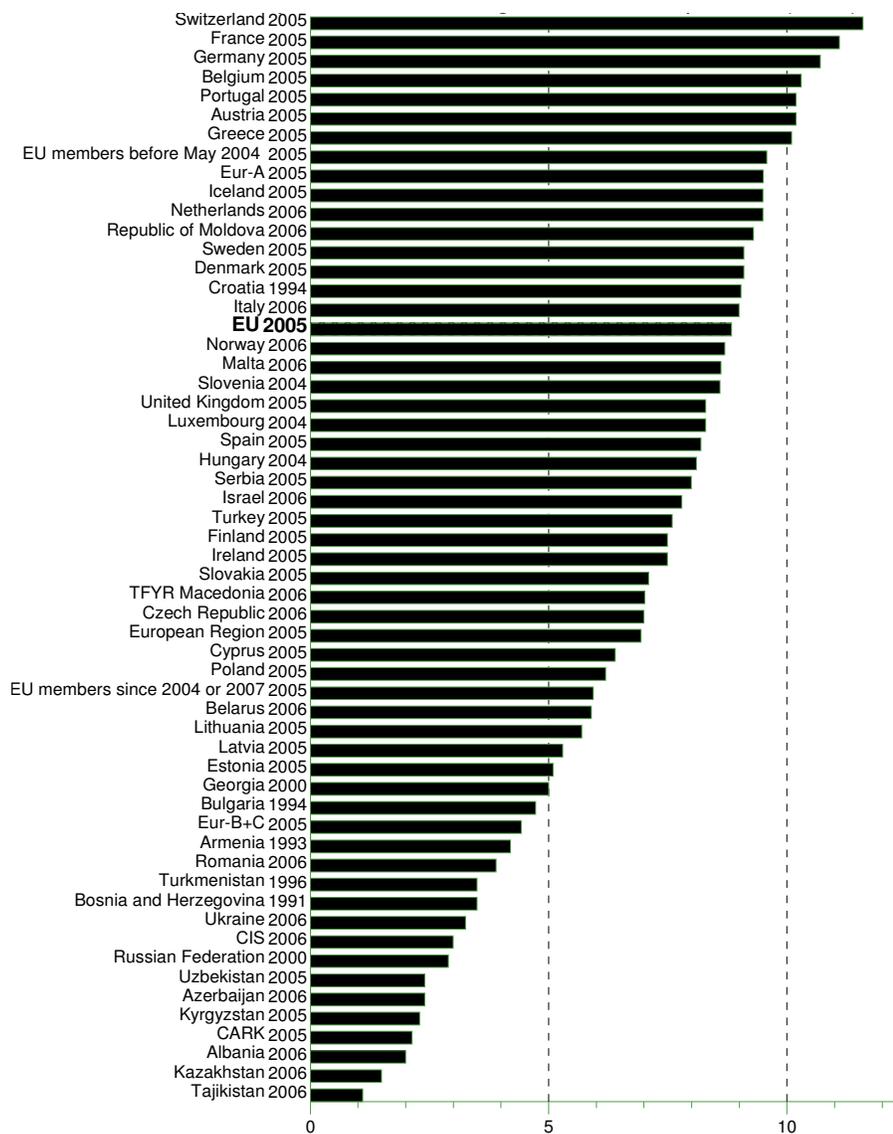


**Figure 1.** Life expectancy at birth in years, 2005 (Source: Health for All Data-Base, World Health Organization) (9).

### The cost of health care

The cost of health care is being given great attention in most European countries (Figure 2). Increasing costs are creating severe problems for many governments. The capacity of governments to finance total health care costs is limited and, given a harsher economic climate, the financial consequences on other fields of social endeavour are becoming quite serious.

The size of the hospital sector is a crucial determinant of total costs. The distribution of resources between hospital care and ambulatory care is a major policy question. When considering these problems it should be noted that most of the costs in the health care sector are manpower costs (between 55 and 80% of total costs), which tend to rise faster than other production factors in the public sector.



**Figure 2.** Total health expenditure as % GDP of gross domestic product (last available) (Source: Health for All Data-Base, World Health Organization) (9).

### Intersectoral efforts to improve public health

In discussions of »public health«, it is generally assumed that the policies, actions, and outcomes of importance are those originating from the public sector. It is the activities of health department bureaucracies and associated bodies, of publicly funded public health research and teaching institutions, and the laws and regulatory

provisions generated by health ministers that are taken to be the obvious subjects matter to consider when assessing the practice of public health in a country.

However, an emerging dialogue within public health spheres is focusing on evidence that the health of the community and the fruits of the labours of those self-consciously engaged in explicit public health occupations are hardly co-extensive. An »intersectoral« perspective on both, analysis and action to improve the health status of populations, is increasingly being recognized as fundamental to any consideration both of how the health status of populations does change, and of questions concerning efficiency in the roles and work of those public sector agencies that have traditionally addressed public health (7). The impacts, direct and indirect, on health resulting from the policies and actions or other (non-health) Government portfolios, such as employment, consumer affairs, education, housing, the environment, and agriculture; from non-governmental agencies such as pensioners associations, leisure and sporting groups; and from the private sector (e.g. the food, pharmaceutical, sunscreen, and product safety design industries), are demonstrably of immense importance in variously promoting or retarding public health.

#### **Future prospects of public health services**

These programmes will be closely associated with the development and provision of primary health care in the twenty-first century. The fundamental policy for health services should be established on the basis of the real health needs of the residents and of an action plan which takes into account these various levels of health needs (10). It is thus important to create effective organizations and functional structures for primary, secondary, and tertiary health care systems in the community by the integration of social resources with existing infrastructures such as social insurance, welfare services, educational systems, labour standards and employment policies, communications and transportation, and local industrial development. Comprehensive health-care systems should promote a wide range of activities, such as promotion of health, prevention of diseases, medical care, and in industry, and also the development of international health services.

Needless to say, the most important problems in public health services in more developed countries can be said to be those associated with the rapid ageing of the population and related effects, changes in the disease pattern, increasing demand for medical care and welfare services, and limitation in social resources. These indicate the very important role that public health services must play, and the responsibility they have in comprehensive health-care systems (11).

#### *Health Promotion – major challenge for Public Health Services*

The member states of the World Health Organisation (WHO) had, on encountering contemporary health problems, laid new foundations for a long-term health policy, popularly called “Health for All” (8), which was updated in 1999 and is now known as “Health 21” - the Health for All policy frameworks for the WHO European Region for the 21<sup>st</sup> century (12). The basic principles of this policy are:

- health is a fundamental human right;
- equity in health and solidarity in action by reducing gaps in health status between and within all countries and their inhabitants;

- participation and accountability of individuals, groups, institutions and communities for continued health development

In 1986 the Ottawa Charter for Health Promotion was adopted (13), which is considered the key strategy for implementation of the new health policy. This document outlines a comprehensive strategy for health promotion through five interactive means of action that cover the whole range of the new approach to health:

- building healthy public policy;
- creating environments supportive to health;
- strengthening of community action;
- development of personal skills and
- re-orienting of health care services toward primary health care.

Although health is, above all, considered a personal value, it is the very influence of working and living conditions, which are practically beyond the control of an individual, that makes the society and its organisations responsible for creating the conditions of “a healthy choice being the easier choice”.

Such a radical change in attitude towards health as well as in chances of its implementation and improvement requires a lot more than the mere adoption of global orientation. One should not neglect the fact that various social sectors, having major impact on human health, were caught completely unprepared for such changes so there are still many parts of developing and developed countries, where even today, after more than twenty years, no changes can be observed – WHO 1998 (7).

#### **Organisations to play the “promoter” role**

Health promotion represents an extremely ambitious public health intervention in the society, which is in Europe already present (14). The success of such intervention, however, depends on the knowledge about and accuracy of the structure and dynamics evaluation for the system we wish to exert influence upon. It should be pointed out that this can not be compared to building a new house on bare ground and in ideal conditions. All health promotion efforts have been addressing a complex, hardly recognisable social structure network, in which resources and energy already interweave. Any modification is to affect all parts of such network.

## **CASE STUDY: PUBLIC HEALTH SERVICES IN SLOVENIA**

### **Historical perspective**

The organised preventive health services have a long tradition in Slovenia, with the Central Institute of Hygiene in Ljubljana established already in 1923 to be soon afterwards also followed by the district hygiene stations (15). The activities of the Institute of Hygiene followed the ideas of Dr. Andrija Štampar, the then Director of the Department of Hygiene at the Ministry of Health, and the ideological promoter of social medicine. During a period of first two decades, the Institute of Hygiene founded about 20 community health centres throughout Slovenia; among them was the Community Health Centre in Lukovica near Domzale, established in 1926, which

was one of the first community health centres in Slovenia at that time, and which became the prototype for such institutions.

Due to various reasons, however, this sphere of medicine later failed to keep pace with the development of curative medicine, and has in a certain period of time actually proved regressive. Especially the Second World War drastically interrupted the development of public health at that time. It was continued only in the 1950s, when the population, gradually recovering from the war and finding itself in different political circumstances and with different people, began to project the further development of public health.

There were several attempts made to pave the way for the preventive health services, mostly in the form of various organisational interventions which in the final phase achieved no desired effect. The tasks from the field of social medicine, epidemiology and hygiene were performed partly within the basic health services, and partly by the institutions which were predecessors of contemporary nine Regional institutes of public health and the National Institute of Public Health of the Republic of Slovenia. The co-operation between the individual regional institutes of public health and their linkage with the National Institute of Public Health of the Republic of Slovenia was scarce and not compulsory, except in some joint tasks, stipulated by the legislation (16).

At the end of the 80's, first radical changes took place, which had a significant influence upon the present status and activity of the Regional and National institutes of public health. A uniform national programme was adopted for the tasks in the field of public health. The individual tasks to be performed by the National Institute of Public Health of the Republic of Slovenia and the regional institutes in this field were defined in detail. Both, the number of personnel and their required qualifications, were defined as well. And, very importantly, the funds for the performance of such tasks were also provided. At that time, all the funds intended for health care were part of the integral national budget.

## **Current organisational scheme of public health institutions in Slovenia**

### *Public health policy in Slovenia*

For the time being, in Slovenia we do not have a special act, covering public health sector, but many of public health issues are covered by the Health Services Act adopted in 1992 (17).

According to the Health Services Act (17), there are nine regional institutes of public health operating in Slovenia (Celje, Koper, Kranj, Ljubljana, Maribor, Murska Sobota, Nova Gorica, Novo Mesto, and Ravne), covering corresponding health regions (Figure 3), and the National Institute of Public Health of the Republic of Slovenia.

The Health Services Act gives a more detailed definition of the services of social medicine, epidemiology, hygiene and environmental health (17). According to the content and sphere of activity, they could be summarized into four main fields:



**Figure 3.** Nine health regions of Slovenia where Regional Institutes of Public Health were established.

1. Health situation monitoring and analysis, research, development and implementation of innovative public health solutions;
2. Collection, analysis and interpretation of health informatics data and evaluating of health care system;
3. Surveillance and control of risks and damages in public health, surveillance of communicable and non communicable diseases, health promotion and supporting healthy lifestyles, strengthening communities, and improving health for vulnerable groups;
4. Analysis of data on environmental health with special emphasis on air, water and foods quality, including of assessment of the health risk due the environment and preparation of measures to preserve health of population.

Beside these professional tasks, which are partly financed by government, numerous other tasks are performed:

5. Services of the laboratories for microbiology and for chemistry (samples of human and environmental origin);
6. Monitoring of environmental elements;
7. Counselling in different sphere of public health;
8. Different expert and research projects, and
9. Education.

### *Tertiary level*

The national level of public health in Slovenia is in the domain of the Institute of Public Health of the Republic of Slovenia.

### **Short history**

As described earlier, this institution was established in 1923. Its first tasks were monitoring the quality of drinking water and milk and preparing expert opinions about safe drinking water supply.

Two years later, the Institute merged with the Ljubljana Permanent Bacteriological Station, broadened its activities, and reorganized into three units:

- the bacteriological-serological laboratory,
- unit for monitoring the drinking water and food provisions, and
- unit for hygiene promotion and education.

The Institute was reorganized into the Central Hygienic Institute in May 1951. Its tasks were to monitor the health of the population and improve it by taking appropriate preventive measures; to monitor and improve the hygiene in the country; to prevent and control communicable diseases; and to develop and coordinate the work of all hygienic stations.

In 1974, the Institute reorganized again into the Institute of the Socialist Republic of Slovenia for Health Care. The activities of the Institute covered the fields of social-medicine, hygiene, epidemiology, and preparation of technical recommendations for health care-related legislation.

The contemporary Institute of Public Health of the Republic of Slovenia (IPHRS) was established in 1992 (15).

### **Current organization**

Currently, activities of the IPHRS are organized within five centres, two special units, and three laboratory departments (18).

1. IPHRS centres.
  - Center for Population Health Research;
  - Center for Health Care Organization, Economics and Informatics;
  - Center for Environmental Health;
  - Center for Communicable Diseases; and
  - Center for Health Promotion,
2. IPHRS special units.
  - Health Statistics Unit, and
  - Informational Unit for Illicit Drugs.
3. IPHRS laboratory departments.
  - Department for Sanitary Chemistry,
  - Department for Sanitary Microbiology, and,
  - Department for Human Microbiology (including reference laboratories).

The IPHRS professionally links the otherwise autonomous regional institutes, which will be presented later, and in co-operation with them performs the tasks of the adopted national programme. Such solution does not encroach upon the independence of individual institutes, yet dictates a similar, if not the same organisational pattern, as the performance of joint tasks would otherwise be hindered.

### *Secondary level*

As described earlier there are nine Regional Institutes of Public Health, covering corresponding health regions (Figure 3). The populations they are taking responsibility for, are of very different sizes: from about 75,000 to about 600,000. The details are presented in Table 1.

**Table 1.** The sizes of populations, nine Regional Institutes of Public Health in Slovenia are taking responsibility for (19).

	<b>Regional Institute of Public Health</b>	<b>Approximate population size</b>
1.	Celje	299,000
2.	Koper	139,000
3.	Kranj	197,000
4.	Ljubljana	601,000
5.	Maribor	320,000
6.	Murska Sobota	124,000
7.	Nova Gorica	103,000
8.	Novo Mesto	135,000
9.	Ravne	74,000

All Regional Institutes of Public Health in Slovenia have more or less similar organization, which is also very similar to the organization of the Institute of Public Health of the Republic of Slovenia. They all have three major departments:

- Social Medicine Department – major activities of this department are health statistics and assessment of health status of the population covered by the Regional Institute, and proposals for necessary public health interventions in the context of social medicine;
- Environmental Health (Hygiene) Department – major activities of this department are monitoring of parameters of environmental health (outdoor parameters such as air, soil, water, and food, and indoor parameters of dwelling and occupational places), risk assessment, and proposals for necessary public health interventions in the context of environmental health. The other part of activities is health inspection of food industry processes, potable water supply networks, swimming pools, etc;
- Department for Communicable Diseases Epidemiology - major activities of this department are communicable diseases surveillance, and proposals for necessary public health interventions in the context of communicable diseases epidemiology. Vaccinations and counselling to passengers to regions at high risk for communicable diseases also are in the domain of this department.

Beside presented activities, health promotion is coming to agenda of Regional Institutes of Public Health in Slovenia more and more clearly, what will be discussed later on. Some of them already have special units dealing with health promotion issues, while in others health promotion activities are incorporated in activities of other departments.

In addition to joint undertakings, the Regional Institutes of public health perform some other tasks as well. An important activity and thus the source of funds is the laboratory activity (human and sanitary microbiology, sanitary chemistry) as well as performance of several other tasks for the needs of individual organisations, private persons, and local communities.

### *Primary level*

One should place a special emphasis on the role of the National Institute of Public Health of the Republic of Slovenia and the regional institutes of public health in connecting and co-ordinating various health institutions (e.g. Community Health Centres) and private sector in the implementation of preventive health care at the primary level.

In the past, a lot was unclear in the implementation of preventive programmes at the primary level. Those programmes were not carried out equally in all places, neither in the scope nor in the quality. By introducing private practices and the institution of a personal physician, it often happened that individual population groups were not included in the preventive programme. For this reason, the Ministry of Health reached a decision and at the beginning of 1998 issued special legal regulation, being Instructions for the implementation of preventive health protection at the primary level (20) with the detailed instructions for the implementation of preventive health care at the primary level. In those instructions, the content and the method of preventive programme implementation have been precisely defined. in the following spheres (20,21):

- reproductive health care;
- health care for babies and infants till the age of 6;
- health care for school children and youth till the age of 19;
- health care for students;
- dental care for children and youth;
- health care for adults in general practice;
- health care for persons in the nursing care treatment, and
- health care for sportsmen.

This way, a uniformity of such services can be achieved in Slovenia. Furthermore, the minister appoints experts responsible for each sphere of preventive health care, who are in charge of the proper implementation of the programme.

### **Health Promotion – major challenge also for Slovene Public Health Services**

In view of the situation in Slovenia, we should not be completely satisfied despite some advantage we have over other countries. We can boast a clearly defined orientation towards primary health care, one of the main focuses of this policy, as well as rich infrastructure of preventive institutions. Besides, some preventive health care measures have the tradition of several decades. All this might be one of the reasons why our attitude became even more demanding and as such calls for a more

energetic approach to implementation of basic principles of joint European health policy.

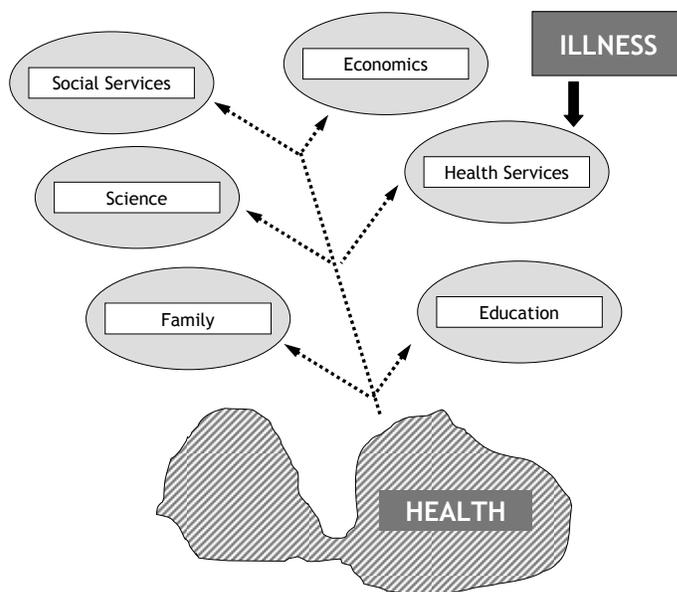
But why is this so? To put it briefly, the major problem lies in our inability to determine who is to take the initiative. The existing professions and organisations have their specially defined roles and tasks and have as such adapted to solving of the problems, for which they were established and/or formed.

A problem of a particular nature is that the society still holds the prevalent view of considering health as a task and commitment of health professionals and health organisations and not an area of activity to be dealt with also by, or rather, primarily by outside-health professionals and organisations.

In Slovenia, from organizational point of view, the existing public health organisations already have their tasks and roles defined and assigned. The present health care system puts emphasis on solving problems of ill health (diseases), which is understandable – ill health certainly is one of the major problems.

Complex and sophisticated organisational systems have been developed for treatment of diseases, rehabilitation and compensation of diseases. The tasks and professional roles are well defined, with their working methods and their daily routine. Moreover, they enjoy the benefit of being supported by the system of finance and education (22).

Nevertheless, health is not viewed as a problem, so we have not yet reached the decision, what institution is to undertake the tasks in health promotion. No particular social system can be made responsible for health promotion as this issue addresses several systems at the same time (Figure 4) (22).



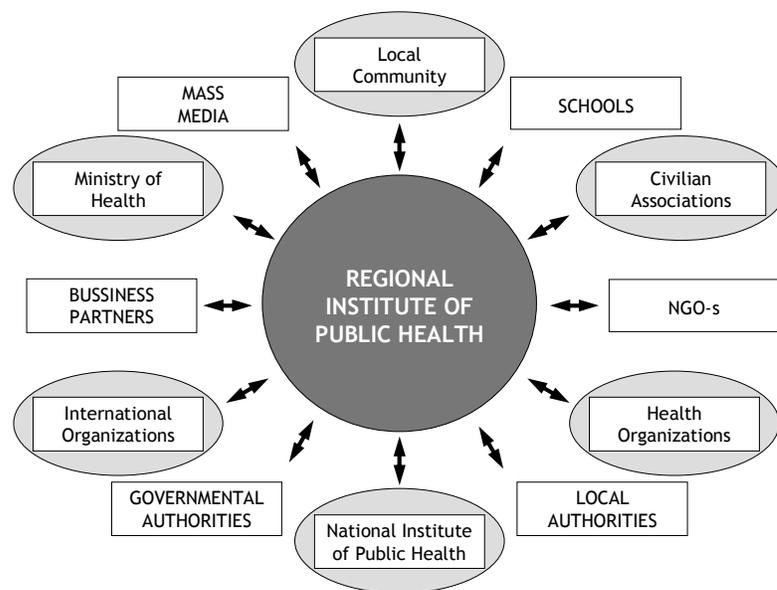
**Figure 4.** There is no particular system for health. Health enters each system.

There is, however, at least in Slovenia, a possibility that certain tasks related to health promotion are undertaken by the public health services which are in Slovenia the institutes of public health, organised at the national and regional level and considered the central preventive institutions, able to play an active role in health promotion.

Numerous connections, both from the institutional as well as territorial aspect, fostered for the purpose of performing various professional tasks, have enabled the formation of an extremely rich network of adapted means of communication. These organisations have the distinction of great flexibility and are, more than others, able to seek paths yet not trodden and to create new social network, required in the implementation process of health promotion strategy. Figure 5 shows the complexity of connections made by e.g. regional Institute of Public Health. The interconnections among individual organisations are not shown, although rich in number as well.

The advantages of the institutes of public health when applying for the “promoter” role in the implementation process of health promotion strategy are:

- wide scope of connections made with various social subsystems and their organisations;
- variety of communications skills;
- variety of professions, tasks and working methods used and thus more open for successful introduction of new forms of work;
- awareness and understanding of the importance and possibilities of health promotion.



**Figure 5.** Different communications and connections held by the each of Regional Institutes of Public health in Slovenia.

To be able to perform their task properly, Regional Institutes of Public Health in Slovenia also have to undergo certain changes as well, to adjust their organizational structure and method of work in compliance with the new tasks (23).

### *Features of health promotion projects*

In recent years the project management has become the most important tool for performance of new, complex tasks. This kind of approach to work was initially characteristic only for profit oriented enterprises, whereas it can currently also be observed in non-profit organisations. In view of the international health promotion movement the project method represents a fundamental approach to task performance. Project management is considered a suitable tool for implementation of health promotion in various settings e.g. business enterprises, schools, hospitals, and can, as such, also be used in performance of programmes, focused on changing lifestyles and improving ecological conditions. It is only through the project approach that multisectoral and interdisciplinary co-operation can be implemented, which is regarded as essential to the performance of new tasks in health promotion.

The development and adoption of health promotion policy is important not only at the national, regional or local level, but also in organisations such as schools, hospitals and business enterprises. By means of health promotion the health criterion is being introduced into decision-making as well as into other activities of a system.

Projects and their successful management has become a favourite instrument in recent years for performing new and highly complex tasks in organisations or in the co-operation between organisations. In the international health promotion movement, projects have become central implementation strategy. Project management is an appropriate tool for promoting health in businesses, schools or hospitals, as well as carrying out programmes on healthy lifestyles and ecological issues. Features of a health promotion project are:

- it is a type of organisation to perform complex, new tasks of various sectors within a single organisation or among various organisations;
- it is an instrument to introduce changes planned in an organisation;
- it mobilises and redirects resources from one or more systems to new tasks;
- it evaluates and verifies the efficiency of new forms of co-operation and integration among individual departments and organisations;
- it gives the participants the opportunity to acquire fresh experience and skills to be later incorporated in their everyday activity;
- it exerts influence on the entire organisation or other organisations, taking part in the project.

Development and interaction of knowledge among professionals is an integral part of project management. New tasks usually require new expert knowledge as well as different application of knowledge with experience (24,25).

Projects can develop their innovative task solely through development of autonomous activity on the one hand, while they, on the other hand, maintain and make use of their connections with the parent organisation.

In distinction from the projects in the area of business enterprises, where predictions of reactions in the target system are often relatively accurate, this is not the case in health promotion projects. The response depends on the internal dynamics

of an individual social subsystem and autonomous understanding of the process by such system. The provision of proper project management is therefore of vital importance. Only in this way it is possible to currently adapt goals, working methods and forms of intervention in the environment and to follow the project target to the fullest extent.

Special emphasis should be laid upon the gains from the activity within the project for the collaborators and the parent organisation. Successful work for the project results in utterly positive impact both on an individual project team member as well as on the team as a whole. It is of particular importance that through the project activity the innovativeness of an individual can be boosted and developed. And the opportunity for one's assertion leads to higher motivation for work. Motivation is also encouraged by positively oriented interpersonal relationships and high level of work culture, created in the team.

The activity within the project also very favourably reflects in the parent organisation. The qualifications, acquired by the project team members through such activity, often prove useful for their routine professional role. Social skills and knowledge of organisational development, required in the project, usually to a large extent satisfy the increased demand for such qualities in the rapid development and organisational complexity of modern society.

### **Conclusion**

Implementation of health promotion is not possible without radical changes in approach to and method of work. As this is the case of intervention in several social subsystems, the project method is considered the most adequate tool for implementation of health promotion in organisations. National and regional institutes of public health in Slovenia have, due to their role in the society of today, developed various kind of knowledge and skills to facilitate the implementation of project work. They are closely connected with several social subsystems so they stand a real chance of undertaking the role of project co-ordinators in health promotion.

The benefits, gained by the institutes of public health through taking part in health promotion projects, will not only be those reflected in broader social community and other organisations. The new working methods will, above all, find their most rapid and positive expression in the very same institutes i.e. in the process of performing their regular professional tasks.

## **EXERCISES**

### **Task 1**

Carefully read this module, and recommended reading #1, especially Section 3 - The organization, financing and decision-making processes in public health in eight countries. Discuss the organizational scheme of public health services in presented countries and Slovenia.

## Task 2

Discuss the organizational schemes of public health services in eight countries, presented in this book, and in Slovenia.

## Task 3

Write a short essay on inner organizational scheme of one of public health services in the country (or if students are from different countries, organizational scheme of public health services in your country) and its tasks, and prepare a short presentation for other students.

## Task 4

Discuss differences between different public health services.

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## RECOMMENDED READINGS

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>SOCIO-MEDICAL ASPECTS AND ETHICAL DIMENSIONS OF THE HEALTH PRACTICE</b>
<b>Module: 1.4</b>	<b>ECTS (suggested): 0,25</b>
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<b>Keywords</b>	Health policy, health priorities, doctor-patient relationship
<b>Learning objectives</b>	After completing this module students and public health professionals should be able to: <ul style="list-style-type: none"> <li>• Understand the spectrum of socio-medical problems in health practice;</li> <li>• Define and describe difference between doctor-patient and institution-patient relationship;</li> <li>• Explain the main root causes of socio-medical problems;</li> <li>• Understand the instruments, mechanisms and responsibility flow for solving socio-medical problems in health practice;</li> <li>• Use a problem-solving technique to a given scenario/case.</li> </ul>

<b>Abstract</b>	The dramatic social and economic changes that have taken place in the past two decades in SEE, have caused the existing inequalities in health to grow even bigger, not only between but also within the countries in the region. Backed up with the national health statistics, which gives a stark illustration of the effect of economic crisis and reveals a growing health divide, the issue is recognized to deserve greater attention; the once strong and sole focus of the health services to offer better care, newer treatments and more effective drugs, in the contemporary society requires to be accompanied with the much wider scope of needs of the modern patient - including more complex social interaction, better access to information through a multitude of sources, etc. The added complexity of the interactions in the health system where both patient and the doctor play a crucial role deserves much attention if we are aimed at reducing the inequality, socio-medical and ethical disparities.
<b>Teaching methods</b>	<p>The theoretical part of the lectures gives overview of the social dimension of the doctor-patient and institution-patient relationship, behavioural patterns (both patient and professional) and definitions of the patient safety, medical/pharmaceutical care, medication safety and their interrelation to the causes of socio-medical problems. The theoretical knowledge is illustrated by case studies.</p> <p>After introductory lectures students discuss the definitions based on questions distributed prior to the class.</p> <p>As part of the assessment, students are asked to write an essay describing a case/example for selected instruments or mechanisms for overcoming a certain socio-medical issue in health care practice.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• ECTS: 0,25</li> <li>• work under teacher supervision/individual students' work proportion: 40%/60%;</li> <li>• facilities: lecture room;</li> <li>• equipment: LCD projection equipment;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: undergraduate and master degree students according to Bologna scheme</li> </ul>
<b>Assessment of Students</b>	Multiple choice questionnaire, structured essay

# **SOCIO-MEDICAL ASPECTS AND ETHICAL DIMENSIONS OF THE HEALTH PRACTICE**

**Neda Milevska-Kostova, Doncho Donev**

## **THEORETICAL BACKGROUND**

### **History and context**

The dramatic social and economic changes that have taken place in the past two decades in South Eastern Europe (SEE) countries, have caused the existing inequalities in health to grow even bigger, not only between but also within the countries in the region. Backed up with the national health statistics, which gives a stark illustration of the effect of economic crisis and reveals a growing health divide, the issue is recognized to deserve greater attention; the once strong and sole focus of the health services to offer better care, newer treatments and more effective drugs, in the contemporary society requires to be accompanied with the much wider scope of needs of the modern patient - including more complex social interaction, better access to information through a multitude of sources, etc. The added complexity of the interactions in the health system where both patient and the doctor play a crucial role deserves much attention if we are aimed at reducing the inequality, socio-medical and ethical disparities.

### **Defining socio-medical issues**

According to definitions in some standard worldwide renowned dictionaries (1), the term socio-medical dimensions of health care practice refer to the relations of practicing medicine in the societal context. Under such definition, we can look at number of aspects, some of which are already defined in monetary terms: equity, equality, healthcare spending; in socio-legal terms: physician-patient relationship, institution-patient relationship, patients' rights; or which are still in developmental stage or at the level of concept: like patient safety, for example. Further below, we will look at each in the attempt to define the complex milieu of the interrelatedness of medicine and society, yet more focusing on the legal and social aspects. This, will, ultimately give us an idea of how to address problems that might occur at the crossroad between medicine as science (represented by the medical profession) and the subjects of society (represented by the patients and other users of medical services).

### *Equity*

A key consideration in addressing the performance of any health care system, including those of the SEE countries to which this book is dedicated, is equity. Equity in health means that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically that no one should be disadvantaged from the achieving this potential, if it can be avoided (2). In terms of health care delivery it means that citizens get the care they need without

consideration of their social status or other personal characteristics such as age, gender, ethnicity or place of residence (3). Equity addresses questions such as whether some groups in the society have better access to health care or better health benefits and outcomes than others (4). The term *inequity in health* refers to differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust (2).

### *Equality*

The equality in healthcare is usually associated with the economic and social equality in the society. It is true to some extent; as Wilkinson states “the greater the economic and social inequality within a society the lower the health outcomes” (5). Yet, there is another aspect of “equality of access” to healthcare, which should be considered as vital part of the medical care in each country. As Canadian Commissioner on Future of Healthcare in Canada in his report explains, the rapid growth of private magnetic resonance imaging (MRI) clinics, which permit people to purchase faster service and then use test results to “jump the queue” back into the public system for treatment, is a troubling case-in-point (3), and can disturb the balance of the system, offering lower possibilities to those that cannot afford private services, that are otherwise available under the insurance scheme). This becomes a fertile ground for flourishing the financial discrimination within the social-welfare healthcare systems.

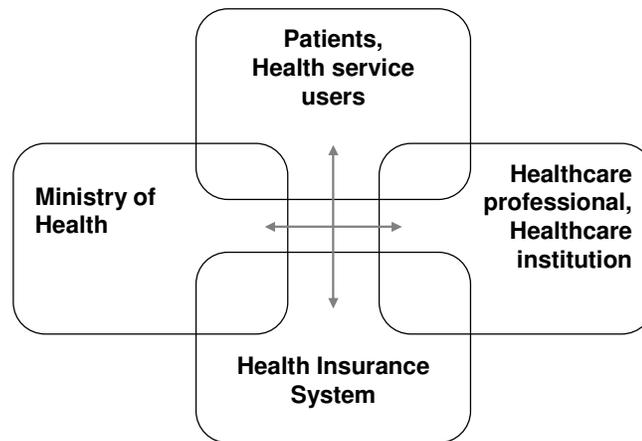
### *Healthcare spending*

Spending on health care does usually appear to make a difference in health outcomes. Health indicators such as life expectancy and infant mortality clearly show that problems are ameliorated when spending increases (6). A financially inefficient system, however, may use additional health resources to provide higher salaries to health care providers without a corresponding improvement in services (3); it may also lead to shift of health services demand from the free-of-charge public health services to private out-of-pocket paid services, which to a large extent instigates the financial discrimination between those that can and those that cannot afford the private payment for services, otherwise available under the basic insurance package. At the other end of the spectrum, there are those that due to poor accessibility cannot benefit from the health system, despite the fact that they may belong to the category that needs it most. Unfortunately, the available data on healthcare spending in some countries is recorded only for the public healthcare institutions (7), who give a much fragmented and highly unrealistic picture, while the private healthcare services are flourishing especially for the basic package of health services.

### *Physician-patient relationship*

The sensitivity of this issue when it comes to the scope of socio-medical problems in healthcare delivery is obvious from its defining; it represents a relation of two parties that are equal in the mission to sustain, improve, promote one’s health condition, but are unequal in many other aspects, like specialist knowledge and medical information (information asymmetry), objectivity in approaching the problem and sobriety to make informed decision. This to a large extent explains the

paternalistic roles very commonly taken in the physician-patient relationship, rather than the paternalistic concept of the health care system. Several countries reported a similar situation with the physician-patient relationship, in some occasions even expressed as “the father-physician taking care of the child-patient” (8).



**Figure 1.** Relationships and flow of healthcare spending

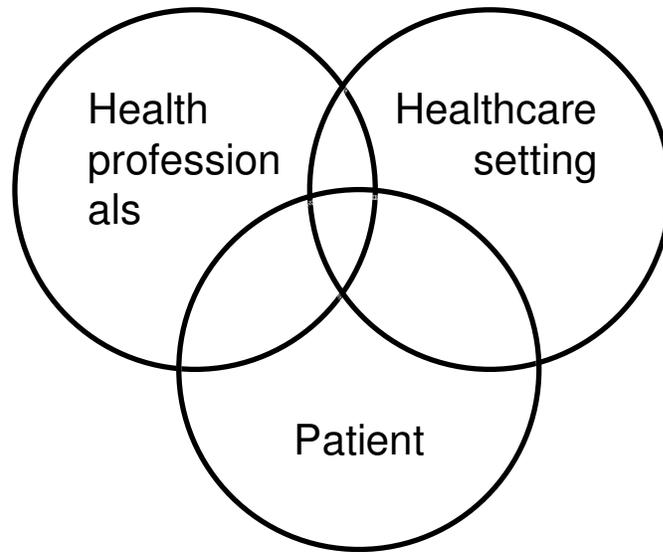
Despite the benefits they have brought to the individual and the society, the medical advances in the areas of life-prolonging technology, prenatal diagnoses, organ transplantation and genetics have all had side effects of increasing the technological and decreasing the human aspects of medical care. These advances brought and enlarged the alienation between patients and physicians. At times, physicians forget or simply do not have time to be compassionate; they often perceive themselves as absolute authorities in judging patient needs due to their medical knowledge supremacy and they do not perceive the need to discuss diagnoses and proposed treatment with patients that in their opinion are not capable of making reasonable decisions. Thus the most common complaints of patients across the national milieus investigated are that in largest number of cases the physicians don't listen, don't take much time and don't explain or give a partial explanation in a difficult to understand (referring to the professional and specialized terms) language. At the same time if anything happens beyond the expected procedure, the physicians would in the first place “blame it on” the patient for non-compliance (8), whereas the patients would consider it to be the physician's mistake for any of the above reasons.

To this end, it is often difficult to quantify the influence, but the relationship between the physician and the patient should have its place in the model defining the socio-medical problems, at least on a qualitative level.

### *Institution-patient relationship*

In many cases, the hospital visit and the patient's health are usually associated with the patient-physician relationship, to a large extent, besides the expertise,

professionalism and ethical principles of the medical personnel. But, the preparedness and level of equipment of the healthcare setting plays crucial role in the outcome of certain intervention; this is another angle of the complex health systems' relations: patient-institution relationship. Most of national legislations are regulating the right of the patient to access to healthcare, but also the right to healthcare itself, to access to medications and technology (based on maximum availability in the system) – rights and conditions that cannot be regulated and met by the physician alone. In this sense, the need to include the patient-institution relationship into the equation for understanding and solving socio-medical problems is evident, and further more it can be quantified in monetary terms.



**Figure 2.** Interrelatedness of physician-patient-institution

*Rights and responsibilities – patients vs. healthcare professionals*

As in every relationship, patients and physicians in their interaction have both rights and responsibilities; as much as this might sound inhumane and too bureaucratic, in lot of cases these rights or responsibilities have been a driving force or inhibiting factor to proceeding with interventions much more than the substantial medical knowledge or practice (8). Despite the fact that both patients and physicians are on the same side of the healthcare system - with their mission being health condition improvement or life prolongation - the ethics of holding each of them responsible against the inequality of their positions explained above becomes a complex issue not only difficult to prove and measure, but also unpopular to convert into monetary value.

In each country, there are at least several mechanisms for addressing the violation of the rights or non-compliance with the responsibilities by patients or health professionals; ranging from health mediators, in-house (clinical) patients' advocates, ombudsman, administrative and court procedures (civil and criminal).

The level of their implementation or applicability is always questionable, for both technical and ethical reasons, such as lack of medical knowledge of judges or justifiable compassion with the peer physician in a case of unintentional medical error and adverse outcomes.

Thus, the intention is for the concept to go beyond the simplified version of "good guy-bad guy" situations but to rather look into the potentials of objectivising the cases and anonymization of malpractices (9), for future use of the case-based knowledge in extending the medical practice. This aspect is further elaborated under the section of *patient safety*.

### *Patient safety*

The concept of patient safety happens to be a relatively recent initiative, as a response to the generally low level of awareness and knowledge about the frequency and magnitude of avoidable adverse outcomes in healthcare industry; the first serious approach to this issue was given in 1990s, when reports in several countries revealed a staggering number of malpractice patient injuries and deaths each year (10).

Patient safety is a serious concern in most developed and developing countries alike. Recent studies consistently show, in an increasing number of countries, that health care errors occur in around 10% of hospitalizations (11). The concept of the patient safety is described with many operational definitions - each defined by the research context. In general, the term *patient safety* describes the tendency to provide conditions and interventions for patients in the healthcare settings that would enable and ensure the desirable outcome. The broadness of this concept embraces both medical and non-medical errors that can incur during the patient visit or stay at the healthcare setting.

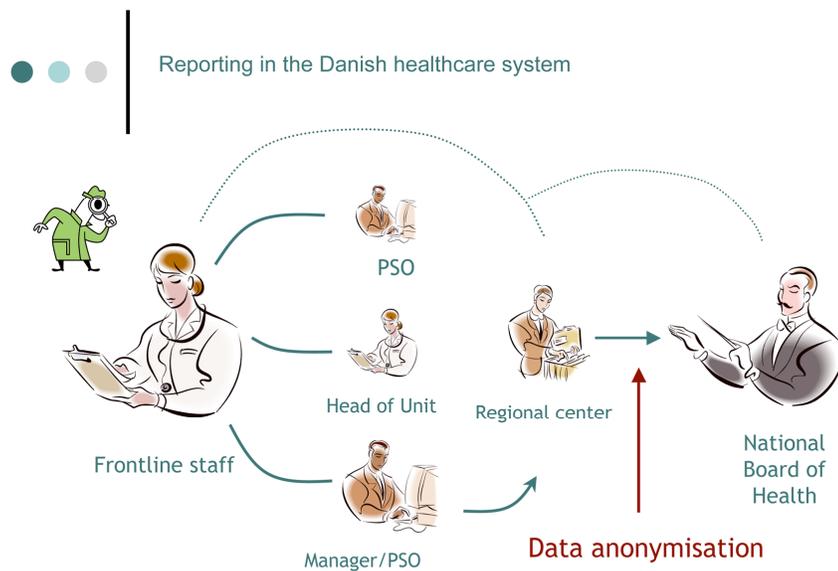
Nevertheless, the scientific literature shows that the healthcare sector is a decade or more behind other high-risk industries in its attention to ensuring basic safety for its key players (both patients and health professionals) (12). Aviation for example, has focused extensively on building safe systems since World War II; between 1990 and 1994, the U.S. airline fatality rate was less than one-third the rate experienced in mid century (13). In 1998, there were no deaths in the United States in commercial aviation; in health care, preventable injuries from care have been estimated to affect between three to four percent of hospital patients (14,15).

Yet, the patient safety does not imply responsibility only on the physicians and healthcare settings - it involves other medical professionals, such as pharmacists (through their contact with the patients, education about use and abuse of medications, etc) and patients themselves - with their understanding of the procedures and willingness to comply with given instructions. Regardless if the advice is aimed at improved nutrition or regularity of taking medicines; both can equally affect the patient and his/her role in increasing own safety as patient.

Under the Luxembourgian presidency of EU, in April 2005, the European Commission DG for Health and Consumer Protection issued the Declaration "Patient Safety - Making it Happen!" widely known as the Luxemburg Declaration.

The Declaration calls for active involvement of EU institutions, in establishment of EU forum to discuss issues regarding patient safety, in cooperation with other patient safety initiatives, like the WHO Alliance on Patient Safety etc. The Declaration recommends to the national authorities to establish national forums, to ensure full and free access to personal health information to patients, to optimize the use of new technologies, and above all to work towards creating a culture that focuses on learning from near misses and adverse events as opposed to concentrating on “blame and shame” and subsequent punishment (16).

Denmark became the first example of a country that introduced nation-wide mandatory reporting of medical errors and adverse outcomes. The Danish Act on Patient Safety (9) enacted by the Danish Parliament in 2003, sets the ground for obligatory reporting of adverse events by the frontline personnel to a national reporting system; the famous Article 6 of this Act (9), which reads “A health care professional reporting an adverse event shall not as a result of such reporting be subjected to disciplinary investigations or measures by the employing authority, supervisory reactions by the National Board of Health or criminal sanctions by the courts”, is opening a space for professional yet sincere debate grounds for gathering, analyzing and communicating the knowledge of adverse events, in order to reduce the number of such events in the healthcare system. In January 2004 the national reporting system on adverse events in Denmark was set in place, obliging not only the frontline personnel to report, but also the hospital owners to act on the reports and the National Board of Health to communicate learning from the reports, after making data anonymous, and in that way lifting it to the meta analytical level. More details of this reporting system are available from the National Board of Health and Danish Society for Patient Safety (DSFP) (17, 18).



**Figure 3.** Adverse event reporting in the Danish healthcare system (18, modified)

(PSO = patient safety officer)

## **CASE STUDY: MEDIATION IN HEALTHCARE**

For simple overcoming of the socio-medical problems in the health practice they can be negotiated and potentially resolved, with good will and without judicial intervention, by introduction of health mediators and patients' advocates who are taking up a role of a neutral middle-person in sensitive health-related issues. These forms have been more or less successfully adopted in Romania (health mediators) and Serbia (patients advocates), thus this case study is illustrating their existing and potentially expanding role in solving socio-medical problems for a wider range of health-related issues (including professional patterns of behaviour, adverse events and malpractice).

### **Romani health mediators in Romania**

Roma Health Mediators (RHMs) are members of the Romani community who work with their communities, physicians, and national health care systems to improve Romani health, as attempt to challenge the health conditions of the 12 to 15 million Roma living in Western and Eastern Europe exhibit some of the region's worst health indicators (19). Infant mortality rates among Romani communities in the Czech and Slovak Republics and Hungary are about double the national average (20).

One of the most visible elements of the government strategies for addressing the health issue of Roma is introduction of the programs for Roma Health Mediators (RHM). RHM programs are meant to respond to the current situation and stereotyped conditions of the Romani population by selecting individuals from Romani communities to work as mediators who: (a) facilitate communication between Romani patients and physicians during medical consultations, (b) communicate with Romani communities on behalf of the public health system, (c) provide basic health education, and, (d) assist Roma in obtaining the health insurance or identity documents necessary to visit the doctor (19).

Although a similar concept in education was developed in France in 1986-87, the leading country in the introduction of this comprehensive concept to healthcare mediators is Romania. As the statistics is showing that large percentage of Romani population in this country is not properly covered by health insurance, due to various reasons, such as traditional practices or lack of personal identification documents, the health status of this minority has been steadily showing a downwards trend, with different disease structure than the general population. The initiator of the RHM was the non-governmental organization CRISS (Roma Center for Social Intervention and Studies) which in 2000 has introduced it as pilot version through training health mediators to provide liaison between Roma families and mainstream public health services (20), funding it through international and domestic project schemes.

In August 2002, the Ministry of Family and Health passed an ordinance making Roma Health Mediator an official profession within the Romanian public health system (21). According to the ministry's ordinance, all mediators must be trained and certified by Romani CRISS. The Romani CRISS theoretical training covers communication, access to prevention and treatment services, the public health

insurance system, and first aid. However, RHMs must not provide any medical services, as they are not qualified medical providers (19).

In addition to the standard curriculum, a small percentage of the mediators have also been trained by Romani CRISS to address discrimination. The training structure is somewhat flexible, and training in a long distance format is possible (19). Graduates of the theoretical training must complete a three-month on the job apprenticeship with a “qualified medical staff [person]” (21).

In 2002, the Ministry of Health and Family asked county public health departments and Romani organizations to send their suggestions regarding whether or not mediation was required, how many mediators were needed, and nominations for who should fill this role.

Approximately 200 RHMs now work throughout Romania. Geographic distribution is based on need as well as local level willingness to participate. RHMs are currently paid about €83 monthly, which is equivalent to a nurse’s salary. They are supervised by local and national authorities, as well as informally by Romani CRISS. Each RHM is assigned to a local contact GP, who is based in a nearby health facility. The GP meets weekly with the RHM to discuss tasks completed and any problems. A representative of the Family and Social Assistance Section of the local county public health department has monthly meetings with each mediator to provide additional supervision and any required assistance (19).

The Family and Social Assistance Section should also reimburse RHMs for travel costs associated with their work. In terms of interactions with national agencies, the RHMs have four meetings per year with staff from the Ministry of Health’s Department for the Health of Mother and Child, and must respond to an annual ministry questionnaire. A representative of Romani CRISS phones each mediator about every two months to discuss how work is progressing (19).

The concept also has its disadvantages and problems; despite the fact that local authorities had nominated them, some RHMs had problems being hired following the initial trainings. Moreover, many medical staff and county public health departments did not understand the role of the mediator, and required substantial support from Romani CRISS and the Ministry of Health and Family to cooperate effectively with the RHMs. However, this is certainly an initiative that can be expanded when it comes to addressing the health needs of the Romani population, and which can be adjusted and replicated for the general population in the rural areas.

### **Patients Advocates in healthcare settings in Serbia**

The new Law on health protection (22) of the Republic of Serbia established a system for protection of patients’ rights as a powerful tool for mediation and solving one of the largest categories of socio-medical problems in the healthcare practice.

The article 39 of the aforementioned Law (22), which regulates the right to complaint, is also stipulating the mandate and responsibilities of the patients’ rights advocates (“zastitnici prava pacijenata”). Among other, the Law stipulates that the healthcare settings are responsible to provide conditions for work of the patients’ rights advocates; the director is appointing the advocate from the employees of the healthcare setting, most usually the lawyer of the healthcare institution. Procedures

are set for both oral and written complaint, with timeframes within which the patients' advocate has to respond to the complaint, in a form of: legal advice, opinion or information. The Law also regulates the format of the written complaint to be submitted when patient right has been violated.

The patients' rights advocate has obligation to submit written monthly report to the Director of the healthcare setting, and a six-month report to the Board of the healthcare institution and to the Ministry of Health.

Second level procedure includes complaint filed to the Ministry of Health of Serbia, after what, if the patient is not satisfied with the reply, and still believes that his/her rights have not been exercised and implemented, he/she or a member of their family can forward to using court procedures.

The main role of the patients' rights advocates is to mediate a dispute between the patient and the healthcare setting or healthcare professional in a peaceful and good will manner. Using this procedure, most cases of general misunderstanding or misinformation about rights and responsibilities can be resolved, thus avoiding extra burden on the judicial system in the country. Effective as it sounds, however, this system, already existing in some other developing and developed countries, has its own drawbacks, such as subjectivity of the advocate, who works for one of the sides for which he/she has to mediate.

## **EXERCISE**

### **Task 1**

Given the case study above, think about an initiative in your country for mediating socio-medical problems in the health practice; try to consider the advantages and drawbacks of the initiative.

### **Task 2**

From your knowledge and practice, think about a mechanism of health mediation that might be applied for a particular health discipline (surgery, outpatient setting, etc.). Write a brief explanation of the idea, fitting it into the currently available medical and legal procedures of the chosen healthcare setting.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>QUALITY OF HEALTH CARE</b>
<b>Module: 1.5</b>	<b>ECTS (suggested): 0,2</b>
<b>Authors:</b>	<b>Vera Grujić, MD, PhD, Professor</b> Institute of Public Health of Vojvodina Futoška 121, Novi Sad, Republic of Serbia <b>Mirjana Martinov Cvejin, MD, PhD, Professor</b> Institute of Public Health of Vojvodina Futoška 121, Novi Sad, Republic of Serbia
<b>Address for correspondence:</b>	<b>Vera Grujić</b> Institute of Public Health of Vojvodina Futoška 121, Novi Sad, Republic of Serbia Tel: +381 21 4897 848 Fax: +381 21 6613 989 E-mail: <a href="mailto:izzz@eunet.yu">izzz@eunet.yu</a>
<b>Key words:</b>	health care, quality, patient satisfaction, accreditation
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• improve knowledge about characteristics and elements; of the quality of health care;</li> <li>• be acquainted with concept of the total quality management (TQM) and continuous quality improvement (CQI);</li> <li>• improve knowledge about patient satisfaction as element of quality of health care;</li> <li>• be acquainted with basic characteristics of accreditation in health care.</li> </ul>
<b>Abstract</b>	WHO policy “Health for all” defines ten global goals and one of them is relating to health care quality: “Improvement of comprehensive high quality health care”. There are numerous definitions of health care and WHO defines it as “the level where delivered health care achieves the best results establishing the balance between the risk and benefit within specified economic conditions”. Basic dimensions of quality are equality, relevance, accessibility, acceptability, effectiveness and efficiency. Motives for establishing the system of quality in health care are professional, socio-economical, patients’ satisfaction, and the final and the most important at the same time – improvement of population health. Modern concept of quality means implementation of TQM (Total Quality Management) and CQI (Continuous Quality Improvement) that represent managing strategies whose main steps are managing consciousness, strategic planning, management implementation and training of employees. Principles are that patients’ needs, opinions and experience are the important information in permanent improvement of quality, that it has to be integrated part of everyday work, that all employees in the system of health care have professional responsibility according to permanent improvement of quality and particular responsibility have managers at all levels in health institution, that permanent improvement of quality means positive approach to

	work and that all activities should be based on data and information not on assumptions. Significant parameter of quality is also patients' satisfaction, which is defined by WHO as "the level when the health system has satisfied patients' expectations". One of the approaches in management and explicit measuring of quality is also accreditation and its purpose is improvement of quality, gaining of information and responsibility.
<b>Teaching methods</b>	Introductory lecture, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a teaching room;</li> <li>• equipment: computer, LCD projector.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# QUALITY OF HEALTH CARE

Vera Grujic, Mirjana Martinov Cvejic

## THERORETICAL BACKGROUND

### Introduction

One of ten global goals of WHO policy “Health for 21<sup>st</sup> century” is “Improvement of comprehensive, high quality health care”. This WHO policy approach has opened new prospective and one of them is to focus the entire concentration to final effects of health care, the one that considers health promotion/ disease prevention/ diagnostics/ treatment/ rehabilitation not like separate entities but as permanent group of activities aimed to improve health. Such approach is supported by health services and care system that is structurally and functionally integrated, both horizontally and vertically. Therefore, one of specific goals within the global objective “Integrated health sector” is “that all people should have better access to family-and-community oriented primary health care by 2010, supported by flexible and responsible hospital system in particularly: at least 90% of countries should have comprehensive primary health care, enabling continuity of care through efficient, cost-effective referral systems and feedback from secondary and tertiary hospital care. Results of health care in at least five priority health problems should be significantly improved and investigation should identify the greater satisfaction of patients with the quality of delivered care” (1).

The question comes out what is the quality in general and what is quality in health care and how to estimate it? Quality of health care can be defined as “the level of excellence achieved and documented in the process of diagnostics and therapy based on the best knowledge which achieves the less possible mortality and morbidity” or “the level on which the health system increases possibility of desired effects”. According to ISO (International Organization for Quality) (3) quality of health care is defined as: “the level where the group of more characteristics of products or services satisfy specific or expected requirements”, while some define quality as “that systematic, critical analysis of health care quality also includes procedures used in diagnostics and therapy, then resources and results of effects, patient’s quality of life (2). At the other hand, standards of health care quality should be at the level where the health care is available, suitable, and continual and documented as well as to be at the level where the adequate therapy is based on the precise diagnosis, not on the symptomatology. Deming, one of creators of the concept of quality management emphasizes that “quality should focus its activities to existing and future requirements of users”; WHO defines quality as “the level where delivered health care achieves the best results creating the balance between risk and benefit within existing economic conditions” (4). There are other numerous definitions of quality and therefore one American physician said that “quality is difficult to define, impossible to measure but easy to recognize” (5). In general, those without enough experience in clinical field require easy, precise and complete measures. The truth is that some elements of quality are easy to be defined and measured while the others require more complex procedures.

Quality means the level of excellence and it is recommended that quality development shouldn't be administrative control of previously defined quality levels but it is a dynamic process. Health service should be organized in a way that medical results are the main in input identification, process definition and evaluation of results (output). The whole process has to be directed towards improvement of health, patients' satisfaction and cost-effectiveness, in contrast to traditionally managing concept.

### **Dimensions, characteristics and quality elements**

Maxweell defines six basic dimensions of quality in health care (6):

1. **Equality** – offering the same health care to persons with the same needs, regardless to their participation to some social or other group;
2. **Relevance** – means the requirements of community for health care, i.e. solving priority health problems;
3. **Accessibility** – meaning that health care should be available in geographical, time and functional sense;
4. **Acceptability** – suitable for population;
5. **Effectiveness** – to make right things in the right way that bring results, and
6. **Efficiency** – to make right things in the right way, i.e. to use available resources rationally.

High quality components include high degree of professional excellence regarding to actual situation and available technology, efficiency in resource utilization, minimal risk for patient, patients' satisfaction and final outcome of delivered health care. The key element is that quality is complex and multidimensional and very often it is not easy to be quantitatively expressed in a simple way.

Main characteristics of modern system of quality in health care are:

- It is focused to the **user**;
- The process of quality improvement **is managed by the highest leadership**;
- Each person in health institution has **responsibility** for quality;
- It is directed to **prevention of errors**, not to their detection, and
- Quality has to be accepted as the **lifestyle** in health institution.

The **key elements** of health care quality are:

**\*Customer**

**\*Commitment**

**\*Expectations and**

**\*Continuity**

These elements all together make the quality diamond (2).

The customer is in the centre of the health care system. Each patient has to be examined individually and not as anonymous person classified in some group (diseased etc.). It has to be taken care that any patient is not the same, that each of them has its own specific problems, needs and expectations. Commitment starts from the physician, both towards patient and quality because without commitment nothing

representing the full meaning of quality is going to be achieved. Patients' expectations have to be recognized as well and they have to be satisfied and if it is possible to overcome it, while health care requires continuity. Continuity enables permanent, consistent concentration towards quality, to be permanently improved and never to be finished. Quality has to be incorporated in all activities and gradually it becomes habit.



**Figure 1.** The quality diagram. From: Graham N. Quality in Health Care – Theory, Application and Evolution. Aspen Publishers, JNC, Gaithersburg, Maryland, 1995:359

The most precious parts in quality diamond are:

- **Patients' satisfaction**
- **Motivation of the staff**
- **Professional work,** and
- **Successful practice.**

Quality diamond describes what is considered to represent four critical elements of health care quality and it should be taken care not to ignore any of these elements. Sometimes there are various obstacles in implementation of quality, such as insufficient commitment, sometimes it is difficult to decide wherefrom to begin the action, sometimes quality is treated like additional work and sometimes there are just attempts to do something exceptionally rapid or excessively much, that is also the fact to be taken care in decision making concerning establishment the system of quality (2).

### **Reasons for establishing the system of quality**

The answer to the question why to establish system of quality in health care is of high significance, aiming also to find justification and purpose of these activities.

According to Donabedian, the answers are going to be different, depending on who is asking that question, but a few basic motives can be noticed:

- **Professional motivation** is of vital importance in order to motivate medical staff to be more active in enabling and improving of health care quality. Certainly, one of professional elements is also desire of an individual to develop and improve its own work, but characteristic for all medical professionals is also their ethical approach towards their profession. Related to this is the fact that obtaining the quality is observed as the way to notice shortages and more important, as the way and possibility to improve quality in everyday work. Participation and engagement of medical professionals in establishing and application of the quality system is also professional challenge for all employees and their additional motivation for work and it is important mechanism in identification and analyses of differences in results of health care that is the basis for further activities in improvement of quality;
- **Socio-economic motivation** is also important for activities in the field of quality improvement. Quality in health care is the measure for efficiency that indicates not only to importance in achieving of particular results but also to efficient and rational allocation of available resources in order to obtain desired results, but financials spent to health care have to be justified. Health care becomes increasingly expensive, and at the same time an increasing disappointment is expressed because principles of equality, effectiveness, efficiency and quality in health care are not much more expressed, including patients' satisfaction with available health care.
- **Patients' satisfaction** is important parameter of health care quality that also includes their expectations and their assumptions on health service but also represents the result of delivered care and treatment and finally, it represents essential contribution in further treatment since it inspires patient to continue cooperation with physician in order to solve his own health problems. All together with other motives should lead to
- **Improvement of population health** as the general and main goal of entire activities in health care (7,8).

### **TQM and CQI**

After the II World War the new concept of quality is developed – TQM (Total Quality Management) and CQI (Continuous Quality Improvement). TQM is “universal strategy of organizational changes and also the change of attitudes that enables people to learn how to use methods for improvement of quality in order to be able to reduce costs for health care and to satisfy needs of patients and other users (professionals)... TQM is in the same way philosophy of management just like its method and it has four main functions that are defined as the basis of good management:

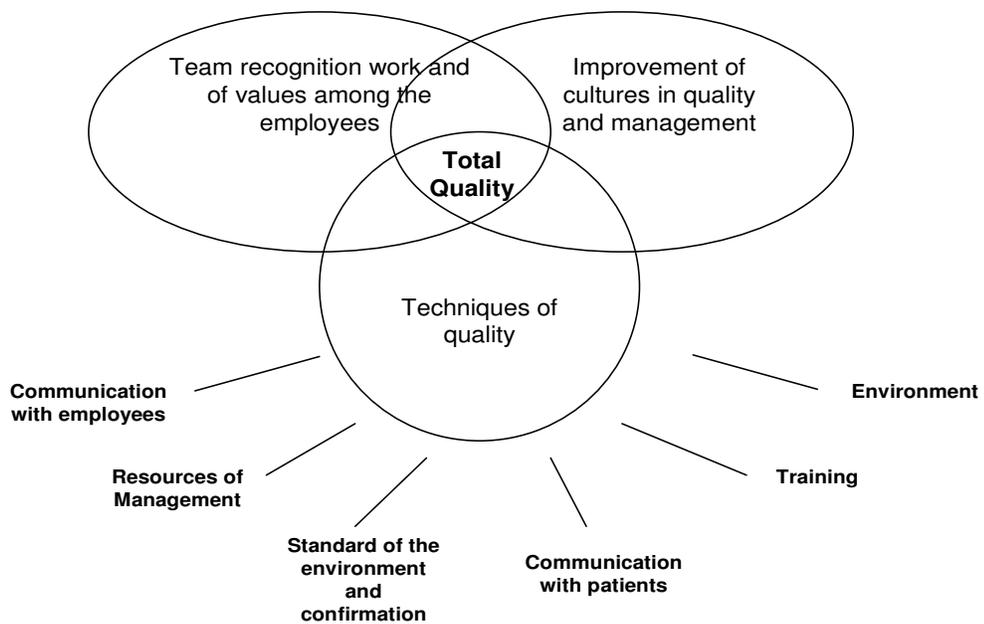
- Strengthening of clinicians and managers in health care to gain knowledge to conduct analysis of work process in order to be able to improve it;
- Acceptance of the attitude that the patient is not the only user in health care but it is also the health worker and also the adoption of standards where the user is the primary goal in the quality;

- Development of multidisciplinary approach which is above and out of conventional limitations like departments, specializations etc.;
- Enabling the motivation for rational, data based approach to the process of analysis and changes (9,10).

Both concepts are managing strategies described as “permanent efforts of all members in particular organization focused to needs and expectations of customers”. Regardless to numerous critics that application of TQM and CQI in health care is only “temporary fashion”, just in USA these programs are applied in around of 4000 hospitals spending more than a billion dollars annually to them. It is also estimated that there are more than 1000 practical guides applied in everyday activity. Similar situation is also in the other developed western European countries. It is interesting to be mentioned that Japan as well, the leader in quality management in industry, is at the beginning of its efforts to introduce TQM and CQI in the field of health care (9, 10, 11).

TQM should be incorporated in the whole organization, and the main steps are:

- ✓ **Managing conscience**
- ✓ **Strategic planning**
- ✓ **Implementation of management**
- ✓ **Training of staff**



**Figure 2.** Relations in the model of the total quality management. From: Koch H. Implementing and Sustains Total Quality Management in Health Care. Longman, 1992:248

For example, hospital (or some other health institution) wishing to present highly qualitative clinical services according to patients' requirements should have the following elements:

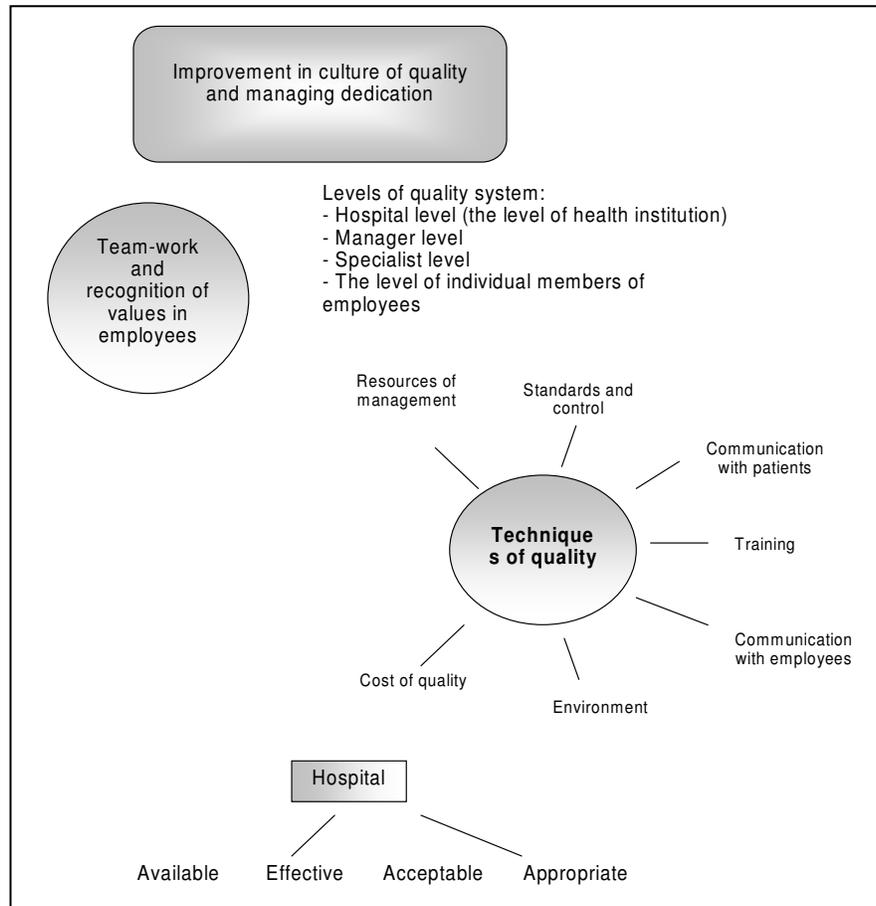
1. Delivered services have to be:
  - Acceptable;
  - Effective;
  - Available, and
  - Appropriate, concerning the patient and other interested subjects.
  
2. Health services have to be organized in the sense of:
  - Clear managing devotion, leadership and capability;
  - Optimal teamwork and recognition of values among employees;
  - Implementation of quality techniques (existing standards, clinical control, communication with patients etc.);
  - Monitoring and identification of performances.
  
3. Quality of health services has to be analyzed at the following levels:
  - Hospital level (the level of health institution);
  - Manager level;
  - Specialist level;
  - The level of individual members of employees.
  -

The important part in the process of quality management is to enable all processes to be controlled, confirmed that are complete, documented and also to enable corresponding persons to be included (12-15).

CQI is based on the following principles:

- Patient's needs, opinions and experience on all aspects of their health care (structure, process, result) are important information for permanent quality improvement that should be regularly collected in order to obtain feed back information on delivered health care;
- Permanent quality improvement has to make integrated part of everyday work of all employees;
- All employees in the system of health care have professional responsibility concerning permanent quality improvement of their work. This is related to responsibility from the aspect of presented satisfactory level of health care and from the aspect of patients and other subjects (public etc.);
- Activities in permanent quality improvement require cooperation of different profiles of medical workers and other professionals as well as of various sectors;
- Managers at all levels in health institution are responsible for organizational structure that enables incorporated permanent quality improvement in everyday activity;
- All activities are carried out in order to realize objectives of quality, mutually defined by health workers, patients and other who make decisions related to health care;

- Permanent quality improvement means positive approach in everyday work. The objective is to identify the best results that are going to be used in further improvement of work quality, not only to identify and eliminate unpleasant results, and
- Activities in permanent quality improvement should be based on data and information, i.e. on scientific principles not on assumptions (9-11).



**Figure 3.** Model of the Total Quality Management. From: Koch H. Implementing and Sustains Total Quality Management in Health Care. Longman, 1992:248

### ***Patients' satisfaction***

Significant element in health care quality is patients' satisfaction concerning delivered health care because users of the system of health care give great contribution in

identification of quality and standards used in measuring of these aspects. Their opinion and estimation, i.e. their satisfaction is one of measures in health care quality. It can be defined in the easiest way as - satisfying of their expectations, desires and needs. WHO defines patients' satisfaction as the result of estimation of an individual about coordination of expected and obtained health care or "the level of satisfied patients' expectations by health care system". Certainly, patient is going to be more satisfied if he is not waiting too long for delivery of health service, when there is existing continuity of health care and when patient can rely on the same physician every moment, and when he is in situation to present his problems without hurry and to obtain clear explanations for recommended treatment, including the risk of various procedures (15, 16).

Answers why it is important to estimate patients' satisfaction are as follows:

- Providers of health care desire to satisfy expectations of their patients and therefore their satisfaction is the objective of the universal system of health care;
- Patients' satisfaction is also the consequence, i.e. the result of provided health care;
- Patients' satisfaction contributes to positive effects of provided health care because satisfied patient is going to accept recommendations of his physician much better than unsatisfied patient and this is going to have positive influence to the result of treatment and to the quality of his life as well (17).

### **Accreditation in health care system**

By establishing the system of quality in health care the question of accreditation of health institutions arises. Accreditation is defined as "the system of external estimation of coordination with the set of standards". The point is that term of accreditation is used to mark the wide range of measures or inspections in health care, including certification, license acquirement etc.

In the system of accreditation all procedures have to be documented. This documentation should include:

- The field of activity: **what** has been done;
- Applied procedures: **how** it has been done;
- Quality standards: **how good** it has been done;
- Procedure verification: **how much we know how good** it has been done.

The accreditation system is the best recognized through the following five **characteristics**:

- Estimation of performances of health institution;
- External involvement in estimation that is usually coordinated or is managed by some professional agency;
- Standards which define performance attributes that are to be estimated;
- Measuring of performances regarding standards and identification of parts with identified deviations where changes are necessary, and

- Report on results of the process of inspection which can include one explicit judgment on the level of performances and whether the acceptable level is achieved, while conclusion can also include certain recommendations (18).

The basic objectives, i.e. purposes of accreditation are:

- **Quality improvement** – using the accreditation process in order to achieve changes in practice that are going to improve health care quality;
- **Gaining information** in order to make decisions – presenting data on health care quality, health insurance fund, politicians, managers, medical professionals, public and others who can use these data as the basis in various decision makings, and
- **Responsibility** because in this way, health institution, usually responsible to various subjects – government, health insurance fund etc. – is able to regulate and coordinate its behaviour in order to protect interests of patients and other users.

Accreditation has long history in so called public services, particularly in health care. The first real accreditation system is developed in USA established by American Surgeon Association, just after the II World War. In 1951 the new organization is formed – Mutual commission for hospital accreditation. In that period Canadian hospitals also took part in activity of this Commission, since 1959 when Canadian Association for hospital accreditation has been formed. In 1974 accreditation system was established in Australia as well. During the long period these three countries were the only where accreditation was applied. Later on the real explosion of accreditation came out in the international level with various accreditation systems in France, Spain, Great Britain, Hungary, South Africa and many other countries.

Reasons for this great interest are numerous – effects in society due to increased consumption, increased patients' expectations, changes in health care system - greater than before application of various technologies, increased health care expenses etc.; they all had their part in regulation and explicit measuring in health care.

Nowadays accreditation is very widely applied as an approach in managing and improving of health care quality. In many countries various accreditation programs are established and such high variations - regarding the way of implementation, who is going to manage the program, which standards should be used etc. - have many advantages because they offer possibility to achieve new knowledge from different experiences and approaches that reaches to improvement of health care quality and also to improvement of population health quality of life.

## **EXERCISE**

### **Task 1.**

Discuss with other students the reasons for establishing quality health care and situation in their countries as well as personal and political expectations to the future development of quality care in their countries.

## **Task 2.**

Discuss about patients' satisfaction with quality of services and possibilities of improvement of their satisfaction with delivered health care.

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>EFFECTIVENESS, EFFICIENCY AND EQUITY</b>
<b>Author</b>	<b>Helmut Wenzel, MAS</b> Health economist adviser
<b>Module: 1.6</b>	<b>ECTS (suggested): 0.75</b>
<b>Address for Correspondence</b>	<b>Helmut Wenzel</b> Friedrichstrasse 61, D-78464 Konstanz, Germany E-mail: <a href="mailto:HKWen@aol.com">HKWen@aol.com</a>
<b>Keywords</b>	Equity, Efficiency and Effectiveness
<b>Learning objectives</b>	After completing this module students and public health professionals should have: <ul style="list-style-type: none"> <li>• Increased their awareness of equity, efficiency and effectiveness.</li> <li>• Understood the tools for assessment of the health service equity, efficiency and effectiveness.</li> <li>• Explored the similarities and differences between equity, efficiency and effectiveness.</li> </ul>
<b>Abstract</b>	Health is perceived as most precious good, and people feel its vulnerability. Societies have been trying to absorb, ameliorate or compensate consequences and health risks with varying emphasis and varying success. Due to the uniqueness of good health to a persons' ability to live the life he or she wants, health care and performance of health care systems are under critical observation. In this context many discussions swivel around ethics, justice, equity, equality and fairness, very often using these notions interchangeably. Sometimes they are used as arguments to challenge every economic consideration by claiming "the freedom of therapeutic choices", and pointing out the humanitarian aspect of an individual's health and the danger of withholding intervention options or rationing. It is not surprising to see, that many health care professionals and patients see a certain incompatibility between financing, operational aspects of health care, like allocation of resources, and ethical expectations. Nevertheless, this is not necessarily so. In the following we will discuss what principles should rule a health care system. Furthermore conflicts and trade-offs between performance measures like effectiveness and efficiency and equity considerations will be discussed.
<b>Teaching methods</b>	After introductory lectures students will work in small groups divided according to their countries. They will be given the case study to discuss the question of equity and effectiveness in a health system. Next, they will participate in debates in order to recognize and to discuss the possibilities for change and improvement of equity and efficiency in their case study health system
<b>Specific recommendations for teacher</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a teaching room;</li> <li>• equipment: computer, LCD projector.</li> </ul>
<b>Assessment of Students</b>	Multiple choice questionnaires and debate discussions.

# EFFECTIVENESS, EFFICIENCY AND EQUITY

Helmut Wenzel

## THEORETICAL BACKGROUND

### Introduction

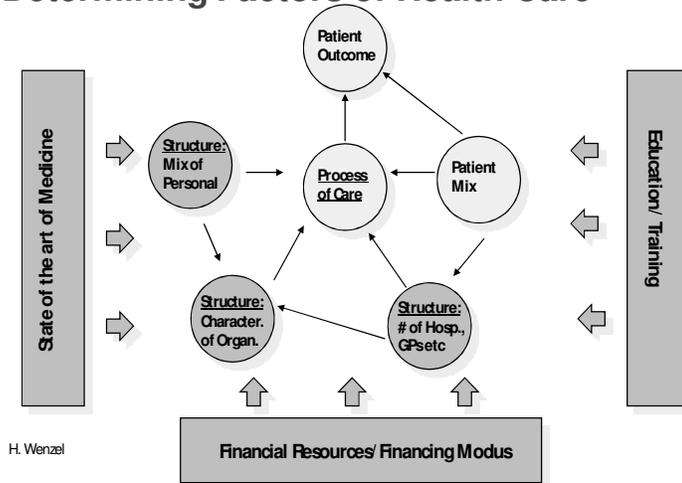
Health is perceived as most precious good, and people feel its vulnerability. Societies have been trying to absorb, ameliorate or compensate consequences and health risks with varying emphasis and varying success. Due to the uniqueness of good health to a persons' ability to live the life he or she wants, health care and performance of health care systems are under critical observation. In this context many discussions swivel around ethics, justice, equity, equality and fairness, very often using these notions interchangeably. Sometimes they are used as arguments to challenge every economic consideration by claiming "the freedom of therapeutic choices", and pointing out the humanitarian aspect of an individual's health and the danger of withholding intervention options or rationing. It is not surprising to see, that many health care professionals and patients see a certain incompatibility between financing, operational aspects of health care, like allocation of resources, and ethical expectations. Nevertheless, this is not necessarily so. In the following we will discuss what principles should rule a health care system. Furthermore conflicts and trade-offs between performance measures like effectiveness and efficiency and equity considerations will be discussed.

The provision of health care takes place in a complex system (see figure 1). In the framework for producing health, the citizen's health or patient's outcomes are determined by several factors. It is quite obvious that primarily the configuration of the existing structure of the care environment and the processes by number and quality make up the frame of action and finally determine the patient's outcomes. Nevertheless, the state of the art of medicine, training, education, and last but not least the financial resources define the portfolio of feasible interventions. Thus, the organization of health care, e.g. financing, and provision of care is a limiting variable in this context which deserves specific attention.

The set-up of the health care system is critical to an appropriate and feasible care. In Western economies health economists think that a suitable organizational make-up of a health care system should fulfil the following criteria (1):

- Sovereignty and personal responsibility of citizens;
- So-called secondary liability of state-run actions;
- Equity (horizontally and vertically);
- Effectively and efficiency;
- Sustainability and stability;
- Legal certainty;
- Transparency.

## Determining Factors of Health Care



**Figure 1:** Determinants of Health Care. Source: Helmut Wenzel, unpublished

Besides criteria that pick out more or less aspects of self-conception and self-determination - like sovereignty, personal responsibility, and elements of performance, e.g. stability - effectiveness and efficiency are seen to be equally important. Furthermore, we expect that the access to health care and the available care should not be limited by the social standing or financial potential. Limited resources and its usage always raise questions of justice. Equity considerations are therefore inseparably linked to fair processes of resource allocation. The relative importance (weights) of the various criteria might be different in different societies. They have to be seen in the light of a societal consensus - a kind of societal treaty. In this treaty it is laid down how a society is made up. Basically important considerations have to be made with respect to the questions whether the societal self-conception is socialistic, communistic or more liberal. Is the governance autocratic or more democratic? And finally is the economy based on free-market or more regulated? Depending on the combination of the above features, the expectation on the quality of a health care system might vary substantially. Anyhow, questions will come up like, what health services should be publicly funded, how indications for particular interventions should be defined, whether societal groups need specific attention and how.

Researchers from different scientific disciplines have been working on justice, ethics or equity in health care with various tools, paradigms and intentions. Philosophers (2) with the view on justice and ethics came to a similar appraisal as economists who specify criteria for an appropriate health care system. However, the philosophers' view is more focused on the "direct" human needs and consequences. Justice is understood here as an equivalent of normative ethics, and the way how moral topics are analyzed. It describes primarily a set of tools and methods (3). They conclude that four principles should be the basis for an ethical evaluation of health

care, independent from the make-up of the system. They are seen as a kind of normative guidance. Those principles are (1) *respect for autonomy*, (2) *beneficence*, (3) *non-mal-efficiency* and (4) *justice*. Researchers with focus on 'medical ethics', aiming specifically at regulating the relationship between patient and health care professional, have been specifying six principles that should guide the behaviour of an ethical doctor. These principles are: (a) *preserve life*, (b) *alleviate suffering*, (c) *do no harm*, (d) *tell the truth*, (e) *respect the autonomy of the patient* and (f) *deal fairly with patients*.

None of these principles are absolute or independent; each may conflict with the others. There might even exist trade-offs which are quantity-dependent. Hence, the binding character of those principles is "prima facie", which means that the binding is unless it conflicts with another moral principle. If it does, one has to choose between them (4). The resolution of such conflicts is a matter of personal value judgment. Unfortunately, philosophers don't provide a method for this kind of appreciation and for solving value conflicts. Following Samuelson's definition of economics this is the typical domain of economics and health economics. He states "the study of how men and society end up choosing, with or without the use of money, to employ scarce productive resources that could have alternative uses, to produce various commodities and distribute them for consumption, now or in the future, among various people and groups in society. It analyses the costs and benefits of improving patterns of resource allocation (5).

### **Equity and Ethics**

As mentioned earlier, fairness, justice and equity are notions that are often used synonymously to describe concerns about access to health care and the amount of care citizens will get without discrimination. The Office of Health Economics (OHE) outlines this concern as follows: "Efficiency is not everything. We are also concerned with what is fair. If we had a market distribution of health care, then only those who could afford to pay would be able to purchase it. Most people regard that as unacceptable. This is a major reason why most societies regard health care as different from other commodities".

Questions regarding equity have been the main reason for government involvement in health care world-wide. OHE further states "A concern about equity was one of the main motivating forces behind the creation of the National Health Service (NHS) in the UK. William Beveridge, the architect of the welfare state, argued for a health service which would provide treatment "to every citizen without exception, without remuneration limit and without an economic barrier at any point to delay recourse to it". Equity has remained a major goal within the UK system. A concern about equity has also been reflected by other countries' approaches to health care. McGuire, Henderson and Mooney have pointed out that the introduction of public health insurance in Canada in 1971 "was explicitly stated to be motivated by a concern to make health care utilization less dependent upon income". Blewett has suggested that in Australia "The introduction of Medicare in February 1984 was designed to ensure that all Australians have access to medical and hospital services on the basis of need". Even in the US, which has the most market orientated health care system in the developed world, the state intervened to provide Medicare and Medicaid to help the poor afford health care"(6).

## The Content of Equity

Looking at literature, there seems to be no uniquely correct way of defining equity and its determination. Mooney for example listed seven possible definitions: Equality of expenditure per capita, inputs per capita, inputs for equal need, access for equal need, utilization for equal need, marginal met need, and health. He finally comes to the conclusion that a mix of equal inputs for equal need and equal access for equal need might be the most practical (feasible) description of equity (7).

WHO refers to equity as “principle of being fair to all, with reference to a defined and recognized set of values”. More concretely it says “equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and more pragmatically, that no one should be disadvantaged from achieving this potential, i.e. everyone should have geographical and financial access to available resources in health care ...” (8). The crux with this statement is that it establishes a relation between the undetermined notion “equity” and the undetermined notion “fair opportunity”.

A more illustrative definition comes from Mayberry et al. stating equity means to “provide care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status” (9).

For further considerations it turned out to be useful to distinguish between horizontal and vertical equity. Horizontal equity means equal treatment for equal conditions; it applies especially to the delivery of health care, e.g. equal resources, utilization, and access per head. Most discussions refer to this. In this case, the efficiency and equity aspects will tend to move together. Nevertheless, most conflicts are seen in vertical equity. Vertical equity deals with the question whether unequal cases are treated unequally. In prevention one could think about a case where for a majority of a population the risk could be reduced a little and would save fewer lives than concentrating the same resources on a few at high risk. The case could be even more delicate when we assume that the few are at higher ages. Another example, if there was a rare blood type of which the hospital only has access to one unit of blood, and they at the same time receive two patients who both need one unit of that rare blood. One of them is a 22 year old recent college graduate who was in an accident with a drunk driver, and the other is an 80 year old widower, who has been sick for 5 years. Representatives of a “fair innings” approach (10) would say that we should give the unit to the 22 year old because there is more life to be lived by him than the sick 80 year old man. Another case with ethnically grounded disparities and conflicts between efficiency and equity deals with kidney transplants. The efficiency of transplantation could be improved by human leukocyte antigens (HLA) matching. The closer the match the better is the chance of a successful transplant. From the viewpoint of using scarce resources efficiently this matching makes sense. Gaston et al (11) found out that this policy discriminates black patients for whom it is less likely to find a match. They conclude that for the sake of equity diminished efficiency has to be accepted.

## The Philosophical Basis of Equity

Even when we refer to the universal principles mentioned earlier the application of moral rules comes to different results. Obviously, the definition of equity and its practical use depends on the underlying, not always overt - philosophical theories. To

understand ongoing discussions and solutions offered in the literature one has to come back to the philosophical theories. The different schools can be classified into: *Utilitarianism, Rawlsian, Entitlement/libertarian, Egalitarian, Deontological, Virtue and "Rights" oriented theories.*

Each of them has a specific focus. The underlying concept of *utilitarianism* is maximizing for the greatest utility for greatest number. This is compatible with economic efficiency considerations. Critical question is whose utilities are meant? The *Rawlsian* position expects an allocation conducted under a 'veil of ignorance', aiming at balancing between higher and lower risk in people who are discriminated by nativity (Rawls, 1971). "Veil of ignorance" means that a principle of allocation would be called just, when people would agree on the principles in a situation where they don't know whether they are sick and whether they would benefit from the principle. In fact this theory assumes total risk averseness, and leads to a position of less well off in society being maximized. *Entitlement/libertarian* (Robert Nozick, 1974) holds the view that individuals are entitled to get what they have acquired "justly" within a market situation. Emphasis is put on freedom of choice and property rights, assuming minimal state involvement. This is similar to utilitarianism. Moral rules as a strict guiding principle play the central role in *deontological* and *virtue* based theories. Moral rules like 'do to others as you would have done to you' (Kant), depict an absolute moral code of how life should be lived. *Rights based theories* focus on indisputable 'rights' which cannot be overridden, e.g. 'right' to life. They are absolute and inflexible.

According to their main focus they also can be divided into theories that deal primarily with *distributive justice*, highlighting fairness of outcomes and those that look at *procedural justice* concerned with the processes in achieving the outcomes. Figure 2 gives an overview.

## Categorising ethical theories

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	Individual	Society
Process	Entitlement Deontological Virtue	→  →
Outcome	←	Utilitarianism Rawlsian Egalitarian Rights

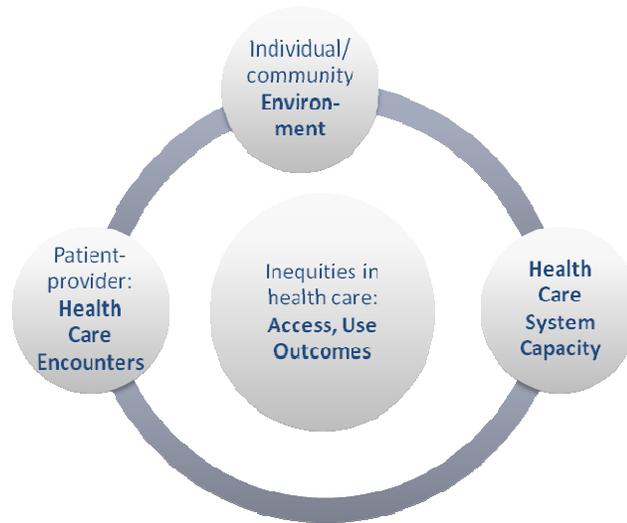
**Figure 2:** Categories of Ethical Theories. Source: Health Economics Network UK

The definition of equity is as multifarious as the heterogeneity of philosophical theories. Which philosophical concept is appropriate for a given health care system and which definition of equity should be chosen depends on the societal consensus. Even when we accept that the four ethical rules are universal, the application of ethics to practical decision-making is very much guided by the expectation of a society. A

kind of lowest denominator is the criterion of equality of access which is consistent with most ethical theories and consistent with efficiency (it preserves consumer sovereignty).

### Guidance for Analyzing Equity in Health Care

Disparities may occur at different parts of a network. At the level of the health care system, at an individual and community level and, last but not least, on a patient-provider level. Mayberry et al. propose a theoretical framework for the analysis of disparities. Figure 3 shows those parts of a kind of influence network. Indicators of inequality are access, use and health outcomes.



**Figure 3:** Three Dimensions of an Influence Network of Inequalities. Source: Based on Mayberry (9)

The individual/environment entity covers factors like socio-cultural norms and values, social network and cohesions, and individual health promotion and care-seeking behaviour. The patient-provider part focuses on communication between patients and provider. This includes factor as trust, respect, patient participation in clinical decisions and ability to navigate the health care system. Finally, the capacity of the health care system is put on a test-bench. This is, in a narrow sense, the classical topic for analyzing equity.

The basic practical problem facing an equity policy is to find out which patients are the worst-off and should receive priority. Practically it is not easy to determine the degree of inequality. Rutten even stimulates the creation of an aggregate measure of expected misery (12). At least, on a national or regional level disparities can be determined by calculating measures of statistical dispersion like a Gini Index or a Suits Index, to display disparities in financing or health.

## Economics in Health Care: Compatibility or inextinguishable Polarity

Many clinicians and citizens don't feel comfortable with economically grounded assessments. They believe that allowing costs to influence clinical decisions is unethical. They are mistaken in this belief. It cannot be ethical to ignore the adverse consequences upon others of the decisions you make, which is what 'costs' means from an economist's view. Of course, there are some important ethical issues in deciding what costs to count, and how to count them. But these dilemmas are equally strong with respect to what benefits to count and how to count them, some of which expose ethically untenable assumptions about such widely-used clinical criteria as survival rates. One of the advantages of systematic economic appraisal tools, like cost-effectiveness analysis is that it exposes these hidden assumptions, and requires explicit judgments to be made about which ethical position is appropriate in a particular policy context. By creating transparency this should have the important incidental benefit of improving the accountability of policy-makers to the community they are serving (13).

In opposition to these cited conflicts economists should have no difficulty in seeing their own work in the health care field as being directed towards the fulfilment of those same ethical principles. According to their professional terminology they would probably name it differently. Williams points out that, for instance, the demand to preserve life and alleviate suffering would be seen as a description of the objectives of health care, concentrating our attention on improving both the length and quality of people's lives. The postulation to do no harm would be seen as a request to minimize the risks of adverse effects from treatment and even as a plea for prevention. Telling the truth is a general duty accepted by all analysts, and respecting the autonomy of the patient would be seen as referring to the need to have the patients' values count rather than those of the practitioners when decisions about treatment are being made. But the final item on the list - about dealing fairly with patients - reminds us that we will seldom find ourselves dealing with situations in which only one patient's interests are affected, so that we will have to face the problematical question of how much weight to attach to the (possibly conflicting) values of each affected individual in such circumstances. And in any system in which the individual patient pays only part of the costs of care, the number of individuals who are affected in one way or another by a treatment decision may be very large indeed (14).

Consequently, economists have been trying to overcome the vagueness and high level argumentation by breaking down those principles into applicable principles, processes and tools. The health economist is seeking, through the use of appraisal techniques to help decision-makers to maximize the benefits of health care within the constraint of whatever level of resources society has chosen to devote to health care. These benefits are seen as improvements in people's length and quality of life in which the distribution of these benefits between individuals is a matter of some importance. Clearly, there is nothing there that conflicts with conventional medical ethics. Even the stress laid by economists on the need to examine carefully the 'trade-offs' that are established at the margin between the competing good things that we seek in health care, simply mirrors the relativity of ethical principles and the acknowledged need to strike a balance between them. The difficulties seem to arise because economists go further than others do in the quantification of these elements. We must now explore why they do so, and for this purpose adopt a somewhat different perspective, that of welfare economics (14).

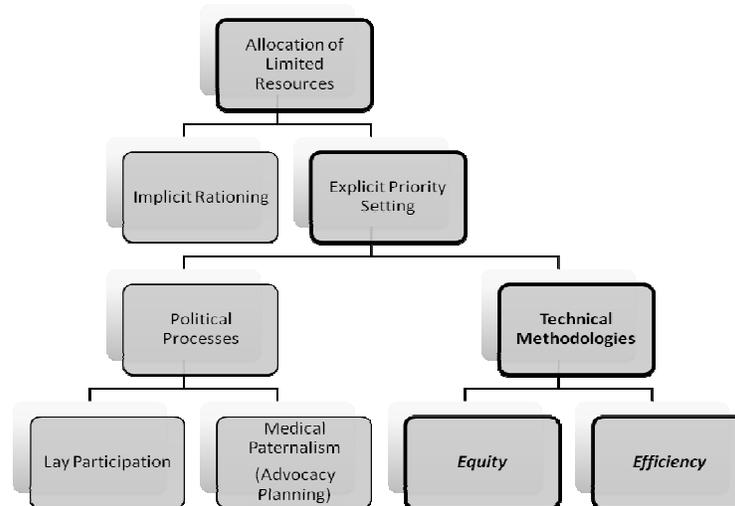
Williams explains that economists have sought to avoid making explicit interpersonal comparisons when judging whether one situation is better or worse than another, and a whole branch of the subject - i.e. 'welfare economics' - has grown from that ambitious objective. The basic idea is to separate 'efficiency' from 'equity', with 'efficiency' being kept free of interpersonal comparisons of welfare, all such judgments being encompassed in 'equity'. The definition of efficiency which achieves this separation is due to Pareto (and hence is often called Pareto-efficiency) and it declares a situation to be efficient if in that situation it is not possible to make anyone better off without making someone else worse off. If resources are being used 'wastefully' it should be possible to put them to some other use which will not harm the person from whom they are taken but will benefit those to whom they are given, thus the initial situation would have been 'inefficient'. The same would generally be true if resources are lying idle or are underutilized.

In the Paretian framework it is the individual's own judgment of whether he or she is better or worse off that counts, not the judgment of any third party; thus it observes very strictly the ruling to respect the autonomy of the individual. No judgments are made about the *status quo*, which is simply accepted as the starting point, our only concern being whether or not some change is an unambiguous improvement on it. The realm of application of this strict Paretian notion of 'efficiency' is, however, severely limited, since there are very few changes in real life that do not adversely affect the welfare of somebody or other. To ease this restriction on the applicability of the strict efficiency criterion, it was extended to cover situations in which the potential gainers from a change could fully compensate the potential losers, and still have some gains left over (compensation being paid in money terms, say). But identifying actual gainers and losers precisely, and setting up an incorruptible mechanism to enable such compensation actually to be paid, would in most cases be very costly. So this 'compensation principle' in turn got watered down to include cases where the compensation did not actually have to be paid, thus under the '*potential* Pareto criterion' it has only to be shown that for a change to be declared 'efficient' the gains must on balance outweigh the losses (gains and losses generally being evaluated in money terms). To decide whether gains outweigh losses they must be measured in commensurable terms, so there has grown up a strong tradition of quantification and valuation, which has been applied to all kinds of gains and losses, including the value of life and safety. Calculating the 'efficiency' gains and losses in this way still leaves us with the distributional consequences to think about, and these are typically transferred to the 'equity' realm to be evaluated separately. In practice they are often ignored, however, in the hope that in the long run, over a multitude of different activities, they will all wash out. Thus the efficiency calculus as used in practice by economists does not really achieve the desired avoidance of all interpersonal comparisons of welfare. At best it says there are no losers, and it assumes that it does not matter who the gainers are. At worst it says that there are both gainers and losers, but it is up to somebody else to look at the equity implications (15).

### Dealing with Limited Resources

No health care system can satisfy all the possible demands made upon it, so decisions about allocating resources are of particular importance. The allocation takes place at different levels: i.e. allocation between institutions and by type of care. For instance decisions have to be made about the amount of money that should be devoted to

hospitals, even different kind of hospitals, and how much money should go to ambulatory care. Those decisions are very often overlapped by regional or municipal considerations that lay outside the health care sector and the appropriate provision of care. There are connections to other sectors of a national economy and respective goals, like strengthening the regional economic performance.



**Figure 4:** Alternative Ways of allocating limited Resources. Based on: J. Coast et al (15)

Even more complex are decisions that have to allocate money between the different kinds of prevention, cure and rehabilitation. Again, facing the fact that resources will always be limited, the question is how this task can be achieved in a way that satisfies most of the expectations of modern, democratic societies. According to Coast (15) more or less two options exist: Rationing and explicit priority setting.

Rationing is a crucial issue, sometimes it is even misunderstood. Health care rationing refers to “any planning, resource allocation or pruning of ineffective or unproved processes” (16, 17). Rationing is thus merely another term for stating that we must decide how to allocate our limited resources (18). Much rationing takes place by controlling the access to the health care system. It is not only debatable who is entitled (or authorized) to make these decisions. It is also critical how the rationing procedure looks like and what are the relevant criteria and who defined it. In an *implicit* rationing procedure the decisions and the preferences are not revealed, which is hardly acceptable in modern societies. There is no real awareness of the principles used. In contrast, *explicit* rationing is concerned with making clear the decisions that have been made and the basis upon which the decisions have been made. It results from political bargaining processes and/or technical methods as promoted by economist. In political processes the consent of society could be received by either lay participation in the decision processes or by the anticipation of the citizen needs by experts. In the late sixties this kind of effort to integrate as many citizens with their

specific needs as possible in political planning processes was called advocacy planning. The basic and progressive idea was that experts (and politicians) would be able and willing to anticipate the problems of those people that have not the ability to participate in political processes in a democratic appropriate way. In reality this approach was not very successful and should not be seen as a significant option. In contrast economists rely on the “art” of making rational choices and promote that choices should be made more explicit and be based on efficiency appraisals (19).

Looking at the very nature of health economics the starting point is straightforward, “In the beginning, middle and end was, is, and will be scarcity of resources” (20), and the issue of choice and priorities. Taking a choice - priority setting means that a decision has to be made not only about what to do, but also what to leave undone. Opportunities forgone - what we leave undone - is central to health economics. Opportunities forgone are cost: “The cost of a unit of a resource is the benefit that would be derived from using it in its best alternative use.” (21) The concept of cost in health economics is different to the concept of cost in accounting that relates to cash outlays. Therefore, when economists argue that attention should be paid to efficiency in health care they are implying that health care programmes, treatments and procedures should be compared not only in terms of their relative benefits, but also in terms of their relative costs, i.e. benefits forgone.

### **The Concept of Efficiency**

The concept of efficiency is central to the models and techniques proposed by economists. Economic theory believes in the rational nature of men (paradigm of *homo oeconomicus*). This further leads to the assumption that each individual wants to maximize its degree of satisfaction, which is measured in terms of benefits. In order to maximize the benefits the individual will make sure that the last unit of money spent will create the same amount of benefit. Efficiency can be classified into different forms:

1. Technical efficiency, with two sub forms:
  - a) *Cost-efficiency*: Product applications or intervention strategies which achieve a given health outcome at the lowest level of resource utilization are called efficient or economical. This is also called operational efficiency and sometimes cost-effectiveness (22). It refers to the so-called fixed effectiveness approach, too.
  - b) *Output-efficiency*: Product applications or intervention strategies which generate the best possible outcome or goal achievement for a given resource input are called efficient or most productive. This is also called fixed cost approach.
2. Allocative efficiency

Looks at the combination of goods that have to be financed and goes beyond looking for the most cost-effective types of interventions. This could mean that what conditions should be treated is subject to evaluation as well. The theoretical foundation is the definition of efficiency of Pareto (so called Pareto-efficiency). A situation is perceived to be efficient if it is not possible to make anyone better off without making someone else worse off.

Efficiency evaluations include an assessment of resource input (or costs) and outcomes. Generally speaking, efficiency is measured by the relationship between the level of accomplishment of these goals (consequences) and the resources used or expenditures. The fact that something is efficient does not necessarily mean that it will lead to cost reduction; cost reduction and efficiency generally represent two different perspectives. An intervention can be called efficient when an additional resource input or higher cost are required to achieve a better outcome with a higher, overcompensating benefit.

Therefore, even those interventions which are more expensive than established alternatives, but which exhibit higher performance of medical tests in terms of predictive value, greater effectiveness in treatments/interventions, more safety, fewer side-effects, etc. may be efficient.

Whereas private accounting is generally limited to factors measurable in monetary terms, classical economic analysis extends the examination to qualitative and intangible costs and consequences. It explicitly attempts to measure factors which are difficult to evaluate monetarily. Statements regarding the relative economic efficiency of intervention strategies compared require an examination of the entire spectrum of costs and consequences of interventions.

There are different ways to define and to measure benefits. Some of those methods are based on the principles of welfare-theory, some are based on the assumption only that men are deciding in a rational way (pragmatic decision-makers). Other methods incorporate the preferences of patients into the desirability of outcomes. Table 1 gives a short overview.

The appropriate choice of a method depends not only on the availability of data; it rather has to be guided by the purpose of the assessment. Insofar scientific strictness is the guiding principle. The various stakeholders have different views and goals (see figure 5). The usage of the results determines the viewpoint and consequently the number of effects measured and the way how they are valued. Health economics literature describes three different perspectives an analyst can take when determining the cost and benefits of a health program: *welfarist*, *extra-welfarist* and *pragmatic* (decision-maker oriented). Each of those perspectives have specific objectives, are based on different principles and assumptions, values the costs and benefits differently and therefore demands specific data. A welfarist has a strong welfare economics theoretical background. He puts considerable emphasis on the valuation from an individual's viewpoint, thus preferring the willingness-to-pay method or the method of prevailed preferences to the human capital approach. A pure perspective of the health sector budget holder is taken by the extra-welfarist.

The pragmatist's view theoretically is the weakest. Choosing the appropriate evaluation approach not only depends on the problem being addressed, but also on the institutional framework and the measurement challenges (24). Within the scope of the operationalization of an evaluation project one must crosscheck the research question with the specific attention and motives of stakeholders and subsequently find the relevant outcome measures and criteria of economic performance and the respective evaluation method. Finally one has to cover topics like level of evidence needed, the economic criteria and the decision rules to be applied.

**Table 1.** Study Types and Goals

<b>Type of Study</b>	<b>Goal</b>
Cost-Minimization Analysis	Determine the least expensive intervention strategy for accomplishing the same medical outcomes.
Cost-Effectiveness Analysis	Determine the more efficient intervention strategy for accomplishing the same type of medical results in terms of cost per medical outcome measures (cost per life years gained).
Cost-Utility Analysis	Determine the more efficient intervention strategy for accomplishing the same type of medical results in terms of cost per constructed summarizing unit of outcome (cost per Quality-Adjusted Life Years).
Cost-Benefit Analysis	Assessment in money terms of whether an intervention strategy is efficient, i.e. worth doing, and comparison with alternative intervention strategies to determine which is 'most' efficient.
Cost-Consequence Analysis	Determine a listing of the medical and economic consequences of alternative interventions - used to indicate their consequences without summarizing.
Cost-of – Illness	Determine of the cost of illness - used to indicate the need for treatment or the potential economic benefits from improved intervention strategies.
Quality-of-Life Study	Relative assessment of intervention strategies regarding patient health outcome. The health outcome is measured by disease specific health status parameters or general quality of life instruments.

Source: Wenzel H, Hysa B. Economic Appraisal as a Basis for Decision Making in Health Care (23)

### **Effectiveness and Efficiency**

Efficiency can be seen as the final stage of a logical process of three steps measuring economic performance from efficacy to effectiveness and finally to efficiency (see figure 4). Without efficacy and without effectiveness no efficiency is possible. Efficacy and effectiveness both describe to what extend a goal could be reached. If a goal cannot be reached, any resource input is wasted and therefore inefficient. Historically effectiveness measurements come from engineering science where technical performance had to be measured. The result has been typically displayed as physical units per resource used. In the health care sector for example cost per saved years of life or prevented cases. The measure of effectiveness can be multidimensional. This can lead then to challenges when making the comparison with and without a project. For that reason analyst always try to have one outcome measure either by finding an algorithm to aggregate the various indicators into one measure or by applying measures that are multidimensional, like a quality of life measurement scale. Cost-Utility Analysis (CUA) specifically takes this into consideration.

## Medical and Economic Benefits vary

	Medical benefit	Economic benefit
Government	<ul style="list-style-type: none"> <li>Better health status of inhabitants</li> <li>Increase of life expectancy</li> </ul>	<ul style="list-style-type: none"> <li>Overall cost savings within healthcare sector</li> <li>Spill over to other sectors</li> <li>High productivity of inhabitants</li> </ul>
Public Health insurance	<ul style="list-style-type: none"> <li>Improvement of current diagnosis in terms of accuracy, efficacy &amp; effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>Overall cost savings for diagnosis</li> <li>Less hospital and specialist referrals</li> <li>Cost savings for therapy if used for disease prevention</li> </ul>
Private Health insurance	<ul style="list-style-type: none"> <li>Improvement of current diagnosis in terms of accuracy &amp; efficacy</li> <li>Optimization of treatment guidance</li> <li>Reassured hospital discharge</li> </ul>	<ul style="list-style-type: none"> <li>Balancing the risk of income and expenditures</li> <li>Cost savings (e.g. material, personnel)</li> </ul>

H. Wenzel, M.A.S. 2008

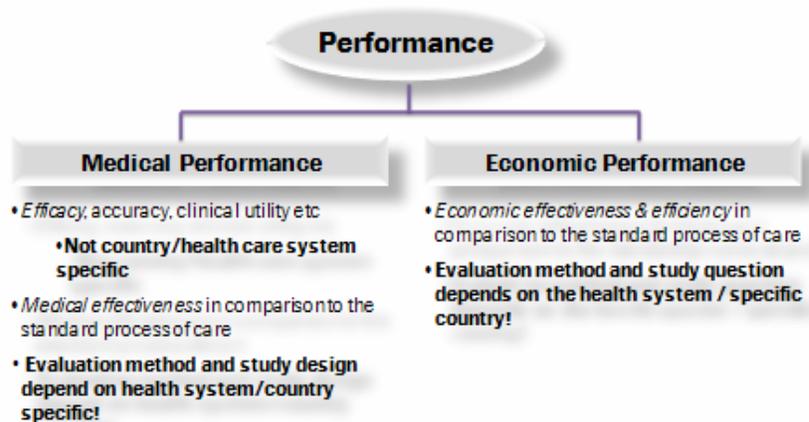
**Figure 5:** Medical and Economic Benefits from different Viewpoints. Source: Wenzel, Presentation at EDMA meeting in Brussels, 2008

Efficacy is a specific measure of effectiveness used in the health care sector. Efficacy is the study outcome under ideal, i.e. controlled conditions and is expected to be an unbiased proof that an intervention works. It is a “proof of principle”, based on randomized clinical trials (RCT). Controlling for possible confounders implicates that compliance is higher than in real life and the patients are highly selected (exclusion of certain conditions, i.e. multi-morbidity, age and gender) and therefore not representative for a specific target population. Transferring efficacy data directly to a target population would lead to an overestimation of the effects. As a next step one wants to know how it works under real conditions in a target population. This kind of evaluation provides effectiveness data. It is the classical area for empirical studies of health services research and public health. If efficacy and effectiveness are proven, efficiency analysis would be the final step, then. As efficiency depends on the health care system, the viewpoint of the evaluation and therefore on the number of effects and assessed data of efficacy and effectiveness do not necessarily lead to efficient results.

In summary one can say, that efficacy and effectiveness data are prerequisites, and in terms of formal logic, essential but not sufficient conditions. It happens that effective interventions are useful and efficient in one country but not in others. One has to be cautious to transfer (uncritically) data between various countries. The study types shown in the table above will deliver different kinds of information that might not be suitable for any research question. A cost-effectiveness analysis (CEA) will only display relative efficiency, i.e. compare only two alternatives aiming at the same objective. Therefore many economists express their concerns whether a CEA is suitable for comparing across different forms of health care (allocative efficiency) thus providing technical efficiency only. A cost-benefit analysis (CBA) displays

absolute efficiency, like in a business investment calculation, where the return of investment is calculated. The valuation of life (saves years of life) in terms of money has been disputed for many reasons. Equity issues are seen in way how the valuation of saved cases of different ages are weighted or how life and health will be valued. Nevertheless, there are many ways to carry out a CBA. The valuation of physical units, like saved years of life, can be based on willingness-to-pay or on the human capital approach. With the willingness-to-pay approach the preferences of citizens or patients are used to put a monetary value on time. From an economic perspective this is the adequate way.

## Performance can be defined in a Medical and an Economic Sense



H. Wenzel, M.A.S. 2008

**Figure 6:** Medical and Economic Performance from different Viewpoints. Source: Presentation at EDMA meeting in Brussels, 2008

In practice there is much preparatory work required. With the human capital approach lifetime is valued based on the earnings of person that are either forgone or could be saved when life is prolonged and/or morbidity is prevented. It has been a challenge to value lifetime of pensioners, housewives and children in an acceptable way. In spite of that, this approach has some advantages with respect to feasibility (availability of data). In addition to the question whether a type of valuation is in line with the evaluation goal and the design, it is the human capital approach that contributed to the disrepute of economic evaluations and raised ethical questions.

### Conclusion

In conclusion one can say that the request for efficiency and inherently effectiveness and for equity has the same roots: It is scarcity. So, efficiency and equity are flip sides of a coin. Equity without efficiency is not feasible, and efficiency without taking equity into consideration is unethical. There is no universal agreed ethics for objecti-

ves of the health care sector. But equality of access is consistent with most ethical theories and consistent with efficiency - it preserves consumer sovereignty.

## EXERCISES

### Task 1.

After introductory lectures students will work in small groups divided according to their countries. They will be given the case study to discuss the question of equity and effectiveness in a health system. This exercise should take 45 minutes.

### Task 2.

For the next exercise, they will be grouped in two larger groups, the first group will be pro equity oriented and the second group pro efficiency oriented. They will participate in debate (pro equity vs. pro efficiency). The aim of the discussion is to explore the possibilities for change and improvement of equity and efficiency in their case study health system. The exercise will be concluded with discussion summary given by teacher. It is recommended that exercise lasts 90 minutes.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>INVESTING IN HEALTH AND MARKET REGULATION IN THE EUROPEAN HEALTHCARE SYSTEMS</b>
<b>Module: 1.7</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Healthcare economics and organization, healthcare market, healthcare reform, financing, regulation
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• Increase their knowledge related to financial and regulatory principles in European health systems;</li> <li>• Be aware of recent challenges and opportunities in front of their health systems;</li> <li>• Recognize the necessity for investing in health;</li> <li>• Understand the basic mechanisms of market development in healthcare and its regulation.</li> <li>• Identify different methods and types of regulation in the healthcare market.</li> </ul>
<b>Abstract</b>	The authors analyze the basic financial principles and the regulated entrepreneurship in the healthcare systems in Europe. They point out that the European countries organize, manage and finance their health care in different ways. Thus the health systems vary not only in the financial methods used, but also in the payment scheme of the insurance institution and the healthcare providers as well as the ways in which the state regulates the health services provision and the development of market relations in healthcare. Some of the most up-to-date challenges and opportunities in front of European healthcare systems are overviewed. An example case study is presented in order to illustrate the need for investing in health as well as for careful financial and regulatory planning and management.
<b>Teaching methods</b>	Teaching methods include lectures, interactive group discussions, case studies, internet searches, group work, and comparative analysis.

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• Work under teacher supervision/individual students' work proportion: 40%/60%;</li> <li>• Facilities: computer room</li> <li>• Equipment: computers, LCD projection equipment, internet connection, access to bibliographic data-bases;</li> <li>• Training materials: recommended readings or other related readings;</li> <li>• Target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Assessment should be based on the group-work, seminar papers, and case-problem presentations.

# INVESTING IN HEALTH AND MARKET REGULATION IN THE EUROPEAN HEALTHCARE SYSTEMS

E. Shipkovenska, Tz. Vodenicharov, M. Dyakova

## THEORETICAL BACKGROUND

### **Investing in health – an ethical necessity or economic demand**

Health is already widely accepted as a basic human necessity and right. The aspiration for good health is natural and leading in almost every human being. At the beginning of the 21<sup>st</sup> century the World Health Report 2000 was issued “Health systems: improving performance”. Despite the controversial and much discussed analyses and comparisons of different countries’ healthcare systems, it draws the attention to the cost of ill health or illness – not only physical and psychological, but also social and economic (1): “... illness itself... can threaten people’s dignity and their ability to control what happens to them... Health systems have a responsibility not just to improve people’s health, but to protect them against the financial cost of illness...” It stresses on the state’s responsibility for investing in health and preventing economic losses due to unexpected disease.

The role of health as a driver of economic growth has been recently acknowledged in Europe. It’s already considered to be of great importance for the commitment of Europe’s governments to make Europe the most competitive and dynamic knowledge driven economy by 2010 (2). Several years ago, the Commission on Macroeconomics and Health concluded that ill health was contributing to the low level of economic growth in poor countries. The report showed that investment in health interventions would lead to substantial economic growth (3). Despite increasing recognition of the link between health and economic development in low-income countries, the relationship has received attention in rich countries as well (4). Nevertheless reasons for investing in health in rich countries may differ in detail from that in low-income countries, there is considerable and convincing evidence that significant economic benefits can be achieved by improving health not only in developing, but also in well-developed economies. In spite of the remaining evidence gaps policy-makers in developed countries should consider investing in health as one (of few) ways by which to achieve their economic objectives (4).

Several mechanisms, falling into four main categories, could account for the relation between the population health status and national economic growth (5):

- *Productivity*. Healthier populations tend to have higher labour productivity, because their workers are in good physical and mental condition. They also suffer fewer lost workdays.
- *Education*. Healthier people who live longer have stronger incentives to invest in developing their skills, which promotes greater productivity and, in turn, higher income. Good health also promotes school attendance and enhances cognitive function.
- *Investment in physical capital*. Longer life-expectancy creates a need for savings for retirement. Increased savings lead to increased investment.

- “*Demographic dividend.*” Transition from high to low rates of mortality and fertility in many developing countries in recent decades. This gradually gives way to an increase in the proportion of the population that is of working age. Income per capita can rise dramatically, if people are engaged into productive employment.

Thus the design of the national healthcare system and the financial resources allocated to its development and improvement appears to be crucial for population health, which on its side has a major influence on the economic growth of certain country. Every health system has developed on its own way, influenced by cultural, historical, social, economic and technical factors. Grounded on this, the healthcare in the European countries differs mainly in two aspects:

1. The financing mechanisms: types of health provision (insurance) models, payment mechanisms, revenue distribution etc;
2. The regulation of the healthcare services and market development: public – private balance and level of entrepreneurship regulation.

### **Basic financial principles and challenges in the European health systems**

A health system is complex structure, consisting of people, institutions, and organizations, which interact to mobilize and allocate resources for prevention and treatment of diseases and injuries. This structure is based on certain fundamental pillars - essential elements that enable the healthcare system to function: *information, management, human resources, and financing* (6). In the present paper we shall discuss only aspects of the forth pillar – healthcare financing.

The European countries organize, govern, manage and finance their healthcare systems in different ways, but all of them are based on few common principles:

1. Universal access to medical care;
2. Solidarity in the distribution of resources and expenditures;
3. High standard (quality and safety) of healthcare services.

**The challenge of healthcare financing is twofold:** to mobilize sufficient funds for the health system and to apply (manage) those funds well (6). Mobilizing funds to finance public health interventions is difficult both because health services are becoming more and more costly and because raising revenues in low- and middle-income countries is not easy. Choices of different financing mechanisms also have important implications for that who will bear the costs of health care: the population at large may share spending; thereby providing effective insurance to those who become ill, or it may fall most heavily on the sick ones. There are also a number of initiatives to promote health insurance coverage through voluntary schemes. Strong arguments can be made in favour of pooling the financial risk associated with paying for health care among the widest population possible, effectively paying for the health care of the poor and the sick with taxes and premiums paid by those who are healthier and wealthier.

**There are two main financial sources in healthcare:**

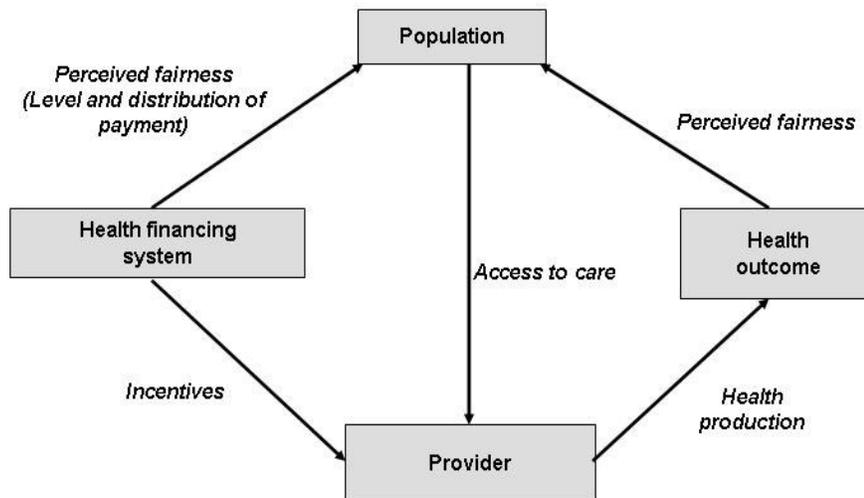
- Public: state (governmental, semi-state) / insurance / mixed;
- Private: out-of-pocket (official and unofficial) / private insurance / mixed.

Private health insurance exists in a number of countries and is most often used as supplemental or complementary. In Denmark, Germany, Greece and the United Kingdom, many patients use private health insurance so they can be treated by the physician of their choice or escape waiting in patients' lists in the public sector. The available empirical evidence shows that income is the key parameter in the decision to buy additional health insurance and not health status or "need". High premiums may make it impossible for poor patients to buy private health insurance and this problem is further exacerbated if premiums are risk-based where less healthy individuals, who are disproportionately poorer, pay more. However, in most countries, due to the fact that insurance is often bought in group settings, premiums remain more or less independent of health status and may therefore remain affordable for large groups of the population (6).

The process of financing and provision of health services can be simplified into two inter-related and complementary processes – transfer and exchange:

- The providers transfer health resources (products) to the patients (customers);
- The patient's transfer (exchange) financial resources towards the providers – directly or through a third party (insurer).

The relation between the financing and the health results (outcome) can be resumed in figure 1 (7).



**Figure 1.** Influence of healthcare financing on the outcome (7)

Demographic change in Europe presents further economic, budgetary and social challenges in coming decades due to people living longer and a potential drop in the workforce from the falling birth rate. While in many ways this can be seen as a triumph for public health, it also poses a particular challenge for the health and social

sector. Predictions are that the ratio of elderly, economically inactive people (> 65 years) to people of working age could more than double between 2005 to 2050 in the European Union. It is more important than ever that people remain healthy and independent to as late in life as possible, so that premature deaths among the middle-aged working population are avoided and morbidity is “compressed” towards the end of life. As a result of these tendencies, in the last decade, most of the European health systems, especially in well-developed market economies, are characterized by an increasing financial deficit, despite the considerable amount of resources allocated for healthcare. The gap between the health expenditure and health resources is increasing due to mostly three main factors (7):

- Aging of the population and epidemiological transition to chronic, life-long morbidity,
- Fast development of health science and technology and
- Incompetent health policy, governance and management.

Facing this constant increase in the financial deficit, governments worldwide are facing the dilemma: increase in the resources (revenues) or restriction of the expenditures. In general, there are two mechanisms possible (8):

**First option:** increase in the revenues – insurance contributions, co-payments, fees, taxes etc. This can eventually lead to decrease in the number of insured people, especially in systems with voluntary health insurance.

**Second option:** restrict the resources for medical care. This may eventually cause decrease in the quality of health services and in the human capacity in health.

When taking decision on investing in healthcare and distribution and redistribution of resources and spending, we should not forget that the provider of health services is mainly aiming at profit while the user (patient / customer) is orientated towards higher utility (effective care) (8). The goal of all European countries is achieving balance between profit and utility (fig. 2).



**Figure 2.** Balance between profit and utility in the health sector (8)

**In general, the challenges for the European health systems can be summarized as follows:**

1. The costs of medical care increasing more than costs in other social and economic sectors - scientific innovations, information, communication, diagnostic and treatment technologies etc;
2. Excessive demand of health services by the population:
  - increased life expectancy and aging;
  - increased awareness, education, expectations;
  - increased income and financial stability of the population.
3. Free market and competition is not a reasonable option for a healthcare system;
4. Difficulties in maintaining solidarity principle and universal access to healthcare;
5. Difficulties in maintaining high quality and safety of health services;
6. Free movement of goods, services, people and capital in the EU.

### **Regulation, entrepreneurship and market development in healthcare**

*„If it moves, tax it.  
If it still moves, regulate it.  
If it stops moving, subsidize it“  
Ronald Reagan*

The 1990s witnessed a dramatic upsurge in the scale, character and calibre of entrepreneurial initiatives within European health care systems (9). A wide variety of market-inspired efforts to stimulate service innovation, including increased quality and greater efficiency, have been launched in both public and not-for-profit private sectors, and in core health service activities as well as in more peripheral supplies and services. In practice, the last 10 years have been a period of substantial organizational reconfiguration in the health sector, and increased entrepreneurial activity has been at the core of that process of change (10,11).

Entrepreneurial behaviour is perceived to stimulate innovation and initiative. The conceptual and practical emphasis on entrepreneurialism can have a positive impact on health systems when the changes undertaken help strengthen the ability of national policy-makers to achieve their stated policy objectives (12). At the organizational level, entrepreneurialism seeks to modernize and rationalize organizations to increase their operating efficiency. The powerful impetus to innovate generated by entrepreneurialism can have decidedly less positive effects, however, when it has not been adequately fenced in by effective state regulation. Entrepreneurs inevitably seek to segment markets so as to exploit profitable niches, while publicly accountable regulators try to ensure that the entire market is served efficiently and affordably (12).

Health care has a unique character as a social as well as a private good, which increases the importance of the regulatory role in the health sector. What is obvious from the last decade developments in European health systems is that a substantial volume of new regulation has been generated. Most European countries established

new types, as well as expanded the existing range, of what can be termed steer-and-channel regulation. Thus, as areas of entrepreneurial activity grew, they were accompanied by a parallel growth in related state regulation. At present, the state is expected to 'row less but steer more', its role in driving the health sector forward has to increase in scale, scope and sophistication. The state's supervisory responsibilities have evolved to the point that the term 'stewardship' has now been applied to its overall policy and management obligations in the health sector (13). The concept of stewardship obliges the state to steer overall health system activity in an ethically grounded as well as a financially efficient manner. Regulation, as a central instrument of stewardship, must from this perspective similarly satisfy these two basic requirements calling for ethical and efficient state behaviour. Failing to regulate entrepreneurialism adequately in the health sector would be a serious breach of the state's role as a responsible steward (9).

### *The mechanisms of regulation*

Despite wide-ranging definitions and contradictory rationales, there is broad agreement about the source and general mechanisms of regulation. Regarding who regulates, we can find national level as well as regional and local levels of administration. With the emergence of new pan-European agencies, European Union regulation can also be supranational. While most regulation in Europe is conducted by some form of government department, it can be undertaken by independent regulatory agencies or by self-regulatory bodies (9). Regulation to ensure health gain necessarily addresses actors outside as well as inside health care and intersectoral collaboration is a necessary tool for successful regulation. The mechanisms of regulation can be grouped into three basic categories, tools and strategies, which can in turn be combined in various mixes (9). The major categories are legislation, administrative decree and judicial order, one for each of the three branches of government (legislative, executive and judicial). Each of these three can be generated in many different forms and formats, particularly administrative decrees (advisory regulations, guidelines, etc).

### *Two dimensions of health sector regulation (9):*

**1. Social and economic policy objectives.** It is normative and value-driven in nature, concerned with specific policy goals and with the broad public interest (which may be different in different countries). These broad policies also need to influence government decisions in other sectors such as education, transport, employment, housing and agriculture (14). These objectives are:

- *Equity and justice:* to provide equitable and needs-based access to health care for the whole population, including poor, rural, elderly, disabled and other vulnerable groups;
- *Social cohesion:* to provide health care through a national health care service or to install a social health insurance system;
- *Economic efficiency:* to contain aggregate health expenditures within financially sustainable boundaries;
- *Health and safety:* to protect workers, to ensure water and food safety;

- *Informed and educated citizens*: to educate citizens about clinical services, pharmaceuticals and healthy behaviour;
- *Individual choice*: to ensure choice of provider, and in some cases insurer, as much as possible within the limits of the other objectives.

**2. Health sector management mechanisms.** This level is practical and operational and is concerned with the specific regulatory mechanisms through which decision-makers seek to attain the type of policy objectives set out (9). These means are largely technical in nature, concerning efficient and effective management of both human and material resources:

- *Regulating quality and effectiveness*: assessing cost-effectiveness of clinical interventions; training health professionals; accrediting providers;
- *Regulating patient access*: gate-keeping; co-payments; general practitioner lists; rules for subscriber choice among third-party payers; tax policy; tax subsidies;
- *Regulating provider behaviour*: transforming hospitals into public firms; regulating capital borrowing by hospitals; rationalizing hospital and primary care/home care interactions;
- *Regulating payers*: setting rules for contracting; constructing planned markets for hospital services; developing prices for public-sector health care services; introducing case-based provider payment systems (e.g. diagnostic-related groups); regulating reserve requirements and capital investment patterns of private insurance companies etc;
- *Regulating pharmaceuticals*: generic substitution; reference prices; profit controls; basket-based pricing; positive and negative lists;
- *Regulating physicians*: setting salary and reimbursement levels; licensing requirements; setting malpractice insurance coverage.

#### *Rules of the regulatory road (9):*

##### **Regulate strategically**

- Regulation is part of strategic planning;
- Regulation is a means rather than an end;
- Regulation should further core social and economic policy objectives;
- Regulation is long-term not short-term.

##### **Regulate complexly**

- Regulation involves multiple issues simultaneously,
- Regulation can combine mechanisms from competing disciplines,
- Regulation requires an integrated approach that coordinates multiple mechanisms,
- Regulation should fit contingencies of each health system,
- Regulation requires flexible public management.

##### **No deregulation without re-regulation**

- Deregulation requires a new set of regulatory rules,
- Re-regulate before you deregulate.

**Trust but verify**

- Regulation requires systematic monitoring and enforcement,
- Self-regulation requires systematic external monitoring and enforcement.

*Regulatory approaches in the health sector (9)***Regulating capacity**

Many countries have adopted some form of regulation aimed at limiting the capacity of the health system.

**Regulating prices**

Regulation can also be aimed at prices in the health system, for example by using centrally determined fees or differential payments such as the diagnosis related group (DRG) method. Government can also use 'price' regulation in the health insurance sector by regulating contributions, premiums and risk-adjustment mechanisms as well as the terms under which such insurance is provided.

**Regulating quality**

Government can also regulate the health sector through the collection and dissemination of information on provider performance. A different aspect of quality of care that can be regulated is implementation of patients' rights.

**Regulating market structure and levels of service**

Regulation often takes the form of establishing the 'rules of the game' for the participants in the health system. Most prominently, this involves establishing conditions for entry into health markets and setting levels of service. One method of regulating the incentive to 'cream skim' is to offer health insurers per capita payments (e.g. capitation) adjusted for the risk of each enrolled citizen. The prevalence of such practices depends on the incentive structure offered by government and, in particular, on the level of actual risk-sharing. On the other hand, governments may have less success monitoring so-called 'quality skimming', in which chronically ill and elderly patients fail to receive adequate care (15).

**Regulating entitlements**

Once citizens are covered, the entitlements available to them may be subject to government regulation. Many countries are struggling with the issue of determining a package of health services that sick funds are obliged to provide. In addition, various supplementary insurance policies may be available for services not covered under national health insurance. This raises perplexing problems of differentiating between what is provided and how it is provided under the different schemes. This is another example of how difficult it can be to develop and apply regulations aimed at supplementary insurance.

**We can summarize five major forms of regulation, found in European countries:**

- Decentralization;

- Compulsory self-regulation;
- Accreditation and licensing;
- Independent regulatory institutions;
- Regulation through inter-sect oral collaboration.

**Who is regulating? Regulatory organs:**

- Parliament;
- Governmental institutions (Ministry of health, National Institutes);
- Independent regulatory bodies (Accreditation, audit agencies; professional organizations etc);
- EU structures (European Commission);
- Courts;
- Self-regulation.

In terms of the conceptual framework outlined above, it could be said that health systems have been moving from control by standardization of professional norms, to various forms of command-and-control, and on to attempts to standardize outputs and evaluate outcomes. Moving away from command-and-control, however, did not necessarily mean less regulation. The evolution of regulation in the health sector, therefore, is not a matter of a linear progression from one mechanism of control to the next, but rather a constant mixing and remixing of regulatory tools that have accumulated throughout the years of a health system's development (9).

We can also suggest that most European healthcare systems will achieve a slower but steady growth in the number of social entrepreneurs, working in the public sector but importing a variety of private sector concepts and incentives. Policy-makers would become more and more comfortable with this situation. There should be a noticeable increase in what was termed 'social entrepreneurialism' (16). This middle territory between purely bureaucratic public and purely for-profit private may itself blur the public-private boundaries by incorporating, elements of not-for-profit private in partnership with independently managed public-sector organizations. In such system the regulatory challenges will be considerable, and successful outcomes will depend on the evolution of strict regulatory arrangements. One potential regulatory framework that has yet to be adequately explored in the health sector is the application of the notion of independent regulatory agencies (9). As the overall entrepreneurial level increases within health systems, the range, scope and capacity of state regulation will have to increase with it. The challenge to policy-makers will be to concentrate on designing a better framework with which to conduct that supervision.

**The state and the market in European healthcare:**

1. The European Union analyses regarding the benefit and damage from the free market competition in health care are contradictory.
2. The market competition in health care requires strict regulation through specific legislation.
3. The final goal of the market regulation in healthcare is to assure that every decision and initiative taken is in the public (social) interest.
4. The mixed public-private model of healthcare is evaluated as the most efficient way for reorganization of the European health systems.

5. The future belongs to a market-orientated, patient-centred healthcare system.
6. One of the most effective ways to achieve better health for the whole population, in conditions of restricted resource, is through health promotion and preventive medicine.
7. The long-term experiences of certain countries as well as international analyses suggest that the choice for a health insurance model should be made on:
  - The level of economic development of the country;
  - The level of the social moral values and ethics;
  - The level of political responsibility to health issues;
  - The tested models in international experiences.

## CASE STUDY

### **Healthcare financing and reforms in Bulgaria on the way to a modern market-orientated health system**

#### *General introduction and context*

In the period since 1989, the countries of south-eastern Europe have invested significant efforts in the pursuit of wide-ranging reform of their health sectors, addressing issues of financing, organization and management of health care services. These efforts were a reaction to the inadequacies of the health systems inherited from the communist era, the pressures arising from political and economic transition, a collapse in the funding available for health care and, to differing degrees, the effects of wars, conflicts and economic sanctions. While the countries have followed different trajectories, their overall aims in the health sector have often been similar in the process of reform. With the exception of the former Yugoslavia, all the SEE countries followed the Semashko model of health care provision developed in the USSR in the 1920s, till the 1990s. In the 1990s, health funding collapsed in all countries of the region (17).

#### *Transition in health financing and system in Bulgaria during the process of reform (18)*

In general, the health care reforms in Bulgaria were aimed at changing the health system financing methods in order to: ensure sufficient and sustainable health care budget; guarantee equity in the public health sector; enhance efficiency and quality of services; reorganize primary health care and rationalize outpatient and inpatient facilities. The health reform remained on the periphery of public sector reform until the late 1990s and little changed until 1997. The health insurance system was introduced in 1998 when the Health Insurance Act was adopted, introducing compulsory and voluntary health insurance. The contributions were set at 6% of an individual's income, shared between the employer and employee at a ratio of 80:20. The State and the municipalities cover the contributions of pensioners, children and low-income groups. The Health Insurance Act defines direct patient co-payments for using health care services covered by the basic benefits package. Since 2000, patients pay 1% of the minimum monthly salary for each outpatient visit and 2% of the minimum monthly salary per day of hospitalization, up to 10 bed-days per year. The

compulsory health insurance system guarantees a basic benefits package of health care services to the insured population; however, this package is not clearly specified, which creates financial burden for the population. Health care financing was separated from health care provision, and contract-based relations were established. Private practice was legalized in 1991, public and private health care facilities were reorganized. Financial reforms were followed by change in the payments to hospital sector providers and the introduction of a scheme based on performance and cases – “clinical pathways” with a single flat rate per diagnosis. The change in hospital financing was supposed to enhance the competition between the health care providers and increase the quality of services. The primary care and GPs as gatekeepers to specialized care were introduced, allowing cost-containment, but also opening a discussion of whether such policies would hinder the free provision and access to health care. Total health expenditure has been increasing since 1998. It accounted for 7.7% of GDP in 2004, i.e. it was higher than the 6.8% average of the EU10 countries (19). However, there was a general decline in levels of public health expenditure, accompanied by a relative increase in private sources from 34.6% in 1999 to 45.5% of total health financing in 2003 (20).

Contribution-based financing of health care has not been able to provide enough funding for the system. The fact that 1 million people do not pay their contributions results less resources for the NHIF. In order to cope with these difficulties the contribution rate is planned to be increased and the ratio of employer: employee contributions is intended to reach 50:50 by 2009, in order to provide disincentives for the employer to escape paying contributions, conceal the real income of employees or not to hire new workers. However, at the same time, the planned initiative led to a discussion of whether this might create additional financial burden for the population and public dissatisfaction with the health system (18).

*The way forward – opportunities to improve the financing of Bulgarian healthcare system and open a way to more efficient public-private mix system*

The analysis of the Bulgarian healthcare financial status reveals chronic lack of resources for health and considerable number of cases of ineffective and inexpedient management of the spent financial resources. Considering the restricted state budget as well as the NHIF incapacity to provide enough finances for the routine activities of the healthcare system, a multifaceted strategy has to be accepted in order to solve the problems of the Bulgarian healthcare. It needs to find new sources and approaches for collecting the necessary funds for healthcare. The specific circumstances in Bulgaria require the introduction of an up-to-date and efficient healthcare financing, which would be able to provide balance and stability in the system at the present situation. Some of the most important prerequisites for this are (21):

1. Surrounded by a constantly changing social, political and economic environment, the Bulgarian people are trying to protect themselves and their families, considering health protection on first place.
2. In correspondence to the widely discussed and already implemented in many European countries Theory of Human Capital, the working force with higher social and health status has higher productivity.
3. Every company and organization would logically prefer to direct certain amount of money for the health of its employees, instead of compulsory paying these

amounts as taxes to the state. This payment could be part of the collective labour agreement, which requires respective changes in the taxation legislation system.

4. The policy of the Ministry of Health for savings at all costs in the medical establishments is equalizing the economic effectiveness with the medical effectiveness, which is unfavourable for the patient. In this case the patient should pay the difference, which leads to decrease in the formal income of the medical staff.

### **Basic principles of the suggested approach (21)**

1. Defining a basic package of health services, obligatory covered by the NHIF.
2. Free choice of health services and benefits for the population.
3. Free choice of health insurance fund for supplementary health insurance.
4. Financing of the primary health care, based on the number of actually registered insured and for services done.
5. Free (liberal) hospital prices. The fees should be officially announced by the hospital board. The part, covered by the NHIF basic package should be indicated as well as the amount of the additional payment. The prices vary in certain limits, set by the professional organizations and the state for every year.
6. Free choice of medical establishment by the patient on the basis of quality and price.
7. Regulation of the hospital capacity in response to the health services requirement.
8. Pluralism in the options for and ratio public/private mix, formulated in the health strategy of the Ministry of health as well as by the market necessities.
9. Implementation of DRG financing system in the hospitals, aiming at provision of real funds for real expenses.
10. Competition among the different medical establishments.

### **Basic concept of the financial model (21)**

The model foresees the increase of the health insurance contribution, through implementation of an elaborated three-pillar model, as follows:

- Mandatory basic health insurance, provided by the NHIF as existing at present.
- Mandatory supplementary health insurance, covering the so-called “extended package” of health services and benefits, provided by the NHIF or another licensed HIF.
- Voluntary health insurance, covering the “VIP package” of health services and benefits.

### **Conclusion**

The chance for Bulgaria is to implement a specific for the country health insurance model, in which its own experience as well as that of other European countries has been integrated. The further reforms in the health system should be taken with long-term responsibility by the decision-makers, based on clear evidence, multi-sectoral and international consultations and wide public debate.

## EXERCISES

### Task 1

The students (divided in groups of 3 to 5) are asked to make comparison between the healthcare systems and their financing between two different European countries. The comparison is presented according to several indicators (criteria) in the form of power point presentation. A discussion is opened afterwards. By doing so, it is possible to distinguish common challenges for the future as well as areas where a greater effort needs to be made in some countries of the region than in others.

### Task 2

The students should make a SWOT analysis of their own country's healthcare system and propose a possible Action plan for improvement, especially in economic terms.

### Task 3

The students are asked to search (through recommended readings and internet) for different sustainable possibilities for private entrepreneurship in their own healthcare system. A brainstorming is made to point out the strengths and weaknesses of any of them.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>TERMINOLOGY</b>
<b>Module: 1.8</b>	<b>ECTS (suggested): 0,2</b>
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<b>Keywords</b>	Public Health Glossary, Health Care, Education
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• help to escape in misunderstandings of meanings of similar terms;</li> <li>• recognize importance of group work and active participation;</li> <li>• increase knowledge of specific terms.</li> </ul>
<b>Abstract</b>	The field of public health has a distinctly uncoordinated terminology. The reason for this is that terms are taken over from different other scientific fields or are created according to historical needs and circumstances in different countries. A local jargon is frequently used. The task of this module is to review a group of terms on the enclosed list which will be often used during the public health course. It is expected from students to give short description of definition of previously unknown terms and list of terms which students find ambiguous.
<b>Teaching methods</b>	Exercise: individual work, small group discussions.
<b>Specific recommendations for teachers</b>	It is recommended to use this module in the beginning of the course in order to harmonize the students understanding of the public health terminology and to develop participation and cooperation within group. The first part of the exercise could be individual work followed by small group work and reports from the group in plenary session. Each group can work on by the teacher selected group of terms. The glossary printed as attachment at the end of this module could be distributed to students after exercises.
<b>Assessment of Students</b>	Assessment could be done through observation of discussion and participation in the exercise.

# TERMINOLOGY <sup>1</sup>

Želimir Jakšić, Luka Kovačić

## THEORETICAL BACKGROUND

The field of public health has a distinctly uncoordinated terminology. The reason for this is that terms are taken over from different other scientific fields or are created according to historical needs and circumstances in different countries. A local jargon is frequently used. That is why the understanding of meanings and coordination of terminology is one of the first tasks in the public health course.

Understanding of terms will not come from learning by heart their definitions, but from analysis of their meanings in meaningful messages and understanding of their origin and destiny. Like other words, scientific and technical terms are living and changing in spite of strict definitions. It is helpful to find a responding word in student mother tongue, but do not be disappointed if that would be hard or impossible. During the studies students will gradually discuss terms as they come, so that at the end the course students should complete the vocabulary.

## EXERCISE

### Task 1: Definition of terms

The task is to review a group of terms on the enclosed list which will be often used during the course.

1. Choose the terms you do not understand, find their definition in a text-books or internet and write it down.
2. Mark the terms which you feel ambiguous and discuss them with your colleagues and teachers in small group.
3. Elect the group representative to report the main conclusions and the group process.

### Expected outcome

1. Short descriptive definition of previously unknown terms.
2. List of terms which students find ambiguous.

### List of terms

A/ MANAGEMENT  
ADMINISTRATION  
ORGANIZATION  
IMPLEMENTATION  
DIRECTION

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<sup>1</sup> Adapted from Jakšić Z, Folmer H, Kovačić L, Šošić Z, ed. Planning and management of primary health care in developing countries. Training guide and manual. Zagreb: Andrija Štampar School of Public School, Medical School, University of Zagreb, 1996.

- B/ POLICY  
PLANNING  
BROAD PROGRAMMING  
DETAILED PROGRAMMING  
REPROGRAMMING  
STRATEGY  
GOAL, OBJECTIVE, TARGET  
PRIORITY  
CONSTRAINT, OBSTACLE  
INTERACTION
  
- C/ EVALUATION  
EFFECTIVENESS, EFFICIENCY,  
EFFICACY  
OPERATION RESEARCH  
ACTION RESEARCH  
MONITORING  
SUPERVISION  
CONTROL  
QUALITY CONTROL
  
- D/ INDICATORS / INDICES  
PROGNOSIS  
PROJECTION  
PREDICTION  
FORECASTING  
STANDARD  
NORM  
REPORT
  
- E/ MANPOWER DEVELOPMENT  
EDUCATION, TRAINING  
PROFESSIONALS  
AUXILIARIES  
ROLE, TASK, FUNCTION  
TASK ANALYSIS  
SKILL, ATTITUDE, KNOWLEDGE  
KAP (KNOWLEDGE, ATTITUDE, PRACTICE)  
TEAM, WORKING GROUP, TASK FORCE
  
- F/ SYSTEM ANALYSIS  
MODELING  
OPTIMIZATION, SUBOPTIMIZATION  
INPUT-OUTPUT ANALYSIS  
COST-BENEFIT, COST-EFFECTIVENESS  
COST-UTILITY  
PROBLEM-SOLVING

- G/ COORDINATION, COOPERATION  
 INTEGRATION  
 INTERSECTORAL  
 REFERRAL, CONSULTATION  
 LOGISTICS  
 COORDINATION  
 LEVELS: GRASS-ROOT, COMMUNITY, LOCAL, INTERMEDIATE,  
 SUBREGIONAL, REGIONAL, COUNTRY, NATIONAL
- H/ COMMUNITY MOTIVATION,  
 INVOLVEMENT,  
 PARTICIPATION,  
 COMPLIANCE,  
 PRIMARY GROUPS (COMMUNITIES)  
 USER, UTILIZER,  
 PARTNER,  
 NEEDS, DEMANDS, WANTS,  
 AVAILABILITY,  
 ACCESSIBILITY
- I/ (List of unknown terms)
- 
- 
- 
- 
- 

## **Task 2: Difference in meanings of “management” and “administration”**

### *Point of consideration*

The terms “management” and “administration” are often used with the same meaning.

They are indeed to a certain degree interchangeable. However, because of different traditions in countries we might even not be aware of different connotations they have for us. The word administration comes from the Latin word administrare meaning to help. Management comes from the English word to manage.

For some people it would be very difficult even to imagine the differences between two terms. In some countries two terms would be used in opposite direction. If one reads some books and articles it could be found that in different historical periods one or the other term was more fashionable. The same is true for different countries and cultural settings.

### *Task for students*

Imagine that you are coming into an office building where you find two doors. One has the label ADMINISTRATION and the other MANAGEMENT.

Answer the following questions:

- What do you expect behind each of these doors?

- Behind which door do you expect to find people working on a higher hierarchical level?
  1. Each member of the group answers the given questions separately;
  2. Discuss your answers in small group explaining similarities and differences;
  3. Compare your findings with descriptive definitions printed in Annex;
  4. Report shortly in plenary on findings and proposals for utilization of terms during the course.

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3. <http://www.healthypeople.gov/state/toolkit/default.htm#Content>

## RECOMMENDED READINGS

1. <http://depts.washington.edu/hsic/resource/glossary.html#m>
2. <http://www.who.int/trade/glossary/en/#M>
3. [http://www.pohly.com/terms\\_p.html](http://www.pohly.com/terms_p.html)
4. Glossary of Health Care and Health Care Management Terms *compiled by* Laura Larsson.

## ANNEX

*This glossary should be distributed to students at the last part of the second task. It includes some of terms often used in the public health courses. The other terms could be finding throughout of this book, and in other publications.*

**ADMINISTRATION** means control or direction of affairs, especially putting something into operation by someone with official power to do so. It implies the use of formal and hierarchical lines and procedures. It tends to follow inflexible rules and regulations. Traditionally it reflects functioning of the public sector institutions. Sometimes it is used for government services and government itself.

**MANAGEMENT** means using resources of all kinds (3 M = Men + Money + Materials) so that they jointly as a system reach given objectives and produce attainable results. Management is following flexible and dynamic procedures. Management is specially used for work in business and with money, but it means also skilful dealing with other persons. It has a positive connotation so that managing problems or difficulties means their successful solution. Traditionally it is connected with business and industrial enterprises. Sometimes it is used to describe the people who are in charge or a governing body of a firm.

**ORGANIZATION** (or **organization**) is a social arrangement which pursues collective goals, which controls its own performance, and which has a boundary separating it from its environment. The word itself is derived from the Greek word *ὄργανον* (organon) meaning *tool*. The term is used in both daily and scientific English in multiple ways.

In the social sciences, organizations are studied by researchers from several disciplines, the most common of which are sociology, economics, political science, psychology, management, and organizational communication. The broad area is commonly referred to as organizational studies, organizational behaviour or organization analysis. Therefore, a number of different theories and perspectives exist, some of which are compatible, and others that are competing.

- Organization – process-related: an entity is being (re-)organized (organization as task or action).
- Organization – functional: organization as a function of how entities like businesses or state authorities are used (organization as a permanent structure).
- Organization – institutional: an entity is an organization (organization as an actual purposeful structure within a social context)

**PLANNING** in organizations and public policy is both the organizational process of creating and maintaining a plan; and the psychological process of thinking about the activities required to create a desired future on some scale. As such, it is a fundamental property of intelligent behaviour. This thought process is essential to the creation and refinement of a plan, or integration of it with other plans, that is, it combines forecasting of developments with the preparation of scenarios of how to react to them.

The term is also used to describe the formal procedures used in such an endeavour, such as the creation of documents, diagrams, or meetings to discuss the important issues to be addressed, the objectives to be met, and the strategy to be followed. Beyond this, planning has a different meaning depending on the political or economic context in which it is used.

The circumstances in which we assume that future activities will be performed are determining **feasibility of our plans**. Feasibility has the same meaning as possibility. A plan is feasible when we have the power and resources to implement it, to make it possible. The examination of feasibility is done in a systematic way, scrutinizing all possible obstacles and constraints.

In the described interplay the planner has an opportunity to design **many optional solutions (strategies)**, what gives him a chance to choose the best of them or combine them in an acceptable way.

Designing of optimal (alternative) strategies is the challenging part of planning. In stimulating that process different techniques have been recommended.

**Plan of action** is formulation of action to be taken by different subjects. **Master plan of action** is formulation of actions needed to fulfil results of broad programming and the **operative plan of action** is the same for detailed programming.

**GOAL** is the most general, not constrained by time and existing resources, rather descriptive than quantified, not necessarily attainable, but an ultimate, desired state expected as a result of a policy or broad programming.

Examples: Increase regular exercise among older adults; Ensure all children have access to health care; Eliminate second-hand smoke in public places.

**OBJECTIVE** is the intermediate, specified in time, usually measurable and attainable end-result expected of broad or detailed programming. Examples: by 2010, increase the use of safety belts and child restraints to at least 90% of motor vehicle occupants (Baseline: 70% in 1997); to reduce breast cancer mortality by 25% 5 years after start of the screening program.

**TARGET** (the desired end point amount of change, reflected by a number or percentage) is the most specific, measurable with precision in short- term periods, useful as an indicator for monitoring the detailed program achievements. They may be used in different horizons of time as milestones along the way toward an objective.

**OBSTACLE** is a created difficulty preventing the planned activity. It is mostly created by an opposing interest group and often is an expression of political conflicts or tensions.

**CONSTRAIN** is a set of limits due to economic, social, administrative, professional and cultural conditions.

**PROGRAMMING** is translation of health policy goals and objectives into strategies and targets to be implemented in practice. It could be divided into broad and detailed programming.

- **Broad programming** can be described as translation of health policies into strategies for achieving clearly stated objectives.
- **Detailed programming** is conversion of strategies into technology, manpower, infrastructure, financial resources and time required to implement program.

**SYSTEM ANALYSIS** is a systematic examination of a system (situation, problem) in which each step is made as explicit as possible. The steps are:

- Listing all elements which can be related to the system or its environment;
- Defining goals and objectives of the system, identifying also their hierarchy and the most important objective in an observed situation according to the purpose of the analysis;
- Choosing elements which will be considered as the proper system (bounding or bordering the system) and others which will be regarded as environment according to defined goals and objectives;
- Describing and examining elements and their relations;
- Generating optional solutions, alternatives by manipulating elements and relations to fit better the objectives of the system or to find solutions for identified problems;
- Comparing and evaluating different alternatives and modelling a complex new system.

**HEALTH POLICY** has different meanings:

1. A statement of a decision regarding a goal in health care and a plan for achieving that goal; e.g., to prevent an epidemic, a program for inoculating a population is developed and implemented.
2. A field of study and practice in which the priorities and values underlying health resource allocation are determined.

A policy is a deliberate plan of action to guide decisions and achieve rational outcome(s). The term may apply to government, private sector organizations and groups, and individuals. Presidential executive orders, corporate privacy policies, and parliamentary rules of order are all examples of policy. Policy differs from rules or law. While law can compel or prohibit behaviours (e.g. a law requiring the payment of taxes on income) policy merely guides actions toward those that are most likely to achieve a desired outcome.

Policy or policy study may also refer to the process of making important organizational decisions, including the identification of different alternatives such as programs or spending priorities, and choosing among them on the basis of the impact they will have. Policies can be understood as political, management, financial, and administrative mechanisms arranged to reach explicit goals.

## Chapter 2

# MANAGEMENT CYCLE: FROM PLANNING TO EVALUATION

- 2.1 Management Cycle: from Planning to Evaluation (L. Kovačić, Ž. Jakšić)
- 2.2 “Health Needs” Concept (L. Zaletel-Kragelj, I. Eržen, M. Premik)
- 2.3 Health Organization Purpose and Strategic Intent: Creating Vision and Mission (M. Santrić-Miličević)
- 2.4 Health Policy Analysis and Development (N. Milevska-Kostova, E. Stikova, D. Donev)
- 2.5 Health Survey as a Powerful Tool for Planning Public Health Intervention (L. Zaletel-Kragelj, I. Eržen)
- 2.6 Economic Analysis as a Tool for Planning and Evaluation of Public Health Interventions (J. Farkaš-Lanišćak, L. Zaletel-Kragelj)
- 2.7 Satisfaction of Needs and Patients` Expectations of Hospital Care: the Case of Bulgaria (P. Trendafilova, K. Kirilov)
- 2.8 Economic Assessment and Management of Process of Aging in Bulgaria (J. Pavlova)
- 2.9 Legislative Background for Marketing Authorization of the Biosimilar Medical Products in EU (T. Benisheva-Dimitrova, P. Trendafilova)
- 2.10 Evidence Based Policy – Practical Approaches. The Bulgarian National Health Strategy 2007-2012 (P. Salchev, N.Hristov, L. Georgieva)

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>MANAGEMENT CYCLE: FROM PLANNING TO EVALUATION</b>
<b>Module: 2..1</b>	<b>ECTS (suggested): 0.3</b>
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<b>Keywords</b>	Health management, Health planning, Evaluation
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• know to list the elements and their characteristics of the management cycle;</li> <li>• be familiar with the steps of the cycle;</li> <li>• be familiar with the content of elements of the cycle.</li> </ul>
<b>Abstract</b>	The planning process in health care known as management cycle or cycle of organization and management is described. The cycle is divided in four main elements: planning, organization, implementation and evaluation. Each element is defined and described.
<b>Teaching methods</b>	Introductory lecture, small groups work, individual work and panel discussion.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 50%/50%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

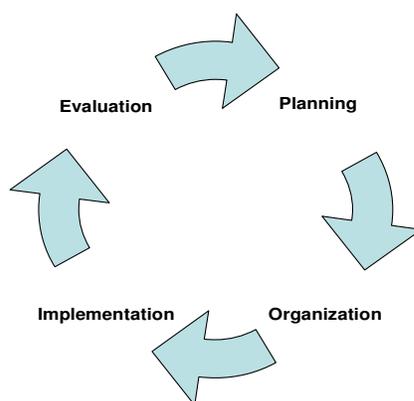
# MANAGEMENT CYCLE: FROM PLANNING TO EVALUATION

Luka Kovačić, Želimir Jakšić

## THEORETICAL BACKGROUND

### Introduction

Health care is a set of measures, goods and services designed to promote health, including “preventive, curative and palliative interventions, whether directed to individuals or to populations” (1). In order to maximize effects and minimize cost of applied measures health care should be planned. The planning process includes several steps making a cycle. The cycle is known as management cycle or cycle of organization and management. The health care planning cycle could be divided into different number of steps or elements, depending on the level on which the health care is organized. Here are presented four main steps for the illustration of the management cycle (Fig 1).



**Fig 1.** Four main elements of the management cycle

In each step there are several functions, and the cycle can be divided into more elements.

Each step has specific characteristic and tasks of those involved in the step of the cycle. In different parts of the cycle different actors are involved. Elements of the cycle followed each other, some tasks are common for two or more cycles and some are overlapping, what makes the health care system very complex.

### Planning

Although in the reality at one moment the planning cycle could be in the different steps, for the purpose of the training we will start with **planning** step.

In this first steps the main task is setting aims, defining the goals, identification of health problems, select priorities among them and choose the strategic course of interventions. This is the task of **health policy** and the process is usually done on country or province level.

This step of the cycle is based on the careful analysis of present health situation, on health situation assessment, which could be also a separate step in the cycle. Good and comprehensive diagnosis will lead to effective and efficient intervention.

In this part of the political process the economic possibilities and constrains should be analyzed, political interest of different social and professional groups taken into account, feasibility of health care services calculated, and other elements must be analyzed and taken into consideration. This political process is responsibility of representative and/or political bodies (parliament, government, political parties).

Health professional organizations (or their representatives) are usually involved (chambers, association of health workers, etc). From technical point of view the outcome of this part of the cycle should be a set of indicators and milestones to be reached in certain period of time (short-term, middle-term or long-term period). The indicators are set up mostly as aims and goals for the region, state or larger region for longer period of time, while objectives and targets are set up for smaller areas and shorter period of time. It is important to set up the level of indicators which are realistic and reachable in defined period of time to prevent social disappointment in the future when planning time will pass.

To come to the reachable and realistic level of health indicators it is recommended to analyze the situation in neighbouring countries and countries with similar economic and social situation. Besides the set of health indicators in this part of the cycle it should be also defined the main strategy (e.g. support the primary health care, introduction of DRG system, implementation of screening programs for certain diseases, share of GDP for health, etc.), involvement of citizens in decision making process, and other important issues.

In this step of the cycle all actors should understand their role and responsibility, should be familiar with the planning process and work together with all political actors. Public health professionals should explain and inform them, and not take their role in defining aims and goals instead of them.

Ones health policy is defined, the health managers are responsible for reaching them through the next steps, **organization, implementation and evaluation**, usually on a lower level of the country organizational structure, district, county or municipality.

Any health planner faced with the task of formulating long term goals, objectives and setting targets needs some assessment of the present situation, some description of the point he is to regard as starting point, and some knowledge of the processes which have led to the present situation.

The **planning and programming** is a part of the management circle dealing with arrangement for carrying out some **future** activity. From the point of management it is an unavoidable and everywhere existing part of the managerial process. Often we are not conscious of it, as in planning some routine everyday activities. On the other side it is a major formal procedure involving many people to work together and even prescribed by laws and regulations.

The meaning of words planning and programming is practically the same and used interchangeably, however, to a certain extent there is a different connotation. The word programming is coming to us from a Greek word and is more underlining contents and goals of future activities. The word planning is originally a French word and is underlining different arrangements of resources, time, etc., necessary for implementation of future activities. Considering hierarchy of these terms in technical jargons one will find that the word program is used to define the goals and orientation defined at the highest level, based on what plans are designed. There is for instance program of a political party, of a president or prime minister. That program will be later elaborated into plans. Some groups of experts might feel that planning is indicating a higher level than programming, because usually the state plans are further elaborated into programs of different organizations and institutions. Actually both groups are right. To avoid misunderstandings in the national managerial process the WHO escaped to use both terms and preference was given to programming. The programming could be split in the three sub-processes: **the broad programming, detailed programming, and plan of action**. These words distinguish also three phases in the process of planning. One has to differentiate:

1. Choosing and defining objectives along with the given policies and strategies (the closest is the word programming or broad programming);
2. Arranging ways and means of activities to reach objectives and targets under given conditions (the closest are the words planning or detailed programming);
3. Detailing and scheduling of activities (plan of action).

**Broad programming** can be described as translation of health policies into strategies for achieving clearly stated objectives.

**Detailed programming** is conversion of strategies into technology, manpower, infrastructure, financial resources and time required to implement programs.

**Plan of action** is formulation of lines of action to be taken by different subjects.

The desired end-states (outcomes) are defined as goals, objectives and targets.

**Goal** is the most general, not constrained by time and existing resources, rather descriptive than quantified, not necessarily attainable, but an ultimate, desired state expected as a result of a policy or broad programming.

**Objective** is the intermediate, specified in time, usually measurable and attainable end-result expected of broad or detailed programming.

**Target** is the most specific, measurable with precision in short- term periods, useful as an indicator for monitoring the detailed program achievements. They may be used in different horizons of time as milestones along the way toward an objective.

The planning/programming process varies according to circumstances in which it is carried out so that several classifications are possible. Among the most important are classifications by:

**Subjects who perform planning:**

- central planning/programming;
- decentralized planning/programming;
- participatory planning/programming;
- convergent planning/programming.

**Period for which it is envisaged (horizon):**

- long-term or perspective (10-20 years);
- medium-term or strategic (5-/10/ years);
- short-term or tactic or operative (1-3 years).

**Basic orientation in resource allocation:**

- input planning (oriented towards existing resources);
- impact planning (oriented toward end-results);
- output planning (oriented toward processes, e.g. work of health services);

There are numerous inter-relations and combinations of different types of planning/programming. For instance, the central national plans tend to be long-term or at least strategic. They are also more oriented to impact and development of inputs, than to outputs.

According to circumstances the middle-level managers perform planning (programming) in a special way, differently from national as well as grass-root managers.

Specific characteristics of middle-level (regional, district) planning/programming **Specific characteristics of planning the middle level** are:

- short-term horizon;
- input (resource) orientation;
- intuitive solutions of complex problems;
- flexibility;
- detailed planning;
- stress on implementation;
- community participation;
- reserve for interventions in unpredictable crises.

It depends on the socio-political situation and administrative arrangements in each particular place how many decisions and in which areas are given to the middle-level management. In a decentralized system there will be more freedom and that will be reflected in deciding on targets and allocation of resources. In a centralized system the planning would cover mostly detail scheduling of activities and distribution of tasks and duties. However, in both situations the result of planning is formulated as **plan of action** and has the same elements.

The format of the plan of action has 10 elements. The format is usually prescribed by rules and regulations, but essentially they include always the same elements:

1. objectives and targets;
2. covered population;
3. legal and administrative requirements;
4. specification of activities to be performed;
5. time-table for their implementation;
6. budget;
7. manpower (incl. recruitment, training, management);
8. constructions, transport, equipment, supplies, logistics;
9. evaluation and monitoring;

## 10. information support.

The effective planning is negatively influenced by **obstacles and constraints**. **Obstacle** is a created difficulty preventing the planned activity. It is mostly created by an opposing interest group and often is an expression of political conflicts or tensions. **Constraint** is a set of limits due to economic, social, administrative, professional and cultural conditions. They are common in all levels of management, but the following are quite typical for middle-level planning either because of imposed limitations or poor knowledge and motivation of local planners:

- poor data analysis;
- priority given to centrally planned (vertical) services;
- orientation to services and not to communities;
- limited powers in allocation of resources;
- competition or poor cooperation with other sectors;
- strong influence of “local authorities”;
- limited influence on infrastructure (training, logistics etc.).

The circumstances in which we assume that future activities will be performed are determining **feasibility of our plans**. Feasibility has the same meaning as possibility. A plan is feasible when we have the power and resources to implement it, to make it possible. The examination of feasibility is done in a systematic way, scrutinizing all possible obstacles and constraints.

### **Priority setting**

**Priority setting** means the different problems are listed according to priority. It is an important task as not all problems can be attacked simultaneously. The setting of priorities requires the planner to formulate the criteria own wishes to use when choosing priorities. Very elaborate lists of criteria do exist, but each planner does well to establish his own criteria. However some criteria often used are:

- the size of the problem (in terms of people affected by the problem);
- the severity of the problem (how serious is the problem affecting people);
- the inter-linkage of the problem with other problems (what are the chances that attacking that problem will also influence and diminish other problems);
- the cost-effectiveness of the measures likely to attack the problem;
- the technical feasibility of attacking the problem;
- the trend in the size of the problem (is it an increasing problem or a problem which is already on its way to diminish by itself).

When all criteria have been chosen, the planner has to decide for himself whether he considers all his criteria equally important or not. In other words, he has to give relative weight to his criteria. Only after this weighing has been done (e.g. with the aid of a simple numerical scale ranging from one to three, or by expressing it in %), the rating of the problems (again by putting them in a scale, according to the different criteria can be undertaken. The process of rating the problems in order of overall priority finally gives the planner the final picture, the comprehensive diagnosis.

Although this numerical rating is a helpful tool for the planner, he is advised to check with his own feelings whether, after the whole process the outcome is consistent with his intuition.

Just as in clinical medicine, the more comprehensive the diagnosis can be established the more it will be possible to realize an effective and causal therapy. Treating hypertension with drugs lowering the blood pressure is not as effective and causal as combining this with reducing the patient's overweight, changing his diet and trying to diminish the stress in his life. In health planning this is even more so. The processes and factors linked to health are complex, the time spans during which decisions have their consequences are long and usually a considerable number of people are affected by the decisions and significant amounts of resources are involved. A wrong or superficial "symptom diagnosis" like "a shortage of hospital beds" can divert and mislead the planner from the real underlying causes and withdraw valuable resources from essential causal measures attacking the roots of the problem like preventing diseases or treating these at earlier stages.

Yet unfortunately, often health planners, even when they know the comprehensive diagnosis, must content themselves with symptomatic measures because the measures necessary to eliminate the underlying causes are beyond their direct control. Even in these cases, however, knowledge of the comprehensive diagnosis is essential for the health planner. It enables him to proportionate his symptomatic measures and to enter the dialogue with those whose influence is closer to the roots of the problem.

Diagnosis without consequences is useless and costly, consuming time and resources. However, both in clinical and in administrative health work, an unproportionally big effort is often spent in diagnostic procedures, without adequate influence in practice. Either the diagnosis is "overdone" (more examinations, data, etc. than necessary for decision), or the proposed solutions are not relevant (because available resources and other general conditions do not permit their application).

Because of that, during the diagnostic procedure the probable outcomes and consecutive interventions have to be envisaged (tentative diagnosis, alternative solution, hypotheses). In real life an inseparable part of diagnostic thinking is what one has to do later: how to help a patient, or, which strategy to choose in controlling an epidemic. Contemporary research has shown that a manager, similarly to a doctor or other health worker, will come to better diagnosis if:

- he/she during examination keeps in mind the **wider range of possible measures** to be taken after diagnosis;
- he/she is critically analyzing **existing opportunities and constraints (feasibility)**;
- he/she is **flexible to play with concepts**, relations and combinations of facts even if it appears strange, unusual and "lateral".

A good manager needs an openness, "brain-storming" initiative, and creativeness together with a strict, critical and logical internal evaluation of facts: a combination of imagination and realistic experiences, initiative and hierarchical discipline, together with a clear vision of goals.

## Intervention

**Intervention** means interfering with the usual, “natural” course of events. Often the diagnostic process by itself makes the first part of intervention. For instance an epidemiological survey is at the same time a health education activity. Intervention means a change. How intensive and deep that change will be, is determined by the intervention model we have to use.

Listing of all possible interventions or actions which can help in counteracting each of the problems listed in earlier step. It is useful to indicate also at which level each action should be undertaken (national, provincial or local level).

Selection of those interventions which are likely to have influence on as many problems as possible and which can be considered as technically feasible. These can be regarded as the “building blocs” for the strategy.

All selected interventions are now grouped in a logical time-scale in which levels and “critical pathways” are indicated.

Critical pathways indicate the sequence of different interventions which can only be realized in one given order. For this purpose it can be used scheduling and network planning techniques such as Gantt chart, PERT, CPM and others.

## Organization

In this part of management cycle the manager has to deal with an **organization as a process**, and an **organization as a structure**. The organization as a process is the arrangement of parts which form an effective whole. The organization as a structure is a group of people with a special purpose, e.g. a unit of health services, an institution.

The organization may be regarded as an open dynamic **socio-technical system**. It is a dialectical relation of a given technology and social aspects of its application, i.e. work connected with that technology (division of labour, relations toward means of production, inter-personal and group relations). Because of that, the organizations of the health units with different types of technology have different work relations and different organizational problems. For instance, a big hospital in comparison with a health centre.

The organization may also be regarded as having different characteristics as the consequence of size, level of complexity and phase of development. Macro-organization will deal with big overall systems, and micro-organization with small units (e.g. a rural hospital or a district health centre). In every-day life expressions such as “young organization”, “traditional organization”, “handicapped organization”, etc. are used and they indicate the lively social dynamics of organizations.

**Organizing** implies the ability to coordinate activities necessary for implementation in such a way that:

- the right things are done;
- in the right place;
- at the right time;
- in the right way and
- by the right people.

To reach that, a manager has to observe:

1. **Objectives** - each group of tasks in an organization must have an objective that contributes to the main objective/s/ of the organization, the system or the program;
2. **Definition of tasks** - each group and individual must have clearly defined tasks so that everyone knows exactly his tasks and duties;
3. **Command** - each group must have one person in charge and all concerned must know who this person is.

There are a several important rules related to command:

- Responsibility - the person in charge is responsible for the performance of the people in his group;
  - Authority - each person in charge of a group must have authority equal to his responsibility;
  - Span of control - no person in charge of a group should be expected to control more people than his knowledge, time, energy and effectiveness permit (1:5 - 15);
4. **Balance** - the person in charge of several groups must see that the groups' interests, opportunities and conditions of work are in balance.

### **Evaluation**

Evaluation could be simply defined as “**finding out the value of something**”. The same meaning has the terms to assess or to appraise.

**Evaluation** is a systematic process of assessing the extent to which an action achieved its objectives and/or to which extent it is regarded as beneficial. This broad definition includes two possible types of evaluation: the one in which the objectives are not well specified in advance (close to general goals or aims) and the second in which objectives are predetermined explicitly (close to targets). In both situations the information generated by evaluation is serving as a feedback to planners and concerned about future activities.

The evaluation process consists of:

1. comparing the objectives and outcomes of activities; and
2. adding a value judgment to obtained results.

The value judgment is based on objective findings, but also takes into account complex set of factors influencing results, consider marginal opportunities and benefits, and apply the value system of those who perform evaluation. In this way evaluation is a combination of objective finding and subjective (moral, political) interpretation. Obviously it is most important who is doing evaluation and why. For instance, if evaluation of health services is done only by health administration the result may differ from those by users. The second important consequence is that the process is not completely “objective” and “scientific” as it is usually suggested in managerial text books.

The comparisons of predetermined objectives and obtained results may be considered as objective but it cannot cover the whole range of evaluation in health care. The question is who is predetermining the objectives, and how one is judging the

difference between findings and objectives. For instance, the budget for operation of primary health care units in a district was not completely used and 10% of “savings” are accounted. There are several possibilities in evaluation of that finding:

1. It may be regarded as very positive (e.g. by district health authorities), because the savings are considered as results of better organization of work;
2. The results could be judged as negative (again by higher health authorities), because “savings” are result of acceptable, but incomplete, fulfilment of requirements;
3. The results may be regarded as negative (e.g. by users), because the work of health units being poor quality and “cheap”, below of expectations;
4. It could be regarded as positive (e.g. by local health workers), because health outcomes measured as change in infant mortality rates shows improvements. The question is which position we will take in evaluation. All may be right to a certain extent. In principle, the right decision should be based on understanding the main purpose of evaluation, i.e. the future improvements of health care.

Evaluation should be a continuous process, but for practical reasons it has to be summarized and reported at given times and specified intervals, coinciding with data collection routine, preparation of new plans, new budgeting periods and similar. For narrow operations and programs it will be more frequent (weekly or monthly), for national policy formulation every 3-5 years.

In routine activities the evaluation has to be done in specified regular intervals, as part of monitoring activities. Besides, it is recommendable from time to time to have a review, a comprehensive (“in dept”) evaluation.

In special project and when new activities are introduced the evaluation should be applied when plan is completed (**preliminary evaluation**), based on a theoretical consideration of probable outcomes), during the implementation (**process or formative evaluation**), and at the end (**final or outcome evaluation**).

The comparison of findings is most important part and basis for value judgments. In most cases it will be the comparison with expected, planned and predetermined targets. In some cases, and also as a useful addition, two further types of comparisons are useful: the before/after comparison (comparison with findings obtained last time, e.g. last year, or obtained before start of activities we would like to evaluate), and the comparison with other areas, where similar activities have been undertaken.

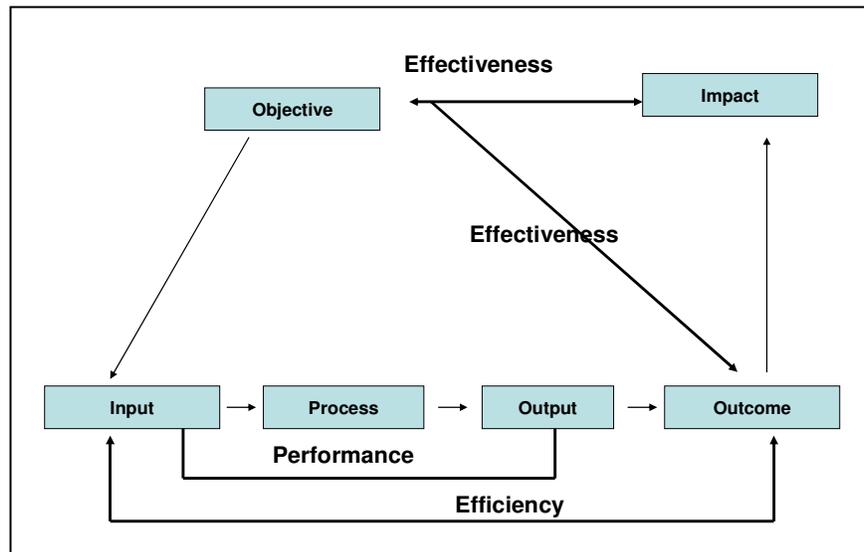
The measures used in evaluation are based on relation between main elements of the working process. The main elements are needs, input, process, output and outcome. In process of health services it is particularly important not to mix output and outcome.

Output is product in terms of services, supplies etc., and outcome is effect or result of these services.

The most frequently measures used in evaluation, specified as indicators, could be grouped in the following groups, described the specific results of health services:

**Relevance** is assessed by relating needs and outcomes. It should answer the question: Does the working process satisfy the needs? Relevance is one of the most important indicators, the very basic one, because if health services not satisfying real needs, all other measures are irrelevant, or change their meaning. For instance, if we evaluate some laboratory procedures we may come to conclusion that they are effective

and cheap in identifying a disease (e.g. malaria), but this is worthless and even very costly if applied in situation with no malaria. Relevance is most important in evaluation the costly high-tech procedures, but it is rarely done.



**Figure 2.** Relations between main elements of the health care process (adapted to Wollas)

**Adequacy** relates output of services with needs. The relation can be observed in terms of type (kind) and quality (appropriateness) and in terms of quantity (sufficiency). The indicator should answer z

The question if there are right and sufficient services provided to satisfy needs. For instance, the adequate immunization would mean that sufficient number of children (e.g. 85%) were immunized in an appropriate way with fully valid vaccines. In this case even three factors are important: quality, quality of work, quality of vaccine.

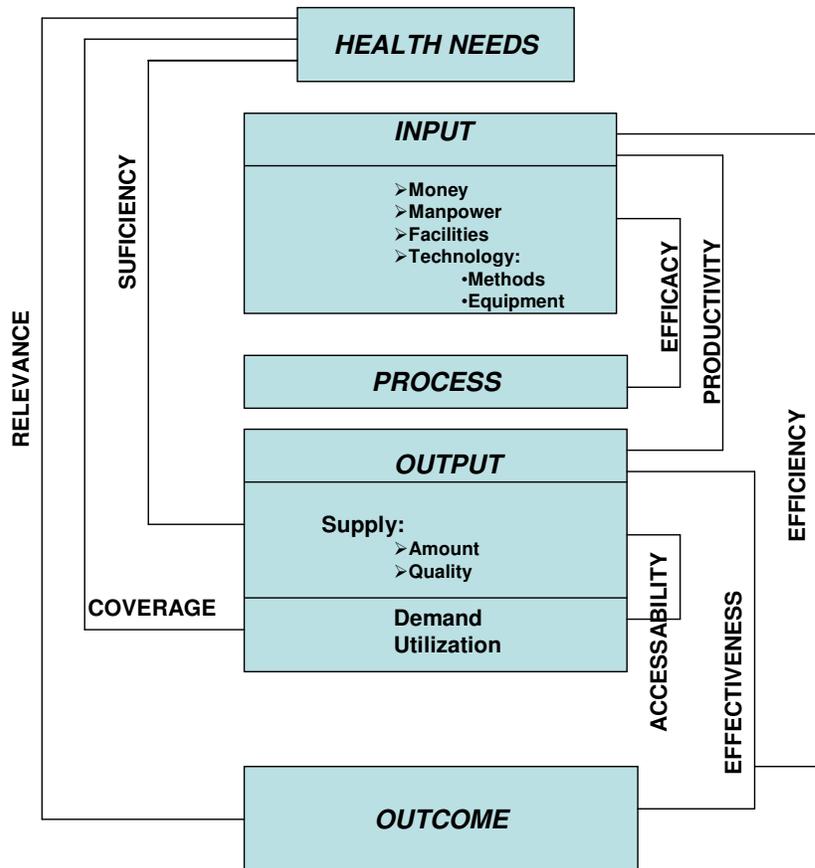
**Coverage** is measuring population covered by services, and can be regarded as a special case of adequacy. It is a complex measure close to sufficiency. Needs are expressed as number of people who need and/or demand different services (formal coverage), or who actually utilize services (actual coverage).

Coverage may be expressed in terms of total population, population having particular risks, certain population groups (social, professional, etc.), or defined territory (people who live in defined territory).

While coverage is a measure of formal nature, in real life situation, 3-A indicators would demonstrate what extent to which coverage is transformed into utilization is.

**Accessibility** is answering to the question to which extent and which services can be physically reached by people. The reason why people do not use services might be that services do not exist (**availability**). Among barriers of different kinds, one most important is that people may not utilize available services because they are too costly (**affordability**).

**Effectiveness** is measuring the desired effect of services, relating output and outcome elements of the working process. It is answering the question: Providing these services, how much will be reached of the desired health effects? For instance, by finishing the program of health education on health diet, how much will be changed regarding dieting and nutrition of the community. After screening a population for cancer, how many new case will be discover in right time for treatment. The effectiveness has usually a technical connotation. How effective are drugs or diagnostic procedures and tools, but it can also be used in a managerial meaning when we speak about organization. For instance, how effective is a hospital, or health centre, or epidemiological services.



**Figure 3.** Measures for evaluation in the health care process

Special case of effectiveness is **efficacy** which is defined as effectiveness in real life situation. For instance, if a drug is very effective under experimental conditions, it does not mean that it will be as effective when applied in a rural hospital or at home. Or, a screening procedure applied in different population groups will not give the same effect.

**Efficiency** is related to use of resources, and the term has primarily a managerial connotation. It has to answer the question: How much of resources have to be used to reach the planned level of effectiveness? It relates input to output.

Efficiency is the major managerial tool. It includes all types of resources like financial, human, technical, and also time. For instance, we will tell that a service is more efficient either if less financial or other material resources are spent, or the work is done in less time, or by less people. Efficiency is the starting point to be specified as financial, organizational or other efficiency. However, often all different factors are translated into financial terms and expressed as cost.

There are two additional indicators of general nature on relating the observed activity (working process) as the whole in the relation to time and to the environment:

1. **Impact** is measuring the effect of evaluated activities on broader issues, the environment, on the overall health development, health status of the whole community and on related social and economic productivity, demographic changes etc.;
2. **Progress** is an indicator used for assessing development of project or services in relation to time. The question is: What are the changes occurring during the last year in terms of meeting project deadlines, but also other improvements of services, coverage, etc? It is an important measure of overall development in time, and not only control of planned schedule.

The evaluation is part of the control and administrative procedures, but it has to become also a contribution to technical improvements and social changes. This will be achieved only when the comprehensive evaluation is done in a participatory way, including into the process users, people and communities, and on the other side health workers whose work is evaluated, technical experts and professionals.

The evaluation has an impact on those whose work is evaluated, which is not always what was intended. Insisting on utilization of formal and objective data will pretty soon produce expected type of report, regardless what is happening in real practice. Data have to be used only after double checking and careful interpretation.

## EXERCISES

### Task 1: Selection of goals, objectives and targets

From WHO or other Data base select several indicators which will respond to goal, objective and target. Find their values as millennium goals, Europe, own country, district or county. Put the value in the table below. Discuss them in the group.

Indicator: \_\_\_\_\_

	Source	Goal	Objective	Target
Millennium goal				
Europe				
Own country				
District or county				

Indicator: \_\_\_\_\_

Source	Goal	Objective	Target
Millennium goal			
Europe			
Own country			
District or county			

Indicator: \_\_\_\_\_

Source	Goal	Objective	Target
Millennium goal			
Europe			
Own country			
District or county			

Indicator: \_\_\_\_\_

Source	Goal	Objective	Target
Millennium goal			
Europe			
Own country			
District or county			

## Task 2: Priority setting

In order to propose the new screening program in your country in a situation with limited resources (economic and health services) your task is to select two malignant diseases (cancers) to start the screening program. To solve this task you should do process of priority setting.

1. In a small group (3-4 participants) you decide by consensus after discussion:
  - Select and list criteria for assessment;
  - Give the relative weight to selected criteria (you can use a simple numerical scale);
  - List the diseases you think that screening is a relevant intervention.
2. Do ratings (give score for each disease and criteria).
3. In the same small group:
  - Compare your scorings;
  - After discussion construct the new scoring table (use consensus);
  - Select two diseases for the screening program;
  - Write comments (what additional criteria except "objective" scorings you use for your decision);
  - Present your decision in plenary.

Criteria	A	B	C	D	E	
Rel. weight						Score
D1						
D2						
D3						
D4						
D5						
D6						
D7						

Legend: D = Disease

### Task 3: Evaluation of achievements in primary health care

Your task is to evaluate the success of health services and health workers in your district/county. You should select 1-3 indicators in order to evaluate the following categories: relevance, coverage, effectiveness, efficiency

Indicator category	Indicator 1	Indicator 2	Indicator 3
Relevance			
Coverage			
Effectiveness			
Efficiency			

Your comments:

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>»HEALTH NEEDS« CONCEPT – SOME PERSPECTIVES AND DIMENSIONS FROM THE PUBLIC HEALTH POINT OF VIEW</b>
<b>Module: 2.2</b>	<b>ECTS (suggested): 0.2</b>
<b>Authors</b>	<b>Lijana Zaletel-Kragelj, MD, PhD, Assistant Professor</b> <b>Ivan Eržen, MD, PhD, Assistant Professor</b> <b>Marjan Premik, DMD, PhD, Assistant Professor</b> Chair of Public Health, Faculty of Medicine, University of Ljubljana, Slovenia
<b>Address for correspondence</b>	<b>Lijana Zaletel-Kragelj</b> Chair of Public Health, Faculty of Medicine, University of Ljubljana, Slovenia Zaloška 4, Ljubljana, Slovenia E-mail: <a href="mailto:lijana.kragelj@mf.uni-lj.si">lijana.kragelj@mf.uni-lj.si</a>
<b>Keywords</b>	Health need, health care need, demand, health care demand, a population perspective, a health-care provider perspective, economic perspective
<b>Learning objectives</b>	After completing this module students should: be familiar with concept of “health needs” from public health perspective.
<b>Abstract</b>	The concept of “health needs” is one of key concepts in public health. From the public health standpoint, the most important perspective on this concept is the perspective of a population, or an individual respectively. But along this perspective there exist several other perspectives, which can be to the certain extent similar, but also could be also very different. All this enters an enormous confusion in its understanding, and consecutively this concept seems rather elusive. This confusion originates from the fact that the concept of “health needs” is very difficult to define exactly, like it is also very difficult to define exactly the concept of “health itself”, since both concepts are extremely complex entities The module is trying to enlighten some problems concerning the “health needs” concept”.
<b>Teaching methods</b>	An introductory lecture gives the students first insight in “health needs” concept”. The theoretical knowledge is illustrated by a case study. After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics of “health needs” concept” with other students. In continuation, they need to find the examples from their own experience.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students’ work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questions test and group work (virtual scenario, describing a health need of an individual or of a population group).

# »HEALTH NEEDS« CONCEPT - SOME PERSPECTIVES AND DIMENSIONS FROM THE PUBLIC HEALTH POINT OF VIEW

Lijana Zaletel-Kragelj, Ivan Eržen, Marjan Premik

## THEORETICAL BACKGROUND

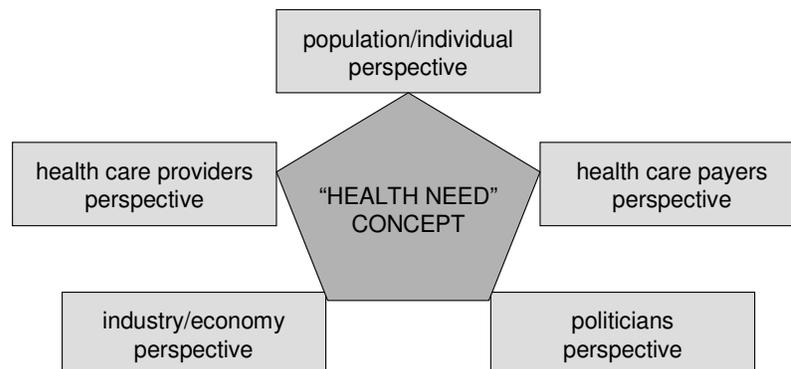
### Introduction

This module could be rather difficult to understand since it is dealing with philosophical aspects of public health rather than with practical. Nevertheless for public health students, it is extremely important to be familiar with the concept of “health needs”, since it is one of key concepts in public health.

Here, at the very beginning of this module, we should emphasize, that there exist several different perspectives on this concept. From the public health standpoint, the most important perspective on this concept is that of a population, or an individual respectively. This perspective will be the central under consideration.

### Different perspectives on “health needs” concept

In introduction, we have already emphasized that there exist several different perspectives on the “health needs” concept, what enters an enormous confusion in its understanding. Figure 1 presents majority of the most important perspectives (Figure 1).



**Figure 1.** Different perspectives on “health needs” concept

As a consequence, this concept seems rather elusive. This confusion originates from the fact that the concept of “health needs” is very difficult to define exactly, like it is

also very difficult to define exactly the concept of “health itself”, since both concepts are extremely complex entities (1).

Trying to enlighten “health needs” concept from the public health point of view, we meet several terms which are continuously used interchangeably. We will try to define/explain those terms which are most frequently brought into use, and place them in different perspectives on this concept, as well as their dimensions.

## **Definitions and explanations of terms**

### *Central terms*

In explanation of “health needs” concept two central terms are “health need”, and “health care need”, but we need to start just from the term “need”.

### **Need**

The simplest term, “need”, is used widely, but it can have a variety of meanings. In Oxford Advanced Learner’s Dictionary of Current English (2) we could find four meanings of this term:

1. a situation when something is necessary or must be done,
2. a strong feeling that somebody want somebody/something or must have something,
3. the things that somebody requires in order to live in a comfortable way or achieve what he/she wants,
4. the state of not having enough food, money or support.

All these meanings share the same idea - a need refers to a lack of something.

### **Health need and health care need**

In public health, the term “need” is used in a context of “health needs” concept. The problem is that under this term several meanings could be met. These meanings are on one hand closely related, while on the other they must be clearly distinguished.

1. “Health need” in its basic sense of “health need”.  
The term could be explained in different ways. Since term “a need” refers to a lack of something the most easily understood explanation in the context of concept of “health needs” could be that “health need” refers to a lack of health.  
Another simple explanation is that “health need” is a desire of people to remain healthy.
2. “Health need” in a professional (medical) sense of “health need”.  
Health need may be defined also as scientifically (biologically, epidemiologically, etc.) determined deficiencies in health that call for preventive, curative and eventually (where appropriate) control or eradication measures (3).
3. “Health need” in a sense of “health care need”.  
The “lack of health” (from the population or an individual perspective) could be perceived as strong enough to be expressed in terms of “health care need”. This means that “health care need” could be perceived as “health need” which is strong enough for an individual to seek a help in a health care service.
4. “Health need” in an economical sense of “health care need”.

In health economics “health need” is defined as the minimum amount of resources required to exhaust an individual’s or a specified population’s capacity to benefit from an intervention (4, 5).

### **Some other important considerations**

Some other important considerations about “health needs” concept are:

- health need like health is not an absolute concept,
- there are gradations of health need, therefore health needs of a population or of an individual have to be prioritised,
- health need is a subjective rather than an objective, scientific concept,
- perceptions of need vary depending on the observer,
- health need is not a scientific judgement and it is not the domain of the medical profession only.

Frequently, the term “need” in the context of “health needs” concept is confronted and/or interchanged by a term “demand”.

### *Other important terms*

#### **Demand**

In Oxford Advanced Learner's Dictionary of Current English (2) we could find three meanings of the term »demand«:

1. A very firm request for something; something that somebody needs,
2. Things that somebody/something makes you do, especially things that are difficult, make you tired, worried, etc.,
3. The desire or need of customers for goods or services which somebody wants to buy, or use.

#### **Health demand and health care demand**

We could notice that from a semantic point of view the last meaning of the term “demand” is very close to the term “health care need” In fact, these two terms could be understood from three perspectives at least.

1. “Health care demand” in the sense of “health care need”.

The term “health demand” is used as a synonym in this context as well.

In this sense the term “health care demand” or “health demand” respectively, could be explained as an attempt by an individual in need to seek health care services help.

2. “Health care demand” in the sense of “demand” in economic sense.

For economists the word “demand” is reserved for the desire for a good or service (such as health care) in addition to the ability to pay for it.

According to Last (4), demand for health care services is willingness and/or ability to seek, use, and, in some settings, pay for services. Sometimes further subdivided into “expressed demand” (equated with “use of health care service”) and “potential demand”, or “need”. This division was proposed by WHO experts group in 1971.

3. "Health demand" in the sense of "demand" in population/individual sense. "Health demands" are usually measured in terms of the actual utilisation of health services. But, consideration must be given to the fact that all felt needs by a population (most usually in curative medicine) cannot be translated into expressed need or demand for various reasons (like absence of accessible health services, lack of information, lack of confidence, low income, etc.).

#### *Other related terms*

##### **Health care**

According to A Dictionary of Epidemiology (4), health care is defined as service provided to individuals or communities by agents of the health services or professions to promote, maintain, monitor, or restore health. Health care is not limited to medical care, which implies therapeutic action by or under the supervision of a physician. The term is sometimes extended to include self-care.

##### **Health care provider**

According to a Glossary of Health Care and Health Care Management Terms (6, 7), health care provider is an individual or institution that provides medical services (e.g., a physician, hospital, laboratory). This term should not be confused with an insurance company which "provides" insurance (7).

##### **Health care supply**

In this place also a term "health care supply" need to be mentioned. The three terms, being "health care need", "health care demand", and "health care supply" should be clearly distinguished. According to Stevens, health care need is what people might benefit from a health care system, health care demand is what people wish to use in a health care system, and health care supply is what is actually provided (8).

#### *Some expert's/expert groups' perceptions of health need concept and classifications*

In literature we can find perceptions of "health need" concept of different experts or groups of experts, and their classifications, among them WHO Expert Committee on Health Statistics' perception, and Bradshaw's, and Kalimo's perception.

##### **Classification of WHO Expert Committee on Health Statistics**

A classification of "health need" was proposed by the WHO Expert Committee on Health Statistics in 1971 (9):

- perceived need - perceived need is the need for health services experienced by the individual and which he/she is prepared to acknowledge. Under certain conditions it may exceed the professionally defined need;
- professionally defined need - professionally defined need is the need for health services recognised by a health professional from the point of view of the benefit obtainable from advice, preventive measures, management or specific therapy. Under certain conditions it may exceed the perceived need;
- scientifically confirmed need - scientifically confirmed need is the need confirmed by objective measures of biological, anthropometric or

psychological factors, expert opinion or the passage of time. It is generally considered to correspond to those conditions that can be classified in accordance with the International Classification of Diseases.

A classification of “health demand” was proposed by the WHO Expert Committee on health statistics in 1971 as well:

- potential demand - potential demand is the demand for health services corresponding to whichever is the greater of the perceived and professionally defined needs for each particular conditions or for all the conditions affecting a given population;
- expressed demand - expressed demand is the demand actually made on the health services available to a population. It may be greater than the actual utilisation because of the existence of waiting lists, limited resources or differences between patient’s perception of their needs and professional’s definition of those needs.

### **Bradshaw’s classification**

At about same time, Bradshaw in sociological sphere presented his classification of needs (10). This classification could be often met in public health as well. He distinguished among four types of needs, being normative, perceived, expressed and comparative:

- normative need - normative needs are those that agree with norms, as defined by health professionals;
- perceived need - perceived needs are those perceived by individuals, depending on health services available;
- expressed need – perceived needs become expressed needs, once articulated;
- comparative need - generalization of evaluated needs in a population results in comparative needs.

### **Kalimo’s classification**

In 1976 Kalimo, Finnish expert for health care systems, proposed his perspective on “health needs” concept, in fact for health care service need. He operationally defined health needs as the difference between observed and ideal levels of health (11).

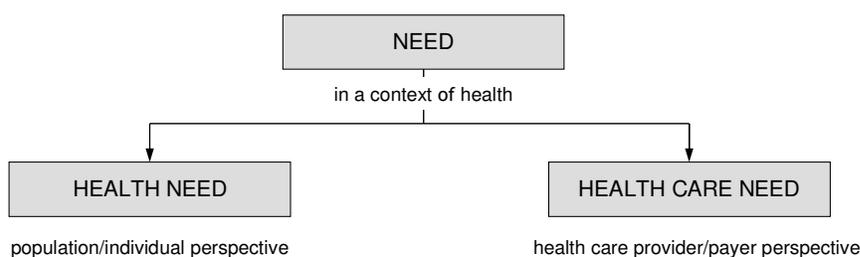
According to Kalimo, ill health in the individual can conceptually be understood as a disturbance in one or more subsystems, being psychobiological, perceptive, and social activity. As a consequence he distinguished among three types of “health needs” (11):

- medically defined need - when a disturbance is present in the psychobiological subsystem on the basis of clinical evidence;
- perceived need - when a disturbance is present in the perceptive subsystem on the basis of perceived or subjective evidence;
- socially determined need - when a disturbance is present in social activity on the basis of behavioural or social evidence.

## “Health needs” concept and public health

Public health view on the “health needs” concept is (or should be) comprehensive. Such a view originates from the fact that public health itself is a knowledge and profession that encompasses knowledge of several other professions and sectors (and it is as such multiprofessional and multisectoral), and integrate them to credit of people that seek for health. Thus, a public health professional needs to be familiar with different perspectives on this concept to be able one side to confront, and on the other to integrate population/individual, health care providers, health care payers, industry/economy, and politicians perspectives.

Two of the most important perspectives in a context of health are the perspective of lay people/population, and the perspective of health care providers and perspective of health care payers (Figure 2). The first are thinking about “health needs”, and the others about “health care needs” (Figure 2).



**Figure 2.** The most important perspectives on “health needs” concept.

Mostly, both groups are thinking that they are talking about the same issue, but this is in fact far away from the truth. As it will be discussed later, the “health need” is a multidimensional concept and “health care need” is only one way to be expressed. That means that the health need could only partially be fulfilled through health care systems, especially those typical for western countries. In these countries health care is understood to be mostly provided by medical care. The fact is that great deal of health is gained and lost outside of medical care, and the underlying determinants of good health are to be found in the environments of everyday life, people’s social, cultural, and economic circumstances and the interaction of lifestyles and behaviour with those circumstances. A great deal of “health need” thus cannot be fulfilled through a health care system.

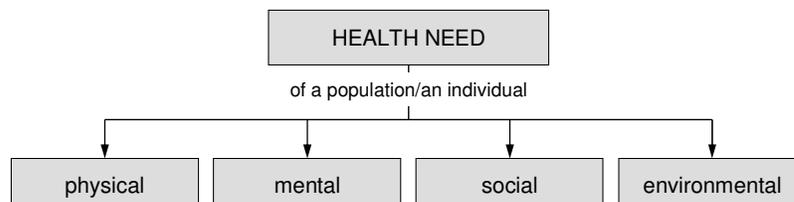
Also inside the group of health care providers and payers there are differences in understanding of the health needs concept. For example, medical need is mostly defined as medically modifiable morbidity burden while demand for medical services is defined as the request of the citizen, this time in the role of patient (a »consumer«) for medical care services (12). This definition is primarily related to payer’s perspective. In some cases, that what is “a need” for one, it is “a demand” for the other. Detailed discussion on this issue is beyond the scope of this module, and should be worked out in a separate one.

At this point we could simply stop this philosophical debate, but in fact, it could be continued, and additionally made even more complex with including the ethical perspective on the issue. This very important perspective is often neglected from the pure industry/economy stand point where most frequently only the rules of capitalism are those that count. But this issue is also beyond the scope of this module, like beyond the scope are all more economical considerations of health needs, including supply of health care.

From public health point of view the most important perspective is certainly the perspective of population and the member of a population - the individual. Thus this perspective will be discussed in more details.

### **“Health needs” from the population/individual perspective**

There exist several dimensions of health need from perspective of population/individual, at least being physical, mental, social, and environmental (in the sense of natural, physical and biological, environment) (Figure 3).



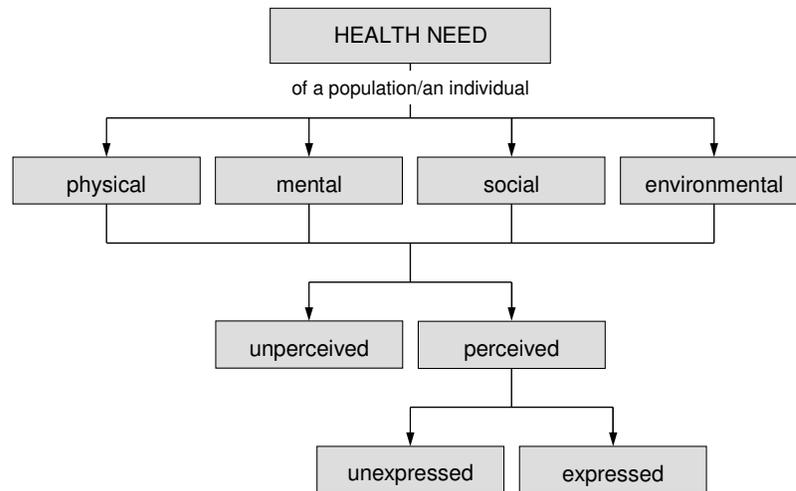
**Figure 3.** Some dimensions of health need of a population/an individual.

The disruption can occur in one or more subsystems at the same time.

Whatever health need dimension is, it could be perceived or not (Figure 4).

When and how the need is perceived depends on different factors:

- mainly it depends on the amount and intensity of disruption. Every disease has its natural course, and most of them have preclinical phase before it is fully expressed with symptoms. If there are no symptoms, or symptoms are of low intensity, or are not frequent, the disruption is not disturbing for an individual. As a consequence it is not perceived as a health need;
- to the certain extent the perception of health need also depends on cultural and normative environment of an individual;
- today, health need perception could be also driven by remedies industry (e.g. pharmaceutical industry) using marketing methods to enhance consumption of their products;
- contemporary information technology (e.g. internet), as well, could raise the perception of health needs that otherwise would not be perceived.



**Figure 4.** Perception and expression of health needs from the perspective of a population/an individual.

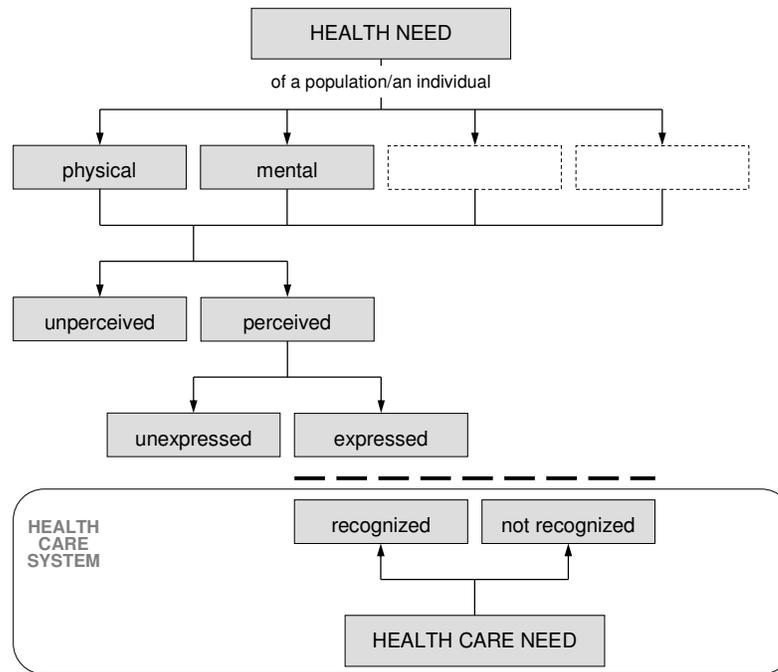
If health need is perceived, it could be expressed or not (Figure 4). If it is expressed, this could be in different terms, among others in terms of need for professional health care (medical care).

With expression of health needs in terms of health care need, it is similar situation as in perception. Only in this case, the cultural and normative environment has bigger influence. Also social, economic, and natural environment influence expression of health needs. For example, if an individual has only moderate perception of health need, expression in terms of health care need will probably not occur, if the health care provider is far distant, or too expensive.

*Meeting “health needs” of a population/an individual through health care system*

If we consider only the physical and mental dimension of a health need which is usually searched for, and also (at least partially) fulfilled in the frame of health care system, we could confront the expressed perceived physical or mental health need to a health care need, recognized by health care professionals (Figure 5).

In fact, mostly the physical dimension is considered inside health care systems, while the mental dimension is mostly not in the first plan.



**Figure 5.** Expressed health needs confronted with recognized and not recognized health care needs.

When the health care needs meet the health need of a population/individual we are talking about met need, otherwise the needs are unmet (Figure 6).

The unmet health need is even greater if we consider that great deal of health need is not generated physically or mentally, but also has other dimensions as well (e.g. social and environmental).

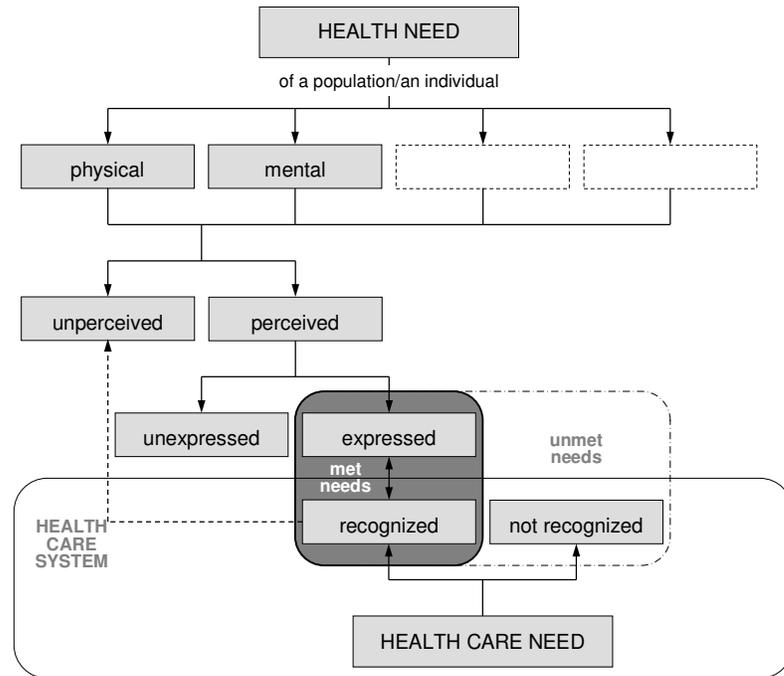
In some problems, it also happens that the need is recognized by health professionals, but it is not perceived by population/individual (Figure 6). This is the case for example in screenings for diseases with unfavourable outcomes like cancer.

### **Health needs assessment in public health practice**

At this place we need to introduce also a concept of “health needs assessment”. This is (or should be) an important task for public health. The detailed discussion is beyond the scope of this module. An extra module is needed to deal with it, so at this place we will consider only very basic views.

Assessment of health needs is not simply a process of listening to patients or relying on personal experience. It is a systematic method of identifying unmet health and healthcare needs of a population and making changes to meet these unmet needs. It involves an epidemiological and qualitative approach to determining priorities which incorporates clinical and cost effectiveness and patients' perspectives. This

approach must balance clinical, ethical, and economic considerations of need that is, what should be done, what can be done, and what can be afforded (8, 13).



**Figure 6.** Met and unmet health needs of a population/an individual.

Health needs assessment should not just be a method of measuring ill health, as this assumes that something can be done to tackle it. Incorporating the concept of a capacity to benefit introduces the importance of effectiveness of health interventions and attempts to make explicit what benefits are being pursued. Economists argue that the capacity to benefit is always going to be greater than available resources and that health needs assessment should also incorporate questions of priority setting, suggesting that many needs assessments are simply distractions from the difficult decisions of rationing.

For individual practices and health professionals, health needs assessment provides the opportunity for:

- describing the patterns of disease in the local population and the differences from district, regional, or national disease patterns;
- learning more about the needs and priorities of their patients and the local population;
- highlighting the areas of unmet need and providing a clear set of objectives to work towards to meet these needs;
- deciding rationally how to use resources to improve their local population's health in the most effective and efficient way;
- influencing policy, interagency collaboration, or research and development priorities.

In Box 1, questions that should be answers in health needs assessment are presented.

**Box 1.** Questions to be asked when assessing health needs.

***Questions in health needs assessments:***

- *What is the problem?*
- *What is the size and nature of the problem?*
- *What are the current services?*
- *What do patients want?*
- *What are the most appropriate and effective (clinical and cost) solutions?*
- *What are the resource implications?*
- *What are the outcomes to evaluate change and the criteria to audit success?*

Importantly, health needs assessment also provides a method of monitoring and promoting equity in the provision and use of health services and addressing inequalities in health (8, 14, 15).

The importance of assessing health needs rather than reacting to health demands is widely recognised, and there are many examples of needs assessment in primary and secondary care.

There is no easy, quick-fix recipe for health needs assessment. Different topics will require different approaches. These may involve a combination of qualitative and quantitative research methods to collect original information, or adapting and transferring what is already known or available.

The stimulus for these assessments is often the personal interest of an individual or the availability of new funding for the development of health services. However, assessments should also be prompted by the importance of the health problem (in terms of frequency, impact, or cost), the occurrence of critical incidents (the death of a patient turned away because the intensive care unit is full), evidence of effectiveness of an intervention, or publication of new research findings about the burden of a disease.

### **Conclusion**

From the public health perspective is very important to be aware of different dimensions of health need of a population/an individual, and how they could be fulfilled. Public health's role is to be advocate in fulfilling population's health needs if they are legitimate and justified, and to prevent fulfilling unjustified health needs, especially if their fulfilling would result in cutting down fulfilling other justified health needs.

At the end we need to emphasize again that health needs are not only what people can benefit from health care system (this is health care need), but also from wider social and environmental changes. In meeting health needs in such a comprehensive meaning, health needs assessment is extremely important public health task to be done. It involves epidemiological, qualitative, and comparative methods to describe health problems of a population; identify inequalities in health

and access to services; and determine priorities for the most effective use of resources.

## **CASE STUDIES**

To illustrate the theory on health needs we prepared several case studies. All of them are virtual, and could be only by chance similar to real situations.

### **Case study 1**

A twenty-two years old student of medicine has got very high temperature accompanied by dry cough. He felt so badly that he decided to search for medical care. He visited his personal medical doctor who prescribed him antibiotics after pneumonia was diagnosed.

In this case, health need was perceived and expressed in medical terms. Since student's condition was evidently a clinically expressed disease, which could be treated inside the health care system, there was no doubt that his need for medical care was recognized by a medical professional. His health need was met.

### **Case study 2**

A group of people living in a small valley, in which different kind of industry is located, expressed health need in terms of environmental health when they were told that a waste incineration will take place in one of factories. After they tolerated for decades the pollution and degradation of the environment they live in, they decided to search for professional help to prevent additional pollution.

In this case the health need was perceived and expressed but not in terms of medical care. It is expressed in terms of public health advocacy. Since environmental pollution in this valley is evident, evidence based public health reaction is justified, and steps to prevent further pollution needed.

### **Case study 3**

A fifty-year old university professor has strongly perceived physical health need, expressed as a need for physical activity. He does not feel comfortable if he cannot be physically active at least few times per week. He mostly uses spinning combined by mountain climbing.

In this case the health need is perceived and expressed but not in terms of medical care. It is expressed in terms of sports activity which could be fulfilled through using recreational facilities provided by community or self-provided recreational facilities.

### **Case study 4**

A new vaccine was launched to the market. The studies, mostly driven by the producer of the vaccine, showed for the time being its probable effectiveness in combating the disease that it is meant for. The biggest problem is that the price is rather high. To systemize vaccination with this vaccine, providing of some other health good would be necessary to cut down, since a huge population group needs to be vaccinated by this vaccine. Additionally, the optimal target group is not

clear yet. The producers use economic marketing principles to advertise the availability of their product, and a group of citizens with a political support triggered a campaign in support of systematization of this vaccination.

In this case there are a lot of obstacles. First, the health need perception is mainly artificially driven by producer of the vaccine before its definite effectiveness is evident, and before optimal target group is clear. Second, the price of the vaccine is rather high. Third, not advantage of all other available and cheaper measures was used yet.

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module and recommended readings.

### **Task 2**

Critically discuss the differences between the terms:

- “need” and “demand”;
- “health need” and “health care need”;
- “health care need” and “health care demand”.

Use method of fishbowl.

### **Task 3**

If yes, then try to find out its characteristics. If not, try to find an example from other countries (e.g. FINBALT Health Monitor Surveys).

### **Task 4**

In a group of three to four students prepare a virtual scenario describing a health need of an individual or of a population group. Prepare a short presentation for other students. The scenario will be a part of the assessment.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers, Health Professionals and Decision Makers	
<b>Title</b>	<b>A HEALTH ORGANISATION PURPOSE AND STRATEGIC INTENT: CREATING VISION AND MISSION</b>
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<b>Module: 2.3</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Planning, mission, vision, health organization
<b>Learning objectives</b>	After completing this module students and public health professionals should have: <ul style="list-style-type: none"> <li>• increased their awareness of strategic planning significance;</li> <li>• identified drivers for strategic management of health organization;</li> <li>• understood how strategic intentions vary by level of health care and stakeholders; and,</li> <li>• explored the similarities and differences between missions and visions of existing organization.</li> </ul>
<b>Synopsis (Abstract)</b>	Raised awareness of macro-environment change pointed out the necessity for strategic planning and management of a modern health organization. The apparent management concern is how to maintain a pace with dynamic environment and innovations and to preserve proactive position. Economic transition in health systems of south east Europe countries acts as driver for strategic respond to imposed changes. Health organizations do vary by their corporate values and level of their autonomy. Like entities they have to define their purposes, missions, visions, functional capabilities and unique personalities. Also, as an open system; they must relate effectively to its external and internal environment.
<b>Teaching methods</b>	After introductory lectures students will work in small groups up to 8 members. They should be divided according to working place in their countries. They will participate in brainstorming technique in order to recognize and to define their health organizational values and purpose. Then, they will discuss the possibilities for change and improvement in their own environment, while developing their vision and mission. Teacher should assist by introducing good examples and by highlighting organizational values. Finally, groups will be asked to present their work and explain their organizational current and future direction.
<b>Specific recommendations for teacher</b>	Teacher should be familiar with examples of different health institutional strategic orientations. Also, teacher should be ready to help students to explore internet sites of various health organizations and their strategic concepts and directions (e.g. <a href="http://www.isqua.org/isquaPages/Links.html">http://www.isqua.org/isquaPages/Links.html</a> ).
<b>Assessment of students</b>	Group presentations and discussions.

# **A HEALTH ORGANISATION PURPOSE AND STRATEGIC INTENT: CREATING VISION AND MISSION**

**Milena Santrić Milicević**

## **THEORETICAL BACKGROUND**

The environment of rapid changes calls upon health organizations to respond appropriately to them (1). While health managers in high developed economies struggle with global trends trying to stabilize their positions on competitive health service markets, those in transitional countries and particular in public services seek for opportunities and appropriate means for effective development (1,2,3,4). In the course of generating insight into how to manage strategic change and get forward to the goals, two standpoints appeared interesting. First is the Ohmae's formula for success that comprise knowledge of organizational boundaries (three R): reality, readiness, and resources of the organization (5). The second is the Pettigrew and Whipp observation, based on empirical case studies, that a strategic change is a result of the interaction between content of change (what: objectives, purpose and goals), process or how of change is implemented and the organizational context of change (the internal and external environment) (6). In practice, it is seen that some private sector health organizations were better able than others, and especially than public ones to improve their competitive performance. Moreover, while young organization tends to be energetic and oriented to change, a mature one is prone to conservatism and protection of the resources and authority they have acquired (6). For that reason, health organizations alike other open systems must relate effectively to its external environment, without sacrificing hard won prior accomplishments. As a start in response to the specific needs identified, health organizations should have developed missions and visions statements.

Vision and mission declarations are necessary step in strategic planning, management and leading processes. Thus, a significant management concern is how to remain dynamic and innovative while acknowledging that health organization development is determined by several factors like it is the position in the system, their functional capabilities and unique personalities. In addition, governing body arrangements act as drivers of change, by influencing who should the health organization serve and how should purpose be determined. On the other side, who is health organization supposed to serve, is imposed by powerful external stakeholders.

Besides, the suitability, acceptability and feasibility of health organizational change are to be assessed within the ethical stance of the organization and social context. The climate of integrations and globalization itself open the space for new values and new generations of health managers (7-10). The principles like solidarity, equity and accessibility which are legacy in some health systems sometimes are confronted with feature of other philosophy values that imply fast growth and accomplishments (11,12). Finally, usual macro-environment forces (historical, cultural, economic and political factors) require balancing between directions to "fit" and to "stretch" to all of the mentioned challenges (1,6).

Fundamental reckoning for a strategic leading of a health organization are the well designed vision and mission. The leader of a health organization should have imagination, should be unorthodox and challengeable, but at the same time be clear and practical to assure objectives achievability and realization within the legislative framework (6). Therefore, leaders are rare, instead frequent are managers or management teams, but more often we see directors of health institutions (who follow directions). Since it is likely they face multiple priorities and pressures they should constantly strive to maintain a proper balance between reactive and proactive postures. The passive posture of management boards of directors should be replaced by proactive and sometimes aggressive one. As it is understood a decade ago, “what we need today, maybe is not new theory, or new conception or framework, but they are people that can thing like strategists” (5). The key strategic values of the new era are innovations, quality, speed, flexibility and continual improvement. Those attributes are also the prerequisites for a modern strategic and health management in a complex and dynamic social ambient.

Important for heath manager who is strategist also, is to frequently re-inquire the aim of the health organization, strategic position and operational policy, since everything that will happen is hard to plan, and it is important to take into account the fact that any intervention may set off unexpected costs (2,3,4). By analyzing the internal strengths and weaknesses of an organization in the light of the external threats and opportunities one should be able to adequately determine the vision, mission, objectives, policy and goals of a health institution. The key questions, modified after Norburn and Birley, in planning the strategic orientation of a health institution are presented in table 1 (2).

**Table 1.** Keys questions for mission and vision development of a health organization

Questions	Keys
<i>What is our job?</i>	To understand the field where health organization operates, the level it is in and the services it offers to whom.
<i>What is our position in the health service production framework?</i>	To analyze the external environment, health sector market and competitors.
<i>Where are we now?</i>	To analyze resources, competences and competitive advantage.
<i>What should be our future position?</i>	To analyze stakeholders` expectations, power, energy and interest.
<i>What activities will lead successfully to it?</i>	To analyze approaches, good models and benchmarking
<i>Where do we want to be?</i>	To create organizational vision, strategic intent and strategic positioning in future.
<i>How do we get there?</i>	To plan organizational structure, directions, development, strategies and to design policy.

The mission statement is generalized statement of the purpose of the organization. Also, it defines and specifies the vision of the organization starting from

the geographical territory, target market, philosophy and production conditions (like quality) and social responsibility. In the literature various approaches exist for development of mission. Prescriptive approaches usually emphasize the need to set out a mission and objectives for the next few years. Some managers accept the need but emphasize the bottom up approach and inclusive development of health organizational core values. Emergent approaches doubt the usefulness as the future is so uncertain. Ansoff and McDonnell point out that mission represent the aspiration or intentions of stakeholders that organization serves (13). Johnson and Scholes call it like „*raison de`être*” - the reason it exists as such in social and economical context (2). Complementary, Drucker signifies it as the way that one could create its new clients or customers (14). In summary, it should be in line with the expectations of the key stakeholders and the reasoning behind it. Key values of health organization should be incorporated in the mission in the form of beliefs, attitudes, image, tradition, truism, symbols, legitimacy, cultural web and sometimes values are stakeholders themselves.

Mission statements should be visionary description of the position in the `health service production framework'. As it outlines the broad future directions, missions are followed by objectives which are more detailed, usually quantified, measurable and achievable in a specific a time period. So, the identity of health institution is its mission, philosophy (cultural web, values, principles, beliefs and policy) and is its purpose.

The mission is important to be set before putting into practice an effective change initiative or strategic plans, because it should guide the health organization through strategy implementation.

The strengths and competencies of managers to improve the position of health organization are reflected in vision. Vision should be clear inspiration for the both internal (e.g. employees, owners, and unions) and external stakeholders (e.g. clients, suppliers, competitors, and local community). Clarity can be obtained by very natural statements, like what are our purpose framework, competencies and unique values.

For the vision development it is useful to explore what stays the same in health organization despite continual efforts and necessities to change (5). The crucial health organization stewardship comprises intelligent use of the knowledge and power, regulations and data sets that will upgrade understanding and commitment of employees to the mission and vision (2,7,8,11,12). Besides managers, it is expected that other professionals and staff of health organization show a growing interest in understanding how they can develop the skills and attitudes required in a visionary health organization and service. A team of high performance that creates vision for the longer period should interact with each other in real talk and open listening, to confront the obstacles with risk tolerant high energy, and high trust. There is a large and growing body of evidence that demonstrates a positive linkage between the development of human capital and organizational performance. Moreover, a health organization market value depends less on tangible resources, but rather on intangible ones, particularly human resources, all human capital forms, notably intellectual, social, and organizational (2). In shaping a health organizational performance human resources are assets and liabilities in linking overall coherence with vision. Depending on how internal and external business communication is regulated, the local and national prestige and growth among customers will eventually be visible (16). So

sharing the vision with all multidisciplinary teams in his/her organization is another core issue.

The final points will be that vision is „what can be“(e.g. our new way of organization, functioning, values, and image), and that it should not be blind nor have tunnel outcome or myopia effects (2,9). In conclusion, the overriding purpose of a health institution is outlined in its main intentions as well as in the broad directions to be followed in the future. Strategically thinking from the vision agreed upon, we realize what should be our mission and objectives of the organization starting from the real circumstances and creating new one if necessary. In other words, modern strategic planning should be supported by creativity.

Below are presented strategic statements of some health organizations, showing how they fit with the key stakeholders' values, and are stretched with internal and external customers' expectations.

#### ***AHRQ Mission***

*To improve the quality, safety, efficiency, and effectiveness of health care for all Americans.*

Accessed June 17<sup>th</sup> 2008 at URL: <http://www.ahrq.gov/about/budgtix.htm>

*“HOPE mission is to promote improvements in the health of citizens throughout Europe, high standard of hospital care and to foster efficiency with humanity in the organization and operation of hospital and healthcare services. To reach its goals, HOPE has then been and is involved in numerous comparative and exchange activities. And since the influence of EU legislation on hospitals dramatically increased with the internal market, HOPE has developed an activity to analyze and to influence decisions in their earlier phases”.*

Accessed June 17<sup>th</sup> 2008 at URL: <http://www.hope.be/>

#### **MINISTRY OF HEALTH SINGAPORE**

##### ***Vision and mission***

*Championing a healthy nation with our people - To live well, live long & with peace of mind. We are an innovative and people-centred organization, committed to medical excellence, promoting good health and reducing illness, and to ensuring that Singaporeans have access to good and affordable healthcare that is appropriate to their needs.*

##### ***Delivery and philosophy***

*Through MOH, the Government manages the public healthcare system to ensure that good and affordable basic medical services are available to all Singaporeans. We achieve this through providing subsidized medical services while promoting individual responsibility for the costs of healthcare services. Our population is thus encouraged to adopt a healthy lifestyle, taking responsibility for one's own health. Safety nets are provided however, to ensure that no Singaporean is denied access into the healthcare system or turned away by public hospitals because of lack of money.*

Accessed June 17<sup>th</sup> 2008 at URL: <http://www.moh.gov.sg/mohcorp/about.aspx?id=82>

## **HEALTHCARE QUALITY CERTIFICATION BOARD (HQCB)**

### ***Vision statement:***

*The Healthcare Quality Certification Board raises the standard for healthcare quality professionals by defining world-class professional excellence through the international Certified Professional in Healthcare Quality (CPHQ) certification.*

### ***Mission statement:***

*The Healthcare Quality Certification Board, by providing the only accredited international healthcare quality certification, improves the quality of healthcare by advancing the theory, practice and development of diverse quality professionals.*

### ***Core Identity:***

*Professional — The standard of professional excellence. We are personal and professional at every contact point. We are transparent and ethically sound;*

*Definitive — We are the only organization defining healthcare quality professional excellence through certification;*

*Dynamic — We are dedicated to fostering professional growth and encouraging continuous improvement;*

*Passionate — We are passionate about serving our profession. Our job is to raise the standard of our profession and improve health care quality for all people;*

*Inclusive — We address all specialty areas and settings;*

*Accessible — We seek to make quality healthcare certification accessible to all. We are accessible to all via Web, mail and phone;*

*Dynamic/Evolving — We are changing to meet the needs of CPHQs and those they serve. We are a constantly evolving to further our mission. In addition, the role of the HQ professional is constantly evolving;*

*Proactive — We actively anticipate trends through industry involvement. We constantly reach out to current and prospective CPHQs for insight and needs assessment;*

*State-of-the-Art/State-of-Science — We are innovative and driven by new research, principles and techniques. We are dedicated to leveraging new technology and ideas.*

Accessed June 17<sup>th</sup> 2008 at URL: <http://www.cphq.org/2about.html>

## **EXERCISES**

### **Task 1**

After introductory lectures students will form small group consist of up to 8 members. Students will be divided in groups according to their countries and health organizations (primary health care institution, hospitals, non-governmental health organization, pharmacy, etc). They will participate in brainstorming technique in order to recognize and to define their organizational values and purpose. Each student will give an example of health organizational value according to his/her experience and knowledge and should be warned to be ready to explain it later. Group leader will write down each example on the flip chart. Students should make an extensive list of organizational values by naming as many as they have been aware of. Each of the listed values should be explained in relation to organizational aim and purpose.

The work will continue in small groups to discuss their routine tasks, responsibilities and clients and stakeholders. Group leader will summarize them on a

paper. Teacher should point out the differences that exist among various health organizations to help them in clarifying their mission reports. The necessary time for this exercise is 45 minutes, if the group is consisted from 20 students.

## Task 2

The second exercise will be to discuss the necessities in their organizational environment and the possibilities for improvement. Within the small groups they will create the vision statements. After small group presentations, discussion will be in front of the whole group. Teacher will support students to search Internet resources of useful links to health care sites around the world with intention to explore existing models of organizational missions and visions. For this exercise additional 45 minutes under the supervision are suggested.

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HEALTH POLICY ANALYSIS AND DEVELOPMENT</b>
<b>Module: 2.4</b>	<b>ECTS: 0,5</b>
<b>Authors</b>	<p><b>Neda Milevska-Kostova, MSc, MCPPM,</b> Program Director, Centre for Regional Policy Research and Cooperation "Studiorum", Skopje, R. Macedonia</p> <p><b>Elisaveta Stikova, MD, PhD, Professor</b> Medical Faculty, University "Ss. Cyril and Methodius", Skopje, R. Macedonia</p> <p><b>Donco Donev, MD, PhD, Professor</b> Institute of Social Medicine, Institutes, Medical Faculty, University "Ss. Cyril and Methodius", Skopje, R. Macedonia</p>
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<b>Keywords</b>	Health policy, health priorities
<b>Learning objectives</b>	<p>After completing this module students and public health professionals should:</p> <ul style="list-style-type: none"> <li>• Understand the steps in creating a health policy (problem identification, research design, research plan, and/or policy paper);</li> <li>• Compare and contrast alternative approaches to health policy development;</li> <li>• Explain the concept and process of health policy development;</li> <li>• Define and illustrate elements of the health policy;</li> <li>• Learn how to assess, in real-life situations, the need for change and the scope for change;</li> <li>• Prepare policy brief/policy paper for arguing certain health policy issue.</li> </ul>
<b>Abstract</b>	<p>This module examines the health policy development and in particular the functions of health policy analysis in the policy-making process. The module starts with a short overview of the historical background of policy analysis, which shows that the aim of policy analysis, today as in the past, has been to provide policymakers with information that can be used to solve practical problems. The module continues with a description of the policy development in the health sector. Although policy analysis is an intellectual activity, it is also embedded in a social and political process known as policymaking. Health policies are important because it is what gives content to the practices of the health sector. Policies are expressed in a whole series of practices, statements, regulations and even laws which are the result of decisions about how we will do things.</p>

	This module contrasts and compares several models of health policy development, each of which captures an important aspect of the complex process of policymaking.
<b>Teaching methods</b>	<p>An introductory lecture gives the students first insight in elements and process of health policy analysis and development. The theoretical knowledge is illustrated by a case study.</p> <p>Before/After introductory lectures students carefully read the recommended advanced readings. Afterwards they discuss the elements of health policy and the process of HP development with other students, especially the designing and planning phase (problem identification, policy options, etc.). In continuation, they need to identify a policy issue, find published materials (e.g. papers), write a short assignment/seminar paper (policy brief, including all its elements) and present their findings to other students.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 40%/60%;</li> <li>• facilities: lecture room;</li> <li>• equipment: LCD projection equipment;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme</li> </ul>
<b>Assessment of students</b>	Structured essay (policy brief with all elements)

# HEALTH POLICY ANALYSIS AND DEVELOPMENT

Neda Milevska-Kostova, Elisaveta Stikova, Doncho Donev

## THEORETICAL BACKGROUND

### Policy analysis in the policy making process

#### *Public policy and policy analysis*

Even though the roots of the policy as science and the policy analysis lay in the political sciences, over the past several decades, public policy has developed in a separate scientific discipline, with policy analysis as its tool aimed today as in the past, at providing policymakers with information that can be used to solve practical problems.

The main purpose of policy analysis is to improve policy making. This is not an easy task, especially when we consider that many of the most important policy changes are gradual, disjointed and incremental; large discontinuous changes are relatively rare and they stem from shocks that are exogenous to the policy-making process, not from a relatively marginal influence of analyses conducted within the process (1).

Among the policy analysts there is an unwritten rule that good policy analysis often yields better policies. In order to make good policy analysis, it is essential to know its rules, elements and procedures that combine it. This module essentially deals with the elements and procedures, but also with the whole context in which the policy analysis would take its place in a most efficient way to give informed and timely positions and opinions to the policy-makers during the process of decision making.

#### *Policy-making and the policy cycle*

The process of policy-making is often solely related to the actions of preparation, adoption and implementation of policies; it is associated with policy makers or decision makers as the ultimate power holders to adopt political decisions. But, this complex process is much more than a "galvanistic twitch" (2) - it embraces some hidden aspects of agenda setting through a systematic approach as well as through mobilization of interest groups around particular issue; it involves advocacy and lobbying for stakeholders' most preferred policy alternative at one, and the evaluation and monitoring of the implementation at the other end of the spectrum.

Some authors describe the policymaking as a *reiterative process* often called *policy cycle*. The policy cycle has defined steps which can be repeated, depending on the level of achievement of the goals or satisfaction of the stakeholders; it can also be repeated as many times as the policy process requires in order to establish effective policy, which in reality does happen, even though it is not resource-wise an efficient way of policy making.

## Elements of policy cycle

In search for geometric and logical explanation of the otherwise fairly intuitive process, the researchers have proposed a model of policy cycle with defined steps that lead into effective policy making.

Basically, the policy cycle consists of 4 to 6 steps, depending on the level of fragmentation of the steps by various authors. The cycle opens with: a) policy agenda setting; b) issue identification; c) formulation/specification of the policy alternatives; d) decision on the most acceptable/optimal policy alternative; e) policy implementation; and f) monitoring and evaluation of the policy implementation. Additionally, some authors (3) propose that the segment of policy maintenance, succession or termination be separated from the last step, as it is recognized as very important part embedding another round of decision making.

But, the cycle does not have to be started at the agenda setting; it can also commence from the evaluation of previous policy, or it can continue from any given point at which the process has once stopped for various internal or external reasons. Thus, it is very important to understand that policy cycle is a “messy order” of events and actions that eventually lead to applicable solution of the chosen policy problem.

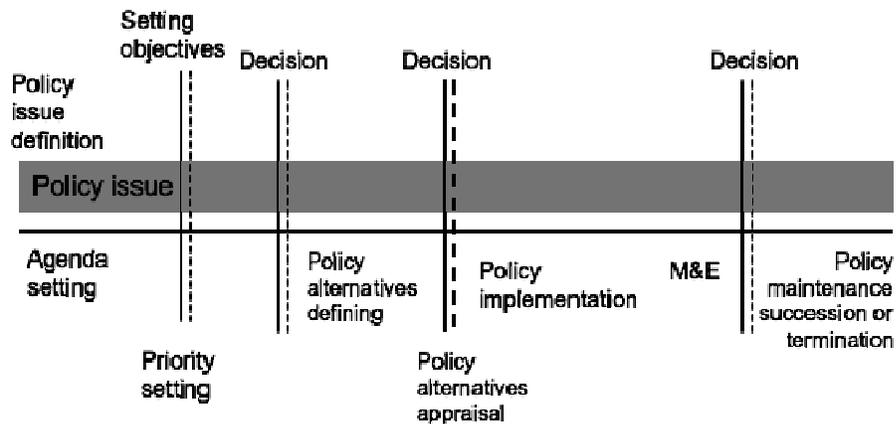


Figure 1. Policy process stages - simplified timeline

### *Policy agenda setting*

The policy agenda setting is by far the most delicate step of all in the policy making process; here, all stakeholders have an open arena for putting forward issues, alternatives and solutions in front of the political power holders. It is often thought that this step is closed and exclusive to the decision makers, but in reality we experience much more interference from other, usually very influential parties, such as the business sector or strong civil society movements.

The importance of this step in furthering one's policy issue higher on the agenda is closely related to the significance of the timing chosen for pushing certain policy issue; there are more and less suitable times for introduction and advocating for certain policy issue. For example, it is very unlikely that the pro-abortion policy

will be adopted during a conservative party ruling; it is highly inefficient to push an environmental issue during a nation-wide security crisis at the border, etc. Thus, it is up to the advocates of the policy issue/alternative to assess and wait for an appropriate time to seed it and to expect fertile soil for their position to be grown. These so-called *policy windows* are times when we can expect wide acceptance from both politics and general public, and those are judged and forecasted by experienced policy analysts.

Public interest alone does not guarantee that an issue will be placed on the policy agenda. To be placed on the agenda, policy makers must consider the issue within the purview of government action and deserving of public attention. Many different approaches are used to place an issue at the forefront of the policy agenda.

Enormous influence in the process of agenda setting can be expected from the powerful business sector, depending on the relevance of the issue to their operation(s). However, one should not underestimate the power of the opinion leaders in the society; those are sometimes influential researchers and professionals, think-tank organizations, international community, and of course - the media. As a major source of political information, the media help shape the public's perception of the reality. These perceptions constitute a basis for the public's political activity.

It's very important to emphasize that political parties serve as linkages or intermediaries between the citizens and their government. As Edmund Burke said in 1770 (4), a party is a body of man united, for promoting by their endeavours the national interest, upon some particular principle in which they are all agreed. Regarding his statement, officially and unofficially political parties have a major role in agenda setting process. Party leaders have major role in determining the agenda of the party in advance of an election and than balancing the conflict priorities of various interest groups between elections (5).

### *Issue identification/specification*

Once the issue is set sufficiently high on the political agenda, policy makers must develop a broad policy agenda into specific policy option. It is the process of policy formulation. Policy formulation involves developing alternative proposals and than collecting, analyzing and communicating the information necessary to assess the alternatives and begin to persuade people to support one proposal or another. Policy formulation involves compromising and bargaining in order to satisfy various interests and build a coalition of support. The decision makers are themselves becoming the moving force for solving the policy problem; they seek analyses, opinions and advice from their own or external sources that they find relevant and reliable. It is not unusual for the policy and decision makers to look for several positions before making a decision. Even though, in the newer democracies this process is often ended by selection of the issue among the peers of the ruling government.

This is also a stage at which researchers and professionals should exhibit their views and findings, as the issue identification and its formulation can give way to improper understanding or misleading outcome for the policy.

In policy formulation, information is assembled, arguments developed, and alternatives shaped towards winning the approval of policy makers.

### *Analysis and specification of policy alternatives*

Issue identification requires tough decision by the decision makers; the policy analysis and specification of policy alternatives puts this burden on the shoulders of policy analysts and researchers. Any given issue can be solved in an infinite number of ways, which are dependent on different social, economic, but also political factors. This part of the policy process is very much relying on understanding of the national context and specificities, legal framework and economic potentials of the country, as well as on the degree of political will, mentality of the people and readiness of the social and physical infrastructure.

For example, there may be a significant political will to introduce a smoking ban in the country, but other factors may impede its implementation, such as the willingness of people to understand and accept, potentials of the commercial sector to adapt to the needed standards, and sufficiency of the inspection services to implement the measures so that the policy will become fully effective. Since, if any of the given factors and pre-conditions are not met, the created *leak of policy* will lead to further anarchical behaviour, lined with diminishing of trust in the government institutions and disbelief in their capacity to implement any policy in the future.

Another important factor when choosing the most optimal policy alternatives to be presented to the decision makers is the forecasted or calculated (in case of sufficient data) fiscal implication of the alternative. It is highly unlikely that the decision makers will choose even a more effective policy solution that places big budgetary burden over another, maybe not as effective but which requires minimal or no budget spending for implementation.

### *Choosing the most suitable/optimal policy alternative*

Any decision maker would not like to be placed in front of one policy solution that has to be taken for granted, based on the judgment of the policy analyst(s). Knowing this, experienced policy researchers will often present at least 2 - most often 3 - policy options on the table; of them, almost without exception the "zero" alternative or the "status quo" policy option is one, as it shows what would happen if the situation of the selected policy remains unaltered, while other circumstances inevitably change with time. An illustrative example would be the analysis of the introduction of electronic health cards, in which the zero option of continuing the practice of paper health records is matched against the developing IT society, in terms of funds consumed by paper use, possibilities for abuse of data, time consumption for communicating health data among institutions, storage space, etc.

In this part of the work, as can be seen from the example, the analysts offer social, economic and political analysis (and forecast!) to the decision makers for each offered policy alternative, while at the end proposing the most preferable one against all mentioned criteria.

In the real world, however, sometimes it happens that the decision makers already have their own preferred solution, even before the analysis is done. This kind of "pre-commissioned" work is referred to as *garbage bin* policy approach (1), in which the solution is known before the problem is identified, or simply - the solution is attached to a problem, for reasons such as political image building,

pushing certain group's vested interests instead of public interests, etc. Once the policy has been formulated, statements of government policies and programs are promulgated.

### *Policy implementation*

After another round of difficult decision-making, finally the policy comes to the stage of implementation. Here, the decision makers should be aware (and maybe made aware by the policy analysts) of the necessary infrastructure for proper implementation, or the actions that should be taken to strengthen or enlarge it. Those actions become priority and take immediate execution. This is the test for both the political willingness and the potentials for success of the selected policy alternative.

Implementation involves three activities directed towards putting a policy into effect. The three activities required for implementation are:

- interpretation;
- organization; and
- application.

*Interpretation* means the translation of the programmatic language into acceptable and feasible administrative directives. These can be laws, regulations, decisions and resources allocation.

*Organization* requires the establishment of administrative units and methods necessary to put a program into effect. Resources like money, building, staff, equipment are important for implementation of the formulated policy issues.

*Application* requires the services to be routinely administered.

The process of interpreting and organization to implement policy goals it is often termed *strategic planning*. Strategy planning must be then followed by operational planning and management as a part of the application phase of the implementation.

Yet, putting certain policy in the daylight should go hand in hand with its monitoring and evaluation - for the simple reason of knowing its effects, but also gaps and challenges, as well as possibilities for improvement, once they are identified. The policy analyst again here plays crucial role in walking hand-in-hand with the decision makers, using its forecasting and policy adaptation skills.

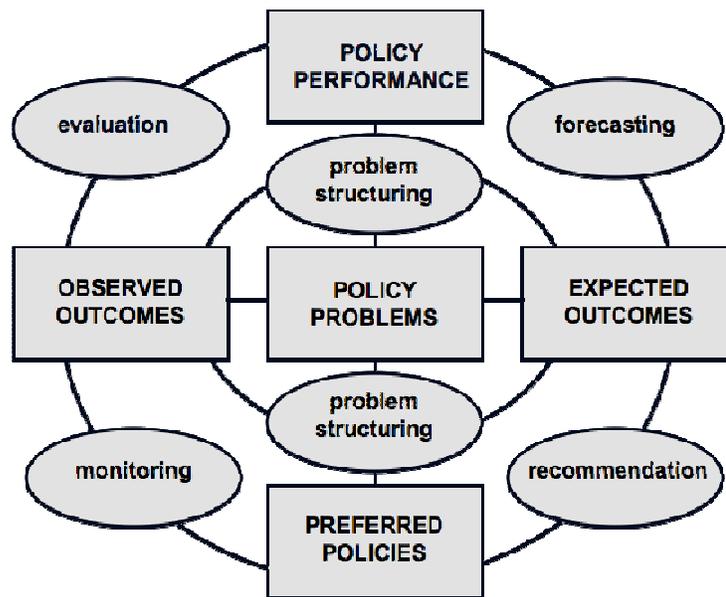
### *Monitoring and evaluation*

Each policy-making authority in the country should consider monitoring and evaluation as its integral part, and thus always make sure that there are sufficient resources for their execution. This is often not the case in the newer democracies, so usually even good policies suffer in their implementation, as there is no corrective mechanism to alarm about the faults in the system.

Essential part of the monitoring is setting realistic performance indicators, measuring them and evaluating each one against the expected outcomes of the policy, set during the issue identification and policy analysis stages. The results obtained will serve as feed into the next step, which will be made fairly easy to perform, once the necessary decision-making data is in place.

*Deciding the Policy fate: maintenance, succession or termination?*

Under the condition that the monitoring and evaluation stages have been properly performed (and this is not to be considered a one-time action!), the decision on whether the chosen policy alternative is to be continued, modified or completely ceased is relatively easy to adopt; if, of course, other political interests are not interfering with the decision. As the later is often the case, the role of monitoring and evaluation is thus more important, as it can strengthen the position against the decision made solely on the political interest base.



**Figure 2.** The Process of policy analysis (adapted from Dunn W.N, 2004)

### **Health policy development**

#### *Health policy agenda*

In the health sector, the ultimate goal of the policy and decision makers is expected to be the wellbeing of the population, universal access to health services and/or providing better healthcare at optimal budget spending. As this is a very broad definition of a mission of health authorities, it includes infinite number of issues that need to be solved, addressed or improved. So, it is of quite an importance the order by which they are addressed, or the timing at which they are put onto the table. For example, the issue of propagating breastfeeding is not an unimportant

one, but it has lower priority over providing health access to the whole population (including the rural areas); not that the healthy diet and nutrition programs are less important, but the vaccination preventive program will certainly be given a higher priority on the government policy agenda; etc. Yet, one should be aware that sometimes some apparently “less important” issues are put on the agenda for different reasons (among which e.g. the political rating improvement), and those policy windows should be used to push forward particular policy alternative(s), ideally optimal for the general public or the vast majority of population.

Major role in setting the health policy agenda is played by the international community, especially in the developing countries. This very noble intention, can sometimes be motivated by the objectives of solving the macroeconomic situation in the country, rather than by the goals of establishing a good system that would provide high quality healthcare; other times, it is related to a trend in the world, that would not necessarily be of high value if applied to an unprepared national context. Thus, it is very important to judge the source of the policy agenda setting, in order to be able to react upon it according to the national priorities and needs in this very sensitive social service sector.

### *Health policy analysis*

In a not much different way from other areas in the society, the health policy analysis is using the methods and procedures as explained above for informing health policy-makers and decision-makers. The political consensus over the importance of a certain issue is much easier to obtain in the health sector rather than, for example in the sphere of national security; thus, here a much bigger challenge is the issue selection, together with the choice of the preferred policy alternative. Health sector being one of those in which there is always relatively higher demand than supply, or much bigger need than resources available, the choice is often difficult to make from the aspect of financial or human resources and infrastructure availability. For example, there is no government that will not agree with the importance of providing equal access with high quality healthcare for all citizens, but the financial limitations will certainly play crucial role in navigating the process.

To this end, the key criteria for the health policy analysis are bound to financial constraints of the country’s economy, and overcoming these constraints is elaborated below and in the case study, given at the end of this module.

### *Key criteria in setting priorities, health policy formulation and alternatives*

As said before, one of the key criteria in health policy making is related to the financial constraints or possibilities of the country’s economy. Taking into consideration the fact that still the health sector is predominantly perceived as “resource spending” (spending on healthcare) rather than as “resource generating” (building a healthy workforce), this criterion will have the last word in deciding the most optimal health policy alternative (Box 1).

Another, not less important criteria, is that most of the policy makers would like to see in the policy analysis the outreach and the scope of population that would benefit from the given policy. To each policy maker that considers fulfilment

of the mission of his/her organization would ask on the magnitude and effects of the policy if applied as priority in the system; he/she will certainly understand a comparison between a policy on drug abuse prevention and vaccination, for example. Choosing one over the other will have to give good arguments and justification for making such choice, in terms of holding themselves accountable in front of the citizens that voted for them.

Last but not least, among the key criteria is the timeframe of achievement of results or visibility of the policy implementation. Short-term objective are always preferred, but a good argumentation of a long-term and strategic goals can lead to choice of a far better solution over just another “headline for this month’s journal”.

### *Major players in health policy formulation*

Regardless of the efforts of the governments in developing countries, it is an often seen scenario that the major players in setting the policy agenda and health policy formulation are the governments of developed countries or the international community. This is sometimes deliberate, but many times also unintended outcome of bilateral or multilateral agreements and relationships. Offering international or own solutions for local problems heavily bound to national contexts is a common practice among different health sector consultants, projects or programs. Even though made with good intentions, such applications of unadjusted policy solutions can lead to major damages to the health system in one country - and, as health sector is vitally dealing with human lives, such damages by faulty health policy decisions can have unforeseeable consequences to the nation’s economy as well.

<b>Box 1. Criteria for setting priorities in health policy and planning</b>
<p><b>Medical criteria:</b></p> <ul style="list-style-type: none"> <li>◆ Frequency of the disease (prevalence and incidence)</li> <li>◆ Disease duration</li> <li>◆ Seriousness of the disease (consequences, complications)</li> <li>◆ Disease lethality and fatality (rabies, AIDS, tetanus)</li> <li>◆ Needs for problems solving according to professionals’ evaluation</li> </ul> <p><b>Economic criteria:</b></p> <ul style="list-style-type: none"> <li>◆ Financial expenses regarding the disease (for doctor service delivery payment, medicaments, rehabilitation etc.);</li> <li>◆ Permanent incapability for work (disability);</li> <li>◆ Temporary incapability for work (absence/absenteeism);</li> <li>◆ Economic rationality and sustainability of investments in finding decision for certain health problem (e.g. construction of water supply and drainage systems, immunization);</li> <li>◆ Financial constraints or possibilities of the country’s economy</li> </ul> <p><b>Social criteria:</b></p> <ul style="list-style-type: none"> <li>◆ Particular socio-medical importance of certain population groups (children, students and youngsters, women, workers, elderly people etc.);</li> <li>◆ Possibilities for practical solution of the problem;</li> <li>◆ Possibility for encompassing certain population groups (compactness of the group, for e.g. school children, workers);</li> <li>◆ How much the solution of one problem is independent from the solution of another problems;</li> <li>◆ Timeframe of achievement of results and visibility of the policy and program implementation</li> </ul>

**Human criteria:**

- ♦ Number of people that will benefit from the solution of a certain problem or from the given health policy;
- ♦ Population's requests for finding solution regarding a certain problem;
- ♦ The effects that will be achieved when the problem is resolved (more effects together).

Thus, it is very important that the health policy is created and structured by researchers and analysts that have profound knowledge of the national context and specificities; imported solutions may be a good base for change, but only if matched against the local background, needs and possibilities.

### *Advocating health policy*

In every policy issue or problem there are a number of stakeholders that have their positions, interests and knowledge or information, and therefore an environment of different pressures is created. In the case of health policy, not only the pressure from the professional community or government can be very high, but also the patients or users of the health system can have strong positions about a certain case, since the health policy is directly influencing their life, lifestyle or living standard.

In the process of advocating for certain health policy, in most of the cases, the first issue that should be addressed is the common misunderstanding of the standing of the patients and medical professionals within the system; as often seen, the medical profession finds itself opposed to the patients, and in fact this is major misinterpretation of the roles of both; the doctors and the patients are on the same side of the coin, as they both work and aim at - better health and prolongation of human life - each in their own role and own way. Once having planted for this, through the selected health issue that is advocated for, the health policy process will much easier move through the labyrinths of its own development.

There are different ways of doing advocacy; it can be both formal and informal, with or without written documents. It can take several months to several years, depending on the readiness of the stakeholders to take into account the opinion of others and listen to their arguments. But, whichever pathway is selected, the key to successful advocacy is to be ready to give up the ownership of the idea (something not very typical in the scientific and research community), to be prepared to hear others advocating for the idea (which helps the process, as it shows acceptance and raised awareness on the issue) and to be open for dialogue objectively accepting other positions and alternatives.

## **CASE STUDY: PATIENTS RIGHTS AS POLICY ISSUE - CASE OF MACEDONIA**

### **Introduction**

In most of the countries of South Eastern Europe prior to the transition there was no single legislation regulating the rights of patients, but those rights were stipulated in several healthcare and healthcare insurance laws and bylaw documents. One of the activities of some of the new EU member-states during the process of preparation for accession in the EU was the adjustment of the health care legislation towards the

European legislation and standards. Such was the case with Hungary that in 1997 enacted the New Health Care Act, in which most of the patients' rights are regulated, such as: the right to healthcare, right to be treated with dignity, right to information, right to refuse treatment, right to privacy, right to leave the health care institution, right to complaint, right to die with dignity, right to participation in decision-making in health care, etc. (6).

Further, the dramatic changes that have taken place in the past decade in Central and Eastern Europe have caused the large inequalities in health to grow even bigger, not only between but also within the countries in the region. This statement can be well backed up with the national health statistics, which "give a stark illustration of the effect of economic crisis and widespread pollution of the environment on the health of whole populations are revealing a growing health divides" (7).

The process was driven by the common health and social policy in the EU, which despite the differences of the national health systems, is placing the same rights of patients, consumers, users, family members, weak populations and ordinary people at risk. As described in the Preamble of the European Charter of Patients' Rights, "financial constraints, however justified, cannot legitimize denying or compromising patients' rights. The Nice Charter of Fundamental Rights will soon be part of the new European constitution. It is the basis of the declaration of the fourteen concrete patients' rights currently at risk: the right to preventive measures, access, information, consent, free choice, privacy and confidentiality, respect of patients' time, observance of quality standards, safety, innovation, avoidance of unnecessary suffering and pain and personalized treatment, and the right to complain and to receive compensation" (8).

As this process has not been completely undergone by the candidate countries for EU membership, among which the Republic of Macedonia, we have decided to start the process of preparation of the terrain for endorsement of a single legislative document, which will consolidate all existing and newly introduced rights.

### **The process**

Prior to the transition, in the Republic of Macedonia there was no single legislation regulating the rights of patients, but those rights were stipulated in several healthcare and health insurance laws and bylaw documents.

The previously existing healthcare legislation (Health Law of 1970; Law for Healthcare of 1983) has regulated the patients' rights and duties to certain extent. The currently governing Law for Healthcare (1991) is more extensive in regulating these rights. However not all of the rights described in the European Charter of Patient's rights have been regulated.

The Health Care Act of 1991, regulates the functioning of the healthcare system in the country, and consists of the following chapters: (a) the health insurance; (b) rights and responsibilities of the healthcare users; (c) the rights and responsibilities of the healthcare providers; (d) organizational structure of the healthcare system, and (e) financing of the healthcare (9). According to the existing legislation, 8 of the 14 rights were regulated, in one of the mentioned documents.

However, the analysis of the existing legislation regarding the exercising of rights and duties of the patients and of the implementation practices in the country; the following conditions have been identified (6):

- Lack of appropriate and systematized legislation directly regulating patients' rights;
- Insufficient level of implementation of the existing legislation;
- Lack of knowledge and ignorance of patients regarding their rights;
- Non-transparent attitude of the healthcare authorities regarding information of the citizens for their rights (but also duties) as patients;
- Lack of technical support in the healthcare facilities for complete implementation of certain rights of patients, such as the right to privacy and confidentiality of personal and medical data.

The team decided that a health policy in R. Macedonia should be developed following the identified conditions.

### **Methodology**

The first step taken after the situation analysis in R. Macedonia in 2005 was the screening of the legislation and practices in the neighbourhood and in the EU, as ultimate reference for the country's governance. The similar laws adopted in these countries have been taken as samples to start the drafting process of the law.

The questionnaire was prepared based on several sample questionnaires used for surveying of patients' satisfaction in different healthcare facilities. Bearing in mind the local mentality, practices and the level of trust in the institutions of the system, a number of general questions have been put in the first part of the questionnaire, in order to get the patients' confidence and sense of real involvement in the survey. In order to collect more data for construction of case studies database of this project, the participants have been interviewed by a group of trained interviewers (6).

The sampling technique was the one of multistage sampling; this included the selection of healthcare facilities (the so-called series of clusters), based on the target group (e.g. facilities to which certain ethnicities gravitate), from each of which a random sample of patients has been selected (e.g. patients visiting the healthcare facility on the day of the survey).

### **Results**

Despite the different but very high levels of regulation of patients' rights in the legislation, the implementation levels have been expectedly similar. The interviews reported a situation with the physician-patient relationship even expressed as "the father-physician taking care of the child-patient".

The reasons can be searched in the previous system, but can also be found in the ignorance of the patients regarding their rights. The only survey that was undertaken under this research (conducted in Macedonia on 282 individuals) shows that over 80% of the interviewed are not aware of the benefits from or the mere existence of most of the patients' rights. The most commonly heard of (but not often exercised) is the right to compensation for treatment received abroad; next to it is the right to compensation for the medications on the positive list (heavily

subsidized), which have been purchased for a full price in a private pharmacy. The main reason why the 85.8% of the interviewees were not exercising these rights is the complicated and lengthy procedures administered by the Health Insurance Fund, as well as the unclear method of reimbursement.

Apart from these two, the other rights are mostly looked at as obligations. For example, the right to free choice of physician in the primary healthcare (the so-called “maticen lekar”, with similar functions as the family physician) is considered an obligation imposed by the law; on the other hand, the more general explanation of the right to free choice of physician is almost prejudicially linked to the visit of a private physician’s office (most of which have no contract with the Health Insurance Fund, charging the full price for the health services provided), which can be done without any referral and upon free judgment of the individual. Closely resembling to this is the attitude for signing the informed consent, which for over half of the interviewed patients is just another “administrative procedure”.

The survey has confirmed the general notion and the acceptance by the patients of the paternalistic approach in the physician-patient relationship. Among the interviewees, 90.8% are satisfied (56% very and 34.8% averagely) from the services received; over 60% have never intentionally been to another physician or asked for a second opinion. Furthermore, 86.5% are convinced that the physician is prescribing them the best possible medications/therapy that they need, and 93.6% comply, as much as they can afford, with the recommendations and advices given by the doctor.

Even though the right to complain is regulated and guaranteed in the legislation, an astonishing 84-86% has never had any questions or complaints regarding the medical services received or healthcare facility procedures undergone. The background to this is more likely the decreased confidence in the institutions of the system, or ignorance regarding the mechanisms and institutions in which the legal advice or cure can be sought.

The reasons for such high level of satisfaction may be partly related to the structure of the interviewed group; namely, 60.9% have no official job or no job at all, of which 92.2% are covered with basic health insurance through the unemployed benefits system - the basic health insurance which is in no way different than what a regularly employed person receives by regular payment of taxes and payroll contributions to the state budget and to the single Health Insurance Fund (Note: the Macedonian system of health insurance still being in a very initial stage of healthcare reforms, does not have different health insurance policies and health insurance institutions which employees or employers can choose from for better health care coverage).

The comparative analysis of the legislation and regulative instruments in the countries of Southeast Europe and the survey of the level of implementation of the legislation in the Republic of Macedonia, two approaches for improvement of protection and promotion of the patients’ rights impose, both involving changes in the legal environment (in terms of improved implementation of the current legislation or introduction of new instruments and mechanisms for exercising patients’ rights), combined with other advocacy and public awareness raising activities involving the civil sector.

## **Alternatives**

Following the health policy development process, the results were then transformed into policy alternatives that were offered to the policy maker - the Ministry of Health.

### *Alternative 1: Improved implementation of the current legislation*

This alternative includes changes in the implementation mechanisms of the legislation, but also assuming undertaking public awareness raising activities. One of the main components to protection of patients' rights is the understanding of their violation by both the patient and the physician or the institution.

Moreover, as the patients are usually treated by a team of physicians, nurses, and technicians in a complex, unfamiliar, and sometimes frightening setting, they are often being treated as non-person and thus raising feelings of anonymity and isolation. Because of this the institution-patient relationship is almost equally important as the doctor-patient relationship.

Significant aspect in the improvement of the implementation of the legislation is the enhanced knowledge and perception of the general public but of the health professionals as well, in which the civil sector is expected to play major role - through awareness raising campaigns, offering legal advices and assistance in understanding and utilizing the mechanisms of the system.

The main portion of the costs for implementing this alternative will be related to the public awareness raising campaigns. Yet, a significant portion shall be considered for providing technical support (computers, database servers, software development) for enabling the implementation of certain rights, such as the right to confidentiality, but also the right to information about the medical condition of the patient.

### *Alternative 2: Improvement of the legislation*

A far more complex alternative is the one requiring changes in the current legislation. This means restructuring of the existing healthcare acts for better presentation of the patients' rights in one place (commonly in one chapter of a single law, as seen from the experiences of the countries in the region), but possibly introduction of new mechanisms for implementation and monitoring of the level of exercising of patients' rights.

One such idea, vastly debated in the health and legal professional communities is the introduction of a separate system of Healthcare Ombudsman, under which patients can sought legal advice and assistance through recommendations for the institutions of the judiciary system. In some countries, like Hungary, and since recently Serbia and Montenegro, each health care setting has an appointed "advocates" responsible for receiving and advising upon patients' claims or complaints. This approach provides first-hand legal aid on the existing mechanisms, but can also serve as a filter for the unjustified claims, thus contributing towards the more efficient implementation of the legislation regarding this very neglected but important legal sphere.

The costs incurring from implementing this alternative are mostly in the setting up and maintaining the newly proposed institutional settings and mechanisms; however, in this alternative as well, some public health education campaigns will be required, mostly in the direction of increasing the knowledge and awareness of the general public both of the existing rights but of the novelty in the system as well. With the current level of reforms in the healthcare system, but in the judiciary as well, it is hard to expect that additional funds can be provided for the implementation of this alternative. Rather, the existing Ombudsman office and its infrastructure can be used for engagement of a specialized health law professional. Also, another low-cost intervention is the public reporting of the Ombudsman about the number and types of claims, which will encourage the patients in a more aware way to accept and exercise their rights, but duties as patients as well.

### **The process - continued**

Based on the results of this initiative from the civil sector, the alternatives offered and the EU directives, in November 2006 the Ministry of Health established a Task Force for preparation of Law on protection of patients' rights, inviting key experts, government and professional community representatives, NGOs and patients' organizations, as well as media representatives to participate in this process.

After almost one year of polishing the differences in the stakeholders' opinions and positions, at professional meetings and public debates and finally in November 2007 the Government adopted the Law and passed it on to the Parliament for final endorsement. In the Parliament, more than 100 amendments were made by the Members of the Parliament; the relevant ones were adopted, and the ones that were not of essential importance or were in collision with other legislation were rejected with sufficient and justified explanation. In February 2008, the Draft-Law was put on the Parliament Agenda for voting.

### **Advocating Health Policy**

The process of advocacy for this health policy was not very different from the one explained in the theoretical part of this module. The issue was perceived as such, that it required strong commitment from the government, but also large support from the professional community; the level of understanding the patients' rights and duties to a point of being able to convert them as the rights and duties of the health professionals was not present, and this needed to be advocated for. Instruments such as policy briefs, informal communication with Doctors' Chamber, Medical Association and other professional organizations were made, together with formal presentations of the concept at scientific meetings.

However, the end result of this health policy development is not the endorsement of this law. It is yet to be confirmed and monitored how it is implemented, whether it should be maintained, improved or simply terminated if it does not show results comparable to the fiscal implications it may have. In other words, this and any other health policy is a continued process with constant need of evaluation and adjustment according to the changing needs and demands of the society and all its segments.

## EXERCISES

### Task 1

Read the recommended readings before the class. In-class exercise will be to discuss the case study and to determine which part represents which element of the policy cycle.

### Task 2

Based on the case study above, select a similar issue on which you might like to make a case for development of health policy. Write a policy paper that would include all elements of the policy cycle. The teacher will use this paper for student assessment.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HEALTH SURVEYS AS A POWERFUL TOOL IN PLANNING PUBLIC HEALTH INTERVENTIONS</b>
<b>Module: 2.5</b>	<b>ECTS (suggested): 0.25</b>
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<b>Keywords</b>	Survey, cross-sectional study, public health intervention programmes, CINDI programme,
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• know the role of cross-sectional surveys as an effective tool in planning public health interventions;</li> <li>• know the position and importance of cross-sectional surveys in evidence-based public health;</li> <li>• be familiar with some cases of domestic and foreign cross-sectional surveys.</li> </ul>
<b>Abstract</b>	<p>Health surveys are observational epidemiological studies of health status of the population in which usually a cross-section through frequency and characteristics of health outcomes and other health related events like exposures are studied and therefore provide prevalence data.</p> <p>Surveys are very applicable in searching for general insight in health states and conditions that last a relatively long time as well as various risk factors for them. Their results could be efficiently used in planning public health interventions, and in fact today they represent one of the most important tools of evidence based public health</p> <p>The module is presenting basic theoretical background necessary for understanding the usefulness of health surveys in planning public health interventions, as well as it provides a case study.</p>
<b>Teaching methods</b>	<p>An introductory lecture gives the students first insight in characteristics of cross-sectional studies. The theoretical knowledge is illustrated by a case study.</p> <p>After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics of health surveys and their potential power for effective health care planning, especially in the field of public health.</p> <p>In continuation, they need to find published materials (e.g. papers) on health surveys and present how they were used (or supposed to be used) in planning public health interventions.</p>

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaire.

# HEALTH SURVEYS AS A POWERFUL TOOL IN PLANNING PUBLIC HEALTH INTERVENTIONS

Lijana Zaletel-Kragelj, Ivan Eržen

## THEORETICAL BACKGROUND

### Basic definitions and explanations of terms

#### *Surveys and health surveys*

Surveys could be defined in several ways, two of them being:

- according to A Dictionary of Epidemiology (1), surveys are defined as investigations in which information is systematically collected but in which the experimental method is not used, and
- according to Rossi and Freeman, surveys are systematic collection of information from a defined population, usually by means of interviews or questionnaires administered to a sample of units in the population (2,3).

Health surveys are surveys designated to provide information on the health status of a population. They could be descriptive, exploratory, or explanatory. Synonym for a disease frequency survey is a cross-sectional study (1).

In health surveys data could be collected by the means of questionnaires (face-to-face interview, telephone interview, or self-completed questionnaires), or by the means of health examination, usually in combination with interview. According to which tool is used to collect data in health surveys, there exist two main types of them (4):

- health interview surveys or HIS - surveys in which collection of data is carried out only by the means of questionnaires. In HIS, questionnaires may be communicated to the study subjects in three ways: through mail questionnaire, through personal or face-to-face interview or through telephone interview,
- health examination surveys or HES - surveys which are usually a combination of questionnaires and health examination including diagnostic and laboratory tests. In HES, the contact between participants and research personnel is personal since the health examination is a component part of the survey. In this type of surveys, also questionnaires are usually communicated to the selected study subjects through personal interview.

#### *Cross-sectional studies*

There exist several similar definitions of cross-sectional studies:

- according to A Dictionary of Epidemiology (1), cross-sectional studies are studies that examine the relationship between diseases or other health-related characteristics, and other phenomena of interest in a defined population at a particular time,
- a summary of several other definitions is that cross-sectional studies are observational epidemiological studies of health status of the population in

which a »snap-shot« of or a cross-section through frequency and characteristics of health outcomes and other health related events like exposures are studied (5-9). This characteristic also gave the name to this type of epidemiological studies, cross-sectional studies are studies that measure the prevalence of health outcomes or determinants of health, or both, in a population at a specific point in time, or over a short period (7).

Health outcomes and other health related events could be measured in cross-sectional studies on different measurement scale. In those cross-sectional studies in which the outcome event is dichotomous the prevalence of this dichotomous event is recorded. This is the reason that cross-sectional studies are also called prevalence studies (6, 5, 10, 11). Prevalence studies thus could be on one hand regarded as a subgroup of cross-sectional studies (11), while on the other hand all cross-sectional studies could be regarded as prevalence studies since we can dichotomize values of every observed outcome.

The selected specific point in time could be a time window within which data are collected (e.g. calendar week or month). It could also be a specific point in time in the course of events, differing in respect of each individual study subject with regard to the actual time (beginning of schooling, retirement, etc.) (6, 12, 13).

Frequently, cross-sectional epidemiological studies are designated as cross-sectional surveys (7).

Detailed description of cross-sectional studies' characteristics is given in numerous textbooks and handbooks including advantages and disadvantages (5, 7, 11, 13), aims (5, 6, 7, 9, 14), methods and tools (1, 4, 7, 10, 12, 15-18), and course (phases and periods) (7, 10, 19-21).

Although all phases/periods of cross-sectional studies' course are important, planning period is the most important and most sensitive period. If designing and planning the cross-sectional study in the wrong way, the whole study could be set on an inappropriate basis, and the deficiencies of this period are very difficult to be eliminated in the later phases of the cross-sectional studies. In order to avoid as many faults as possible, the course of the cross-sectional studies must be planned systematically and with all due care. A precise management of individual cross-sectional study is very difficult to be advised. Nevertheless, common recommendations on actions in designing and planning phases of the cross-sectional studies exist (7,13,19,21,22-24).

### *Intervention and public health intervention*

Several definitions exist of what the intervention is, among which could be find the following:

- an intervention is a generic term used to denote all public actions e.g. policies, programmes, projects (25);
- an intervention is an action or programme that aims to bring about identifiable outcomes (26).

Planned/desired effects of an intervention expressed in terms of outcomes are general objectives of an intervention.

A public health intervention is an intervention, which is applied to many, most, or all members of a community, with the aim to deliver a specific benefit to the

community or population as well as benefits to individuals (26,27). Public health interventions include (26,27):

- policies of governments and non-governmental organisations;
- laws and regulations;
- organisational development;
- community development;
- education of individuals and communities;
- engineering and technical developments;
- service development and delivery; and
- communication (including social marketing).

### **Cross-sectional surveys – an important tool in evidence based public health**

Today, cross-sectional surveys represent one of the most important tools of evidence based public health (14). Unfortunately, these studies are less powerful in comparison to randomized controlled trials - the main study design in evidence based medicine. Also the volume of evidence is smaller, and the time from intervention to outcome is longer (14). Nevertheless, they have some advantages over randomized controlled trials.

### **Countrywide Integrated Non-communicable Diseases Intervention (CINDI) programme surveys**

The World Health Organization (WHO) Countrywide Integrated Non-communicable Diseases Intervention (CINDI) programme is an intervention programme with integration as a key concept in prevention of chronic non-communicable diseases (28-30). It arose out of experiences of one of the first community-based health intervention projects in Europe - the North Karelia Project in Finland, which started in 1972 and reached remarkable achievements as well as global recognition (31).

Surveys which are aimed on one hand at assessment of burden of risk factors for non-communicable diseases, and on the other hand at evaluation of process of CINDI programme, are essential component part of this programme (29, 32). Today, we distinguish between two types of CINDI surveys (32, 33):

- CINDI Risk Factors and Process Evaluation surveys (30,32) - this type of surveys is a HES type of surveys, and represents a basic type of CINDI surveys which provide the basic data for starting a CINDI programme in a country, and on its progress. This type of surveys is in most CINDI countries performed on a level of demonstrational area or at most region,
- CINDI Health Monitor Survey (33) - this type of surveys is a HIS type of surveys his surveys which offer the most rough but comprehensive overview on the problems tightly associated with non-communicable diseases. This type of CINDI surveys is mostly aiming at monitoring, assessing and comparing the trend of health behaviour in CINDI countries with different politically-economic

systems. Owing to comparability, monitoring should be conducted under the uniform methodology and on a national level.

## **CASE STUDY: COUNTRYWIDE INTEGRATED NON-COMMUNICABLE DISEASES INTERVENTION (CINDI) PROGRAMME AND RELATED SURVEYS IN SLOVENIA IN PLANNING PUBLIC HEALTH INTERVENTIONS**

### **Countrywide Integrated Non-communicable Diseases Intervention (CINDI) programme and related surveys in Slovenia**

There exist several types of surveys which provide important information for planning public health interventions for controlling non-communicable disease in Slovenia (34,35):

1. CINDI Health Monitor Survey (33-35) - This type of survey was performed in Slovenia for the first time in 2001 (36), for the second time in 2004, and for the third time in 2008. With its national and at the same time regional level, this type of surveys in Slovenia represent very strong support to development of evidence based policy on both levels, what is extremely important in the process of diminishing interregional differences. At the same time, it is very powerful tool for evaluation of the effectiveness of health promotion programmes. All databases include data on about 9000 participants' health behaviour.
2. CINDI Risk Factors and Process Evaluation Survey (30, 34, 35) - so far, there were three surveys performed at the demonstrational level (Ljubljana demonstrational region) – in winter 1990/1991, in winter 1996/1997, and in winter 2002/2003.
3. Ad-hoc surveys - among ad-hoc surveys, the Beltinci process evaluation surveys should be mentioned in the first place (37). With the means of two consecutive surveys of HES type of surveys the effect of one year intervention programme in Beltinci community was evaluated. The surveys were basing on CINDI Risk Factors and Process Evaluation surveys methodology.

These surveys and resulting data-bases are the basis for different specific studies aiming at planning as much effective public health interventions as possible.

### **CINDI Health Monitor Surveys as a tool for development of effective intervention programmes for enhancing healthy nutrition and physical activity in adult population**

#### *Background*

Behavioural risk factors are among the most important risk factors for non-communicable diseases (38,39). A study showed that prevalence of some risk factors for cardiovascular diseases among which unhealthy nutrition and physical activity habits seems to be the most unfavourable one in Eastern Slovenia (40). In order to determine population groups

at highest risk for unhealthy behaviours in nutrition related to obesity and diabetes as well to determine population groups at highest risk for insufficient physical activity a special study was performed. The intention was to prepare a high quality basis for working out the strategies, guidelines/recommendations as well as concrete implementation action plans for long term diminishing high mortality attributable to non-communicable diseases (41).

### *Methods*

The data from CINDI Health Monitor (CHM) 2001 data-base were used (41). The sample size was 15,379 and the age range 25-64 years. The response rate was 63.8% (9,666 responses). The questionnaires of 9,034 respondents were eligible for analysis (eligibility criteria: sex and age provided by SORS). In analysis of unhealthy behaviours in nutrition related to obesity and diabetes all of them were considered, while in insufficient physical activity only 7,718 questionnaires of participants without any kind of disability (41).

Comprehensive synthetic indicators were constructed (41):

- complex indicator of unhealthy behaviours in nutrition related to obesity and diabetes was defined on the basis of several guidelines and recommendations (42-44), taking into account circumstances specific to Slovenia (cultural and economic), and possibilities of the CHM Questionnaire. Complex indicator was derived on the basis of several questions of the CINDI Health Monitor questionnaire on nutrition habits. The containment of energy in foods was the most important criterion to select questions to be incorporated in this complex indicator. All the most important components recommended by the WHO (high/frequent intake of high energy density foods, high/frequent intake of fats, especially those composed of saturated fat acids, high/frequent intake of sweet soft drinks) (45), available in our database, were taken into consideration (41). The participants were classified into three groups on the basis of the median value on the number of unhealthy components for the whole sample as follows: healthy (0 components); moderately unhealthy (1-2 components); very unhealthy (3-7 components). The prevalence of very unhealthy behaviour was observed (41),
- complex indicator on the average level of physical activity was derived on the basis of several questions as well. Questions were basing on International Physical activity Questionnaire (46) as suggested by the CINDI WHO. They were taking into account different types of physical activity - moderate physical activity, vigorous physical activity, or walking). According to type of physical activity and frequency (frequency of at least 4-times per week was considered as regular) participants were classified into the following groups: inactive, irregularly active, low intensity regularly active (regular walking), moderate intensity regularly active (regular moderate physical activity), and high intensity regularly active (regular vigorous physical activity). Absence of physical activity and irregular physical activity of any type or intensity were considered as insufficient physical activity and any regular physical activity (including regular walking which is one of popular types of regular physical activity in elderly in Slovenia) was considered as sufficient. The prevalence of insufficient physical activity was observed.

The observed outcomes were related to sex; age; level of education; employment; social class (self-classification); type of residence community, and geographical region.

On the basis of the logistic regression model, the risk-score for each participant was calculated and converted to the estimation of risk for the observed outcome. All participants

were put in an array according to their risk estimate. Those with estimate values above the 95<sup>th</sup> percentile were classified in the very-high-risk group. The combinations of seven observed characteristics (sex, age, education, employment, social class, type of residence community, and geographical region) were then examined. Different combinations denoted different population groups' profiles. The most frequent profiles within the very-high-risk groups were observed. Those ranked as top 10 were considered as convenient for public health (PH) actions (41).

### *Results*

#### **Very unhealthy nutrition related to obesity**

The highest odds ratios were observed in: men, aged 25-29 and 30-39, adults with lowest education level (uncompleted or completed primary school), heavy workers in rural economy, people self-classified in labour social class, those living in rural communities, and those living in Eastern Slovenia.

Risk for this unhealthy behaviour was possible to estimate in 8,052 participants with data on all seven factors considered in the multivariate analysis (89.1%). The highest estimated risk score value was 0.73, while the value of the 95<sup>th</sup> percentile was 0.59. 409 participants were classified on or above this cut-off point in the very-high-risk group for unhealthy behaviours in nutrition related to obesity and diabetes. Profiles, ranked on the top 10 ranking places according to frequency are presented in Table 1.

#### **Insufficient physical activity**

The highest odds ratios were observed in: women, aged 25-29, adults with lowest education level (uncompleted primary school), administrative/intellectual workers and job seekers, people self-classified in lowest social class, those living in urban communities, and those living in Central Slovenia.

The highest estimated risk score value was 0.38, while the value of the 95<sup>th</sup> percentile was 0.28. 341 participants were classified on or above this cut-off point in the very-high-risk group for insufficient physical activity. Profiles, ranked on the top 11 ranking places (the profiles on 10<sup>th</sup> and 11<sup>th</sup> place had the same frequency and both had to be considered) according to frequency are presented in Table 2.

### *Discussion on using the survey results as a tool in planning public health interventions*

With the above-described methodology we succeeded to identify population groups at highest risk for two unhealthy behaviours related to chronic non-communicable diseases:

- In unhealthy behaviours in nutrition related to obesity and diabetes the worst situation was observed in Eastern Slovenia. This was expected as on general the unhealthiest traditional lifestyle from the nutritional point of view was seen to be in Eastern, and the healthiest in Western Slovenia (40). This thesis was confirmed by the basic results on elements of unhealthy behaviours in nutrition related to obesity and diabetes as well.
- Healthy nutrition habits e.g. consumption of sea food and olive oil were more expressed in Western Slovenia, while unhealthy nutrition habits e.g. consumption of lard, fried food, or sweet soft drinks were most expressed in the most eastern part (47). The results indicated that from the PH point of view in unhealthy behaviours in nutrition related to obesity and diabetes it was essential to start to intervene in Eastern Slovenia (41).

**Table 1.** Profiles, ranked on the top 10 places according to frequency within 409 respondents classified in the very-high-risk-group for very unhealthy nutrition related to obesity and diabetes: Slovenia, 2001

Profile Rank	Frequency N (%)	Risk	Sex	Age	Level of education	Employed	Social class	Residence Community	Region
1	63 (15.4)	0.62	male	30-39	vocational	yes	labour	rural	eastern
2	41 (10.0)	0.59	male	30-39	vocational	yes	middle	rural	eastern
3	30 (7.3)	0.60	male	40-49	Primary	yes	labour	rural	eastern
4.5	28 (6.8)	0.69	male	30-39	Primary	yes	labour	rural	eastern
4.5	28 (6.8)	0.62	female	30-39	Primary	yes	labour	rural	eastern
6	20 (4.9)	0.59	male	40-49	uncompleted primary	yes	labour	rural	eastern
7	18 (4.4)	0.64	male	25-29	vocational	yes	middle	rural	eastern
8	16 (3.9)	0.66	male	25-29	vocational	yes	labour	rural	eastern
9	13 (3.2)	0.59	female	25-29	vocational	yes	labour	rural	eastern
10	11 (2.7)	0.60	male	25-29	vocational	yes	labour	rural	western

**Table 2.** Profiles, ranked on the top 11 places according to frequency within 341 respondents classified in the very-high-risk-group for insufficient physical activity: Slovenia, 2001.

Profile Rank	Frequency N (%)	Risk	Sex	Age	Level of education	Employed	Social class	Residence Community	Region
1	31 (9.1)	0.28	female	30-39	secondary	yes	middle	urban	central
2	27 (7.9)	0.32	female	30-39	university	yes	middle	urban	central
3.5	18 (5.3)	0.30	female	25-29	secondary	yes	middle	urban	central
3.5	18 (5.3)	0.29	female	30-39	university	yes	upper middle	urban	central
5	14 (4.1)	0.28	female	40-49	university	yes	upper middle	urban	central
6.5	13 (3.8)	0.31	female	40-49	university	yes	middle	urban	central
6.5	13 (3.8)	0.28	female	25-29	university	yes	middle	urban	eastern
8.5	11 (3.2)	0.34	female	25-29	university	yes	middle	urban	central
8.5	11 (3.2)	0.30	female	40-49	college	yes	middle	urban	central
10.5	10 (2.9)	0.31	female	30-39	university	yes	middle	urban	western
10.5	10 (2.9)	0.28	female	30-39	college	yes	middle	suburban	central

- In insufficient physical activity there were many problems with interpretation of the results. We do strongly believe that this was the obvious consequence of the questionnaire used (41). A short last-7-days self-administered format of IPAQ is designed to observe at the same time vigorous and moderate physical

activity, and walking of different sources (leisure time activities, housekeeping work, physical activity at the work-place, and transportation physical activity) (46). With regards to the impact of regular and sufficiently intensive physical activity on human health this inevitably means mixed-information data, which are less applicable for such types of observations. Despite significant amounts of energy could be spent in some of the considered types/modes of activity, not all kinds of physical activity are equally healthy - often they could be even unhealthy. Vigorous physical activity in compulsory positions of the body for a longer time periods, as it is the case in heavy physical workers in industry and rural economy, could be extremely unhealthy while periodical vigorous physical activity during the leisure time could constitute both physical and psychological relaxation and is obviously healthy. From the viewpoint solely to the daily expenditure of energy, it is understandable that the situation with regular physical activity was shown as it is the best in Eastern Slovenia, because the economy there is largely rural (47,48). On the contrary, another more in-depth survey, CINDI Risk Factors and Process Evaluation 2002/2003 survey, which comprised also some elements of health examination survey (and not only health interview survey), in cooperation with a multisectorial and multidisciplinary research project "Physical activity for health", showed that the prevalence of practicing regular leisure-time physical activity was the lowest in Eastern Slovenia, in rural environments, and in hard workers in rural economy (49). This indicated again that it was the priority to start with intervention programmes in the same part of the country with very similar population profiles as in nutrition, related to obesity and diabetes. On the basis of the results presented we can conclude that in view of future research on the impact of physical activity on health the part on physical activity in the CINDI Health Monitor questionnaire at the international level has to be reassessed as a lot of countries have already experienced similar problems with the same set of questions (50). Also we should try to assess the physical activity patterns of different population groups in the past as health condition in the present is mainly influenced by physical activity and nutrition habits in the past.

The results of this study, combined with results of other CINDI studies in Slovenia, confirmed that the situation in unhealthy behaviours in nutrition related to obesity and diabetes, and in leisure-time physical activity, is the worst in Eastern Slovenia, especially in Pomurje. Indirectly, the situation just described could be supported also by other results of the CHM survey, which showed that the percentage of obese adults (body mass index  $\geq 30.0$ ) was the highest in the Pomurje (18.8% in contrast to 9.7% in most North-Western region Nova Gorica) (51).

Changing the traditional lifestyle is one of the most important elements in reducing the unhealthy behaviours of different kind but extremely difficult, as a process is long lasting, and tightly bound to the political and economical situation of a country (52). In unfavourable socio-economic circumstances, the preservation of traditional lifestyle is endorsed and can be reduced only by strong multisectorial engagement (53). Such conditions currently exist in Eastern Slovenia (47,54). But despite unfavourable socio-economic circumstances in this region which could seriously affect the success of the PH interventions, the multisectorial and multidisciplinary project »Mura«, which started in 2001 in Pomurje, in only a couple of years offered several extremely positive results (37). It was a project based on intervention

programmes based on the pattern of a similar process in Finland, which proved as successful and effective (31). Its development and implementation was strongly supported by the results of presented study with its unique methodology as well by the results of related studies. Numerous multisectorial activities, including primary health prevention activities, were focused on changing the nutritional and physical activity behaviour of the population, and have been in process since the end 2001 at the regional (first in the Pomurje region) (37), as well as at the national level (55). With regard to health prevention activities, specific socio-economic and cultural circumstances were taken into consideration. On the level of population groups-at-risk the concrete health promotion and health education approach was already applied in Beltinci Community in Pomurje region (37), where the prevalence of many other unhealthy behaviours, beside insufficient leisure-time physical activity and unhealthy behaviours in nutrition related to obesity and diabetes, is the highest (40), as well as combination of multiple risky behaviours (56). According to the first analysis of CINDI Health Monitor survey 2004 (which serves as an efficiency evaluation tool for activities) it was shown e.g., that prevalence of every day consumption of sweet soft drinks decreased from 42.9% in 2001 to 29.1% in 2004 (57). The same study showed strong shift to more healthy behaviour also in use of fat for food preparation. The percent of people using lard decreased from 30.3% in 2001 to 20.8% in 2004, while the percent of people using olive oil increased from 7.1% to 15.2%. Unfortunately the comparison in physical activity behaviour was impossible since in 2004 the long last-7-days self-administered format of IPAQ was used instead of the short last-7-days self-administered format (46) in order to distinguish between physical activity from different sources (leisure time activities, housekeeping work, physical activity at the work-place, and transportation physical activity).

#### *Conclusions*

The results of this study with its unique methodology proved to be powerful tool in development and implementation of an effective healthy nutrition and physical activity intervention programmes in Slovenia, as well as in robust assessment of their effectiveness and efficiency. The information on the prevalence of unhealthy behaviours in nutrition related to obesity and diabetes and insufficient physical activity in Slovenia, even rough, is very important for high quality health promotion and disease prevention planning at national or regional levels, since these data provide information about the comprehensive dimensions of the problem in the community.

### **CINDI and related surveys in developing other interventions for controlling non-communicable diseases in adult population**

The results of above described study, as well as of the other studies based on CINDI methodology certainly serve as a basic knowledge of high-quality and applicability in preparation of PH strategies/activities in Slovenia as well as in evaluation of their efficiency.

Similar methodology as used in analysis and identification of population at risk for unhealthy behaviours in nutrition related to obesity and diabetes and insufficient physical activity was used in different other unhealthy behaviours (e.g. frequent perception of stress) and in some diseases/health states as well (e.g. musculoskeletal diseases and disorders). A detailed description on CINDI Health Monitor Survey 2001 results is available in an extensive survey report in Slovene language for fund providers - Ministry of Education and

Sports and Ministry of Health of Republic of Slovenia (58). This report is composed of several in-depth studies on different unhealthy behaviours in Slovene adults. A short version is available in English language as well (48). Some of in-depth studies basing on CINDI Health Monitor Survey 2001 data-base were published in domestic or international periodics, mostly in English language. Additionally, interregional differences in different health phenomena inside Slovenia were possible to assess since the data enabled this kind of analyses. Chronologically these studies are as follows:

1. The studies on interregional differences in health (59) and health behaviours (40),
2. The study on identification of population groups at very high risk for frequent perception of stress (60) (in English language),
3. The study on identification of population groups with multiple hazardous health behaviours for cardiovascular diseases (56) (in English language).
4. The study on prevalence of selected musculoskeletal diseases and disorders in different population groups (61) (in Slovene language).
5. The study on seat-belt use and non-use in adults (62) (in English language),
6. The study on population groups at high risk for poor oral self-care (63) (in English language), and
7. The study on self-rated health with emphasis on poor self-rated health (64) (in English language).

Also studies basing on CINDI Risk Factors and Process Evaluation surveys data serve to the same purpose. They are less numerous but not less important:

1. The study on efficiency of CINDI programme in controlling hypertension in adult population of Ljubljana demonstrational level in 12-year period (65,66) (in English language), and
2. The detailed study on prevalence of arterial hypertension, its awareness and control in the adult population of the Ljubljana area (67) (in English language).

Some other surveys were in the last years performed in Slovenia as well. The results were published only in Slovene language so far:

1. The study on effectiveness of Beltinci "Let's Live Healthy" project (37) (in Slovene language).

Results of Beltinci process evaluation surveys showed considerable improvement not only in health behaviours but also in some of the physiological risk factors. The study was performed on 158 adults with monitoring/observation of health indicators on physiological risk factors before and after the intervention programme was carried out. After only one year of intervention activities, the average values of systolic blood pressure decreased by 4.7%, diastolic blood pressure by 4.1%, and blood cholesterol by 4.9%. All differences were statistically highly significant. This project was already spread from Beltinci community to other parts of Slovenia as a part of implementation of already mentioned nation-wide strategy for prevention of cardiovascular diseases (55). The results are very promising and stimulative and people susceptible to them but sustainability is under the question as Slovenia is still in the time of transition and the priorities are changing all the time.

2. A multisectorial and multidisciplinary research project "Physical activity for health" (49) (in Slovene language).

This project was composed of several cross-sectional studies in adult population as well as in children. It was focused particularly in leisure-time physical activity. As already mentioned, results of this project showed that the prevalence of practicing regular leisure-time physical activity was the lowest in Eastern Slovenia, in rural environments, and in hard workers in rural economy.

## EXERCISES

### Task 1

Carefully read the part on theoretical background of this module. Critically discuss the characteristics of health surveys with your colleagues.

### Task 2

From domestic (e.g. Biomedicina Slovenica, and COBISS-Cooperative Online Bibliographic System of Slovenia in Slovenia), and/or international bibliographic data-bases (e.g. Medline, PubMed) find out if any other health survey has been already performed in your country. If yes, then try to find out its characteristics and how its results were used in health care planning.

### Task 3

If not, try to find an example from other countries (e.g. FINBALT Health Monitor Surveys).

### Task 4

Discuss with your colleagues how the advantage was taken of in these surveys and make proposals how they could be used more efficiently.

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<b>MANAGEMENT OF HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>ECONOMIC EVALUATION AS A TOOL FOR PLANNING AND EVALUATING PUBLIC HEALTH INTERVENTIONS: THE CASE OF FOLIC ACID FOOD FORTIFICATION</b>
<b>Module 2.6</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Economic evaluation, public health, decision-making, folic acid, folic acid food fortification
<b>Learning objectives</b>	After completing this module students and public health professionals should be able to: <ul style="list-style-type: none"> <li>• understand the role of economic evaluation in public health decision-making;</li> <li>• be aware that types of economic evaluation are more applicable in some areas of public health than in others;</li> <li>• understand different possibilities of neural tube defects' prevention;</li> <li>• recognize public health benefits and potential adverse effects of folic acid food fortification;</li> <li>• understand that the decision for folic acid food fortification, its implementation, and evaluation is a complex process, where different professionals need to be fully involved and where economic evaluation needs to be introduced.</li> </ul>
<b>Abstract</b>	<p>The central problem addressed by the discipline of economics is that of resource scarcity, and so the purpose of economic evaluation is, in a very broad sense, to help decision-makers when addressing problems arising due to the scarcity issue. Therefore, such evidence is generated with the direct intention of influencing policy. Over recent years, there have been repeated expressions of concern about the usefulness of health economic analyses, and responses have tended to centre on questions of how research by health economists can be made more useful and accessible to policy makers.</p> <p>How an economic evaluation can be used in practice, is presented in the case of folic acid food fortification. After the introduction of folate deficiency problem and discussion of strengths and weaknesses of folic acid food fortification, it is demonstrated how an economic evaluation can add value to decision-making process.</p> <p>However, it is important to understand that, even if the best possible economic evaluations were available, they would be only one element in a complex process of decision-making that is also shaped by scientific evidence and political feasibility.</p>

<b>Teaching methods</b>	<p>After introductory lecture students should critically discuss role of economic evaluation and its use in public health decision-making process.</p> <p>Afterwards, students should think about data they need in order to support folic acid food fortification in their own country.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic databases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	<p>Assessment is based on seminar paper and oral exam.</p>

# **ECONOMIC EVALUATION AS A TOOL FOR PLANNING AND EVALUATING PUBLIC HEALTH INTERVENTIONS: THE CASE OF FOLIC ACID FOOD FORTIFICATION**

**Jerneja Farkaš-Lainščak, Lijana Zaletel-Kragelj**

## **THEORETICAL BACKGROUND**

### **Introduction**

Decision-making is a crucial element in the field of medicine. The physician has to determine what is wrong with the patient and recommend treatment, while the patient has to decide whether or not to seek medical care, and go along with the treatment recommended by the physician.

Decision-making is vital component of public health as well. Health policy makers and health insurers have to decide what to promote, what to discourage, and what to pay for. Together, these decisions determine the quality of health care that is provided. Therefore, public health and health care policy-makers need a trustworthy source of evidence on which to build health policy.

World Health Organization (WHO), Regional Office for Europe, brought out at the Fourth Futures Forum of High-Level Decision-Makers, entitled Tools for decision-making in public health, which was held in Brussels in 2003 (1), several important conclusions, among which two could be pointed out as most important ones:

1. the need for evidence-based decisions and, as a consequence, evidence-based recommendations, has never been greater, and that
2. the use of evidence enables decision-makers to be transparent and explicit about the basis for decisions.

At the same time we should be aware that (1):

1. evidence changes with time and the utility of evidence-based recommendations is therefore time limited;
2. the speed of decision-making does not always allow time for the generation and use of evidence;
3. evidence-based decisions may not always be acceptable to the public and this will inevitably be a consideration in taking public-health decisions and in determining policy;
4. a lack of evidence about the effectiveness of an intervention does not mean that the intervention is necessarily ineffective; it may be that the research has yet to be undertaken;
5. interventions known to be successful in improving population health can fail if the necessary organizational capacity is not made available to ensure their success. Implementation factors, such as finance, skills and organizational capacity, are therefore an essential part of the evidence review process.

In the frame of WHO, Regional Office for Europe, a body entitled Health Evidence Network (HEN) was established, aiming at giving rapid access to independent and reliable health information and evidence (2).

Nowadays, medical, as well as public health decision-making is a rapidly expanding field that includes different quantitative theoretical tools for modelling decisions, psychological research on how decisions are actually made, and applied research on how decision-making can be improved. Economic evaluation is one of these tools.

### **Economic evaluation as a tool for public health decision-making**

Health care resources are limited, and where, how and when to allocate them are the main questions if we want the health care system to be efficient. We all agree that this issue is extremely complicated. The situation is even more complicated when in this story public health, especially disease prevention and health promotion, is placed. Health economic through economic evaluation can give some answers to this set of questions.

The central problem addressed by the discipline of economics is that of resource scarcity, and so the purpose of economic evaluation is, in a very broad sense, to help decision-makers when addressing problems arising due to the scarcity issue. Therefore, such evidence is generated with the direct intention of influencing policy. Over recent years, there have been repeated expressions of concern about the usefulness of health economic analyses, and responses have tended to centre on questions of how research by health economists can be made more useful and accessible to policy makers (3,4). The increasing need for economic evidence to inform policy decisions, but the inevitable limits on the rate at which such studies can be undertaken and published, has raised questions about the extent to which the conclusions of a given study undertaken for one specific context hold true for others. This has also stimulated interest in new methods to assess quantitatively the extent of variability in results and to make adjustments across contexts.

#### *Recent developments in economic evaluation concerning public health*

In recent years, there have been some important developments in economic evaluation concerning public health.

1. The first important development has been its increasing prominence in public health decision-making. Although there is continued uncertainty about the role of economic evaluation studies in decision-making at the level of individual hospitals and health authorities (3), a number of health care systems are now using economic evaluation to make system-level decisions about which interventions to fund from collective resources (4).

Economic evidence has been used for some years in Australia and Canada to establish whether new pharmaceuticals represent a cost-effective use of the resources available to the public health care system (5,6). More recently, a number of European countries have developed an economic dimension to the regulation of health care technologies, including Portugal,

Sweden and Finland (7). Even in the USA, the need to ensure efficient use of collective health care resources has led some health maintenance organisations to use formal economic criteria in decision-making about which interventions will cover (8).

2. The second development is the emergence of new economic evaluation methods in particular areas. These include alternative approaches to handling uncertainty in the context of studies based on patient-level data (e.g. randomised trials), and in decision models; and preference-based measures of health status which link data on patients' health states, as collected in trials and similar studies, with the public's health state preferences to facilitate estimates of QALYs (7). There remain, however, a number of important sources of controversy in the field, for example, the role and methods of productivity cost estimation and how to reflect equity considerations in economic evaluation (9). One area of methodology on which much has been written but in which few new methods have emerged relates to the generalisability of economic evaluation (9).

The proposal put forward is that the objective of health care services should be to maximise population health benefits (3). For many this appears not to be a highly controversial suggestion and, in broad terms, receives support from policy makers and the public more generally (10). The difficulties and disputes arise primarily around attempts to measure health.

#### *How to make valuation of health in economic analyses?*

Over the course of the last 20 years or so, the subdiscipline of health economics has had a methodological focus on the measurement and valuation of health. The result is a measure of health that can be operationalised for use in policy making, i.e. the quality-adjusted life-year (QALY) or quality-adjusted life expectancy (QALE) (10). The decision rule, therefore, for normative health economic analyses, is to advocate investment in those technologies that produce the largest QALY gains for a given level of cost. In order to inform such decisions, normative analyses tend to provide results in the form of the incremental cost-effectiveness ratios (ICER), net-benefit statistics and cost-effectiveness acceptability curves (CEAC):

1. the ICER reports the ratio of additional costs to additional health effects associated with a new intervention (e.g. cost per QALY gained);
2. the net-benefit statistic expresses the additional health effects in monetary units by using an estimate of the "maximum willingness to pay" per unit of health gain, where available;
3. the CEAC plots the probability that the intervention in question is cost-effective against threshold values to define cost-effectiveness (11).

#### *The role of economic analyses in public health decisions*

Yet while economic evaluation is often of little help in deciding whether to undertake an intervention in the first place, it has rather more potential in helping to decide which of a series of options should be chosen to achieve a specified goal, by means of cost-effectiveness analysis. While recognizing the potential benefits of cost-effectiveness analysis, it should also be noted that it is more applicable in some

areas of public health than in others (11). For instance, secondary prevention initiatives like screening, for example, have been subject to numerous cost-effectiveness analyses, to help choose between different methods of screening or target groups. However primary prevention has been subject to rather less economic evaluation to date, in part due to the difficulties of measuring costs and effects and determining causation.

Recent review by Allin and colleagues describes the models of public health decision-making in eight countries: Denmark, Finland, France, Germany, Netherlands, Sweden, Australia, and Canada. It has been written to inform the debate on future policy options and it represents an initial attempt to map priority-setting in public health (12). This investigation revealed that none of the eight countries has explicit, systematic procedures for making decisions affecting public health or setting priorities among different public health interventions. The methodology used for making decisions and setting priorities in public health across the eight countries is consistently related to population health status, epidemiological data, burden of disease and, often, scope for prevention. Also important in this process are political negotiations, pressure from interest groups and informal processes. In addition to the other methods, Sweden bases decisions on an “ethical framework” encompassing human dignity, need and solidarity. Likewise, France highlights the importance of ensuring that decisions fit with societal values. Australia and the Netherlands increasingly are utilizing economic evaluation and evidence of interventions’ effectiveness to guide decision-making. In this way, they are progressing more rapidly towards creating an evidence-based policy environment (12).

However, it is important to understand that, even if the best possible economic evaluations were available, they would be only one element in a complex process of decision-making that is also shaped by scientific evidence and political feasibility. Like every analytical tool, also economic analysis has its limitations. And not at the end, also the public health decisions should (to the reasonable extent) keep in touch with society’s health values (13,14). Comprehensive example would be a case of folic acid food fortification.

## **CASE STUDY: CASE OF FOLIC ACID FOOD FORTIFICATION AS AN EXAMPLE OF PUBLIC HEALTH DECISION-MAKING**

### **Prevention of neural tube defects**

Neural tube defects (NTD) are a group of heterogenous and complex congenital anomalies of the central nervous system resulting from failure of normal neural tube closure between the third and fourth week of embryonic development (15). Each year approximately 4500 pregnancies in the European Union result in a livebirth, stillbirth or termination of pregnancy of an infant affected by NTD, mainly spina bifida and anencephaly (16). All infants with anencephaly are stillborn or die shortly after birth, whereas many infants with spina bifida have substantially enhanced survival rate thanks to recent improvements in medical and surgical management. However, these individuals continue to be at increased risk for morbidity and mortality throughout their life as they face severe, life-long disabilities and are at risk for psychosocial maladjustment. Their medical

problems may result from the neurologic defect itself or from its repair (e.g., paralysis, hydrocephalus, endocrine abnormalities, deformations of the limbs and spine, bladder, bowel or sexual dysfunction, and learning disabilities) (17).

In addition to the emotional cost of spina bifida, the estimated monetary cost is staggering. In the United States alone, the total cost of spina bifida over a lifetime (the direct costs of medical, developmental, and educational services and the indirect costs associated with morbidity and mortality, in 1992 dollars) for affected infants born in 1988 was almost \$500 million, or \$294,000 for each infant (18). Recently, Centers for Disease Control and Prevention published data about average cost of caring for a child born with spina bifida for life, which is about \$636,000 (19).

NTD develop within the first few weeks of embryogenesis, at a time before many women know that they are pregnant. Studies of Smithells and colleagues (20), confirmed by many other studies and randomized clinical trials by the early 1990's (21,22), showed that supplements containing folic acid, when consumed around the time of conception and early in pregnancy, can reduce NTD by an estimated 70% or more. It is generally accepted that prevention can be obtained at a dose corresponding to 400 µg of folic acid per day. Three different strategies are available to reach the daily dose; women may consume a diet rich in folate, they may take supplements with folic acid, or consume foods fortified with folic acid.

Because folic acid is inexpensive, safe, and easy to use, many professional organizations and some governmental agencies promote the use of folic acid supplements to prevent NTD (23). The format of such recommendations varies, but they typically include statements that women should eat a healthy diet and take folic acid supplements when planning a pregnancy or throughout childbearing age. In a few countries, including the United States, Canada, Chile, and South Africa, recommendations to consume folic acid are integrated with a policy of widespread fortification of flour to ensure that the entire population receives at least a small additional amount of folic acid regardless of access to supplements (23).

A crucial question is how effective are recommendations alone, in the absence of fortification. A study was conducted by the EUROCAT Working Group to review progress in the last decade in European countries in terms of developing and implementing public health policies to raise periconceptional folate status, and analyze data on the prevalence of NTD to determine the extent to which NTD have been prevented up to the year 2002 (16). Representatives from 17 countries participating in EUROCAT provided information about policy, health education campaigns and surveys of folic acid supplement uptake in their country. Surveys showed that in all countries, a minority of women were taking supplements during the entire advised periconceptional period, with supplementation rates varying from 5% to 46% between countries. The situation regarding lack or low uptake of supplementation advice is reflected in the lack of a clear decline in the prevalence of NTD across Europe. Authors concluded that the potential for preventing NTD by periconceptional folic acid supplementation is still far from being fulfilled in Europe (16). The most likely possibility is that recommendations were not implemented to the point of inducing a sustained change in behavior in a sufficiently large proportion of women to cause measurable effects (23). Whereas any improvement in primary prevention is

desirable and should be promoted, a detectable change in the population requires a major shift in the proportion of women consuming adequate amounts of folic acid. It is unclear how successful recommendations alone will be in achieving this goal, given the influence of cultural, social, and economic factors such as the acceptability, availability, and cost of daily supplements. In general, use of supplements tends to follow economic and educational lines, so targeting the entire population through recommendations on supplementation alone may not be practical (23). Only a public health policy including folic acid fortification of staple foods is likely to avoid widening socio-economic inequalities in NTD prevalence and result in large scale prevention of NTD (23,24).

In view of the findings that there has been a lack of substantial decline in NTD prevalence in Europe since 1991, and even countries which have pursued supplementation policies relatively actively have found a limited preventive impact, EUROCAT has issued the following recommendations:

1. Countries should review their policies regarding folic acid fortification and supplementation, taking account of WHO Europe recommendations.
2. European countries could prevent most neural tube defects in planned pregnancies by putting in place an official policy recommending periconceptional folic acid supplementation and taking steps to ensure that the population are aware of the benefits of supplementation and the importance of starting supplementation before conception.
3. As many pregnancies are unplanned, European countries could achieve more effective prevention of neural tube defects by additionally introducing fortification of a staple food with folic acid. The particular objectives of this policy would be preventing neural tube defects among women who do not plan their pregnancy, and reducing socio-economic inequalities in neural tube defect prevalence.
4. Health effects of supplementation and fortification should be monitored, and policies should be reviewed periodically in light of the findings.
5. The European population should be covered by high quality congenital malformation registers which collect information about affected pregnancies (live births, stillbirths and terminations for fetal abnormality). One important use for the information would be to assess the effect of folic acid supplementation and fortification on NTD rates as well as rates of other congenital malformations (16).

### **Folic acid food fortification – pro et contra**

In this context, fortification of flour represents an additional opportunity to deliver some folic acid to nearly the entire population, across social and economic barriers. Where dietary and food processing conditions are favorable, fortification can be effective quickly and at low cost (24). In countries that have fortified flour, blood folate concentrations have risen quickly, and although the reductions in incidence were not as large as that achievable through supplementation, such reduction occurred soon after fortification was implemented (25,26).

In 1992, the United States Public Health Service issued a recommendation that all women of childbearing age should consume 400 µg of folic acid per day to reduce the risk of having an infant with an NTD (27). The Institute of Medicine

made a similar recommendation in 1998 suggesting that women of childbearing age should consume 400 µg of folic acid per day from fortified foods, supplements, or both, in addition to consuming food folate from a varied diet (28). In 1993, the United States Food and Drug Administration (FDA) Folic Acid Subcommittee recommended that folic acid fortification be implemented to ensure that 90% of women of childbearing age consume 400 µg folate daily or folic acid from all sources, but the FDA did not implement fortification at the level required to achieve this because of safety considerations (29). The FDA began requiring folic acid fortification of enriched cereal-grain products in 1998 at a level (140 µg /100 g) that was estimated to provide an average person approximately 100 µg additional folic acid daily (30). On November 11, 1998, fortification with folic acid of all types of white flour, enriched pasta, and cornmeal became mandatory in Canada with the goal to increase by approximately 30 to 70% the average intake of folic acid among women of childbearing age without posing a risk to the general public (25). In any case, average serum folate concentrations increased significantly after the implementation of folic acid fortification, and the prevalence of NTD in the United States in 2000 was 26% lower than that before folic acid fortification (26). In Canada, a 46–48% decrease in NTD was seen to coincide with folic acid food fortification (25).

Although the primary goal of folic acid fortification is to reduce the occurrence of NTD in women of reproductive age, the potential benefit to the general population in reducing the risk of chronic disease via homocysteine lowering is also highly relevant (31). Recently published population-based study suggests that the temporal decline in stroke-related mortality in the United States and Canada coincided with the introduction of folic acid fortification (32). More importantly, a meta-analysis of clinical trials just published shows that supplementation with folic acid reduced the risk of stroke by 18% overall, by 29% in trials with a treatment duration of less than 36 months, and by 25% in those trials in subjects with no history of stroke which strongly suggests that either folic acid or homocysteine lowering plays a role in the primary prevention of stroke (33).

Population-based exposure to folic acid through fortification, however, is controversial because of concerns about potential adverse effects on health. The most widely documented concern is the possibility that high-dose folic acid may mask the diagnosis and thereby delay the treatment of vitamin B-12 deficiency in older adults (34). In addition, there is some concern that high-dose folic acid may promote the development of colorectal cancer if precancerous lesions or neoplasms are already established in the mucosa (35). Thus, mandatory fortification with folic acid remains virtually nonexistent in Europe. Furthermore, although many European countries allow the addition of nutrients to foods on a voluntary basis (ie, at the manufacturer's discretion), others prohibit fortification of any kind. Thus, national fortification policy varies considerably throughout the European Union (23). The European Commission, however, is aiming in the near future to regulate in its member states the minimum and maximum amounts of vitamins and minerals allowed to be added to foodstuffs (36).

## **Economic evaluation of folic acid food fortification**

Economic evaluation plays an important role in translating research findings into practice and policy. Economic evaluations can be ex-ante, conducted before the adoption of a policy on the basis of results from pilot studies and theoretical assumptions, or ex-post, carried out after implementation using information on observed outcomes.

Before the adoption of fortification in United States, 3 independent economic evaluations concluded that folic acid fortification at 140 µg of folic acid per 100 g of cereal grain product would yield net economic benefits or cost savings (37-39). This conclusion was confirmed and strengthened by postfortification analysis where Grosse and colleagues calculated the economic impact of fortification using both cost-benefit and cost-effectiveness analytic techniques on the basis of prefortification and postfortification epidemiological data (40). They believe that folic acid fortification has proven to be a public health success in the United States and Canada, although an economic evaluation of fortification in Canada has yet to be conducted. The net benefit and cost savings surpass estimates prepared before fortification. By any measure, folic acid fortification provides a remarkable return on investment. Other industrialized countries could benefit by following the lead of the United States and Canada in adopting folic acid fortification of cereal-grain products (40). Furthermore, the benefits of fortification are not restricted to higher-income countries; wheat flour folic acid fortification program in Chile showed an increase in blood folate levels and a 40% decrease in the risk of NTD (41). Llanos and colleagues conducted ex-post economic evaluation, findings of which strongly support the continuation of fortification of wheat flour with folic acid in Chile. Furthermore, these findings serve as important evidence for policy makers from other countries to consider the implementation of folic acid fortification of cereal grain products (42).

Due to uncertain risks, the Dutch Health Council advised the government against fortifying food with folic acid, in 2000 (43). Their conclusions were based on uncertain risk suggested above. In particular, the elderly population would be at risk for excess intake of folic acid, which was considered to be highly undesirable. Jentink and colleagues produced estimations of the costs, savings, health gains, cost-effectiveness and cost-utility for bulk food fortification with 140 µg folic acid per 100 g flour (43). Estimations were conducted in a base case analysis (presenting the most likely situation) and in sensitivity analysis around the base case assumptions. They applied the societal perspective for economic analysis, which included the whole spectrum of direct, indirect, medical and non-medical costs. Their model suggested that folic acid fortification of bulk food to prevent cases of NTD might be a cost-saving intervention in the Netherlands as well (43).

## **EXERCISES**

### **Task 1**

Individually, carefully read the theoretical part of this module and recommended readings.

### **Task 2**

Make two groups for discussion using method “pro et contra”. The group No.1 prepares arguments for “pros”, and the group No.2 for “contras”. Perform the “pro et contra” discussion in a limited time.

### **Task 3**

Fortification of food with folic acid has the potential to reach a large proportion of the population and increase the level of folate consumed. Some governments in Europe are now seriously considering folic acid food fortification. What information would you need to support this public health policy in your own country? Make a short written report, and present it to your colleagues.

### **Task 4**

Discuss the fortification of food with folic acid issue in a plenary session.

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>SATISFACTION OF NEEDS AND PATIENTS' EXPECTATIONS OF HOSPITAL CARE: THE CASE OF BULGARIA</b>
<b>Module: 2.7</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Satisfaction, needs, patients' experiences, inpatient hospital care.
<b>Learning objectives</b>	<p>Completing this module students and public health professionals should:</p> <ul style="list-style-type: none"> <li>• be aware of methods for patients' satisfaction and expectations of hospital care assessment;</li> <li>• recognise the particular dimensions of quality of care;</li> <li>• increase knowledge of different aspects of patient satisfaction and experiences of hospital care;</li> <li>• differentiate the aspects of patient satisfaction with hospital health services;</li> <li>• identified problems related to patients' experiences with hospital care supply;</li> <li>• improve the knowledge and understanding of patient needs and expectations of inpatient hospital care as well as the necessity of applying for such investigations.</li> </ul>
<b>Abstract</b>	<p>There is an increasing interest in eliciting feedback from patients to highlight aspects of care that need improvement and to monitor performance and quality of care. Hospitals increasingly need to adopt a patient-centred attitude.</p> <p>Traditionally, assessments have ignored the reports of patients in preference to technical and physiological reports of outcome. Healthcare systems have sought to achieve a balance in services that offer not only clinically effective and evidence based care, but which are also judged by patients as acceptable and beneficial.</p> <p>Questionnaires that ask patients to rate their care in terms of how satisfied they are tend to elicit very positive ratings, which are not sensitive to problems with the specific processes that affect the quality of care delivery.</p> <p>A more valid approach is to ask patients to report in detail on their</p>

	<p>satisfaction and experiences by asking them specific questions about whether or not certain processes and events occurred during the course of a specific episode of care. This type of questionnaire can provide results that can be easily interpreted and acted upon.</p> <p>Building on extensive qualitative research to determine which aspects of care are important to patients, we used standardized instrument to measure the quality of care in relation to particular domains. The purpose of this study was to measure patients' experiences of hospital care in Bulgaria and to identify existing problems with health services supply and inpatient stay.</p>
<b>Teaching methods</b>	Lectures, seminars, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: multimedia, LCD projection equipment, computers (1 computer on 3 students), internet connection, access to bibliographic data-bases;</li> <li>• training materials: readings are mainly available in the Internet;</li> <li>• target audience: bachelor degree students.</li> </ul>
<b>Assessment of Students</b>	The final mark should be derived from assessment of the theoretical knowledge (oral exam), multiple choice questionnaire (MCQ), contribution to the group discussions, quality of individual work and seminar paper.

# **SATISFACTION OF NEEDS AND PATIENTS' EXPECTATIONS OF HOSPITAL CARE: THE CASE OF BULGARIA**

**Petya Trendafilova, Kiril Kirilov**

## **THERORETICAL BACKGROUND**

### **Patients' Satisfaction and Experiences of Hospital Care Background**

Evaluation of healthcare provision is essential in the ongoing assessment and consequent quality improvement of medical services. Traditionally, assessments have ignored the reports of patients in preference to technical and physiological reports of outcome. More recently, however, healthcare systems have sought to achieve a balance in services that offer not only clinically effective and evidence based care, but which are also judged by patients as acceptable and beneficial (1).

Health care which improves health only in some limited technical sense, but does not improve the quality or length of life, is not likely to be viewed as beneficial by patients (2).

Governments and regulatory authorities in some countries now require hospitals to organize patient surveys at regular intervals.

Interest has therefore grown not only in the assessment of treatment interventions by patients, but in the systematic evaluation of the delivery of that care (3). Most significantly, attempts have been made to determine the features of patient care that are likely to influence patient satisfaction. Patient satisfaction is not a clearly defined concept, although most typically it appears to represent attitudes to care or aspects of care (4).

While numerous questionnaires have been developed which ask people to rate aspects of care, such an approach has limitations. Attitudes to services do not tell us very much about the nature of those services. Surveys of patient satisfaction tend to elicit very positive ratings which are not sensitive to specific problems in the quality of care delivery. It has been argued that questionnaires should attempt to measure patients' experiences of their care, and then determine how such experiences are related to satisfaction (5).

Questionnaires that ask patients to rate their care in terms of how satisfied they are tend to elicit very positive ratings, which are not sensitive to problems with the specific processes that affect the quality of care delivery (6).

A more valid approach is to ask patients to report in detail on their experiences by asking them specific questions about whether or not certain processes and events occurred during the course of a specific episode of care. This type of questionnaire can provide results that can be easily interpreted and acted upon (5).

The results of a round of studies show that more meaningful information is gained when patients are asked to report on specific aspects of their experience of care. It has been suggested that age and health status are major influences on patient satisfaction (3). Authors from the Picker Institute of Oxford have published series of papers which show that age is an important factor in reported satisfaction, but self-

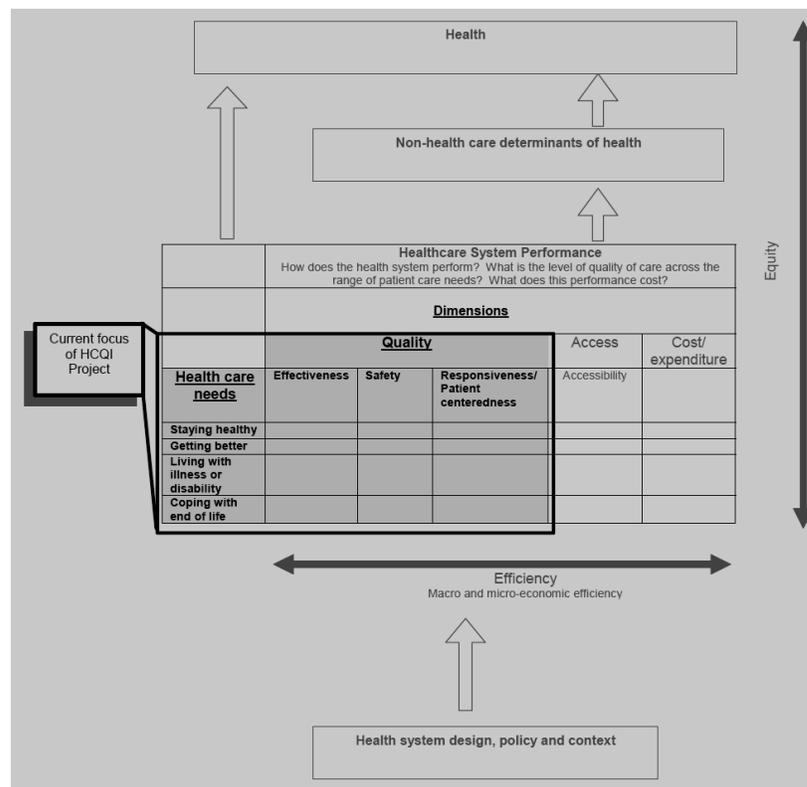
reported health status was not. However, the most important determinants, as indicated by the regression models, appear to be physical comfort, emotional support, and respect for patient preferences (7).

The aim of patients' satisfaction reports is to allow insurees/patients/ on one hand and physicians and medical personnel, on the other hand, to make an informed choice of hospitals based on quality indicators.

Hence over the past decade there has been increasing realization of the need to take into account patient reports of their hospital experiences in the development of action plans for improvement of services, safety and care provided. It is suggested that efforts to improve health care will be wasted unless they reflect what patients want from the service (8).

A variety of methods have therefore been employed to assess the patients' preferences for care, evaluations of what occurred, or factual reports of care. Examples are questionnaires to assess patients' needs and surveys among patients to provide feedback to care providers or the public (9,10).

Development of newer tools and techniques to assess patient opinion is an emerging trend around the globe highlighting the need for providers of hospital care to assess and improve the quality of care they offer, and to continue expanding their use of questionnaires and surveys (11).



**Figure 1.** Proposed conceptual framework for HCQI Project. Source: Kelley E, Hurst J. OECD Health Working Papers. DELSA/HEA/WD/HWP(2006)3) (12).

### *Patients' Needs*

A number of countries have asked for the specification of the conceptual framework which should guide the development of an international set of health care quality indicators at the OECD.

The framework below presents a visual summary of the dimensions of health care performance including: quality, access, cost, efficiency and equity. It also presents a visual picture of factors related to, but distinct from, health system performance, such as: health system design, policy and context; non-health care determinants of health and overall levels of health. It highlights the particular dimensions of quality of care that will be the focus on the HCQI Project namely: *effectiveness, safety and responsiveness (patient centeredness)* (12).

## **CASE STUDY**

### **The Case of Bulgaria**

Bulgarian hospitals must adopt appropriate market-based approaches in order to survive and serve to the public health needs.

National Health Insurance Fund is a typical example for imperfect provider market in Bulgaria. Monopoly is at the opposite extreme of the competitive spectrum from perfect competition. In a monopolistic market, like obligatory health insurance in Bulgaria, there is a single provider who, because of a lack of competition from several other providers, can influence price. Such a situation is allocatively inefficient.

Bulgarian hospitals in the environment of health insurance system tend to be more efficient due to financial constraints, than a few years ago in the environment of governmental budgetary financing. Still there is a recognition that the delivery of health care is ineffective and inefficient and that these unpleasant outcomes are a product of the perverse incentives inherent of the ex health care system.

### *Patients' Experiences of Hospital Care in Bulgaria*

A study is required to survey patients' opinions of general aspects of inpatient care provided to them during admission. Such a study becomes even more important in light of the limited budget allocation to the health sector and the inability of many patients to afford expensive treatment modalities. Hence there is further need to prioritize spending and this study hopes to fill this void by production of data that can help managers and doctors to identify and address unsatisfactory factors in the care they provide (13).

Building on extensive qualitative research to determine which aspects of care are important to patients, we used standardized instrument to measure the quality of care in relation to problems identified as a result of inpatient stay in hospital in Bulgaria.

The purpose of this study was to measure patients' experiences of hospital care in Bulgaria and to identify existing problems with health services supply and inpatient

stay. The study design could be used to make comparisons between different hospitals within the country or abroad and for monitoring trends over time.

A questionnaire of items is used developed for use in in-patient surveys undertaken by the Picker Institute of Europe for the purposes of assessing the quality of care. PPE - 15 became an important tool in the processes of monitoring and improving quality of health care services. Each item in the questionnaire is coded for statistical analysis as a dichotomous 'problem score', indicating the presence or absence of a problem. A problem is defined as an aspect of health care that could, in the eyes of the patient, be improved upon.

A total of 1316 patients (response rate: 71.01 %) filled the questionnaire as a part of a pilot study. Patients' experiences in Bulgaria were at a lower level comparable to European surveys for most aspects of hospital care.

**Table 1.** Problems identified from inpatient stay in Bulgarian hospitals (values shown are percentages)

<b>Item</b>	<b>Problem</b>	<b>Frequency (%)</b>	<b>Response rate (%)</b>
1.	Doctors' answers to questions not clear	13.5	78.6
2.	Nurses' answers to questions not clear	56.7	85.3
3.	Staff gave conflicting information	6.2	73.6
4.	Doctors didn't discuss anxieties or fears	32.7	89.4
5.	Doctors sometimes talked as if the patient wasn't there	24.5	61.7
6.	Patients were not sufficiently involved in decisions about their treatment and care	35.3	71.6
7.	Not always treated with respect and dignity	17.4	68.9
8.	Nurses didn't discuss anxieties or fears	42.9	61.0
9.	Not easy to find someone to talk to about concerns	46.6	58.7
10.	Staff didn't do enough to control pain	27.2	74.6
11.	Families didn't get enough opportunities to talk to doctors	31.0	62.4
12.	Families didn't get enough information needed to help recovery	14.9	56.3
13.	Purpose of medicines that patients have to take at home not explained	7.4	69.5
14.	Patients weren't told about medication side effects	61.3	70.7
15.	Patients weren't told about danger signals to look for at home	32.1	82.9

### *Results*

The results of this study have shown that a significant majority of patients reported they were not told of the side effects of medications given to them (61.3 %).

The percentage of patients who never received clear answers to their questions from nurses was pretty high (56.7 %), comparing to the studies undertaken in other European countries where this percentage was significantly lower. The explanation of that result can be attributed in part to a lack of knowledge of the nurses or the fact that patients may be asking questions from them that should normally be addressed to doctors.

The study shows that compared to developed countries, a higher number of patients had to wait too long after pressing the call bell before a nurse attended to them.

6.2 % of the patients received conflicting information from the staff while in other studies this percentage is 5.3 %.

The percentage of patients who wanted greater involvement in their care was much higher (35.3 %) than the percentage in the western countries.

31.0 % of the patients felt that their families were not given enough opportunity to talk to the doctors.

The results from our study show that 46.6 % of the patients did not find easily anyone in the staff to talk to about their worries and fears while 32.7 % didn't discuss anxieties or fears with doctors.

More than one third felt that the amount of information provided was not enough. This is despite the fact that all patients are required to sign an informed consent form before all the procedure.

Too high is the percentage of people that reported persistent pain and they thought that the staff didn't do enough to control their pain (27.2 %).

### *Conclusions*

PPE - 15 provides basic information and other optional questions can be added; scores are easy to interpret and can be action upon. It consists of a minimum dataset of issues that are important to patients.

The patients' experiences presented here indicate that many patients with inpatient hospital stay in Bulgaria did not receive optimal care.

Applications of this survey instrument could be used to monitor these basic aspects of hospital care over time, which are expected to lead to a quality improvement of hospital care in Bulgaria.

Patients should be provided with more information during their stay at hospitals. Doctors as well as nurses need to improve their communication with patients. The health care team should provide more emotional support to patients so that they get at least someone in the staff with whom they can talk about their concerns.

The staff should make sure that they explain all the risks and benefits to patients and patiently listen and answer their questions before getting the informed consent form signed for every procedure.

Finally, there has to be much more efforts for pain control in order to provide better health services for patients and to receive feedback about their views on the care provided.

In conclusion, the PPE – 15 represents a step forward in the measurement of patient experience enabling the comparison of hospital performance and the establishment of national and international benchmarks.

Many sections of patient care require considerable improvement in order to provide better quality of health care services in Bulgaria compared to other European countries.

Subjective health status measures are used to assess the impact of medicine on the well-being of patients.

Feedback on patients' experiences of health care is sought in order to determine priorities for quality improvement.

Measurement of patients' experiences is also seen as an important component of performance assessment.

## **EXERCISE**

### **Task 1**

Explain the purpose of the studies that are focused on patients' experiences and satisfaction?

### **Task 2**

Which are the particular dimensions of quality of care that will be the focus on the proposed conceptual framework for HCQI Project?

### **Task 3**

Please discuss the specific characteristics of patients' experiences of hospital care in Bulgaria and summarize the main problems identified.

### **Task 4**

In bibliographic database (e.g. MEDLINE, PUBMED, etc.) find at least two scientific papers on patient experiences of hospital care.

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>ECONOMIC ASSESSMENT AND MANAGEMENT OF PROCESS OF AGEING IN BULGARIA</b>
<b>Module: 2.8</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Economics, assessment, management, ageing
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• know the definition and characteristics of demographic ageing and its economic consequences;</li> <li>• be familiar with some approaches of economic assessment of ageing;</li> <li>• be familiar with ageing and employment policies.</li> </ul>
<b>Abstract</b>	Demographic, social and economic status of Bulgarian third age population is one of the less favourable among the EU member states. Population in Bulgaria decreased from 8 948 649 in 1985 to 7 640 000 in 2007 with stable reduction of growing generation, standstill of at-labour-age persons and increase of the above-labour-age population. Major problem is the low employment level of ageing population, unsatisfactory health care services and unsupportive pensioning system. Elder people find themselves in completely new economic and social situation, which together with the usual changes create complexes of vulnerability, inability to manage daily tasks and health problems. The training aims at improvement of the competencies of students, professionals and aged people, their skills to manage the economic reality, enhance their health culture and diminish their exposure to diseases.
<b>Teaching methods</b>	Teaching methods: lectures, exercises, round table discussions, seminars. The training will be ended with an individual thesis on a problem of ageing.
<b>Specific recommendations for teachers</b>	Proportions within work under teacher supervision - 75%; individual students' work – 25%.
<b>Assessment of Students</b>	Case problem presentations.

# ECONOMIC ASSESSMENT AND MANAGEMENT OF PROCESS OF AGEING IN BULGARIA

Jasmine Pavlova

## THEORETICAL BACKGROUND

### Introduction

Seventeen years ago in the Republic of Bulgaria has started an accession from centralized planning to market oriented economy and one year yet Bulgaria is a full member of the European Union. The current Bulgarian economy can be described following some specific operational market relations: completed structural changes, achieved macroeconomic stability, availability of market institutions in all spheres of the public life. The consequences of these changes have substantial economic and social dimensions.

The beginning of twenty-first century was marked with successes and difficulties for the Bulgarian society. The basis laid in the end of the last century develops at a good pace (during the last 3-4 years Bulgaria rated about 6% growth of the gross domestic product (GDP)). According to the official data, the unemployment dropped to 6-7%, but yet its distribution by regions remained still uneven. The country is affiliate of the European Union one year yet. In order to let Bulgarians feel themselves Europeans not only *de jure*, but also *de facto*, it is necessary to follow a sustainable overtaking development of the economy, which by the means of the figures means maintenance of not less than 6-7% of GDP for about 20 year. The condition of the population, though, provokes serious anxiety and raises multiple problems to be solved.

Bulgaria is not an exception from the other European countries when comparing the *negative phenomena* in the demographic development of the population. In distinction to them, these tendencies are much more extreme and of much stronger impact to the social systems.

Therefore it was considered that training of students, health and social professionals as well as aged people in managing the new economic and social life realities, and acquaintance with the natural psychosomatic changes of age advancing is of urgent importance.

Corresponding to training targets and problematic areas, the following programme themes were selected:

- Information on specific diseases of third age;
- Possibilities for protection and reduction of disease complications;
- Stressogenic factors in the third age;
- Motor regime and healthy nutrition;
- Adaptation of behaviour based on the living and social experience;
- Demographic ageing and economic consequences;
- Retirement, pensioning systems. European experience;
- Application of market approaches for improvement of the third age people's living standard;
- Basic knowledge in information and computer technologies.

## Demographic aging in Bulgaria

Bulgaria is not an exception from the other European countries when it concerns the processes of demographic development of the population. Differing from the other EU countries, processes here are much more extreme and with much higher impact on the social systems.

The study of population goes back quite a long way. After the Liberation in 1878 the Third Bulgarian State was established and the interest to the population increased due to the necessity of statistical data, labour force and overall development of the new country. Factors and reasons, determining the growth of the population in Bulgaria, are complex: biological, social, economic, ethnic and others.

In 1880 according to the census of the population in Bulgarian Principality there were 2007919 people and in 1884 in Eastern Rumelia there were 942680. After the Union of Eastern Rumelia with the Bulgarian Principality in 1885 the population exceeded 3 millions.

The peak of the growth of Bulgarian population was in 1985 when it reaches nearly 9 millions people. After this it begins to decrease due to many factors.

Analyzing the data of Table 1 we can mention some important tendencies: decreasing of total population and people under labour age and increasing of townspeople and aged and old population in the country. The migration from villages to towns is a global process in European countries and Bulgaria is not an exception. Towns offer jobs and higher standard of life that is why they attract many people, mostly young generations. Gradually villages become depopulated, the agriculture falls into a crisis because of the lack of young labour force (1,2,3,4).

**Table 1.** Demographic status of Bulgarian population

Years of census	Total population	Percentage of townspeople	Percentage of people below labour age	Percentage of people in labour age	Percentage of people over labour age
1887	3154375	18.8	-	-	-
1890	3310713	19.7	-	-	-
1900	3744283	19.8	42.9	47.3	9.8
1920	4846971	19.9	38.8	51.2	10.0
1934	6077939	21.4	37.4	53.2	9.4
1946	7029349	24.7	29.8	58.6	11.7
1965	8227866	46.5	25.7	58.2	16.1
1985	8948649	64.8	22.9	56.0	21.1
2000	8149468	69.0	16.8	58.3	24.9
2006	7679290	70.6	14.6	62.8	22.6
2025*	6125400	-	12.2	60.2	27.6

Sources: NSI - 2007, UN, Population Division, DESA, According to prognosis data

The ageing of population is seen as one of the major challenges to the Bulgarian society and economy. In the beginning of 20-th century people under labour age were 42.9%, those over labour age were 9.8%. The birth-rate was 42.2‰, the general mortality rate – 22.5‰, the children mortality - 200‰. The natality in Bulgaria was high till 1926 and it determined the high level of natural growth. The

country has a model of “Young population” for a period of nearly fifty years. After 1926 the decrease of natality changes constantly the demographic structure of the population. The changes in correlations between groups of people over and under labour age show that the demographic ageing of the population begins about 1910-1920. This tendency was manifested continuously until 1965, when the relative share of old people was 16.1. Bulgaria converts into the group of countries with demographic model “old population”. The last year’s data show decreasing of natality and increasing of mortality.

The natural growth is negative. It is the greatest demographic fall in Bulgaria except periods of Balkan and First World Wars. These processes intensify the deformations in age structure of the population and decrease the life and labour potential of the country.

Bulgaria relatively quickly passes the four stages of the demographic transition. The first period until 1924 is characterized with high levels of natality and mortality. The generations change each other very rapidly. The middle duration of life was 42-45 years (1900-1905)! The second period comprehends years 1924-1939. The natural growth of the population was reduced considerably, more than twice (Table 2).

**Table 2.** Natality, mortality and natural growth rates

<b>Years</b>	<b>Natality ‰</b>	<b>Mortality ‰</b>	<b>Infant mortality ‰</b>	<b>Natural growth ‰</b>
1900	42.2	22.5	-	19.7
1920	39.9	21.4	-	18.5
1940	22.2	13.4	-	8.8
1960	17.8	8.1	-	9.7
1980	14.5	11.1	-	3.4
1990	12.1	12.5	14.8	-0.4
2000	9.0	14.1	13.3	-5.1
2006	9.6	14.7	9.7	-5.1

Source: NSI 2007

This stage was interrupted by the Second World War. The natality was 22‰, the mortality - 13‰. After 1950 the second stage of the demographic transition continued till the middle of the 60s when the natality reached 15‰, the mortality – 8‰ and the natural growth - 7‰. The third stage of the demographic transition begins in the end of the seventh and the first half of the eighth decade. In 1985 the natality reached 13.3‰, the mortality – 12‰, the natural growth – 1.3‰. In the end of this period the net-coefficient for reproduction of the population decreases less than 1. This is a sign for the beginning of the fourth stage of the demographic transition: the indexes of natality and mortality approximated and the natural growth of the population in 1990 was – 0.4‰ already.

We have to note that this transition proceeded at accelerated rates in Bulgaria, during 50-60 years, while this process continued more than a century in European countries. From the beginning of 1990 Bulgaria felt in a condition of depopulation.

The average life expectancy had increased from 51.75 years (male – 50.98; female – 52.56) in 1935-1939 to 72.60 years (male – 69.10; female – 76, 30) (1,4,5).

Very often the notion “old population” is connected to long-life of the nation. The publication of statistic for long-livers in Bulgaria creates an idea that the country

is a one with old population. But the demographic ageing is not identical with the category “long-life”. It measures the bio-social stability of the population in certain groups. The phenomenon “long-life” is typical for nations with “young population” model and inversely, there are a few long-livers in regions with old population.

According to the classic rule higher longevity is observed in countries and regions with high percentage of old people. We couldn't confirm this. In Bulgaria in regions with old population the number of long-livers is considerably smaller than this one in regions with younger population. In the case of Bulgaria there is a direct correlation between the number of long-livers and the high birth-rate. Such are districts of Smolian, Kardjali and Blagoevgrad (St. Vizev, A. Hadjihristev).

The correlation between sexes is: from 961 female/1000 male (1900) to 1051 female/1000 male (2000). According to the UN prognoses in 2025 the inequity will increase: 1095 female/1000 male. In a large part, the greater number of women is due to the higher mortality and higher migration among men.

In the past the age structure of Bulgarian population was progressive, that is to say the age pyramid was with a large foundation and little by little narrowed, increasing the age. Later the basis of the pyramid was equal to the middle part.

Nowadays the deformation continues as it is shown in the figure 1 (Age pyramid of Bulgarian population 1990-2020). The age structure of the Bulgarian population is of regressive type, which is also influenced by the emigration of young people mainly. The foundation of the pyramid narrows, on contrary its middle and upper part extend (4,6).

### **Development of the Bulgarian economy after 1990**

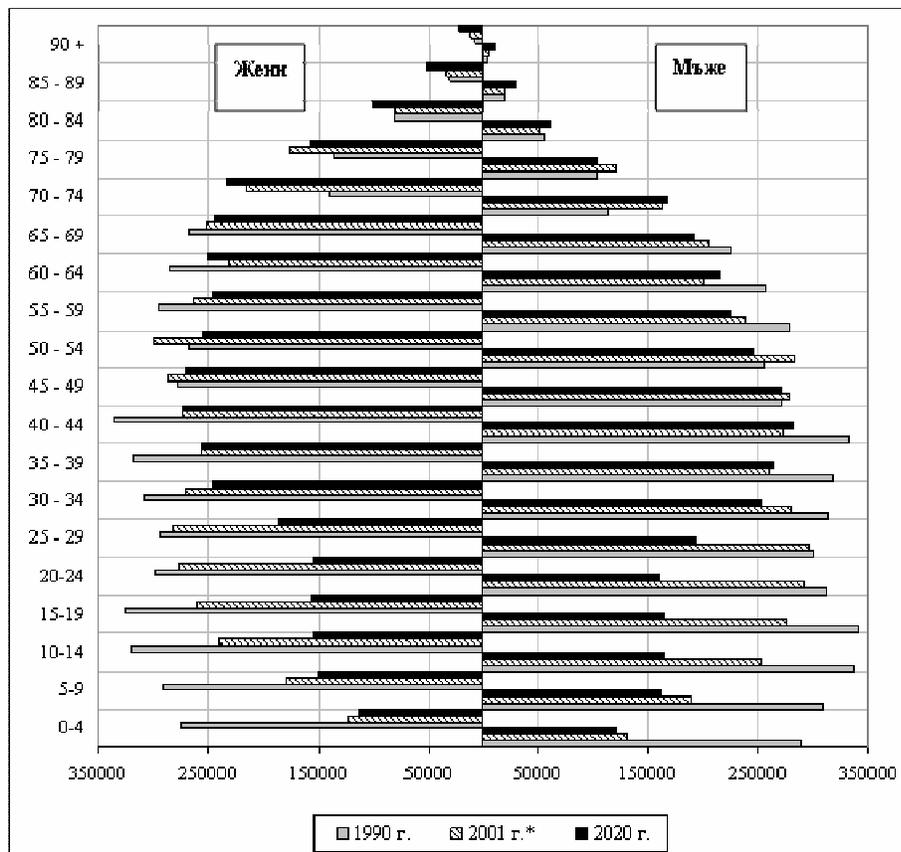
The period 1990-1997 is specified with a transition from *planned and centralized* to *market* economy, where the basis of the free competition among economic entities is laid, and the prices of goods and services are being defined from the market's demand and offering. This period of transition was hampered by the inherited negatives of the economic, cultural and political life. As a result, and comparing to the other countries of the Eastern Europe, the country slowed down the processes of privatization and reimbursement of lands and, respectively its integration in NATO and the EU.

During the period about 4000 entities were privatized, some 1500 before 1995. A main part of the privatized subjects is municipal property as the state property represents only 600. At the end of 1998 there were 500000 active economic entities from which 9000 were state, 10000 – municipal, and the rest of it – private. Almost 25% of these economic entities were registered in the capital, about 15% in the region of Plovdiv. The latter reflects the regional differences of work occupation which is due to both traditions and local conditions.

During the same period the volume of GDP per capita changed from 943 in 1991 up to 1543 in 1995. During 1998 it dropped down to 1484. Comparison of this criteria shows that GDP in Bulgaria is more than 20 times lower than in Norway, Denmark, Luxemburg or any other developed country. Industrial production also decreases as in 1997 it represents only 55% of 1989's volume. The main fall off concerned branches, strongly dependent on expensive import raw materials: machine building, ferrous metallurgy, etc. This decrease continued during the next year as well. Meanwhile, a rapid increase of private owned share in the industry was

registered as in 1998 it reached 42.4%. About 20% of the private economy supplementary net value resulted from this sector. At the same time most of enterprises in the sector remained unattractive for potential buyers due to their enormously large debts and unstable markets for realization of the production (4,7,8,9).

**Fig. 1.** Age pyramid



Source: [www.euro.who.int](http://www.euro.who.int)

Legend: Жени – Female; Мъже – Male; г – year

After 1989 started a long and tormenting process for restitution of agricultural lands to their former owners. This led to a decrease of the agricultural production and deficit of food in the country. Restitution was accelerated during the last years and as a result, by 1998, about 80% of the land ownership was restored with muniments covering 23% of the existing agricultural lands. Restitution of land allowed for a fast increase of the private share in the sector of agricultural production up to 95-98% recently. It represents 32.5% from the net added value (NAV) create din the private sector of the economy. Through the development of the private sector of agriculture is attended by lack of financing for machinery, fertilizers and chemicals. This resulted in decrease of plant growing average yield, changes of its structure into an increase and

prevailing of the share of commercially demanded products such as vegetables, potatoes, grain and other sub-branches products.

At the end of the day, the deep and long economic crisis in Bulgaria imposes the necessity for implementation of a strict financial discipline regime, e.g. of a *currency board*. Economy crisis, corruption and legislative uncertainty were obstacle for potential foreign investors. The lack of such investments slowed the development of the country and limited the real income of the population.

**Table 3.** Macro economic indicators for Bulgaria 1999 - 2008

Indicator	Measure	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Real growth of GDP	% rate	2.3	5.4	4.1	4.5	5.0	6.6	6.2	6.1	6.2	6.2
GDP per capita (per PPS)	EC25=100	25.8	26.6	28.0	29.8	31.3	32.3	33.8	35.7	38.2	40.6
Labour efficiency ratio	EC25=100	29.2	29.0	30.0	31.6	32.0	32.1	32.8	34.0	36.1	38.0
Industrial production (real growth from previous year)	%	-6.3	10.6	4.1	4.7	14.1	17.7	6.7	7.7	11.0	9.5
Investments in fixed capital (real growth from previous year)	%	20.8	15.4	23.3	8.5	13.9	13.5	23.3	17.6	24.6	17.0
Average annual inflation	%	2.6	10.3	7.4	5.8	2.3	6.1	5.0	7.3	7.4	5.2
Level of unemployment	%	13.8	18.1	17.3	16.3	13.5	12.2	10.7	9.1	7.3	6.5
Budgetary deficit	% GDP	0.2	-0.6	-0.6	-0.6	0.0	2.2	1.9	3.3	3.0	2.0
Export of goods	Mln. Euro	3734	5253	5714	6063	6668	7985	9466	12012	14619	17396
Import of goods	Mln. Euro	4741	6533	7493	7941	9094	10938	13876	17574	20760	23874
Current account	% GDP	-4.8	-5.6	-5.6	-2.4	-5.5	-6.6	-12.0	-15.7	-17.6	-16.8

DFI	% GDP	7.1	8.1	5.9	5.9	10.5	13.8	14.2	17.4	15.0	13.0
Net external debt	% GDP	89.2	86.9	78.6	65.0	60.1	63.8	69.0	80.1	86.0	89.5
Average currency rate	BGN/EUR	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
<b>Note: *) prognostic data</b>											

Source: Bank Austria Creditanstalt, BNB, NSI, EAPA, November 2007

Tourism decreased its development until 1997-1998, which is a logical explanation taking into account the crisis from that period. Though, since 2000 a sustainable tendency of ascending improvement was recorded. Since then over 5.5 million foreigners visit Bulgaria, about 2 million transit the country and more than 4 million Bulgarians travel abroad.

Bulgarian economy develops sustainable since 1997. During the last years the GDP growth is within the margins of 6.2 – 6.3%. There is an increase of the capacities utilization in the industrial and construction sectors. In 2006 an increase of the added value in the agrarian sector at the rate of 0.9% compared to the previous year was registered. Labour occupation of the active population increases as there are sectors where there is a shortage of manpower. Labour market item will be further discussed in a separate chapter (7,10,11). The external trade balance of Bulgaria is negative for years. Nevertheless it is quite encouraging that the increase of export rates is higher than those of import (Table 3).

Main factor for increase of the real income during the last years is the expanding of the economic liberty. It is related to the implementation of the currency board, ensuring relative stability of the Bulgarian lev, as well as the privatizing of most of the state enterprises, liberalization of some of the branches and removal of barriers before the new participants on the market, reduction of obstacles in external commerce like decrease of duties and tariff limitations. All these improve the potential for long-term growth as the goal is to encourage the individual initiative and personal responsibility. Due to a strong dependency on natural conditions, climate change and lower sustainability of the sorts, a drop down of agricultural production was recorded during 2007. the logical expectations for this year is that yield will be insufficient again this year and according to the official data the net added value (NAV) from the agricultural sector will drop down with 43% real expression.

Notwithstanding that the share of this sector in the total added value becomes lower and lower, such a sharp decrease leads to slow down of the general growth. Increased subsidies from European funds do not yet have results. This will effect in more expectations for state support as part of the funding will be targeted only for maintenance of the land and not for cultivation instead of effective production and generation of profits. Therefore no high improvements are to be expected during the next years and dependency on climatic conditions will become deeper and deeper (7,8,12).

Situation in the other sectors looks more positive. The real growth of the NAV in the industry reaches 10.5%, and 9.7% for the services (2007). Relatively lower

remain the correctives, which include net taxes on products and indirectly measured services of the financial brokers.

Concerning expenditures, a slight tendency for increase of the GDP share in the investments, measured through gross conversion into fixed capital. It reaches 35.3% on annual basis. This is a precondition for increase of the potential economic growth in near future. On another hand the gross savings in economy decrease up to 15% annual basis, though the share of end consumption in the GDP decreases. This is a result from lower net current transfers and lower net income. The reasons could be found in the increased volume of foreign investments in the country, which are due to interest fees and increasing dividends. From another part, the increased income in the country and the immigration of whole families abroad, leads to smaller foreign transfers (8,9,11).

As a whole, data for gross domestic product development are positive. Certain delay of the economic development is due to the ineffective agriculture.

Most probably the emerging of new actors on the market, for example the funds for agricultural lands, would result in land consolidation, and consequently – to long term opportunities for generation of profits. It might be expected, though, that upcoming subsidies would distort farmers' incentives and decline their attention from increasing of the efficiency to drafting of applications with unclear final results.

Subsidies for agricultural sector shall come from the European budget in total and moneys from Bulgarian taxpayers shall be reduced to minimum. Another negative factor for the development of the economy is the hidden economy, which by its nature represents quite a complex social-economic phenomenon. Practically it concerns all public-economical structures on international, national and regional level.

Following the expert evaluations the relative share of the hidden economy amounts at 10-12% of the world' GDP (making such evaluation is very difficult and it is conditional in some sense) (Table 4). For Bulgaria this "product" varies between 20 and 25%. Problems, causing this phenomenon, are multiple: payment of labour becomes non-monitored and undeclared income for both employee and employers; production from it is not taxed (added value tax, income tax, etc.); hidden economy operates with two very serious tools: smuggling and drug-traffic (5,9).

From the variety of scenarios concerning the economic future of Central and Eastern European countries for the period until 2020 and 2050, according to some economy experts from Bulgarian Academy of Science, Bulgaria can chose two extreme versions for development :

- Slow down of the development with about 2% average annual rate of the GDP growth or slow development with about 3% average annual rate. This means that following the first scenario by the middle of the century we will have 30-35% GDP per capita from the EC-15 average level by that time or 40-45% following the second scenario. Such projections mean that will cause to Bulgaria social-economic stagnation with heavy strategic consequences (Table 5).
- Overtaking or quick overtaking economic development with 5.0-6.0% average annual rate of the GDP growth. In order to realize economic overtaking it is necessary to have an annual growth 2.5-3.0 times higher than the growth of the countries in EC-15. In this case we will reach 50-55% GDP up to 2020, and 75-80% of the growth of EC-15 by 2050. Such favourable prospective for Bulgaria is possible, but not sure (7,10,12).

**Table 4.** Real GDP growth rate 1998 – 2009

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU (27 countries)	2.9	3.0	3.9	2.0	1.2	1.3	2.5	1.8	3.0	2.9 <sup>(f)</sup>	2.4 <sup>(f)</sup>	2.4 <sup>(f)</sup>
EU (25 countries)	3.0	3.0	3.9	2.0	1.2	1.3	2.4	1.8	3.0	2.9 <sup>(f)</sup>	2.4 <sup>(f)</sup>	2.4 <sup>(f)</sup>
EU (15 countries)	2.9	3.0	3.8	1.9	1.1	1.2	2.3	1.6	2.8	2.7 <sup>(f)</sup>	2.2 <sup>(f)</sup>	2.2 <sup>(f)</sup>
Belgium	1.7	3.4	3.7	0.8	1.5	1.0	3.0	1.7	2.8	2.7 <sup>(f)</sup>	2.1 <sup>(f)</sup>	2.2 <sup>(f)</sup>
Bulgaria	4.0	2.3	5.4	4.1	4.5	5.0	6.6	6.2	6.1	6.3 <sup>(f)</sup>	6.0 <sup>(f)</sup>	6.2 <sup>(f)</sup>
Czech Republic	-0.8	1.3	3.6	2.5	1.9	3.6	4.5	6.4	6.4	5.8 <sup>(f)</sup>	5.0 <sup>(f)</sup>	4.9 <sup>(f)</sup>
Denmark	2.2	2.6	3.5	0.7	0.5	0.4	2.1	3.1	3.5	1.9 <sup>(f)</sup>	1.3 <sup>(f)</sup>	1.4 <sup>(f)</sup>
Germany	2.0	2.0	3.2	1.2	0.0	-0.2	1.1	0.8	2.9	2.5 <sup>(f)</sup>	2.1 <sup>(f)</sup>	2.2 <sup>(f)</sup>
Estonia	4.4	0.3	10.8	7.7	8.0	7.2	8.3	10.2	11.2	7.8 <sup>(f)</sup>	6.4 <sup>(f)</sup>	6.2 <sup>(f)</sup>
Ireland	8.0	10.4	9.4	6.1	6.6	4.5	4.4	6.0	5.7	4.9 <sup>(f)</sup>	3.5 <sup>(f)</sup>	3.8 <sup>(f)</sup>
Greece	3.4	3.4	4.5	5.1	3.8	4.8	4.7	3.7	4.3	4.1 <sup>(f)</sup>	3.8 <sup>(f)</sup>	3.7 <sup>(f)</sup>
Spain	4.5	4.7	5.0	3.6	2.7	3.1	3.3	3.6	3.9	3.8 <sup>(f)</sup>	3.0 <sup>(f)</sup>	2.3 <sup>(f)</sup>
France	3.5	3.3	3.9	1.9	1.0	1.1	2.5	1.7	2.0	1.9 <sup>(f)</sup>	2.0 <sup>(f)</sup>	1.8 <sup>(f)</sup>
Italy	1.4	1.9	3.6	1.8	0.3	0.0	1.2	0.1	1.9	1.9 <sup>(f)</sup>	1.4 <sup>(f)</sup>	1.6 <sup>(f)</sup>
Cyprus	5.0	4.8	5.0	4.0	2.1	1.9	4.2	3.9	4.0	3.8 <sup>(f)</sup>	3.9 <sup>(f)</sup>	3.9 <sup>(f)</sup>
Latvia	4.7	3.3	6.9	8.0	6.5	7.2	8.7	10.6	11.9	10.5 <sup>(f)</sup>	7.2 <sup>(f)</sup>	6.2 <sup>(f)</sup>
Lithuania	7.5	-1.5	4.1	6.6	6.9	10.3	7.3	7.9	7.7	8.5 <sup>(f)</sup>	7.5 <sup>(f)</sup>	6.3 <sup>(f)</sup>
Luxembourg	6.5	8.4	8.4	2.5	4.1	2.1	4.9	5.0	6.1	5.2 <sup>(f)</sup>	4.7 <sup>(f)</sup>	4.5 <sup>(f)</sup>
Hungary	4.9	4.2	5.2	4.1	4.4	4.2	4.8	4.1	3.9	2.0 <sup>(f)</sup>	2.6 <sup>(f)</sup>	3.4 <sup>(f)</sup>
Malta	:	:	:	-1.6	2.6	-0.3	0.2	3.3	3.4	3.1 <sup>(f)</sup>	2.8 <sup>(f)</sup>	2.9 <sup>(f)</sup>
Netherlands	3.9	4.7	3.9	1.9	0.1	0.3	2.2	1.5	3.0	2.7 <sup>(f)</sup>	2.6 <sup>(f)</sup>	2.5 <sup>(f)</sup>
Austria	3.6	3.3	3.4	0.8	0.9	1.2	2.3	2.0	3.3	3.3 <sup>(f)</sup>	2.7 <sup>(f)</sup>	2.4 <sup>(f)</sup>
Poland	5.0	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.1	6.5 <sup>(f)</sup>	5.6 <sup>(f)</sup>	5.2 <sup>(f)</sup>
Portugal	4.9	3.8	3.9	2.0	0.8	-0.8	1.5	0.7	1.2	1.8 <sup>(f)</sup>	2.0 <sup>(f)</sup>	2.1 <sup>(f)</sup>
Romania	:	-1.2	2.1	5.7	5.1	5.2	8.5	4.2	7.9	6.0 <sup>(f)</sup>	5.9 <sup>(f)</sup>	5.8 <sup>(f)</sup>
Slovenia	3.9	5.4	4.1	3.1	3.7	2.8	4.4	4.1	5.7	6.0 <sup>(f)</sup>	4.6 <sup>(f)</sup>	4.0 <sup>(f)</sup>
Slovakia	4.4	0.0	1.4	3.4	4.8	4.8	5.2	6.6	8.5	8.7 <sup>(f)</sup>	7.0 <sup>(f)</sup>	6.2 <sup>(f)</sup>
Finland	5.2	3.9	5.0	2.6	1.6	1.8	3.7	2.9	5.0	4.3 <sup>(f)</sup>	3.4 <sup>(f)</sup>	2.8 <sup>(f)</sup>
Sweden	3.8	4.6	4.4	1.1	2.4	1.9	4.1	3.3	4.1	3.4 <sup>(f)</sup>	3.1 <sup>(f)</sup>	2.4 <sup>(f)</sup>
United Kingdom	3.4	3.0	3.8	2.4	2.1	2.8	3.3	1.8	2.9	3.1 <sup>(f)</sup>	2.2 <sup>(f)</sup>	2.5 <sup>(f)</sup>

Source: eurostat – [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

### Labour Market in Bulgaria

Following the results of a research on the manpower, implemented by the National Statistic Institute during 2006 – 2007, the economically active persons (manpower) in the country were 3408.1 mln. (1805.9 were men and 1602.2 women). The relative

share is 51.3%, respectively 56.8% men and 46.4% for women. The economical activity coefficient for the age group of 15-64 is 64.9%, respectively 69.4% for men and 60.5% for women.

The share of the employed population in cities, which are at age of 15 and older (52.4%) is with 17.7 grades higher than the one in villages (34.7%).

From total number of employed population, 121900 (3.9%) are employers, 218800 (7.0%) - self-employed, 2762300 (88.1%) are employees, and 32400 (1.0%) – no paid family workers. 840600 or 30.4% of the total number employed people work in the public sector, and 1921700 or 69.6% - in the private sector (3,9).

**Table 5.** GDP per capita in PPS 1997 - 2008

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU (27 countries)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0 <sup>(f)</sup>	100.0 <sup>(f)</sup>
EU (25 countries)	104.9	105.0	105.0	105.0	104.8	104.6	104.4	104.2	104.1	103.9	103.9 <sup>(f)</sup>	103.8 <sup>(f)</sup>
EU (15 countries)	115.5	115.4	115.3	115.2	114.8	114.2	113.7	113.1	112.7	112.1	111.7 <sup>(f)</sup>	111.3 <sup>(f)</sup>
Belgium	126.1	123.3	123.4	126.4	124.0	125.5	123.5	121.2 <sup>(b)</sup>	121.3	120.0	123.5 <sup>(f)</sup>	122.4 <sup>(f)</sup>
Bulgaria	26.5 <sup>(e)</sup>	27.0 <sup>(e)</sup>	27.0	27.9	29.4	31.1	32.6	33.9	35.4	36.7	38.7 <sup>(f)</sup>	40.1 <sup>(f)</sup>
Czech Republic	73.2 <sup>(e)</sup>	70.7 <sup>(e)</sup>	69.8	68.7	70.5	70.7	73.7	75.4	76.7	78.8	81.9 <sup>(f)</sup>	83.3 <sup>(f)</sup>
Denmark	133.7	132.4	131.3	132.1	128.4	128.9	124.7	125.6	127.2	126.1	125.9 <sup>(f)</sup>	123.5 <sup>(f)</sup>
Germany	124.8	122.8	122.6	118.9	117.1	115.6	117.0	116.8	115.3	114.4	114.1 <sup>(f)</sup>	113.3 <sup>(f)</sup>
Estonia	41.2 <sup>(e)</sup>	42.3 <sup>(e)</sup>	41.6	44.8	46.3	50.0	54.6	56.8	63.0	68.5	71.7 <sup>(f)</sup>	74.2 <sup>(f)</sup>
Ireland	115.3	121.8	126.7	131.2	133.0	138.5	141.1	142.1	144.0	145.7	143.7 <sup>(f)</sup>	143.0 <sup>(f)</sup>
Greece	84.9	83.6	83.1	84.4	87.5	91.1	92.4	94.0	96.5	97.8 <sup>(f)</sup>	98.3 <sup>(f)</sup>	98.9 <sup>(f)</sup>
Spain	93.6	95.7	96.7	97.7	98.5	100.9	101.4	101.4	103.1	105.2	102.5 <sup>(f)</sup>	101.3 <sup>(f)</sup>
France	115.1	115.5	115.2	115.8	116.1	116.4	112.3	110.5 <sup>(b)</sup>	112.1	111.1	111.7 <sup>(f)</sup>	110.2 <sup>(f)</sup>
Italy	119.5	120.2	118.0	117.3	118.3	112.4	111.2	107.0	105.0	103.3	102.9 <sup>(f)</sup>	101.3 <sup>(f)</sup>
Cyprus	96.5 <sup>(e)</sup>	98.7 <sup>(e)</sup>	104.3	94.2	91.3	89.7	89.3	90.7	92.9	92.5	93.6 <sup>(f)</sup>	92.8 <sup>(f)</sup>
Latvia	34.7 <sup>(e)</sup>	35.7 <sup>(e)</sup>	36.2	36.8	38.9	41.4	43.5	45.8	50.0	54.2	60.6 <sup>(f)</sup>	63.4 <sup>(f)</sup>
Lithuania	38.3 <sup>(e)</sup>	40.3 <sup>(e)</sup>	38.9	39.4	41.6	44.2	49.1	50.6	53.3	56.3	61.5 <sup>(f)</sup>	64.4 <sup>(f)</sup>
Luxembourg	215.4	218.2	238.2	244.7	235.1	241.2	247.6	253.6	264.7	279.7	283.8 <sup>(f)</sup>	286.4 <sup>(f)</sup>
Hungary	51.7 <sup>(e)</sup>	52.9 <sup>(e)</sup>	53.7	56.3	59.1	61.7	63.5	63.4	64.4	65.0	65.3 <sup>(f)</sup>	65.3 <sup>(f)</sup>
Malta	80.8 <sup>(e)</sup>	80.8	81.3	84.0	78.2	79.9	78.7	77.0	77.5	77.2	76.3 <sup>(f)</sup>	75.9 <sup>(f)</sup>
Netherlands	127.5	129.1	131.3	134.8	134.2	133.9	129.9	129.7	131.3	130.8	132.5 <sup>(f)</sup>	132.1 <sup>(f)</sup>
Austria	133.0	133.1	133.1	133.7	127.6	127.9	129.0	129.1	129.0	127.8	129.4 <sup>(f)</sup>	128.7 <sup>(f)</sup>
Poland	46.9 <sup>(e)</sup>	48.0 <sup>(e)</sup>	48.7	48.4	47.7	48.5	49.1	50.8	51.3	52.4	55.1 <sup>(f)</sup>	56.6 <sup>(f)</sup>
Portugal	76.4	76.9	78.6	78.3	77.6	77.3	77.0	74.9	75.5	74.6	73.8 <sup>(f)</sup>	72.9 <sup>(f)</sup>
Romania	:	:	26.1	26.0	27.6	29.4	31.5	34.1	35.5	38.9 <sup>(f)</sup>	39.3 <sup>(f)</sup>	40.6 <sup>(f)</sup>
Slovenia	75.9 <sup>(e)</sup>	76.9 <sup>(e)</sup>	78.7	78.9	79.0	81.3	82.5	85.4	87.0	88.0	91.6 <sup>(f)</sup>	92.8 <sup>(f)</sup>
Slovakia	51.5 <sup>(e)</sup>	52.2 <sup>(e)</sup>	50.7	50.3	52.5	54.3	55.7	57.3	60.6	63.8	67.5 <sup>(f)</sup>	70.2 <sup>(f)</sup>
Finland	111.1	114.8	115.6	117.7	116.2	115.7	113.5	116.8	115.2	117.2	118.2 <sup>(f)</sup>	118.5 <sup>(f)</sup>
Sweden	123.9	122.9	125.8	127.2	121.9	121.6	123.2	125.2	123.9	124.8	123.5 <sup>(f)</sup>	122.9 <sup>(f)</sup>
United Kingdom	116.6	116.2	116.1	117.3	118.1	118.9	120.0	122.3	119.4	118.2	119.6 <sup>(f)</sup>	118.4 <sup>(f)</sup>

Source: eurostat – [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat)

In the service sector there are 1800100 (57.4 % of totally employed) people, in industry - 1125500 (35.9%), and in agriculture and forestry – 209000 (6.7%).

Unemployed people in 2007 are 272700 or 8.0% from the economically active population. Workless men are 138500, and unemployed women – 134200. Coefficients of unemployment per gender are respectively 7.7% for men and 8.4% for women. Unemployment is significantly higher in villages - 13.3% compared to the cities - 6.4%. Unemployed persons at age between 15 - 64 accomplished years are 271300, and the coefficient for unemployment for the same gender group is 8.0%. Unemployed persons at age between 15 - 24 accomplished years are 45700, and the coefficient for youth unemployment is 16.0% (3,9).

The educational status among unemployed persons shows that 8.9% have university degree, 47.0% have accomplished high school, and 44.1% have accomplished primary or lower level school.

Some 151700 or 55.6% of the total number unemployed persons have been workless one or more years as in villages this number reaches 60.6%. Territorial distribution of unemployed persons is unequal. In 10 regions the level of unemployment is lower than the average for the country as lowest it is in Sofia-city (1.66%). the level of unemployment in the rest 18 regions is above the average for the country and its highest levels were recorded in Targovishte region (14.55%).

The average rate of salary increase, but it still cannot be compared to the levels in the other countries EU member states. The average salary in 2007 for the public sector reached Bulgarian lev (BGN), 513 which means 18 per cent nominal growth compared to 2006, when the average working salary was 436 BGN. The number of insured persons is 2 762000, which means an increase of more than 110000 compared to 2006. The average working salary in the sectors for production of food, drinks and tobacco are the highest in the public sector – 1369 BGN with a nominal growth of 43, compared to 2006. Relatively high average working salaries were monitored in the following branches: financial brokerage - 1065 BGN, production of energy carriers – 1100 BGN, etc. The average salary for production of food drinks and tobacco in the private sectors is significantly lower - 365 BGN. Statistics show that the highest average working salary on the territory of the country was recorded in Sofia-city – 562 BGN, the lowest one salary was registered in the regions of Blagoevgrad – 323 BGN and Haskovo – 323 BGN (8).

Monthly income of Bulgarian households in 2007 has increased with 111.3 BGN (20%) compared to 2006. the main source of the incomes is the *working salary*. The volume of all reimbursed *social transfers* (compensations, pensions, grants, family supplements) increased. Maintenance of relatively stable level of the incomes from *family farm* was registered. Incomes from entrepreneurship in 2007 increased with 23.4 % compared to 2006. a tendency for reduction of incomes generated from *real estate sales*. The expenditures structure shows that most significant expenditures were made for food – about 40%, something typical for the countries with low life standard. Consumption of food products is characterized with poor relative share of the fruits and vegetables (2,3,5,9,11). Living standard of Bulgarian population improves but still remains one of the lowest in Europe.

### **Pensioning system**

Significant demographic problems in Bulgaria, emigration of young people, great number of pensioners and the high unemployment rate brought an inevitable necessity

of reform in the pensioning system. The way of financing was changed first of all. The tree-pillars pensioning system was implemented and a capital pensioning system was established except for the cost justification system. During 2007 the social pension of age amounted at 68 BGN per month (the average was 162 and maximal 490 BGN), which represents an increase of 8.5% compared to the previous year. There are 2.270 millions pensioners, and 2.773 millions pensions, because some people receive more than one pension (for example for disability and for their age). The expenditures on pensions during 2007 amount BGN 4.5 billions, which is the largest expenditure item of the National Statistical Institute's budget (3,5).

Reasons for the high pensioning fees are the non-operational economy, poor competition among enterprises, and insufficient collection of the insurance fees as well as the low cost of labour force. But one shall in no way rely on the increase of the fees aiming to fill up public insurance taxation funds. The fee payable by the employees will increase in during next years versus decreasing of the employers fees, but yet, the amount of the salary shall be increased in order to compensate the increased insurance fees. The rate of the insurance fees is determined on annual basis by a specific law being a percentage of the gross labour remuneration. Maximal rate of the insurance income due to insurance payments is 10 minimal labour salaries for the country.

Introduction of additional mandatory pensioning insurance (AMPI) since 2002 does not lead to increase of the total rate of insurance instalments because it is provided for redirecting a part of the public insurance tax to the funds, established by private pensioning insurance associations. Bulgarian employers have some doubts that still higher rates of the mandatory insurance instalments will not allow for the active participation of most of the employers in the process of the additional voluntary pensioning insurance, which, on the other hand, will slow its development. The described past and current financial status of the social insurance system gives certain grounds to assume that even in future the achievement of financial equilibrium will be an extremely difficult task. One of the reasons is the rate of the insurance fee which has almost reached its maximal level already. Even if we assume that we base on the lowest insurance instalment, collected through the rest of the instalments under Professional Qualification and Unemployment Fund (PQUF) and health insurance, it would exceed the insurance fees of countries like Germany (35,2 %), France (49,4 %), and others. If in future balances are still tipped towards the employers, the result will remain definitely negative. Increased social expenditures, part of the common volume of the production costs in high cost industries, will continue to limit the competitiveness of the enterprises on the internal and external market, and respectively their profits. Such industries will aim at reducing of working places and keeping low labour salary level. This is an absolute stimulus for the black labour market. As we can guess, social insurance gains no profits from the enlarging of this market (3,9).

There is a sustainable insufficiency of funds. Current pensioners are the most affected social group because the social insurance system cannot afford an increase of the pensions and keeps their levels stuck to the administratively determined ceiling. Alternatives are two: either increase the instalment rates in order to compensate insufficiency, or, increase subsidies, which on its part will lead to misbalance of the state budget, i.e. to budgetary deficit. Yet the increase of the instalments' percentage

will come into collision with the employers' indignation only. This is the first barrier, which the social insurance is facing when targeting a relative stability of the system. If we assume the controversial option – eventual transfer of part of the insurance fees burden to the insured people, this will definitely facilitate employers, but in macro-economical plan it will not reduce the financial load to the active population. The question is, that having in place expenditures distribution system of financing, such as it is in Bulgaria (Pillar I), the increasing number of pensioners leads to growth of the expenditures and a corresponding necessity to increase percentage of insurance fees (3,5,11).

In Bulgaria the pensioning burden on the active population is due to the comparatively low pensioning age threshold. Currently this threshold age is corrected due to the before mentioned reasons. Even though, if the tendency for irregular increase of the pensioner's number compared to the active population's number, it would create serious difficulties for financial equilibrium and social insurance as well. In such situation it is good to raise one more question – whether the active population will bear this burden, whether the system of solidarity between generations will stand it, i.e. the question is not only economic but also a moral one. Currently economically active population bears the consequences of the crisis and except its own standard it has to guarantee the good life standard of the inactive part of the society. It is claimed that paying insurance fees today means ensuring future guarantees. In our conditions, though, this assertion is not valid. Paying their insurances the active population replenishes the funds from which the pensions of the retired population are paid.

Analyzing this vicious circle, it is essential to understand that the limits of the solidarity between generations are strongly dependant on the economic interests of each member of the society and the society as a whole. In conditions of crisis and dependency on external factors the active population can support the preceding generations, which from logical point of view is quite logical. But the working people do not agree to put aside money for insurance because they doubt they would be able to use these "savings" and moreover, they doubt they can count on future generations' solidarity.

Based on the above mentioned findings several fundamental conclusions are due:

- mandatory pension insurance cannot guarantee higher level of the future insurance instalments because the current insurance fee has reached its maximal rate;
- Maintaining insurance instalments within the limits of the bearable is of critical importance for the improvement of the economic conditions, including the increase of the employment and decrease of unemployment.

After conclusions comes the turn of the concrete measures which could be undertaken in order to mitigate the negative tendencies. The increase of the threshold age for pensioning and the necessary employment record are a fact already, but taking into account the worsened health status of Bulgarian population it is not considered to be an optimal decision. This measure was applied due to the extremely unfavourable demographic picture. Increasing the threshold of pensioning age up to the one in the other European countries contributes to the balancing of the system, though it has undesirable social response. It is appropriate to refer to decisions of longer sustainability effect, which correspond to the

conditions of the market economy. This is the implementation of alternative forms of insurance protection like the second and the third pillars into our insurance system, namely the additional mandatory and additional voluntary pensioning insurance.

According to the third pillar, voluntary fees based on certain income could increase the size of their pensions and simultaneously make a significant input to form the insurance fund. Legal basis on regulating the voluntary and the private insurance was found in the legislation of countries which have long history of functioning market economy. The additional voluntary and the mandatory pensioning insurance are considered to be an alternative of the increasing expenditures on the voluntary common regime of pensioning insurance. During the last few years mandatory schemes in most of the European countries were oriented to lower insurance instalments and the related lower rates of the compensations. Increase of the latter is achieved through participation in the second and third pillars.

The first practical steps towards pensioning reform in Bulgaria were made in 1994-1995 when the first 5-6 voluntary pensioning funds were established, some of them still operational. By the end of 1999 more than 15 companies were implementing real activities in voluntary pension insurance. The development of the activities in additional voluntary pension insurance can be assessed through the real achievements during the last 5 years. At this stage these achievements concern only the additional pension insurance because the activities under pillar II has not started yet. The real challenge standing before the pensioning system is its full functioning, operation of all its elements despite the complicated social-economic situation in the country. Licensed pension insurance companies entered their role of leading institutions, called upon to practically turn in reality the main part of the pensioning reform in the country and activate their funds under the second and third pillar of the system. Activity under pillar III is realized by the companies acting also under pillar II. The approve scheme under pillar III defines two types of voluntary pensioning funds:

- Voluntary pensioning fund. Pensioning insurance in these funds can be made only through monthly monetary instalments whose rate is determined by the insurance contracts, but no less than 10% of the minimal labour salary for the country;
- Voluntary pensioning fund with investment bonds. Through these funds a special and very specific for Bulgaria voluntary pensioning insurance is carried out. Funds are created for a period of activity limited up to 7 years. All citizens, owing received by the state bonds for mass privatization can participate. Participants in insurance with bonds have almost the same rights, provided for the citizens who make monetary insurance, but yet not earlier than five years from the date of their individual lot's certification. (3,9).

The new legislation related to pensioning reform applies a very strict conservative regime of the investment activities of pensioning insurance companies and insurance finds. The assets of the additional pensioning funds can be invested in:

- securities, issued and guaranteed by the state;
- securities, issued for the trade at the regulated jobbing markets;
- municipal securities;
- takings on bank deposits;

- real estate and mortgages.

No less than 50% of the pensioning funds assets have to be invested in securities, issued and/or guaranteed by the state and/or takings on bank deposits. Only 5% of the funds' assets can be invested in securities, issued by one commercial company. No more than 10% of the funds' assets can be invested abroad in gilts, municipal bonds and securities, which are allowed for trade by Bulgarian National Bank's decision. Pensioning insurance company cannot lend or be a guarantor to third persons using the managed assets of the additional pensioning insurance fund. It shall be mentioned that due to the poorly developed and almost missing capital market in Bulgaria, and because of the limited opportunities to use other financial instruments, the main part of the investment portfolio of currently active pensioning funds consists of stocks, where about 90-92 % of their assets are invested (5,9).

Maintaining long-term investments for longer time period is a specific principle for Bulgarian conditions. Following the limited requirements for liquidity and necessity to maintain insignificant financial resources for current payments of pensioning funds, long-term investment instruments remain in the portfolio until the redemption date. This is the way to minimize the risk and only market risk remains to the diversified securities portfolio.

We could mark several advantages of the opportunity to be insured in additional pensioning fund:

- Insured person's money are separate from the shareholders' moneys through distribution of money flows;
- State Agency on Insurance Control was established and became operational, already controlling the entire activity of the pensioning insurance companies;
- Transparency and mandatory accounting are guaranteed through the right of the insured to be informed. Participation in professional or universal pensioning fund can be changed by the willingness of the insured 1 year after the beginning of the insurance period. The insured person has the right to transfer the accumulated amounts of his/her individual account from one universal or professional pensioning fund to another universal or professional pensioning fund, established and managed by another pensioning insurance company, but only once per calendar year;
- The interest of the insured persons are protected and represented by representatives of the national professional organizations, members of the trust councils. Such trust councils shall be established to each universal or professional pensioning fund and they will monitor the activities of the funds and make recommendations to protect the interests of the insured individuals;
- Each person, due to ensuring of additional mandatory pension make his/her choice about the universal or professional pensioning fund through an individual statement submitted to the pensioning insurance company. The social partners (national representative syndical organizations) are authorized to perform consultative functions for the choice of an appropriate pensioning fund.

The problems of the new insurance system represent the dualistic role of the advantages. During the last years additional pensioning funds have significant problems with the investments. Currently about 90-95 % of the resource are invested

in VS, which means security but with low gains. MPIC states that up to 5%, in special cases by decision of the State Agency of Insurance Control up to 10% of the assets can be invested in corporate bonds of one company. The argument is that this is the way to prevent money flow out. This is not a proper motivation. To each such a thesis could be opposed the other one – that one shall create such conditions which will make the business to prefer Bulgaria instead of other countries.

### **Ageing and employment policies**

The number of people aged over 65 years is growing up (1740000 - 2006) as it was mentioned. Their incomes are very low to assure their health and social well-being. So they have to work additionally or to expect some assistance from the society. This is one of the most important challenges in Bulgaria.

Ageing also has a "women's face" as in most countries women live much longer than men. Gender differences in terms of numbers are most evident in older age groups, which means, that women will be more concerned by ageing. Women are more likely to be found in parallel labour markets such as family businesses, especially in developing countries. However, according to official statistics about 25 per cent of the economically active older population is women. So, as in the majority of countries life expectancy at birth is higher among women than among men, and in most countries women aged 60 and over are expected to live longer than men, a considerable gender imbalance is developing among elderly workers. The upper age limit for population of working age gradually increases, having reached already 63 years of age (in 2005) and for women this age will increase to 60 years in 2009. The consequences of this process concern the whole society. Working people aged 18-65 years (62.8% of the population) has to support 2860000 people (0-17 and 65+ years old). According to prognosis of the UN this burden will increase in future years (2050): 13,8% (-15); 47,6% (15-59); 38,6% (60+). An ageing population means an ageing workforce, which could lead to a conflict of interest between young people and older workers. Pessimists believe that by 2030 the young and the old will be in conflict, and public finances will be in disorder as a result of ageing (1,2,3,6).

The consequences of ageing are multiple, and include both economic and social aspects. The social results affect family structures, living arrangements, behaviour and attitudes, relations between generations, health and other areas of life. The economic consequences of ageing are associated with the higher cost to society of supporting the elderly population. The implications of ageing which are considered in the present document relate to employment and labour markets, the composition of the workforce, changes in activity rates, gender-related effects, and some others.

As a result of the ageing the financial burden increases borne by the economically active population. The dependency ratio is the number of people under 15 and over 60 for every 100 people in the 15-59 age brackets. The dependency ratio is rising in European countries for persons aged 60 and over, and will have increased to 40 by 2025 from 26 in 1985. In Europe in 1950, there were slightly more than 40 elderly persons per 100 young people. By 1970, this figure had risen to more than 50, while by 1985 it had increased to over 65. As the cost to society of an older person can be several times that of a child or an adolescent, this shift in the age incidence of dependency ratios implies a potentially very substantial rise in public expenditure (6).

Ageing on this scale would place substantial pressures on public finances and reduce growth in living standards. These negative consequences of ageing could be offset by policies to encourage immigration, higher fertility or fast productivity growth. The increase in the number and share of older people poses a number of questions to the society, relative to the state of health, living standards, material support, labour and public activity, social adaptation and integration of older people into society. These topics enter into the social policy sphere, concerning the measures taken with view to improving the state of third age people.

As it's seen from the Table 6 in 2006 the number of insured persons is with more than 2 millions persons smaller than the population if working age. The governors have to resolve the complex problem how to increase the number of people who pay their insurance for pension. Otherwise when these cohorts will achieve the retirement age they will not have any resource in the pension fund.

**Table 6.** Population, insured persons and pensioners in Bulgaria (in millions)

<b>Year</b>	<b>Population to 31.12.</b>	<b>Population of working age to 31.12.</b>	<b>Pensioners total</b>	<b>Insured persons</b>
2000	8 149	4 751	2 379	2 303
2001	7 891	4 671	2 370	2 311
2002	7 845	4 715	2 350	2 170
2003	7 801	4 743	2 336	2 393
2004	7 761	4 781	2 327	2 491
2005	7 718	4 816	2 313	2 597
2006	7 679	4 822	2 271	2 747

*Source:* NSI, NSSI

On the other side the retirement is a serious problem for aged people: they loose many social contacts, their incomes decrease strongly, and the maintenance of health status requires more resources. The aim of pension schemes is to provide income support to workers too old to continue working. Whatever the system adopted and whatever the method of financing, retirement pensions can be viewed as a deduction levied on the working population. When the number of pensioners increases more rapidly than the number of people in employment, it is logical to expect some difficulty in financing the scheme, whatever the political or economic system in force and whatever the pensions machinery in operation.

Older workers seek employment and are hired or fired mostly in the same labour markets as all other worker categories. It is rare to find special labour markets for them like those that exist for workers with disabilities. The laws of a market economy apply to them, and they are subject to the same competition for jobs as all others. However, older workers are often eliminated from labour markets while their younger colleagues can expect to remain. The following factors explain the difference in the position of older workers: the general labour market conjuncture, the level of a country's development, the economic cycle, the availability of a social safety net, the

efficiency of labour market institutions, educational and health factors, the size of the informal sector, labour law, and others. The supply side of labour markets for older workers is affected by economic, legislative, social, health, and demographic factors. Apart from these factors, older workers require skills needed in labour markets in order to be employable. The demand side is also affected by economic, legislative and social factors, but in addition, it is affected by the state of the market and the business cycle. Early retirement, for example, has been used in some countries as a counter-cyclical measure. In Bulgaria since 2000 was undertaken a reform in determination of retirement age. It's calculated as sum of the age of each person and the years of employment and results in a number of points (for males – 100, for females – 93 - 2007) (9).

Unemployment could be considered as discriminatory in respect of older workers unless measures are taken to equalize their chances in labour markets. Older workers who are forced to retire feel excluded from society. What factors affect the labour force participation decisions of older workers? These can be divided into three broad categories. The first involves their eligibility for a pension and the amount of the pension. Being eligible for a pension means a reduced probability of labour force participation. The second factor is the mandatory retirement system. The third factor involves working conditions. Wages, in particular, have an enormous impact on the decision to work. The higher the wages older workers are paid the more likely they are to participate in the labour force.

Discrimination against older workers is a long-standing problem. In fact, older workers were the targets of discrimination already in the "golden age" of full employment in Europe in the post-war years. Age discrimination can be found in both the state and the private sectors, in official policies, and in employment policies pursued at enterprise level. Some age discrimination measures are evident (direct) while others are concealed (indirect). Direct discrimination consists of openly treating older workers less favourably than others. Direct measures include compulsory retirement at a fixed age, a maximum age for recruitment and age limits on access to training (2,3,4).

An obvious manifestation of discrimination occurs in vacancy announcements which impose an age limit of 40 or 45 years. However, age discrimination makes itself felt some 10-15 years before the official retirement age, sometimes earlier, if wage increments depend on length of service. Relatively older people who are still in their prime might find themselves targeted for dismissal.

Retirement programmes and schemes have to be elaborated and they might comprise the following measures: reduced early pensions; more generous invalidity benefits; partial pension benefits to complement income from part-time employment; continuous payment of unemployment benefits and relaxation of registration criteria; enterprise- and industry-level schemes; voluntary early retirement and redundancy arrangements. If a worker who became unemployed at the age of 56 continues to receive unemployment benefit until the age of 60 (the official retirement age), then this worker has been channelled into retirement through an extended period of unemployment. This challenge has to be transformed into an opportunity. Such transformation requires the efforts of the society and also individuals for adoption and implementation of rational employment and healthcare policy.

With population ageing, the share of the population in the working ages will shrink and the labour force itself will grow older. This process could become a drag

on economic growth unless the decline in labour force growth can be controlled or greater efforts are made to increase labour productivity.

### **Health care system**

The main target of the health policy and health reform in Bulgaria is the improvement of population's health and the health protection system. It includes the following priorities:

- Decrease of infant mortality and improvement of maternal healthcare;
- Limitation of morbidity, mortality and disability resulting from socially significant diseases by the means of designing and implementing healthcare programs;
- Maintenance of efficient anti-epidemiological control;
- Limitations of health risks, ensuring of safe labour conditions and limiting the risks for human health coming from the environment;
- Reduction of risk factors related to the health of aged people and people in unfavourable and non-equivalent status;
- Improvement of the psychic health of population;
- Establishment of preconditions for- and leaving a healthy life, promotion of health and prevention from diseases;
- Elaboration and permanent progress and improvement of the healthcare system and its efficient functioning.

### *Organization*

By the means of the healthcare reform, which started in 1999, a major number of good structural and functional decisions, related to healthcare systems of insurance type combined with some elements of the national health services were applied. This is a new model, more and more applicable in the practice of the different countries, know as a "public-private mix". Following this model, the state, insurance (public and corporate) and private sectors - each of them having its own perimeter of activity, rights and responsibility, are represented in different scale and levels. The most typical feature of the public-private model is that all health activities with divisible effect are in the sphere of the private production of services, with dominant public financing combined with a smaller by size private co-financing. Excluded from this classical market segment are only those healthcare problems, for which the user is not able to take self dependent decisions, for example emergency, stationary psychiatric aid and other similar decisions. At the same time any healthcare activities with an inseparable effect, such as state health control, programs on the governance of socially significant diseases, mandatory health treatment, anti-epidemiological measures, etc., still remain in the sphere of the public financing and the dominantly public and smaller scale private production of those services (13,14,15).

Reforms in the sphere of curative health protection are radical and exceptionally serious. The rights of the patients were regulated and protected in relation with the medical aid, rendered in the medical institutions as well as the rights of the medical specialists, providing medical assistance and healthcare. Reforms in the sphere of curative health protection started with the adoption from the National

Assembly five new structural laws on health protection system in the period before 2000 and in 2004 another one, concerning dominantly public health protection. They are as follows:

- Law on healthy and safe labour conditions -1997;
- Law on health insurance – 1998;
- Law on physicians' and stomatologists' professional organizations – 1998;
- Law on medical institutions (ЗЛЗ) – 1999;
- Law on drugs and pharmacies of human medicine – 2000;
- Law on health – 2004.

Through these laws the structure, scope, organization, management and financing of the medical, stomatological and drug activities were determined. Another important characteristic of the changes in the medical care system is regulating the contractual outset of the relations between medical institutions and the financing bodies, namely the National Health Insurance Fund (NHIF). All Bulgarian citizens are mandatory insured through specific set of medical aid, which is paid by the NHIF. Medical care is provided in the medical institutions based on a contract between them and the NHIF substructures – the Regional Health Insurance Funds (RHIF). RHIF pay to the medical institutions the provided medical services based on specific prices. Increasing the share of the voluntary health insurance associations will break up the monopoly of the NHIF. Third important characteristic is ensuring the right of the customer to choose a physician and stomatologist for primary aid, medical institution for specialized extra-hospital aid, and since 01.01.2004 – for hospital aid. Thus the administrative compulsion for choice and limitation of citizens' rights to choose specialists or medical institutions were eliminated.

The legally regulated management, juridical and economic independence of the entities in the area of healthcare – medical institutions and financial bodies, together with the enforcement of contractual relations and the right of free choice of the customer, are the main preconditions for the establishment of medical services market and competition among the healthcare institutions.

### **Financing**

National Health Insurance Fund finances the healthy care for insured citizen (health insurance is mandatory in Bulgaria). In cases when citizen is insured also in voluntary health insurance association, then expenses on his treatment, depending on his contract, are paid by the concerned association as well. When the citizen is hospitalized following his personal desire and without any direction from his general physician or specialist, then he/she pays on his own the costs of his/her treatment. The citizens, which are mandatory insured, except for the insurance instalment, are paying also a fee for each primary visit to the physician or stomatologist, a customer's fee at the amount of 1% from the minimal working salary, and for each day of treatment in medical institution (but no more than 10 days per year) the amount of 2% from the minimal working salary. Certain categories of citizens are exempted from customer's fees.

Public costs for healthcare have reached 265 BGN per capita in 2006, which is twice more than in 2000. As a percentage of GDP, the public expenses on healthcare during the last five years are sustainably positioned in the range 4-4.3 (average).

Following the WHO's expert evaluations for the same period private financing for healthcare has approximated the size of the public one. Great part of the private financing is unregulated by legislation and is deemed to the detriment of the good practices (5,15).

### *Access to health care*

#### *Outpatient healthcare*

Territorial distribution and coverage with health institutions of the country as well as its planning is regulated by the national and regional health protection maps, which are updated each five years. They contain the number of the different medical institutions in the different territorial units (regions and municipalities). These medical institutions conclude contracts with the Regional Health Insurance Funds for providing of healthcare to the concerned population. Equality between public (state and municipal) and private institutions is legally regulated. Main characteristic of the reform in the healthcare system is the radically changed legal status and the full juridical, financial and economic independence of the medical institutions:

- Individual practices for primary and specialized physicians' and stomatological aid can be registered from- and are property of the respective physicians and stomatologists;
- Group practices for primary and specialized physicians' and stomatological aid, medical, stomatological and mixed centres, diagnostic and consultative centres and medical-technician's laboratories and hospices are established in the form of commercial entities or cooperations. When necessary such institutions can be established as associations with limited responsibility or joint stock companies from the state or municipalities, independently or jointly with other entities;
- Medical care institutions, medical and social care institutions and dispensaries are established from the state and the municipalities, from legal and physical persons in the form of commercial companies or cooperations;
- Property and responsibility of the state remain: emergency centres, centres for transfusion, hematology, institutions for stationary psychiatric aid, institutions for medical monitoring and specific care for children, and also some medical institutions at different ministries (Ministry of Defense, Ministry of the internal affairs, Ministry of transport, Ministry of justice);
- Hospital (inpatient) healthcare.

Medical institutions for hospital care are multiprofiled and specialized hospitals and they can be: for active treatment; for restoration to health and extended treatment; for rehabilitation, etc. Depending to the territory and the related accreditation hospitals can be: district, regional, interregional, university and national hospitals.

All hospitals for active treatment, rehabilitation and long-term treatment as well as hospices were transformed in 2000 into companies with limited responsibility or joint venture companies. They are not yet privatized but a procedure for privatization of part of them is on the way. The payment of the inpatient care is based on contract with the NHIF following the group of disease, defined as "clinical paths". Each hospital is authorized to sign a contract for financing with all twelve associations for voluntary health insurance.

Hospital doctors are paid under labour agreements, which are formed within 40% of the hospital income. Though registered as corporations, hospitals receive its financing from NHIF following the administratively established prices. Once a year negotiations are held between the NHIF and the professional organizations of the doctors to negotiate the specific rate of these prices. Latter are listed in the National Framework Contract. Due to exceeded expenses of the NHIF, those prices can be revised once at every 6 months. Each insured person pays for each day of treatment in medical institution, but no more than 10 days per year the amount of 2% from the minimal working salary. The improper financing of the treatment in medical institutions led to the emerging of a serious black market. Limited number of state hospitals is financed by the state, municipalities have no financing functions (13,16).

The status of the healthcare is one of the most synthetic indices for the levels of the economic development and quality of life. Unfortunately in Bulgaria this is the sector where structural reforms have failed in great extend. If we summarize what was achieved during the period of transition main results were attained in placing the financial relationships among the state, customers and providers of medical services on the basis of the health insurance; entrusting the outpatient aid to the general practitioners and specialists; increasing of their incomes; improvement of some of the indices for hospital equipment's utilization. However, negatives are much more.

The negative balance of the healthcare reform can be seen through the worsened indexes of the nation's common health status. Mortality has increased. Reasons are mainly diseases of blood circulation system: two thirds of the lethal cases were caused by infarcts and apoplexies. Second ranked are cancer diseases, whose growth is rising rapidly. Disorders of respiratory system are main reasons for hospitalization as half of the cases are with lethal outcome and are caused by pneumonia. Another alarming tendency is the growing distribution of psychic disorders. They rarely lead to preliminary death and thus remain out of the health statistics focus. The number of the disabled people increased three times during the period of transition as the newly registered cases are almost twice more than the average for the European Union and one of the highest in world. Disorders of blood circulation system are the most frequent causes for such harms and lethal cases.

An important index for the efficiency of the healthcare is mortality among children below one year. In the beginning of the transitional period Bulgaria was positioned close to the Central and Eastern European countries and better than Poland and Hungaria. Seventeen years later Bulgaria is at the bottom of the list. Only Albania and Romania from the Balkan Peninsula countries have higher mortality rates of the new-born. The probability that a child die in Bulgaria before it becomes 5 years old is three times higher than in the EC-15 and twice than in the new EC member states. The causes for the infant high mortality are most often preliminary birth, complications during the prenatal period, diseases of respiratory system and different infections. The years of transition are marked with the worsening of some health indices, which reflect problems that are specific for the low income countries: distribution of tuberculosis and hepatitis. Besides, these evidences for ineffective healthcare system are average statistical ones, i.e. they hide the higher values of these rates, including mortality of the new-born in the villages and the regions of compact ethnical population.

Worsened health indices are partially due to the negative demographic tendencies – decreased birth rate and emigration of young people abroad sharpen the

problem of the ageing of population. The main reason for these bad tendencies more and more becomes the limited access to health services. Serious obstacle for the access to health aid is the income drop down and the increased economic vulnerability of the population, combined with the transition to health insurance system. Low incomes and increased health risks are bound into a wicked circle where due to the lack of labour people remain out of the health aid scope. As a result bad peoples' health limits their access to the labour market, increases their poverty and social isolation.

Unemployed people and people with low incomes are not the only ones who are facing higher health risks due to the transition to market economy. To different extent it concerns the entire society. The reason is that liberalization of prices and entrepreneurship were not accompanied with adequate legal and institutional measures for protection of the employees and customers' rights. This led to increasing of health risks at the working place and at home. State is not yet completely effective in applying the standards for safety at working place and safety of foods, as well as environmental protection standards and it also has no clear policy for protection of the customers from monopolistic or oligopolistic drug prices. High social and economic stress combined with a weaker protection of employees and customers resulted in worsening the health status and life quality of the population.

Bulgarians, however, pay health insurance fees and as much as this from his pocket. Besides, in distinction from the practice in the countries with developed health insurance systems, these private payments are not voluntary health insurance but direct payments for health services (Tables 7 and 8).

**Table 7.** Health economic indicators in Bulgaria

<b>Indicator</b>	<b>Value(year)</b>
Total expenditure on health as percentage of gross domestic product	8.0 (2004)
General government expenditure on health as percentage of total expenditure on health	57.6 (2004)
Private expenditure on health as percentage of total expenditure on health	42.4 (2004)
General government expenditure on health as percentage of total government expenditure	11.6 (2004)
External resources for health as percentage of total expenditure on health	1.0 (2004)
Social security expenditure on health as percentage of general government expenditure on health	49.6 (2004)
Out-of-pocket expenditure as percentage of private expenditure on health	98.0 (2004)
Private prepaid plans as percentage of private expenditure on health	0.2 (2004)
Per capita total expenditure on health at average exchange rate (US\$)	250.8 (2004)
Per capita total expenditure on health at international dollar rate	671.2 (2004)
Per capita government expenditure on health at average exchange rate (US\$)	144.4 (2004)
Per capita government expenditure on health at international dollar rate	386.3 (2004)

Source: WHO, *National Health Accounts 2007*

Practically this share is much higher because the WHO's statistics includes only regulated personal payments from clients. Out of it remain corruption payments which exceed the regulated ones in time.

Therefore the weight of the health payments, made by the patients in Bulgaria is bigger than in rest of the European countries.

**Table 8.** Public expenses on health protection

Expenses of the private sector	Percentage of the GDP*						USD per capita average annual rate**				
	1999	2000	2001	2002	2003	2004	1999	2000	2001	2002	2003
Czech Republic	6.0	6.0	6.3	6.6	6.8	6.5	347	327	373	471	600
Hungaria	5.4	5.0	5.1	5.5	6.1	6.0	250	231	258	348	495
Poland	4.2	4.0	4.3	4.7	4.5	4.5	177	172	210	234	248
Slovakia	5.2	4.9	5.0	5.1	5.2	5.1	196	186	193	228	318
Slovenia	5.8	6.7	6.9	6.8	6.7	6.7	628	640	683	751	930
Estonia	4.9	4.3	4.0	3.9	4.1	4.2	197	170	176	203	282
Latvia	3.8	3.3	3.2	3.3	3.3	3.3	114	107	110	129	155
Lithuania	4.7	4.5	4.6	4.9	5.0	4.9	145	148	160	197	267
Bulgaria	3.9	3.7	4.0	4.5	4.1	4.3	63	58	69	88	104
Romania	3.4	3.5	3.6	3.8	3.8	3.4	54	59	65	79	100
Albania	3.1	2.8	2.8	2.8	2.7	2.7	35	33	37	41	49
Croatia	7.5	8.1	7.2	6.5	6.5	6.6	333	330	317	325	413
Bosnia and Herzegovina	6.1	5.0	4.4	4.4	4.8	4.6	76	58	54	62	85
Serbia and Monte Negro	4.1	3.6	-	-	-	-	45	34	54	86	136
F Y R of Macedonia	5.4	5.1	5.1	5.8	6.0	5.9	98	91	86	107	136

Source: \* TransMONEE 2007; \*\*WHR 2006

Briefly said, expenditures on healthcare in the range of 7 – 8 percent from the GDP (not counting the informal) are not low at all when compared with international rates. The problem is that in our country they are improperly distributed referring to the direct personal payments. That is why the priority of the health reform shall be not the increase of the mandatory health insurance fee, but the directing of this significant resource of official and unofficial direct payments which, following the most conservative evaluations, are in the range of 3-4% from the GDP, for health services and to the currently narrowed market of additional private insurance packages. Precisely, this is the substance of the healthcare restructuring in direction to more competitive and customers' oriented choice, leaving the state without an opportunity to transfer its responsibilities to the market. Developed health systems account at highest extent on the economical stimulators. Regulation and control are vitally important as far as they aim at protecting the rights of the customers and the suppliers. The quality of the health services though can be achieved through competition and incentives (13,14,15).

In our country the reform is based on total administrative control instead of adequate financial stimuli. Moreover, control is mainly at the entrance of the system. Its basic tools are accreditation of medical institutions and medical standards. Accreditation of medical institutions aims at insuring of minimal standards of

technical equipment and qualification, which are necessary for the relevant services, covered by the NHIF. The funds reimbursed by the NHIF are not bound to the quality of the services. Thus after obtaining the accreditation and covering the standards, medical practices and hospitals have no incentives to invest in capacity building, new technologies and direct capitals for the improvement of the healthcare quality. The system is designed in such a way that it could cover a general minimal level of the standards.

Taxation of hospitals is also a push back instrument. Hospital services are VAT-free and this puts hospitals in the position of end consumer of drugs, medications, equipment, i.e. they do not have the right to take a tax credit for these expenses. Thus they are encouraged to increase their costs for labour instead of investments, medications, external services, including training of the staff. State regulations also act in this direction. Hospitals cannot reallocate for salaries less than 40% of the funds, coming from the NHIF. There is no upper limit of the salaries. Also there is no bottom limit for drugs and medications. Having these regulations in place and the insufficient coverage of the expensive clinical paths, it is not curious that hospitals try to transfer expenditures for drugs and medications to the insured patients, though they are not included in the value of their clinical paths. It is evident that currently healthcare policy cannot find an adequate answer for the problems related to the blocked health reform in the hospital sector, nor for the mistaken system for financial stimuli and inadequate quality control management through the instruments of the administrative control at the entry of the system. The society's attention though, is attracted by the salaries of the doctors and their appeals to the state to equip at least some of the priority hospitals. Who will equip the others – this is not clear. The state transfers its responsibilities to the hospital managements and tries to combat the health insurance inefficiency with an increase of the health insurance fees (Table 9 and 10).

Table 9. Inpatient Health Protection 1995, 2000, 2002, 2004, 2005, 2006

<b>Indicator</b>	<b>1995</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Number of hospitals</b>	289	253	248	257	262	270
<b>Number of beds for treatment of acute diseases</b>	87	53	45	43	45	43645
<b>Including private sector</b>	148	993	711	597	537	
<b>Average continuity of hospital sojourn</b>	139	306	475	819	1 565	2004
	13.7	11.5	9.2	8.2	7.9	7,2

Source: National Health Information Centre

The concept “communication” describes concrete mechanisms of social inclusion through direct forms of interaction. In order to overcome the isolation of elder and aged people and provoke their activity, the programme provides for establishment of self-support groups in the community, and depending on their interests creation of different forms of communication leading to satisfaction of their personal necessities. The main targets are as follows:

*Target 1: development of knowledge and practical skills and directions for healthy lifestyle and nourishing:*

- Establishment of habits for active motor regime, comparable to the personal possibilities of each individual. Necessity and meaning of activity

shall be explained and information concerning the existing groups, called “For health” to be distributed. New groups to be established.

➤ Creation of skills for the development of individual hygiene-diet regime by the means of health educating discussions on the importance and the necessity of healthy nutrition and its impact on the general health-psychic status of the individual.

**Table 10.** Public and private expenses on health protection in Bulgaria

Indicator	1999	2000	2001	2002	2003	2004
Percentage of GDP	6	6.2	7.2	7.9	7.5	7.7
Including - public (%)	65.4	59.2	56.1	56.6	54.5	55.8
- private (%)	34.6	40.8	43.9	43.4	45.5	44.2
Including „from the pocket“ (%)	99	99	99.2	98.4	98.4	-

Source: WHR 2006 (until 2003), *Health Systems in Transition: Bulgaria 2007 about 2004*

*Target 2: adaptation to age alternations in conditions of market economy for achievement of better life quality*

In order to support elder people with knowledge and advice of how to adapt to age alternations in the conditions of market economy for achieving better life quality and active old ages, a project for training of trainees (specialists and aged people) shall be realized in different concerned regions. Programmes shall be implemented by teams consisting of specialists-gerontologists and social experts from the municipal centres of social care taking into account the specific structure of population, cultural and economic specifics by regions.

### Conclusions:

1. Up to now, older workers have been the losers in labour markets as a result of official employment policies and labour market measures. All workers may experience spells of unemployment interrupting their careers, but older workers suffer disproportionately from non-employment. In addition, once interrupted, their careers are much more difficult to resume. Present policies in respect of older workers still generally consider them as **a labour reserve** rather than as active labour market participants.
2. Some forms of employment have turned out to be the niches preferred by workers in the upper age groups. Older workers should be provided with opportunities to update existing skills and acquire new skills. Older workers can also benefit from measures promoting self-employment.
3. Increasing the retirement age leads to growth in the economically active population and decreases the number of pensioners. Hence, the impact on GDP would be favourable, and a better chance to balance pension schemes will be provided. However, increasing the retirement age requires simultaneous employment promotion to ensure that jobs are available to all jobseekers.
4. Workplace and working time adjustments can be effective tools for promoting the employment of older workers. At the same time they are relatively lower cost solutions.

5. Additional research is required on older workers, and new issues for such research have to be identified.
6. Courses for training of elder and old people aim at acquainting the audience with the main problems of aging and old age. Main tasks are improvement of health competence and motivation for healthy lifestyle, application of contemporary approaches for overcoming the stressogenic situations and development of skills for obtaining of higher living standard in the conditions of market economy.
7. The process of ageing affects all areas of human's life. Concerning economy, the impact affects the economic growth, savings, investments, demand, labour market, pensions, and tax policy. The impact to the social sphere covers health care, population's health status, family composition and family lifestyle, residential conditions and migration of population. Specific feature of the ageing is its extension. Consequences of ageing discover new challenges and also numerous problems to be solved.

## EXERCISES

### Task 1

Make an optimistic prognosis for economic and demographic development of the country and population.

### Task 2

Make a pessimistic prognosis for economic and demographic development of the country and population.

### Task 3

Analyse the economic and demographic problems of your region and suggest measures for resolving problems.

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## ABBREVIATIONS

VPF	Voluntary Pensioning Fund
NHIF	National Health Insurance Fund
RHIF	Regional Health Insurance Fund
GDP	Gross Domestic Product
NSI	National Statistics Institute
NII	National Insurance Institute
WHO	World Health Organization
BGN	New Bulgarian Lev (Bulgarian national currency) BGN 1 = 1.95583 euro (fixed rate)

<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>LEGISLATIVE BACKGROUND FOR MARKETING AUTHORISATION OF THE BIOSIMILAR MEDICINAL PRODUCT IN THE EU</b>
<b>Module: 2.9</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Generic, biosimilars, biotechnological and medicinal products, biopharmaceuticals
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of new terminology in the EU pharmaceutical field since 2004, based on Directive 2004/27/EC;</li> <li>• recognise the newly introduced product, which were for first time submitted via European Evaluation Agency – EMEA;</li> <li>• increase knowledge of comparison of generics and biosimilars;</li> <li>• differentiate the groups and the products which are included;</li> <li>• identified, upon official sources the word market of the biopharmaceuticals where the patent has already soon expired;</li> <li>• improve the knowledge and understanding of the largest group of proteins derived from biotechnology, blood-plasma medicinal products, vaccines, cytokines, interleukins, hormones, gene - and cell - therapeutic and <i>in vivo</i> diagnostic allergenic products, where the patent and the data exclusivity is expire and biosimilar product could be authorised.</li> </ul>
<b>Abstract</b>	The article presents a legislative overview of the medicinal products from biotechnological source, which are derived from living organisms so called biosimilars. Since 2004, based on Directive 2004/27/EC the term “biogeneric” does not exist any more and the therapeutic proteins including, recombinant human insulin for the treatment of diabetes, human growth hormone for the treatment of hypo-pituitary dwarfism, interferon, erythropoietin for the treatment of anaemia in cases of chronic renal failure, various blotting factors referred to an original medicinal products are called «boisimilars». All these biological medicinal product often heterogeneous so that modern analytical

	<p>methodology could not always characterize them in terms of differences in conformation, heterogeneity and impurity profiles. Since 20 November 2005 the Marketing authorization way for biosimilars is via the Centralized Procedure pursuant Regulation (EC) 726/2004, Annex 1. In year 2006-2007 the number of the submitted medicinal product to EMEA is 14. The survey follows and discusses the issues which are necessary for the marketing authorization of all these medicinal products to prove the safety, efficacy and quality, where appropriate pre-clinical tests or clinical trials relating to these conditions must be provided.</p>
<b>Teaching methods</b>	Lectures, seminars, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: multimedia, LCD projection equipment, computers (1 computer on 3 students), internet connection, access to bibliographic data-bases;</li> <li>• training materials: readings are mainly available in the Internet;</li> <li>• target audience: master degree students.</li> </ul>
<b>Assessment of Students</b>	The final mark should be derived from assessment of the theoretical knowledge (oral exam), multiple choice questionnaire (MCQ), contribution to the group discussions, quality of individual work and seminar paper.

# LEGISLATIVE BACKGROUND FOR MARKETING AUTHORISATION OF THE BIOSIMILAR MEDICINAL PRODUCT IN THE EU

Tatyana Benisheva-Dimitrova, Petya Trendafilova

## THERORETICAL BACKGROUND

### Legislative Background for Marketing Authorisation of the Biosimilar Medicinal Product

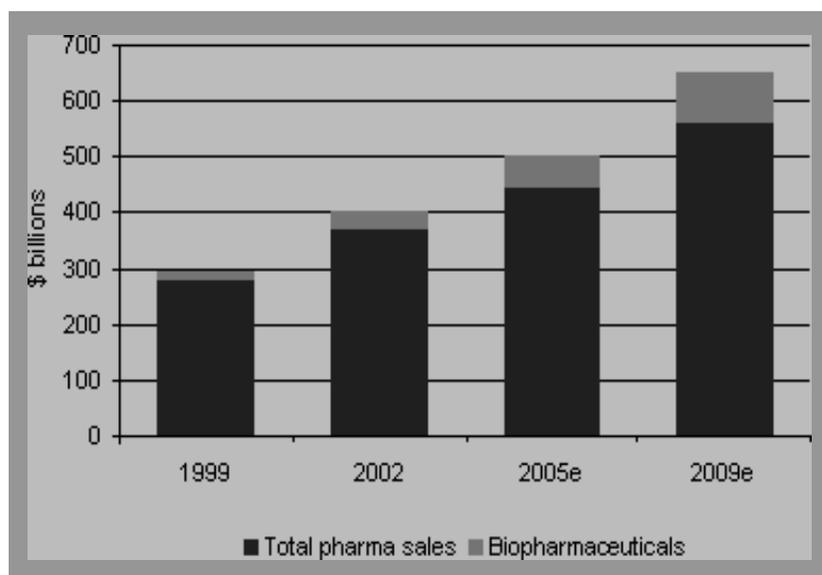
Thanks to the development of molecular biology and genetic engineering, new medicinal products derived from biotechnology are available to healthcare markets, thanks to the recombinant DNA (r-DNA) technology in the last 20 years used to manufacture safe and effective therapeutic medicinal products.

Medicinal products from biological source are derived from living organisms and they are often heterogeneous so that modern analytical methodology could not always characterize them in terms of differences in conformation, heterogeneity and impurity profiles. These therapeutic proteins include recombinant human insulin for the treatment of diabetes, human growth hormone for the treatment of hypo-pituitary dwarfism, interferon, and erythropoietin for the treatment of anaemia in cases of chronic renal failure, various blotting factors and many other conditions.

The largest group of proteins derived from biotechnology are, blood-plasma medicinal products, vaccines, cytokines, interleukins, hormones, gene - and cell - therapeutic and *in vivo* diagnostic allergenic products, these represent and most of them are heterogenic and the contemporary analyses do not provide method for full analyses option. Often the analysis method may have product impact. In the last decade the medicinal products from biological origin are growing extremely and, the forecast till year 2010 will be nearly 50% of all new marketing authorized product will be of biotechnological origin (Fig 1 and Fig 2) (1).

The different patent position for biopharmaceutical is complicated by the fact that “biogenerics” does not exists” with the Review 2005. As the regulation stand, therapeutically similar products must be different to the original and they cannot rely on the original data and must submit full market authorisations via the EMEA’ centralised procedure, since 20 November 2005. Many biotech medicinal products are in process or are already patent expiry and they presents serious part of the pharmaceutical world market, where the top ten 10 Biopharmaceutical Companies (Fig 3) (2).

The term „biosimilars” was introduced in March 2004, as the regulations stand, therapeutically similar products must be different to the original. As such, they cannot rely on the original data and must therefore submit full market authorisations via EMEA’s Centralised procedure (the obligatory or preferred route to market for most biopharmaceutical products). Most EMEA concept papers for biopharmaceutical medicinal products are directed to the active substance under patent expiry (3).



Source: IMS Health, BioGeneriX(1)

**Figure 1.** Biopharmaceuticals' share of global prescription sales

Product	Innovator company	Active substance	Patent expiration	Global sales, 2002
Humulin	Lilly	human insulin	2001	\$1.0bn
Intron A	Schering-Plough	Alpha-interferon	2002	\$2.5bn
Procrit	Amgen/J&J	erythropoietin	2004	\$4.3bn
Epogen	Amgen	erythropoietin	2004	\$2.3bn
Neupogen	Amgen	filgrastim (G-CSF)	2006	\$1.4bn

Source: IMS Health, BioGeneriX(1)

**Figure 2.** Blockbuster biotechnology products with patent expiry before 2007

## CASE STUDY

### Legislative basis of the “biosimilar” for marketing authorisation in EU

The general requirements for generic products are not sufficient for biosimilar products because any changes in the manufacturing process may generate significant differences in terms of quality, safety, and efficacy. The efficacy and safety of a biosimilar biotech molecule is not necessarily to be the same for all indications.

Therefore, according to the pharmaceutical Review 2005, the applicants for biosimilar products will have to provide to EMEA specific preclinical and clinical data for each therapeutic indication and also for new routes of administration (4).

Company		Sales in 2006
01	<u>Amgen</u>	\$13,858
02	<u>Genentech</u>	\$7,640
03	<u>Novo Nordisk</u>	\$6,526
04	<u>UCB Group</u>	\$2,711
05	<u>Biogen Idec</u>	\$2,592
06	<u>Gilead Sciences</u>	\$2,588
07	<u>Serono</u>	\$2,498
08	<u>Genzyme</u>	\$2,278
09	<u>MedImmune</u>	\$1,221
10	<u>Millennium</u>	\$220

**Figure 3.** Top 10 Biopharmaceutical Companies based on 2006 biopharma revenues  
*Note: In all Top Company profiles, dollar amounts are in millions (2)*

An abridged registration procedure which allows an applicant for marketing authorisation of a generic medicinal product to provide bioequivalence studies instead of necessary clinical trials. The manufacturer must prove the quality of the generic medicinal product and since the active substance is already well known for its safety and efficacy, the generic must only demonstrate its therapeutic equivalence to the reference product through what are known as bioequivalence studies.

No legal framework has existed for generic medicines derived from biotechnology before 2004. This deficiency was solved during the review of EU pharmaceutical legislation, known as the “Pharma Review 2005”. Specific provisions were adopted in the final text under the co-decision procedure by the European Council and the European Parliament establishing a legal base for biogenerics where **“similar biological medicinal products“ are possible to be authorised under condition pointed in the Directive 2004/27/EC.**

The Commission published a new Directive 2004/27/EC (4) went into force on 1 November 2005, introduced a legal framework for biosimilar medicines identical to

that for generic medicines. Article 10(i) (iii) of the Directive 2001/83/EC together with Part II, section 4 of Annex 1 provided the guidelines for a biosimilar dossier.

Biological medicinal products are defined in Part I 3.2.1.1 b. of Directive 2003/63/EC with replace the Annex 1 of Directive 2001/83/EC. The definition in Article 10 (1) in 2001/83/EC was not applicable for the biological medicinal products and the concept for “Essential Similarity” was not possible to be used. **The medicines legislation from 2004**, amending the Community code on medicinal products for human use (Directive 2004/27/EC) Article 10, paragraph 4 introduces the requirements for biosimilars (4,5).

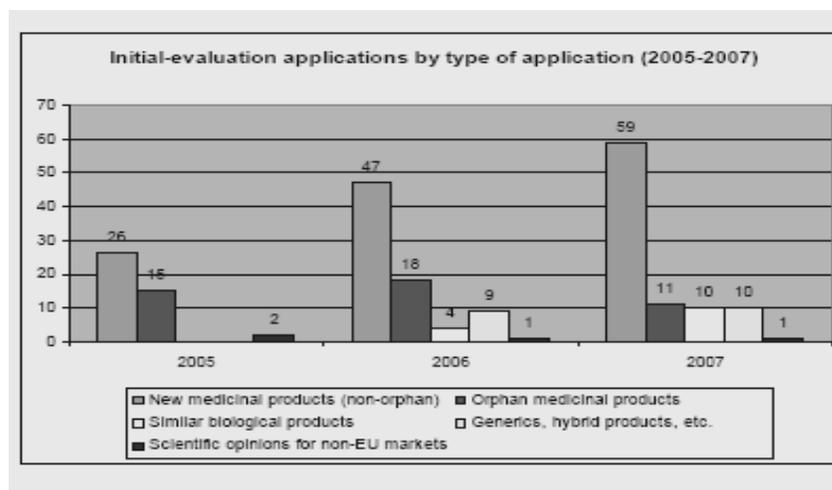
The **Directive 2004/27/EC** which change the Community Code pointed in Art 15 out what should be covered by the biological medicinal product similar to the referent product. They couldn't be taken as biogenerics because of differences in the manufacturing processes, used substance, molecular properties and the therapeutically efficacy. The final text of this new legislation was approved on 31 March 2004 by the Council and was transposed into national law and in effect throughout the EU by November 2005 (4).

*“Where a biological medicinal product which is similar to a reference biological product does not meet the conditions in the definition of generic medicinal products, owing to, in particular, differences relating to raw materials or differences in manufacturing processes of the biological medicinal product and the reference biological medicinal product, the results of **appropriate pre-clinical tests or clinical trials relating to these conditions must be provided**. The type and quantity of supplementary data to be provided must comply with the relevant criteria stated in Annex I and the related detailed guidelines. The results of other tests and trials from the reference medicinal product's dossier shall not be provided” (4).*

The **Directives 2001/83/EC** and 2003/63/EG changed of specific marketing authorization requirements, additional Modules 1, 2, 3 of the CTD format; particular the toxicological and clinic profile of Module 4 and 5 shall be provided.

The practical approach depends on the analytical possibility in order to comply with the “biosimilarity” on the respective manufacturing process, on the clinical and regulatory experience. The approach could be used for well characterized biotech medicinal products, all recombinant DNA/Hybridomtechnic and all products with derivate and conjugate. As biopharmaceuticals are defined by their production process, any change can impact safety and efficacy and therefore demands new approval (5).

Both the precise definition and the requirements for this therapeutic category in Article 10 (6) of Directive 2001/83/EC, as amended, have created a number of implications. The process for marketing authorization and preparation of biosimilar medicinal products is clearer and more precise than in the past, where even in case of a positive opinion of CHMP like INN Somatropin – trade name Omnitrop (London, 26 June 2003, CPMP/3184/03) - no marketing authorization on Somatropin (Omnitrop) was granted by the Commission as Omnitrop was not considered to have well-established use and thus was not authorized till the Directive 2004/27/EC had come into force. Omnitrop was authorized later like a first biosimilar product authorized by the Community after Review 2005 was introduced and the Directive was already in place. During 2006 and 2007 the number of submitted biosimilar applications to EMEA is 4 and 10 respectively.



**Figure 4.** Biosimilar application to EMEA 2006-2007

### The FDA legislation for “follow - on biologics”

The U.S. FDA concedes that it has no framework for “follow-on biologics” for the vast majority of therapeutic proteins subject to biologic licensing under the Public Health Service Act. The U.S. FDA concedes that it has no statutory framework for “follow-on biologics” for the vast majority of therapeutic proteins subject to biologic licensing under the Public Health Service Act. The U.S. agency builds a framework for a few large molecule products (human growth hormones, insulin etc.). An abbreviated process for limited types of biologics, types of tests to demonstrate structural similarity and comparability, immunogenicity testing requirements was outlined. Interchange ability for biologics represents a fundamentally more complex issue an approach and many guidelines were published. The FDA has pointed out concern for large comparative crossover studies for interchange ability rating and the acceptance of biosimilars by the medical community (6,7,8).

### Approaches dealt with comparability in the EMEA and ICH guidelines

#### 1. The comparability of biotechnical/biological products subjects to change in the manufacturing process in the clinical studies and after the marketing authorisation is subject of ICH guideline - ICH 5QE (10).

The terms “comparability” has two aspects, in the ICH Guidelines 5QE refers to changes in the established manufacturing processes within the same manufacturer of an existing biotech medicinal products. In that case the requirements for demonstrating the comparability are not the same than for demonstrating similarity of biological product (10).

With Commission Regulation 1085/2003/EC and 1084/2003/EC stipulating the need for more costly lengthy and complex Type II variation, where simpler IA or IB

procedure would be applicable for small molecule. When manufacturer introduce major changes and then the regulator may view the resulting protein as an entirely new medicinal product with need to demonstrate comparable safety and efficacy.

1.1 The comparability of biotechnical/biological products subjects to change in the manufacturing process in the clinical studies (clinical development)

Determinations of product comparability can be based on quality considerations whether the manufacturer can provide assurance of comparability through analytical studies. Additional evidence from nonclinical or *clinical studies* is considered appropriate when quality data are insufficient to establish comparability. The extent and nature of pre-clinical and *clinical studies* will be determined on a case-by-case basis where various factors shall be considered.

### ***1.2. Demonstration of Comparability during Development***

During product development, it is expected that multiple changes in the manufacturing process will occur that could impact drug product quality, safety, and efficacy. Comparability exercises are generally performed to demonstrate that pre-clinical and clinical data generated with pre-change product are applicable to post-change product in order to facilitate further development and support the marketing authorisation. Comparability studies conducted for products in development could be influenced by several of factors such as the stage of product development, the availability of validated analytical procedures, and the extent of product knowledge, which are limited at times due to the available experience that the manufacturer has with the process.

Comparability of biotechnological/biological products is required. The comparability exercise should utilise available information and will generally become more comprehensive. Process changes introduced in late stages of development and when no additional clinical studies are planned to support the marketing authorisation, the comparability exercise should be as comprehensive uses method. In that case some outcomes of the comparability studies on quality attributes can lead to additional non-clinical or clinical studies.

Due to the limitations of the analytical steps in early clinical development, physicochemical and biological tests alone might be considered inadequate to determine comparability, and therefore, bridging pre-clinical and/or clinical studies, as appropriate, might be needed. In order for a comparability exercise to occur during development, appropriate assessment tools should be used and analytical procedures used during development might not be validated, but should provide results that are reliable and reproducible (10).

### ***1.3. Preclinical and Clinical Considerations***

Comparability determination can be based on quality considerations if the manufacturer can provide assurance of comparability through analytical studies and additional evidence from nonclinical or clinical studies is considered appropriate when quality data are insufficient to establish comparability. All non-clinical and clinical studies are determined on a case-by-case basis in consideration of different factors, which include quality findings, the nature and the level of knowledge of the product and existing non-clinical and clinical data, relevant to the product (10,11).

## **2. The comparability of biotechnical/biological products subjects to change in the manufacturing process after the marketing authorisation (12)**

A determination of comparability can be based on a combination of analytical testing, biological assays, and, in some cases, nonclinical and clinical data. If a

manufacturer can provide assurance of comparability through analytical studies alone, nonclinical or clinical studies with the post-change product are not warranted.

Where the relationship between specific quality, safety and efficacy issues has not been established, and differences between quality of the pre- and post-change product are observed, it might be appropriate to include a combination of quality, nonclinical, and/or clinical studies in the comparability exercise.

**The goal of the comparability exercise is to ensure the quality, safety and efficacy** of drug product produced by a changed manufacturing process, through collection and evaluation of the relevant data to determine whether there might be any adverse impact on the drug product due to the manufacturing process changes.

The demonstration of comparability does not mean that the quality issues of the pre-change and post-change product are identical, but that they are highly similar and that the existing knowledge could ensure that any differences in quality attributes have no adverse impact upon safety or efficacy of the product. To identify the impact of a manufacturing process change, a careful evaluation of all foreseeable consequences for the product should be performed.

The quality data on the pre- and post-change product are generated, and a comparison is performed that integrates and evaluates all data collected, e.g.,

- routine batch analyses;
- in-process control;
- process validation/evaluation data;
- characterisation and stability, if appropriate.

The comparison of the results to the predefined criteria should allow an objective assessment of whether or not the pre- and post-change products are comparable. The manufacturer could be faced with one of several outcomes, as follows:

- ***No adverse impact on safety or efficacy profiles is foreseen***- pre- and post-change product are highly similar and considered comparable;
- ***The analytical procedures used are not sufficient to discern relevant differences*** that can impact the safety and efficacy of the product, additional testing (e.g., further characterisation) or nonclinical and/or clinical studies to reach a definitive conclusion should be performed;
- ***Differences*** in the quality attributes of the pre-change and post-change product observed, it can be justified that no adverse impact on safety or efficacy profiles is expected, based on the manufacturer's accumulated experience, relevant information, and data. In these circumstances, pre- and post-change product can be considered comparable;
- ***Comparison of quality attributes*** and a possible adverse impact on safety and efficacy profiles cannot be excluded and the manufacturer should consider performing pre-clinical and/or clinical studies;
- ***Differences in the quality attributes*** are so significant that it is determined that the products are not highly similar and are therefore not comparable.

Pre-clinical or clinical data allows extrapolation of the existing data from the drug product produced by the current process to the drug product from the changed process. The products should have highly similar quality attributes biopharmaceutical product before and after manufacturing process changes and that there is no adverse

impact on the safety or efficacy and immunogenicity, of the drug product occurred, based on an analysis of product quality attributes.

### **Comparability to reference medicinal products of similar biological medicinal products is subject of the EMEA guidelines**

Biosimilar medicinal products are manufactured and controlled according to their own development. An extensive comparability exercise is required to demonstrate that the similar biological and reference products have similar attributes in terms of quality, safety and efficacy. The quality issues relevant for comparability presenting of similar biological medicinal products containing recombinant DNA-derived proteins are addressed in the “Guideline on similar biological medicinal products containing biotechnology-derived proteins as active substances: quality issues” (EMA/CHMP/49348/05) (13).

When an application for biological medicinal product is containing a biotechnology-derived medicinal protein as active substance it refers to a reference medicinal product having been granted a marketing authorisation by an independent applicant after the expiry of the data protection period in accordance with Title III Chapter I, Article 10 as the amended Directive 2001/83/EC (4).

The Marketing Authorisation (MA) application dossier of a biological medicinal product claimed to be similar to a reference product already authorised shall provide a full Module 3 (quality dossier) and equivalent efficacy and safety of the similar biological medicinal product has to be demonstrated as well.

Biological medicines are usually complex and often heterogeneous, no modern analytical methodology may be adequate for full characterisation following process change. This is addressed in the released ICH and CHMP guidelines. The Directive 2003/63/EC and the guideline CHMP /BWP/49348/2005 stress that the impact of any process change need to be considered on a case-by case basis (5,11,13).

This may involve merely testing against the finished product specification but, in many cases, additional extensive characterisation is required which may need to include non-clinical and clinical studies. According to the European guidelines, a manufacturer can claim that a new product is similar to a therapeutic protein already on the market. The claim should be substantiated concerning quality, safety and efficacy, which are the three main parts of a new drug application. For all three parts of the dossier - quality, safety and efficacy of the same innovator product should be used as a reference.

**Reference medicinal product** is a medicinal product authorised in the EEA, on the basis of a complete dossier in accordance with the provisions of Article 8 of Directive 2001/83/EC, as amended. The active substance of a similar biological medicinal product must be similar, in molecular and biological characteristic, to the active substance of the reference medicinal product.

The same reference product should be used throughout the comparability program for quality, safety and efficacy studies during the development of a similar biological medicinal product in order to allow the generation of coherent data and conclusions.

The pharmaceutical form, strength and route of administration of the similar biological medicinal product should be the same as that of the reference medicinal

product and in case when the pharmaceutical form or the strength or the route of administration differ, the results of appropriate non-clinical/clinical trials must be provided in order to demonstrate the safety/efficacy of the similar biological medicinal product. Any differences between the similar biological medicinal product and the reference medicinal product will have to be justified by appropriate studies on a case-by-case basis.

**Reference Active Substance** - the comparison of the biosimilar active substance to a publicly available standard as a reference (i.e. Ph.Eur, WHO, etc.) is not sufficient to demonstrate biosimilarity of the active substance since this material may not have known and defined safety and efficacy profiles and the manufacturer generally does not have access to the originator active substance, and cannot directly compare his active substance to the one used in the originator's medicinal product. Based on more than one analytical method the biosimilar manufacturer must demonstrate, that the active substance used in the comparability exercise is representative of the active substance present in the reference medicinal product.

Applicant should use various approaches to obtain representative reference active substance derived from the reference medicinal product in order to perform the comparative analysis at the active substance level, where this approach should be appropriately validated. The suitability of the sample preparation process, and should include the comparison of the biosimilar active substance with active substance material derived from the reference and the biosimilar medicinal products (12).

### **Comparability exercise for demonstrating biosimilarity - analytical methods for biosimilar medicinal products**

Characterisation studies "state-of-the-art" should be applied to the biosimilar and reference medicinal products in parallel at both the active substance and the medicinal product levels to demonstrate with a high level of assurance that the quality of the biosimilar product is comparable to the reference medicinal product.

**Analytical considerations - suitability of available analytical methods** - Given the complexity of the molecule and its inherent heterogeneity, the set of analytical techniques should represent the state-of-the-art and should be selected by the manufacturer in order to detect slight differences in the characteristics of the biotechnology-derived product and the selected methods used in the comparability exercise would be able to detect differences in all quality aspects.

**Biological activity** - the comparability exercise should include an assessment of the biological properties of the similar biological medicinal product and the reference medicinal product. Biological assays using different approaches to measure the biological activity should be considered as appropriate. The results of relevant biological assay(s) should be provided and expressed in units of activity calibrated against an international or national reference standard, when available and appropriate and these assays should comply with appropriate European Pharmacopoeia requirements for biological assays, if applicable (10).

**Purity and impurities** - the purity and impurity profiles of the active substance and medicinal product should be assessed both qualitatively and quantitatively by a combination of analytical procedures for both reference and biosimilar products. The manufacturer developing biosimilar products would normally not have access to all necessary information that could allow a comparison

with the reference medicinal product. Information provides conclusions on the purity and impurity profiles. The impurities in the biosimilar product should be identified and compared to the reference product using state-of-the-art technologies and depending on the impurity it may be necessary to conduct trials in order to prove that there is no adverse impact of the surveyed biosimilar product.

**Specifications** are defined as described in ICH Q6B: *Note for Guidance on Specifications: Test Procedures and Acceptance Criteria for Biotechnological/Biological*. (16) The acceptance criteria should be described and each acceptance criteria should be established and justified based on data obtained from lots used in nonclinical and/or clinical studies, and by data from lots used for the demonstration of manufacturing consistency, data from stability studies, relevant development data and data obtained from the comparability exercise (quality, safety and efficacy).

The goal of the comparability exercise is to ensure the quality, safety and efficacy of drug product produced by a changed manufacturing process, through collection and evaluation of the relevant data to determine whether there might be any adverse impact on the drug product due to the manufacturing process changes.

### **Conclusion**

The demonstration of comparability does not necessarily mean that the quality attributes of the pre-change and post-change product are identical, but that they are highly similar and that the existing knowledge is sufficiently predictive to ensure that any differences in quality attributes have no adverse impact upon safety or efficacy of the drug product.

Although in Europe a regulatory path for approval of “biogenerics” was no longer possible, before end 2005 the regulatory path of biosimilars is directed to demonstrate considerable quality pre-clinical and clinical data.

The Regulatory authorities are breaking new grounds in regards with the biosimilar products. The balanced approach adopted by EMEA regarding the additionally published guidelines for biosimilars after Directive 2004/27/EC will allow evaluation on a case by case basis and the well defined framework can be built up on the based of the scientific knowledge.

The extent and the nature of non-clinical tests and clinical studies on biosimilar products are determined in consideration of various factors. According to Review 2005, many guidelines specifying the “appropriate pre-clinical tests or clinical trials” clarifying the general requirements for biological products in terms of safety and efficacy are issued. Nonetheless, there are still many questions about the data required to demonstrate biosimilarity with a biological reference product and how companies will manage after having received scientific advice by EMEA and new additional guidelines:

- Immunogenicity assessment of biotechnology-derived therapeutic proteins (guideline) Biosimilar medicinal products containing recombinant interferon alpha (guideline)
- Biosimilar medicinal products containing low molecular weight heparins (guidelines) are available (17).

## EXERCISE

### Task 1

Please provide the approaches dealt with comparability in the EMEA and ICH guidelines.

### Task 2

Please provide where the definition for biosimilar is published and what is the difference between generic and biosimilar product.

### Task 3

Please provide the main issues for comparability of biosimilar medicinal products.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>EVIDENCE BASED POLICY – PRACTICAL APPROACHES. THE BULGARIAN NATIONAL HEALTH STRATEGY 2007-2012</b>
<b>Module: 2.10</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	health policy, evidence based policy, research, health strategy
<b>Learning objectives</b>	<p>After completing this module students should:</p> <ul style="list-style-type: none"> <li>• know the definition and characteristics of evidence based health policy;</li> <li>• be familiar with designing phase of health strategy;</li> <li>• be familiar with planning phase of health strategy.</li> </ul>
<b>Abstract</b>	<p>In recent years we have seen the successful implementation of new methods in formulating health policy, based on sound research data – the so called evidence based policy. This new approach to health policy helps experts formulate decisions on the basis of good information concerning programs and projects, through presenting supporting evidence from research, which in turn becomes the core for political development and implementation. We decided to analyze the project for a National health strategy 2007-2012 of Bulgaria and see how well it corresponds to the principles of evidence based policy. Critical evaluation of the last draft of the National health strategy 2007-2012 reveals a number of weaknesses due to the documents' inconformity with the basic principles of evidence based policy making. We conclude with a discussion on possible implications for Bulgaria's health policy.</p>
<b>Teaching methods</b>	<p>An introductory lecture will give the students first insight in characteristics of evidence based health policy. The theoretical knowledge is illustrated by a case study. After introductory lectures students should first carefully read the recommended readings. Afterwards they can discuss the case study with other students.</p> <p>In continuation, they need to find published materials (e.g. papers) on evidence based health policy and present their findings to other students.</p>

<b>Specific recommendations for teachers</b>	Work under teacher supervision/individual students' work proportion: 30%/70%; Facilities: a computer room; Equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases; training materials: recommended readings or other related readings; Target audience: master degree students according to Bologna scheme.
<b>Assessment of students</b>	Multiple choice questionnaires.

# **EVIDENCE BASED POLICY – PRACTICAL APPROACHES. THE BULGARIAN NATIONAL HEALTH STRATEGY 2007-2012**

**Petko Salchev, Nikolay Hristov, Lidia Georgieva**

## **THEORETICAL BACKGROUND**

Policy (coming from the Greek word *politike*, meaning power) can be defined as the goal-oriented activities of empowered individuals or groups in a given society. Health policy in reality aims the distribution of a nation's limited resources in such a manner, so as to produce the best possible public health results. The state health policy represents the officially accepted long-term strategy for development of the national health system. It should be noted that a common weakness of many contemporary healthcare reforms is the insufficient attention paid to setting priorities and their ranking according to social significance. Possible priorities are essential public health problems, e.g. coronary incidents; sectors of the health system requiring high priority development, e.g. emergency care; population groups requiring guaranteed health services provision, e.g. retired persons. The process of policy formulation is so fundamental that any future steps become impossible until we have a clear idea what our goals are and to what end will certain strategic tasks lead us. Political consensus and the support of society and media are quite necessary in setting out public health priorities (2).

In recent years we see the successful implementation of new methods in formulating health policy, based on sound research data – the so called evidence based policy. This is a new approach to health policy, which helps experts to take decisions on the basis of good information concerning programs and projects, through presenting supporting evidence from research, which in turn become the core for political development and implementation (8).

Evidence-based policy is public policy informed by rigorously established objective evidence. From a historical perspective, it can be thought of as an extension of the idea of evidence-based medicine to all areas of public policy. Evidence based policy is particularly associated with the name of the distinguished British statistician Adrian Smith – a former president of the Royal Statistical Society. Smith is famous as a proponent of Bayesian statistics and evidence based practice — a general extension of the concept of evidence based medicine into all areas of public policy. In accord with Bayesian statistics the notion of policy based evidence making also emerged – this is a pejorative term which refers to the commissioning of research in order to support a policy which has already been decided upon. As the name suggests, policy based evidence making means working retrospectively from a predefined policy to produce underpinning evidence. Working from a conclusion to provide only supporting evidence in favour of already running policy should be distinguished from the method of research into the effects of a policy where such research may prove either supporting or contradicting.

The term 'policy based evidence making' was referred to in a report of the UK House of Commons Select Committee on Science and Technology into Scientific

Advice, Risk and Evidence Based Policy Making issued in October 2006, but in a somehow negative light. The committee stated that ministers should not seek selectively to pick pieces of evidence which support an already agreed policy, or even commission research in order to produce a justification for policy (9).

A distinguishing aspect of evidence-based policy is the use of scientifically rigorous studies such as randomized controlled trials to identify in advance programs and practices capable of improving policy relevant outcomes. A very general definition of research would be ‘any systematic effort to increase the stock of knowledge’. According to the Oxford Concise English Dictionary ‘evidence’ means information indicating whether a belief or proposition is true or valid. Different types of evidence exist, like systematic reviews, single research studies, pilot studies and case studies, experts’ opinions, information available on the Internet. While randomized controlled trials are widely considered to provide the most reliable form of scientific evidence in the clinical care context, the complexity of the health policy context demands different types of evidence. Observational studies, qualitative research and even ‘experience’, ‘know-how’, consensus and ‘local knowledge’ should also be taken into account. It is often difficult to apply rigid hierarchies of evidence to health policy like this is practiced in evidence-based medicine. Evidence can be used to help improve understanding of an issue, influence policy thinking and assist in the communication and defence of decisions. It could be used in the different stages of the policy process: at the creation of the policy; in its development; in its implementation; and in its defence/justification. Probably most important, is that robust evidence gives government officials confidence in their decisions and the ability to defend these decisions in the face of possible criticism.

There is a long tradition of evidence-based and evidence-informed policy within the UK. Building on the thinking in the Modernizing Government White Paper, the Cabinet Office published ‘Professional Policy Making for the 21st Century’ in 1999 (11). This identified nine core competencies, sometimes referred to as the ‘nine principles’ of good policy making. The distinguished features of professional policy included “using evidence” as well. Throughout ‘Professional Policy Making for the 21st Century’, there is a strong emphasis that policy making should be based on evidence of what works and that the civil service must improve departments’ capacity to make best use of evidence. To enable this to happen, the report called on departments to ‘improve the accessibility of the evidence available to policy makers’. More recently, the ‘Professional Skills for Government’ initiative has been developed as a key part of the government’s delivery and reform agenda to ensure the whole of the civil service has the right mix of skills and expertise to enable department or agencies to deliver effective services (12). Within this framework of skills and experiences necessary for any civil servant to do their job well are four core skills, one of which is ‘analysis and use of evidence’. Under this core skill, policy makers are expected to:

- anticipate and secure appropriate evidence;
- test for deliverability of policy/practice – and evaluate;
- use evidence to challenge decision making;
- identify ways to improve policy/practice;
- champion a variety of tools to collect/use evidence;
- ensure use of evidence is consistent with wider government requirements;
- work in partnership with a wide range of experts/analysts.

A British report clearly identified the factors that facilitate the use of evidence and factors that impede it. The main factors associated with ‘useful’ evidence that can lead to better policy making were: good timing of the analysis with long-term data collection; resource availability, in terms of research budgets and policy and analytical staff capacity; quality of the evidence; availability of the required evidence; presentation of the evidence; focus of reports and other forms of evidence: analytical findings relating directly to the area of interest; trustworthiness of available evidence: is it from a credible source (4)?

Evidence based policy is generally a discourse or set of methods which informs the policy process, rather than one which aims directly to affect the eventual goals of the policy. It advocates a more rational, rigorous and systematic approach. The pursuit of such policy is based on the premise that policy decisions should be better informed by available evidence, and should include rational analysis. Policy and practice which are based on systematic evidence are seen to produce better outcomes. The desired progression is a shift away from opinion based policies being replaced by a more rigorous, rational approach that gathers, critically appraises and uses high quality research evidence to inform policymaking and professional practice. The issues governments should consider when trying identifying what evidence is useful are:

- Accuracy: Is the evidence correctly describing what it purports to do?
- Objectivity: The quality of the approach taken to generate evidence and the objectiveness of the source, as well as the extent of contestation regarding evidence.
- Credibility: This relates to the reliability of the evidence and therefore whether we can depend on it for monitoring, evaluation or impact assessments.
- Generalisability: Is there extensive information or are there just selective cases or pilots?
- Relevance: Whether evidence is timely, topical and has policy implications.
- Availability: The existence of (good) evidence.
- Rootedness: Is evidence grounded in reality?
- Practicalities: Whether policymakers have access to the evidence in a useful form and whether the policy implications of the research are feasible and affordable (5).

According to the World Health Organization, one of the greatest challenges facing the member states is how to ensure access to safe and effective health services for those population groups most in need. Strengthening health systems is a core part of this challenge. However, more evidence is needed about what works in terms of health system strengthening, and under what conditions. WHO estimates that health policy and systems research (HPSR) was neglected for many years, and while some other areas, such as health financing, are nowadays much better understood than some 20 years ago, other issues, such as how to retain and motivate the health workforce or what service delivery models work best in resource-constrained developing countries, remain poorly understood. Unlike other types of health research, health policy and systems research needs to be rooted in and remain responsive to national needs. Health systems and social, economic and political contexts vary so widely that there is no ‘one size fits all’ solution for health system strengthening. Instead, every country

needs sufficient capacity to analyze its own health system and, drawing on international experience, develop and evaluate its own health system-strengthening strategies. Developing national capacity for health policy and systems research is critical – but may not be enough. National governments also need to ensure that research gets synthesized, summarized and packaged in ways that policy-makers and civil society representatives can use, and that policy-makers have sufficient capacity to access and apply these research findings. As developing societies become increasingly democratic, it is even more important that research evidence is widely accessible and can be used by multiple stakeholders, both governmental and non-governmental, to inform of their policy positions. Capacity in itself is a widely but often superficially used term. Capacity issues mainly arise with the different aspects of the relationship between two key groups – policy-makers and researchers. The ability of policy-makers to draw on appropriate evidence is often restricted by its availability. Generating appropriate, trustworthy evidence depends in turn on the existence of good research organizations. At present, the capacity of such organizations in low- and middle- income countries is generally inadequate.

Founders' attention has historically focused on developing the skills of individual researchers. True capacity-strengthening strategies for the future, in contrast, need to focus on the comprehensive needs of academic and administrative institutions, including overall skills and career development, development of leadership, governance and administrative systems, and strengthening networks among the research community, both nationally and internationally. Over recent years there has been noted at least a proliferation of literature focusing on knowledge and how to get it into health policy and practice. Ever since the 1990s the 'evidence based medicine' movement has advocated the greater and more direct use of research evidence in the making of clinical decisions, and this was later broadened into a call for more evidence-based policy as opposed to policies determined through opinions or political biases. Much of this interest arose from the perception that even when research provides solutions, these are not necessarily translated into policy and practice. Health policy and systems research can address any or all of the 6 'building blocks' of health systems identified in the World Health Organization's Framework for Action on health systems from 2007, namely: service delivery, information and evidence, medical products and technologies, health workforce, health financing, leadership and governance. The conceptual framework developed by WHO proposes four main functions of evidence-informed policy-making: research priority-setting, knowledge generation and dissemination, filtering and amplification of evidence, and policy-making. Filtering is a function through which stakeholders determine which research is most relevant as the evidence base for their respective arguments in the policy-making process. Amplification is a function through which stakeholders seek to make the evidence base of their arguments generally accepted as a means of increasing influence on policy-making. This whole framework is supposed to help in developing and evaluating national strategies for enhancing capacity. Some important new considerations include: previous capacity development initiatives have tended to focus exclusively on the production of evidence rather than on capacity to use evidence in policy processes; greater investment is needed in assessing whether the currently employed capacity-building strategies are effective.

Policy-making is generally a complex, non-linear, incremental and messy process. Many factors have the potential to influence policy-making, including

context (e.g. election cycles, state of government's finances, health systems governance structures, media hype and unforeseen political crises) and the ideologies and values of the policy-makers themselves. Indeed, although the 'engineering' model of how knowledge is incorporated into policy suggests a linear progression from identifying a problem that requires a policy solution to ranking the objectives and weighing alternative policy options, this is rarely seen in real life. The actual steps of the policy process depend on national features and especially on policy structures and mechanisms. Nevertheless, stages in the policy process typically identified are: agenda setting, policy formulation, implementation and evaluation. In fact, evidence can be used at any of these stages.

WHO has also proposed a tool for self-assessing the effective use of research evidence. The tool focuses on four different aspects of organizational capacity, each having its implications for staff skills: can the organization identify the necessary research; can the organization assess its findings in terms of reliability, relevance, and applicability; can the organization present properly the research to decision makers; does the organization possess the necessary skills, structures, processes and culture to promote and use research (6)?

At the World Health Assembly held in Geneva in May 2005, debates how to harness health research more effectively in order to achieve the United Nations' Millennium Development Goals in low- and middle- income countries culminated in the passage of a two-part resolution that established specific accountabilities for developing mechanisms to support the use of research evidence in developing health policy. The first part of the resolution called on WHO member states to "establish or strengthen mechanisms to transfer knowledge in support of evidence-based public health and health-care delivery systems, and evidence-based health-related policies." The second part of the resolution called on WHO's Director-General to "assist in the development of more effective mechanisms to bridge the divide between ways in which knowledge is generated and ways in which it is used, including the transformation of health-research findings into policy and practice." Organizations have already been established in many countries and internationally to support the use of research evidence. These include, among others, organizations that directly support the use of research evidence in developing health policy on an international, national, and provincial level (the so called 'government support units'). While there are important differences among these organizations, there are also many commonalities and opportunities for existing and new organizations to learn from this collective experience. A recent Norwegian study has found seven main implications for those establishing or administering organizations to support the use of research evidence in developing health policy:

1. Collaborate with other organizations;
2. Establish strong links with policymakers and involve stakeholders in the work;
3. Be independent and manage conflicts of interest among those involved in the work;
4. Build capacity among those working in the organization;
5. Use good methods and be transparent in the work;
6. Start small, have a clear audience and scope, and address important questions;
7. Be attentive to implementation considerations even if implementation is not a remit.

The study's four main implications for the World Health Organization and other international organizations include: support collaborations among organizations; support local adaptation efforts; mobilize support; create knowledge-related global public goods, including methods and evidence syntheses (7).

## **CASE STUDY: THE BULGARIAN EXPERIENCE**

With all this in mind we decided to analyze the project for a National health strategy 2007-2012 of Bulgaria and see how well it corresponds to the principles of an evidence based policy. First, we would like to make several introductory comments on Bulgaria as a country in transition and the health system of Bulgaria in particular.

Bulgaria is situated in the eastern part of the Balkans and has an approximate population of 7.8 million, with the demographic characteristics of a rapidly aging society. The establishment of a new constitution in 1991 set in motion the process of introducing a democratic form of government. Despite a large decrease in mortality since 1990, the country's mortality rate is still high compared to old European Union Member States. Mortality rates from heart and circulatory diseases have increased, representing 66.1% of all deaths in 2005. The infant mortality rate in Bulgaria was 11.6 per 1000 live births in 2004, which was more than twice as high as that in the 25 European Union Member States.

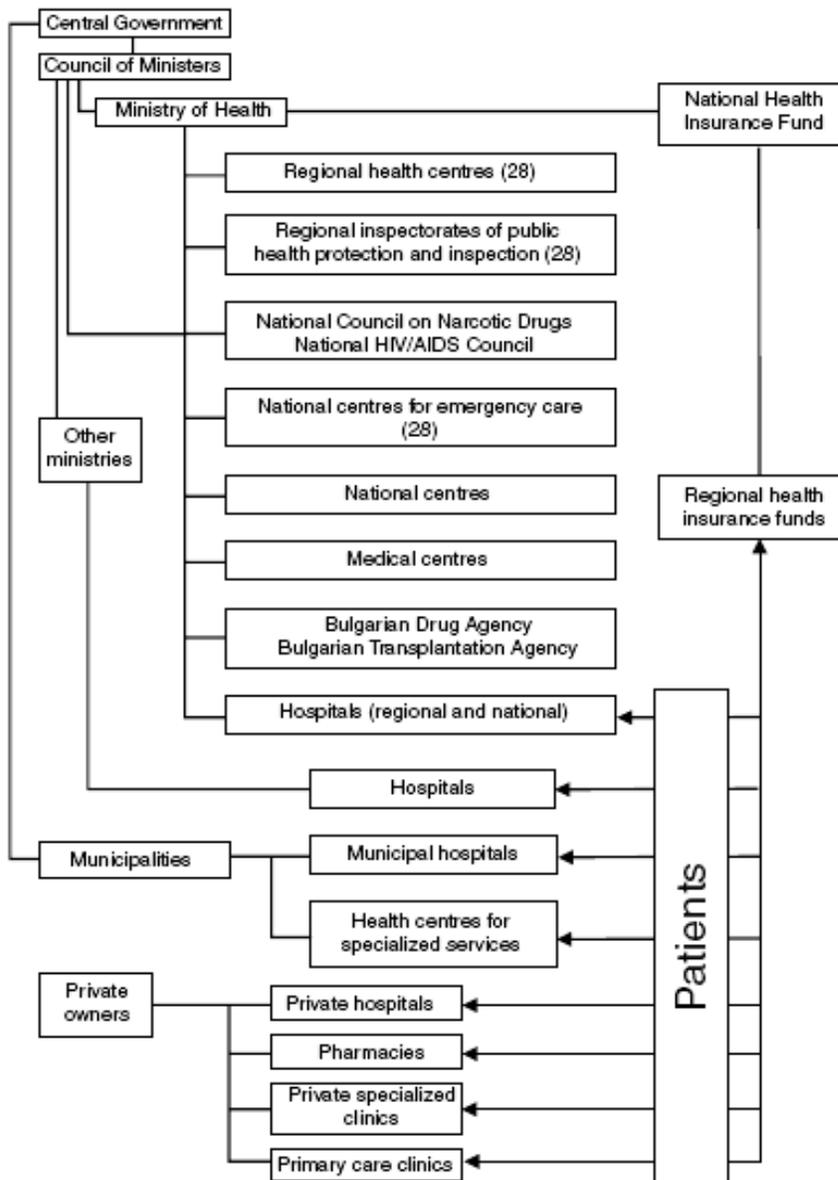
Health reforms commenced in the 1990s brought about wide-ranging changes in health care organization, financing and delivery, and a new type of relationship was established between users, providers and payers. Reforms were aimed at making the health system more efficient and responsive to patients' needs, by means of improvements in quality of service and delivery of care. The establishment of the National Health Insurance Fund and a basic benefits package defined the services covered by the public sector and designated the revenue collection for health care allowing for more sustainability of the healthcare budget (Fig. 1).

However, a financing system solely based on contributions failed to provide adequate funding for the system. Approximately one million people opting out of universal coverage meant that there were significantly fewer contributors than beneficiaries and this led to potential adverse effects on the financial balance of the National Health Insurance Fund. Legalization of private practice has had a positive impact on access to health services and the resulting competition among health care providers proved an incentive for higher-quality of service provision (Figure 2). However, widespread commercialization of health care and a growing focus on market relations exerted an overall adverse impact on the social functions of healthcare. A restructured primary care and the introduction of GPs as gatekeepers to specialized care allowed for cost-containment but led to ardent discussions whether such policies violate the principles of free provision and access to health care for the population.

The restructuring of inpatient health care financing and provision was followed by the introduction of clinical pathways as a reimbursement instrument. This created better incentives for improving both quality and effectiveness of service provision.

However, the actual cost of implementing clinical pathways for the hospital is higher than the price reimbursed by the National Health Insurance Fund, which causes chronic financial instability in the inpatient sector. Insufficient funding of multi-profile hospital settings gave rise to a subsequent lack of motivation among medical

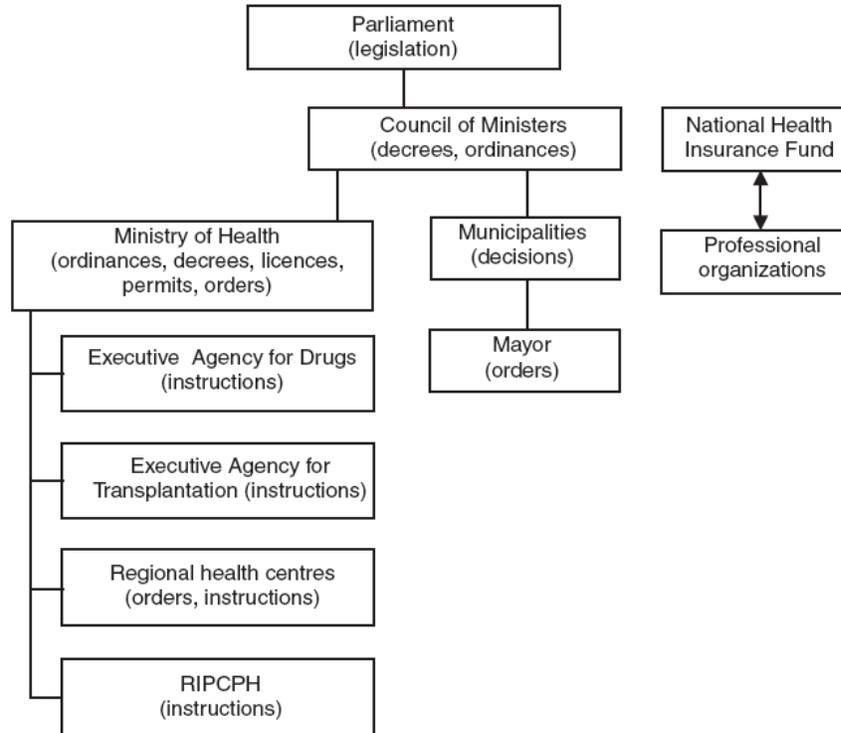
care providers. Public health challenges and elucidated structural defects of the health system were supposed to be addressed by the new National health strategy of Bulgaria.



**Figure 1.** Overview of the health system of Bulgaria (1).

Critical evaluation of the last draft of the National health strategy 2007-2012 reveals a number of weaknesses due to the documents' inconformity with the basic principles

of evidence based policy making. The document replicates to a large extent the preceding National health strategy 2001-2010 which in turn replicates the WHO paper “Investment in health” from the 1990s. The project pretends to constitute a health strategy but is, in reality, an action plan for reforming the healthcare system and is unrelated to the actual public health status of the nation. Further, we will comment on the major weaknesses of this paper in more detail.



**Figure 2.** Overview of Bulgaria’s health system regulation (1).

This is a typical example of a document not based on evidence, i.e. research findings, but instead on the opinions of a group of experts or, the so called anecdotal evidence. The document goes in great detail describing the healthcare system of Bulgaria, its distinctive features and weak spots, but fails to pay any attention to the state of public health and the actual health needs of the citizens of Bulgaria. Such paper is clearly targeted inside, at solving problems of structural defects of the health system; where it should be targeted outside, at tackling the population’s health needs. The strategy doesn’t even demonstrate intent to deal with the health and quality of life of Bulgarian population, instead focusing exclusively on intrinsic problems of the healthcare system. A retrospective depiction of the healthcare system and allowed weaknesses is provided, while it would be more useful to pinpoint essential problems in the nation’s health state, as well as indicate ways of solving them in combination with short- and middle-term objectives plus clear indicators for evaluation.

The strategy doesn't engage with a single feasible goal related to improved population health, a goal furthermore administratively and financially backed; unfortunately the strategy sounds rather like the paper of an administration thinking that public health is entirely a product of the health system's functioning. The proposed strategy neither protects the rights, nor defines the health-related responsibilities of Bulgarian citizens; instead it stipulates the way in which, according to the Ministry of Health, this system should be structured, without taking into account the interests of these same citizens. Going into even more detail we can easily note that: the introduction does not make reference to the health state of the nation, but it takes several pages to describe all systemic defects of the healthcare system. A strategy with such accent and scope should be named more properly a strategy for restructuring the health system and not a national health strategy. A passage states that "The result of this strategy should be a reformed, financially stable and effective health system, capable of providing quality care in prevention, prophylaxis, treatment and rehabilitation....," clearly indicating that the expected outcome is a systemic change and not improved health and quality of life.

The section "Health state of the population" does not provide actual data, instead citing data ranging from 2000 to 2005 which speaks of unfamiliarity with the real health problems of the population; this is despite the fact that the last revision of this paper is dated September 2007. This is a good illustration of the point that the National health strategy does not refer to actual health needs and is not founded on scientific evidence. The section on social determinants of health sets out a very bad example as it quotes no single result or conclusion, instead stating pointlessly that "The relation between health and socio-economic medium in a state is direct. Consequently, to achieve positive results we need direct actions to improve the medium in which a man lives, works and realize his social contacts." Another unfortunate example of the way a strategy is being mechanically filled with meaningless phrases is "realizing the significance and need for timely measures" in the section "functioning of the healthcare system – system management." An example of the lack of ability to create a coherent text and "jumping to conclusions" is the following text taken from the section "Financing the health system": "In comparison to the average parameters of the insurance contribution in the EU which ranges from 8 to 12%, the insurance contribution in Bulgaria is 6%. The combination of low insurance contribution, lack of guarantees for complete fundraising and a high dropout rate from the insurance system (about 1mln Bulgarian citizens) is defining."

The authors of the draft strategy do not leave the impression of truly knowing the Bulgarian health system and understanding its hierarchical structure. For example they conclude that the increasing number of patients seeking specialist and hospital care can be attributed to a deficit of financial resources in outpatient care. The introduction of a uniform emergency number 112 is erroneously set as a goal of the National health strategy when it is in fact an element of Bulgaria's accession to EU and is of little importance for public health issues in itself. Throughout the entire text the terms "stomatology" and "dental medicine" are being mixed up. According to the new legislation only the use of the second term is correct. This mistake may be illustrative of the rash and incoherent manner in which such an important document has been prepared.

It is a little surprising to find in section "Hospital care" the comment that some hospitals have social functions (e.g. care for terminally ill patients, long-term medical

care and continuous rehabilitation) as well, which depletes their financial resources. However, these functions are their legal obligation according to Bulgarian health legislation. The heavy usage of hollow terminology, unsupported by concrete examples or proposed measures does not increase the credibility of the document. This can be noted on numerous occasions, e.g. with terms used like “creating democratic medium for population inclusion and transparencies in taking political decisions”; “raising capacity of all stakeholders for performing political analyses aimed at improving inter-sector dialogue”; “forming knowledge base for population health and its determinants.” A striking example of the National strategy’s superfluous and emptied of essence language is the expression “a build-up of a system of criteria for defining priorities in implementing market control, based on risk evaluation...” Typical of the proposed strategy is the constant usage of the terms “implementation of a national program’ and “implementation of a national plan’, meaning the strategy has as its goals the realization of certain programs; when in reality a strategy is supposed to serve as a basis for establishing such national strategies and action plans. High immunization coverage is set as a goal without even specifying what communicable diseases are meant, where immunization coverage could be deemed insufficient and what should be achieved. In this line of thought all mentions of socially-significant diseases go without unequivocally declaring what diseases in Bulgaria are meant and what are the related problems for society. Without even mentioning previously problems of children health and children risk groups in Bulgaria, the strategy jumps to the establishment of health cabinets in schools, i.e. a structural problem of the health system. Some technical mistakes raise doubt if the proposed texts have been reviewed after their initial formulation. For example, the section concerning socially significant diseases confuses program and grant principle of financing – the authors seem unaware of the difference between program planning and participation in financing based on the grant scheme.

The introduction of a European health insurance card is proposed in the strategy, but in fact this card has already been introduced in Bulgaria. A very disturbing tendency in Bulgaria is the preparation of important documents by small groups of low-profile or completely anonymous experts, working hastily on political errands. This is how we explain the appearance in the proposed national health strategy of a number of new ideas, bringing radical changes to the existing health system. It comes as no surprise that immediately after its presentation the draft strategy gave rise to heated disputes. Several representative examples follow. The document introduces a new type of health facilities – one for health tourism; unforeseen by the existing Bulgarian legislation. The strategy indicates an upper limit of 1500 patients in the list of a GP and a number of other measures which have not been discussed with the Association of general practitioners in Bulgaria like the introduction of stimuli to form group practices (again failing to mention any particular and feasible measures) and increasing payments for service, as well as lowering payments per capita for a listed patient, a measure which, by the way, is clearly going to lead to a surge of costs.

The section “Restructuring and effective management of hospital care’ foresees the establishment of a package of outpatient services to be concluded in hospitals and reimbursed by the health insurance fund which comes again as a surprise since it contradicts all common to this day practice in Bulgaria. A new type of hospital financing suddenly appears in the text – one through a global budget. The

explicitly mentioned regulation and limitation of new contracts of the National Health Insurance Fund with health services providers is an outright violation of the legislation in force and the right of a free initiative for providers. This measure, if enacted, will most probably strip citizens of their right of choice of provider and will exacerbate corruption problems in the Bulgarian healthcare system. The role of professional organizations like the Bulgarian Physicians Union and the contracting principle in relations between the National Health Insurance Fund and such organizations is completely ignored or nullified throughout the whole text. A change in the form of relations is stated without even bothering to mention what will change and why should it change. A significant change in the health insurance model is the declared introduction of complementary universal health insurance. It remains unclear whether such a step is really necessary and where to should this additional financial resource be directed. An interesting goal of the strategy is the creation in Bulgaria of a uniform methodology for pricing of medical services, such methodology is supposed to serve then as a basis for forming all financial plans in the healthcare sector. This sounds like a worthy goal, but since such methodology doesn't exist anywhere else worldwide, we get the impression that many declarations in the strategy are present there simply because they sound good.

The strategy proposes also the refinement of the existing instruments for price formation in hospital care. In reality, such an attempt will bring forth an even greater dissent among the medical community in Bulgaria. The currently used clinical pathways (which were never meant as financial instruments at their creation) proved very unsuccessful; perhaps it will be a better idea to abandon them completely and continue with the preparation for the adoption of Diagnostic Related Groups. A wide consensus has already been formed on that matter in Bulgaria. However critical we have been so far, the section "Indicators for evaluation" is clearly the weakest part of the strategy. Curiously, the section that should have been most specific and demonstrate the serious intentions of the state in implementing the national strategy, contains no single fact or number. It remains a mystery how to evaluate the implementation of this strategy when there are no milestones and final goals. The standard for monitoring should be described in the strategy but instead we learn from the text that the monitoring mechanism will be created at some later stage. The text is abundant in formal phrases like 'Standards for measuring the achieved progress will be in conformity with the set goals. The chosen standards should be feasible. They will be defined on the basis of concrete data...' A set of public health indicators is nevertheless enumerated but not a single indication from where we come and where we will end. For example birth rate and infant mortality are among the chosen indicators, but they are just listed, without concrete values (even at present) and the values we desire to reach in 2013 as a result of the implementation of the national strategy.

To summarize, in our opinion the proposed strategy is elaborated in a very formal manner, bears the marks of wishful and bureaucratic thinking, does not demonstrate good knowledge of the Bulgarian health system and does not live up to the contemporary standards of policy making in developed countries. It will be hard to find justification for the existence of this document and the proposed strategy cannot be expected in good conscience to be ever implemented and yield any useful results (3).

The fate of the proposed national health strategy is to this day unenviable. Perhaps this should come as no surprise in view of its numerous weaknesses (13). The currently active National health strategy is dated 2001-2010. The enactment of a new health strategy has been the ambition of the Bulgarian government, dominated by socialists, which came in power in 2005. This logical step has been in line with the declared ambitious plans of socialists to restructure public sectors. The strategy itself was written in 2006 and is a product of experts working for the Ministry of Health or affiliated with it. An interesting fact is the unwillingness of these experts to have their names associated with this program document consequently it remained an anonymous creation. The Prime Minister made a public promise to have the strategy operational since March 2007, an ambition which proved ungrounded. Ever since its first presentation (end of 2006) in front of a wider audience, the strategy attracted only harsh critiques. It has been consequently rejected by all stakeholders in Bulgaria's healthcare sector. One such example follows. The document was presented by the Minister of Health on May 09 2006 in front of an extended National Council of the Bulgarian Physicians Union, including also representatives of the academic community, ministers, deputies and representatives of patients' organizations. Following the discussion the National Council made a statement rejecting the proposed strategy and citing its numerous weaknesses. The Bulgarian Physicians Union considers a main weakness the preparation of the strategy without any participation from physicians and patients. Other cited weaknesses coincide to a great extent with our own findings: health needs, priorities and concrete steps are omitted from the strategy. Furthermore, the strategy speaks of essential administrative reforms in Bulgarian healthcare without a preceding proper public discussion. Financial parameters are missing. The national council proposed scrapping the existing project and the preparation of new one by a workgroup, including representatives from the Ministry of Health, the Bulgarian Physicians Union and patients' organizations. The final draft should contain clear responsibilities of all institutions implementing the strategy, as well as explicitly stated terms and necessary resources (10).

In 2007 the draft of the new national health strategy has been rejected three times by the Council of Ministers. Regardless, the strategy draft is proposed again and again with minor corrections, a good indication of the limited capacity of the Ministry of Health in preparing such documents.

## **Discussion**

The technology traditionally used widely in Bulgaria to prepare important political documents is outdated and the case of the National health strategy 2007-2012 clearly illustrates that. Institutional capacity – the ability of government experts to find and incorporate evidence, is very weak and so is interface – the ability of these experts to communicate with the academic community as a possible source of such evidence. Wider adoption of the principles of evidence based policy making can do much to advance Bulgarian health policy.

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## Chapter 3

# TECHNOLOGIES AND INTERVENTIONS IN HEALTH CARE AND HEALTH SERVICES

- 3.1 Technologies Used in Health Care (Ž. Jakšić)
- 3.2 Community Health – Public Health Research Methods and Practice (S. Šogorić, A. Džakula)
- 3.3 Screenings (M. Krajc)
- 3.4 E-health (I. Eržen)
- 3.5 New Potentials of Telecommunication Technologies in the Healthcare Services Frameworks (D. Rudel, M. Fisk)
- 3.6 Complementary and Alternative Medicine: some Public Health Views (M. Premik, L. Zaletel-Kragelj)
- 3.7 Alternative Medicine During Millennial Transition (V. Stambolović)
- 3.8 Disease Management Programs. The Case of CVD Management in Bulgaria (M. Dyakova, E. Karaslavova, D. Sidjimova)
- 3.9 Qualitative Naturalistic Approach (S. Šogorić, T. Vukušić Rukavina, A. Džakula, O. Brborović)

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>TECHNOLOGIES USED IN HEALTH CARE</b>
<b>Module: 3.1</b>	<b>ECTS: 0.2</b>
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<b>Keywords</b>	Health technology, Health planning, Public health
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• be aware of role of health technology in practice of health care;</li> <li>• know the criteria for assessment of health technology</li> <li>• know definition and characteristics of appropriate technology;</li> <li>• be familiar with the implementation of the technology into the practice of health care.</li> </ul>
<b>Abstract</b>	The important role of technology is outlined and broader understanding of the term technology supported, i.e. including besides equipment also people's know-how. The kind, types and ways of application of technologies are discussed in relation to present practice of health care. Finally, the role of AT (adequate technology), TA (technology assessment) and TT (technology transfer) are presented.
<b>Teaching methods</b>	Introductory lecture, exercises – field visit, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# TECHNOLOGIES USED IN HEALTH CARE

Želimir Jakšić

## THEORETICAL BACKGROUND

### Introduction

Health technology is a complex issue. It is the ground for effective health protection, prevention and treatment of diseases, diminishing of people's pains and sufferings, and above all supporting human development, economic prosperity and quality of life. In the same time it is important as powerful health industry, consuming considerable social and economic resources of all countries.

"Technology" has different meanings: *Techne* (Greek word) means art, skill, craft. The practical meanings today are: industrial science; applied science; any *practical art utilizing scientific knowledge*(1). In practice it is connected with physical objects (machines, mechanical tools, chemical agents, computers), sometimes called **hardware, equipment, instruments and gadgets**. Today the term includes also social methods and know-how (even people who work with them and organization of work) called also **software, procedures and techniques**. In the working material of the Alma-Ata Conference 1978, it was stated: "*Technology is the totality of methods, techniques and equipment together with the people using them*".

Health technology was and is now the basis of health culture, closely related with it. Historical development of technology is the consequence of general technical, economic social and cultural development and circumstances, but also contributing to understanding of human beings and supporting development of other technologies, especially bio-technologies. Historically one may differentiate big medical schools like Ayurvedic, Chinese, Unani, Arabic, African, South American, Cloister Medicine... Besides there always (and today) existed traditional and popular folk medicine. Traditional medicine and traditional healers are known as: herbalists, bone-setters, spiritual healers, traditional birth attendances. Broadly spread and more active is popular, folk, indigenous, fringe medicine and self-care, a combination of tradition, popular believes, interpretation of experiences of people with official health care, and at present also marketing messages about drugs, natural products, "healthy diets" etc. "Scientific", biomedical, medicine and professionally trained health workers today occupy the dominant official position, although their position is in practice shared with folk medicine, complementary and alternative medicine and trade of different kinds of healers. Basically contemporary health practice is based on an allopathic approach to medicine (treating abnormalities by procedures with opposite effect than the signs of disease are showing, aiming to reach normal balance). New big expectations are vibrant today by new scientific successes in genetics, bio-molecular techniques, nano-technologies and new knowledge about human genome. However, the big expectations should not stop small steps forward in medicine in all directions. Scientific dreams and realistic empiricism have to progress together.

## **Kinds and types of health technologies**

The *kind* of technology one may divide according to purpose of their use: from supporting longevity and promoting health to cure and rehabilitation, restoring of functions. The tendency today is to speak about prevention and mostly cure of illnesses. Notion of social determinants of health is and was suppressed long time for political reasons, particularly in practical health activities. The same is with a dream about longevity, asking for more years to be added to life, instead of looking for more life to be added to years. The same is shown by orientation towards diseases contributing to mortality, and not enough attention paid to rehabilitation and diseases producing handicaps and poor quality of life.

The mixture of *types* of health technologies is of great interest for practice of health services. Within the complex health technology one could identify three broad types of interventions using very different approaches and run increasingly by specialists (medical specialists and healers who a very far one of another (e.g. psychiatrists and priests from biochemists and cytologists). However, often and even usually, these different types of health technologies have to be combined together and integrated, if one would try to achieve best results. The broadly defined types of health technologies are:

1. **Human care** and support, including psychotherapy and spiritual medicine;
2. **Drugs**, biological and chemical medicaments, including biochemical diagnostics;
3. **Physical medicine and surgery**, including “imaging” diagnostics.

In a way this division is following the division of traditional medicine: magicians (spiritual healers), herbalists and bone-setter. Today the second group (particularly pharmacological treatment) absolutely predominates in health practice, particularly because the first type of technologies (human care and support) is diminishing in spite of growing needs and requests. The first type of technologies is therefore increasingly more present in all kinds of alternative medical services as well as in all kinds of malpractices (2-6).

Another useful division of health technologies is according to *objects of application*: individuals; groups; communities; general public and environment. For instance, to solve the problem of alcoholism one may choose and combine individual treatment, group work, familial approach, health education of community and/or change in environment (production and prices of alcoholic beverages, new social way of entertainment etc).

Very important division of health technologies is according to *cost of equipment* per workplace. The economist EF Schumacher(7) stated in his book “Small is beautiful: economics as if people mattered” (1973): “If we define the level of technology in terms of “equipment cost per workplace”, we can call the indigenous technology of a typical developing country – symbolically speaking – a one-pound technology, while that of developed countries could be called a 1,000-pound technology. The gap between these two technologies is so enormous that a transition from one to the other is simply impossible. In fact a current attempt of developing countries to infiltrate the 1,000-pound technology into their economies inevitably kills off the one-pound technology at an alarming rate, destroying traditional workplaces much faster than modern workplaces can be created, and thus leaves the poor in a more desperate and helpless position than ever before. If the effective help is to be

brought to those who need it most, a technology is required, which would range in some intermediate position between the one-pound technology and 1,000-pound technology. Let us call it – again symbolically speaking – 100-pound technology”. This statement written many years ago is still valid, and not only for very poor countries, than also for middle developed countries. The technology used at the primary level (in primary health care), both in developed and developing countries, should be an intermediate cost technology, 100-pound technology.

There are three additional questions important for appropriate use of technologies in practice: AT (Appropriate technology for actual needs), TA (Technology Assessment and monitoring its use), TT (Technology transfer and its influence).

### **Appropriate technology (AT)**

Appropriate technology is technology that is designed or chosen with special consideration to the environmental, ethical, cultural, social and economical aspects of the community it is intended for. Such technology usually requires fewer resources, is easier to maintain, and has a lower overall cost and less of an impact on the environment compared to industrialized practices. Appropriate technology usually prefers in developing countries labour-intensive solutions over capital-intensive ones, and it is quite opposite in developed countries. (Labour-saving devices should be used when this does not mean high capital or maintenance cost.) In industrialized nations, the term appropriate technology often refers to engineering that takes special consideration of its social and environmental ramifications. In practice, it is often solution that might be described as using the simplest level of technology that can effectively achieve the intended purpose in a particular location.

In deciding about appropriateness *seven main dimensions* have to be observed: safety, efficiency, efficacy, technical properties, organizational impact, social consequences and ethical implications.

Observations and experiences in practice as well as research have shown that appropriate technology will have the following characteristics:

- *Should be scientifically verified;*
- *Adaptive to local needs;*
- *Acceptable to those who apply it;*
- *Acceptable to those who use it;*
- *Easy maintenance;*
- *It must be economically affordable.*

### **Technology assessment (TA)**

In order to evaluate the level of appropriateness of applied or a new technology, it has to be reviewed by a process known as **technology assessment**. The term "technology assessment" was introduced in 1965 during deliberations of the Committee on Science and Astronautics of the US House of Representatives and it was emphasized that the purpose of TA is to serve policymaking. In case of health technologies the first (“old”) approach that it has to serve professionals in health practice, and only later when the problem of rising costs became unavoidable the “new” assessment went into hands of health politicians and financial authorities. The tension about for

whom technology should be assessed is present even know as a well-known struggle of clinicians and administrators about professional autonomy. The third player started to be visible in shape of powerful industries producing equipment, biological products and drugs. As a judge, finally, public and users have been asked to join, but even now, although “need-based” principles have been established they remain weak partner.

**Table 1.** Methods of assessment of health technologies (8-11)

	“OLD ” 1970-90	“NEW” 1980-now	“NEED-BASED”
For whom?	For clinicians and experts	For government and politicians	For public and users
<i>Measures: main criteria</i>	<ul style="list-style-type: none"> <li>• safety</li> <li>• efficacy</li> </ul>	<ul style="list-style-type: none"> <li>• quality of life</li> <li>• feasibility</li> </ul>	<ul style="list-style-type: none"> <li>• relevance</li> <li>• social impact</li> </ul>

The procedure, by which the given technology is systematically examined if it is appropriate for existing health needs and other in accordance with other circumstance, includes the following pertinent questions and ways how to answer them:

- Is it necessary? Answer by estimating prevalence and priority of needs.
- Is it effective? Consider efficacy (potentials under optimal circumstances), coverage and compliance (acting of patients in accordance with the rules) in practice.
- Is it efficient? Answer by estimating cost in relation with effects (is it affordable and sustainable?)
- Is it safe? Answer by measuring adversary reactions and consequences.

There are also experienced suggestions what are the main issues in assessment (see more by Eisenberg JM, 1999) (12):

1. Health practitioners should give a lead what and how might be implemented. The assessment has to be done in circumstances in which it will be applied
2. The assessment has to be performed repeatedly, once is not enough
3. The last and most important goal of assessment should be improvement of existing health practice.

The technology assessment is an activity ensuring quality of care and progress of services. It is under strong pressure of economic constraints, producers, professionals and public opinion. A balance has to be found between conservative tendencies toward standardization, restrictions and de-stimulation, and innovative policies stimulating and propagating new technologies. The abbreviation STI means: science + technology + innovation.

The new technology has to be connected with new training of people and also often with reorganization of work itself. It is important not to forget that the

management itself has its own technologies which can also be judged as appropriate or inappropriate for the given circumstances.

### **Transfer of health technology (TT)**

Globalization is increasing the processes of technology transfer. Many producers of medical equipment and drugs are now big multi-national health companies. However, the system is biased so that technology, as well as science, are oriented towards needs of more developed and more powerful part of the World. It can be illustrated by a quotation from WHO document (2004):

#### ***Gaps in pharmaceutical research and innovation***

*The World Health Organization released a groundbreaking report, which recommends ways in which pharmaceutical research and innovation can best address health needs and emerging threats in Europe and the world. The 17 priority conditions identified by the report are:*

***Future public health threats:*** 1. infections due to antibacterial resistance, 2. pandemic influenza;

***Diseases for which better formulations are required:*** 3. cardiovascular disease (secondary prevention), 4. diabetes, 5. postpartum hemorrhages, 6. paediatric HIV/AIDS, 7. depression in the elderly and adolescents;

***Diseases for which biomarkers are absent:*** 8. Alzheimer disease, 9. osteoarthritis;

***Diseases for which basic and applied research is required:*** 10. cancer, 11. acute stroke;

***Neglected diseases or areas:*** 12. tuberculosis, 13. malaria and other, 14. tropical infectious diseases such as trypanosomiasis, leishmaniasis and Buruli ulcer, 15. HIV vaccine;

***Diseases for which prevention is particularly effective:*** 16. chronic obstructive pulmonary disease including smoking cessation, 17. alcohol use disorders (alcoholic liver diseases and alcohol dependency).

The successful technology transfer by itself presents problems for which the solutions are not always easy. The UN Millenium Project on Science, Technology and Innovation, Background Paper (2003) reviewed literature concluding that *messages are pessimistic, but in the same time full of hope*. The important problems in technology transfer are:

- *intrusive influence of political and economic relations with domination of powerful;*
- *impossible transfer if local capacities to whom technology is transferred are not developed;*
- *conflicts of interest between and inside countries, inside and between professional groups;*
- *local policies such as protecting autarchy of countries, autonomies of experts, and control of outs of transfer by powerful groups, criminal organizations and corrupted administration.*

## CASE STUDY

### The estimates of use of technologies in Europe and problems of drugs management in Croatia

There are estimates that in Europe might be spent 30-50% of health expenditures for performed health procedures and applied technologies without evidence of their effectiveness and only 15-20 % interventions in daily use were proven by controlled experiments. Poly-pragmatic use of drugs, misuse of antibiotics, overuse of pain-killers and all kinds of sedatives, are convincing examples. There is also evidence that there are socially determined differences, what is particularly evident in diagnostic and high-tech technologies. Some studies indicate that even 40-60 % of technologies is irrelevant or applied and used in inappropriate way. The poor compliance with drug prescriptions is documented in many cases. The symbolic use of technologies is described in cases when results of expensive laboratory tests and diagnostic examinations were never used for medical decisions. Misuse of technologies is also seen in the opposite situations when many useless tests, screening procedures and diagnostic procedures are ordered unnecessary. In routine health services the ineffective technologies are applied and systematically protected (see Banta HD. Eurohealth 1996).(13)

The health care expenditure is yearly in Croatia less than 500 € per capita out of which about 100 € for pharmaceuticals. Since it is not probable that health care resources will raise faster than BNP (about 7 500 € per capita) some measure to decrease deficit of the state, i.e. Croatian Institute for Health Insurance (CIHI) are inevitable.

Comparison of health care utilization in I-VI 2006 and I-VI 2007 shows the following: In case of same amounts the presented index would be 100, but in specific services it was:

Primary health care consultations	100.37
Specialist consultations	95.84
Number of prescriptions	110.45
Hospitalized patients	99.49
Days in hospitals	98.56

Decreasing rights of patients and citizens covered at present by the insurance might increase their out of pocket participation payment for health care. The Basic drug list (completely covered by Insurance) must be reduced. Education of health workers and general public should increase awareness of the need to rationalize the use of pharmaceuticals, diagnostic tests and referral to specialist examination. Family medicine should take place if 75 % of their patients' health needs and not only of estimated 50%, what is now the case. Finally the studies on functioning of various parts of health service are of utmost importance. (Quotations and extracts from Vrhovac B, 2008).(14)

## **EXERCISES**

### **Exercise 1: Mixture of medical technologies at present in primary health care practice**

#### **Task 1**

**Your task** is to estimate by observation and by interviews with primary health care teams the share of types of technologies in their daily routine practice

Consider comparison of time taken to speaking with patient and total duration of consultation. Differentiate administrative part, diagnostic part and treatment part of consultation separately. Trace interesting combinations of various types of technologies and concentrate on treatment part. In case of the first type (human care) try to differentiate (timing is tentative): one-minute short advice (recommendation), 5-15 minutes supporting interview, structured counselling (several meetings of 15-30 minutes) and “small psychotherapy”(a lasting procedure). How much is therapist concentrated on patient himself and how much on his family, colleagues at work, neighbours, friends, or community at large? In case of second type of technology look what is prescribed and what is applied in clinic, was it recorded how drugs were used, how was the prescription explained etc.

It is not expected to make a complete survey but to get an impression with as many qualitative (narrative) observations as it is possible.

**You are expected** to prepare notes about your observations and reflections and than report them to the group and discuss findings. Is it necessary to change something in observed practice?

#### **What you have learned during this exercise?**

*Reflect on your experience and discuss it with colleagues.*

### **Exercise 2: Reflection on causes of present situation and possibilities to change them**

#### **Task 2**

**Your task:** Using previous experiences (Exercise 1) and additional sources (articles, statistics, consultation with teachers and experts) in a group discussion discuss the following questions:

Is it true that some types of techniques are in practice over presented and some not used enough. Hypothesis might be: too many drugs and not enough physiotherapy and psychological support.

What might be the reason: is it poor education of health workers, wrong expectation of patients, influence of public media (what and how?), commercial marketing by industries? How could you explain the front page of BMJ published in 2003 with the title: “Time to untangle doctors from drug companies”?

Why it appeared when apparently both sides are having benefits: most of postgraduate training and almost all professional congresses and other meetings are sponsored by drug companies?

Other causes influencing the structure of technologies- Hypothesis might be: one could find causes in management and organization of health services, or general

health policy? How are performed supervisions in-service instructions? Do “quality circles” (QC) exist?

What should and what could be done to improve the situation, if it is at all necessary? *Present essentials of your findings in a short written statement.*

**What you have learned during this exercise?**

*Reflect on your experience and discuss it with colleagues.*

### **Exercise 3: Technology assessment**

The technological development essentially contributes to correct diagnosis and treatment, savings and quality of care. However, technology is useful only if it is applied in a relevant, reliable and accurate way. In many places it is used less than it would be necessary, but in others in the same country it can be over-used leading to unnecessary costs and inconveniences to people. Technology should be appropriate to local priority problems and to local conditions; adequate to personnel and to existing resource, acceptable to people. Permanent maintenance and logistic support, supervision and quality control are necessary.

#### **Task 3**

**Your task:** Select examples of technologies: chose as the first option an often used technology in health practice and as the second option a possible substitute which could replace the first one. Choose two example of “human care technologies” (e.g. history taking, consultation, motivational interview, psychological support, counselling, “small psychotherapy”) and two examples of technical equipment (diagnostic, therapeutic, surgical). Assess the following:

**Position in the health care system (P):** decide whether and where it should be placed in the health care system, e.g. primary health care, hospital, open to public etc.

**Relevance (R):** frequency of diseases and problems, severity and urgency, priority, relation to other problems, demand of people, contribution to common health.

**Effectiveness, efficacy (E):** diagnostic validity and reliability, acceptability and compliance, fringe benefit (how much is added to other existing technologies).

**Safety (S):** adversary reactions and discomfort for patients, safety for health professionals who work and servicing them.

**Maintenance (M):** possibility and cost for maintenance, local self reliance.

**Acceptability (A):** acceptance by people and professionals.

**Cost and efficiency):** direct and indirect cost, intangible (non-material) costs, maintenance, cost/benefit ratio.

Fill in the following form:

**Table.** Technology assessment - working table for comparisons

Description	P	R	E	S	M	A	C	Choice and arguments
<b>HUMAN CARE</b> Chosen example								
Chosen substitute								
<b>EQUIP-MENT</b> Chosen example								
Chosen substitute								

Reflect in the group on differences of recorded assessments and practical consequences of your findings.

**What you have learned during this exercise?**

Reflect on your experience and discuss it with colleagues.

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## RECOMENDED READINGS

1. International Journal of Technology Assessment in Health Care

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>COMMUNITY HEALTH - PUBLIC HEALTH RESEARCH METHODS AND PRACTICE</b>
<b>Module: 3.2</b>	<b>ECTS (suggested): 0.3</b>
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<b>Keywords</b>	Society, public health, methods, health promotion, equity, community
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• understand meaning of community structure and dynamics for public health practice</li> <li>• increase knowledge on community structures, dynamics and research models in public health</li> <li>• recognize basic approaches for community based (and participatory) public health intervention</li> <li>• differentiate various approaches for applied community studies</li> <li>• identified relations between community research and practice</li> <li>• improve capability to work with and inside the community</li> </ul>
<b>Abstract</b>	For few decades the value of a community, empowerment, community-based care, population-based needs assessment was discussed, but not so much of the evidence of this commitment was found in the public health interventions. Potential contributions from the social sciences tend to be overwhelmed by the appeal of the biomedical and behavioural sciences. Three concepts and notions notion of community in public health were dominated: First, community- a lots and lots of people or community as the population; second could be described as community as “giant reinforcement schedule” or community as setting, with aspects of that setting being used as levers to support and maintain individual behaviour change. The third, newest, approach sees community as “eco-system with capacity to work towards solutions to its own community identified problems” or to see it as a social system. This notion of community focused on strengths instead merely on deficits. Two groups of research activities (systematic study of communities and inequality research) supported with evidence from many applied researches done through development of European Healthy Cities Project contributed to this shift in perception of the value of the community. In this course we elaborate <i>inequity research</i> , “ <i>System” study of communities</i> and present case study: „Community applied research in Croatia- “triggered” by Healthy Cities“

<b>Teaching methods</b>	-lectures -seminar presentations and discussion (for the selected topics - each student) -individual/small group seminars paper and presentation preparation
<b>Specific recommendations for teachers</b>	Total of 9 teaching hours consist of: 5 contacts hours – lectures (2) + seminar presentations and discussion (3) 4 individual/small group hours - seminars paper and presentation preparation
<b>Assessment of Students</b>	Seminar paper – selected topics for individual tasks and presentations + Structured essay with selected topics covering most of the course objectives

# **COMMUNITY HEALTH - PUBLIC HEALTH RESEARCH METHODS AND PRACTICE**

**Selma Šogorić, Aleksandar Džakula**

## **THEORETICAL BACKGROUND**

### **Community and public health**

Throughout the sixties, seventies and eighties much of the rhetoric in public health paid lip service to the value of a community, empowerment, community-based care, population-based needs assessment and so on, but we could not see much of the evidence of this commitment in the day-to-day service provision of practitioners or in design applied in public health interventions. Potential contributions from the social sciences tend to be overwhelmed by the appeal of the biomedical and behavioural sciences. The most common notion of community in public health was the most simple – a lots and lots of people or community as the population. This notion is illustrated in large-scale community interventions propelled by the concern to reach as many people as possible and make best use of scarce program resources. The outcome evaluation of these interventions usually amounts to summing up changes made by individuals in relation to the problem of interest. The greater the number of people who change, the more successful is the intervention (1). The second approach to community borne out of the first could be described as community as “giant reinforcement schedule” or community as setting, with aspects of that setting being used as levers to support and maintain individual behaviour change. In this approach, organizations, groups and key individuals in the community are valued because of their capacity to translate the health messages of the campaign into the local culture. The evaluation of this model rests principally on aggregating changes made by individuals in the population (1,2,3,4). The third, newest, approach developed throughout the nineties sees community as “eco-system with capacity to work towards solutions to its own community identified problems” or to see it as a social system. This notion of community focused on strengths instead merely on deficits. The evaluation in these case attempts to capture changes in community processes and structures, as outcomes (1).

Two groups of research activities (systematic study of communities and inequality research) supported with evidence from many applied researches done through development of European Healthy Cities Project contributed to this shift in perception of the value of the community.

### **Inequality research**

Firstly, we acknowledge that people do not live in vacuum. The notion that behaviour is greatly influenced by social context in which people lead their lives has finally get through to public health practitioners. Many sociologists have argued that the lives of individuals are affected not only by their personal characteristics but also by characteristics of the social group their belong (5,6) They say that “lifestyle” and “behaviours” were regarded as matters of free individual choice and dissociated from the social context that shape and constrain them (7,8,9). With their work they confronted

prevalent the “web of causation” model and blame it for progressive “individualization” of risk (i.e. attributing risk to characteristics of individuals rather than to environmental or social influences affecting populations). Simultaneously, tremendous shift in value position, from victim blaming, through relative status in social milieu, to density of links and caring in a social structure, has been done through the evolution of causal explanations of inequalities (6).

The traditional explanation of inequalities in health is that they are caused by the behaviour of those from the lower socio-economic classes who drink, smoke and generally engage in too many “risk behaviours” leading to their early demise from heart disease, lung cancer and so on. The solution is therefore, to modify their risky behaviours and so anti-smoking campaigns and other health promotion programs were launched. Unfortunately, historical data shows that such inequalities are independent of the causes of death and they are as prevalent now as they were when the main causes of death were entirely different at the run of the past century.

The next level of explanation is that the inequality is caused by the material deprivation suffered by those in the lower socio-economic groups – poor housing, poor nutrition, inadequate heating, air pollution, inadequate access to care and so on. The solution, therefore, is to provide income or other resource support to the poor in society, enough to raise them above some declared level of deprivation. Although there is undoubtedly some truth to this proposed causal model, Marmot’s data from the British civil service study tells us that it is far from the whole story (10). Across five classes of civil servants all of whom are “well-off”, there are marked inequalities in health; none suffer what could be called “deprivation”. So, aside from the evidence on absolute deprivation, there is growing evidence that the relative distribution of income in a society matters in its own right for population health.

This next level of explanation was given by Wilkinson (11). In his research he found strong negative association between the degree of income inequality in a country and its health as measured by mortality statistics. Here the model proposed is that the feelings of relative deprivation among those in the lower half of the income distribution express themselves through neuro-immunological systems as disease and death. The larger the differences the more likely and the more severe are the negative health consequences. Low control, insecurity and loss of self-esteem are among the psychosocial risk factors known to mediate between health and socioeconomic circumstances. Exposure to chronic mental and emotional stress (associated with social position) will increase probability of acquiring risky behaviours - stress related smoking, drinking, eating “for comfort”, etc. The implied solution in this case would be development of more egalitarian society e.g. the reduction in income inequalities by better distribution of wealth in society.

This level of explanation has been pushed one step further by work of Kennedy and Kawachi (12,13,14). In the American study by Kennedy income inequality at the state level was strongly correlated with total mortality. Income inequality was measured in that study by the Robin Hood index, which is the proportion of aggregate income that needs to be redistributed from the rich to the poor so as to achieve equality of income. A 1% rise in the Robin Hood index was associated with an excess mortality of 21.7 deaths per 100 000, suggesting that even a modest reduction in inequality could have an important impact on populations health. The maldistribution of income was related not only to total mortality but also to infant mortality, homicides, and deaths from cardiovascular diseases and neoplasm. In an independent study, Kaplan (15) examined

the association between income inequality – as measured by the share of aggregated income earned by the bottom 50% of households – and state level variations in total mortality. A strong association was found between their measure of income inequality and age-adjusted total mortality rates in 1990. Moreover, the degree of income inequality in each state in 1980 was a powerful predictor of levels of total mortality 10 years later. The repeated corroboration of the hypothesis that income inequality is harmful to health has spurred the search for the pathways and mechanisms underlying this relation. One hypothesis was that rising income inequality results in increased level of frustration, which may have deleterious behavioural and health consequences. Societies that permit large disparities in income to develop also tend to be the ones that under invest in human capital (e.g. education), health care, and other factors that promote health. The growing gap between the rich and the poor has led to declining levels of social cohesion and trust, or disinvestments in “social capital”. Social capital has been defined as the features of social organization, such as civic participation, norms of reciprocity, and trust in others that facilitate cooperation for mutual benefit. Social capital is thus a community- level variable whose counterpart at the individual level is measured by person’s social networks. The core concept of social capital, according to its principal theorists (Putnam) consists of civic engagement and levels of mutual trust among community members. So, by connecting levels of civic trust (perceived levels of fairness and helpfulness) and density of associational membership with degree of income inequity on one side and mortality on other Kawachi isolated social capital, as a mediating mechanism.

The work of Kaplan, Kennedy, and Kawachi is telling us that the growing gap between the rich and the poor affects the social organization of communities and that the resulting damage to the social fabric may have profound implications for public’s health. Although the role of economic characteristics in relationship between social capital and health has not been thoroughly elucidated (Veenstra 16) contemporary public health tend to focus less on the individual and more on the social system’s influence on health accepting that “the way we organize our society, the extent to which we encourage interaction among the citizenry and the degree to which we trust and associate with each other in caring communities is probably the most important determinant of our health” (6).

### **“System” study of communities**

During the last few decades’ significant work has been done by social scientists engaged in the systematic study of communities. From this work, at least two important principles can be identified (17). The first relates to definitions of community, and the second applies a “system” perspective to communities. The first approach to community is based on notion that communities form a whole greater than the assemblage of individuals within them. The community components include locality, an interdependent social group, interpersonal relationship, and a culture that includes values, norms, and attachments to the community as a whole as well to its parts. The second, system view sees communities, simply as a system, which includes individuals, subsystems, and the interrelationship among the subsystems. Anthropologists have identified important subsystems of any community system: political sector, religious sector, recreational sector, and social welfare sector. In addition, community organization studies have identified two additional sectors being important for achieving changes in the community system: voluntary and civic groups, such as health-related agencies, political action

groups, and other grass-roots groups, and other groups that may be specific to particular community. From a system perspective, a change in one sector usually implies that adjustment or response will eventually occur in other parts of the system. Change that begins with one sector, however, may take a long time to affect the entire system. In addition, many factors may interrupt or divert the change effort. From a community organization perspective, the target of change is generally the entire system – the community itself. From this perspective, it is not enough to change only a sector or part of the community, although changes in the sectors or subsystems, especially the political or economic spheres, may contribute to overall system change. Sanders (17) delineate the following community components: economic institutions, local government, health, education, social welfare, religion, recreation, social networks, the family and social groupings. Each component could be subdivided and number of community units may be expanded endlessly. Rothman (18) defines social participation as a core element of social health and for him socially healthy community is the one sufficiently endowed with a matrix of social units that allow participation. In his opinion policy-making unit (decision-making bodies) are critical components of the entire community system, because improving the social or physical health of any population group may require health promotion policies. Those policies could (1) help individuals change their own personal health related behaviours, (2) reduce environmental obstacles to health-promoting behaviour and/ or (3) reduce or eliminate factors in the physical or social environment that are detrimental to health. Conscious individual action can be facilitated by “micro-strategies” like for example teaching low income people to prepare nutritious meals using inexpensive food. Often, such individual behaviours are discouraged by environmental conditions such are high prices for more nutritious foods. Introducing food stamps was kind of policy designed, for example, to reduce economic (environmental) barriers to nutritious diet. Finally, environmental hazards may be eliminated by “macro-strategies” e.g. “technological bypass” – by changing potentially detrimental experience of individuals without their direct involvement, like for example legislative action that could lower pricing of more nutritious as compared to less nutritious food. Decision-making units may be favourable, neutral, or unfavourable to establishing relevant policies on the issue. If unfavourable, considerable community effort may be required, a wide scope of community units may need to be mobilized and political pressure tactics may be necessary. Even if the decision-making body is favourable, substantial community organization may be required as resources are always scarce and competing claims inundate those with decision-making power and responsibility. The source of initiation of the policy change (for example relatively powerless citizens, elite group, or established health professionals or organization) may shape the form of community action.

Rothman (18) described three general forms of community intervention: locality development, social planning, and social action. The first one maximizes local participation (ownership); the second emphasizes rational planning and problem solving and the third uses mobilization and activation of disadvantaged groups.

As a part of the effort to influence local public policy community has to get organized. Brown’s model of community organization for action (19) comprises four phases – pre-organizational conditions, community organization, policy influence and policy decision. First phase, a pre-organizational condition includes: needs, predisposition to organize and enabling resources (factors) for organizing. Second phase, community organization includes: process of organized action, technical support and

expanded (outside the constituency) support and opposition. Third phase, policy influence identifies and described the target of community action: receptivity of policy-making body and noncommunity (external) factors. And fourth phase, policy decision represents the culmination of the whole process, the extend to which policies have been changed according to objectives of the initial action. By offering nine categories of indicators to describe community organization's efforts to influence local public policy Brown's model is helping us to develop better understanding of mechanisms of community action, enables monitoring of process of change and teach us what forms and strategies of community action may be most effective in promoting health.

Another very useful concept for public health practitioners is the one developed by Partick and Wickizer (17). They explained that the social system in a community relevant to health consists of at least three elements: physical structure, social structure and social cohesion. A community's physical structure (urban planning, the design of suburban housing developments, parks and green areas, industry) has both direct influences on health through exposure to risk and indirect influences on health through the creation or neglect of health-inducing environments. Social structure in a community is reflected in such things as its meeting places, mechanisms for income redistribution, sports leagues, clubs, associations and all the elements of a community that allow for the exchange of views and values and engender mutual trust. This, too, has both, direct effects on health, and indirect through facilitating collective problem solving or collective identity. Finally, social cohesion is very much the product of the adequacy of physical and social structure in a community. Along with such things as the cultural or social homogeneity of a community, physical and social structure can either encourage or discourage mutual support and caring, self-esteem and sense of belonging, and enriched social relationship. All of these have been shown, largely by social scientists, to have an influence on the health of a community's members.

## **CASE STUDY**

### **Community applied research in Croatia - "triggered" by Healthy Cities**

During the eighteen years of the Healthy Cities project existence in Europe much of the earlier mentioned "theory" has been learned experientially. The Healthy Cities (HC) Project, initiated by the WHO European Office in 1986, is a long-term international development project that seeks to put health on the agenda of decision-makers in cities and to build a strong lobby for public health at the local level. The crucial notion that stimulates HC project development was the recognition of importance of the political will. The Healthy Cities Project challenges cities to take seriously the process of developing health-enhancing public policies that create physical and social environments that support health and strengthen community action for health. Initiating the Healthy Cities Project process requires explicit political commitment and consensus across party political lines, leading to sound project infrastructure, clear strategy, participation mechanisms and broadly-based ownership (20,21). Healthy Cities is about change, openness to participation, innovation and formal system reorientation. It is changing the ways in which individuals, communities, private and voluntary organizations and local governments think about, understand and make decisions about health.

European cities in general are challenged with complex public health issues like poverty, violence, social exclusion, pollution, substandard housing, the unmet needs of elderly and young people, homeless people and migrants, unhealthy spatial planning, the lack of participatory practices, and unsustainable development (21). Due to the war and post-war transition, Croatian cities are faced with many others, like, for example, mental health, posttraumatic disorders, quality of life of disabled, family health, community regeneration and community capacity building, unemployment, especially among young and mid career workers, stress, alcohol, tobacco and substance misuse, etc (22). The Healthy Cities Project framework provided the testing ground for applying new strategies and methods for addressing these issues in Croatia.

In the early 1990s, migrations caused by war undermined the credibility of the dominant positivist perspective of demographic analyses, statistical studies and quantitative health indicators (23,24,25). All health indicators obtained at that time were based on estimates of a key factor – population. Quantitative data collected by national health institutions: Croatian Institute of Public Health, Croatian Health Insurance Institute and Ministry of Health, mainly produced mortality and morbidity statistics, which was of some use only for national health policy makers (26,27,28). In addition to its dubious credibility, national health statistics had other shortcomings: poor accessibility of indicators at the local level and non-inclusion of the opinion of the community (22).

Due to post-war conditions, scarce assets, and the need to determine the state of affairs and launch the action as soon as possible, the method of rapid appraisal (29,30) was chosen for the community health needs assessment and development of the strategic city health documents: the City Health Profile and City Action Plan for Health (31). The most popular and most used method in the Croatian cities is the method of Rapid Appraisal to Assess Community Health Needs (29,30). It was used in 9 cities between 1996 and 2004 (Pula, Metkovic, Rijeka, Karlovac, Varazdin, Zagreb, Split, Dubrovnik, Crikvenica). The advantages of this method in comparison with classical approaches to health assessment are as follows: it can be done quickly (in two months from the start), it does not take too much expert time and financial resources (approximately 6.500 EUR per city), it is participatory (representatives of different groups of citizens participate in the process, from needs identification to solution finding; includes representatives of city authorities, institutions and organizations as well as those from non-governmental and non-for-profit sector), sensitive (ability to reflect local particularities), valid (scientifically sound), action-oriented (as a product it gives short-term and long-term plan activity plan), and its achievements are sustainable (it establishes and facilitates co-operation among key stake-holders in the project via priority thematic groups).

Academic credibility of described needs assessment method was strengthened by the establishment of strict selection rules of participants and panellists and by the process of triangulation of both information sources (essays, observations and collected objective indicators from the system) and researchers (experts of three different backgrounds: public health, epidemiology and medical information science).

Qualitative analytical approach also was used in development of the model of rapid appraisal of effectiveness of public health interventions (32). A retrospective study of 44 successfully performed interventions in five cities – Liverpool (UK), Sandwell (UK), Vienna (Austria), Pula (Croatia) and Rijeka (Croatia) – identified the

indicators of intervention effectiveness that could be used to assess the effect of an intervention in a short period of time (within a time frame of 1-5 years from the beginning of the intervention) by measuring several aspects of success. These are as follows:

1. Effect on political environment (macro-environment) – assessment of the achieved degree of change in political environment;
2. Effect on a project user – an individual, a group, a community, within the meaning of empowering users and influencing health;
3. Effect on a project manager – an organization or institution, i.e., an association or group (microenvironment); and
4. Monitoring the effectiveness of the implementation process of an intervention.

The instrument happened to be more applicable for measuring the success of individual (population- or topic-targeted) interventions. In the evaluation of effectiveness of comprehensive years-long interventions, such as Healthy City or Healthy County, it is applied together with other evaluation instruments.

### **Concluding remarks**

The job of public health professionals, including those in academic setting, is not only to investigate and understand the world; it is also to change it. This is why we, in Croatia put the emphasis on the development of applied (action) research by which the academic knowledge may be used for intensifying activities and development of local communities.

The introduction of participatory methods and consensus building techniques in the process of public health policy formulation in Croatia has brought much better understanding and improved collaboration among “policy stakeholders” - politicians, administration, public health professionals and community. Public health professionals are more responsive and committed to work with communities to support them to (re)generate local social capital. At the moment, Croatian Healthy Cities and Counties greatest achievement is that community participation is assured in all stages of planning and management of the resources for health at the local level.

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## **RECOMMENDED READINGS**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>SCREENINGS</b>
<b>Module: 3.3</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	screening, screening recommendations, cancer screening, breast cancer screening
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• know what screenings are, what are their benefits and disadvantages, as well as key issues in screening;</li> <li>• be aware of ethical problems of screenings;</li> <li>• be able to list most important recommended screenings in Europe in different age groups;</li> <li>• be familiar with breast cancer screening process.</li> </ul>
<b>Abstract</b>	<p>There have been various definitions of screening over the years, but simply what we are talking about in screening is seeking to identify a disease or pre-disease condition in apparently healthy individuals. This concept is now widely accepted in most of the developed world. Used wisely, it can be a powerful tool in the prevention of a disease.</p> <p>Screening has important ethical differences from clinical practice as the health service is targeting apparently healthy people, offering to help individuals to make better informed choices about their health.</p> <p>The module is presenting basic theoretical background necessary for understanding the usefulness of screenings, the screening process, and potential risks, as well as it provides a case study of breast cancer screening.</p>
<b>Teaching methods</b>	<p>An introductory lecture gives the students first insight in characteristics of screenings. The theoretical knowledge is illustrated by a case study.</p> <p>After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics of screenings, their benefits and disadvantages, as well as key issues in screening. They also discuss the basic criteria to be fulfilled before screening for any condition is introduced.</p> <p>In continuation, they are supposed to be more deeply engaged in breast cancer screening process.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaires.

# SCREENING

Mateja Krajc

## THEORETICAL BACKGROUND

### Basic definitions and explanations of terms

#### *Screening*

According to the National Screening Committee of the United Kingdom Health Departments Second Report (1, 2), screening is a public health service in which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications.

There have been various definitions of screening over the years (1,3-5) but put simply what we are talking about in screening is seeking to identify a disease or pre-disease condition in apparently healthy individuals. This concept is now widely accepted in most of the developed world. When used wisely, it can be a powerful tool in the prevention of a disease.

Screening has important ethical differences from clinical practice. The health service is targeting apparently healthy people, offering to help individuals to make better informed decisions about their health. Irrespective that screening has the potential to save lives or improve quality of life through early diagnosis of serious conditions it is not a fool-proof process. Screening can reduce the risk of developing a condition or its complications but it cannot offer a guarantee of protection. In any screening programme, there is an irreducible minimum of false positive results (wrongly reported as having the condition) and false negative results (wrongly reported as not having the condition).

#### *Screening programmes*

Screening programmes are public health services that are organized at the level of a large population and must be effectively monitored. Programmes must use research evidence to identify that they do more good than harm at a reasonable cost. Proposed new screening programmes should be assessed against a set of internationally recognised criteria. These criteria include the epidemiology of the condition, the screening test, any treatment options, and the acceptability of the screening programme.

The benefits of screening for disease prevention were first demonstrated in the 1940s, by the use of mass miniature radiography (MMR) for the identification of individuals with tuberculosis (TB). After the end of the Second World War, when effective treatment for TB was introduced, the use of MMR became widespread in many western countries. In 1968, WHO issued monograph Principles and Practice of Screening for Disease (5), which remains a landmark contribution to the screening literature.

## Types of screening

It is important to distinguish between two main types of screening, being organized screening, and opportunistic screening. Their main characteristics are as follows (1, 6-8):

- organized screening is a process in which people thought to be at risk are invited for screening inside organized screening programme, as in the national programmes for cancer of the breast and cervix for example. It takes place in a community setting .It could be checked and monitored;
- in contrast, opportunistic screening is screening offered by a medical doctor or other health professional outside an organized screening programme. Unlike an organised screening programme, opportunistic screening may not be checked or monitored.

Screening need to be distinguished from case-finding, where individuals have sought medical advice for a specific symptom or complaint and opportunity is taken to suggest various other tests, such as the measurement of blood pressure or cholesterol, appropriate to their age and sex (3, 8). It takes place in a clinical setting.

## Criteria for screening

Before screening for any condition is introduced, the basic criteria have to be fulfilled (Table 1) (5). They are fundamental to the integrity of the screening process in any country.

**Table 1.** Summary of criteria for screening (5).

Category	Criteria
Condition	The condition sought should be an important health problem whose natural history, including development from latent to declared disease, is adequately understood. The condition should have a detectable preclinical phase.
Target population	There should be a defined target population.
Diagnosis	There should be a suitable diagnostic test that is available, safe and acceptable to the population concerned. There should be an agreed policy, based on respectable test findings and national standards, as to whom to regard as patients, and the whole process should be a continuing one.
Treatment	There should be an accepted and established treatment or intervention for individuals identified as having the disease or pre-disease condition and facilities for treatment should be available.
Cost	The cost of case-finding (including diagnosis and treatment) should be economically balanced in relation to possible expenditure on medical care as a whole.
Screening test	Should be acceptable and safe.

## The validity of screening test and the evaluation of screening

### Validity

Validity of screening tests is an expression of a degree to which a test measures what it intends to measure (3). There are two measures to describe the validity of screening test – sensitivity and specificity. Both measures are conditional probabilities, and both are easy to understand using a decision matrix (Figure 1) (6).

		TRUE DISEASE STATUS		
		Present	Absent	
TEST RESULTS	Positive	<b>a</b>	<b>b</b>	<b>a+b</b>
	Negative	<b>c</b>	<b>d</b>	<b>c+d</b>
		<b>a+c</b>	<b>b+d</b>	

**Figure 1.** Decision matrix for derivation of the validity analysis of a screening test.

1. Sensitivity.

Sensitivity (nosological) is defined as the ability of a test to detect all those with the disease in the screened population. This is expressed as the proportion of those with the disease in whom a screening test gives a positive result. Technically, it is a proportion of people with condition with positive test:  $a/(a+c)$  (Table 2).

2. Specificity.

Specificity is defined as the ability of a test to identify correctly those free of the disease in the screened population. This is expressed as a proportion of people free of the disease in whom the screening test gives a negative result. Technically, it is a proportion of people without condition with negative test:  $d/(b+d)$  (Table 2).

But one should be aware interpreting these measures since there are two kinds of sensitivity and specificity - nosological and diagnostic (9,10). So far we were speaking of nosological conditional probabilities. Other two important conditional probabilities are positive and negative predictive values (9,11).

3. Positive predictive value.

Positive predictive value is the probability that a person with a positive test does not have the condition under screening. Technically, it is a proportion of people with positive test who have condition:  $a/(a+b)$  (Table 2). This measure is also known as diagnostic specificity.

4. Negative predictive value.

Negative predictive value is the probability that a person with a negative test does not have the condition under screening. Technically, it is a proportion of people with negative test who do not have condition:  $d/(c+d)$  (Table 2). This measure is also known as diagnostic sensitivity.

All screening tests should aim to have high sensitivity and high specificity.

### *Evaluation*

Evaluation must also be an integral part of any screening procedure. In 1971, Cochrane and Holland suggested seven criteria for evaluation and these remain as valid today as they were then (12) (Table 2).

**Table 2.** Summary of criteria for evaluation of screening (12).

<b>Factor</b>	<b>Criteria</b>
Simplicity	The test should be simple to perform, easy to interpret and, where possible, capable of use by paramedics and other personnel.
Acceptability	Since participation in screening is voluntary, the test must be acceptable to those undergoing it.
Accuracy	The test must give a true measurement of the condition or symptom under investigation.
Cost	The expense of the test must be considered in relation to the benefits of early detection of the disease.
Repeatability	The test should give consistent results in repeated trials.
Sensitivity	The test should be capable of giving a positive finding when the individual being screened has the condition being sought.
Specificity	The test should be capable of giving a negative finding when the individual being screened does not have the condition being sought.

### **Benefits and disadvantages**

The benefits and disadvantages of screening have been fully described over the years and have been summarized by Chamberlain (13) (Table 3).

**Table 3.** Benefits and disadvantages of screening (13).

<b>Benefits</b>	<b>Disadvantages</b>
Improved prognosis for cases detected	Longer morbidity in cases where prognosis is unaltered
Less radical treatment which cures some early cases	Overtreatment of questionable abnormalities
Resource savings	Resource costs
Reassurance for those with negative test results	False reassurance for those with false-negative results Anxiety and sometimes morbidity for those with false positive results Hazard of screening test itself

1. **Benefits.**

The benefits are very clear. Early and accurate diagnosis and intervention will lead to an improved prognosis in some patients. At this stage treatment may need to be less invasive.

2. **Disadvantages.**

The disadvantages are more complex. There will be longer periods of morbidity for patients whose prognosis is unchanged and there may be overtreatment of non-serious conditions or abnormalities identified. There are also resource costs in finding more illness both in terms of the tests themselves, the personnel costs and the subsequent management of whatever is found. There is the unpalatable certainty that some individuals with false-negative results will be given unfounded reassurance and that some with false positive results will experience, at the very least, unnecessary anxiety and, at the worst, inappropriate treatment.

Finally, there is the possibility, however remote, of hazard from the screening test itself. One point is particularly relevant here - there may be public demand (fuelled by vested interests) for the introduction of a screening test that does not meet the established criteria; an example of this is in screening for cancer of the prostate where the current screening test – prostate-specific antigen (PSA) – does not meet the criteria for accuracy or specificity.

### ***Key issues in screening***

There are a number of issues that are relevant at all stages and in every type of screening programme in any country, and are closely interrelated. There are five key issues in screening, being genetics, information, economics, ethics, and audit, evaluation and quality control (Figure 2).

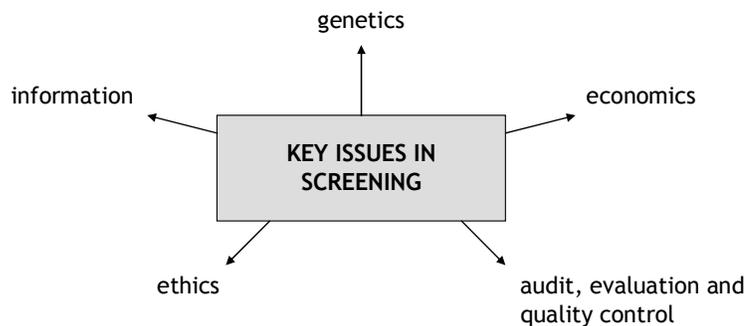


Figure 2. Five key issues of screening.

Before discussing the above mentioned key issues, one should consider components of an effectively organized screening programme. The components as described by Hakama (14) are as follows:

- the target population should be identified;
- individuals in the population who are to be screened need to be identified;
- all those eligible for screening should be encouraged to attend – for example, by issuing a personal invitation, and offering suitable timing of screening examinations to suit the needs of those involved;

- there should be adequate premises, equipment and staff to ensure that the screening examination is done under pleasant circumstances and is acceptable to those attending;
- there should be an appropriate, satisfactory method of ensuring the maintenance of the best standards of the test(s) by:
  - initial and continuing training of the personnel conducting the test(s);
  - demonstration (by appropriate records) of the maintenance standards of equipment used in the examination – for example, calibration of X-ray machines in mammography;
  - routine checks of the validity of the tests performed – for example, random duplicate measurements for biochemistry, cytology, and reading of X-rays;
- there should be adequate and appropriate facilities for the diagnosis and treatment of any individual found to require this. There should be as little delay as possible between the screening attendance, advice that the screening test was negative, advice that the screening test result required further investigation, and referral to the appropriate centre for further investigation or treatment. A timetable should be established for these different procedures and there should be continuous monitoring to ensure that the time intervals between the various stages are complied with;
- there should be regular checks to ascertain the satisfaction level of those who have undergone the screening process – those investigated, the screen-negatives and those invited who have not participated;
- finally, regular periodic checks should be made of the records of the screened individuals to ascertain their adequacy.

### *Genetics*

In the last decade, genetic screening has developed very rapidly with the mapping of the human genome. Many see it as opening up a new era in the prevention, early diagnosis and identification of disease. However, caution is essential (4).

There are two objectives of screening for a recessive carrier state. One is to reduce the prevalence of the disorder and the other is to inform the reproductive choices of individuals and couples at risk. Information is thus regarded as worthwhile in itself, regardless of the possibility of prevention or treatment. While this type of screening can certainly help to evaluate risk and may be appropriate in certain high-risk groups. It should be carefully considered when to screen, if nothing can be done after the results of the screening test (4).

The main purpose of genetic screening at present is to prevent. In this it differs from much current screening practice and it must not be allowed to overlook the basic principles and criteria of screening (4).

### *Information*

Information is another central concept in modern health care in general and also in screening. It must be provided in a correct way, so that possible participant may decide upon proper information, with the end-point being truly informed consent (or refusal) to participate (4).

### *Economics*

As economic theory has entered the field, it has been recognized that screening may also do harm. All screening procedures involve the examination and testing of large numbers of individuals in order to find the few with an abnormality. There are two main consequences of this (4).

First, those who undergo screening are often understandably anxious while waiting for the result and become even more anxious if they have to undergo further investigation. Second, although most screening tests are simple, relatively cheap procedures in themselves, the actual costs are by no means trivial because of the large numbers involved (4).

### *Ethics*

Any abnormality identified, whether in a national screening programme or in primary care, must be treatable and the investigation itself must not cause harm. Many believe that early diagnosis, particularly of cancer and heart disease, will lead to the possibility of treatment and improvement in prognosis. This is an attractive concept and can lead to a demand for a screening procedure to be introduced, irrespective of whether it has been shown that diagnosis guarantees an improved outcome (4).

### *Audit, evaluation and quality control*

In any screening programme, as with any other service programme, adequate steps must be taken to ensure that the original objectives are being met and that the methodology meets appropriate standards (4).

The ideal method for evaluating a screening programme is the randomized controlled trial in which individuals in a population are allocated, at random, either to a group that is screened or to a group that receives only its normal medical care (4).

The components of an effectively organized screening programme have been described by Hakama (14), and have been already presented earlier in this module.

The importance of maintaining the quality of screening programmes should never be underestimated. Evaluation, audit and quality control should be an integral part of any screening programme to ensure that it is achieving what it has set out to do in a way that is acceptable to those involved.

### *The recommended screenings in Europe*

There are several recommended screenings in Europe (4). They may be presented through different age groups, being:

- antenatal period;
- neonatal period;
- screening in childhood;
- screening in adolescence and early adulthood;

- screening in adults, and
- screening in elderly.

### *Recommended screenings by age groups*

#### 1. Antenatal period.

There are many routine screenings for the total population, and some screenings for high risk groups (Table 5). There are also some screenings under research review (Table 4) (4, 14).

**Table 4.** Recommended screenings in antenatal period in Europe (4)

<b>Condition under screening</b>	<b>Comment</b>
<b>Routine</b>	
Anaemia	Blood test
Blood group and RhD status	
Hepatitis B	
HIV	
Risk factors for pre-eclampsia	
Rubella immunity	
Syphilis	
Asymptomatic bacteriuria	Urine test
Foetal anomalies: Anencephaly Spina bifida	Ultrasound, and blood test if indicated
Chromosome abnormalities: Down syndrome	Quadruple serum test, ultrasound
<b>High risk only</b>	
Thalassaemia/sickle cell disease	
Tay-Sachs disease	
<b>Under research review</b>	
Duchenne muscular dystrophy	
Chlamydia infection	
Gestational diabetes	
Fragile X syndrome	
Hepatitis C	
Genital herpes	
HTLV1	
Streptococcus B infection	

#### 2. Neonatal period.

There are many routine screenings, and some screenings under research review (Table 5).

**Table 5.** Recommended screenings in neonatal period in Europe (4)

<b>Condition under screening</b>	<b>Comment</b>
	<b>Routine</b>
Phenylketonuria	Bloodspot
Congenital hypothyroidism	
Cystic fibrosis	
Sickle cell disease	
Congenital heart disease	Physical examination
Congenital cataract	
Cryptorchism	
Congenital dislocation of the hip/ developmental dysplasia of the hip test	
Other congenital malformations	
Hearing impairment	
	<b>Under research review</b>
Biotinidase deficiency	
Congenital adrenal hyperplasia	
Duchenne muscular dystrophy	

### 3. Childhood.

Screenings, recommended in Europe in the childhood are presented in Table 6.

**Table 6.** Recommended screenings in childhood in Europe (4)

<b>Condition under screening</b>	<b>Comment</b>
Hearing impairment	<ul style="list-style-type: none"> <li>• Follow-up on neonatal programme where indicated</li> <li>• School entry “sweep” test to continue</li> <li>• Case-finding to identify late onset or progressive impairment</li> <li>• Investigation of any children with educational or behavioural problems</li> </ul>
Amblyopia and impaired vision	<ul style="list-style-type: none"> <li>• Orthoptist screening in 4–5-year-olds</li> <li>• Attention to be paid to children who miss this test for any reason</li> </ul>
Dental disease	<ul style="list-style-type: none"> <li>• School dental screening mandatory and should continue, but should be kept under research review</li> <li>• Early contact with dentists to be encouraged</li> <li>• Problems include shortage of dentists and lack of parental compliance, especially among the more deprived</li> </ul>
Congenital hip dysplasia/ developmental dysplasia of the hip (CHD/DDH)	<ul style="list-style-type: none"> <li>• Children identified by neonatal screening to be reviewed</li> <li>• Parental observations and concerns to be investigated</li> </ul>
Deprived, disadvantaged or socially isolated children	<ul style="list-style-type: none"> <li>• Need to identify such children and instigate screening/case-finding where relevant</li> </ul>

#### 4. Adolescence and early adulthood.

Screenings, recommended in Europe in adolescence and early adulthood are presented in Table 7.

**Table 7.** Recommended screenings in adolescence and early adulthood in Europe (4)

Condition under screening	Comment
Chlamydia	<ul style="list-style-type: none"><li>• Opportunistic screening of those aged 25 and under who access sexual health services or primary care</li></ul>

#### 5. Adults.

In Table 8, screenings, recommended in Europe in adulthood are presented.

**Table 8.** Recommended screenings in adulthood in Europe (4)

Condition under screening	Comment
Breast cancer	<ul style="list-style-type: none"><li>• National programme should be continued but kept under close review with emphasis on quality control, staff training and good information</li></ul>
Cervical cancer	<ul style="list-style-type: none"><li>• National programme should be continued with review of alternative types of tests and of age range of those eligible and frequency of screening,</li><li>• Good information to be a priority</li></ul>
Colorectal cancer	<ul style="list-style-type: none"><li>• National screening programme by faecal occult blood testing for adults aged 50–74 years</li></ul>
Abdominal aortic	<ul style="list-style-type: none"><li>• Ultrasound screening of men aged 65 and over Aneurysm seems a reasonable proposition provided the necessary resources are in place</li></ul>
Diabetic retinopathy	<ul style="list-style-type: none"><li>• National programme of screening for all diabetics aged over 12. It is essential to be quite clear about how, when and where screening should happen to ensure effective implementation</li></ul>
Risk factors for coronary heart disease (CHD)/stroke Blood pressure Cholesterol Smoking cessation	<ul style="list-style-type: none"><li>• Weight surveillance/case-finding approach in primary care</li></ul>

Screening in adults is potentially big business. Media interest in health is insatiable, and anyone who reads the newspapers, watches television or listens to radio can hardly fail to be aware of the various diseases that may be lying in wait for them. Of course, it is of benefit if potential

health problems can be identified early and treated. But society must beware of turning health into an obsession and must resist both the increasing medicalization of life and the growing politicization of medicine.

The national programmes for breast and cervical cancer should be continued but kept under review with an emphasis on quality control and on providing balanced and understandable information to enable women to make a truly informed choice without pressure from health professionals on whether or not to participate.

A national programme of screening for colorectal cancer by faecal occult blood testing in adults aged from 50 to 74 years has been agreed in the United Kingdom and on some other European countries but it is essential that adequate diagnostic, treatment and follow-up facilities are in place before it is introduced.

Screening for risk factors of coronary heart disease and stroke should be carried out in the primary care setting with advice, treatment and follow-up as appropriate. In the case of abdominal aortic aneurysm, it now seems clear that ultrasound screening in men aged 65 years and over would reduce mortality from this condition, although the benefit for those aged over 75 years has been questioned. As with colorectal cancer, however, national implementation should await the certainty that adequate facilities and resources are available. In the case of screening for diabetic retinopathy, close attention must be paid to audit and the need to be absolutely clear about how, when and where to screen.

## 6. Elderly.

Society is facing a major challenge in how best to maintain health and quality of life in populations where the proportion of people aged over 60 years now outnumbers those aged under 16 and the number of individuals aged over 85 is rising.

A system of regular surveillance and case-finding in primary care would seem to be the most appropriate form of screening, particularly in those aged 75 and over, but the resource implications of this must be confronted. Several simple tests, such as identifying difficulties with sight or hearing or problems with feet, can make a huge difference to the comfort and quality of life. Depression is another area where identification and treatment could improve well-being. Social and community support are also vital in enabling older people to enjoy as independent and contented a life as possible. The emphasis in screening at this stage of life should be on improving quality of life and preserving function and independence, rather than on providing “heroic” treatments to prevent mortality.

In Table 9, screenings, recommended in Europe in elderly people are presented.

**Table 9.** Recommended screenings in elderly in Europe (4)

<b>Condition under screening</b>	<b>Comment</b>
Hypertension	Physical assessment
Early heart failure	
Hearing loss	
Vision loss	
Incontinence	
Lack of physical activity	
Foot problems	
Review of medication	
Depression	Mental assessment
Alcohol use	
Falls	Social assessment
Undernutrition	
Isolation	

### Conclusions

Screening programmes and practices vary widely across the countries of the European Union (EU). This is inevitable given the differing structures and financing of health services, and differing demographic features of the population. There are, however, key objectives to strive for.

These include having one national body per country responsible for practice and policy, scrupulous adherence to the long-established screening criteria, accurate population registers, greater uniformity of access across different parts of a given country and across different socioeconomic groups, and sound research evidence on which to base practice. The wide variation in practice in Europe illustrates the complexity of screening. Some lessons, however, stand out. Key points of screening in the EU are (4):

- antenatal screening programmes for Down syndrome and spina bifida are performed only in a few countries and are mainly optional. They are often only recommended to women at high risk.
- neonatal screening for phenylketonuria is systematically recommended in all countries belonging to the EU before May 2004, except Finland.
- breast cancer screening and cervical cancer screening programmes are recommended in some European countries.
- HIV screening is more common among the new Member States and three Candidate Countries and covers specific vulnerable groups, such as pregnant women and blood donors.
- TB screening is performed in a few European countries, especially central and eastern European countries, such as Hungary, Romania and Turkey.

- not all the countries follow the basic criteria for screening. A population register to allow recall and follow-up of patients is often missing. A single national body for reviewing tests and practice is rare.

## **CASE STUDY: BREAST CANCER SCREENING**

### **Cancer screenings**

At present the following screening tests meet requirements for organized screening programmes (Council Recommendation of 2 December 2003 on cancer screening (2003/878/EC) OJ L 327/34-38) (15):

- pap smear screening for cervical abnormalities starting at the latest by the age of 30 and definitely not before the age of 20,
- mammography screening for breast cancer in women aged 50-69 in accordance with European guidelines on quality assurance in mammography,
- faecal occult blood screening for colorectal cancer in men and women age 50-74.

Decisions on implementation of cancer screening programmes must be made as part of a general priority-setting exercise on the use of healthcare resources (16-18).

Other cancer screening tests are not yet recommended for EU-wide population-based cancer screening, although they already may be used in individual screening on demand. Such tests may provide individual benefits but at the same time may also lead to adverse effects for individuals (e.g. unfounded anxiety) and the public (e.g. additional financial burden). Recommendations for such tests cannot be made until they have shown to have benefits such as reducing disease-specific mortality or improving survival (19-21).

Potentially promising screening tests currently being evaluated in randomised controlled trials, include:

- prostate-specific antigen (PSA) testing for prostate cancer,
- mammography screening for women aged 40-49 for breast cancer,
- immunological Faecal Occult Blood Testing (FOBT) for colorectal cancer,
- flexible colonoscopy for colorectal cancer.

Once the effectiveness of a new screening test has been demonstrated, evaluation of modified testing methods may be possible using intermediate/surrogate endpoints, if the positive predictive value of such endpoints is sufficiently established. Some examples of screening methods which fall into this category are listed below:

- any novel alternative tests for faecal occult blood,
- liquid-based cervical cytology,
- testing for high risk human papilloma virus (HPV) infection,
- other novel methods for the preparation or interpretation of cervical specimens.

Any screening test which has been demonstrated to be effective should be offered on a population basis only in organised screening programmes, with quality assurance at all levels and full information about the benefits and risks (22, 23).

## **Breast cancer screening**

Breast cancer is currently the most frequent cancer and the most frequent cause of cancer induced deaths in women in Europe. Demographic trends indicate a continuing increase in this substantial public health problem. Systematic early detection through screening, effective diagnostic pathways and optimal treatment have the ability to substantially lower current breast cancer mortality rates and reduce the burden of this disease in the population.

In order that these benefits may be obtained, high quality services are essential. These may be achieved through the underlying basic principles of training, specialisation, volume levels, multidisciplinary team working, the use of set targets and performance indicators and audit. Ethically these principles should be regarded as applying equally to symptomatic diagnostic services and screening.

The primary aim of a breast screening programme is to reduce mortality from breast cancer through early detection. Unnecessary workup of lesions which show clearly benign features should be avoided in order to minimise anxiety and maintain a streamlined cost-effective service. Women attending a symptomatic breast service have different needs and anxieties and therefore mixing of screening and symptomatic women in clinics should be avoided.

### *Fundamental points and principles of the European guidelines for quality assurance of breast cancer screening programmes*

Fundamental points and principles of the 4th edition of the European guidelines for quality assurance of breast cancer screening programmes are (24):

- breast cancer screening is a complex multidisciplinary undertaking, the objective of which is to reduce mortality and morbidity from the disease without adversely affecting the health status of participants. It requires trained and experienced professionals using up-to-date and specialised equipment;
- screening usually involves a healthy and asymptomatic population which requires adequate information presented in an appropriate and unbiased manner in order to allow a fully informed choice as to whether to attend. Information provided must be balanced, honest, adequate, truthful, evidence-based, accessible, respectful and tailored to individual needs where possible (24-26);
- mammography remains the cornerstone of population-based breast cancer screening. Due attention must be paid to the requisite quality required for its performance and interpretation, in order to optimise benefits, lower mortality and provide an adequate balance of sensitivity and specificity;
- physico-technical quality control must ascertain that the equipment used performs at a constant high quality level providing sufficient diagnostic information to be able to detect breast cancer using as low a radiation dose as is reasonably achievable. Routine performance of basic test procedures and dose measurements is essential for assuring high quality mammography and comparison between centres;
- full-field digital mammography can achieve high image quality and is likely to become established due to multiple advantages such as image manipulation and transmission, data display and future technological developments. Extensive clinical, comparative and logistical evaluations are underway;

- the role of the radiographer is central to producing high quality mammograms which, in turn, are crucial for the early diagnosis of breast cancer. Correct positioning of the breast on the standard lateral oblique and cranio-caudal views is necessary to allow maximum visualisation of the breast tissue, reduce recalls for technical inadequacies and maximise the cancer detection rate;
- radiologists take prime responsibility for mammographic image quality and diagnostic interpretation. They must understand the risks and benefits of breast cancer screening and the dangers of inadequately trained staff and sub-optimal equipment. For quality loop purposes the radiologist performing the screen reading should also be involved at assessment of screen detected abnormalities;
- all units carrying out screening, diagnosis or assessment must work to agreed protocols forming part of a local quality assurance (QA) manual, based on national or European documents containing accepted clinical standards and published values. They should work within a specialist framework, adhering to set performance indicators and targets. Variations of practices and healthcare environments throughout the member states must not interfere with the achievement of these;
- a robust and reliable system of accreditation is required for screening and symptomatic units, so that women, purchasers and planners of healthcare services can identify those breast clinics and units which are operating to a satisfactory standard. Any accreditation system should only recognise centres that employ sufficiently skilled and trained personnel;
- the provision of rapid diagnostic clinics where skilled multidisciplinary advice and investigation can be provided is advantageous for women with significant breast problems in order to avoid unnecessary delay in outline of management planning or to permit immediate discharge of women with normal/benign disease;
- population breast screening programmes should ideally be based within or closely associated with a specialised breast unit and share the services of trained expert personnel.

*Key performance indicators for monitoring in population based breast cancer screening programme*

Key performance indicators to be monitored in any population based breast cancer screening programme are presented in Table 10.

Table 10. **Summary table of key performance indicators to be monitored in any population based breast cancer screening programme.**

<b>Performance indicator</b>	<b>Acceptable level</b>	<b>Desirable level</b>
1. Target optical density	1.4 - 1.9 OD	1.4 - 1.9 OD
2. Spatial resolution	> 12 lp/mm	> 15 lp/mm
3. Glandular dose – PMMA thickness at 4.5 cm	< 2.5 mGy	< 2.0 mGy
4. Threshold contrast visibility	< 1.5%	< 1.5%
5. Proportion of women invited that attend for screening	> 70%	> 75%
6. Proportion of eligible women reinvited within the specified screening interval	> 95%	100%
7. Proportion of eligible women reinvited within the specified screening interval + 6 months	> 98%	100%
8. Proportion of women with a radiographically acceptable screening examination	97%	> 97%
9. Proportion of women informed of procedure and time scale of receiving results	100%	100%
10. Proportion of women undergoing a technical repeat screening examination	< 3%	< 1%
11. Proportion of women undergoing additional imaging at the time of the screening examination in order to further clarify the mammographic appearances	< 5%	< 1%
12. Proportion of women recalled for further assessment		
• initial screening examinations	< 7%	< 5%
• subsequent screening examinations	< 5%	< 3%
13. Proportion of screened women subjected to early recall following diagnostic assessment	< 1%	0%
14. Breast cancer detection rate, expressed as a multiple of the underlying, expected, breast cancer incidence rate in the absence of screening (IR):		
• initial screening examinations	3 x IR	> 3 x IR
• subsequent screening examinations	1.5 x IR	> 1.5 x IR
15. Interval cancer rate as a proportion of the underlying, expected, breast cancer incidence rate in the absence of screening:		
• within the first year (0-11 months)	30%	< 30%
• within the second year (12-23 months)	50%	< 50%
16. Proportion of screen-detected cancers that are invasive	90%	80-90%
17. Proportion of screen-detected cancers that are stage II+:		
• initial screening examinations	NA	< 30%
• subsequent-regular screening examinations	25%	< 25%

Table 10. **Cont.**

<b>Performance indicator</b>	<b>Acceptable level</b>	<b>Desirable level</b>
18. Proportion of invasive screen-detected cancers that are node-negative:		
• initial screening examinations	NA	> 70%
• subsequent-regular screening examinations	75%	> 75%
19. Proportion of invasive screen-detected cancers that are ≤ 10 mm in size		
• initial screening examinations	NA	≥ 25%
• subsequent-regular screening examinations	≥ 25%	≥ 30%
20. Proportion of invasive screen-detected cancers that are < 15 mm in size	50%	> 50%
21. Proportion of invasive screen-detected cancers < 10 mm in size for which there was no frozen section	95%	> 95%
22. Absolute sensitivity of FNAC	> 60%	> 70%
23. Complete sensitivity of FNAC	> 80%	> 90%
24. Specificity of FNAC	> 55%	> 65%
25. Absolute sensitivity of core biopsy	> 70%	> 80%
26. Complete sensitivity of core biopsy	> 80%	> 90%
27. Specificity of core biopsy	> 75%	> 85%
28. Proportion of localised impalpable lesions successfully excised at the first operation	> 90%	> 95%
29. Proportion of image-guided FNAC procedures with insufficient result	< 25%	< 15%
30. Proportion of image-guided FNAC procedures from lesions subsequently proven to be malignant, with an insufficient result	< 10%	< 5%
31. Proportion of patients subsequently proven to have breast cancer with a pre-operative FNAC or core biopsy at the diagnosis of cancer	90%	> 90%
32. Proportion of patients subsequently proven to have clinically occult breast cancer with a pre-operative FNAC or core biopsy that is diagnostic for cancer	70%	> 70%
33. Proportion of image-guided core/vacuum procedures with an insufficient result	< 20%	< 10%
34. Benign to malignant open surgical biopsy ratio in women at initial and subsequent examinations	≤ 1:2	≤ 1:4
35. Proportion of wires placed within 1 cm of an impalpable lesion prior to excision	90%	> 90%
36. Proportion of benign diagnostic biopsies on impalpable lesions weighing less than 30 grams	90%	> 90%
37. Proportion of patients where a repeat operation is needed after incomplete excision	10%	< 10%

Table 10. **Cont.**

<b>Performance indicator</b>	<b>Acceptable level</b>	<b>Desirable level</b>
38. Time (in working days) between:		
• screening mammography and result	15 wd	10 wd
• symptomatic mammography and result	5 wd	
• result of screening mammography and offered assessment	5 wd	3 wd
• result of diagnostic mammography and offered assessment	5 wd	
• assessment and issuing of results	5 wd	
• decision to operate and date offered for surgery	15 wd	10 wd
39. Time (in working days) between:		
• screening mammography and result ≤ 15 wd	95%	> 95%
• screening mammography and result ≤ 10 wd	90%	> 90%
• symptomatic mammography and result ≤ 5 wd	90%	> 90%
• result of screening mammography and offered assessment ≤ 5 wd	90%	> 90%
• result of screening mammography and offered assessment ≤ 3 wd	70%	> 70%
• result of symptomatic mammography and offered assessment ≤ 5 wd	90%	> 90%
• assessment and issuing of results ≤ 5 wd	90%	> 90%
• decision to operate and date offered for surgery ≤ 15 wd	90%	> 90%
• decision to operate and date offered for surgery ≤ 10 wd	70%	> 70%

LEGEND: OD=optical density, PMMA=test object material (polymethylmethacrylate), IR=incidence rate, NA=not applicable, FNAC=fine needle aspiration cytology, wd= week days

## **EXERCISES**

### **Task 1**

Carefully read the theoretical background of this module, and recommended readings.

### **Task 2**

Critically discuss the differences between population based and opportunistic screening.

### **Task 3**

Name the basic criteria to be fulfilled before screening for any condition is introduced.

### **Task 4**

How do we describe the validity of screening test? Describe an example.

### **Task 5**

List some advantages and disadvantages of the screening.

### **Task 6**

Which screening tests for cancer meet all requirements for organized screening programmes.

### **Task 7**

Critically assess the advantages and disadvantages of a population based breast cancer screening programme.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>e-HEALTH</b>
<b>Module: 3.4</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	health informatics, e-health, strategy, information technologies, communications technologies
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• be familiar with the complexity of challenges in health sector due to demographic situation, development of technologies, present and future health situation;</li> <li>• understand the key role that modern information and communications technologies will play in future health care system in order to bring out efficient service;</li> <li>• know the national situation; good examples of e-health approach that were introduced and are successful used by one or more partners in health care system.</li> </ul>
<b>Abstract</b>	e-Health describes the application of information and communications technologies across the whole range of functions that affect the health sector. e-Health tools or solutions include products, systems and services that go beyond simply internet-based applications. They include tools for health authorities and professionals as well as personalised health systems for patients and citizens. It can improve access to healthcare and boost the quality and effectiveness of the services offered. Examples include health information networks, electronic health records, telemedicine services, personal wearable and portable communicable systems, health portals, and many other information and communication technology-based tools assisting prevention, diagnosis, treatment, health monitoring, and lifestyle management. When combined with organisational changes and the development of new skills, e-Health can help to deliver better care for less money within citizen-centred health delivery systems.
<b>Teaching methods</b>	An introductory lecture gives the students first insight in characteristics of cross-sectional studies. The theoretical knowledge is illustrated by a case study. After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics local public health organisations and infrastructure. The students will discuss the about the appropriateness of the actual organisation and try to find out the weaknesses and strengths of that kind of approach.

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Presentation of good examples of e-Health approach that were introduced and are successful used by one ore more partners in health care system.

## **THEORETICAL BACKGROUND**

### **Challenges and expectations facing contemporary health sectors**

Healthcare systems around the globe face major challenges<sup>5</sup>, even if their nature and scale varies significantly between industrialised and developing countries. These challenges include (1,2,3):

- rising demand for health and social services, due to an ageing population and higher income and educational levels. In particular, by 2051, close to 40% of the Union's population will be older than 65 years old;
- the increasing expectations of citizens who want the best care available, and at the same time to experience a reduction in inequalities in access to good health care;
- increasing mobility of patients and health professionals within a better functioning internal market;
- the need to reduce the so-called "disease burden", and to respond to emerging disease risks (for example, new communicable diseases like SARS);
- the difficulties experienced by public authorities in matching investment in technology with investment in the complex organisational changes needed to exploit its potential;
- the need to limit occupational accidents and diseases, to reinforce well-being at work and to address new forms of work-related diseases;
- management of huge amounts of health information that need to be available securely, accessibly, and in a timely manner at the point of need, processed efficiently for administrative purposes, and
- the need to provide the best possible health care under limited budgetary conditions.

Facing these challenges and looking at the possibilities it was found that one of the key tools that would be effective is the proper usage of information and communication technology in health sector. Like in other sectors this approach got a special name: **e-Health**.

### **The role of e-Health**

e-Health describes the application of information and communications technologies across the whole range of functions that affect the health sector (1,2). e-Health tools or solutions include products, systems and services that go beyond simply internet-based applications. They include tools for both, tools for health authorities and health professionals, as well as tools for personalised health systems for patients and citizens. It can improve access to healthcare and boost the quality and effectiveness of

the services offered. Examples include health information networks, electronic health records, telemedicine services, personal wearable and portable communicable systems, health portals, and many other information and communication technology-based tools assisting prevention, diagnosis, treatment, health monitoring, and lifestyle management. When combined with organisational changes and the development of new skills, e-Health can help to deliver better care for less money within citizen-centred health delivery systems.

#### *e-Health: systems and services that benefit the health sector*

e-Health can deliver significant improvements in access to care, quality of care, and the efficiency and productivity of the health sector. e-Health can become key drivers for change, and productivity gains, in such areas as infrastructure and skills development, internal business processes, procurement procedures and supply chain management, marketing and sales, and functions of the extended business (4).

The amount and complexity of health-related information and knowledge has increased to such a degree that a major component of any health organisation is information processing. The health sector is clearly an information intensive sector which increasingly depends on information and communication technologies. These technologies are supporting progress in medical research, better management and diffusion of medical knowledge, and a shift towards evidence-based medicine. e-Health tools support the aggregation, analysis and storage of clinical data in all its forms; information tools provide access to the latest findings; while communication tools enable collaboration among many different organisations and health professionals (1).

#### *Empowering health consumers: patients and healthy citizens*

Both as patients and as healthy citizens, people can benefit from better personal health education and disease prevention. They need support in managing their own diseases, risks – including work-related diseases - and lifestyles. A growing number of people are looking proactively for information on their medical conditions. They want to be involved actively in decisions related to their own health, rather than simply accepting the considerable discrepancy (“asymmetry”) in knowledge between themselves and health professionals. e-Health services provide timely information tailored to individuals in need. Specialised online resources are available for health education, safety and security at work and lifestyle management.

Examples of personalised systems for monitoring and supporting patients include wearable or implantable communication systems for continuous monitoring patients’ heart conditions. These systems can help shorten or completely avoid the stay of patients in hospitals, while ensuring monitoring of their health status. Having access to comprehensive and secure electronic health records has been shown to improve quality of care and patient safety. This will facilitate appropriate treatment of patients in providing health professionals with a better knowledge of the patient’s history and of previous interventions by other colleagues.

#### *Assisting health professionals*

The priority of medical professionals is to offer best quality care within available resources and, above all, according to the Hippocratic oath, doing no harm to the

patient (*primum non nocere*). However, unfortunately, medical errors still occur. Some of these might be avoided<sup>21</sup> by making good use of e-Health systems that can provide vital information, alerts, and make best practices, expert advice and results of clinical treatment more widely available.

e-Health tools and applications can provide fast and easy access to electronic health records at the point of need. They can support diagnosis by non-invasive imaging-based systems. They support surgeons in planning clinical interventions using digital patient specific data, provide access to specialised resources for education and training, and allow radiologists the possibility to access images anywhere. Thus, the workplace is being redefined and extended. Digital data transfer enables more effective networking among clinical institutions, and the creation of virtual network of centres of reference. Electronic health records also enable the extraction of information for research, management, public health or other related statistics of benefit to health professionals.

e-Health can benefit not only health professionals but all the staff employed in the health sector including nursing, care, and administrative staff (for example: in 2002, this was 17.5 million persons in the European Union of 25 Member States or 9.3% of total workforce). Furthermore, e-Health can contribute to achieving a safer working environment for health practitioners. Safer working environment is a very important issue. In the European Union, health and social services have an accident rate which is 30% above the average by sector of accidents recorded<sup>23</sup>. Most accidents relate to infectious diseases and dangers, back injuries, and shocks and hazards associated with electrical equipment or compressed gases (5).

### *Supporting health authorities and health managers*

Health authorities and managers are responsible for the proper organisation and running of health systems (6). They do this against the background of increasing budgetary pressures and rising patient expectations. e-Health systems can play a major part in meeting those pressures by making the health sector more productive, and delivering better results with fewer resources. Unfortunately, the currently available paper-based information aggregation and processing has major limitations.

A proper management of public health and clinical health can be undertaken only on the basis of comprehensive and high-quality administrative and clinical data. Health authorities would benefit from better access to more comparable data on health issues. There is a need for data, and an underlying infrastructure, that help health authorities to collaborate - for example, on how to tackle communicable diseases.

Integrated and comprehensive data can be provided in good time using e-Health tools, such as electronic health records and support for care flow management. Automatic data extraction from electronic health systems that meet legal requirements on data protection and privacy could provide missing data that facilitates proper evaluation of much needed resources and eradicates the huge administrative burden of filling in separate forms for reimbursement - a clear example of a productivity gain to be achieved through e-Health systems and services. These initiatives form a definite trend in the aim to modernise healthcare systems (7).

Increased networking, exchange of experiences and data, and benchmarking, is also necessary at the national but also at the international level. Drivers for this

include the need for improvements in efficiency, and the increased mobility of patients and health professionals under an emerging internal market in services. The situation requires the integration of clinical, organisational, and economic information across health care facilities, so as to facilitate virtual enterprises at the level of jurisdictions and beyond.

e-Health systems can empower managers by spreading best practices and helping to limit inefficient and inappropriate treatment. This is the single most important step in releasing resources and ensuring broad access for everyone to quality care. In addition, e-Health opens new opportunities for people who live in remote areas with only limited healthcare services, as well as marginalised groups (such as persons with different degrees of disability, whether minor or more severe). e-Health is already proving in Europe and in the developing world that it can provide a platform for telemedicine services such as tele-consultations (second medical opinion), telemonitoring, and telecare, either in the home or the hospital.

### *Major challenges for wider implementation*

Despite the availability and proven benefits, e-Health systems and services are still not yet widely used in real-life medical or health situations. In many places, development is still at a pilot phase, often financed through research grants. The speed of organisational change is often slow, and it can take many years to achieve full implementation. A broad range of challenges remain to wider implementation (1).

1. Commitment and leadership of health authorities.  
Commitment and leadership of health authorities, in particular related to financial and organisation issues, are essential elements for the successful deployment of e-Health. For e-Health to improve the way healthcare is provided, it must be combined with organisational changes and the development of new skills in users. e-Health was often traditionally perceived by health authorities as a low spending priority. However, it is now seen as a matter of substantial importance within public health policies;
2. Organisational and cultural approaches  
Moreover, organisational and cultural approaches relating to the way health care is delivered varies between countries and between organisations. Typically, in the health area, the introduction of new applications, techniques, and medicines has been slow, yet – in organisational terms – the introduction of information and communication technologies has developed relatively fast. Hospitals too will be important players in the evolution towards e-Health, and their involvement in adoption will be central to new forms of healthcare delivery (8);
3. Interoperability of e-Health systems.  
Interoperability should enable the seamless integration of heterogeneous systems. This will allow secure and fast access to comparable public health data and to patient information located in different places over a wide variety of wired and wireless devices. However, this depends on standardisation of system components and services such as health information systems, health messages, electronic health record architecture, and patient identifying services;

4. User friendliness of e-Health systems and services.  
A top priority for health providers in using an e-Health system is speed in getting the desired, high-quality results. There is an absolute need for fast connection, connectivity, and high speed. This highlights the importance of ensuring broadband connection for online health services and infrastructure for regional health information networks;
5. Confidentiality and security issues.  
Firstly, the confidentiality and protection of patient data is governed by the general European Union rules of data protection, as well as by the requirements of e-Privacy legislation regarding communications infrastructure. The requirement for confidentiality makes health information systems security critical. Another important legal issue is liability in the event of problems - such as technical malfunctions of the system, network, or provision of the service itself - that result in serious harm to a patient (9);
6. Issues relating to the mobility of patients.  
Another challenge is issues relating to the mobility of patients, including the cross border circulation of goods and services, among which e-Health services are of growing importance. Stronger cooperation among health providers across Europe is needed to enable wider implementation;
7. Needs and interests of users.  
The take-up of e-Health systems and services would take place more rapidly were the needs and interests of the user communities (health professionals, patients, and citizens) to be taken on board. In general, these should be better integrated into the development and promotion of e-Health;
8. Access for all to e-Health.  
The equal access of all groups of society to health services is an important goal in the public health policy field (10). There is a risk that certain parts of society - such as lone parents of families, isolated communities, inner city communities, individuals with literacy and numeracy challenges, groups of immigrants, homeless persons, elderly persons and disabled persons – could remain excluded from the possibilities offered by e-Health (including Internet-based health services) if special efforts are not made to counterbalance such trends. On the other hand, e-Health can offer considerable possibilities for the provision of health services to such individuals, groups, and communities;
9. Common understanding and concerted efforts by all stakeholders.  
No single stakeholder can carry through implementation successfully on its own without the active co-operation of all the others. Each of the stakeholders, health authorities, professionals, consumers, industry, has the power to veto an implementation, if it is not perceived as beneficial. Only through concerted efforts by all stakeholders, can we ensure a successful implementation where all partners benefit, thereby creating a win-win situation.

### ***Concluding remarks***

E-Health offers important opportunities for improved access to better health systems to the citizens. It can empower both patients and healthcare professionals. It offers governments and tax payers a means - through substantial productivity gains - to cope

with increasing demand on healthcare services. It can also help to reshape the future of health care delivery, making it more citizen-centred.

This e-Health Area will provide a framework for exchanging best practices and experience in the country and between them. It will allow common approaches to shared problems to be developed over time. Through e-Health a better access and better, more efficient, services as well as on the overall productivity of the healthcare sector is expected. Besides e-Health will become common place for health professionals, patients and citizens. An important prerequisite is that e-Health will be adequately resourced within healthcare budgets.

## **EXERCISE**

### **Task 1**

Carefully read the part on theoretical background of this module. Critically discuss the challenges and possibilities of further development and introduction of e-Health solutions.

### **Task 2**

Find the official EU web address dealing with health care and health promotion issues. Analyse the organisation of the web place and discuss it with your colleagues.

### **Task 3**

Find web sites in your own language- assess them according to the impression you have. Compare the assessment with those of your colleagues and discuss what might be the reason for difference in the assessments

### **Task 4**

Discuss the characteristics, strengths and limitations of selected survey with your colleagues.

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## **RECOMMENDED READINGS**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>NEW POTENTIALS OF TELECOMMUNICATION TECHNOLOGIES IN THE HEALTHCARE SERVICE FRAMEWORKS</b>
<b>Module: 3.5</b>	<b>ECTS (suggested): 0.2</b>
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<b>Address for correspondence</b>	<b>Drago Rudel, PhD, Assistant Professor</b> Institute of Biomedical Informatics Faculty of Medicine, University of Ljubljana, Slovenia Vrazov trg 2, Ljubljana, Slovenia E-mail: <a href="mailto:drago.rudel@mf.uni-lj.si">drago.rudel@mf.uni-lj.si</a>
<b>Keywords</b>	Telecare, elderly, domiciliary help, personal response system, carephone
<b>Learning objectives</b>	<ul style="list-style-type: none"> <li>• To understand how new technologies can be used to contribute to the quality of life of older people</li> <li>• To increase awareness of the fact that some healthcare services can be provided remotely</li> <li>• To demonstrate the merits of an existing telecare solution intended to help older people live independent lives at home environment rather being institutionalised</li> </ul>
<b>Abstract</b>	<p>Telecare is a new means of providing healthcare and social support at home where telecommunication technologies are the medium for service provision. It uses a public telephone network and provides a means of getting help, notably for people who are at risk of falling, sudden illness, fits or seizures. Sensors added to a carephone are introduced monitor the user's environment and health condition and alert a response centre when there is a threat to their health or well-being.</p> <p>Personal response systems operate in all western European countries and also, more recently, in Slovenia. Experiences gathered when establishing a pilot network of carephones and a response centre in the capital city of Ljubljana are presented along with a discussion of the efforts made to create a national network. A personal response system as a telecare application used primarily by vulnerable older people with response centres having the capacity to serve 30.000 potential users. Obstacles to their development are discussed.</p>
<b>Teaching methods</b>	Ex catedra with exercises
<b>Specific recommendations for teachers</b>	Demonstration of a call from a carephone to a response centre initiated by a fall detector or a pendant. Required equipment is available via the first author.
<b>Assessment of students</b>	Seminar paper, oral and/or written exam.

# **NEW POTENTIALS OF TELECOMMUNICATION TECHNOLOGIES POTENTIAL IN THE HEALTHCARE SERVICE FRAMEWORKS**

**Drago Rudel, Malcolm Fisk**

## **THEORETICAL BACKGROUND**

### **The potential for new telecommunication technologies to introduce changes to healthcare**

Because of the reducing cost of information and communication technologies (ICT), they are increasingly available to a wide range of people, including many with lower incomes and limited disposable wealth. The configuration of such technologies means that they can be particularly useful to people with physical and sensory impairments or health related problems. The technologies are media through which health and support services can be provided. Importantly, as such technologies penetrate into ordinary homes; the scope for such services to embrace everyone from the city to the remote village is enhanced.

Technologies have, along with white coats and ranks of beds, been a defining feature of hospitals and clinics. They have, in many ways, symbolised the power, authority and expert knowledge that is accorded to doctors, surgeons, clinicians and other medical staff. They have been instrumental in re-enforcing hospital and clinical settings as the locus for medical care (rather than our homes and communities).

The communications revolution, however, begins to change this since at least some of those technologies that were to be found in the hospital or clinic can now be offered within people's own homes. And together with the use (where needed) of healthcare auxiliary staff, the technologies in question can facilitate healthcare treatment in ways that would, in the past, have required hospital admission.

Underpinning this potential for change is the capacity of communications technologies to permit (with great speed) the transmission and exchange of visual images, data and speech. To date, much of such transmission and exchange has been between doctors, consultants and clinicians. It generally took place within hospitals and clinics, often excluding the patient. Now such transmission and exchange can begin to include the patient, whether in a hospital or "at home". Lengthy, expensive and often repeated trips to hospitals and clinics might be obviated through the use of such technologies in assisting diagnoses and monitoring the effects of courses of treatment.

A 2006 European Commission report (1) has suggested that:

*"...the way healthcare is presently delivered has to be deeply reformed... The situation is becoming unsustainable and will only worsen in the future as chronic diseases and the demographic change place additional strains on healthcare systems around Europe."*

They call for a:

*“... new healthcare delivery model based on preventative and person-centred health systems. This new model can only be achieved through proper use of ICT, in combination with appropriate organisational changes and skills.”*

Nowadays there are a growing number of technological approaches to support predominantly people with long term conditions for instance vital sign monitoring technologies, lifestyle monitoring, reminder systems, telephone based care management programmes, kiosks for health and well-being, and others.

### **Telemedicine and telecare**

The practice of health and medical care at a distance using ICT is known as “telemedicine”. Some speculation is taking place as to whether the term ‘telemedicine’ may be usurped by “telehealth” as more holistic approaches to patient care are taken.

The home environment is very important to health. It can present a threat to health or it can be a context within which independent living and participation is facilitated. The advantages for healthcare and medical services at home may be summarised as offering:

1. the ability for the patient to remain in his/her preferred environment;
2. the ability for the patient to benefit from the informal support provided by family members and others;
3. a reduction in the risk of cross-infections (that is often present in hospitals); and
4. the possibility of obtaining better physiological measures (notably cardiogram and blood pressure measures) to assist in his/her treatment.

Added to these is the fact that (with patients being in what will usually be their preferred environment) recovery can be quicker, and the revenue costs of medical and nursing care reduced.

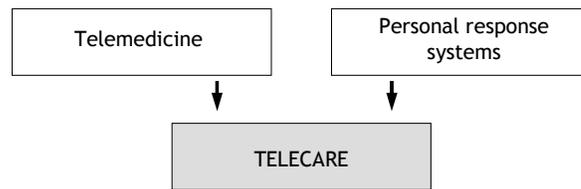
Exploitation of the potential to support independent living needs, however, to be considered alongside a new means of providing healthcare and social support in the home. That new means is called “telecare”.

### *Telecare*

There already are support services that use established communications technologies in the homes of some people. These use the telephone network and provide a means of getting help, notably for people who are at risk of falling, sudden illness, fits or seizures. The technologies in question are known by different names in different countries, viz. social alarms, safety alarms or “personal response systems” (PRS).

The changing capabilities of PRS are such that there is increasing recognition of their potential in relation to healthcare. When it comes to the potential role of communications technologies in healthcare within people’s own homes a convergence between PRS and telemedicine can be observed (Figure 1).

Together, and when relating to their role in people's own homes, these communications technologies comprise telecare. PRS can be considered as a good example of telecare application.



**Figure 1.** Telecare combines telemedicine and personal response systems.

### *Personal response systems*

PRS operate in all western European countries. They are primarily used by vulnerable older people (2).

The systems are designed to enable people to call for help even if they cannot reach the call unit - the carephone. Carephones have, therefore, become a rather common technical device among older people living at home.

Personal response systems:

1. enable people to stay at home;
2. enable people to maintain their social and support networks;
3. provide a means of obtaining help when needed; and
4. provide reassurance to the user, their relatives and carers.

Unfortunately, such systems, and the services of which they are part, are poorly developed in South Eastern Europe. They may, however, have the potential to form the basis of new community based service frameworks that could bring both healthcare and practical support to people in their own homes. This is because they:

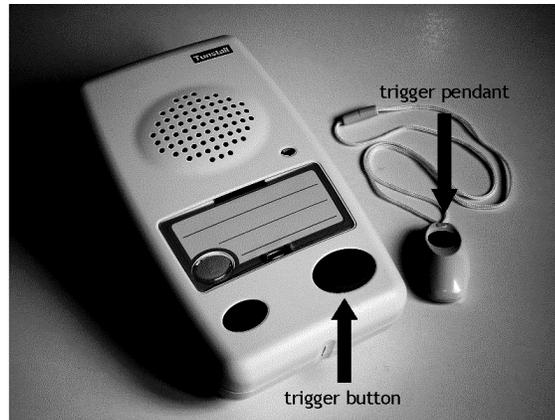
1. are less costly than support alternatives; and
2. can be a useful way to complement or underpin other services.

Long-term experiences in several developed European countries (3) show that a care network supported by a PRS can significantly improve home-based care efficiency in terms of quality, quantity and co-ordination (4,5,6,7,8). Facilitating independent living and greater levels of participation can mean a reduction in the cost (to state institutions) of health care, especially of those costs arising from the provision of institutional forms of accommodation (nursing and/or care homes). PRS could, in other words, reduce the necessity for additional capital and revenue investment in institutions (such as hospitals and clinics) that provide environments for the intensive provision of medical or nursing care.

### **How do Personal Response Systems Operate?**

The typical PRS comprises a carephone (Figure 2) which links to (or replaces) the telephone in a person's home. He/she may wear or carry a personal trigger pendant device that, when pressed, activates the carephone. A staffed monitoring and response

centre is contacted (Figure 3). The call-receiving unit automatically identifies the caller and displays his/her personal data record on a computer screen. A two-way speech path is opened. The person in need is then able to tell the operator of the nature of his/her problem and the operator is then able to give advice or reassurance and, depending on the circumstances, contact relatives, neighbours or the relevant emergency services (9).

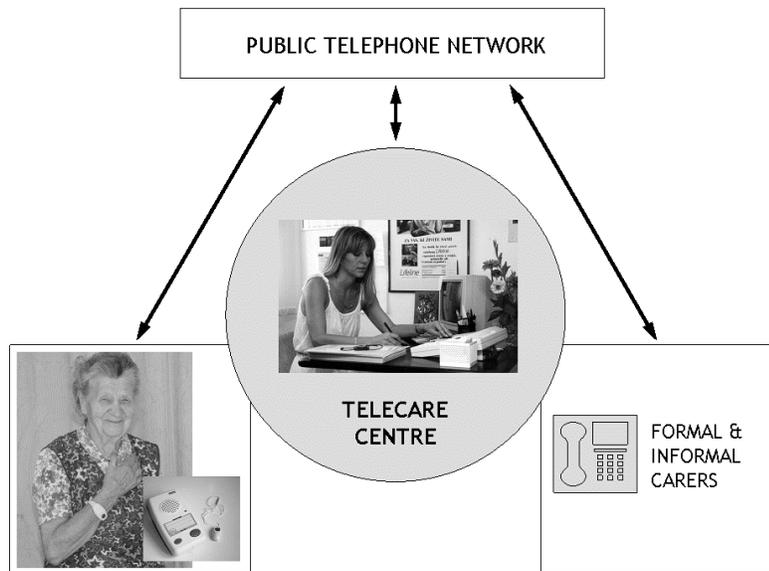


**Figure 2.** An alarm unit with a neck worn triggering pendant (Tunstall Group, United Kingdom) is a basic element of a personal response system. The unit is installed in the home of an elderly person together with an ordinary telephone.

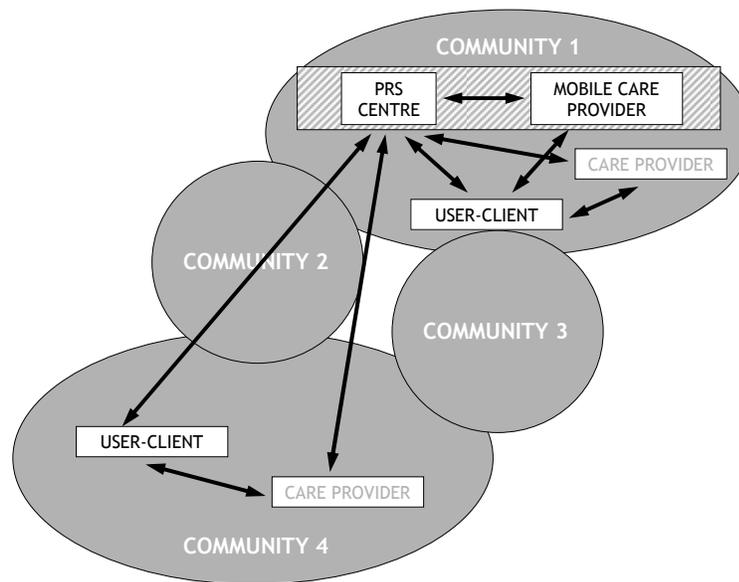
The response centre can be a resource centre for home-based care in a community. It is staffed 24 hours a day, seven days a week. The operator who responds to the calls must be experienced in communication and skilled to help in case of an emergency. The operator's main tasks are to:

1. be there if and when help is needed;
2. organise appropriate help by contacting informal or formal care providers; and
3. co-ordinate care providers' services.

A model of how community help providers are engaged is shown in Figure 4. If a call for help comes from a client in a community where a response centre exists (community 1) and help is needed at the caller's home, the operator in the PRS centre asks informal or local formal carers to go and help. Where a response centre has its own mobile staff, the operator may, depending on the circumstances, send one of them to help. If a call comes from outside the community where the response centre is located (e.g. from the community 4), an external care provider is engaged (with help is co-ordinated from the response centre).



**Figure 3.** Block diagram of a personal response system based on a public telephone network. The system serves clients with carephones as well as others calling the centre using ordinary telephones. A control centre operator processes a call and arranges suitable help.



**Figure 4.** Organisational model of care providing in different areas. LEGEND: PRS = Personal Response System.

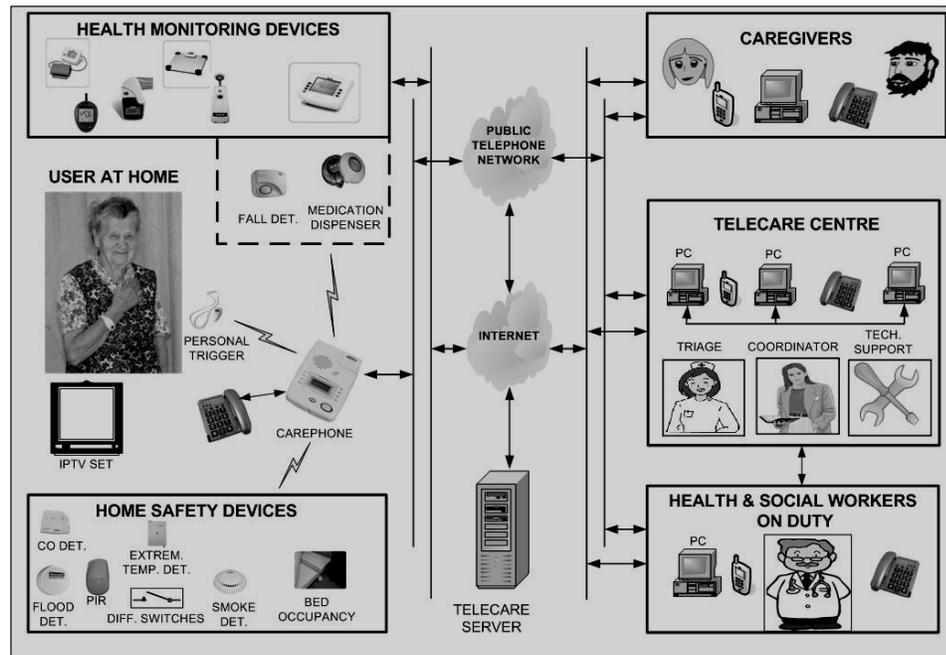
## Telecare in the future

The majority of PRSs currently operating around the world are of the first and the second generation. They are limited by the need for the user to take some action (normally pushing a button) in order to call for assistance. Only by this means can contact with a response centre be established.

A common phenomenon, however, is one where the user is unwilling to take such action for a complex range of reasons (5,6). These include the user thinking that the condition (such as pain, breathlessness, dizziness or bleeding) will cease or the user being unwilling to disturb others (whether staff at the response centre or someone who would, as a consequence of the call, visit their home).

New systems are, however, being developed which can automatically monitor an older person's well-being (8). This means that, for many situations, the response centre can be alerted automatically if problems arise (such as the older person falling or becoming inactive). Such systems, in incorporating greater interactivity, are being described as 'second generation'. Insofar as they increasingly permit the provision of care at home the services associated with them can be embraced by the broader term "telecare".

The use of different sensor devices alongside carephones now means, however, that such they can offer what has been described as a "dynamic method of monitoring and detecting medical, social and environmental problems" (16,17).



**Figure 5.** A general model of a telecare system through which carers could respond to the user's wellbeing needs.

But sensors alone are not enough if the needs of growing numbers of frail older people are to be met. The systems within which they operate must be able to both respond to certain conditions or circumstances (the user falling, low dwelling temperature, etc.) and to recognise and remember the user's normal pattern of living. Any significant deviation from that normal pattern can then be recognised and the response centre can contact the user to establish if there is a problem. Such intelligent systems (Figure 5) mean speedier interventions in the event of medical or other emergencies, a reduction in care costs, and significant psycho-social benefits for users.

## **CASE STUDY: THE SLOVENE EXPERIENCE - THE “LIFELINE” TELECARE SERVICE FOR OLDER PEOPLE**

### **Slovenia and the older population**

Slovenia, as a new independent state with 2 million inhabitants, has a moderate living standard. The population is getting older. About 13% (220.000) are aged 65 years and over. Projections show that there will be another 100.000 people joining them within the next 20 years. The increasing number of older people presents a challenge to the system of social and health care. Only 3.8% of older people live in care homes or other institutions, but a disproportionately high amount of money is spent for their social and medical care. Institutions are owned by the government. This means that there are considerable costs to the government as residents cover only 41% of them. Government policy, however tends to restrict spending on social and medical benefits and reduced investment in institutional care is planned. As a consequence investment in new care homes is insufficient to cover growing needs. This is resulting in long waiting lists (and over 2 years waiting time). Government plans to 2005 are to provide only 1000 new beds in homes while over 3.000 are currently required.

The situation suggests that the predominant model of institutional care currently in place should be complemented by alternative solutions such as home-based care. However, while there is some effort being given to keeping people in their own home by providing a range of domiciliary services, the level of home based care differs from region to region. The services in question are organised and co-ordinated by local social welfare and medical staff.

### **Personal response systems in Slovenia**

A telecare system called Lifeline network already exists in Slovenia (9,10,11,12). There are currently two response centres based at and administered by homes for older people. The first centre was established in Ljubljana in 1992. Lifeline equipment manufactured in United Kingdom was installed. Clients were recruited randomly and equipped with Lifeline carephones. Currently the system is used by 100 older and disabled persons on a revolving system. The response centre recruits formal or informal carers.

Over a period of 6 years users have made 20.000 calls using the Lifeline carephones. Of those calls, 1.8% was emergency calls for a medical assistance. In the same period almost the same number of calls to the centre was made by people

using ordinary telephones. All carephone users reported positive psychological effects, this having been confirmed in an evaluation (13).

All response centre clients pay a monthly monitoring fee. Carephones can be leased from the response centres for what the clients are charged additionally. Service charges vary. The amount charged depends on the financial resources of the older person and the particular range of services he/she receives. Services charges vary from nothing to over 18 Euros a month. A carephone purchased from a local distributor costs up to 650 Euros. Two health insurance companies offer carephones through their health insurance plans.

#### *Lifeline programme – Personal response system implementation*

Based on the Ljubljana Lifeline network experience a national plan for the dissemination of the system was prepared. A part of it was adopted also in the government programmes on social care of older people in Slovenia (14,15). A concept of a network consisting of several regional response centres was accepted to meet needs of 30.000 potential users. The reasons for a decentralised system were:

1. the traditional regional distribution of Slovenia's population;
2. the national preference for decentralised systems;
3. organisational reasons that suggest that help organised and co-ordinated very locally improved co-ordination among service providers; and
4. positive experiences of similar provision in other countries.

Some regions have already prepared their local programmes in collaboration with their initiative group and local initiative boards. The most important issues studied in the programmes have been the:

1. potential management and administration of a response centre;
2. needs for domiciliary care in the region;
3. availability of carer services in the region; and
4. attitude of local politicians and professionals towards the initiative

It is believed that the implementation of the programme would have manifold positive effects in the communities. These include:

1. frail people living alone in their own homes being provided with sufficient support to stay there instead of being institutionalised;
2. extended and improved exchange of information between those being cared and those who care in a region;
3. better co-ordination of care provided by professional workers and/or volunteers; and
4. more economical spending of government funds to achieve agreed social welfare and medical standards.

At the current stage support for the introduction of a Lifeline programme at a national level is mostly moral and verbal. Most politicians being responsible for advances in health and social care sectors agree that the proposed programme has substantial merits and is therefore important for Slovenia. Nevertheless the programme has not, as yet, been systematically supported. However, some end-users

would accept the programme if it is paid for by social and health insurance. Two health insurance agencies have included the service into their optional insurance schemes.

#### *Obstacles to a dissemination process*

##### **Technology transfer related problems**

The Lifeline community response system is a new technology in Slovene society. Having a different system of social welfare and health care from that in United Kingdom there has been a problem of technology transfer. Consequently, Lifeline as a technical innovation has not yet fully been accepted (11).

##### **Lack of cooperation**

Successful implementation of the Lifeline system demands co-operation, communication and interaction between politicians, professional bodies and individuals. Waiting for the other party to make the first move has characterised behaviour in many regions. There has been, furthermore, a historical legacy of non co-operation between professionals. Additionally, the reorganisation of municipalities into tiny local communities has almost precluded regional initiatives. At all levels, however, there has been moral support for the implementation of the system.

##### **Lack of funds**

Although an initial capital investment in any new care network is required, the resulting service would be expected to enable considerable savings on national residential care costs. To introduce services Slovenia would need a system that would enable potential providers to develop their services and potential user to get services through different insurance systems or through a welfare system. The law on compulsory long-term care assurance is a hope for all interested, but it has been preparation since 2004 without a promise to be ready in few years. So providers of telecare and potential users in Slovenia have to use other means and take other ways. The government is willing to cover 30% of the response centre infrastructure costs. Some local communities subsidize telecare services for their locals and give some funds for purchasing of carephones, workforce costs and the response centre facilities.

##### **Conclusion**

The question now is not whether the telecare system will be implemented in Slovenia nationally, but rather, how long will it take to disseminate the programme throughout the country?

## **EXERCISES**

### **Task 1**

Demonstration of telecare system operation

1. Organize demonstration (a telecare centre could be outside your country!)

2. Demonstrate how system operates making calls to a telecare centres initiated by different trigger devices.
3. Each student should imitate a telecare user making a call to the telecare centre.

### **Task 2**

Discuss in the group the experiences you learnt.

### **Task 3**

Answer the following questions:

1. Do similar applications and services exist in your country?
2. If YES, how are they accepted by politicians, professionals, users?
3. If YES, how do they fit within frameworks of healthcare and/or social welfare?
4. If NO, is there a need for such systems? Why do you consider that there is or is not a need?
5. If NO, are such solutions known to professionals who may facilitate their introduction to your country?

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<b>MANAGEMENT IN HEALTH CARE SERVICES</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>COMPLEMENTARY AND ALTERNATIVE MEDICINE: SOME PUBLIC HEALTH VIEWS</b>
<b>Module: 3.6</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Medicine, complementary and alternative medicine, traditional medicine
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• be familiar with terminology and terminological problems related to complementary and alternative medicine (CAM);</li> <li>• be able to distinguish between medicine (as conventional medicine) and CAM;</li> <li>• be familiar with public health views of CAM.</li> </ul>
<b>Abstract</b>	CAM is, from the point of view of public health, a phenomenon that should be followed, analysed and controlled. Noxious as well as protective factors which accompany the implementation of CAM methods should be recognised so as to be able to inform the public of the results in a timely and accurate manner. The case study analyses the viewpoints of medical doctors, patients and the state of the phenomenon of CAM in Slovenia. A declinatory attitude of conventional medicine to CAM is present. In contrast, population express a favourable opinion on alternative methods of treatment, and more than a third of them actually make use of them.
<b>Teaching methods</b>	An introductory lecture gives the students first insight in definitions of CAM. The theoretical knowledge is illustrated by a case study of CAM in Slovenia. After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the characteristics of CAM in relation to TM, and both of them in relation to conventional medicine with other students. In continuation, they need to find published materials (e.g. papers) on CAM/TM and present their findings to other students.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaire and essay.

# COMPLEMENTARY AND ALTERNATIVE MEDICINE: SOME PUBLIC-HEALTH VIEWS

Marjan Premik, Lijana Zaletel-Kragelj

## THEORETICAL BACKGROUND

Public health is concerned with the reciprocal influences between the state of health of the inhabitants and the social and environmental factors that impact on it. It is based on a number of scientific disciplines and takes into account the findings of natural, social, political, organisational and other sciences. Public health also deals with various phenomena associated with the implementation of medicine.

Speaking of medicine, we are usually thinking of scientific medicine, which is founded on natural and biomedical science, but along this kind of medicine there exist also, known frequently also as “alternative medicine”. There exist several public health aspects of this kind of medicine, and only few of them could be discussed in such an introductory teaching module. The focus of this module will be on introductory issues of this kind of medicine like definitions and brief description, epidemiology, and some aspects of regulation, and it will not deal with its efficacy.

### Basic definitions and explanation of terms

Before starting to discuss the phenomenon of “the other medicine”, it is necessary first of all to clarify terminological issues concerning it.

#### *Medicine*

Before trying to explain the meaning of terms “alternative medicine”, “complementary medicine” or related terms, we need first to define what the term “medicine” means.

##### 1. Medicine as a discipline.

Among others, following definitions and explanations could be found:

- according to Merriam-Webster Online Dictionary, medicine is the science and art dealing with the maintenance of health and the prevention, alleviation, or cure of disease (1);
- in TheFreeDictionary online dictionary, two definitions could be found being medicine is the art and science of preventing, diagnosing, treating, and managing illness (2), and the diagnosis and treatment of disease and the maintenance of health (2).

But also following more specific definitions and explanations could be found:

- according to Merriam-Webster Online Dictionary, medicine means also the branch of medicine concerned with the nonsurgical treatment of disease (1);
- according to TheFreeDictionary online dictionary, medicine means also the treatment of disease by nonsurgical means (2).

Since this term is used in rather different context it should be supplemented with an adjective, designating more specifically what medicine discipline we are talking about (e.g. conventional).

2. Medicine as mean/agent used for treating diseased people.

Among others, following definitions and explanations could be found:

- in Merriam-Webster Online Dictionary, three definitions could be found being medicine is a substance or preparation used in treating disease or something that affects well-being (1), a substance (as a drug or potion) used to treat something other than disease (1), and an object held in traditional American Indian belief to give control over natural or magical forces; also magical power or a magical rite (1);
- according to TheFreeDictionary online dictionary, medicine is any drug or remedy (2).

### *Conventional versus unconventional medicine*

When we (in Europe, North America, and Australia) speak of medicine as a discipline we are usually thinking of scientific medicine, which is founded on natural and biomedical science, which is also known as “conventional medicine”.

1. Conventional medicine.

The term “conventional” according to Merriam-Webster Online Dictionary means something what is formed by agreement (1). In this context, among others, following definitions and explanations of conventional medicine could be found:

- according to TheFreeDictionary online dictionary, conventional medicine is the model of currently established Western medicine. This paradigm was designated as *conventional* because of its prevalence. What is considered conventional is always in flux (2);
- according to Medicine.Net Online Dictionary, conventional medicine is medicine as practiced by holders of M.D. (medical doctor) or D.O. (doctor of osteopathy) degrees and by their allied health professionals, such as physical therapists, psychologists, and registered nurses. Other terms for conventional medicine include allopathy and allopathic medicine; synonyms are Western medicine, mainstream medicine, orthodox medicine, and regular medicine; and biomedicine (3); The same definition is adopted by the US National Institutes of Health, National Centre for Complementary and Alternative Medicine (NCCAM) (4).

The other term for conventional medicine is, among others, allopathic medicine. According to Merriam-Webster Online Dictionary “allopathic” means relating to or being a system of medicine that aims to combat disease by using remedies (as drugs or surgery) which produce effects that are different from or incompatible with those of the disease being treated (1). The term “allopathy” was coined in 1842 by C.F.S. Hahnemann to designate the usual practice of medicine (allopathy) as opposed to homeopathy, the system of therapy that he founded based on the concept that disease can be treated with drugs (in minute doses) thought capable of producing the same symptoms in healthy people as the disease itself (3). Following explanations of what allopathic medicine is could be found:

- according to Medicine.Net Online Dictionary, allopathic medicine is the system of medical practice which treats disease by the use of remedies which produce effects different from those produced by the disease under treatment. MDs practice allopathic medicine (3);
- according to TheFreeDictionary online dictionary, allopathic medicine is method of medical treatment in which drugs are administered to counter symptoms of the disease (2);

Conventional medicine is sometimes denoted also as “standard medicine”, or “official medicine”. The last term could be misleading since in different countries of the world some methods classified in western countries as “unconventional” are officially recognized as well.

## 2. Unconventional medicine.

Along conventional medicine there exist also the “other medicine” - the “unconventional medicine”, in western countries frequently denoted also as “alternative medicine”. The word “alter” in Latin means “other”. Accordingly the word “alternative medicine” means a “different medicine”. Other terms like “complementary medicine” or “traditional medicine” are used.

### *Basic unconventional medicine terminology*

#### 1. Alternative medicine.

- according to Merriam-Webster Online Dictionary, alternative medicine is any of various systems of healing or treating disease (as chiropractic, homeopathy, or faith healing) not included in the traditional medical curricula taught in the United States and Britain (1);
- in TheFreeDictionary online dictionary, two definitions could be found being alternative medicine are therapeutic practices not considered integral to conventional medicine; used instead of conventional therapies, and alternative medicine is a variety of therapeutic or preventive health care practices, such as homeopathy, naturopathy, and herbal medicine, that are not typically taught or practiced in traditional medical communities and offer treatments that differ from standard medical practice (2);
- according to Medicine.Net Online Dictionary, alternative medicine is healing arts not taught in traditional Western medical schools that promote options to conventional medicine that is taught in these schools... An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a Western physician. Complementary medicine is different from alternative medicine. Whereas complementary medicine is used together with conventional medicine, alternative medicine is used in place of conventional medicine (3);
  - according to Mayo Clinic, alternative medicine is medicine which is generally thought of as being used instead of conventional methods. For example, this might mean seeing a homeopath or naturopath instead of regular doctor (5);

#### 2. Complementary medicine.

- according to Merriam-Webster Online Dictionary, complementary medicine is any of the practices (as acupuncture) of alternative medicine accepted and utilized by mainstream medical practitioners (1);
  - in TheFreeDictionary online dictionary, two definitions could be found first of them being complementary medicine are therapeutic practices not considered integral to conventional medicine. Used in conjunction with conventional therapies. Often used interchangeably with the term “alternative medicine”; encompasses the wide array of therapies not generally offered by MDs and not usually covered by health insurance. Complementary is considered a more accurate term because in practice, patients do not replace allopathic treatment but instead supplement it with complementary medicine (2). The second definition states that complementary medicine is a method of health care that combines the therapies and philosophies of conventional medicine with those of alternative medicines, such as acupuncture, herbal medicine, and biofeedback (2);
  - according to Medicine.Net Online Dictionary, complementary medicine a group of diagnostic and therapeutic disciplines that are used together with conventional medicine. An example of a complementary therapy is using aromatherapy to help lessen a patient's discomfort following surgery. (2).
  - complementary medicine is usually not taught or used in Western medical schools or hospitals. Complementary medicine includes a large number of practices and systems of health care that, for a variety of cultural, social, economic, or scientific reasons have not been adopted by mainstream Western medicine.
  - complementary medicine is different from alternative medicine. Whereas complementary medicine is used together with conventional medicine, alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a physician.
  - according to Mayo Clinic, complementary medicine is medicine which is thought of as treatments used in addition to the conventional therapies your doctor may prescribe, such as using tai chi or massage in addition to prescription medicine for anxiety (5);
  - according to Zollman and Vickers, complementary medicine refers to a group of therapeutic and diagnostic disciplines that exist largely outside the institutions where conventional health care is taught and provided. In the 1970s and 1980s these disciplines were mainly provided as an alternative to conventional health care and hence became known collectively as “alternative medicine.” The name “complementary medicine” developed as the two systems began to be used alongside (to “complement”) each other. Over the years, “complementary” has changed from describing this relation between unconventional healthcare disciplines and conventional care to defining the group of disciplines itself (6);
3. Traditional medicine (TM).
- according to WHO definition adopted in 2000, traditional medicine is “the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis,

improvement or treatment of physical and mental illnesses. The terms complementary/alternative/non-conventional medicine are used interchangeably with traditional medicine in some countries.” (7);

- according to WHO definition adopted in 2003, traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being (8,9);
- there are many TM systems, including traditional Chinese medicine, Indian ayurveda and Arabic unani medicine. A variety of indigenous TM systems have also been developed throughout history by Asian, African, Arabic, Native American, Oceanic, Central and South American and other cultures. Influenced by factors such as history, personal attitudes and philosophy, their practice may vary greatly from country to country and from region to region. Their theory and application often differ significantly from those of allopathic medicine (9).
- according to the WHO Traditional Medicine Strategy 2002-2005 document, “traditional medicine” term is used when referring to a broad set of health care practices used in Africa, Latin America, South-East Asia, and/or the Western Pacific (9).

#### 4. Integrated or integrative medicine.

- according to TheFreeDictionary online dictionary, integrative medicine is holistic system of medicine that combines the best treatments and approaches from various disciplines, including traditional medicine, natural healing, phytotherapy, and Eastern modalities, so that treatments complement one another resulting in safer and effective care (2);
- according to Mayo Clinic, conventional doctors are learning more about complementary and alternative medicine because they recognize that more than half of people try some kind of alternative treatment. Many health care institutions have begun integrating therapies that aren't part of mainstream medicine into their treatment programs. A number of medical schools now include education on untraditional techniques in their curriculum. As complementary and alternative therapies prove effective, they're being combined more often with conventional care. This is known as integrative medicine (5);
- according to Osher Center for Integrative Medicine of School of Medicine, University of San Francisco, California, **Integrative medicine** is a new term that emphasizes the combination of both conventional and alternative approaches to address the biological, psychological, social and spiritual aspects of health and illness. It emphasizes respect for the human capacity for healing, the importance of the relationship between the practitioner and the patient, a collaborative approach to patient care among practitioners, and the practice of conventional, complementary, and alternative health care that is evidence-based. (10);

The term “integrated medicine is used in the UK, while in the US, the term “integrative medicine” is used.

#### 5. Complementary and alternative medicine (CAM).

In some parts of the world, being Europe, North America and Australia, the terms “complementary” and “alternative” are used to refer to health care practices that are not part of a country’s own tradition, or not integrated into its dominant health care system. The distinction between these two terms has been already described. To avoid using one or another term, recently the comprehensive term being “complementary and alternative medicine” or in short CAM was adopted. It is a widely used term. The definition of CAM has been developed at a 1997 conference of the United States Office for Alternative Medicine of the National Institutes of Health, now NCCAM, and subsequently adopted by the Cochrane Collaboration, the Ministerial Advisory Committee on Complementary and Alternative Medicine, and WHO (2,6,9,11,12). There exist several different but very similar, definitions:

- as cited by Roberti di Sarsina, and Zollman and Vickers (6,11), the definition, according to NCCAM, which was later adopted by Cochrane Collaboration, CAM is a “broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. CAM includes all such practices and ideas self defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within CAM and between the CAM domain and that of the dominant system are not always sharp or fixed.”;
- the WHO, as cited by Roberti di Sarsina (11), defines CAM slightly different - “CAM refers to a broad set of health care practices that are not part of a country’s own tradition and not integrated into the dominant health care system. Other terms sometimes used to describe these health care practices include “natural medicine”, “non-conventional medicine” and “holistic medicine”;
- according to TheFreeDictionary online dictionary, CAM is a “large and diverse set of systems of diagnosis, treatment, and prevention based on philosophies and techniques other than those used in conventional Western medicine. Such practices may be described as *alternative*, existing as a body separate from and as a replacement for conventional Western medicine, or *complementary*, used in addition to conventional Western practice. CAM is characterized by its focus on the whole person as a unique individual, on the energy of the body and its influence on health and disease, on the healing power of nature and the mobilization of the body's own resources to heal itself, and on the treatment of the underlying causes, not symptoms, of disease. Many of the techniques used are controversial and have not been validated by controlled studies.” (2);
- also another definitions could be found. According to Ernst, CAM is defined as “diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine.” (12);

#### 6. TM/CAM.

When discussing about health care practices that are not part of a country’s own tradition, or not integrated into its dominant health care system referring in a

general sense to all of different regions of the world, the comprehensive TM/CAM term should be used (9).

### **Methods and systems of complementary and alternative medicine**

Like conventional medicine, also CAM is divided into narrower fields, being methods or medical systems. Some of them are listed alphabetically, supplemented with brief description, in Table 1.

**Table 1.** Some of common methods/systems of complementary and alternative medicine (CAM), supplemented with brief description (4, 6, 13-16).

<b>CAM method/system</b>	<b>Description</b>
Acupressure	A type of acupuncture that stimulates specific points on the body using pressure applied by the hands
Acupuncture	A method, characterized by the stimulation of specific points on the body by a variety of techniques, including the insertion of thin, solid, metallic needles that are manipulated by the hands or by electrical stimulation, through the skin. It is intended to remove blockages in the flow of qi (in traditional Chinese medicine, the vital energy or life force proposed to regulate a person's spiritual, emotional, mental, and physical health and to be influenced by the opposing forces of yin and yang)and restore and maintain health)
Aromatherapy	The use of essential oils from plants to support and balance the mind, body, and spirit, to promote relaxation, a sense of well-being, and healing
Autogenic training	One of deep relaxation methods; it consists of imagining a peaceful environment and comforting bodily sensations. Six basic focusing techniques are used: heaviness in the limbs, warmth in the limbs, cardiac regulation, centring on breathing, warmth in the upper abdomen, and coolness in the forehead
Ayurveda (ayurvedic medicine)	A whole medical system that originated in India. It aims to integrate the body, mind, and spirit to prevent and treat disease. Therapies used include herbs, massage, and yoga. It is one of the world's oldest whole medical systems
Biofeedback	The use of electronic devices to help people learn to control body functions that are normally unconscious (such as breathing or heart rate). The intent is to promote relaxation and improve health.
Chiropractic	A health care profession concerned with the diagnosis, treatment and prevention of disorders of the neuromusculoskeletal system and the effects of these disorders on general health. There is an emphasis on manual techniques, including joint adjustment and/or manipulation, with a particular focus on subluxations
Diet therapy	A CAM method, characterized by use of dietary supplements. A dietary supplement is a product that is intended to supplement the diet. A dietary supplement contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals, amino acids, and other substances) or their components; is intended to be taken by mouth as a pill, capsule, tablet, or liquid; and is identified on the front label of the product as being a dietary supplement.

**Table 1. Cont.**

<b>CAM method/system</b>	<b>Description</b>
Energy medicine	<p>A group of CAM interventions that deals with energy fields of two types: veritable (energy fields, which can be measured: mechanical vibrations such as sound and electromagnetic forces, including visible light, magnetism, monochromatic radiation, such as laser beams, and rays from other parts of the electromagnetic spectrum), and putative (energy fields, which have not been measured by conventional instruments yet, also called biofields).</p> <p>Therapies involving putative energy fields are based on the concept that human beings are infused with a subtle form of vital energy, known under different names in different cultures (qi in Traditional Chinese medicine, ki in the Japanese Kampo system, doshas in Ayurveda, and in others as prana, etheric energy, fohat, orgone, odic force, mana, and homeopathic resonance). Reiki and qi gong are examples of therapies that involve biofields. Herbal medicine, acupuncture, acupressure, and moxibustion, are all believed to act by correcting imbalances in the internal biofield, such as by restoring the flow of qi through meridians to reinstate health. Some therapists are believed to emit or transmit the vital energy (external qi) to a recipient to restore health.</p>
Herbal medicine (herbalism, phytotherapy)	<p>A system of medicine which uses various remedies derived from plants and plant extracts (herbal products; a herb, also a botanical, is a plant or part of a plant - flowers, leaves, bark, fruit, seeds, stems, or roots - used for its flavour, scent, or potential therapeutic properties) to treat disorders and maintain good health</p>
Homeopathy (Homoeopathic medicine)	<p>A whole medical system that originated in Europe, in Germany; seeks to stimulate the body's ability to heal itself by giving very small doses of highly diluted substances that in larger doses would produce illness or symptoms (an approach called "like cures like")</p>
Hypnotherapy	<p>The use of hypnosis in treating behavioural disease and dysfunction, principally mental disorders. Hypnotic techniques induce states of selective intentional focusing or diffusion combined with enhanced imagery. They are often used to induce relaxation and also may be a part of cognitive-behavioural therapy. The techniques have three phases: the presuggestion (involves intentional focusing through the use of imagery, distraction, or relaxation; subjects focus on relaxation and passively disregard intrusive thoughts), the suggestion (characterized by introduction of specific goals; for example, analgesia may be specifically suggested), and the postsuggestion phase (involves continued use of the new behaviour following termination of hypnosis)</p>
Joint manipulation	<p>A manual procedure involving directed thrust to move a joint past the physiological range of motion, without exceeding the anatomical limit</p>
Magnetotherapy	<p>An energy medicine therapy in which practitioners use magnets, which produce a measurable force called a magnetic field. Static magnets have magnetic fields that do not change, unlike electromagnets, which generate magnetic fields only when electrical current flows through them. Magnets are usually made from metals (such as iron) or alloys (mixtures of metals, or of a metal and a nonmetal). Static, or permanent, magnets are widely marketed for pain control</p>

**Table 1. Cont.**

<b>CAM method/system</b>	<b>Description</b>
Manipulative and Body-Based Practices	A heterogeneous group of CAM interventions and therapies, which include chiropractic and osteopathic manipulation (an example is spinal manipulation), massage therapy, reflexology, Alexander technique, Feldenkrais method, and many others
Massage therapy	A group of practices and techniques, which uses pressing, rubbing, and moving muscles and other soft tissues of the body, primarily by using the hands and fingers. The intent is to relax the soft tissues, increase delivery of blood and oxygen to the massaged areas, warm them, and decrease pain. A few popular examples of this therapy are Swedish massage, deep tissue massage, trigger point massage, and shiatsu massage. In some instances, massage therapy is sometimes part of conventional medicine (for example, in reducing a type of swelling called lymphedema), in others, it is part of CAM (for example, in enhancing immune system functioning)
Meditation	A conscious mental process using certain, such as focusing attention or maintaining a specific posture, to suspend the stream of thoughts and relax the body and mind. It can be practiced for various reasons, for example to increase physical relaxation, mental calmness, and psychological balance, to cope with one or more diseases and conditions, and for overall wellness
Mind-Body Medicine	Practices that focus on the interactions among the brain, mind, body, and behaviour, with the intent to use the mind to affect physical functioning and promote health. It typically focuses on intervention strategies that are thought to promote health, such as relaxation, hypnosis, visual imagery, meditation, yoga, biofeedback, tai chi, qi gong, cognitive-behavioural therapies, group support, autogenic training, and spirituality
Moxibustion	In traditional Chinese medicine, the use of heat from burning the herb moxa on or near the skin at an acupuncture point. Intended to stimulate the flow of qi and restore health
Naturopathy (Naturopathic medicine)	A whole medical system, rooted in health care approaches that were popular in Europe, especially in Germany, in the 19th century, but it also includes therapies (both ancient and modern) from other traditions. It aims to support the body's ability to heal itself through the use of dietary and lifestyle changes together with CAM therapies such as herbs, massage, and joint manipulation. The emphasis is on supporting health rather than combating disease.
Nutritional medicine	Use of nutritional methods to address and prevent disease. Uses diets and nutritional supplements. Often used to address allergies and chronic digestive problems. The difference between nutritional medicine and dietetics is that nutritional therapists work independently in accordance with naturopathic principles and focus on disorders which they believe can be attributed to nutritional deficiency, food intolerance or toxic overload. They believe these three factors are involved in a wide range of health problems. Dieticians usually work under medical supervision, using diets to encourage healthy eating and tackle a narrower range of diseases. Nutritional therapists often use exclusion diets and herbal remedies to tackle patients' problems.

**Table 1. Cont.**

<b>CAM method/system</b>	<b>Description</b>
Osteopathy (osteopathic manipulative therapy)	A type of manipulation practiced by osteopathic physicians. It is combined with physical therapy and instruction in proper posture
Qi gong	A component of traditional Chinese medicine that combines movement, meditation, and controlled breathing. The intent is to improve blood flow and the flow of qi
Radiesthesia	A <u>paranormal</u> or <u>parapsychological</u> ability to detect "radiation" within the human body. According to the theory, all human bodies give off unique or characteristic "radiations" as do all other physical bodies or objects. Such radiations are often termed an " <u>aura</u> ". Radiesthesia is cited as the explanation of such phenomena as <u>dowsing</u> by rods and <u>pendulums</u> in order to locate buried substances, diagnose illnesses, and similar
Reflexology	A system of massage of the feet based on the idea that there are invisible zones running vertically through the body, so that each organ has a corresponding location in the foot. It has also been claimed to stimulate blood supply and relieve tension
Reiki	An energy medicine therapy in which practitioners seek to transmit a universal energy to a person, either from a distance or by placing their hands on or near that person. The intent is to heal the spirit and thus the body
Spinal manipulative therapy	Includes all procedures where the hands or mechanical devices are used to mobilize, adjust, manipulate, apply traction, massage, stimulate or otherwise influence the spine and paraspinal tissues with the aim of influencing the patient's health
Spirituality	An individual's sense of purpose and meaning of life beyond material values. Spirituality may be practiced in many ways, such as through religion
Shiatsu	A massage technique in which the therapist applies varying, rhythmic pressure from the fingers on parts of the body that are believed to be important for the flow of a vital energy qi
Tai Chi	A mind-body practice that originated in China as a martial art. A person doing tai chi moves his body slowly and gently, while breathing deeply and meditating (tai chi is sometimes called "moving meditation"). It is believed that tai chi helps the flow throughout the body of a proposed vital energy qi
Traditional Chinese medicine	A whole medical system that originated in China. It is based on the concept that disease results from disruption in the flow of qi and imbalance in the forces of yin and yang. Practices such as herbs, meditation, massage, and acupuncture seek to aid healing by restoring the yin-yang balance and the flow of qi
Therapeutic touch	A therapy in which practitioners pass their hands over another person's body with the intent to use their own perceived healing energy to identify energy imbalances and promote health
Yoga	A mind-body practice from Ayurvedic medicine that combines breathing exercises, physical postures, and meditation. It is intended to calm the nervous system and balance the body, mind, and spirit. The various styles of yoga that people use for health purposes typically combine physical postures, breathing techniques, and meditation or relaxation

Detailed description of many of them could be found at web pages of NCCAM (14) and UK Complementary and Alternative Medicine Specialist Library (17). Also, many of them are described in a series of papers published in British Medical Journal in 1999 (18-24).

### *Categorization of complementary and alternative medicine methods/systems*

TM/CAM methods are very heterogeneous but could be classified in some major areas. Two categorizations are presented.

#### **NCCAM, US, categorization**

In the US, National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health uses following classification (4):

1. Whole medical systems (25).  
TM/CAM systems are complete sets of theories and practices. A system isn't just a single practice or remedy, such as massage, but many different practices that all centre on a philosophy or lifestyle, such as the power of nature or the presence of energy in your body. Many healing systems developed long before the conventional Western medicine. Examples of complementary and alternative medicine treatment/healing systems are ayurveda, homeopathy, naturopathy, and ancient medicines (traditional Chinese medicine, traditional Asian medicine, traditional Pacific Islander medicine, traditional American Indian, and traditional Tibetan practices).
2. Mind-body medicine (26).  
Mind-body techniques strengthen the communication between mind and body. It is believed that these two systems must be in harmony for you to stay healthy. Examples of mind-body medicine techniques are meditation, yoga, biofeedback, hypnosis, and relaxation therapies, as well as art therapies, such as poetry, music and dance.
3. Biologically based practices (27).  
These practices use substances found in nature, such as herbs, foods, and vitamins. Examples of biologically based practices are herbal medicine, and diet/nutritional therapies.
4. Manipulative and body based practices (28).  
These methods use human touch to move or manipulate a specific part of your body. Examples of manipulative and body based practices are chiropractic or osteopathic manipulation, massage, and acupressure.
5. Energy medicine (29).  
Energy medicine practices use energy fields. Unblocking or re-balancing energy force is the goal of these therapies. Examples of energy therapies are acupuncture, Reiki, qi gong, therapeutic touch, magnet therapy, polarity therapy, and light therapy

The distinctions between therapies aren't clear-cut. Some techniques may fit in more than one category. For example, acupressure could fit either in the category of manipulation and touch or in the category of energy therapies. Also, there exist

TM/CAM treatment/healing systems which use techniques from more than one category.

### **House of Lords, UK, categorization**

In the UK, the House of Lords Select Committee on Science and Technology report on Complementary and Alternative Medicine (15) took a different line by categorising specific approaches and therapies into 3 groups:

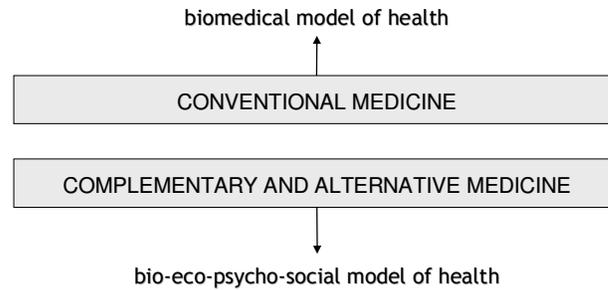
1. Professionally organised alternative therapies.  
This group includes what may be called the principal disciplines: osteopathy, chiropractic, acupuncture, herbal medicine and homeopathy. Two of them, osteopathy and chiropractic, were in 2002 already regulated in their professional activity and education in UK by Acts of Parliament. These methods are seen as the principal methods by most of the CAM world.
2. Complementary therapies.  
This group includes therapies which are most often used to complement conventional medicine and do not include diagnostic skills: Alexander technique, aromatherapy, Bach and other flower remedies, body work therapies, including massage, counselling stress therapy, hypnotherapy, meditation, reflexology, shiatsu, healing, Maharishi ayurvedic medicine, nutritional medicine, and yoga.
3. Alternative disciplines.  
This group includes those other disciplines which purport to offer diagnostic information as well as treatment and which, in general, favour a philosophical approach and are indifferent to the scientific principles of conventional medicine, and through which various and disparate frameworks of disease causation and its management are proposed. These therapies can be split into two sub-groups:
  - long-established and traditional systems of healthcare: anthroposophical medicine, ayurvedic medicine, Chinese herbal medicine, Eastern medicine, naturopathy, and traditional Chinese medicine, and
  - other alternative disciplines which lack any credible evidence base: crystal therapy, dowsing, iridology, kinesiology, and radionics.

### **Health philosophy differences between conventional and unconventional medicine**

From the public health perspective, we would like to emphasize the philosophical and conceptual differences between conventional medicine and TM/CAM.

There exist two fundamentally different modern models of health: the biomedical and the bio-eco-psycho-social models. The knowledge on of these two models is important for understanding differences between conventional medicine and TC/CAM, as well as for understanding the processes related to the supply, demand and evaluation of conventional and unconventional medicine health services:

1. Biomedicine is a dominant paradigm in the modern conventional medicine health care systems (Figure 1).



**Figure 1.** Health philosophy differences between conventional medicine, and complementary and alternative medicine.

It is based on natural sciences/scientific medical theory and practice focused on the internal operation of the body. Biomedicine verifies its theories which are accepted as fact by using scientifically methods. Accepted facts are not suspicions or deductions but discoveries revealed with the assistance of specific, universally accepted, strict procedures, focused on the integral functioning of the body, including mental processes. Biomedical certainty is founded on the supposition that people can be understood and reconstructed in all their physical, mental and social integrity through the collection of facts about various parts of their body.

Biomedical monitoring has in the last decades of this century been exposed to serious criticism both by medical and non-medical circles due to some of its deficiencies (30-34). Although critics of the existing biomedical paradigm proceed from divergent standpoints and different levels of analyses (which consequently has different implications), they share the conclusion that what are needed are broader and stricter scientific research methods, the promotion of the significance of public health, the strengthening of spiritual values, the recognition of social stratification and differences in communities, and consideration of the personal beliefs of patients. Critics offer a series of different social scientific outlooks and theories which cast doubt on whether biomedicine is the “one and only” medical science and demand a scientific evaluation of the meaning of quality and freedom. The biomedical model is also criticised because of the monopoly of doctors on “medical knowledge” and because of the predominantly unacceptable standpoint regarding everything which could be denoted as a different view of an illness, a health problem or health. The common denominator of all the more important critics is the awareness that healthcare and treatment can end using biomedical technology.

2. The biomedical model of understanding illness and health problems is placed side by side with the bio-eco-psycho-social model of understanding diseases and health. The bio-eco-psycho-social model does not agree with universality, neutrality and the all-round usefulness of the biomedical model and it questions such a principle.

The bio-eco-psycho-social model is based on searching for the cause for disease outside the body, presupposing that disease is a product of life style and specific social circumstances. It is a synthesis of various conceptualizations. It allows us to develop more comprehensive and efficient approach also to health promotion and disease prevention and it is thus of crucial importance also for public health.

### **CAM and international integrations/organizations**

Several international integrations/organizations are dealing with the problem of dialogue between conventional medicine and CAM, as well as different aspects of CAM (e.g. quality, effectiveness, and safety of CAM procedures, education of CAM practitioners, etc.). For European region, response on CAM phenomenon of following international integrations/organizations is important:

1. WHO made a number of policy recommendations and documents concerning TM/CAM, among them:
  - in 2000 the General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine (35) were published;
  - in 2001 the Legal Status of Traditional medicine and Complementary/ Alternative Medicine: a Worldwide Review (36) was published;
  - in 2002 the Traditional Medicines Strategy: 2002-2005 (9) was published;
  - in 2004 the Guidelines on Developing Consumer Information on Proper use of Traditional, Complementary and Alternative Medicine (37) were published;
  - in 2005 the Global Atlas of Traditional, Complementary and Alternative Medicine (38) was published.

The WHO is prepared to help evaluate and study the safety and effectiveness of the TM/CAM methods used (by research), to supplement knowledge in traditional and modern health practitioners (an approach to health in a way which, in individual environments, is passed on from generation to generation), as well as to notify the public regarding the confirmed discoveries associated with the use of unconventional methods. For this purpose the WHO has at the beginning of this millennium already founded several collaboration centres for traditional medicine. Among developed countries which have such centres are for example Belgium, Italy, Japan and the US (8).

2. In European Union a growing demand on CAM among the European citizens also dictated some steps dealing with CAM sphere, but the process is much slower than at the global level (e.g. WHO). Among important steps are:
  - in 1993 COST, European Cooperation in the field of Scientific and Technical Research Action, B-4 project: Unconventional medicine was launched. The main objective of this project was to foster international collaboration in research into the therapeutic significance of CAM, its cost-benefit ratio and its sociocultural importance as a basis for evaluation of its possible usefulness or risks in the public health. In this project 13 parties participated (Belgium, Denmark, Finland, Germany, Hungary, Italy, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, and UK) (39);

- in 1997 - European Parliament has promulgated on 29/5/97 a resolution (A4-0075/97) on the "Status of non-conventional medicine" (40),
- in 1998 the final report on COST Action B-4 project: Unconventional medicine 1993-98 (EUR 18420 EN) was published (41).
- in 1999, the Supplement to this final report was published (42);
- in 2001, the Directive 2001/83/EC of the European Parliament and of the Council on the Community Code Relating to Medicinal Products for Human Use. Official Journal of the European Communities L 311/67-128 was adopted (43). This directive among other medicinal products regulates also homeopathic medicinal products.

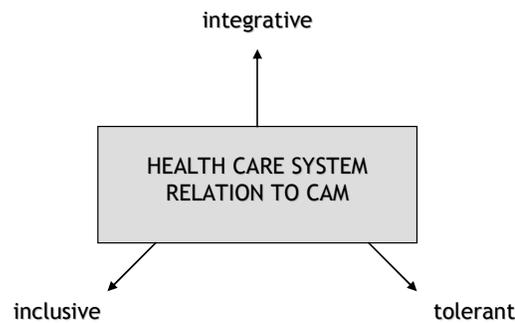
From the public health point of view seems clear, that a tendency towards the integration of different CAM therapeutic procedures in health care systems is inevitable, but there are too many different points of view in EU to adopt common legal base (44);

3. Council of Europe.

- 1999 – Resolution No. 1206 entitled “A European approach to non-conventional medicines” (45) was promulgated. In it the Assembly of the Council stated that it believes that the best guarantee for patients lies in a properly trained profession, which is aware of its limitations, has a system of ethics and self-regulation, and is also subject to outside control.

### **Incorporation of TM/CAM into national health care systems**

WHO has defined three types of health system to describe the degree to which TM/CAM is an officially recognized element of health care, being integrative, inclusive, and tolerant systems (Figure 2) (9).



**Figure 2.** Health care systems classification according to the incorporation of TM/CAM (9) within the system. LEGEND: TM=traditional medicine, CAM=complementary and alternative medicine.

1. Integrative health care systems

In an integrative system, TM/CAM is officially recognized and incorporated into all areas of health care provision. This means that: TM/CAM is included in the relevant country's national drug policy; providers and products are registered and regulated; TM/CAM therapies are available at hospitals and clinics (both public and private); treatment with TM/CAM is reimbursed under health insurance; relevant research is undertaken; and education in TM/CAM is available (9).

In 2002, only China, the Democratic People's Republic of Korea, the Republic of Korea and Viet Nam were considered to have attained an integrative system (9).

2. Inclusive health care systems

An inclusive system recognizes TM/CAM, but has not yet fully integrated it into all aspects of health care: health care delivery, education and training, or regulation. TM/CAM might not be available at all health care levels, health insurance might not cover treatment with TM/CAM, official education in TM/CAM might not be available at university level, and regulation of TM/CAM providers and products might be lacking or only partial. Work on policy, regulation, practice, health insurance coverage, research and education, are in process or will be prepared (9).

Countries with an inclusive system in 2002 included developing countries (Equatorial Guinea, Nigeria, Mali) which had a national TM/CAM policy, but little or no regulation of TM/CAM products, and developed countries (Canada, the USA, the UK, Germany, Norway) which in 2002 did not offer significant university-level education in TM/CAM, but which were making efforts to ensure the quality and safety of TM/CAM (9).

3. Tolerant health care systems

In countries with a tolerant system, the national health care system is based entirely on allopathic medicine, but some TM/CAM practices are tolerated by law (9).

Here authors need to stress that beside listed types of systems, also exist or existed in the near past, the intolerant systems. In these systems, CAM methods were legally not allowed. Slovenia could be classified in this group until 2008.

## **Users of CAM**

### *How many people use CAM and which methods?*

Only partial answer to this question could be attained since in different countries CAM methods are differently treated, and different methods are included under the term CAM.

1. For the US, the most comprehensive and recent data on use of CAM were presented in 2004 by experts from National Center for Health Statistics, Centres for Disease Control and Prevention, and NCCAM (46). They came from the 2002 National Health Interview Survey, an annual cross-sectional study in 31,044 adults aged 18 years or older responded. It included detailed questions on CAM.

The results of this survey showed that 35.1% of adults used some form of CAM therapy (excluding megavitamin therapy and prayer) during the past 12 months. The 10 most commonly used CAM therapies, excluding use of prayer, natural products (18.9%), deep breathing exercises (11.6%), meditation (7.6%), chiropractic care (7.5%), yoga (5.1%), massage (5.0%), and diet-based therapies (3.5%).

If megavitamin therapy and prayer are included, according to this survey, 62.1% of adults used some form of CAM therapy during the past 12 months.

2. The UK Science and Technology Sixth Report (15) is summarizing results of two surveys in the UK, and England which give us a rough impression about how many people use CAM methods in developed countries:
  - in a telephone survey of 1204 randomly selected UK adults, conducted for the BBC in 1999, 20% of respondents declared that they used any of CAM methods in past 12 months (herbal medicine 34%, aromatherapy 21%, homeopathy 17%, acupuncture/acupressure 14%, massage 6%, reflexology 6%, osteopathy 4%, and chiropractic 3%; some individuals used more than one therapy);
  - in a postal survey of 5010 randomly selected adults (response rate of 53%), conducted about the same time in England, 13.6% of respondents had visited a CAM practitioner in the preceding 12 months (osteopathy 4.3%, chiropractic 3.6%, aromatherapy 3.5%, a reflexology 2.4%, and acupuncture: 1.6%; some individuals used more than one therapy), and overall 28.3% of respondents had either visited a CAM therapist or had purchased an over-the-counter remedy;
3. For some other countries in Europe, following data could be found:
  - in 1994, Fisher and Ward in their review article reported that percentages of public reporting use of complementary medicine (any form of it) was (47): Belgium 31%, Denmark 23.2%, France 49%, Germany 46%, Netherlands 20%, Sweden 25%, United Kingdom 26%;
  - in 2001, Nilsson and co-workers reported that in 1999 MONICA survey in Sweden 30.5% of 5794 respondents reported that they had taken a CAM product (vitamins, minerals or biological CAM remedy) in the preceding 2 weeks. Vitamins/minerals only had been taken by 11.7% and other CAM remedies (dominated by fish oil, ginseng and Q10) with or without vitamins/minerals by 18.8% (48);
  - in 2003, Biocca et al. reported that in Italy in general, the percentage of people who turned to at least one non-conventional medicine therapy in the period 1997-1999 was 15.6% (from 6.5% in southern Italy to 24.1 in northeastern Italy) (49);
  - in 2007, Rössler and co-workers reported results of their longitudinal community Zurich Study in Switzerland (50). They showed that CAM use in the last 12 months was reported by 21.9% of the participants in 1993 and by 29.5% in 1999.

### *Why people use CAM and who are the users?*

People who use CAM methods usually have chronic conditions for which conventional medicine has not provided a satisfactory solution, either because it is

insufficiently effective or because it causes adverse effects. On general, they have already consulted a conventional healthcare practitioner for the problem, and many continue to use the two systems concurrently:

1. In US, according to the 2002 National Health Interview Survey (46), CAM was most often used to: treat back pain or back problems 16.8%, head or chest colds 9.5%, neck pain or neck problems 6.6%, joint pain or stiffness 4.9%, arthritis, gout, lupus or fibromyalgia 4.9%, and anxiety or depression 4.5%.

The same survey showed that Cam is more frequently used by females (females: 39.7%, males 30.2%), middle-aged participants (18-29 years: 32.9%, 30-39 years: 37.8%, 40-49 years: 39.4%, 50-59 years 39.6%, 60-69 years: 32.6%, 70-84 years: 25.1%, 85 years or more 14.9%), and participants with highest education (less than high school 20.8%, high school graduate/GED 29.5%, some college-no degree 38.8%, associate of arts degree 39.8%, bachelor of arts or science degree 45.9%, masters, doctorate, professional degree 48.8%).

2. The UK Science and Technology Sixth Report (15) is also summarizing results about the main reasons for accessing CAM medicines or therapies of the BBC survey of CAM use in the United Kingdom in 1999 being: helps or relieves injury/condition 25%, just like it 21%, find it relaxing 19%, good health/well-being generally 14%, preventative measure 12%, do not believe conventional medicine works 11%, doctor's recommendations/referral 11%, to find out about other ways of life/new things 11%, way of life/part of lifestyle 8%, cannot get treatment on NHS/under conventional medicine 7%.

Zollman and Vickers in their series of "ABC of complementary medicine" reported that about 55-65% of those who consulted complementary practitioners were female, what was a similar proportion to users of conventional healthcare (51). They also reported that highest users were those aged 35-60. On the contrary, users of conventional healthcare services tended to be the very old and the very young. Also, users of complementary medicine tended to be in higher socioeconomic groups and had higher levels of education than users of conventional care.

3. For Sweden, in 2001, Nilsson and co-workers reported that among 1999 MONICA survey in Sweden use of CAM remedies was more frequent in women than in men and more frequent in people with high than with low level of education. The prevalence was unrelated to a history of severe cardiovascular disease or diabetes but significantly more common in subjects with poor self-perceived health, particularly so in women.

In all environments people use different CAM methods for the preventive purposes.

### **CAM practitioners**

The data on structure of CAM practitioners are scarce, what is the reflection of situation of CAM. Nevertheless, there exist some of them. We have found some data on CAM practitioners in UK:

- Zollman and Vickers in their series of "ABC of complementary medicine" report that the number and profile of complementary practitioners is changing

rapidly - in 1981 about 13,500 registered practitioners were working in the UK, and by 1997 this figure had increased to about 40,000 (51).

- few years later, the UK Science and Technology Sixth Report (15) reports the results of the Centre for Complementary Health Studies at Exeter University which was commissioned by the Department of Health to conduct a study of the professional organisation of CAM bodies in the UK. The results of this study suggested that there in 1997 there were approximately 50,000 CAM practitioners in the UK, and that there were approximately 10,000 statutory registered health professionals who practise some form of CAM.

### **Some perspectives on and attitudes towards CAM**

It is typical for all socio-cultural groups of people to form standpoints, relations, convictions, behaviour and standards for conventional as well as CAM. Two groups are interesting from the public health point of view, being medical doctors, and lay people as users of conventional medicine and CAM.

#### **1. Medical doctors.**

Medical doctors as dominant representative and implementators of conventional medicine gain most of their discoveries from the biomedical field of science and have their relations formally defined in the codes of practice of their medical organisations. Thus, it is not surprising that their attitude towards alternative medicine is in many countries negative. Their attitude towards CAM is a reflection of attitude of the country towards CAM, and their education.

For UK, for example, Zollman and Vickers reported in 1999 that surveys of doctors' attitudes to complementary medicine showed at that time that physicians in UK believed CAM is moderately effective, but low response rates make some studies unreliable. Although hospital doctors and older general practitioners tended to be more sceptical than younger doctors and medical students, most respondents believed that some of the more established forms were of benefit and should be available on the National Health System. Younger doctors and medical students were also more likely to perceive their knowledge of complementary medicine as inadequate and wanted be more educated in the subject (52). Qualitative research showed also that many doctors wanted to be supportive of patients' choices and would welcome further information, although they generally regard CAM therapies as scientifically unproved (52). Their main concerns were that the patients (52):

- may see unqualified complementary practitioners,
- may risk missed or delayed diagnosis,
- may stop or refuse effective conventional treatment,
- may waste money on ineffective treatments,
- may experience dangerous adverse effects from treatment,
- the mechanisms of some complementary treatments are so implausible that they cannot possibly work.

#### **2. Lay people.**

In contrast, many lay people express a favourable opinion on alternative methods of treatment, and a lot of them actually make use of them. We have already discussed the possible reasons - contemporary user of health

care services wants to be treated in more holistic way, and wants to be more actively involved in the process. This is well known more than a decade. For example, Zollman and Vickers in their series of “ABC of complementary medicine” reported that According to the surveys of users of complementary medicine in UK, about 80% of them were satisfied with the treatment they received (53). This was not always dependent on an improvement in their presenting complaint. For example, in one UK survey of cancer patients, changes attributed to CAM included being emotionally stronger, less anxious, and more hopeful about the future even if the cancer remained unchanged (53). Furthermore, a Community Health Council survey found that over two thirds of CAM users returned for further courses of treatment and that over 90% thought that they might use complementary medicine in the future (53). This indicated high level of satisfaction of CAM users. Zollman and Vickers claim that the specific effects of particular therapies obviously account for a proportion of patient satisfaction, but surveys and qualitative research show that many patients also value some of the general attributes of CAM (53). They discuss in details several aspects of satisfaction of users of CAM with CAM methods and practitioners, being (53):

- amount of time available for consultation and continuity,
- attention to personality and personal experience,
- user involvement and choice,
- hope,
- touch,
- dealing with ill defined symptoms,
- making sense of illness, and
- spiritual and existential concerns.

From the public health perspective we should stress that, for the lay people's good, in the triangle lay people - medical doctor - CAM practitioner should exist a communication, but Zollman and Vickers report that there exist evidence that most people who have used complementary medicine did not tell their doctors about it (52). Medical doctors can have and should have an important role in identifying their patients who use CAM, to minimize as much as possible the risk of harm of using CAM treatments, and, as far as possible, ensuring that their choice of treatment is in their best interests. To achieve such a situation, medical doctors should first be well informed about different aspects of CAM, and to establish appropriate communication with patients about using CAM, and sometimes with CAM practitioners as well.

### **Public health and its role in building bridges between conventional medicine and CAM**

From the public health perspective, in countries with predominant conventional medicine, CAM cannot be overlooked any more. It is more and more clear, that conventional medicine has become dependent on medical equipment and pharmaceutical industry which provides expensive technological solutions to health problems, even when they are not particularly effective. But this is only one problem.

The other is, that under the umbrella of scientific evidence based practices, it has turned its back on holism and simple methods of intervention, and much more, it treats the common user of health care services as an object. On the contrary, contemporary user of health care services wants to be more actively involved in the process. On account of its comprehensive philosophical perspective on health, which covers several dimensions of population health need, and not almost exclusively physical dimension, what is a dominant characteristic of conventional medicine CAM, is widely accepted by the lay people. We could even speculate that the consultation process and holistic approach adopted by practitioners of CAM make patients feel in more control of their illness.

All this does not mean that the bio-eco-psycho-social model wishes to or should be replace the biomedical model of health. The concern is more that the stress on the need for biomedical scientific facts is only one special method of understanding illness and health. To depend only on biomedical facts denies historical and cultural depth. Conflicts between specialists from various professions have to be understood in the context, and here public health has the role of building a bridge between them, to contribute to the mastering of the bio-eco-psycho-social model of health, which is the standpoint of various projects for the promotion of health throughout the world as well as in Slovenia (54, 55).

What is relevant for the patient does not necessarily have to be relevant for the medical doctor and *vice versa*. Models of health beliefs (56) help us to understand to what degree a certain person is prepared to undertake medical activities with respect to his own understanding of health and disease and with respect to the consequences of not taking any medical action when being ill. The way and the time an individual will attempt to satisfy his needs for health care/treatment also depends to a large extent on his/her integration into the social network surrounding him/her (57). Amateur reference systems (meaning the social network through which individuals pass before they turn to professional counselling) in essence adopt the social cultural standpoints, knowledge and standards of the patient's contemporaries regarding healthcare, so it is often the patient's social network which influences his/her choice of what, where and when the patient begins to seek conventional or unconventional medical help. Those seeking help from unconventional medicine practitioners in Slovenia were not protected by law or medicine. There is the possibility of abuse of the searcher's trust through the exploitation of his health problems and illness to make a profit, and even worse, through the intentional or unintentional waylaying from professional help which could have been successful, and through direct threats to health with the use of harmful methods.

CAM is a phenomenon which has to be monitored, analysed and influenced through the prism of the biomedical and bio-eco-psycho-social theoretical models, in order to be able to recognise both the dangers and the safety factors involved in its practice. Potential user should be informed about potential dangers in order to make an informed decision. They also need reliable information on standards to be expected in relation to good CAM practice, as well as to know where they can find a competent and qualified therapist; how they can check that this therapist is currently registered in the register of CAM therapists. But how this could be reached, if not regulated? Even in countries with inclusive health care system like UK, there exist enormous problems in reaching these goals (58).

## **CASE STUDY: COMPLEMENTARY AND ALTERNATIVE MEDICINE IN SLOVENIA**

CAM in Slovenia has officially more than 200 years long tradition (59), but its way towards recognition was and still it is thorny. This case study reviews some important public health issues concerning alternative medicine in Slovenia and then, in the discussion, with the assistance of various theoretical models, comments upon the present situation and the possible steps to be taken.

### **Basic unconventional medicine terminology in Slovenia**

According to the new Alternative Medicine Act (in Slovene language Zakon o zdravilstvu) (60), the official term for CAM in Slovene language is “zdravilstvo” what could be translated into English as “healing”. In Slovenia, avoiding of the term “medicine” to designate other methods than conventional medicine is very strongly present. The practitioners of unconventional medicine in Slovenia are designated as “zdravilci” what in English language means “healers”. But, one could note that in the English translation of the title of the act the term “alternative medicine” is used. Thus, we nevertheless could conclude that official term for CAM used in Slovenia when referring in English language is “alternative medicine”.

However, there are many other terms used like “unofficial medicine”, “unconventional medicine”, “holistic medicine”, “additional medicine”, and “complementary medicine”. In certain spheres, also some contemptuous terms like “quackery”, “dabbling”, and “bungling” are used.

### **Some perspectives on and attitudes towards CAM in Slovenia**

#### *Attitude of the State*

##### **Prior 2007**

Prior the adoption of the Alternative Medicine Act in 2007, there was a legal confusion in the field of CAM in Slovenia. Some of laws and which are still in force deal also with CAM issue in the period after independency of Slovenia (44):

- the Health Services Act, adopted in 1992, states in Article 58 that “healthcare workers are permitted to use only verified and professional undisputed supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation which do not harm the health of people and which are approved by the ministry responsible for health with the agreement of the medical ethics committee.” (44,61-63). According to Planinsec (44), from the legal point of view, it was important that legislator classified “supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation” in the Chapter VI, Health Care Practice, of the Health Services Act, what automatically mean that CAM was classified as health care service. But According to Article 45, health care could be practiced only by health care workers (among them medical doctors) “according to the adopted health care doctrine and Medical Deontology Code or other professional and ethical codes”. Permission to medical doctor to perform CAM

from the article is issued and revoked by the Ministry of Health, which also prescribes the procedures for approving such activities;

- the General Practitioners Services Act, adopted in 1999, in its Article 3 lays medical doctors an obligation that “they should by their otherwise independent work follow methods which are professionally and scientifically recognized and verified (44,64). Medical doctors are obligated to do so also by Medical Deontology Code (Article 3) (44,62,63,65), which will be discussed in details later on. Additionally, Rules on medical licences, adopted in 1999, in its Article 9 lays medical doctor an obligation that if he/she wants to have a licence, he/she “must subscribe a statement that he/she would not practise healing and quackery” (44,66);
- in the Medicinal Devices Act (67), adopted in 1999 (later replaced with the Medicinal Products Act, adopted in 2006), homeopathic medicines/products are included. According to this law, homeopathic product could be produced and sold (only in pharmacies), but only after adoption of appropriate executive regulation. According to the EU Directive 2001/83/ES this regulation, being Rules on homeopathic products (44, 68), was adopted in 2004 (first version was adopted in 2001). But this sphere was regulated only on principle, and legally could not be practised, since homeopathy was not legally recognized as health activity.

It is obvious, that prior 2007 CAM was regulated only on principle (for medical professionals only), but legally could not be practised, since there was on one side a lack of executive regulations dealing with “supplementary traditional and alternative forms of diagnostics, treatment and rehabilitation” in details, and on the other side there were other legal regulations, being acts or executive regulations, which contained articles which were incompatible. All this resulted in a magic circle of admissibility/non-admissibility of CAM practice in Slovenia (44).

#### **Present situation**

At the present, characteristics of attitude of the Republic of Slovenia towards CAM are:

- in early autumn 2007, the new Alternative Medicine Act (60) was adopted;
- for Slovenia we could say, that after adoption of the Alternative Medicine Act, it could be classified in the group of countries with tolerant system;
- the national health care system is still based entirely on allopathic medicine, but some CAM practices are now tolerated by the law;
- the classification of CAM methods/systems is basing on NCCAM classification, and according to the Alternative Medicine Act (Article 4) (60) methods/systems of CAM (healing activities) presented in Table 2 are allowed to be practised in Slovenia;
- According to the Act, detailed definition of healing systems and healing methods is to be regulated by the Minister of health.
- the Healers Chamber is authorized for recognition and acknowledgement of healing systems and healing methods, as well as for control/inspection (Article 5 of the Alternative Medicine Act) (60);
- CAM could be practised only by healers which are according to the Alternative Medicine Act (Article 6) (60) adult physical subjects with at least secondary health education and passed exam, regulated by the Minister of health, with valid licence of healer, prescribed by the Alternative Medicine Act

(Article 35). Irrespective to this, homeopathy, chiropractic and osteopathy could be practised only by physical subjects with diploma of medical faculty, and supplemented by corresponding knowledge on CAM methods, with valid licence of healer.

**Table 2.** CAM methods/systems that are allowed to be practised in Slovenia according to the Alternative Medicine Act (60).

Group	
Healing systems	<ul style="list-style-type: none"> <li>• traditional Chinese medicine,</li> <li>• ayurveda, traditional Indian medicine,</li> <li>• homeopathy, and</li> <li>• other healing systems.</li> </ul>
Healing methods	<ul style="list-style-type: none"> <li>• mind-body interaction methods,</li> <li>• biologically based practices,</li> <li>• manipulative and body based practices,</li> <li>• energy medicine practices.</li> </ul>

But despite this enormous move forward, we are facing fundamental information problems – there is informational asymmetry – and lay people, in shortage of conventional medicine health care, are »buying almost everything« what CAM is offering them to restore or preserve/maintain their good health.

### *Attitude of health professionals*

#### **Medical doctors**

The attitude of Medical Chamber of Slovenia, the highest professional association of medical doctors in Slovenia, is strictly negative towards CAM. In the Code of Medical Deontology of Slovenia (65) there are several articles which express this negative attitude:

- the Code lays medical doctors in Slovenia an obligation to refuse to cooperate with people who are “illegally or unprofessionally concerned with the practice of medicine” (Article 2), and
- “to practise only those therapeutic methods that have a scientific basis and have been accepted by the profession“ (Article 3);
- according to Code, medical doctors are free to select their methods and ways of patient treatment, but they are obliged to consistently follow the achievements of medical science (Article 14);
- according to Code, medical doctor “can practise medical service only if hi/she is registered in the Register of medical doctors, has licence for certain professional sphere and has appropriate education and qualification” (Article 10);

Also a lot of medical doctors themselves have negative attitude towards CAM. At its annual meeting in 1989 the Slovene Medical Society devoted all its professional debates to alternative medicine (the meeting was entitled “Alternative Medicine is not Medicine”). At this meeting the doctors distanced themselves from non-standard methods of work, demanded suitable measures to be taken against members of the Medical Society who ignore ethical provisions and are using unverified methods, and also addressed a warning to responsible people that suitable action must be taken when “healing” has bogus effects and when people are duped (69).

However, despite the formally negative attitude of the medical profession, greater and greater interest is being shown by medical doctors and pharmacists, especially in primary health care, in some forms of treating patients that could be called alternative (70). Interest is not only being shown in acupuncture (71) and acupressure, which official medicine has already placed into the list of permitted health services (72), but also in methods which are being introduced into practice in some parts of the developed world, such as meditation, homeopathy (73) and chiropractics. Acupuncture was, for example, introduced in Slovene health care services at the end of seventies and early eighties (72). Proof that medical doctors in Slovenia are constantly showing increasing interest is shown by the founding of professional medical associations such as the Acupuncture Association (developed from the previously formed Section of the Slovenian Medical Society for Acupuncture and Traditional Medicine) (74), the Society of Homeopathy (founded in 1991), and INTA - Initiative Committee for Open Dialogue of Medical Doctors on Integrative Medicine INTA, founded in 2002, as well as various professional meetings discussing alternative medicine (75).

The attitude of medical doctors towards CAM has an interesting characteristics - it seems that they tolerate alternative methods more readily if they are used for prevention (e.g. healthy diets, sufficient exercise, care for mental health, etc.), while stronger conflicts arise when a very sick patient desires alternative treatment and the doctors themselves do not believe in such treatment. For instance, Debevc recommends (76): "Everything which a doctor knows which might be harmful must be unequivocally and decisively rejected. If the patient's dilemma is strong and the hope for successful treatment (of cancer) is questionable to such a degree that the patient wants to try one of the alternative methods of treatment, then the doctor should tolerate this in order to be humane, but on condition that the patient does not relent from, postpone or neglect his standard treatment, and that the patient does not pay too high a price for alternative treatment with respect to his means".

In conclusion we need to stress that Slovenia is beside Sweden, still only EU country in which there is a risk for medical doctors of being struck off the Register of medical doctors if practicing CAM (11). On the contrary, in almost all EU countries medical doctors are allowed to practise any CAM method, even without any substantial training (11). However, in Slovenia medical doctors that are benevolent to CAM methods are expressing their attitude searching for an open dialogue about this issue for several years now (75,77,78).

#### **Other health professionals**

The other large group of health professionals which are searching for an open dialogue about CAM methods being group of nurses (79). Some research work on attitude of nurses to CAM methods was done as well (80-82). The latest study results showed that in Slovenia 89% of nurses that responded to the survey defined properly what CAM methods are (82). Among them 45% declared that they already used CAM methods. This percent is rather low in comparison to the attitude of nurses in other countries, but the fact is, that a major part of herbal medicines, used in 60% of nurses, is perceived as "traditional Slovene art of healing" rather than CAM (82).

#### *Attitude of lay people/patients*

Although the prevailing attitude of medical doctors regarding alternative medicine is sceptical, this does not hold for most of the inhabitants of Slovenia. This claim is supported by some studies which will be discussed later.

### Users of CAM in Slovenia

There exist only scarce data on users of CAM in Slovenia what is a clear reflection of the attitude of the state institutions towards CAM. Nevertheless, there exist some data on this issue.

1. Reliable data on the characteristics of alternative medicine in Slovenia can be gained from surveys in the frame of Slovene Public Opinion surveys (83, 84). In period 1900-2004, four surveys (in 1994, 1996, 1999, and 2001 respectively) included the question about using alternative forms of support/care for one's own health. The results are presented in Table 3.

**Table 3.** Using different methods of complementary and alternative medicine (CAM ) in Slovenia according to the results of Slovene Public Opinion surveys for years 1994, 1996, 1999, and 2001 (83, 84).

Methods of complementary and alternative medicine	%			
	1994	1996	1999	2001
Special diets, fasting, macrobiotics	30.6	24.9	23.5	26.6
Herbal medicines	30.7	28.1	24.5	26.3
Acupuncture, acupressure and shiatsu	3.4	5.3	6.1	5.7
Bioenergy, radiesthesia	6.9	7.8	8.9	9.1
Massage, chiropractic, reflexology	10.8	12.6	15.8	18.5
Meditation, autogenic training	5.8	6.0	5.7	7.1
Yoga, tai chi, dance therapy	3.3	3.7	3.7	5.2
Biorhythm, astrology, numerology	2.6	4.7	2.6	2.0
Homeopathy			2.0	1.8

2. In 1996 Frankic (85) discussed on the basis of a representative sample of 870 adult Slovenes, that 57.3% use alternative methods for self-medication and that the share of women (57%) was typically greater than the share of men. Among the products used two-fifths are medications and three-fifths are bought products: When searching for symptoms that people most frequently treat themselves, high temperature, coughs and Sore throats are first; second are feeling rundown, stress, anxiety, insomnia, and tiredness; third are preventive measures; and fourth are aches in the back, feet and rheumatism.
3. An anonymous survey on alternative medicine (86) was conducted in 1996 on an arbitrary sample of 1650 patients registered with the general practitioners of the Celje Health Centre. The most important results of the survey show that: 83% of those surveyed know of alternative medicine but their understanding of this was varied (for 37% this is a method of healing which is not recognised by official medicine, for 30% this is traditional medicine from a different cultural area, 29% are of the opinion that this is treatment with natural healing substances, and for 4% this is something else). 49% were in favour of the use of alternative methods of treatment and 37% used alternative methods of treatment.

When searching for influences on the use of alternative methods of treatment it was discovered that an important role was played by sex (more women than men), age (older more than younger), education (the educated more than the less educated) and purpose (preventive more than curative, especially with people who have completed higher education). Younger (up to 49 years of age) patients frequently opt for alternative methods without consulting their doctor, while 50% of older patients consult their doctor before commencing such treatment or during such treatment. Among those using alternative methods, 37% received recommendations and instructions for its use from literature, 25% from the mass media, 21% at courses and seminars and 17% from other sources.

Alternative treatment is implemented by the patients themselves in 34% of cases, 25% under the guidance of their doctor, 22% with other family members and 19% with friends and colleagues. 60% of the respondents could not say whether their chosen doctor was for or against alternative methods of treatment, 31% were of the opinion that their doctor was in favour of using alternative methods, while 9% responded that their doctor rejected alternative methods. Only 5% of the 604 people surveyed who used alternative methods were of the opinion that treatment was unsuccessful, while 49% assessed their treatment as being successful and 46% as partly successful. Among those surveyed who used alternative methods, 96 (16%) of them abandoned the treatment prescribed to them by their personal physician. 32% of the users of alternative methods of treatment are in favour of these methods being included in a combination of voluntary and compulsory health insurance; nearly the same share (31%) are of the opinion that alternative medicine should be included in compulsory health insurance. For voluntary insurance in this field, 18% are in favour, 9% are for self-payment and only 10% of the users of alternative methods could not make a decision regarding such financing possibilities.

The results of the survey show that people know of various methods of alternative treatment, that they are in favour of such methods of prevention and treatment, and that they also use such methods.

We should also stress in this place, that Slovenia was the member of COST Action B-4 project (39, 70), represented by a BION – Institute for Bioelectromagnetics and New Biology (87).

## **CAM practitioners**

### *Institutions and societies of CAM practitioners in Slovenia*

In the first place BION – Institute for Bioelectromagnetics and New Biology, should be mentioned (87). This institute was founded in 1999. It was acknowledged as a research organisation by the Ministry of Higher Education, Science and Technology. In 2004 it transformed into the limited liability private company. In its first years the aim was to investigate the, as yet not very well understood, phenomenon of the influence of various electromagnetic fields on organisms. On the one hand, this research area covered the influence of weak non-ionizing electromagnetic fields on various living beings and, on the other, the still controversial question of endogenous

coherent electromagnetic fields in organisms and their role in the living process. Research in such areas inevitably brought the Bion Institute close to CAM. This was the reason that this institution obtained the status of a COST Action B-4 project national coordinator (from 1993 to 2000).

In the second place we need to mention the Section of Natural Treatment Therapists in the frame of Association of Small Business at Chamber of Commerce and Industry of Slovenia (88). It was founded in autumn 2002 to incorporate business and other legal subjects practising CAM in Slovenia.

Beside above mentioned institute and integration, there exist several other integrations of CAM practitioners in Slovenia, among them being (listed by date of foundation) (62, 89):

- Slovene Acupuncture Association in the frame of Slovenian Medical Association (90),
- Slovene Society of Homeopathy, SHD, founded in 1991 (91);
- Association of bioenergetics of Slovenia, ZBIOS, founded in 1994 (92);
- Slovene Society for Alternative Medicine, D.A.M. founded in 1998 (93);
- Slovene Society for Complementary and Natural Healing, KONAZ, founded in 2000 (94);

There exist also special integrations, aimed at education of CAM practitioners, among them:

- Professional organization for basic and permanent education and qualification on the field of CAM, HIGEA, founded in 2002 (95), and
- Center for Development of Alternative Methods of Treatment, ENOST, with its School of Integrative Biogonomics (96);

Very interesting is an integration which could not be classified only among CAM practitioners integrations since it is an integration of medical doctors (licensed and those practising CAM) (75). This integration is the Initiative Committee for Open Dialogue of Medical Doctors on Integrative Medicine INTA, founded in 2002, and it is aimed at establishing open dialogue between conventional medicine and CAM.

### *Number of practitioners and their registration*

Owing to the recent legal vacuum in our country, the real number of healers in Slovenia is unknown, as are the types of "health" activities they practise. But as cited by Cerar (89), according to KONAZ estimation, there are about 1500 of them. As cited by Cerar, according to Verdel (89), between 200-300 out of them are qualified, all others are probably seeking good earnings in this CAM chaos in Slovenia, on account of desperate, uninformed and helpless lay population.

Some kind of insight in structure of CAM supply in Slovenia give the results of survey on state of affairs in the field of CAM, which was sponsored by the Section of Natural Treatment Therapists in the frame of Association of Small Business at Business Chamber of Slovenia. The methodology was as follows (89, 97):

- time frame: autumn/winter 2005/2006;
- target population: healers (CAM practitioners) in Slovenia (about 1500);
- respondents: 118

The results of this survey are as follows (97):

1. Business status of CAM practitioners.

The results showed that 29% CAM practitioners were practising CAM methods as self-dependent entrepreneurs, 15% as legal subjects, 49% as amateurs, and 7% something else or without answer.

2. CAM methods.

The respondents reported practice of following methods/systems according to NCCAM classification of CAM methods:

- mind-body interaction methods and energy medicine practices: in total 58%; by method within this group following well known methods: bioenergotechnology 26%, Reiki 20%, radiesthetics 14%, psychotherapy 9%, meditation 6%, yoga 4%, regression 3%, hypnosis 3%. In this group also counselling for better quality of life is classified in this survey, with 7% of responders claimed to practise;
- biologically based practices: in total 15%; by method within this group following well known methods: diets 33%, herbalism 14%, bathotherapy 9%, fasting 9%, aromatherapy 6%, Bach flower therapy 6%;
- manipulative and body based practices: in total 21%; by method within this group following well known methods: massage therapy 28%, Shiatsu 10%, acupressure 8%, osteopathy 6%, reflexotherapy 6%, physiotherapy 6%, chiropractice 4%, lymph drainage 2%;
- CAM systems: in total 6%; by system within this group following well known systems: homeopathy 54%, ayurveda 33%, and traditional Chinese medicine 13%.

The limitation of this study is clear – owing to unregulated CAM sphere in the time of survey, it was not possible to establish actual study population and consecutively the results are hardly representative. Nevertheless, they give first insight in this problem grounded on the scientific methods.

### **On future perspectives of CAM in Slovenia**

From the public health perspective, we welcome, that our country finally adopted clearer stand towards CAM, but certainly this is rather a beginning than the end of a legal CAM story in Slovenia. Due to the undesirable and sometimes even dangerous phenomena associated with CAM, and due to relatively stable use of these methods (Table 2), it is strongly needed to regulate this field much clearer as it is today. Also, CAM is a phenomenon which has to be seriously monitored in a representative manner, on general and in details, and analysed, and influenced through the prism of both, the biomedical and bio-eco-psycho-social theoretical model, in order to be able to recognise both the negative and protective risk factors involved in its practice. This are the reasons that in the near future very important organizational as well as conceptual steps need to be done, comprising many compromises and understanding among actors. Among the reasons that all this need to be done as soon as possible is the standpoint of the WHO (8), which supports and encourages member states to form their own health policies.

Among organizational in the first place, those steps, which the Alternative Medicine Act lays on responsible people, are to be done:

- to found the Healers Chamber and the Register of healers,
- to establish a system for recognition and acknowledgement of healing systems and healing methods, as well as
- to issue licences for practising CAM, and
- to establish competent bodies to control the market of healers in Slovenia.

We believe that these steps will be realized in the near future. When these steps will be accomplished it will be possible to evaluate CAM in Slovenia properly, from more comprehensive and evidence based point of view.

Conceptual compromises will be much harder to attain, and we are well aware that it will take a lot of time to put the CAM field and it's dynamic somehow in order. But all actors should become aware that it is the user of one or another health care practice who is the most important, and for the lay people's good, in the triangle lay people – medical doctor – CAM practitioner a communication should be established. Conventional medicine is responsible for evidence based approach to health problems (including diagnosis and treatment of diseases), but could be in certain situations complemented by other safe and from lay people appreciated approaches. In this frame, public health is among others responsible for clear and understandable terminology. A priori opposition in intolerance to unconventional methods by conventional medicine causes more medical damage and social pathology than if it were offered on an opened scientific basis. Opinion and behaviour change is possible only in the long term via broadly founded health promotion programmes based on a science which not only takes into account biology but also the social, economic and cultural characteristics of populations.

Now, when CAM in Slovenia is regulated, we sincerely hope that our country will proceed: alternative methods have to be studied, clarified and joined with the measures of modern medicine, when it is not harmful and where there is evidence that healing contributed to the improved feeling and satisfaction of people.

In health promotion and disease prevention, especially in the frame of primary health care, certain already proven CAM methods could be very beneficent, and effective in reducing burden of certain major public health problems. In Slovenia, for example certain body-mind techniques like psychotherapy as an intervention tool for primary prevention could be perspective in reducing mental disorders burden of the population. Howsoever, we could understand that also the International Classification of Primary Care (ICPC) used in primary health care since 1987 (98), is recognizing the long-standing observation that patients' problems, concerns, complaints, symptoms, and other conditions a wide variety of social and psychosocial states that are not strictly biomedical.

There is another problem which is certainly not present only in Slovenia. Speaking for developed countries, the demand for health care has changed dramatically over the last 40 years due to changes in demographic structure, increasing of real incomes, improvements in medical technology, and globalization of the world as the main reasons. This is understandable since everybody wants to be healthy. Yet conventional medicine health care systems seem to be in almost permanent crisis and different kinds of waiting lists are longer and longer. We are facing the infinite nature of human wants and the finite nature of resources available to produce health in these systems. One way in which the problem of scarcity can be overcome is to let people buy the health care they want at the free market. This

approach on the first sight seems to be like »a magic stick« - all treatments could be available if you want to buy them and have the money to pay for them. This could and it is the case for example in cosmetic surgery. But, what would happen if all health care were bought and sold in the free market? The common sense tells us that there would be an enormous inequity between people in attaining health care. Thus, from the public health perspective, health and health care are special goods, as well as they are goods of especial importance for every country, since good health of the population is its biggest capital, and cannot be treated like other goods. Health and health care cannot be sold and bought like other goods and services on a free market. But where is CAM in Slovenia in this story? The health care system of Slovenia is facing similar situation as the other systems in developed countries. There is a shortage of health care system resources of all kind. People are not treated as they expect to be treated, and here CAM is coming in the position. But, since CAM is constantly rejected by official medicine, it is not treated as being a health care service. CAM response is anticipated, and the direction towards CAM being a »perspective business branch« could be traced (99). This is certainly an extra alarm for public health in Slovenia that CAM must come on the top of the agenda. Yes, it is »a business« but this business should be strictly regulated and inspected since it is dealing with a health of a population, and there need to be a dialogue between conventional medicine and CAM practitioners.

In conclusion, we would like to refer to a remark written just above, being that in shortage of health care system resources, people try to find the best solution for them in searching to fulfill their health needs. This population potential should be, on the basis of integration of old and new cognitions, transformed to a process of health promotion, which has by its activities big potential to suppress harmful and dangerous types of CAM. As stated by Eckenfels (100), building on classic conceptual schemes in social medicine in conjunction with the health care ecology model, effective and efficient health promotion programmes in the context of “health for all” concept, health for all population structures on all levels could be prepared. In context of this concept especially striving for comprehensive primary health care is important. Active participation of people in comprehensive primary care will be the guarantor that they will take over responsibility, care and behaviours for their health, which corresponds with their specific health needs, and on scientifically recognized cognitions. In the process of re-orientation to comprehensive primary care, big political and managerial engagement is required in all sectors, and on all levels of societal organization. In another words, we need healthy public policy (101). Without changes in this direction, unplanned and partial bumping into CAM is like struggling against windmills.

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module. If necessary, read recommended readings as well. Critically discuss with your colleagues:

- the terminology in CAM field, and
- characteristics of CAM.

### **Task 2**

From domestic (e.g. Biomedicina Slovenica, and COBISS-Cooperative Online Bibliographic System of Slovenia in Slovenia), and/or international bibliographic data-bases (e.g. Medline, PubMed) find out if anything is published from the field of CAM in your country. If yes, then try to find out its characteristics and how CAM is treated in your country (e.g. what kind of health care system do you have in relation to CAM, the attitude of conventional medicine doctors to the CAM, etc.).

### **Task 3**

If not, try to find an example from other countries in Europe (except for the UK).

### **Task 4**

Critically discuss with your colleagues how different European countries treat CAM.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>ALTERNATIVE MEDICINE DURING MILLENNIAL TRANSITION</b>
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<b>Module: 3.7</b>	<b>ECTS (recommended): 0.2</b>
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<b>Keywords</b>	Alternative medicine, holographic paradigm
<b>Learning objectives</b>	After completing this module students and public health professionals should have accepted pluralism in health care approaches.
<b>Abstract</b>	Alternative medicine is becoming the important factor in health care in most countries of developed world. Generally, that development was enabled by spreading of postmodern comprehension within the Western <i>Weltanschauung</i> . Postmodern comprehension both, enabled deconstruction of dominant health paradigm, and stimulated acceptance of pluralistic attitudes in matters of health care. So, alternative medicine is travelling now on a rather fast track through medical institutions and even through most solemn medical campuses of developed world. Of course, there is no doubt who is holding the reins there. So, in order to cut through power plays of powers that be it is crucial to be aware of distinctions between alternative and official medicine. The <i>differentia specifica</i> of alternative medicine could be understood by dropping out of Cartesian paradigm and by turning to the basic postulates of holographic paradigm.
<b>Teaching methods</b>	After introductory lectures students will participate in discussion. It might be helpful to put an emphasis on personal experiences and/or personal engagement of students.
<b>Specific recommendations for teacher</b>	It might be advisable to stick to the concept of integrative/integrated medicine (Rees L., Weil A., Integrated medicine, British Medical Journal, 2001; 322: 119-120 (20 January))
<b>Assessment of Students</b>	Personal and group contribution, through written and oral presentations

# ALTERNATIVE MEDICINE DURING MILLENNIAL TRANSITION

Vuk Stambolović

## THEORETICAL BACKGROUND

### Introduction

Alternative medicine is the common name for an array of therapeutic systems and technologies that have originated from the tradition of vitalism, i.e., from the tradition based on the assumption that the man, nature and the Universe are all permeated with the life force - *vis vitalis*<sup>1</sup>.

Due to that origin, in the countries of the First world, during the former millennial transition (between XIX and XX century), alternative medical systems and technologies were pushed into the background (1). The mechanistic medicine took over and, established as a science, practiced monopolistic control for almost one century.

However, the ongoing millennial transition brought a significant change in the status of alternative medicine. Alternative medicine (sometimes under the name complementary medicine) started to acquire a significant role in developed countries, especially in Western Europe and in Northern America, where until recently it was not only marginalized but ostracized as well.

Regarding that “surge” of alternative medicine within the developed world indicative is the example of United Kingdom. In 1986, British Medical Association published the report in which alternative medicine was discarded as something that was “not in accordance with natural laws” (2). Seven years later though, in the new report, British Medical Association informs that more and more physicians are looking for the information about “nonconventional” therapies and recommends both teaching of “nonconventional” therapies at medical school, and establishment of postgraduate programs in order to inform physicians with techniques used by alternative practitioners and with possible benefits for patients (3).

One of the reasons for this turn-about was probably the decision of the Department of Health that, in 1991, acknowledged consumer demand for National Health Service access to alternative medicine and gave the go-ahead for family doctors to employ alternative practitioners as ancillary staff. At that time quite a few general practitioners were already funding alternative treatments through their health promotion clinics and, according to one survey, 25% of general practitioners expressed their wish to provide alternative medicine through their practice (4). More recent surveys suggest as many as 60% of general practitioners either practice

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<sup>1</sup> *Vis vitalis* is known in many cultures. In China and Japan, it is known as *chi*, in Tibet as *srog-dzin*, in India as *prana*, in old Iran as *ga-llama*, among Dakota Indians as *wakam*, among Sioux as *oren*. Alchemists called it *vital fluid* and Paracelsus - *munia*. Stambolović V., *Medicina - nadležnost i alternative* (Medicine - Responsibility and Alternatives), Prosveta, Beograd, 1986.

alternative therapies themselves, employ nurses who provide them or delegate treatment to alternative therapists working in the practice elsewhere (5). According to the more recent study of primary care workers (general practitioners, nurses and other primary care team members), 83% respondents had previously referred (or influenced referral) for CAM treatments, the main reasons cited were: patients request (68%), and conventional treatments failed (58%) (6).

The number of alternative therapists in UK is also growing rapidly, from 1981 to 1997 the number of registered practitioners trebled from about 13,500 to about 40,000. New data indicate that this number amounts to 90,000 (7). And a BBC poll of 1200 people in August 1999 estimated that 20% of the public are using alternative therapies each year which contrasts with a figure of 11% in a similar survey six years earlier (8). In addition, it was estimated that 46% of the UK population can be expected to use one or more CAM therapies in their lifetime (9).

In other Western European countries 10 to 25% of the adult population report using one or another form of alternative health care during the year (10), and regarding surveys of the use in general, i.e. some time or other during the course of several years, percent of use reaches 70% (in Germany) (11).

In Israel, in 2000, in a survey of adult population, 10.2% stated that they had used the service of an alternative health care provider (12). In Australia, the government estimates are that each year 57% of Australians use alternative medicine (13) (Editorial, 1999). In 1999, 24% Canadians reported consulting one or more alternative health practitioner in the past six months (14).

In USA, the use of alternatives to official medicine has steadily increased over the past decade with reported use from 34% in 1990 (15), to 42% in 1997. (16). Regarding position of alternative medicine, a turn-about similar to one in United Kingdom happened as well. Namely, in 1993, American Medical Association guidebook for consumers called alternative methods “unproven, disproven, controversial, fraudulent, quack and/or otherwise questionable approaches to solving health problems” (17). Also, as recently as in 1998, The New England Journal of Medicine published a number of articles, case reports and letters about specific alternative treatments. All were found useless and/or harmful. The editors defined alternative medicine as medicine “that has not been scientifically tested and (whose) advocates largely deny the need for such testing” (18). However, in 1995, American Medical Association stopped to refer to alternative medicine as “quackery” and has an official position calling its members to learn more about it (19). In addition, in 1997, the editors of the Journal of the American Medical Association ranked alternative medicine as the third most important topic out of 86 for the Journal to cover. Their readership survey found alternative medicine ranked seventh most important on a list of 73 topics the journal should be addressing (20). According to the recent California study, sixty-one percent of physicians do not feel sufficiently knowledgeable about CAM safety or efficacy, and 81% would like to receive more education on CAM modalities (21).

Along with these data regarding use of alternative medicine, the most significant indicator of its growing acceptance is its transformation from a marginal entrepreneurial activity into a part of the corporate economy. Simply stated, alternative medicine is becoming big business. In United Kingdom, for example, the figure for private spending on alternative therapies is in the region of a billion pounds, compared with the overall National Health System expenditure of 40 billion pounds

(22). In Australia, in 1996, the total expenditure on alternative therapies or remedies by private individuals was over a billion Australian dollars (23). In 2000, the expenditure on alternative therapies rose to 2.3 billion (24). In Canada, it is estimated that in 1996/97 a total of \$3.8 billion was spent on complementary and alternative health care: \$1.8 billion on alternative therapies, \$937 million on herbs and vitamins, \$104 million on special diet programs, and more than \$998 million on books (14). In USA, the total expenditure on alternative therapies or remedies by private individuals doubled between 1990 and 1997 from 14 to 28 billion dollars (16).

Market has become so large that both, major drug companies and media conglomerates found that alternative medicine is a highly sought after and profitable commodity. That example of the alternative medicine's acceptability to corporate world is both, a reflection of its acceptance in the larger community and a harbinger of still-greater acceptance to come as the forces of corporate advertising, marketing and distribution are brought into play.

### **Why?**

In the developed countries during millennial transition the alternative medicine has begun to take on the quality of a distinct entity with its own institutions and recognized by governments, media and the public (25).

There were several reasons for this public, political and economic acceptance. The first reason was the simultaneous existence of high prevalence of chronic diseases on one side, and an obsessive preoccupation with health on the other side, leading to the paradox of a healthy but sicker society. That paradox leads to the ever-higher expectations of health care and to the development of the awareness that spectacular high-tech rescue is not enough (26).

Along with that, the transition from industrial to post-industrial society, with the shift from manufacturing to service industries, offered those in advantaged positions greater opportunities to build rewarding employment and careers, and to develop lifestyles which promote health (27). So, a specific population developed: highly educated, identifying with the values of feminism, environmentalism, holistic philosophy and spiritual or personal growth, and with increased interest in lifestyle change. They were the first to embrace alternative medicine, i.e. its offers of health promotion and low-technology treatments (28).

The second large group of faithful alternative medicine users was coming from three specific patient groups. In the first were patients with long-time treated chronic conditions. In the second were patients with aversion to the reliance of conventional medicine on highly invasive or high risk treatments. And in the third one were patients with mild to moderate, long term, functional and stress related, undifferentiated conditions (29,30,31,32,33).

The number of users further increased due to the belief of alternative medicine users that alternative medicine is more efficient than conventional one (30,34).

Further interest for alternative therapies was raised by patients who were satisfied with provider conduct, i.e. with alternative therapist/patient relations, characterized by more holistic, open and partnership based approach, comparing to the communication difficulties and perceived lack of concern for their well-being perceived in relations with practitioners of official medicine (35,36,37).

The popularity of alternative medicine has been attributed to consumerism, as well (38). It seemed that people extrapolated to medicine a “pick and mix” approach and felt free to use the ideas and treatments they found relevant to their own particular needs.

Due to several reasons alternative medicine was increasingly accepted by physicians and other practitioners of official medicine. At first their patients were asking for alternatives. A major factor was also a shared dissatisfaction with consumers about the biomedical model and mainstream health care system. Some practitioners were looking for modalities that might help when they did not see their patients getting better with official approaches. Some were interested in continuing education and some in economic opportunity and a lucrative market (39).

In the time of rationing of health care the important reason for increased acceptance of alternative medicine was possibility to use alternative therapies to reduce costs. In the Glastonbury study between 1994 and 1997 around 600 patients were referred to specially establish alternative medicine service. Following their initial alternative medical treatment there was, for most, a marked reduction in the use of other health services for the problem referred, the largest reduction occurring in those who had been the heaviest users of other services prior to referral. Visits to general practitioners dropped by around a third. The reduction in the number of prescriptions was even more marked, and again it was the high-user group that the largest reduction took place. A similar reduction was seen in the numbers of further referrals, tests and other treatments required for the group for the condition referred. Analysis also revealed that 85% of patients have reported some or much improvement in their condition after treatment (22). Similar results were reported when alternative medicine was included in treatment of separate nosological entities like cardiovascular diseases (40), lower back pain (41), pain relief (42) and rheumatoid arthritis (43).

The position of alternative medicine was further promoted by its institutionalization, i e. by development of the same kind of institutions that were developed by conventional medicine. International peer-reviewed specialist journals in alternative medicine are emerging, studies of alternative medical practice already appear in established conventional publications, quite a few universities have developed degree programs in alternative therapies while quite a few of medical schools have begun to include material dealing with these approaches in the undergraduate curriculum (in United Kingdom, for example, in 1997, more than 40% medical schools were offering courses on alternative medicine as part of the curriculum) (8).

Of course, alternative medicine would never have this kind of acceptance without “informational highway”. The Internet and the World Wide Web have become important sources for information about alternative medicine, with sites providing abundant information and hundreds of relevant links.

### **What?**

During many years of confrontation between alternative and official medicine, a relational identity was permanently imposed on alternative medicine. Namely, the permanent condition was to define alternative medicine by measures regulations, and patterns of official medicine.

At first, that relational identity was promoted by alternative practitioners themselves (supported sometimes by friendly official therapists), out of wish to secure legitimacy to their therapeutic engagement.

Later, relational identity was being permanently imposed by physicians and medical officials who were treating alternative medicine from the position of power and control.

Both of these orientations were, in fact, putting alternative medicine on the Procrustean bed. Namely, the result of both orientations (of aspiration to become accepted and of practicing of power), was either mutilation of alternative medicine, or construction of nonexistent extrapolations. Alternative medicine just could not be decoded in that way because of its immersion into a different narrative, narrative emanating from holographic paradigm<sup>2</sup>.

Holographic paradigm could be defined by four postulates (44). According to the first postulate, there is no entity that could be defined as pure matter, or pure energy. "Every aspect of the Universe exists as a kind of vibrational expression". By that postulate, the Cartesian split into material and non-material is overcome. All aspects of universe are characterized as "interference patterns" whose identity, nature, style or consistency depend on "external" and "internal" context. According to the second postulate, "every aspect of the Universe is itself a whole, a comprehensive system containing within it a complete store of information about itself". As this information must not necessarily be coded in a specialized system like central nervous system, by that postulate the split into living and non-living is transcended. It is actually implied that every aspect of the Universe is in some fundamental way alive because, besides vibrational expressing, it contains some kind of knowledge about itself. According to the third postulate, "every aspect of the Universe seems to be part

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<sup>2</sup> The concept of paradigm was introduced by Thomas Kuhn. Kuhn defined paradigm as "constellation of beliefs, values, techniques and so on, shared by the members of a given community". As an expression of the specific *Weltanschauung* paradigm plays an important normative function. So much so that it governs its followers. Namely, paradigm is supplying the conceptual "box" which is restricting all followers. Scientists working within the frame of a certain paradigm behave like they have been programmed. Paradigm provides them the criterion for selecting the problems to be solved, it provides an assurance that those problems have the solution, it sets out the rules by which those solutions are to be sought, and often it provides a prediction of what those solutions will be. Phenomena that will not fit the conceptual "box" are often not seen at all. That is why, normally, "scientists do not aim to invent new theories and tend to be intolerant of those invented by others. Instead, normal scientific research is directed to the articulation of those phenomena and theories that the paradigm already supplies." It could be concluded that proponents of competing paradigms practice their trades in different worlds. They see different things when they look from the same point in the same direction. Of course, they are looking at the same world and what they look at has not changed. But, in some areas, they see different things, and they see them in a different relations one to the other. That is why "when paradigms change, the world itself changes with them". See: Kuhn TS. *The Structure of Scientific Revolutions*, Second Edition, Enlarged, International Encyclopedia of Unified Science, Vol I and II, Foundations of Unity of Science, Vol II No 2, The University of Chicago Press, Chicago, 1970.

of some larger whole, some more comprehensive system” and each of these larger wholes is “an expression of the dynamic of its parts”. As various systems, or entities, are intertwined through their common subsystems, this postulate indicates the indivisible wholeness of the Universe. The second important implication is that each constitutive element, even the smallest one, participates in expressing of larger systems of which it is a part.

According to the fourth postulate, “since each aspect of the Universe expresses itself vibrationally, and all vibrational expressions intermingle, every aspect of the Universe contains knowledge about the whole(s) within which it exists and about every other (belonging) aspect”. And that means that each aspect of the Universe carries the seal of its context, i.e., some basic knowledge about its “outer” world.

Holographic paradigm and alternative medicine open a possibility of a new health narrative. Namely, Modern narrative is less and less seen as The Final Truth, in medicine as well. Moreover, various deconstructive tendencies are taking place of, up to recently, domineering technological optimism. These tendencies have brought with the new concepts and even the new institutional culture leading toward significant role change of both patients and physicians. Physicians are being deprofessionalized, and instead of former patients, subordinate, compliant, passive, respectful and in awe of physician - (co)creators of personal health are emerging.

At this stage of transition, of course, it is not easy to speak about the new medical narrative. Still, there are patterns that are emerging (45).

The first one is wholeness. It appears that human being, as active and turbulent aggregation of vibrational probabilities is indivisible, that human suffering can not be understood by analysis of isolated organs and symptoms, that the full meaning of local disturbances could become comprehensible only through their inclusion in wholes of which they are a part.

The second pattern is individualized approach. Namely, transformations of human vibrational expressions can not fit into the nosological compartments. Neither could they be successfully confronted by a standardized treatment. The principle of wholeness is directing towards principle of idiography. Treatment develops into some kind of relational art.

The third emerging pattern is self-acting. Namely, the belief in technology is replaced by the belief in human being, i.e. the belief in human self healing capacities. In that way, the goal of therapy ceases to be imposing one’s rule over human being. The main therapeutic function becomes stimulation and support of the inherent abilities of the patient as the (co)creator of health.

The fourth emerging pattern is connectedness with physical, cultural and social environment. Namely, the principle of self-acting does not imply isolation. Although independent, human being is not self-sufficient. Being inseparable part of its environment, human being is incomplete. That is why there is no healing of human being without healing of his/her physical, cultural and social environment.

The fifth emerging pattern is personalized relationship. And for developing of that kind of relationship both, deepening of relation between (co)creators of his/her own health and his/her supporter, and the creation of intersubjective space by them are indispensable. That is important for better understanding of human suffering. That is also important in order to evade now frequent situation in which health provider produces disease by his/her professional attitude.

The sixth emerging pattern is non-aggressiveness. The point is that the dominant therapeutic mind is obsessed with control. It has vertical penetrability tending to grab and destroy symptoms. The principle of support is horizontal; it is aiming for the human being as a whole. It is pro-, not anti-biotic. It is acting in accordance with the “wisdom of the body”, so it builds, restructures, helps overcoming and integration.

And the seventh emerging pattern is principle of accessible knowledge. That principle primarily means the development of the knowledge of support instead of the knowledge of power. Namely, instead of knowledge seized by specialized professional elites, and confined to closed institutional orbits, principle of accessible knowledge is opening possibility for knowledge enabling self-help and mutual help. That principle also leads toward further deprofessionalization of therapeutic activity, transforming it into a simple and sometimes spontaneous human behaviour.

All seven patterns are operational within alternative medicine. That does not mean that alternative medicine must be the basis of the new medical narrative. It means only that it is up to each of us to decide what each of us is going to support.

Because, according to the holographic paradigm, “each system (on all levels and sublevels) is an expression of the dynamic of its parts” (44).

And that means that every one of us is making a difference.

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## RECOMMENDED READINGS

### a) Alternative medicine and health care:

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### b) Alternative therapies:

1. Gerber R. *Vibrational Medicine*, Santa Fe: Bear & Company, 1988.
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### c) Philosophy of alternative medicine:

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>DISEASE MANAGEMENT PROGRAMS. THE CASE OF CVD MANAGEMENT IN BULGARIA</b>
<b>Module: 3.8</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Disease management, prevention, cost effectiveness, health care quality, access and evaluation, health care research, evidence-based medicine
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• Increase their knowledge related to the concept of Disease management programmes (DMPs);</li> <li>• Know some examples of different DMPs;</li> <li>• Recognize the basic principles in the implementation of a DMP;</li> <li>• Understand the basic features of a DMP; and</li> <li>• Identify different approaches and technologies in DMP implementation.</li> </ul>
<b>Abstract</b>	At present almost all health care systems are concerned mainly with ensuring equity, access, high quality and efficiency of health care. A very important aspect of quality, especially in public health, is its relation to scientific knowledge about effective interventions. The concept of Disease management programmes (DMPs) has been introduced to implement evidence-based clinical practice through guidelines, care protocols etc, to improve coordination among healthcare providers and assure continuity and comprehensiveness of care. DMPs organize health care in multidisciplinary, multicomponent, proactive approach focusing on the whole course of a disease, using evidence-based standards of care. There is no single definition of a Disease management programme, because of their diversity and heterogeneity. They are characterized by three main features: a knowledge base, a delivery system with coordinated care components, and a continuous improvement process. The basic advantages and uncertainties about DMPs are discussed in the module, as well as the ways and results of their implementation. A case study is presented, discussing a proposed model for Cardiovascular disease management programme in Bulgaria.
<b>Teaching methods</b>	Teaching methods include lectures, interactive group discussions, case studies, internet searches, group work, and comparative analysis.

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• Work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• Facilities: computer room</li> <li>• Equipment: computers, LCD projection equipment, internet connection, access to bibliographic data-bases;</li> <li>• Training materials: recommended readings or other related readings;</li> <li>• Target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Assessment should be based on the group-work, seminar papers, and case-problem presentations.

# DISEASE MANAGEMENT PROGRAMS. THE CASE OF CVD MANAGEMENT IN BULGARIA

Mariana Dyakova, Emilia Karaslavova, Dobriana Sidjimova

## THEORETICAL BACKGROUND

### Disease Management Programs (DMPs)

In the last decade health care systems across the world are concerned mainly with few questions: continuity of care, especially for chronic diseases; avoidance of medical errors and patient safety; effective and efficient delivery of health services; and avoiding excessive variations in practice (1). Most of the countries in the World Health Organization European Region have implemented national strategies for quality assurance, such as accreditation systems, hospital quality management or external assessments such as league tables or audits (2,3). A very important aspect of quality, especially in public health, is its relation to scientific knowledge about effective interventions. High quality care can be achieved only when interventions that work are applied to the right patients at the right time (4). Improving quality of medical care and health services is thus a matter of defining and promoting best clinical practice, translating evidence from research into practical work, namely developing evidence-based guidelines, or recommendations, and performing health technology assessment. Quality of health care delivery is not, however, only a matter of evidence-based practice. Organizational and structural aspects of the health system and delivery also have important implications. A lack of continuity of care may delay appropriate measures, duplicate services, and lead to uncoordinated interventions (5).

The concept of *Disease management programs (DMPs)* has been introduced to implement evidence-based clinical practice through guidelines, care protocols, and formulary lists, improve coordination among healthcare providers and assure continuity and comprehensiveness of care (6). *DMPs organize health care in multidisciplinary, multicomponent programs, in a proactive approach focusing on the whole course of a disease, using evidence-based standards of care (5)*. There is no single definition of a disease management programme, however, it is characterized by three main features: *a knowledge base, a delivery system with coordinated care components, and a continuous improvement process (7)*.

*The key elements of disease management are (6):*

- Comprehensive care: multiprofessional, multidisciplinary, combining acute and long-term care, disease prevention and health promotion;
- Integrated care – “continuum of care”, coordination of the different components of the health services delivery;
- Population orientation - defined by a specific condition;
- Active client-patient management tools - health education, empowerment, self-care;
- Evidence-based guidelines, protocols, care pathways / DRGs;
- Information technology & system solutions;
- Continuous quality improvement.

DMP represents a total management of disease and health services, as a method for development of active consensus in the State, mobilizing different stakeholders and responsible institutions in order to fulfil the health priorities set. It is not a legal act or administrative document, but rather a comprehensive *National Strategy*, requiring professionalism, systematic and integral approach, characterized by (8):

- Solidarity and justice in the health system;
- Universal access to medical services;
- High quality and continuity of health care;
- Effectiveness and efficiency of health services;
- Horizontal and vertical management of the planned interventions;
- Decentralization and multi-sectoral partnership.

Following these basic principles of the *New Public Health* (9) is a governmental responsibility on the way to reach the final goal and priority of any health system – promotion and protection of population health and strengthening the human capital of the country.

In this context, the management of any disease is realized through coordinated and integrated care, focused on the entire pre-clinical and clinical development of the disease: early diagnosis, treatment and rehabilitation, as well as towards health promotion and disease prevention through reduction of risk factors levels in the living environment, introduction of healthy behaviours and lifestyle, and increasing the quality and effectiveness of medical services.

*The DMP is a broad term, comprising of various methods, forms of interventions, organizational approaches and technologies.* They are very heterogeneous, consisting of diverse, sometimes unique components, developed for specific demographic, health, social, economic, political, or cultural settings. Considering this, it is completely impossible to create a unified model of a DMP or to translate it to another national context. The basis for the development of a nationally specific and effective DMP is the correlation “population necessities – available resources”. This is a difficult and responsible analysis, requiring a multidisciplinary team, which should consider (8):

- The health needs and necessities of certain (entire / target) population and the society;
- The specific methodology of programme development (goal, stages, control etc);
- The provision of recourses for the programme – mainly financial, human, information;
- The effective management of the resources;
- The coordination of all participants in the programme – individuals and institutions;
- The monitoring, control and evaluation of the DMP; and
- The capacity for sustainability and improvement of the programme for a long-term period.

*Critical factors in the design of a successful DMP (5):*

- suitable target condition (target population);
- evidence base (relevant scientific research);

- consideration of barriers to implementation;
- strategies to change attitudes of stakeholders;
- balance of economic and quality of care goals;
- strategies for continuous quality improvement; and
- strategies for evaluation of cost-effectiveness.

### **Implementation of DMPs for total management of chronic diseases**

Chronic diseases and especially cardiovascular diseases (CVD) account for most of the burden of disease in the European Region (10). Recent evidence shows that there is a strong need to improve the quality of care for people with chronic diseases. Although a number of effective interventions for management of various chronic conditions are promoted by the international health organization, there are still wide variations in the delivery of care and clinical practice. DMPs are one of the measures intended to address this situation. Most of the evaluated DMPs for chronic conditions have been shown to improve the management and control of the disease, namely diabetes, depression, chronic heart failure and cardiovascular diseases (5). The evidence from the implemented till now DMPs in different countries and settings can be summarized in the following conclusions (11):

- DMPs seem to be suitable for conditions for which there are wide practice variations and poor outcomes, due to problems in continuity of care and finding evidence of interventions' effectiveness;
- DMPs reach a better control of the underlying condition, mostly for CVD, shown by reducing the risk of hospitalization among heart disease patients;
- Improved rates of medical performance suggest that DMPs succeed in shifting care from a reactive approach (reacting to manifest complications) to a proactive one (anticipating potential complications);
- DMPs enhance the adherence of providers to evidence-based standards, as well as enhance continuity of care and improve patients' knowledge of their condition/illness;
- In defining the goal(s) of a DMP it is important to achieve a balance between quality of care, satisfaction of providers and patients, and cost;
- Disease management requires behavioural changes in both providers and patients;
- A system of performance and outcomes indicators is considered an essential component of a DMP to ensure its continuous quality improvement;
- The disease management approach needs to have a long-term perspective;
- No evidence is available for any recommendation about the ideal mix of interventions;
- No evidence is available about which components of a DMP are most important for improving quality of care;
- There is no evidence of a direct link between DMPs and significant reduction in mortality or of improvement in quality of life;
- There is no evidence available about long-term health outcomes;
- There is no evidence on cost-effectiveness of DMPs.

However, the absence of evidence does not mean absence of the effect; it means it has not been studied. The strong focus on a particular disease, risk factor or symptom has also been claimed to be one of the possible negative effects of DMPs, however there is no evidence for this. The long-term impact of DMPs on health and health care systems still needs to be evaluated. The impact of DMPs on patients' and providers' satisfaction also remains to be assessed (5).

#### *Cost and cost-effectiveness of DMPs for chronic conditions*

When DMPs were introduced for the first time in the United States, their primary goal was to achieve cost savings (12). The implementation of DMPs requires substantial investments. The cost of developing and establishing a program, including training and information technologies (especially hardware and software), needs to be considered in evaluations of disease management (6). The available evidence about reduced episodes of hospitalization and reduced rates of complications from chronic disease have been claimed to be potentially cost-saving. However, there is not enough evidence to conclude that DMPs are more cost-effective than standard care. Another important gap relates to the ideal allocation of resources to the different components of a programme. Therefore it is important to study extensively the cost-effectiveness of any specific DMP and its components before it is introduced on a large-scale.

#### *Potential ethical considerations*

Concerns have been raised about the ethical and social implications of DMPs (6). Patient autonomy might be threatened by the reduction of freedom of choice resulting from standardization. It is also necessary to identify who should play the coordinating role in a DMP, and what implications this may have for the responsibilities of others (6). Many DMPs have been developed with the assistance of commercial interests, notably the pharmaceutical industry. Concerns have been expressed about potential conflicts of interest in the health care system (13,14).

#### *Conclusions (5)*

The organization of care in multidisciplinary, multicomponent programmes, with a proactive approach focusing on the whole course of a chronic disease, applying the ideas of evidence-based medicine for the formulation of standards of care, can be considered the core of DMPs.

The heterogeneity of DMPs and their dependence on context, complicate the transferability of findings to other settings other than those of their evaluation. There is no single DM model to be applied everywhere. It is not possible to identify an ideal mix of components for a DMP to be effective.

DMPs improve the quality of care of people with chronic diseases, as measured by performance indicators. However, there is no evidence available on DMPs' impact on survival, quality of life or on their relative cost-effectiveness.

There is a need to evaluate the economic, social and ethical implications of disease management programmes.

## **Examples of ongoing DMPs in Europe**

*Maastricht Project (15):* In January 2000 a DMP for patients with diabetes was implemented in the Maastricht region in The Netherlands. The explicit aim is to improve the quality of care for patients with diabetes. The programme's elements are: a core team of general practitioners, nurse specialists and endocrinologists; cooperation with other caregivers (e.g. ophthalmologists, dieticians); protocols stating routes of care, responsibilities and tasks; provision of care according to clinical practice guidelines; and systematic collection of data about patient contacts in order to monitor each patient and assess practice variations among providers.

*National Service Frameworks in the United Kingdom (16):* the 1997 Government White Paper set out the plan for the modernization of the British NHS. As a result, National Service Frameworks (NSFs) have been established by the NHS to enhance the quality and efficiency of the system. Strictly speaking, the NSFs are not DMPs; however, they represent a systematic effort to improve care for particular conditions or groups of patients, and share some elements of disease management. They approach the whole course of a condition and the state's comprehensive strategies to organize care with the aim of improving outcomes. The NSFs set national evidence-based standards of care, including organizational interventions, formulate service delivery strategies and establish performance measures to evaluate progress.

*German Disease Management Programmes (5):* the health care reform act from 2001 provided the basis for the implementation of DMPs in Germany. The programmes are offered by the health funds must be accredited by the Federal Insurance Office, a governmental agency charged with the supervision of social insurances. Implementation of DMPs is linked to financial incentives for the health funds, as enrolled patients are calculated separately in the inter-sickness fund risk compensation mechanism. Evidence-based minimum standards and criteria for enrolment are proposed by the Coordinating Committee (a self-governing body including sickness funds and providers representatives) and subsequently passed by the Ministry of Health and Social Security.

## **CASE STUDY**

### **Cardiovascular disease management programme – the case of Bulgaria**

#### *Introduction and background*

#### **Cardiovascular morbidity and mortality – present situation and trends**

Bulgaria takes one of the leading positions in total and CVD mortality in the European Region and the negative tendencies are continuing in the last 15 years. Cardiovascular diseases are causing 971.0 per 100000 deaths for 2007 or more than 66% of the total mortality (17). The CVD indicators, as hospital discharges of ischemic heart disease per 100000 – 857.48 for 2006 and of cerebrovascular diseases per 100000 – 617.94 for 2006 are also disturbing (18). The results from the largest national epidemiological studies, conducted in the last 20 years “Sofia Heart Study 1994 - 1999”, “Bulgaria Heart Study 1998” as well as the results from the CINDI programme show evidence of higher levels of preventable risk factors and higher individual and population absolute risk, compared to other European countries (19).

These negative trends are considered mostly a result from recently developed unhealthy lifestyles and behaviours, related to the transition period, but also from the continuing and unsuccessful health care reform (started in 2000), leading to insufficient disease prevention, late diagnoses, ineffective treatment, low compliance of physicians to international guidelines and of patients to recommended therapy and lifestyle changes (20). At the same time, hospital mortality from Acute Myocardial Infarction is close and even lower than some European hospitals, which indicates that the qualification of specialists, especially in hospital care are still on a good level (21). The pointed facts as well as evidence from other relevant studies, allow for the following assumptions (22):

- Low quality and effectiveness of the Primary care (GPs), especially when concerning the level of qualification, organization, motivation for improvement, compliance to contemporary best practices and implementation of health promotion and disease prevention activities;
- Ineffective Emergency care, related to lack of financial, material and human resources;
- Insufficient personal responsibility, information and motivation for self-control and self-management of the health status;
- Insufficient state and public responsibility for introduction of evidence-based, equitable and effective health care;
- Continuing organizational problems and chaotic reforms in the health care system, characterized by:
  - Lack of managerial and governance capacity;
  - Lack of integrated information system and chronic disease registries;
  - Lack of working system for quality assessment and control;
  - Inefficient allocation of financial resources;
  - Insufficient official standards and guidelines for good medical practice;
  - Lack of incentives for the health providers; and
  - Lack of trust in the population.

#### **Activities, undertaken to address the problem**

Bulgaria is still waiting for its new National Health Strategy (last one adopted in 2001) and for a National strategy for prevention and control of chronic (including CVD) diseases. In 2001, the Government adopted a programme, called “Bulgaria 2001”, where a “National programme for control of cardiovascular diseases” was announced (23). No specific action plan, activities or any results have been published under it till the present moment. However, there are single legal orders and risk factor control programmes adopted (for example, against smoking, diabetes control etc). Bulgaria is also participating in the International intervention programme for integrated chronic noncommunicable diseases prevention - CINDI programme (24). The National Centre for Public Health Protection has recently published the “WHO CVD-risk management package for low- and medium-resource settings, 2002”, translated in Bulgarian (25).

#### *Prevention activities and published guidelines:*

1. Establishment of a National Committee for development of guidelines for clinical practice of general practitioners (GPs), 2006 with members from Bulgarian scientific society for general practice, the National association of the GPs in Bulgaria and the Bulgarian Hypertension League;

2. Start of a permanent CME course for high blood pressure and cardiovascular risk education - "Educational Master Course on Hypertension and Cardiovascular Risk", European Society of Hypertension (ESH) / Bulgarian Hypertension League (BHL) - 2006, 2007, 2008;
3. Translation / development and publishing of:
  - ESH / ESC guidelines, 2003, 2007 – full and pocket versions are translated, adopted and published by the BHL / BSC;
  - Consensus for mono- and combination therapy of high blood pressure, BSC, 2005;
  - Guidelines for assessment and control of high blood pressure, 2006;
  - Practical recommendations for management of high blood pressure, according to the ESH/ESC guidelines, 2007;
  - Guidelines (handbook) for general practitioners in the case of high blood pressure, 2007;
  - Information and education materials – leaflets, brochures, books for the patient.

Nevertheless, there are no officially adopted Medical Standards for cardiovascular prevention and treatment; there are no effective mechanisms and incentives to motivate the health care providers to follow the published recommendations and not enough public educational programmes.

Based on the analysis of the available European and national epidemiologic and other studies, a comprehensive, evidence-based national cardiovascular disease management programme has been developed. Here its basic components are presented without any detailed explanations or activities.

*Strategic (long-term) goal:*

Decrease the CVD incidence and mortality, increase the quality of life of CVD patients and the healthy life expectancy (HALEs) in the Bulgarian population.

*Operational (short-term) goal:* Successful implementation of a cardiovascular disease management programme and development of a national evidence-based, long-term Strategy for chronic disease control and prevention in Bulgaria.

*Programme objectives:*

- Health promotion and CVD risk factor prevention;
- Early detection and treatment of underlying risk factors;
- Early diagnosis and treatment of CVD; and
- Secondary and tertiary prevention of CVD.

*Leading principles of the programme:*

- Chronic noncommunicable diseases and especially CVD should become a priority for the national health policy;

- The main responsibility should be taken by the government, but decisions and activities should be multi-sectoral, multi-level, including all policies and spheres;
- Strong state control and regulation of health determinants and threats;
- Strict prioritization and control in financing and subsidizing;
- Specific capacity building in health care, focused on long-term care of chronic conditions;
- Continuous adaptation and improvement of the health system and increasing quality and effectiveness of care,
- Consistent policy for making healthy choices - easier choices;
- Implementation of evidence-based interventions, related to population necessities and national specificity;
- Early, continuous and life-long risk factor and disease prevention and health promotion;
- Increasing personal responsibility for health – “personal empowerment”;
- Strong public participation, social commitment and support for health – “social empowerment”;
- Development and setting up of “*healthy public policy*” – health in all policies.

*Intervention spheres (groups):*

- Surrounding environment (political, social, economic and ecological) – environmental protection, social inequalities etc;
- Individual (personal health protection) – behaviour, knowledge, skills, motivation, lifestyle;
- Population free of disease (risk management) – detection and control of risk factors;
- Patients:
  - with acute CVD (clinical management) – emergency care, treatment and rehabilitation;
  - with chronic CVD (clinical management and social integration) – long-term care, disability rehabilitation, social support etc.;
  - high risk groups (potential patients).

*Intervention approaches:*

- Political interventions and lobbying for health;
- Intensive health information and education;
- State regulation and increased priority financing;
- Capacity building in public health;
- Improvement of health services delivery - integrated and patient-centered care; and
- Public participation and partnership.

*Structural elements of the programme, according to health system levels*

**Macro-level: development of positive political setting:**

- Leadership and political will for healthy public policy;
- Integration and partnership between different policies;
- Provision of sustainable financing;
- Priority distribution of human resources – introduction of a health map;
- Legal changes and regulations; and
- Intensive multi-sectoral approach.

**Intermediate level:**

- *Health system organization:*
  - Ensuring continuity and coordination of medical services and life-long care;
  - Increasing quality of care through various incentives;
  - Organization and equipment of multi-professional health teams in Primary care;
  - Stimulation of self-control, self-management and prevention; and
  - Implementation of information systems and registries.
- *Public participation and support:*
  - Increasing public awareness and opposition of stigmatization;
  - Stimulation of positive results through moral and material incentives; and
  - Provision of additional health and social services.

**Micro-level: relationship with the individual (patient):**

- Information, education and motivation of the patients and their families;
- Information, education and motivation of the health providers; and
- Information, education and motivation of the social partners.

*Participants in the programme:*

**Central (macro-) level:**

- Government, Higher Medical Council;
- Parliament (Commission on health);
- Ministry of health (MH) in collaboration with all other Ministries;
- National centre for public health protection;
- National centre for health information;
- National health insurance fund (NHIF);
- Professional organizations of physicians (BMA), dentists and pharmacists;
- Medical and public health schools; and
- Different NGOs –agencies, associations etc.

**Intermediate level:**

- Regional offices / branches of the MH, NHIF, BMA etc;
- Medical establishments – managerial level;
- Voluntary health insurance funds;
- Media;

- Professional organizations of medical specialists (Bulgarian Society of Cardiology, Bulgarian Hypertension League, Bulgarian Lipid League etc);
- NGOs (patients' associations, syndicates, foundations etc); and
- The Industry (pharmaceutical, food and beverages, sports and leisure etc).

**Peripheral (micro-) level:**

- Health professionals – physicians, nurses etc;
- Other professionals working in health care – economists, lawyers, psychologists, social workers etc;
- Professionals, related to the population and individual health – teachers, sociologists etc.

*Stages in the DMP implementation:*

**I stage** – preparation (~ 1 year): activities for planning, coordination and organization of the programme implementation and setting up an Action plan;

**II stage** – implementation (~ 3 years): realization of the particular activities and interventions, according to the Action plan and monitoring of their effectiveness;

**III stage** – final (~ 1 year): analysis and evaluation of the results, achieved and development of Action plan for the next period.

*Monitoring and performance indicators*

In order to improve dynamically the programme and its interventions periodic analyses should be performed and feedback received. Some of the possible indicators are: total risk assessment of representative sample of the population, CVD incidence trends during the period, level of patients' compliance and adherence, patients' satisfaction, behavioural or attitude change, etc.

*Expected results*

**Some of the specific results to be expected from the proposed programme are:**

- Better coordination, continuity and effectiveness in the health sector:
  - Better risk assessment and detection of high risk groups for CVD;
  - Better control and prevention of risk factors;
  - Better treatment and rehabilitation of CVD patients;
  - Implementation of evidence-based standard protocols, guidelines and recommendation for good clinical practice;
  - Increased motivation and compliance of health specialists.
- Decrease in the CVD incidence;
- Increased economic effectiveness and efficiency;
- Development of a National register for CVD diseases;
- Increased health awareness and culture of the population;
- Increased social participation and commitment;
- Decreasing inequalities in health etc.

### *Financial sources for the programme:*

- The Government and Ministry of health, NCPHP;
- Municipalities;
- NGOs (foundations, associations etc);
- The Industry and other business etc.

### **Conclusion**

The problem of cardiovascular diseases in Bulgaria can be only addressed by means of complex, long-term and comprehensive approach, including short-term and long-term interventions in the framework of a National Programme (Strategy) for management of CVD (26). It cannot be solved through temporary one-sided activities. All interested stakeholders and institution should participate in the programme implementation and analysis.

### **Discussion and possible restrictions of the model**

The proposed programme does not claim to be cost-effective or cost-saving, as clear evidence for this is lacking. It is also important to point out that this DMP of CVD does not include all possible approaches, interventions and activities for reaching the final goal of the programme. This is only a model, an example of a comprehensive evidence-based DMP for CVD.

## **EXERCISES**

### **Task 1**

The students are asked to figure out significant public health problems for their country (individual work). Then, in an open discussion, together priorities are set up, according to the specific national settings.

### **Task 2**

The students are dividing into groups of 3 to 5. every group chooses a priority problem and develops a design of a DMP. The models are presented before all students and a discussion about their strengths and weaknesses is initiated.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>QUALITATIVE NATURALISTIC APPROACH - TRANSITION OF PARADIGMS AND PUBLIC HEALTH PRACTICES</b>
<b>Module: 3.9</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	research, qualitative methods, public health,
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• understand qualitative naturalistic approach in public health</li> <li>• differentiate use and results of quantitative and qualitative approaches</li> <li>• identified main use and importance of naturalistic approach</li> <li>• recognize possibilities for naturalistic approach use in public health practice</li> </ul>
<b>Abstract</b>	The use of qualitative and consensus building techniques enables better understanding and improved collaboration among “policy stakeholders” (politicians, administration, public health professionals and community) involved in needs assessment and health policy formulation. War, migration, and transition in South East Europe hardened most of public health activities but especially made the process of health needs assessment and formulation of health policy very difficult. Qualitative analytical methods have been introduced in Croatia over the last 10 years. Nine Croatian cities and 15 Croatian counties created City/County Health Profiles and City/County Health Plans by using qualitative methods. The greatest gain from introducing the qualitative analytical approach is wider participation in planning and managing of the resources for health at all levels, from community and regional to national level. Qualitative analytical approach was conducted through an intense and prolonged contact with a field, and real community life, enabling gaining of a 'holistic' overview of the local community.
<b>Teaching methods</b>	Lecture (2 hours) Seminar (2 hours) – student presentations and discussion Individual/small group work (2 hours) – exercise

<b>Specific recommendations for teachers</b>	Total of 6 teaching hours consist of: 4 contacts hours: 2 lectures + 2 seminars (presentations + discussions based on the exercise findings) 2 individual/small group hours work (Naturalistic approach and policy analysis)
<b>Assessment of Students</b>	Case problem presentation (exercise findings and conclusions) + structured essay.

# QUALITATIVE NATURALISTIC APPROACH - TRANSITION OF PARADIGMS AND PUBLIC HEALTH PRACTICES

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## THEORETICAL BACKGROUND

### **Importance of introducing new paradigms – qualitative-naturalistic approach**

Ideological similarity between the philosophy and practice of health promotion and the assumptions and procedures of naturalistic approach has facilitated the introduction of qualitative methods into the public health practice. Health promotion believes in the ability of individuals (non-professionals) to generate useful knowledge and insights, whereas qualitative methods grant a research value (scientific legitimacy) to individual, subjective experience. Both tend to be inductive (as opposed to classical, deductive approach) and derive general principles from particular facts. Health promotion holds that a solution to a problem can come from the bottom-up (community) rather than the top-down (national level and professional experts). The same is believed in qualitative research, which starts from the idea that concepts and explanations are best generated from the bottom-up, from particular empirical data, rather than the top-down, i.e., from a general theory (1,2,3).

As a result of the transition, war and post-war experiences citizens in South East Europe (SEE) are faced with a lack of social security and limited possibilities to influence changes in the society. Most of these problems were caused by rapid changes from socialist government with centrally planned economies to democratic governments and more market-based economies. Variations in socio-economic factors have had strong impact on the health systems of the countries and the health of their citizens (4,5).

Appropriate public health approaches and methods can make significant contribution to the enhancement of social justice. More than ever, public health is being viewed as a catalyst for peace and an important factor in the socio-economic development equation. During the last fifteen years, public health became insufficient due to wars, economic and political changes. There is a recognized lack of competence in public health, particularly in health management and strategy development, but also in health surveillance, policy analysis and prevention. Apart from rapid changes and changed context, public health is faced and with many limits and shortcomings of “official”, institutionalized practice (6,7,8,9,10,11).

War, migration and transition in the region hardened most of public health activities, but especially made the process of health needs assessment and formulation of health policy very difficult. All health indicators obtained at that time were based on estimates of a key factor – population. Yet today, 15 years after the transition has begun and 10 years after the war has finished, Croatia still has two crucial public health problems: poor accessibility of health indicators at a local level and non-

inclusion of the community opinion. These reasons led to an initiative to implement a different, corrective mechanism in public health practice – qualitative analytic approach, enabling formulation of health policy from non-standard sources.

Three detailed examples will show how results of qualitative analytic approach can be grounds for needs assessment, priority rating and health policy creation.

## CASE STUDY

### **Croatian experience in utilization of qualitative-naturalistic methods**

The establishment of the idea of health promotion in the late 1980s, and especially the practical experience in its implementation through the “Healthy cities” project during the 1990s has changed public health approach and research practice in Croatia.

Participatory methods of community health needs assessment needs have been implemented in the mid-1990s, but a practice of establishing local databases (such as the development of Local Area Indicators in the UK) is yet to be developed. We believe that conventional and positivist approach, as used so far, does not reach local communities. Over the last ten years, qualitative analytical methodology has been introduced in the different areas of public health activities (needs assessment, priority setting, planning, decision making and strategy development) in Croatia.

Methodology was used on three different levels:

1. City level - assessment of community health needs and, based on these findings, production of the City Health Profile and the Plan for Health;
2. County level - assessment of community health needs and, based on this findings, production of the County Health Profile and the Plan for Health, studies of complex human health-related behaviour in their natural environment -Healthy Counties program;
3. Regional level - strategy development for inter-county regional level.

#### **City Level: Rapid Appraisal to Assess Community Health Needs**

The most popular and most used method in the Croatian cities is the method of Rapid Appraisal to Assess Community Health Needs. It was used in 9 cities between 1996 and 2004 (Pula, Metković, Rijeka, Karlovac, Varaždin, Zagreb, Split, Dubrovnik, Crikvenica). The advantages of this method in comparison with classical approaches to health assessment are as follows: it can be done quickly (in two months from the start), it does not take too much expert time and financial resources (approximately 6.500 EUR per city), it is participatory (representatives of different groups of citizens participate in the process, from needs identification to solution finding; includes representatives of city authorities, institutions and organizations as well as those from non-governmental and non-for-profit sector), sensitive (ability to reflect local particularities), valid (scientifically sound), action-oriented (as a product it gives short-term and long-term activity plan), and its achievements are sustainable (it establishes and facilitates co-operation among key stake-holders in the project via priority thematic groups).

Academic credibility of this method is strengthened by the establishment of strict selection rules of participants and panellists and by the process of triangulation of both information sources (essays, observations and collected objective indicators from the system) and researchers (experts of three different backgrounds: public health, epidemiology and medical information science). By use of this qualitative method (combined with available quantitative indicators), health needs assessment was carried out in 1996 in Rijeka, which was used to devise a city health profile and a city health plan. The outcomes of 'Rijeka – Healthy City' project were evaluated in 2003.

#### *Rijeka – Healthy City*

Healthy City has been active in Rijeka since 1990. Till 1995, its activities were mostly determined by the aftermaths of war and economic slump Croatia was suffering, and focused on caring for the refugees and the displaced people, as well as helping the socially disadvantaged. In 1995, the City Department for Health and Social Welfare of Rijeka started devising the city health profile and the city health plan.

Rapid assessment of the population health needs was used to devise these documents. Following the suggestion of the project team, about seventy panellists were selected, comprising representatives of the city administration, important city institutions and the citizens, who were all asked to write an essay on health in Rijeka. In the working meeting, held at the end of June 1996, the participants were presented the most interesting and the most common answers from their essays, as well as statistical health indicators in the city, and the photographs taken based on their reply to the question what it was that diminished and added to the beauty of living in Rijeka.

The participants then chose three most important problems, first individually and then in small groups. Taking into consideration the choice made by the groups, a joint list of five priority areas was made, to be used in future 'Rijeka – Healthy City' project:

- sustainable development;
- advances in environment protection;
- support for disabled people;
- quality of elderly life;
- improvements in children and youth's health.

In 2003, due to the need to evaluate the outcomes of the 'Rijeka – Healthy City' project, an analysis of the changes was carried out for the period between 1996 and 2003. Three sources of information were used for the evaluation:

- (a) 14 quantitative health indicators defined by RAP
- (b) observations made by the project participants (both "veterans" and "fresh forces" from 2003), gathered through work in focus groups
- (c) analysis of program documents and resolutions passed by the city administration.

The evaluation results showed the following:

- quantitative indicators of health and quality of life in Rijeka more reflect demographic, economic and epidemiological transition that other urban areas in Croatia are undergoing as well, than they speak about outcomes of the healthy city project
- analysis of participants' observations pinned down the key areas in which change is evident:
  - community participation in decision-making, inter-sector co-operation  
 "The project has met all its basic goals: its direct users in the local community created and participated in it, RAP stressed the specific needs of this local community; the actions were taken in logical order, according to set priority list – and were complementary; resources were mobilised in the local community, joint planning and activities facilitated co-operation between interest groups, whose activities are complementary..."
  - upgrading people's awareness  
 "The project's value lies in giving individuals responsibility, and realising that everything they do have some kind of effect they as individuals are responsible for... People become aware that what we do today is good for their children... Healthy city project helps us do the most we can, given the circumstances we live in... Work on the project results in the awareness of the pride that it is our city and that I am responsible for my city... The people's awareness has been upgraded in a satisfactory manner (relation toward the disabled and the elderly), we succeeded in fostering inter-generation socialising in local community, i.e. in connecting our oldest and youngest citizens, the people became aware of the need to preserve the environment (water, air, dangerous waste management)...The outcomes of the theme groups' work, and the project itself, show resistance to the sign of our times, to do only what pays, no matter what happens.
  - undertaken activities (exceed the expectations)  
 Undertaken activities range from removing architectural barriers, labelling parking places for disabled people, lowering public telephones... the biggest achievement was done in the area of help provided to elderly and disabled people, The Healthy City Youth Council was founded, the youth became more interested in active participation in the project as well as in civil society, making use of the space the project has opened for them...the media coverage was very good, many social programs in Rijeka were encompassed in the project, new associations were founded and started work, attracting many volunteers, environment situation was improved – gas, sewerage, water, waste management...The presentation of every bigger project is a chance to discuss modes of avoiding possible pollution and taking measures for protection... Additional value of the project lies in the continuing 'Generation Bridge' activity, which was exceptionally well accepted, and has the greatest value in connecting, socialising and decreasing isolation of elderly people, through activities with primary students and children from various associations... The prominence of Rijeka was proved by its advanced solutions in health promotion of various segments of the

population.

- analysis of the program documents showed the following:

- Evident positive approach to health by the city administration (Guidelines of Rijeka City Council). The 2004 Guidelines of Rijeka City Council in its introductory part pay much attention to the analysis and evaluation of economic and social environment, and the city's social profile. According to the resolution by the City of Rijeka (therefore not as provided by the legislation, but as their own, additional obligation), resource allocation provides for "minimum 5% of total revenues for the social program";
- Broad grounds of the 'Rijeka – Healthy City' project - over 80 organizations have been involved (departments of the city administration, institutions, public associations, companies), through programs for priority areas, 310 associations are financially supported;
- A large number of 'Rijeka – Healthy City' project "products": 24 publications (two books), 26 action groups that have continually been carried out, 28 program projects in accordance with selected priorities, and 22 researches.

Qualitative methods used in evaluation process were more precise (than quantitative methods) in detecting changes, their outcome and importance for Rijeka. Gathered change indicators were presented to the public at the Consensus Conference, held on 18 June 2003, at the premises of Rijeka City Council. Around fifty conference participants, politicians, professionals and members of citizen's initiative, came to a conclusion that "the first phase of the project – focusing – has been completed." Priorities were identified and remain the same. "And the main challenge of the project is to continue bringing efficiently together all parties interested in solving the identified problems, and developing mutual trust and co-operation." It is necessary "to maintain the existing achievements, and to further upgrade them, providing vision for future in urban planning, economic and human development of the city." Outcomes of 'Rijeka – Healthy City' project have been highly rated on both national and international levels. These recognised outcomes were the grounds for accepting Rijeka as a designated project city in the fourth phase of the 'Healthy City' project of the European WHO office.

### County level: County public health capacity building: "Healthy Counties" program

It is the "County public health capacity building: Healthy Counties" program that has used primarily naturalistic and participatory approach in the counties health needs assessment. Program started in March 2003. By the September 2004, 15 Croatian counties successfully finished education. It has resulted in County Health Profiles and Plans for Health in 15 out of 20 Croatian counties, with 5 clearly defined public health problems as priorities in each county. All the three key elements of the

participants in the project were included in the health needs assessment at priority setting: the politics, the profession, and the community, with emphasis on inter-sector co-operation. Each Plan for Health, confirmed by the top political bodies in each county (Councils), represents the starting point for introducing a change in public health practice at local level. At the same time, it also allows for formulation of a complete national health policy that would include the community (Cities and Counties) opinion.

One of the most frequently recognized priorities among counties was high alcohol consumption among adolescents. It was selected as a priority in 15 counties. Studies of complex, health-related behaviour, such as drinking patterns in young people in Virovitičko-Podravka county linked to the “County public health capacity building: Healthy Counties” program, represents a more novel way of using qualitative analytical methodology in Croatia. They are still in the initial phase of research. It is in this area that the phenomenological approach, used to understand human behaviour through experience of the participants, has been shown most efficacious. By using qualitative methods (interviews) and by observing, listening and investigating the participants of the process at every level (waiters, school psychologist, ER physicians and teenagers), local researchers from Virovitičko-Podravka County have gradually started to understand the investigated phenomenon in the context of their own social environment. The aim of this study is to recognise particular behavioural patterns associated with excessive drinking, and to develop effective interventions specific in the given social context.

#### Regional Level: Change of public health practices using qualitative naturalistic approach

It was the ‘Healthy Counties’ project that showed that some priorities, such as care for the elderly, are the problem shared by all parts of Croatia. The information that the elderly have been selected a priority in eleven, out of the fifteen counties included in the ‘Healthy Counties’ program (based on the health needs assessment by use of quantitative and qualitative methods), provides the grounds for designing inter-county action plan. In order to design action plans for the elderly, further use of qualitative research methods is needed.

##### *Elderly care*

Due to the demographic transition in Croatia, the elderly (people older than 65) are the fastest growing subgroup in the general population. Due to the Census data (2001) there is 15,6% of elderly in the Croatian general population. Comparing 1991 and 2001 census data in some counties we registered increase in elderly population of more than 20%. Unequal, in-county distribution of elderly, i.e. much higher percentage of the elderly in rural, low-density populated areas and islands (up to 33.3%) makes situation even more alarming. Despite the problems, evident from the statistical data, local authorities failed to respond to them, and offer intervention. Such a state was due to lack of adequate methods for evaluation of specific needs and analysis of details of the problem, required for the intervention.

The first step toward the solution was taken through the ‘Healthy Counties 2002-2004’ program, which used qualitative and quantitative methods (interviews, focus

groups, semi-structured questionnaires) to design county health profiles and priority setting. Analyzing the problems of the elderly, research was carried out in several elderly groups and their family members, including the professionals engaged in the work with the elderly. As a result, 10 counties and the City of Zagreb, described the problems of the elderly even through local specific needs, and included them in their action plans. ([www.zdravi-gradovi.com.hr](http://www.zdravi-gradovi.com.hr)).

In the second step, representatives of all participating counties and the City of Zagreb were brought together for a special conference of all project teams, to discuss the problem of the elderly. The conference was aimed at deepening the problem analysis, and comparing and analyzing joint and specific difficulties the counties are facing. The conference goal was to devise joint guidelines that would serve as basis for design and implementation of the inter-county (regional) elderly care plan. Participants worked in small groups and plenary sessions, which led them to the conclusion that the system lacked:

- sufficient knowledge of elderly peoples' needs (what we usually have are more providers' estimates than users' concerns);
- a good overview of existing resources (institutional, non-institutional) that provide for the elderly (since everybody is providing for the elderly, no one is really responsible);
- mechanisms in place to support collaboration between users, providers and county policy making bodies; and
- Comprehensive ELDERLY CARE policy and a plan for action at the county level.

The following separate problems were identified:

- lack of political interest among county officials;
- lack of interest in collaboration between providers, between providers and county policy making bodies, and between users and providers;
- lack of funding for enlarging existing or introducing new services;
- misunderstanding and confusion about “who is doing what” because of the absence of comprehensive ELDERLY CARE policy and a plan for action at all levels (municipality, county, country);
- lack of knowledge of “what should be done”, and by whom.

The obtained results will form the grounds for designing action plan on the problems of the elderly in Croatia. Activities related to more detailed needs analysis will start in April 2005, with emphasis on identification of specific groups.

Without findings of qualitative analyses, it is not possible to focus activities on problem causes, on identifying specific subgroups and their needs, or adjusting the intervention programs to specific needs of the social environment. Participation of political structures in the planning process will ensure political framework necessary for long-term “healthy” policy.

### **Conclusion**

The job of public health professionals, including those in academic setting, is not only to investigate and understand the world; it is also to change it. This is why in post-

war, transitional Croatia the emphasis has been put on the development of applied (action) research by which the academic knowledge may be used for intensifying activities and development of local communities.

The basic principle of qualitative analysis – to explain the causes and build the theory on the basis of fieldwork – describes the best the difference between the empirical and naturalistic approach in research. Qualitative data provide a rich and detailed description, emphasizing the context in which the experience occurs and allowing us to gain insight into and deep understanding of a process, which is not possible by use of other methods.

Post-war situation, migrations, and the process of transition were the reasons why it was not possible to generate credible demographic analyses, statistical studies and quantitative health indicators. Therefore, use qualitative analysis was chosen as a corrective mechanism in the formulation of health policy. The system was so weakened by aforementioned objective reasons that the application of these very methods, which could empower and strengthen the community, was an imperative.

In all described cases, qualitative and quantitative methods were combined. Inter- sectoral and inter-disciplinary collaboration was used in all stages of the processes, emphasizing crucial role of the involvement of all three key parties (politicians, administration, public health professionals and community). By this triangulation of different approaches to the same problem, we increased the validity of our findings.

The introduction of qualitative and consensus building techniques in the policy formulation process in Croatia has brought much better understanding and improved collaboration among “policy stakeholders” (politicians, administration, public health professionals and community).

At the moment, the greatest gain from the introduction of qualitative analytical approach and participatory methods into the practice of Croatian public health is the achievement of a higher degree of participation in planning and managing of the resources for health at all levels, from community and county to national level.

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## RECOMMENDED READINGS

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2. Međimurska County Health Profile. Available at: [http://zdravi-gradovi.com.hr/include/pdf/zupanije/zupanija\\_medimurske-slika\\_zdravlja.pdf](http://zdravi-gradovi.com.hr/include/pdf/zupanije/zupanija_medimurske-slika_zdravlja.pdf) Accessed: January 30, 2005.
3. Šogorić S, Vukušić Rukavina T, Brborović O, Orešković S, Žganec N, Vlahušić A. Counties Selecting Public Health Priorities-- A "Bottom - Up" Approach (Croatian Experience). *Coll Antropol*. 2005 (in press).
4. County Public Health Capacity Building Program "Healthy Counties". Available at: [http://zdravi-gradovi.com.hr/include/pdf/zupanije/healthy\\_counties.pdf](http://zdravi-gradovi.com.hr/include/pdf/zupanije/healthy_counties.pdf) Accessed: January 30, 2005.



## Chapter 4

# IMPLEMENTATION AND CHANGE: LEADRESHIP PROGRAM, PLANS AND INOVATIONS

- 4.1 **Strategies to develop and strengthen General practice/Family medicine (GP/FM): Primary health care (PHC) in the context of health reforms** (Ž. Jakšić)
- 4.2 **Team Building** (A. Galan, S.G. Scintee)
- 4.3 **Strategy "Health for all" – Nursing Role and Perspective** (M. Zaletel)
- 4.4 **Quality of Nursing Care (M. Zaletel)Community Nursing Care** (O. Susteršič)
- 4.5 **Human Development and Health Practice** (Ž. Jakšić)
- 4.6 **Education and Training as Part of Health Practice** (Ž. Jakšić, H.R. Folmer, L. Kovačić)

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>STRATEGIES FOR DEVELOPMENT AND STRENGTHENING OF GENERAL PRACTICE/FAMILY MEDICINE AS PART OF PRIMARY HEALTH CARE</b>
<b>Module 4.1</b>	<b>ECTS: 0.2</b>
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<b>Keywords</b>	General Practice, Family Medicine, Primary Health Care, Organization of Health Services
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of different strategies in development of general practice/Family medicine;</li> <li>• recognize needs for health care reforms in primary health care;</li> <li>• know the characteristics of different models of organization of general practice/family medicine;</li> <li>• improve the knowledge and understanding of the of function of the health care system.</li> </ul>
<b>Abstract</b>	<p>The health reforms went diverse ways in different countries, but everywhere under powerful influence of political, economic and social changes. The market principles were proposed (and not very successfully applied) to a situation of poor and apparently egalitarian systems. The importance of primary care was underlined, but it was often disintegrated, overspecialized and inadequately supported.</p> <p>Facing a burden of social problems the centralized state solutions as well as participatory social movements had only momentary effects, so that strengthening of local and family capacities, supported by a team of generalist professionals emerged as the best choice. It was advocated by empirical results in most of developed countries.</p> <p>Based on experience from Croatia and other countries the strategies were identified for implementing the generalist professional approach as a basis of PHC services. Firm political decision, vocational training and development of professional identity of general practice/family medicine (physicians and nurses) were essential starting points. Organizational arrangements, academic/scientific support, and international relations have to stabilize further development.</p>

	Independent contractual relation of professionals with financing institutions and group practice in form of integrated small health centres, appear to be the best nucleus of primary health care.
<b>Teaching methods</b>	Introductory lecture, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a teaching room;</li> <li>• equipment: internet; PC and LCD projection;</li> <li>• training materials: readings, hand – outs;</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# **STRATEGIES FOR DEVELOPMENT AND STRENGTHENING OF GENERAL PRACTICE/FAMILY MEDICINE AS PART OF PRIMARY HEALTH CARE**

**Želimir Jakšić**

## **THEORETICAL BACKGROUND**

### **Recent health care reforms and primary health care**

The rapid changes in type of health needs, visible ageing of populations, social problems such as migrations, unemployment, growing social divisions and insecurity, more knowledgeable patients with higher expectations, hopes in technological panacea, mounting costs of health services, all of them together, triggered the new wave of health reforms in all countries. It is under strong influence of deep turn from egalitarian to libertarian views. High expectations are associated with market principles and free enterprises in economics, what is reflected in social, health and other public services (1).

The effectiveness, efficiency and equity in health care, quality and satisfaction of people with services are the essential goals of reforms. As an important factor emerged the general/family practice which according to experiences may influence radically the health system in the desired direction.

The evaluation studies in most developed countries showed that both rational use of resources and satisfaction of people may be influenced by services in which a considerable role is played by general/family practice (2-4).

According to circumstances and traditions the countries have diverse positions and stress different expectations. The economic and cost-containment concerns were at the top in most countries, followed by equitable distribution of services. Many others follow, like implementation of subsidiary principle, involving families and local communities, substitution of institutionalized care by home care etc.

### **Essential intentions in developing primary health care for 21st century**

The great change from egalitarian to libertarian paradigms in economics, social and health policies is still influencing tensions inside health sectors. The big international organizations from the same UN family have conflicting views (e.g. WHO and World Bank) stressing different approaches to further development. The World Health Report "Life in the 21st century - A vision for all" (5) and the new global policy "Health for all in the 21st century" (6) stress social problems and poverty as main contribution to ill health, still follow the predominantly egalitarian approach and build on successful experiences of growing acceptance of primary health care strategy.

*"Building on primary health care, health systems should be: community based and comprehensive, including promotive, preventive, curative and rehabilitative components; available continuously; closely linked at all*

*levels to social and environmental services; and integrated into a wider referral system”.*

*“Maximum freedom should be sought for local services...Long-term care should be primarily provided in the community through non-hospital institutional care and home-based services”.*

However, no specific organizational form of care is envisaged and less stress is given to participation and economics, now popular in health reforms. Contrary, the social aspect is stressed: a decentralized, sustainable and scientific evidence based care, meeting the social, cultural and spiritual needs of different groups, is recommended. Fostering innovation and human resources for health are among essential health system functions.

In the proposed new European WHO policy document (7) the targets are more specific, as e.g. Target 19: “Primary health care with a family-oriented health services at its core”:

*“By the year 2010, at least xx% of people in Member States should have access to a physician and a nurse of their choice, both specialized in family health, as a first level of care and to other specialist services when required.*

*This target aims at:*

- *By the year 2005, all countries having adopted the basic concepts of integrated primary health care services, based on professional team work and adequately supported by secondary and tertiary hospital services;*
- *By the year 2005, the principle of family health physicians and family health nurses working at the core of this integrated primary care service having been accepted by all countries; ...”*

For better understanding it is also important to quote a WHO document, named “Framework for professional and administrative development of General Practice/Family Medicine in Europe” (8a). It comes as a result of a contribution of several WHO collaborating centres for primary health care in Europe, first as a draft of a “Charter for General Practice/Family Medicine in Europe” in 1992. After wide discussions in over 200 international and national associations and professional organizations of physicians and of general practitioners, as well as other health professionals contributing to primary health care in Europe, the revision of the draft Charter was produced in a consultation meeting in Copenhagen 1998. In the section on purpose of the document one of conclusions is:

*“General practice can thus contribute to an effective and efficient primary health care service of high quality, which should positively affect the workload and quality of specialized and hospital care”.*

In the following section the characteristics of General Practice are described, and as the main titled “general” one can read:

*“General practice addresses the unselected health problems of the whole population; it does not exclude certain categories of the population because of age, gender, social class, race or religion, or any category of complaint or health-related problem. It must be easily accessible with a minimum of delay; access to it is not limited to geographical, cultural, administrative or financial barriers”.*

Under section on conditions for the development of GP/FM the structural conditions (discrete general population, working environment close to patients and

referral system), organizational improvements and professional development are mentioned.

Very important issues are described under professional development, such as:

- specific education and vocational training required for all those to become a family physician;
- quality development through audit carried out in peer groups;
- role and function of academic departments of general practice;
- research;
- development of effective professional organization.

The essentially same political statement was repeated 10 years later (8b).

Summing-up, one may conclude that the experiences gained from health reforms are becoming a realistic input for health policies on turn of centuries. The simplified traditional libertarian solutions of individualism and free enterprise, introduction of health market corrected by high moral standards and charity, are not a guarantee against growing social problems and weakening of social networks. As answers are offered two traditional lines of understanding what is most important for primary health care:

- the first, technical, stressing evidence based medicine, high standards of quality, efficiency and professionalism (a line closer to libertarian philosophy and to traditional public health);
- another line stressing the need of equity in health as basic right of people, subsidiary, community participation and empowerment, strengthening of primary groups, like neighbourhoods and families (a line closer to egalitarian philosophy and to so called “new public health”).

Both separately are a try against dominant social currents and practices, appealing to human rationality, tolerance, social concern and solidarity, an important hope, but without final proof.

The new pragmatic policy, as presented in quoted documents are recognizing need of unifying both approaches, as it is presented in a new attitude towards generalist professionals (GP/FM) at roots of the health system. Facing this orientation, practically all countries have to revise their practices, developed, developing or new established states. Many different ways could be envisaged, increasing diversity of practical solutions in different circumstances.

## **Reflection on experiences**

### **A new approach to general/family practice**

A new approach to GP/FM was considered in all European countries CCEE (4,9,10). The situation was different: in some countries even the clear notion was not present about what is and what should be the GP/FM; in others the long tradition petrified some approaches inappropriate to new tasks. The different strategies were necessary, but essentially they may be defined in several groups of elementary strategies. Their relative importance might vary according to different phases of development. The particular elements were installing or reforming training (vocational training, different forms of continuous education and participation of practitioners in undergraduate training), changing the financing of health care (“privatization”, contractual relations of professionals with the financing agencies, self-contribution by patients), the

reorganization of services (individual and group practices, changes in division of work at the primary level, different types of managed care), raising the social and professional status of GP/FM (9).

Unfortunately the feeling of urgency has influenced some mechanical shortcuts and contra-productive impositions of health administrations: the destruction of entrepreneurial self-confidence instead of flexible supporting of its development.

The transitional phase is far more complex than it was expected. Models are less transferable among countries. Propositions and perspectives are not quite understood and seemingly undesirable. Population is conservative and threatened by changes. The new challenges are not welcomed by the “silent majority”.

The enthusiastic minority might be confronted with many difficulties, needs support and the strategies have to be specified and thoroughly carefully thought about.

**The major strategies are similar, but their form and timing will differ**

Although many experiences already exist, simplification and schematization may lead to errors. This general consideration should primarily serve as a frame for consideration of every individual strategy and a way to exchange experiences and not as a proposed prototype. However, the moves triggering change are similar.

**Table 1.** Choice of major strategies in different phases of development

MAJOR STRATEGIES : Constructing support by	PHASE 1 Start and initial growth	PHASE 2 Positioning in the system	PHASE 3 Building int. strength	PHASE 4 Sustained empowerment
<b>PUBLIC IMAGE AND PATIENTS'SATISFACTION</b>				
INTERNATIONAL RELATIONS				
RE-INTEGRATION OF PRIMARY SERVICES				
COLLABORATION, RATIONALIZATION				
<b>POLITICAL RECOGNITION AND SUPPORT</b>				
<b>VOCATIONAL TRAINING, NEW IDENTITY</b>				
PROFESSIONAL EMPOWER- MENT AND ORGANIZATION				
ACADEMIC ROLE AND POSITION (R&D)				
REFLECTIVE EXCHANGE OF EXPERIENCES				
<b>PERSONAL CARE AND QUALITY PRACTICE</b>				

The table 1 is combining a choice of elementary strategies, of which the first five are predominantly based on “external” activities originated by governments, health administration etc., while the second group of five are predominantly “intrinsic”, i.e. initiative is expected by profession itself.

The most important long-range strategy is reliable provision of personal high quality cars and patient satisfaction.

The triggers pushing the change are usually political recognition of GP/FM as important and unavoidable element of health system and vocational training leading to technical self-confidence and entrepreneurship.

After these first steps the “intrinsic” strategies were usually essential for further development: professional empowerment, taking over academic positions and tasks, and gaining managerial skills.

These strategies could hardly be successful without open communication and close collaboration with partners and finally institutionalization of integrated primary care services. Described strategies depend on circumstances, but to become successful have to be based on a proactive, flexible and open-minded behavior of the GP/FM profession.

### Beyond correction of poor practices

The greatest gap between intentions and real achievements of PHC and GP/FM was the wider outlook on care in community and collaboration with all partners, sectors and services. The major role in choosing proper solutions has to be given to people them, but a technically informed advice is necessary. An important strategy in developing GP/FM is to continue and further develop the traditional role of general practice to be advocate and consultant to people, even to protect them in case of insulting marketing of health and medicine.

However, it cannot be achieved if regarded only as a superficial correction of accustomed behavior learned during administratively lead system. It also depends of a deep rooted insecurity and ambiguity learned by vague overall definition of primary care. There is poor understanding and differentiation of certain “kinds” of primary health care, using similar and familiar terms, but with opposite meaning, i.e.: comprehensive, selective, community or family oriented primary health care. The comprehensive or integrated primary health care is the choice, because it has growing role confronting the contemporary problems in developed countries: elderly, poor, and chronically ill and those with psychical problems. It is more complex and difficult than selective approach, it stresses the need for team work, consultations and collaboration, all what is making troubles and regularly hated and avoided by independent practitioners. How to combine the personal care with that broader open-mindedness is a real challenge (3,4).

Building up awareness of the new role, independent thinking based on practical experience, establishing a self-confident professional organization will certainly in most new-comers be a sign of mature achievements.

### Obstacles and what one can do about them

Unfortunately in many of older and quite a few younger professional organizations the internal tensions are inevitable and common. This tensions and conflicts may

considerably weaken development. Majority of obstacles to development are “imported” obstacles actually reflecting conflicts of the wider system. These may be grouped in two clusters:

- (a) One predominantly reflecting general social and political situation, e.g.
- Double face of health politics (verbal support and financial deprivation);
  - Remaining concepts of “selective primary care” and “primary medical care”;
  - Demanding patients and aggressive bureaucrats in health administration.
- (b) Another reflecting the relations within the wider medical profession, e.g.:
- Power structure inside health services and among medical professions;
  - “Closest neighbours, worst enemies” (generalist versus specialists, like internists, public health specialist, nurses, paramedical);
  - Traditional approach to training in medicine and vocational training.

A hidden conflict is more difficult to solve between the group of “pioneers” and the group for which is GP/FM only a “second job” (some successful “managers”, overloaded women and similar groups).

The one of most important resistance are related to stimulation of the “silent majority”. The leading group should not loose the touch with the far larger group proclaiming “Do not shake the boat”. Many different reasons and in some countries the learned obedience, discipline in front of authorities, fear and insecurity might be explanation for choosing waiting as the best solution, because “GPs will always somehow survive”. Training, concrete joint activities, technical project proper information and networking should be the uneasy but important solution.

Fragmentation inside profession among generations, rural/city groups, academic and others GPs, different market coalitions, because of small issues among neighbours, etc. is usually not dangerous, but needs timely deliberation.

### Strengthening professionalism

The building of professional consciousness, understanding of needs for professional solidarity and long-range thinking about far reaching common interests with patients, other professionals and community, development of own dignity, self-confidence and adequate social position is a long process (11).

Successful strategies for development and strengthening the profession may be summarized as follows:

- Networking, professional solidarity and organization of activities;
- Outspoken technical and ethical standards;
- Patient mobilization and support;
- Clever tactics inside professional and political circles;
- Relying on own strengths. Forwarding “own” technical and administrative support;
- Development of own academic basis and influence on training programs;
- International relations: world wide perspectives.

The time has been nearly forgotten when views related to primary health care were against medical establishment. Opinion existed that it would be possible to

implement ideas of PHC without participation of professional practitioners. Similarly, at the other end, a belief dominated that general practice is responsible only for personal care on request of individuals, not necessarily taking into account the community in which they work and live. It was a history of love and hate, trust and mistrust, but better understandings are now prevalent. It may look as a rather long search for obvious, although it may be even now a reason for dispute.

General practice/Family Medicine (GP/FM) is developing as an interface between clinical medicine and public health (community medicine), an example of people oriented integrated medicine. It is a potent bridge between science and human care, prevention and treatment, biological, psychological and social understandings, individuals, families and communities, a science and an art of living (12).

The process has not yet been settled. A realistic approach to participation of people and of different other sectors in PHC has to overcome tempting ideas that free market will automatically empower people to participate and influence health care. The awareness is maturing of growing costs and limitations of free medical practice in a society divided by richness and opportunities. The right behavior has to be accepted by practitioners of all kinds, to secure long range mutual interests, beyond their particular immediate interest.

However, we may accept with satisfaction that the basic mutual understanding is present and collaboration accepted by all sides. This should be the starting point in discussing strategies for strengthening general/family practice. A “win/win” solution was rediscovered by professionals and all other participants.

### **The game is not finished: the main influences are coming from socio-political issues**

Nevertheless, the gap between intentions and realities seems to be as great as ever. The main support to primary health care policy was “for all” strategy in development, declared in Alma-Ata 1978. However, after economic recession in early 1980, and downfall of “egalitarian” (“socialist”) political systems in 1990, the neoliberal and free market philosophy as the main engine of global development.

The confrontation of those powerful and wealthy with those suppressed and poor become evident not only in terrorist attacks and military revenges, but also in diminished solidarity among and between countries. Under emerging socio-political condition health care was one of offers in structural adjustment policies imposed by World Trade Organization, World Bank and particularly International Monetary Fund (13-15). Although some international organizations such as World Health Organization, UNICEF, and UNESCO further supported “for All” policies in health and education, they were weakened and the situation in the field started to alarm United Nations. At the turn of centuries (and millenniums) United Nations developed Millennium Declaration and later through Millennium Project and Global Fund tried to reach targets in 2015 (“(1) eradicate extreme poverty and hunger, (2) achieve universal primary education, (3) promote gender equality and empowerment of women, (4) reduce child mortality, (5) improve maternal health, (6) combat HIV/AIDS, malaria and other diseases, (7) ensure environmental sustainability, and (8) global partnership for development”) (14).

However, it is already clear that Millennium targets will not be achieved, and some of the issues are understood in different ways (16,17). The old fight between

promoters of genuine comprehensive (horizontal) primary health care and selective (vertical) programs of primary care become visible particularly in conflicts about funding. How it is in a destructive way attacking General/Family Practice in Europe is well seen from an address of the Organization of Family Doctors (WONCA) and a number of other international organizations called Strengthening primary health care "15 by 2015" (18):

*"...we propose that by 2015, 15% of the budgets of vertical disease-oriented programs be invested in strengthening well-coordinated, integrated local primary healthcare systems and that this percentage would increase over time. Such an investment would improve developing nations' capacity to address the majority of health problems through a generic, well-structured, primary health care system."*

### **Summary**

1. The GP/FM in the context of primary health care has an important role, next to people, complementary to other services and often as a conductor of the orchestra. The existing experiences show movements in all countries. Most of them are in good direction to improve relevance, efficiency, equity of services and satisfaction of people, but still needs time to evolve or reform themselves.
2. There is a gap between general solutions and real practices. The type of organization of PHC is not successfully recognized so that further evaluation of practices and experiments are needed. The problem of "privatization" as a tool for change and the old problem of health centres and integration of primary services are presented, based on experience in Croatia.
3. Essential elementary strategies for development of general/family medicine are identified as:
  - long-range: relevance and quality of personal services and satisfaction of people;
  - starting: vocational training, development of identity and political support;
  - strengthening: professional organization and academic developments;
  - institutionalizing: reorganization of service management;
  - sustaining: national and international networking, evaluating experiences.
4. Diversity and different dynamics in combination of elementary strategies and different ways of development should be expected. Proactive approach and flexibility are most important. Possible internal and external obstacles are identified. Among them the passive expectant majority from inside and the vague governmental support and aggressive health administration from outside are considered as most threatening.
5. The role of the recently issued WHO document "Framework for professional and administrative development of general practice/family medicine in Europe" is important to present the intentions of GP/FM and introduce them to other partners, as well as to strengthen their internal homogeneity.

## CASE STUDY

### Experiences from Croatia

Croatia shared many of the worst experiences of violence, power struggle and unsolved economic, social and political problems during the last years. It can be illustrated by quantitative data. The social problems (19) of war victims, unemployment, elderly and poor are described in Table 2.

**Table 2.** Selected indicators of social problems in Croatia 1995 and 1996

<b>ACTIVE AND SUPPORTED INHABITANTS (1995)</b> (in thousands)		
Population	4,600	
Employed	1,377	
Unemployed	<b>249</b> (est. 280)	<b>15.3%</b> (17%)
ALL ACTIVE	1,626	Ratio:
SUPPORTED (?)	~3,000	<b>1.87 ++</b>

<b>DIRECT WAR VICTIMS (1995)</b> (in thousands)			
Killed	<b>9,208</b>	Expatriates	191
Injured	<b>28,309</b>	Refugees	207
Missed	2,853	Repatriates	7+
<b>TOTAL</b>	<b>404</b> (1996:100?)		

<b>PENSIONERS (1996)</b> (in thousands)		(receiving Kuna/monthly)
“Retired”:	Aged 410	900
Invalids	180	930
Family members	185	900
“Independent entrepreneurs”	18	724
“Peasants”	53	276
“From other republics”	30	400-700
<b>Total</b>	<b>876</b>	

<b>POVERTY (1996)</b>	
Receiving material support from social services	<b>~106 000</b>
Structure:	
employed	14%
unemployed	29%
retired	27%
peasants	6%
others	24%

**Source:** Žaja B. Revija za socijalnu politiku 1996;3:313-8.

A comparison with Macedonia and Slovenia in Tables 3 and 4 shows some similarities but also striking differences. Some of indicators in comparison with those before 1990 show the widening gap between Croatia and Slovenia, and some of closer formal similarities with data from Macedonia.

The situation is described as a "Croatian paradox" that with worsening of general conditions the usual health indicators have shown so far a tolerable degree of health indicators (20). However, one of the overlooked reasons explaining beneficial outcome might be the tradition of a decentralized system, strong and independent primary health care and great personal contribution of professionals during the war. Until now the decisive contribution of primary health care, and especially general

practitioners, is not well recognized, because more attention was given (as it is usual) to specialized and hospital services.

As it is well known and documented, the importance of generalists and primary care was well conceived in Croatia rather early in comparison with other countries. The significance of integrated (preventive/curative) health centres was important, in spite of lately over-managed or bureaucratic organization of fat-headed "Health homes" or polyclinics (21,22).

**Table 3.** Comparison of social indicators for Croatia, Macedonia and chosen neighbouring countries for 1994 and 1995

COUNTRY	Inhabitants millions, 1995	GDP \$ 1995	PPP \$ 1994	Unemployment %, 1996	Elderly 60+ %, ~2000	War 1991/ 1995	First government	Nationalism
CROATIA	4,78	3250	3960	15,90	21,2	+++	One-party	Present
MACEDONIA	1,94	...	3965	39,80	...	0	Coalition	Low
SLOVENIA	1,98	8200	10404	14,40	19,4	0	Coalition	Low
BULGARIA	8,41	1330	4533	12,50	22,8	0	...	...
HUNGARY	10,23	4120	6437	10,50	20,9	0	...	...

GDP - Gross Domestic Product (UNDP), PPP - Population Purchasing Power (World Bank), Unemployment (ECE,UN), Elderly (World Bank), War, First government, Nationalism according to SP Ramet, Erasmus 1998;(24):2-14.

**Table 4.** Comparison of health indicators for Croatia, Macedonia and chosen neighbouring countries for 1994 and 1995

COUNTRY	Physicians Per 10000 1994	Nurses Per 10000 1994	Hospital beds Per 1000 1994	Health exp. % GNP 1995	Infant mortality 1995	Live exp. Years 1994	Hm. Dev. Index 1994
CROATIA	20.1	41.2	5.9	9.0	16.3	73.3	0.760
MACEDONIA	22.1	54.4	...	8.8	22.6	72.3	0.748
SLOVENIA	28.2	59.8	5.8	7.8	5.5	74.9	0.886
BULGARIA	33.3	76.2	10.2	4.7	16.3	70.8	0.780
HUNGARY	34.0	30.0	9.9	6.9	10.6	69.9	0.857

Sources: HFA Database (WHO/EURO), all except Hm.Dev Index - Human Development Index (Life expectancy, Education, GDP. UNDP)

The reform started with changes in financing and some reorganization (23). The health fund was centralized and organized as the Croatian institute of health insurance in the closest possible way collaborating with Ministry of health. The resources have in one period diminished to one third of those immediately before the new Croatia started to exist. Public health was re-organized as a centrally administered separate service, including institutes of public health but also peripheral units previously working as part of health centres. Medical centres were "dissolved" into original parts: hospitals, health centres and institutes of public health.

### The case of “privatization”

The “privatization” of primary care physicians was proclaimed as a major health policy, but continued with hot/cold tactics in support of “free” private practices and of strict administrative and financial control of services. The positive move was insisting on free choice of physicians by people, although the actual implementation was limited protecting existing services and some powerful groups of professionals. The important next step was introduction of contractual relations between primary care physicians and the health insurance. Under condition of restricted resources and threat of losing job, the contracts have been largely dictated by health insurance administration. The resources have been limited, but the proclaimed rights of people further covering complete care as before. The “rationing” of prescriptions given to individual practitioners was standardized to the averages (by definition half of people having less than it was usual, mostly in urban areas, and half more than enough). If some demands of patients have not been fulfilled, professionals were regularly found responsible. Administrative measures and material punishments were implemented for those who exceeded the standardized rate of patients on sick leave. This has put majority of professionals in an insecure position, derogating their technical competence and humiliating them publicly.

On the other side, many short-sighted tactics and “children diseases” of privatization were common among most ambitious 5-10% of “completely private practitioners”: advertisements promising impossible, unnecessary additional medical interventions, complementary and alternative procedures, misuse of technology etc.

For all physicians in primary health care, from 1997, the planned, mandatory leasing of premises from health centres was introduced, as a kind of limited fund-holding and semiprivate position.

To co-ordinate and protect interest of physicians the Chamber of physicians started to exist, but still has many problems and tensions defending political independence and accommodating very different interests inside profession.

Tables 5 and 6 may illustrate forms and quantities of health services' staff and institutions, especially regarding the most important element - manpower.

**Table 5.** Health workers permanently employed in state/county institutions, and in private institutions, and private practices (December 31, 1996.)

<b>Health workers</b> (by education)	<b>State/county</b> <b>institution</b>	<b>Private health</b> <b>institution</b>	<b>Private</b> <b>practices</b>	<b>Total</b>
Medical doctors	9,384	39	687	10,110
<i>Structure (%)</i>	<i>92,8%</i>	<i>0,4%</i>	<i>6,8%</i>	<i>100,0</i>
Stomatologists	1,617	5	1.025	2,647
Pharmacists	1,454	134	257	1,845
Other, univ. degree	683	2	3	688
College	5,697	71	170	5,938
High school	20,512	458	694	21,664
Semi-skilled	688	9	9	706
<b>TOTAL</b>	<b>40,035</b>	<b>718</b>	<b>2,845</b>	<b>43,595</b>
<i>Structure (%)</i>	<i>91,8%</i>	<i>1,6%</i>	<i>6,5%</i>	<i>99,9%</i>

**Source:** Croatian Health Service Yearbook 1996, Croatian National Institute of Public Health, Zagreb, 1997.

Until the end of 1996 about 92% of health workers were employed in institutions owned by state or counties. Regarding physicians in primary health care the ratio of number of public teams and registered private practitioners was the highest among stomatologists (~1:0,63%), followed by gynecologists (~1:0,61), and in general/family practitioners just above 10% (ratio ~1:0,13).

One should be careful in interpretation because different sources of data vary in definition of different forms of private practices. Therefore, based on data one may just conclude that number of primary care professionals in two years were growing rather fast, mostly in form of contractual relations with premises on lease among general/family practitioners, while among specialists there prevailed units based on own premises.

**Table 6.** Number of primary care physicians offered lease of premises

PRIMARY SERVICES	December 31, 1996.		Leasing premises				March 1998
	Teams	Private	-1996	1997	5.98	Total	Private
Gen/family practice	2,111	274	0	303	232	535	687
<i>Est. percentage</i>		~13%				~23%	~30%
Stomatology	1,617	1,028	3	269	200	472	1485
Gynecology	171	109	0	34	21	55	124
Pediatrics	300	41	0	20	19	39	75
Other	...	25	0	227	139	366	...

**Source:** For 1996 - Croatian Health Service Yearbook 1996. Croatian National Institute of Public Health, Zagreb, 1997. For Leasing - Ministry of Health, 1998. For Private 1998 - Association of Private Employers in Health: Health Private Practice Bulletin (Bilten Privatna praksa u zdravstvu) 1998; 2.

### Qualitative appraisal of gained experiences

The main objectives regarding the individual practitioners, quality of their work and their position in the health system is described as having mixed, positive and negative traits. It is estimated that most of positive traits are in stimulation of professionals, not yet clear final impact in technical aspects of work, and a changing situation regarding the position in the health system.

Unfortunately even the most positive aspects are not fully developed by giving chance to technical, economic and human initiatives, because the liberty is limited by strong centralization in management and control. In Table 7 the so far gained qualitative estimates are summarized.

There are good prospects of conflicts in the system built on tensions between central authorities and accumulated interests in the primary level, but also dangerous developments when the common goals are submitted to immediate political needs. The essential unity, namely, has to grow up through an independent, democratic, ethically and technically safe process, and not by authoritarian central guidance.

A narrative description of events and processes in essays of 72 leading general practitioners and their teachers is published in a book: Jakšić Ž, ur. Ogledi o razvoju opće/obiteljske medicine. Zagreb, Hrvatska udružba obiteljske medicine, 2001. (312 str.) (The essays on development of general/family medicine).

**Table 7.** Estimated impacts of reforms

OBJECTIVES	POSITIVE (+) TRAITS	NEGATIVE (-) TRAITS	IMPACT						
			(+)			(-)			
<b>Stimulation</b>	<b>Greater push and satisfaction</b>	Inefficient efforts, wrong direction							
<b>Liberty</b> (centrally “guided”)	Local initiatives + service adequacy	<b>Administrative power and arrogance</b>							
<b>Quality of technical work</b>	Answering to needs/demands	<b>Neglected prevention &amp; social issues</b>							
<b>Economic concern</b>	Rationality in use of resources	Profit by “saving” on account of patients							
<b>Patient/people-orientation</b>	Personal care and continuity	<b>Mechanical “kindness”</b>							
<b>Personal responsibility</b>	<b>Building own “trade-mark”</b>	Frustration and/or demoralization							
<b>Organized professionalism</b>	Constructive solidarity	Individualism and/or power-struggle							
<b>Coherent strategy</b>	Critical attitude + entrepreneurship	<b>“New start”: nobody before or after Me</b>							

## EXERCISES

### Task 1

1. Compare data from your country with those presented in Case study about Croatia. What are the similarities and what are differences?
2. Discuss in small group described elements of different strategies and their relevance and expected efficiency.

### Task 2

1. Propose sequence and intensity of different activities to achieve best results in present situation in your country
2. Is public health in your country supporting the idea of general/family practice or vertical programs?

### Task 3

1. Discuss in small group the statement that general/family practice is in theory the basis and main coordinator in providing comprehensive primary health care and in practice just a servant in vertical programs lead by clinical specialists.
2. Describe differences among group practices of general/family practitioners, health centres and polyclinics.

## Task 4

1. Answer the following questions:
2. Is primary care lead by private general practitioners more socially sensitive than the system of public hospitals and specialist clinical consultations? Which system is promising the best equity in health care?
3. How management should assure best quality and safety in providing primary health care?
4. How risky is the clinical autonomy of doctors in primary health care and is there a difference with autonomy of clinicians working in out-patient departments of hospitals?

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>TEAM BUIDING</b>
<b>Module: 4.2</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Team building, formal/informal groups, team roles, group development, teamworking
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• Differentiate between group and team;</li> <li>• Recognise different types of groups</li> <li>• Be aware of and identify possible roles within a team</li> <li>• Understand the group development process</li> <li>• Be aware of both advantages and disadvantages of teamworking</li> </ul>
<b>Abstract</b>	<p>Because there are no pure formal or informal organisations in real world, one may conclude that an organisation is a mix of formal and informal groups. Thus, its performance depends on the management ability to recognise the existence of these groups, to transform them from groups into working teams, to motivate and stimulate them to achieve organisation's goals.</p> <p>We must differentiate the concept of group versus the concept of team. A simple definition of the group can be: two or more persons who come into contact for a purpose and who consider the contact meaningful. A team has to accomplish bigger goals than any individual group. The purpose of a team is to perform, achieve results and be successful in the organisation or marketplace.</p> <p>The literature describes several types of groups according to a set of criteria.</p> <p><b>Formal groups</b> (work team) is created by an organisation in order to achieve a certain goal, being recognised and receiving full support from the organisation. <b>Informal groups</b> arise from natural attractions among individuals for social reinforcement or other benefits.</p> <p>They seldom share the organisational objectives and have a temporary basis.</p> <p>The roles within a team actually represent tasks and functions in</p>

	<p>the self-management of the team's activities. Belbin developed a test to identify individual team roles.</p> <p>Many teams go through a life-cycle of stages, firstly identified by Bruce Tuckman in 1965 as: forming, storming, norming and performing. This model has become the basis for further models of group development, principally adding the 5<sup>th</sup> phase of adjourning. If there are many advantages of the teamworking, there are also disadvantages that should be considered by a manager when building a team.</p>
<b>Teaching methods</b>	<p>Teaching methods include: lectures, group discussions, group assignments (2). First assignment consists in self-evaluation of the roles played in a team by each student, based on Belbin questionnaire. For the second assignment, the students will be split in groups of 4-5 persons and asked to solve the "Survival" exercise. Each group should evaluate the performance of the team in the process of decision-making versus the individual performance.</p>
<b>Specific recommendations for teachers</b>	<p>60% work under teacher supervision / 40% individual students' work</p> <p>No special facilities or equipment, Belbin questionnaire and Survival game should be distributed during the course.</p>
<b>Assessment of Students</b>	<p>Assessment could be based on multiple choice questionnaire (MCQ), structured essay, seminar paper, case problem presentations, oral exam, etc.</p>

# TEAM BUILDING

Adriana Galan, Silvia Gabriela Scîntee

## THERORETICAL BACKGROUND

### Introduction

Generally, either formal or informal organizations constitute together the organizational setting where work is performed. As described by Organization Design theory, a formal organization is characterized by approved authority-responsibility relationships, clear division of work and separate departments and, usually, a hierarchical structure. The formal organization is the planned interrelationship of people, material resources and activities (1).

By contrast, the informal organization is characterized by dynamic behaviour and activity patterns taking place within formal structures due to human interrelationship and interaction.

Because there are no pure formal or informal organizations in real world, one may conclude that an organization is a mix of formal and informal groups. Thus, its performance depends on the management ability to recognize the existence of these groups, to transform them from groups into working teams, to motivate and stimulate them to achieve organization's goals.

Nevertheless, to build an effective team is a resource consuming process and requires a complex activity.

### Group versus team

We must differentiate from the very beginning the concept of group versus the concept of team. Thus, a simple definition of the group can be: two or more persons who come into contact for a purpose and who consider the contact meaningful (2).

The purpose of a group may be implicit rather than stated. Another definition of a group is: two or more persons who communicate and share common values, norms and needs (3). To conclude, there are three minimal requirements to form a group:

1. group members are sharing common needs or objectives
2. there is a strong interpersonal communication component within the group
3. there is a minimal or even absent hierarchy within the group.

A team represents a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they are mutually accountable (4).

A team has to accomplish bigger goals than any individual group. The purpose of a team is to perform, achieve results and be successful in the organization or marketplace. A good manager is those who can assemble a group of individuals and transform them into a team. There were described ten key differentials to help a manager to shape a group of people into a pro-active and productive team (5).

1. **Understandings.** In a group (usually in formal groups), members think they are put together for administrative purposes only. Individuals sometimes cross

purpose with others. In a team, members recognize their independence and understand that both personal and team goals are best accomplished with mutual support. Time is not wasted attempting personal gain at the expense of others.

2. **Ownership.** In a group, members rather tend to focus on themselves because they are not sufficiently involved in planning the organizational objectives. In a team, members feel a sense of ownership for their jobs and unit, because they are committed to values-based common goals that they previously established.
3. **Creativity and contribution.** In a group, members are told what to do rather than being asked what the best approach would be. Suggestions and creativity are not encouraged. In a team, members contribute to the organization's success by applying their skills, knowledge and creativity to team objectives setting.
4. **Trust.** In a group, members distrust the motives of colleagues because they do not fully understand the role of other members. Expressions of opinion or disagreement are considered troublesome or non-supportive. In a team, members work in a climate of trust and are encouraged to openly express ideas, opinions, disagreements and feelings.
5. **Common understandings.** In a group, members are so cautious about what they say, that real understanding is not possible. Game playing may occur and communication traps be set to catch the innocent. In a team, members practice open and honest communication. They make an effort to understand each other's point of view.
6. **Personal development.** In a group, members receive good training but are somehow limited in applying it to the job either by the manager or other group members. In a team, members are encouraged to continually develop skills and apply what they learn on the job.
7. **Conflict resolution.** In a group, if members find themselves in conflict situations they do not know how to deal with it. Their supervisor/leader may postpone intervention until serious damage is done, i.e. a crisis situation. In a team, members realize that conflict is a normal aspect of human interaction but they view such situations as an opportunity for new ideas and creativity. They try to manage conflict quickly and constructively.
8. **Participative decision making.** In a group, members may or may not participate in decisions affecting the team. Conformity often appears more important than positive results. In a team, members participate in decisions affecting the team but understand their leader must make a final verdict whenever the team cannot decide, or an emergency exists. Positive win/win results are the goal at all times.
9. **Clear leadership.** In a group, members tend to work in an unstructured environment with undetermined standards of performance. In a team, members work in a structured environment, they know what boundaries exist and who has final authority. The leader sets agreed high standards of performance and he/she is respected via active, willing participation.
10. **Commitment.** In a group, members are uncommitted towards excellence and personal pride. Performance levels tend to be average. Staff turnover is high because talented individuals quickly recognize that:
  - (a) personal expectations are not being fulfilled;

- (b) they are not learning and growing from others; and
- (c) they are not working with the best people.

In a team, only those committed to excellence are hired. Everyone works together in a harmonious environment.

### Why people join groups or work teams

People naturally tend to join groups, being usually surrounded by others with comparable values, this fact reinforces their own value system.

Another reason to join groups might be that groups give people an informal status, which can be the feeling of belonging to a distinct unit. Group membership also provides a level of individual security; members feel that they are equal with the others. Individuals are better listened within a group. Recognition, participation and communication needs are higher satisfied in a group.

To conclude, specific needs of group members are better met in a group than in the whole organization.

The literature describes several types of groups according to a set of criteria.

**Formal groups** (work team) is created by an organization in order to achieve a certain goal, being recognized and receiving full support from the organization. Under this category, several forms of groups may exist:

➤ *Functional group* – consisting of a manager and all its subordinates. In a formal organization, each department may be considered a functional group.

➤ *Operational or task-dedicated group* – specially created to achieve a clear task, has a temporary basis and the group is suspended once the task is finished.

➤ *Permanent Committee* – it is actually an operational committee having the responsibility to solve problems that appear periodically in a certain field of activity. A committee is not specific only to an organization; there are also inter-organizational committees (for instance inter-ministerial committees).

➤ *Consultative Group* – a temporary group having as main task to make recommendations for a certain topic. Usually includes persons from different sectors.

➤ *Self-managed group* – it represents the group that has to achieve a certain task without being regularly monitored. Its members have full responsibility, being governed by a spirit of solidarity. They make their own decision on the distribution of tasks inside the group, they establish the working hours, and they are doing the performance self-evaluation.

➤ *Project teams* – nowadays, projects often require that people work together in order to accomplish the project goal. Members of these teams might belong to different groups, but receive clear assignment to activities for the same project; thereby outsiders may view them as a single unit.

**Informal groups** arise from natural attractions among individuals for social reinforcement or other benefits. They seldom share the organizational objectives and have a temporary basis. This type of group is created by people and not by organizations. Informal groups are not formally recognized by the organization and do not represent a unit in the organizational chart.

There are several types of informal groups:

- *Group of interests* – created usually to facilitate the achievement of group goals
- *Group of friends* – created most frequently to satisfy the social needs of its members
- *Group of support* – members are supporting each other to meet common needs
- *Virtual group* – it's the most modern type, facilitated by the computer and INTERNET connection. This is a group of people who work interdependently and with shared purpose across space, time, and organization boundaries using technology to communicate and collaborate. Virtual team members can be located across a country or across the world, rarely meet face-to-face, and include members from different cultures (6).

When a group in an organizational context embarks upon a process of self-assessment in order to estimate its own effectiveness and thereby improve performance, it can be argued that it is engaging in team building process.

The process of team building includes:

- clarifying the goal, and building ownership across the team; and
- identifying the inhibitors to teamwork and removing or overcoming them.

To self-assessment meant that a team is trying to find out both:

- its current strengths as a team;
- its current weakness.

### **Roles within a team**

Belbin's book *Management Teams* (7) presents the conclusions from his work, studying how the members of teams interacted during business games run at Henley Management College. One of his key conclusions was that an effective team should have members that cover nine key roles in managing the team.

Based on Belbin's model of nine team roles, managers of organizations that are building working teams would be advised to ensure that each of the roles can be performed by a team member. Some roles are compatible and can be more easily carried out by the same person; some are less compatible and are more likely to be done well by people with different skills.

The roles actually represent tasks and functions in the self-management of the team's activities. Belbin developed a test to identify individual team roles. This test is presented as Exercise 1, in this way the students can evaluate their own skills in fulfilling Belbin's roles.

The nine roles described by Belbin are:

#### *1. Co-coordinator*

The Co-coordinator ensures that all members of the team are able to contribute to discussions and decisions of the team. Their concern is for fairness and equity among team members. Those who want to make decisions quickly, or unilaterally, may feel frustrated by their insistence on consulting with all members, but this can often improve the quality of decisions made by the team.

## *2. Shaper*

The shaper is full of drive to make things happen and get things going; a dynamic team-member who loves a challenge and thrives on pressure. In doing this, they are quite happy to push their own views forward, do not mind being challenged and are always ready to challenge others. The shaper looks for the pattern in discussions and tries to pull things together into something feasible, which the team can then get to work on. This member possesses the drive and courage required to overcome obstacles.

## *3. Plant*

This member is the one who is most likely to come out with original ideas and challenge the traditional way of thinking about things. Sometimes they become so imaginative and creative that the team cannot see the relevance of what they are saying. However, without the plant to scatter the seeds of new ideas the team will often find it difficult to make any progress. The plant's strength resides in providing major new insights and ideas for changes in direction and not in contributing to the detail of what needs to be done. Although they sometimes situate themselves far from the other team members, they always come back to present their 'brilliant' idea.

## *4. Resource investigator*

The resource investigator is the group member with the strongest contacts and networks, and is excellent at bringing in information and support from the outside. Whatever the team needs, the Resource Investigator is likely to have someone in their address book that can either provide it or know someone else who can provide it. This member can be very enthusiastic in pursuit of the team's goals, but cannot always sustain this enthusiasm. Being highly driven to make connections with people, the Resource Investigator may appear to be flighty and inconstant, but their ability to call on their connections is highly useful to the team.

## *5. Implementer*

The individual who is a company worker is well organized and effective at turning big ideas into manageable tasks and plans that can be achieved. The Implementer is the practical thinker who can create systems and processes that will produce what the team wants. Such individuals are both logical and disciplined in their approach. They are hardworking and methodical but may have some difficulty in being flexible. Being strongly rooted in the real world, they may frustrate other team members by their perceived lack of enthusiasm for inspiring visions and radical thinking, but their ability to turn those radical ideas into workable solutions is important.

## *6. Team worker*

The team worker is the one who is most aware of the others in the team, their needs and their concerns. He is concerned to ensure that interpersonal relationships within the team are maintained. They are sensitive and supportive of other people's efforts, and try to promote harmony and reduce conflict. They may be the first to approach another team member who feels slighted, excluded or otherwise attacked but has not expressed their discomfort. Team workers are particularly important when the team is experiencing a stressful or difficult period. The Team Worker's concern with people factors can frustrate those who are keen to move quickly, but their skills ensure long-term cohesion within the team.

## *7. Completer Finisher*

As the name suggests, the completer finisher is the one who drives the deadlines and makes sure they are achieved. They usually communicate a sense of urgency, which push other team members into action. They are conscientious and effective at checking the details. Completer finisher has a great eye for spotting flaws and gaps and for knowing exactly where the team is in relation to its schedule. Team members who have less preference for detail work may be frustrated by their analytical and meticulous approach, but the work of the Completer Finisher ensures the quality and timeliness of the output of the team.

#### *8. Monitor evaluator*

A sober, a strategic and discerning member, tries to see all options and judge them accurately. They have a strategic perspective and can judge situations accurately. The monitor evaluator can be overcritical and is not usually good at inspiring and encouraging others. However, this member contributes a measured and dispassionate analysis and, through objectivity, stops the team committing itself to a misguided task.

#### *9. Specialist*

This person provides specialist skills and knowledge and has a dedicated and single-minded approach. They can adopt a very narrow perspective and sometimes fail to see the whole picture.

### **Group development process**

Many teams go through a life-cycle of stages, firstly identified by Bruce Tuckman in 1965 as: forming, storming, norming and performing. This model has become the basis for further models of group development, principally adding the 5<sup>th</sup> phase of adjourning.

#### **Forming**

The process of team formation calls for the individuals to come together. During this phase, group members are exploring new relationships and receiving new responsibilities. The team meets and learns about the opportunity and challenges, and then agrees on goals and begins to tackle the tasks. Team members tend to behave quite independently. They may be motivated but are usually relatively uninformed of the issues and objectives of the team. Team members are more likely to be characterized by formality, politeness, silence and tentative interactions. Mature team members begin to model appropriate behaviour even at this early phase. Sharing the knowledge of the concept of "Teams - Forming, Storming, Norming, Performing" is extremely helpful to the team. Supervisors of the team tend to need to be directive during this phase.

The forming stage is important because in this stage the members get to know each other and make new friends. This is also a good opportunity to see how each member of the team works as an individual and how they respond to pressure.

#### **Storming**

Due to the fact that the group members become more and more comfortable with the idea of belonging to a certain group, they start to identify their own place within the group. They want to start influencing the group norms, roles (e.g. leadership) and procedures.

In this stage different ideas compete for consideration. The team addresses issues such as what problems they are really supposed to solve, how they will function independently and together and what leadership model they will accept. Team members open up to each other and confront each other's ideas and perspectives.

In most of the cases storming can be resolved rather quickly. However, there are cases when the team never leaves this stage. The wisdom of some team members usually determines the end of this stage. Immature team members will begin the "show" to demonstrate how much they know and convince others that their ideas are the best.

The storming stage is necessary to the growth of the team. It can be controversial, unpleasant and even painful to members of the team who are against the conflict. Without tolerance and patience the team will fail. This phase can become destructive to the team and will lower motivation if allowed to get out of control.

During this phase supervisors of the team may be more accessible, but tend to still need to be directive in their guidance of decision-making and professional behaviour.

### Norming

The group becomes more cohesive during this phase because they begin to recognize and respect each other contribution. Team members start to adjust their behaviour to the others as they develop work habits that make teamwork seem more natural. Team members often work by agreeing on rules, values, professional behaviour, shared methods and working tools. During this phase, team members begin to trust each other. Motivation increases as the team gets more acquainted with the project.

Two categories of norms develop within the team: behavioural and performance. Behavioural ones establish how a person is expected to act and relate to the others. These norms are developed by the group in order to allow conflict resolution, to determine expectations for group-think or to allow divergent thinking and to identify conformity expectations (e.g. be on time, talk in turn etc.). Performance norms are those expectations that are requested by the group from each individual and may include expected contributions to the work. Both types of norms are set to facilitate group process, problem solving and decision making.

Teams in this phase may lose their creativity if the norming behaviours become too strong. Supervisors of the team during this phase tend to be participative more than in the earlier stages. The team members can be expected to take more responsibility for making decisions and for their professional behaviour.

### Performing

Once the rules were established and recognized, the group can concentrate on the tasks. The high-performing teams are able to function as a unit as they find ways to get the job done smoothly and effectively without inappropriate conflict or the need for external supervision. Team members have become interdependent. By this time they are motivated and knowledgeable. The team members are now competent, autonomous and able to handle the decision-making process without supervision. The

focus of the group should be now on results rather than on process, even if work plan revisions might be necessary.

Supervisors of the team during this phase are almost always participative. The team will make most of the necessary decisions. Nevertheless, a change in leadership may cause the team to revert to storming as the new people challenge the existing norms and dynamics of the team.

### Adjourning

Once the task(s) for which the group was formed is accomplished, the group can adjourn. It is important to arrange during this phase a formal recognition of the task completed. This might motivate people to embark other tasks and/or groups.

### Advantages versus disadvantages of the teamworking

If there are many advantages of the teamworking, there are also disadvantages that should be considered by a manager when building a team.

Generally, a team can better find the best solutions for a complex task than an individual or even a small group of people. Grouping the individual judgments increases the chance of success in solving a problem due to a higher degree of objectivity and to elimination of individual errors.

A definite benefit of working in teams is the positive synergy, meaning that the results achieved by the team are better than the sum of individual results.

However, there are also obstacles that might be encountered during the process of teamworking. Some of the most common are: different organizational practice (when members are coming from different organizations); socio-economic inequalities between the members (age, gender, statute), team objective unclear stated, etc.

The literature is describing the main dysfunctions of a team (9):

#### 1. *Absence of Trust*

This dysfunction stems from teams unwillingness to be vulnerable. Team members who are not genuinely open with one another about their mistakes and weaknesses make it impossible to build a foundation for trust.

#### 2. *Fear of Conflict*

This failure to build trust is dangerous because it sets a brick for the second dysfunction: fear of conflict. Teams that lack trust are not able to engage in vivid debate of ideas. Instead, they resort to roundabout discussions and guarded comments.

#### 3. *Lack of Commitment*

A lack of healthy conflict might be a problem because it induces the third dysfunction of a team: lack of commitment. Without having expressed their opinions in the course of passionate and open debate, team members rarely, if ever, commit to decisions, though they may simulate agreement during meetings.

### Avoidance of Accountability

Because of this lack of real commitment, team members develop an avoidance of accountability, the fourth dysfunction. Without committing to a clear plan of action,

even the most focused and driven people often hesitate to call their peers on actions and behaviours that seem counterproductive to the good of the team.

### **Inattention to Results**

Failure to hold one another accountable creates an environment where the fifth dysfunction can thrive. Inattention results occurs when team members put their individual needs (such as ego, career development, or recognition) or even the needs of their divisions above the collective goals of the team.

There are several factors that can influence the effectiveness of a team. Among them, some are worthy to be mentioned:

- Organizational environment – may shape the way of interacting both between team members themselves and between the team and the rest of the organization;
- The nature of the task – may influence the way of action, as well as the focus of team efforts. The more complex the task is, the interactions with external environment are more intense and focused;
- Team size – there is not a magic number for a team to be effective. It was noticed that increasing the number of members may lead in the first stage to a higher performance. Nevertheless, a continuous increasing of the number of members may lead to the limitation of the team performance or even to a decreased performance.

### **Examples of successful teams**

Sports offer some of the best examples of teamwork. For example a football running back and quarterback's ability are totally dependent on the strength of their offensive line. A basketball player's ability in scoring is mainly dependent on his team's willingness to pass.

Students that succeed in group efforts understand that they must do team projects rather than group projects. There are subtle but very important differences between group and team projects. A team project is when members of the teamwork work interdependently towards the same goal. It is also a team project, when every member in the group feels a sense of ownership of their role. In a group project, members work independently and are often not working towards the same goal. The members in the group also focus a lot on themselves because they are not involved in the planning of their goals.

Teamwork has also become increasingly acknowledged as an essential skill for employees in companies either small or large. Nowadays increasingly global economy places a premium on teamwork in the work setting. Teamwork has become so valued that many large corporations have developed specific tests to measure potential employees' teamwork abilities. Many companies are even acknowledging this in their job titles by changing the designation of supervisors or managers to "team leader."

## EXERCISE

### Task 1

Distribute Belbin questionnaire together with the instructions sheet to the students for the self-assessment of the roles they may have in a team.

#### *Instruction sheet: How to fill-in the questionnaire*

1. The purpose of this questionnaire is to assist you in analyzing the role you may play when you work in a team. Be honest with yourself! Without spending too much time on the task, mark the answers to that situation which are true for you at present.
2. Seven situations appear below: sections A-G. After each of them, eight answers are given. You are asked to tick the answer(s) that better describe your behaviour under the circumstances provided at the beginning of the section. You can tick *maximum 3 answers* in each section (you can tick only one if this one is the only one describing your behaviour). Repeat this step for each of the seven sections A-G.
3. Come back to section A, and evaluate the relative importance (weight) of each of the ticked answers. You should distribute *10 points* (no more than 10!) for the answers that you ticked in a section.
4. For example, if you have ticked answers 1, 7 and 8 in section A, but you consider that answer 1 is your predominant behaviour you can give 5 points for answer 1, another 2 points for answer 7 and finally 3 points for answer 8 (in total: 10 points). If you have ticked only one answer in a section, it automatically receives 10 points.
5. Allocate 10 points for each of the seven sections A-G.
6. When you finished step 4, go to the page containing a summary table.
7. Transfer all the points you allocated under each section in the summary table. Identify your points in the summary table, item by item. The first row is dedicated for section A: considering the example above, you should write 5 in the cell 1\_\_\_, then 2 in the cell 7\_\_\_ and 3 in the cell 8\_\_\_. In this step don't pay attention to the abbreviations from each column. Each line should have a total of 10.
8. After completing step 6, make the total for each of the columns. The highest score in the columns represents the role that better describes your behaviour in a team.

#### *Belbin questionnaire*

### SECTION A

#### **When I am involved in a group project:**

- a. \_\_\_\_ I can be relied upon to see that all essential work is organized.
- b. \_\_\_\_ My general vigilance prevents careless mistakes and omissions being made.
- c. \_\_\_\_ I am ready to press for action to make sure that we do not waste time or lose sight of the main objective.
- d. \_\_\_\_ I can be counted on to contribute something original.
- e. \_\_\_\_ I am able to objectively analyze other ideas, both good and bad ones.
- f. \_\_\_\_ I am keen to look for the latest in new ideas and development.
- g. \_\_\_\_ I have an aptitude for organizing people.
- h. \_\_\_\_ I am always ready to back a good suggestion in the common interest.

## SECTION B

### **I gain satisfaction in a group task because:**

1. \_\_\_\_\_ I like to have a strong influence on decisions.
2. \_\_\_\_\_ I feel in my element where I can give a task my full attention.
3. \_\_\_\_\_ I like to feel I am fostering a good working relationship.
4. \_\_\_\_\_ I enjoy analyzing situations and weighing up all the possible choices.
5. \_\_\_\_\_ I like to find a field that stretches my imagination.
6. \_\_\_\_\_ I can get people to agree on a necessary course of action.
7. \_\_\_\_\_ I am interested in finding practical solutions to problems.
8. \_\_\_\_\_ I can meet people who may have something new to offer.

## SECTION C

### **When the team has to solve a complex problem:**

1. \_\_\_\_\_ I usually keep an eye on the fields where difficulties might occur.
2. \_\_\_\_\_ Producing ideas with wider applications is one of my natural assets.
3. \_\_\_\_\_ I enjoy analyzing situations and weighing up all the possible choices.
4. \_\_\_\_\_ I am able to coordinate and make effective use of people's skills and capacities.
5. \_\_\_\_\_ I am always supporting a systematic approach despite possible pressures.
6. \_\_\_\_\_ I am able to contribute with a new approach for a long-term problem.
7. \_\_\_\_\_ I am not reluctant to challenge the views of others or to hold a minority view myself.
8. \_\_\_\_\_ I am always ready to help.

## SECTION D

### **My characteristic approach to daily work in groups is that:**

1. \_\_\_\_\_ I usually want to detect my unclear tasks and objectives
2. \_\_\_\_\_ I am always ready to express my point of view during the meetings.
3. \_\_\_\_\_ My ability rests in being able to work with different people whenever I detect they have something of value to contribute to the group.
4. \_\_\_\_\_ I am keen to detect interesting ideas/people.
5. \_\_\_\_\_ I can usually find a line of argument to refute unsound propositions.
6. \_\_\_\_\_ I am able to find possible associations between elements where others cannot detect them.
7. \_\_\_\_\_ Being very busy produces me a real satisfaction.
8. \_\_\_\_\_ I have a strong interest in getting to know colleagues better.

## SECTION E

### **If I am suddenly faced with a difficult task with limited time and unfamiliar people:**

1. \_\_\_\_\_ My imagination is often frustrated due to my team work.
2. \_\_\_\_\_ I believe I have the abilities to reach the consensus.
3. \_\_\_\_\_ My feelings rarely interfere with my judgment.
4. \_\_\_\_\_ I am striving to build an effective structure.
5. \_\_\_\_\_ I am able to work with very different people, despite their personal skills or look.

6. \_\_\_\_ I am ready to face temporary unpopularity if it leads to worthwhile results in the end.
7. \_\_\_\_ I usually have good professional contacts.
8. \_\_\_\_ I feel that I have a natural sense of urgency.

**SECTION F**

**When a sudden new project appears:**

1. \_\_\_\_ I start searching possible ideas and perspectives.
2. \_\_\_\_ I am anxious to finalize in the best way my current tasks before starting the new project.
3. \_\_\_\_ I start studying the new project in a careful and analytical way.
4. \_\_\_\_ I am ready to take the lead in involving other people if necessary.
5. \_\_\_\_ I have an independent and innovative position related to most of the possible situations.
6. \_\_\_\_ I would be prepared to take a positive lead if I felt the group was making no progress.
7. \_\_\_\_ I have a positive reaction to all the initiatives of my colleagues.
8. \_\_\_\_ e) I find it difficult to get started unless goals are clear.

**SECTION G**

**What I believe I can contribute to a work team or group:**

1. \_\_\_\_ I have the capacity to design a good action plan to achieve a complex task.
2. \_\_\_\_ I might be perceived too analytical, but I usually get very close to achieve the task.
3. \_\_\_\_ A wide network of contacts is important for my work.
4. \_\_\_\_ I am apt to go into details.
5. \_\_\_\_ I am trying to influence the group meetings.
6. \_\_\_\_ I have a clear vision on good ideas and tools that might help the work.
7. \_\_\_\_ I believe my capacity for judgment can help to bring about the commonly agreed decisions.
8. \_\_\_\_ I have good relations with everybody and work hard for the team.

*Summary scoring table*

	SH	CO	PL	RI	ME	IMP	TW	CF
A	3____	7____	4____	6____	5____	1____	8____	2____
B	1____	6____	5____	8____	4____	7____	3____	2____
C	7____	4____	6____	2____	3____	5____	8____	1____
D	2____	3____	6____	4____	5____	1____	8____	7____
E	6____	5____	1____	7____	3____	4____	2____	8____
F	6____	4____	5____	1____	3____	8____	7____	2____
G	5____	7____	6____	3____	2____	1____	8____	4____
TOTAL								

At the end discuss the results. Advise the students are to repeat Belbin test after 1 year when they can be involved in another group or project. Results may be different.

### **Task 2: Group Survival Scenario Exercise “Lost at Sea”**

With your private yacht slowly sinking after a fire of unknown origin, you are adrift in the South Pacific, “Lost at Sea,” approximately 1000 miles south-southwest from the nearest land. You have a serviceable rubber life raft with oars large enough for yourself and crew. You and crew together have 1 package of cigarettes, several books of matches and 5 one dollar bills. You all also have 15 additional items. The exercise problem to be solved is to rank these 15 additional items by considering their survival value.

Survival items to be ranked:

1. a sextant
2. a shaving mirror
3. a quantity of mosquito netting
4. a 5 gallon can of water
5. a case of army rations
6. maps of the Pacific Ocean
7. a floating seat cushion
8. a 2 gallon can of oil/petrol mixture
9. a small transistor radio
10. 20 square feet of Opaque plastic sheeting
11. shark repellent
12. one quart of 160 per cent proof rum
13. 15ft nylon rope
14. 2 boxes of chocolate bars
15. a fishing kit

Student’s tasks:

The class of students should be divided into groups of 4 and then given 10 minutes to individually score the items.

After this time, the team members should discuss and decide on the team’s priority list. A maximum of 20 minutes should be allocated for the section.

When the second phase is complete a pre-prepared answer sheet should be revealed and they should score their individual and teams answers.

A discussion should then take place where individuals should compare their individual score against the team looking at why the scores are different; what changed their minds, how where they influenced etc.

Then, the score of experts should be exposed and see if individual scores were closer to the experts opinion or the team scores were better.

The list of priority items given by the experts was the following:

- According to the experts (US Coastguard), the basic supplies needed when a person is stranded mid-ocean are articles to attract attention and articles to aid survival until rescue arrives. Articles for navigation are of little importance since even if a small life raft were capable of reaching land, it would be

impossible to store enough food and water to survive for the requisite amount of time.

- Without signalling devices, there is almost no chance of being spotted and ultimately rescued. Furthermore, most rescues occur within the first 36 hours and a person can survive with only a minimum of food and water during that period.

The following table is the order of ranking the items in their importance to your survival:

Item number	Item description	Comments
1.	Shaving Mirror	Critical for signalling
2.	2 gallon can of oil/petrol mixture	Critical for signalling. The mixture will float on water and could be ignited with one of the £5 notes and a match
3.	5 gallon can of water	Necessary to replenish fluids lost through perspiration
4.	One case of army rations	Basic food intake
5.	20 square feet of opaque plastic	Can be utilized to collect rain water and provide shelter from the elements
6.	2 boxes of chocolate bars	Reserve food supply
7.	Fishing kit	Ranked lower than the chocolate as 'a bird in the hand is worth two in the bush'. There is no guarantee you will catch any fish
8.	15ft of nylon rope	Could be used to tie people or equipment together to prevent it being washed overboard
9.	Floating seat cushion	A life preserver if someone fell overboard
10.	Shark repellent	Enough said
11.	One quart of 160 per cent proof rum	Contains 80% alcohol, which is enough to be used as an antiseptic for any injuries, otherwise of little value – would cause dehydration if ingested
12.	Small transistor radio	Of no use without a transmitter. You would also be out of range of any radio station
13.	Maps of the Pacific Ocean	Worthless without navigation equipment. It does not matter where you are but <b>where the rescuers are!</b>
14.	Mosquito netting	There are <b>NO</b> mosquitoes in the midpacific ocean
15.	Sextant	Useless without the relevant tables and a chronometer

Pre-prepared answer sheets:

Objects	Stage I Individual order	Stage II Team order	Stage III Experts' order	Stage IV Difference between I-III	Stage V Difference between II-III
Sextant					
Shaving mirror					
Mosquito netting					
5 gallon can of water					
Army rations					
Maps of the Pacific Ocean					
Floating seat cushion					
2 gallon can of oil/petrol mixture					
Transistor radio					
20 square feet of Opaque plastic sheeting					
Shark repellent					
One quart of 160 per cent proof rum					
15ft nylon rope					
2 boxes of chocolate bars					
Fishing kit					
				Sum of column IV scores (do not take into account +/- signs)	Sum of column V scores (do not take into account +/- signs)

To evaluate your team performance, fill-in the last sheet:

Stage VI. <i>Individual mean score</i> (divide the Sum of column IV scores with 15)	
Stage VII. <i>Team mean score</i> (divide the Sum of column V scores with 15)	
Calculate the <i>GAIN</i> – compare VII and VI. If VII is smaller than VI, then the gain of the team is positive. If VII is higher than VI, then the team gain is negative, your individual thinking was better.	

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>STRATEGY »HEALTH FOR ALL« – NURSING ROLE AND PERSPECTIVE</b>
<b>Module: 4.3</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	strategy, health for all, nursing
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• be familiar with the importance of the conclusions of Alma Ata Conference on Primary Health Care, Ottawa Charter for Health Promotion, Strategy Health for all and Health for all in the 21st century.</li> <li>• know recommendations from WHO and nursing meetings and conferences which topics were Public Health, Health Promotion and Health for all</li> <li>• recognise that the nurses have an important role in public health and health policy development</li> <li>• be familiar with the importance of the role of nurses in prevention of chronic non contagious diseases.</li> </ul>
<b>Abstract</b>	Nurses and midwives constitute the majority of the health care workforce in most countries of WHO's European region, and make a significant contribution to health care in a wide range of settings in hospitals and within the primary health care field. We have to motivate nurses, midwives and nursing students to accept the role in the growth of the Public Health, Health Promotion, the Principles of the Health for all and to recognize that health for all and health promotion is something essential for nurses. Recommendations from nursing meetings on these topics should help to do it.
<b>Teaching methods</b>	An introductory lecture gives the students knowledge about Alma Ata Conference on Primary Health Care, Ottawa Charter for Health Promotion, Strategy Health for all and Health for all in the 21st century. The theoretical knowledge will be supplemented with students' individual work. First of it they have to read the recommended readings carefully. Afterwards they discuss the importance of thinking about the importance of health for all and how to reach equality in health. In continuation, they need to find published materials (e.g. papers) on health for all (from European region and national legislation and recommendations). Finally they need to prepare seminar work, Power point presentation and poster about risk factors for chronic non contagious diseases.

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a class room;</li> <li>• equipment: computer, LCD projection equipment,</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Evaluation of their seminar work, Power point presentation and poster about risk factors for chronic non contagious diseases.

# **STRATEGY »HEALTH FOR ALL« – NURSING ROLE AND PERSPECTIVE**

**Marija Zaletel**

## **THEORETICAL BACKGROUND**

### **Introduction**

Good health is a fundamental resource for social and economic development. Higher levels of human development mean that people live longer and enjoy more healthy years of life.

While the health of the 879 million people in the European Region (Region) of the World Health Organization (WHO) has in general improved over time, inequalities between the 52 Member States in this region, and between groups within countries, have widened. In addition to the east–west gap in health, differences in health between socioeconomic groups have increased in many countries (1).

The global burden of disease is shifting from infectious diseases to non-communicable diseases and conditions. Over the next 20 years, global deaths from cancer, heart disease and traffic crashes will increase as low and middle-income economies grow, according to the new WHO "World Health Statistics 2008" (2).

Chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are by far the leading cause of mortality in the world, representing 60% of all deaths. Out of the 35 million people who died from chronic disease in 2005, half were under 70 and half were women (3).

Nurses and midwives constitute the majority of the health care workforce in most countries of WHO's European Region, and make a significant contribution to health care in a wide range of settings in hospitals and within the primary health care field. Nurses and midwives have made some – albeit limited – progress in influencing national health policies or in achieving real recognition as members of the health care team. It is timely to reflect on past achievements and to develop strategies to ensure that nurses and midwives in the future will be in the positions that enable them to influence health care policy and delivery throughout the Region (4).

There is a question how to motivate nurses, midwives and nursing students to accept the growth of the Public Health, Health Promotion, the Principles of the Health for all and to recognize that health for all and health promotion is something essential for nurses.

There are some useful documents such as The Vienna Declaration and some others that can help to convince them that nurses should play a key role in achieving health for all.

The targets Health for all give framework in which nurses can achieve their traditional aims in new, more independent ways, in close collaboration with other health professionals, their clients and communities (5).

Be more freely and more independent, be the part of the successful team are the wishes of everyone so they could be motivators to accept new knowledge and challenges to become a good health promoter.

### **Historical background of “Health for All” strategy**

In 1978, in Alma Ata was a Conference on Primary Health Care. WHO Member States had advocated the development of Primary Health Care as the key strategy for the attainment of health for all.

Primary health care (PHC) is the first level of contact with the national health system for individuals, families and the community, bringing health care as close as possible to where people live and work (14).

PHC includes all services that play a part in health, such as income, housing, education, and environment. It also includes primary care, i.e. the diagnosis and treatment of illness and injury. And it includes the critical elements of health promotion and prevention of illness and injury. One of its greatest strengths is citizen participation in needs identification and service delivery and in bringing these services as close to people as possible (14).

The Conference in Alma Ata strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realisation requires the action of many other social and economic sectors in addition to the health sector.

For health professionals it is important that PHC relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community (6).

### **Strategy “Health for All” and important documents concerning nursing**

#### *“Health for All 2000”*

Thirty-two Member States of the WHO European Region created in 1984 when they adopted the first set of European targets for health, an unprecedented act of solidarity and unity in the health field. The policy's broad health agenda covers lifestyles, the environment and health services, addressing all levels of society and reaching out all partners and sectors that can influence health. It offers not only a vision of where to go for better health and quality of life but also a map showing how to get there. The health policy brought a new philosophy to the health development process in the countries of the Region (7).

The strategy focused on four areas of concern:

- lifestyles and health
- risk factors affecting health and the environment
- the reorientation of the health care system
- the mobilization of political, managerial and technological support to bring about these changes (7).

Health for all 2000 includes 38 targets, organized in three groups.

- The first 12 targets fall into three categories: the basic health for all goals, the health of vulnerable populations and specific health problems.
- Targets 13 to 31 address the changes in lifestyles, the improvements in the environment, and the developments in prevention, treatment and care that will make their achievement possible.
- Targets 33 – 38 address the basic needs that must be met to sound health for all development: the development of knowledge and information support for policy and action; the creation of the requisite managerial infrastructures; the development of human resources for health; the mobilization of resources for health; the mobilization of resources and broad social support; and the advocacy and practice of ethical values (7).

#### *“Ottawa Charter for Health Promotion”*

The first International Conference on Health promotion in 1986 in Ottawa gave to world Ottawa charter for Health Promotion, which was adopted as a consensus statement. It set a new direction for health promotion action. The Ottawa charter outlines the five overlapping and interactive means of action that constitute a comprehensive strategy for health promotion: building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services (8).

#### *“Vienna Declaration”*

In Vienna was in 1988 the first WHO European Conference on nursing. There were represented all Member States of the European region.

The Vienna recommendations underline the importance of primary health care, and urge that nursing practice has to be based on the principles underpinning health for all. The recommendations suggest that nursing practice should focus on:

- promoting and maintaining health, and preventing disease;
- involving individuals, families and communities in care and making it possible for them to take more responsibility for their health;
- working actively to reduce inequities in access to health care services and to satisfy the needs of whole populations, especially the underserved;
- extending cooperation between disciplines and sectors of society; and
- ensuring the quality of care and appropriate use of technology (9).

The Vienna Declaration highlights the importance of promoting the active involvement of the community in setting health goals. The focus is shifting away from treating individuals towards building relationships with families and communities, and this is reflected in the targets for health for all. The targets give framework in which nurses can achieve their traditional aims in new, more independent ways, in close collaboration with other health professionals, their clients and communities (5).

#### *“Nursing in Europe”*

In 1995 was the meeting of WHO Expert Committee on Nursing Practice. It stressed that the activities undertaken by nurses in all cultures and societies according to the six categories (9).

1. Managing physical and mental health illness status.
2. Monitoring and ensuring the quality of health care practices.  
Monitoring and ensuring the quality of health care practices involve such responsibilities as self-monitoring, monitoring the effects of interventions, supervising the work of less skilled personal and consulting with others as appropriate.
3. Organizing and managing the health care system.  
This category includes setting priorities with individuals and communities to ensure that multiple needs are met, obtaining specialist services as necessary, coping with staff shortages and maintaining a therapeutic team. It also involves promoting intersectoral work in settings (community clinics, schools).
4. Caring and helping.  
Caring and helping involve establishing a climate for healing. Nurses provide comfort to people in distress, support in managing symptoms and help in ensuring the maximum participation of individuals, families and communities in health care planning, treatment and care giving.
5. Teaching about health  
Teaching about health is an important function of nursing. Nurses should teach self-care, and guide people in caring for their family members.
6. Nurses must be able to deal with emergencies and crises through the appropriate allocation of resources to meet rapidly changing demands.

The key concept for the future development of nursing is the need to create a nursing role that is appropriate to people's health needs, rather the needs of the health system (10).

### *“Health 21”*

The new strategy, Health 21 – health for all in the 21<sup>st</sup> century, was accepted in 1998. It has the following main elements:

1. The constant goal is to achieve full health potential for all. There are two main aims:
  - to promote and protect people's health throughout their lives and
  - to reduce the incidence of the main diseases and injuries, and alleviate the suffering they cause;
2. Three basic values form the ethical foundation of Health 21:
  - health as a fundamental human right,
  - equity in health and solidarity between and within all countries and their inhabitants, and
  - participation and accountability of individuals, groups, institutions and communities for continued health development.
3. Four main strategies for action have been chosen to ensure that scientific, economic, social and political sustainability drive the implementation of Health 21 (multisectoral strategies; health-outcome-driven programmes and investments for health development and clinical care; integrated family- and community-

oriented primary health care, supported by a flexible and responsive hospital system; and a participatory health development process) (11).

Since the first WHO ministerial conference, held in Vienna over ten years before, little progress had been made towards enabling nurses and midwives to contribute more forcefully to meeting people's needs for health care and public health (13).

#### *“Munich Declaration”*

The second WHO Ministerial Conference on Nursing and Midwifery was held in Munich in June 2000. There was universal agreement on the need for strengthening nursing and midwifery at all levels of policy development and implementation, and a Declaration was drafted.

The Munich declaration on Nursing and Midwifery: a Force for Health underlines the key and increasingly important roles of nurses and midwives; urges all relevant authorities to step up actions to strengthen nursing and midwifery; and urges acceptance of the need for supportive steps such as workforce planning, legislative frameworks and development of professional practice (13).

#### *Other important events and documents*

The 61st World Health Assembly set WHO on a course to tackle longstanding, new and looming threats to global public health. Among its achievements, the Health Assembly endorsed a six-year action plan to tackle what are the leading threats to human health: non-communicable diseases. Delegates also requested WHO - through a resolution - to intensify its work to curb harmful use of alcohol, which is the fifth leading risk factor for death and disability in the world (2).

In 2008 WHO marks 60 years of service to humanity and 60 years of affiliation with ICN (International Council of Nursing). It also marks 30 years since the goal of universal access to health services through primary health care was enshrined by WHO and member states in the Declaration of Alma Ata, which highlighted the “gross inequality in the health status of the people particularly between developed and developing countries as well as within countries,” To address this, WHO focused on PHC as the key to attaining the goals of its 1977 strategy Health for All by the Year 2000.

In 2008 primary health care is again high on the global health agenda. ICN is celebrating nursing's leadership and advocating for greater nursing involvement in PHC, the key strategy to achieving universal access and better health for the world's people (14).

#### **“Health for All” strategy and nursing role today**

Today a number of key forces - poverty, increased globalization, climate change, political unrest - affect health and contribute to challenges in service planning and delivery. These challenges shape the environments in which nurses are delivering PHC and include:

- the rising costs of health care;
- increasing consumer expectations and demands;
- changing demographics and ageing populations;

- nursing and other health worker shortages;
- legislation and/or political will to fully utilise nursing's potential;
- social conflict and unrest which destabilise services and constrain resources;
- natural and manmade disasters;
- endemic and pandemic disease, as well as new and re-emerging ones;
- the surge in chronic diseases;
- making the shift to community based care (14).

Nursing practice is the very essence of primary health care. Their education, experience and the settings where they work make it so. Nurses deliver services wherever people are found: in homes, schools, workplaces, prisons, health and wellness clinics, and other community settings, as well as in hospitals and research centres. In virtually all countries, nurses constitute the largest health care provider group. Nurses are also critical to the training and supervision of other personnel, and to the planning, organisation, monitoring and evaluation of PHC services (14).

### **Conclusion**

Health promotion is the process of enabling people to increase control over, and to improve their health.

Health promotion strategies are not limited to a specific health problem, nor to a specific set of behaviours. WHO as a whole applies the principles of, and strategies for, health promotion to a variety of population groups, risk factors, diseases, and in various settings. Health promotion and the associated efforts put into education, community development, policy, legislation and regulation, are equally valid for prevention of communicable diseases, injury and violence, and mental problems, as they are for prevention of non communicable diseases (1).

While health promotion is basically activity in the health and social fields, and not a medical service, health professionals – particularly in primary health care – have an important role in nurturing and enabling health promotion (12).

Are the health professionals able to promote health? Do they have knowledge and skills? Are they motivated to do health education and to advocate the promotion of health?

And what about nurses? Are they educated enough to be equal to other health professionals on this field?

Nurses are the principal group of health personnel providing PHC. They foster and maintain links between individuals, families, communities and the rest of the health care system, working both autonomously and collaboratively to prevent disease and disability, and to promote, improve, maintain and restore health. Their work encompasses population health, health promotion, disease prevention, wellness care, first point of contact care and disease management across the lifespan (14).

WHO and some nursing organizations have produced statements that describe a vision for nursing - an ideal picture of how it should be. For example, that WHO Director - General (9) has provided a view of the role of nurses »not just as active providers of care, meeting the professionally defined needs of passive patients, but as facilitators who help people to take charge of their own health«.

This topic is an attempt to give nurses, and other health professionals, information and new knowledge, and to motivate and prepare them to accept the new role with all challenges.

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module. Critically discuss the importance of nursing role in public health and health policy development.

### **Task 2**

Discuss with your colleagues about the importance of strategy health for all.

### **Task 3**

Discuss with your colleagues how reach equal possibility to gain positive health for all.

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## **RECOMMENDED READINGS**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>QUALITY OF NURSING CARE</b>
<b>Module: 4.4</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	quality, nursing care, quality assurance, standard of care, criterion
<b>Learning objectives</b>	After completing this module students should: <ul style="list-style-type: none"> <li>• know the definition and characteristics of the quality of nursing, standards and criteria, clinical pathways</li> <li>• be familiar with quality, quality in healthcare, quality in nursing, quality assurance,</li> <li>• be familiar with quality assurance according to the Norma Lang model, and standards and criteria in nursing.</li> <li>• know how to design nursing standard and clinical pathway.</li> </ul>
<b>Abstract</b>	<p>The word quality is used every day everywhere in our lives and also in health care professionals work field. There are very general definitions which state that quality is a characteristic of things and phenomena and also more precise general and narrow professional definitions.</p> <p>With regard to nursing quality many authors cite Donabedian, who asserts that quality is the harmony between actual nursing and the criteria prescribed beforehand.</p> <p>The quality of nursing is the level of excellence.</p> <p>Quality assurance is merely a process that incorporates the systematic description, measurement, evaluation and, when necessary, implementation of measures to improve quality.</p> <p>Every organization that assumes responsibility for monitoring and promoting the quality of its work chooses a quality assurance programme.</p> <p>It is not possible to measure quality of care unless it has been accurately described in measurable terms. One of the ways to do this is by setting standards and clinical pathways.</p>
<b>Teaching methods</b>	<p>An introductory lecture gives the students first insight in the quality in nursing and health care. The theoretical knowledge is illustrated by a case study.</p> <p>After introductory lectures students first carefully read the recommended readings. Afterwards they discuss the importance of thinking and doing in excellent way.</p> <p>In continuation, they need to find published materials (e.g. papers) on quality in nursing and health care, and present their findings to other students.</p> <p>Finally they need to prepare nursing standard and clinical pathway on their choice.</p>

<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a class room;</li> <li>• equipment: computer, LCD projection equipment,</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaires.

# QUALITY OF NURSING CARE

Marija Zaletel

## THEORETICAL BACKGROUND

### About quality

#### *Definition and description*

The word quality is used every day everywhere in our lives and also in our field of work.

The concept of quality is always expressed subjectively. We must accept the fact that someone is very satisfied with an individual product or service performed, while at the same time someone else may be very dissatisfied. Judging quality depends on an individual's knowledge and awareness, experiences, expectations and recognisable standards of quality (1).

More and more nurses in their work with patients often ask whether they are doing enough for them or performing quality nursing. Several find a positive response quite fast.

Yet such a flat and subjective evaluation is insufficient. If nurses want to perform their work truly in a professional manner, they must keep raising this question again and again in an endeavour to continually improve the quality of their work and thus contribute to the best of their ability to preserving and improving the health of their patients. What is required is also a more professional and organised approach.

Quality is attributed to material production, people and characteristics. The quality of a product or service can be defined as the relative perfection of all the components of the product or service features with respect to meeting the requirements and justified expectations of buyers or users who use a product during its respective life span. From this definition we can see that those who offer a product or service do not have the final word concerning quality; the buyer or user of the product or service is the final judge on its quality (1).

While assuring quality of the products' material production and quality of service which originates from service activities (to which health also belongs), certain laws apply to determine the quality of the latter:

- the service activity does not produce tangible products;
- the service cannot be made for stockpiling;
- the service user is usually present in the process of performing services, which is a further aspect from the standpoint of quality;
- in performing a service punctuality, speed and correct procedure is even more important;
- the client's wishes and his standards of quality are harder to specify than in material production. The user's standards with regard to the quality of services performed are a reflection of the individual's personal criteria (1).

Performing a service more or less always includes the behaviour of the person who performs the service and person who uses the service. For different services the length

of time when the user and service provider are in contact varies greatly.

To assess the quality of work many possibilities are available to nurses. Frequently the satisfaction of patients is mentioned as a standard to determine the quality of nursing. Although at times the patient and nurse are in touch for a very short time, the service user or patient quickly forms his or her opinion on the quality of the service performed.

People are dissatisfied with the treatment of the nurse not only because of a lack of professionalism (of which they are simply incapable of assessing), but also because of the attitude and attention which she devotes to an individual patient (1).

The patient evaluates quality primarily according to how the service providers treat him, what attitude they had to him, how much they fulfilled his expectations, or whether the service providers are worthy of trust or he could receive the care he required (2).

### **Quality in nursing**

Quality is very hard to define (3), which is why we find very general definitions which state that quality is a characteristic of things and phenomena (irrespective of quantity), and also more precise general and narrow professional definitions.

The dictionary of the Slovene written language defines quality as something that describes things with regard to a large degree of positive characteristics.

With respect to quality in healthcare, Ovretveit (4) created the definition of quality that states that the quality of health activities is the complete satisfaction of the needs of those who are in most need of health services, for the lowest organisational costs, within the given limit and guidelines of higher administrative bodies and those paying. It also mentions the components of quality healthcare:

- a high level of professionalism,
- efficient use of resources (human, financial and material),
- the lowest possible risk for the patient,
- patient satisfaction, and
- a (positive) influence on his state of health.

The quality of healthcare attains these demands and, in accordance with existing knowledge, meets the expectations of the greatest possible utilization with the least possible risk to the patient's health and well-being (5).

With regard to nursing quality, many authors (3,6,7) cite Donabedian (1970), who asserts that quality is the harmony between actual nursing and the criteria prescribed beforehand.

The Dictionary of the Slovene Written Language defines criteria as "something that serves as the basis for evaluating, comparing and judging - a standard (12).

Kitson and Gienbing (3) quote William's (1974) definition of quality: "Quality with efficient nursing improves the state of health and satisfaction of inhabitants within the resources that society and individuals are prepared to spend on nursing."

The quality of nursing is the level of excellence achieved (6).

The quality of nursing can be seen in three dimensions:

- the quality of working methodology and technology which are labelled with: efficiency, professionalism, expertise, safety, care and suitability;
- the quality of employees - mutual relations: professionalism that is revealed in

the abilities of employees to respect the patient's personality, trust, independence and equal status, passing on appropriate information; and

- the quality of organisation which is labelled with: safety, comfort, continuity, efficiency and the level of equipment (3).

Nursing quality takes into account three fundamental dimensions: the profession, management and users of health services who should be mutually co-dependent. In doing so, they establish patient satisfaction as a prime indicator of quality (8).

Research performed till now in Slovenia was focused chiefly on measuring quality of the medical professions; less on measuring the quality of nursing, the work of nurses and developing a method to measure patient satisfaction. To master these changes in healthcare in the modern way, of exceptional importance is an orientation towards the person, efficient use of human resources, motivation and the development of values for quality with modern leadership and efficient measurement of the work results (performance) from the aspect of nursing in all healthcare systems (9).

### **Assuring and improving nursing quality**

Quality assurance is merely a process that incorporates the systematic description, measurement, evaluation and, when necessary, implementation of measures to improve quality. This means the systematic and planned implementation of measures in order to achieve the prescribed requirements for quality (10).

A distinction must be made from among three concepts: quality assessment, quality assurance, and quality improvement.

1. Quality assessment.

Quality assessment is a process which, by employing comparative methods and selected criteria, we can use to compare healthcare services among themselves that have been performed and agreed upon. In nursing this means a comparison between the nursing services actually offered and selected and established criteria and standards. Not until quality has been assessed can a system of quality assurance be formed, which assists in improving and attaining the desired goals (1).

2. Quality assurance.

Quality assurance is not a unique, final action, but a lasting process that demands a constant improvement of the features of products and services (1).

3. Quality improvement.

Quality improvement is a process that follows the phases of quality assessment and quality assurance, removes discovered obstacles or problems and raises quality to a higher level (1).

Improving quality is a dynamic process with the following principles:

- discovering and using the best results to achieve excellence,
- explicitly defining the goals of quality,
- supervision within the profession,
- a benevolent leadership, and
- the inclusion of patients.

Every organisation that assumes responsibility for monitoring and promoting the quality

of its work chooses a quality assurance programme. In doing so, it is necessary to make a radical change from determining or assessing quality to assuring it.

### **The goal of quality assurance in nursing**

Once we choose a quality assurance programme, we are endeavouring to achieve the best efficiency and best results with a rational use of available resources. In doing so, we seek to achieve the following goals:

- improve and maintain the patient's state of health;
- improve and maintain the patient's functional abilities;
- develop the patient's psychophysical condition or well-being; and
- gain the patient's satisfaction after nursing has been performed.

We see the person or patient as a whole (holistically) which is why these goals must accompany all of the activities that we perform to the benefit of our users. Among the activities of a nurse one could mention setting standards and criteria of quality in nursing (3).

Among the most important conditions for quality nursing is taking into consideration and developing elements of modern nursing.

For quality assurance in nursing one can use *external* and *internal* methods.

The basic difference is that in the case of external quality assurance the assurance comes from outside (from external professionals and institutions). Quality assurance within health institutions is the task of those who perform nursing, which they plan and implement independently and for which they are also responsible (11).

Internal quality assurance of nursing can be performed, whether centralised or decentralised.

The characteristics of central quality assurance are:

- the precise analysis of all nursing activities;
- use of instruments that are scientifically based and practical for nursing;
- quality assurance executed by a group of experts trained for that purpose; and
- nursing teams that perform nursing have no insight into it.

The characteristics of decentralised quality assurance are the following:

- observation of the nursing performed;
- the instrument of observation is not firmly specified, being selected with regard to which nursing emergency is observed;
- it is performed at the level of the hospital unit - department;
- it is performed by members of the nursing team who work in the unit; and
- members of the nursing team have a direct insight into nursing quality assurance (11).

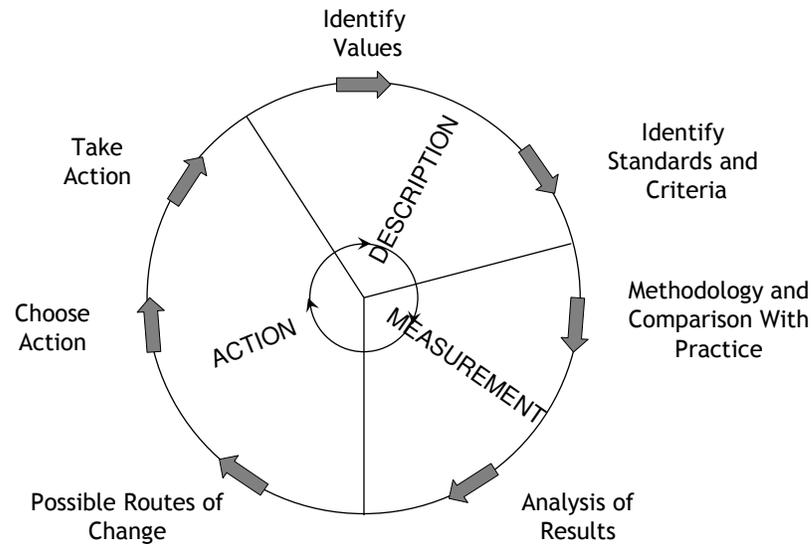
According to Ishikawa (1987) the quality assurance programme includes the following sequential phases (3):

- planning (goals and methods to achieve them)
- performing (education and improvement)
- verifying (determining mistakes and their causes)
- taking measures and removing mistakes.

### Quality assurance in nursing according to the Norma Lang model

In literature one can trace many models to evaluate the quality of nursing. Most models use as their basis Norma Lang's model from 1976, which has seven levels. World-wide many model modifications have originated, e.g. the model of the American Nurses' Association, which has eight levels, or the Royal Australian Nursing Federation with eleven models.

The Norma Lang model has seven levels that run through three phases (Figure 1):



**Figure 1.** The Norma Lang model of quality assurance

1. Description.  
In the first phase - Description - we identify the values and attitudes that lead us to nursing. Then we select criteria for excellent nursing in standards covering the structure, process and outcome.
2. Measurement.  
In the second phase - Measurement - we choose the methodology that is used to determine what our practice is like in comparison with standards and criteria of excellent (very good) nursing, which we have set internally or were set externally. The results obtained are analysed and then we decide if and why we need changes. The authoress of this model recommends the inclusion of so-called SWOT factors (Strengths, Weaknesses, Opportunities, Threats - or hazards and traps) in the analysis.
3. Action.  
In the third phase - Action - we choose the changes and paths along which the

changes will run in our environment and finally introduce the changes in our routine work (3).

The circle then runs further through all phases because quality assurance is a continuous process.

The first step in this circle of introducing changes is made when nurses decide to inscribe the philosophy of nursing (departments, clinics and hospitals). In order to be successful in doing so, they must speak about personal values, common values, the basic values of our profession, attitudes in connection with nursing patients, ethical issues, the holistic and the individual approach to the patient, uniqueness and singularity of the individual, and basic human rights. These views and attitudes can be written in brief.

The next action is to define the purpose - what we are seeking to achieve with quality assurance in nursing.

In order to assess quality, we must be able to describe and present what we are doing. To this standards and criteria have to be produced.

To measure or assess quality, besides SWOT analyses we can use many other tools or methods that can be found in literature. Here we perform a comparison between "what is done" with "what must be done". We determine what needs to be done (changed) in order to achieve what is desired and introduce certain changes. Once we find a low level of quality - maybe standards are not observed or are unsuitable - then we plan specific activities to alter practice, and the circle begins again.

### **Nursing standards**

Standards are important elements of quality assurance and at the same time elements of contemporary nursing.

According to Donabedian (3) standards are professionally designed specific quantitative requirements that define something "good".

With respect to nursing standards in the nursing profession itself, one often uses Elizabeth Mason's definition (15) which states that a nursing standard is a valid definition of nursing quality and includes criteria which can be used to assess efficiency (3).

Quality is assured only by those standards that are valid. A standard is invalid if it does not contain criteria to assess nursing.

The definition of criteria can be taken from the Dictionary of the Slovene Written Language (1994) as something that serves as the basis for evaluation, comparison or judgement - a standard.

Standards are established at the level of:

- the profession - these are general standards vital for the nursing profession in the broadest sense;
- field of work (hospital, homes for the elderly, health centre); and
- specialist - local level (clinic, hospital wing, health centre service).

### *Aim and applicability of standards*

Nursing standards specify nursing practice and represent the content of excellent

(very good) nursing. They show what kind of resources are necessary (structure), what should be done (procedure), and what benefits the patient has (result) from good nursing.

The purpose of standardisation in nursing is:

- to provide a standard term of the profession in an institution in the broader social environment,
- assistance in evaluating nursing,
- higher quality of nursing,
- a standard basis for teaching and practical work with pupils and students,
- aid in planning, implementing and evaluating nursing and seeking improvements,
- assist in determining staffing requirements, work allocation and raise job satisfaction, and
- give an insight into the process, quality and results of nursing (13).

### *Characteristics of standards*

These must reflect the aspects of modern nursing, the latest research findings supported by practical experience, professional training and powers and responsibilities of members of the nursing team. At the same time they must express the specific nature of an individual field of nursing. Standards also define the conditions to perform nursing and the anticipated results (11).

Standards contain criteria that permit us to evaluate them. The criteria must be measurable, specific, comparable, comprehensible, clear and up-to-date.

Standards of the structure refer to circumstances in which nursing is to be performed. This is revealed in organisation, education and the qualification structure, aids and equipment. These are sources (input) to perform good (excellent) nursing.

Standards of the process define the quality of performing nursing. We specify WHAT has to be done for the good of the patient, and WHEN and HOW OFTEN with the aim of achieving the greatest impact on changing or maintaining the patient's state of health, functional abilities and psychophysical condition. In this process sources are used for the purpose of achieving the best effects - excellent nursing. Within process standards we can form content standard (3) for health education and therapeutic communication. We specify WHAT to teach or WHAT to advice.

Standards of the outcome define the anticipated changes in the patient and his environment after performing nursing.

The quality of nursing is seen both in the positive results and in the absence of possible negative results.

In the outcome we see the actual achievements (output).

### *Types of standards*

Standards are classified in four groups, being structure standards, process standards, outcome standards, and content standards.

1. Structure standards.
  - Structure standards answer a questions;
  - WHERE it will be done
  - WITH WHAT materials and aids
  - WHICH organisational model is the most suitable

2. Process standards.  
Process standards answer questions:
  - WHAT will be done (which action or intervention)
  - WHEN and
  - HOW OFTEN it is necessary to perform an individual action or intervention
3. Outcome standards  
Outcome standards answer questions:
  - WHAT KIND OF RESULT to expect as the achievement of the nursing performed
  - WHEN we can expect the result
  - HOW this result is recognised
4. Content standards  
Content standard answer a question:
  - WHAT will be taught.

The answers to these questions give the CRITERIA of structure, process and result standards.

### *Levels of quality in nursing care*

Standards are means for quality assurance in nursing. Despite the standards already made, in every case of nursing they have not been produced to the highest level of quality. We are familiar with the three-tier system of quality in nursing:

1. Level 1: ACCEPTABLE NURSING - MINIMUM standards  
All patients are cared for according to a routine plan.
2. Level 2: COMPARATIVELY GOOD - OPTIMUM standards  
Nursing is planned but the patient is not directly involved in planning and assessment.
3. Level 3 - EXCELLENT - VERY GOOD NURSING - MAXIMUM standards  
Nursing is planned and assessed together with the patient and his relatives. The patient is an equal partner in the nursing process.

Nursing that cannot be placed at any level is unacceptable - poor nursing - level 0 (3).

### *Characteristics of good standards*

The features that are characteristic for good standards are shown with the aid of the acronym RUMBA, which means:

- R - RELEVANT - real and appropriate with regard to:
  - universal standards,
  - the unit which is being standardised,
  - intervention which is being standardised,
  - the group of patients, and
  - abilities and responsibilities of the nurse.
- U - UNDERSTANDABLE for:
  - nurses who perform and evaluate nursing, and
  - students and pupils.

- M - MEASURABLE - which is achieved by designing clear criteria in:
  - structures,
  - a procedure oriented to the nurse, and
  - the result oriented to the patient.
- B - BEHAVIOURAL - objective:
  - which must be designed on objective and scientific bases.
- A - ATTAINABLE - achievable and feasible with regard to:
  - the group of patients for whom the standard is intended,
  - capacity of the department, clinic and profession in the country, and
  - abilities of the performers and assessors (14).

## **CASE STUDY: QUALITY STANDARDS IN NURSING CARE TO PREVENT AN ULCER DUE TO PRESSURE**

As a case study we will present a potential nursing problem, being possible appearance of an ulcer due to pressure (11)

### **Structure**

The structure of a nursing process for preventing an ulcer due to pressure is presented in Table 1.

**Table 1.** Criteria of the structure.

<b>Element of the structure</b>	
Performer:	<ul style="list-style-type: none"> <li>• registered nurse,</li> <li>• nurse assistant</li> </ul>
Number of performers:	<ul style="list-style-type: none"> <li>• 1 registered nurse,</li> <li>• 1 nurse assistant</li> </ul>
Facility:	<ul style="list-style-type: none"> <li>• hospital room, bathroom</li> </ul>
Equipment and aids:	<ul style="list-style-type: none"> <li>• hospital bed, soft mattress, sheets,</li> <li>• blanket, pillow</li> <li>• aids to alleviate load: cushions (made of foam, filled with air, water, gel)</li> <li>• other anti - decubitus aids</li> </ul>
Required knowledge of contemporary nursing (elements):	<ul style="list-style-type: none"> <li>• nursing activities (maintaining personal hygiene, feeding, moving, ....)</li> <li>• knowledge about ulcers due to pressure, risk of occurrence, most common and hazardous places for occurrence,</li> <li>• latest research results</li> <li>• knowledge of plans to determine level of threat</li> <li>• Waterloo, Norton, etc.</li> </ul>
Literature:	<ul style="list-style-type: none"> <li>• manuals,</li> <li>• articles in professional journals,</li> <li>• already formed standards, plans</li> </ul>
Documentation:	<ul style="list-style-type: none"> <li>• nursing documentation, control sheets for movement and turning</li> </ul>
Enclosures:	<ul style="list-style-type: none"> <li>• Waterloo scale, Norton, etc.</li> </ul>
Goals:	<ul style="list-style-type: none"> <li>• to keep the patient's skin undamaged</li> <li>• to prevent ulcers due to pressure</li> <li>• to maintain the patient's integrity and self-respect.</li> </ul>

### Process and outcome/expected result

In Table 2, the nursing process step by step is presented, as well as outcome, and expected result respectively

**Table 2.** Criteria of process and outcome/expected result.

Process	Outcome - expected result
N & AN	
<ul style="list-style-type: none"> <li>• respect individuality and integrity of P</li> <li>• when performing activities assure the personality of P</li> <li>• respect the possibilities and capabilities of P's active co-operation</li> <li>• ensure P's safety and well-being</li> </ul>	<ul style="list-style-type: none"> <li>• P retains self-respect and integrity</li> <li>• P has his integrity assured</li> <li>• P co-operates in prevention</li> <li>• P is safe and feels well</li> </ul>
N	
<ul style="list-style-type: none"> <li>• on first contact with P assesses the threat of occurrence of an ulcer according to Waterloo/Norton scale</li> <li>• plans and specifies level of threat</li> <li>• in case of threat adjusts control sheet of movement and turning</li> </ul>	
N	
<ul style="list-style-type: none"> <li>• teaches P about ulcers, the most common places and reasons for its appearance</li> <li>• teaches him about significance of prevention and retaining undamaged skin</li> <li>• acquaints him with initial signs of an ulcer due to pressure (skin reddening, pain)</li> <li>• motivates him to co-operate</li> </ul>	<ul style="list-style-type: none"> <li>• P is acquainted with ulcers due to pressure and learns about its places and causes</li> <li>• P learns about methods of prevention</li> <li>• P knows initial signs of an ulcer</li> <li>• P is motivated to co-operate</li> </ul>
AN	
<ul style="list-style-type: none"> <li>• during hospitalisation maintains hygiene and ensures that bed is dry, flat and wrinkle-free</li> <li>• for immovable P changes bed linen 1x in morning and 1x in evening or whenever necessary. For P with restricted movement the bed is made and sheet changed by two persons</li> </ul>	<ul style="list-style-type: none"> <li>• P lies on clean, dry, safe bed throughout hospitalisation</li> </ul>
AN	
<ul style="list-style-type: none"> <li>• provides continual care for P's well-being in bed (sleep, resting, occupied)</li> </ul>	<ul style="list-style-type: none"> <li>• P feels well during hospitalisation</li> </ul>

**Table 2. Cont.**

<b>Process</b>	<b>Outcome - expected result</b>
AN	
<ul style="list-style-type: none"> <li>• maintains P's personal hygiene and order hospitalisation</li> <li>• Devotes special attention to incontinent P</li> <li>• after each clean assesses the skin condition particularly on threatened parts</li> </ul>	<ul style="list-style-type: none"> <li>• P's hygiene is cared for during hospitalisation (clean and dry)</li> </ul>
N	
<ul style="list-style-type: none"> <li>• on reception assesses condition of nourishment and ensures food suitable for P's state of health (calorie full value, bio full value)</li> <li>• daily provides approx. 2 l of liquid (with regard to balance of liquids)</li> </ul>	<ul style="list-style-type: none"> <li>• P will eat food appropriate to his state of health</li> <li>• P will consume sufficient quantity of liquid with regard to his needs</li> </ul>
N	
<ul style="list-style-type: none"> <li>• for 24 hours plans change of position and use of anti - decubitus aids. During times of threat changes position in at least 2 hours (with regard to P's level of threat, capabilities and capacity for movement and co-operation, taking into account therapeutic programme or limitations)</li> <li>• if condition changes, makes a repeated assessment of degree of threat and changes plan</li> <li>• writes plan to change position and uses aids on control sheet of movements and turns</li> <li>• every 24 hours evaluates success of results attained</li> </ul>	<ul style="list-style-type: none"> <li>• with regard to level of threat, P changes position at least 2 hours after using antidecubitus aids</li> </ul>
AN	
<ul style="list-style-type: none"> <li>• according to plan places P in position with or without anti-decubitus aids</li> <li>• registers immediately each change of position and use of aids on control sheet of movements and turns</li> <li>• immediately reports to N any changes to P's skin</li> </ul>	<ul style="list-style-type: none"> <li>• P's skin will be intact; he won't have reddening and will not feel pain.</li> </ul>

LEGEND: N = nurse, AN = nurse assistant, P = patient

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module. Critically discuss the importance of quality in nursing care and about nursing standards and their impact on quality and nursing and patient satisfaction.

### **Task 2**

Design structure, process, content and outcome standard on your choice.

### **Task 3**

Nursing intervention: to catheterize woman. Design structure, process, content and outcome standard.

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## **RECOMMENDED READINGS**

1. Mason E. J. How to write meaningful standards of care. Delmar Publishers. Albany, NY, 1994.

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>COMMUNITY AND DISPENSARY NURSING CARE</b>
<b>Module: 4.5</b>	<b>ECTS (suggested): 0.2</b>
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<b>Address for correspondence</b>	<b>Olga Šušteršič</b> College of Health Studies, University of Ljubljana, Department of Nursing Poljanska 26 a Ljubljana, Slovenija e-mail: <a href="mailto:olga.sustersic@vsz.uni-lj.si">olga.sustersic@vsz.uni-lj.si</a>
<b>Keywords</b>	Primary healthcare, community healthcare, dispensary healthcare, community and dispensary nursing care, health education
<b>Learning objectives</b>	After completing this module students should be familiar with: <ul style="list-style-type: none"> <li>• community and dispensary healthcare;</li> <li>• community nursing care of the healthy and sick individual, family and community;</li> <li>• nursing care and health education in dispensary healthcare;</li> <li>• working methods in community and dispensary healthcare;</li> <li>• the information system for community nursing care;</li> <li>• a multi-parameter expert system in nursing care.</li> </ul>
<b>Abstract</b>	Community nursing care forms an integral part of primary nursing care and therefore primary healthcare. It is performed in the patient's home, health centre, local community and in-the-field. The community nurse, who is a member of the nursing and health team, operates at all levels of health education: primary, secondary and tertiary, and promotes the health of the individual, family and whole population.
<b>Teaching methods</b>	An introductory lecture gives the students essentials in nursing care in general, and in community nursing care. The theoretical knowledge is illustrated by a case study. After introductory lectures students first carefully read the module, and certain parts of recommended readings and/or other available readings. Afterwards they discuss the importance of community and dispensary nursing care. In continuation, they need to prepare nursing care plan of patient and family. They present their plans to other students and discuss them
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a class room;</li> <li>• equipment: computer, LCD projection equipment,</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaires.

# COMMUNITY AND DISPENSARY NURSING CARE

Olga Šušteršič

## THEORETICAL BACKGROUND

### Introduction

Healthcare comprises measures and activities that are performed according to medical doctrine and employing medical technology by medical staff and colleagues in protecting health, preventing disease, discovering diseases and curing/healing diseased and injured people. This is performed at the primary, secondary and tertiary level.

Primary healthcare is the comprehensive action of all elements of the community for the health of its inhabitants. The common goal of all these endeavours is to achieve a level of health of people that would permit them to live a socially and economically productive life.

Even in the transition to a new millennium health remains the highest value and is an important factor in the strategy of the World Health Organisation's "Health 21", the health for all for the 21st century for the European region strategy (1). In realising this new strategy for Europe, nursing staff play an important role, predominantly in the field of primary healthcare. An integral part of this involves basic health activities where, besides other tasks prescribed by legislation governing these, they perform nursing care and health education in healthcare services for individual groups of inhabitants as well as community visits, nursing care, and the treatment and rehabilitation of patients at home.

### Nursing care

Nursing care is a fundamental component of healthcare as a comprehensive system. It is a professional discipline that is enhanced by other health disciplines. It can be broadly defined as care for the health of the whole population; an activity whose task is to assist the individual, family and community in all states of health and disease.

The nurse assists both, healthy and diseased people in those tasks that contribute to preserving and returning health, or a peaceful death, and perform them independently, if they have the will, strength and knowledge to do so. In this field the nurse is an expert and has the right to take the initiative and gain supervision. The nurse takes part in implementing the plan involving diagnosis and therapy initiated by the physician. She is a member of a broader health team in which she collaborates in planning and implementing the whole healthcare process.

### Nursing care definition

According to the definition of the World Health Organisation, nursing care is a comprehensive activity that is involved with the individual, family and social community and with their extensive functions in a time of health and sickness (2,3).

### **Nursing care goal and mission**

The goal of nursing care is to enable the patient to be independent if he or she has the necessary strength, will and knowledge for this. Its tasks must be set so that the patient is given back independence in the shortest possible time.

The mission of nursing care is defined as assistance for the individual, family and group in order to fulfil their physical, mental, psychological, spiritual and social potential in the environment where they live and work.

Nursing care also includes planning and implementing nursing activities between illness and rehabilitation and comprises physical, mental, psychological and social aspects of life as factors of health, disease, disablement and death. It provides care in all periods of the life cycle - from conception to death.

### **Conventional and contemporary nursing**

The essential difference between conventional and contemporary nursing is to be sought in its elements: philosophy, education, a nursing process, nursing diagnoses, theoretical models of nursing care, pertaining standards and documentation, organisation, management, staffing, professional terminology, research, legislation, etc.

The philosophy of nursing care cannot be transferred from other social and cultural spheres, but must develop in a given environment. Knowledge is a prerequisite for the development of the profession, which is acquired in the process of formal and informal education and conveyed in practice.

### **Nursing process**

The nursing process, which dictates the working method of nurses in the modern nursing profession, contributes to the high level of organisation and a systematic, comprehensive and individual approach. This is a progressive method of ascertaining the nursing requirements of subjects, i.e. the patient, family and community. It actively integrates all nursing subjects and members of welfare and health teams. Systematic work leads to critical judgement and sensible and planned nursing care. It operates in four phases, which in practice can run in parallel or simultaneously: assessment, planning, performance and evaluation.

1. Theoretical nursing models permit nurses to develop nursing components in all areas of its operation. They represent the elements of independent and separate action by the nurse.
2. Creating nursing standards and nursing diagnosis together with prescribed nursing documentation contributes to the establishment of procedural working methods and, consequently, the prominent position of nursing care in society.
3. Documentation ensures continuity, gives the basis for assessing nursing emergencies that have already been performed and is an integral part of safe and efficient nursing care. Without modern organisation, independent management and staffing in nursing care one cannot speak of a modern and independent profession.
4. Developing professional terminology allows a uniform understanding of expert terminology that is used in professional literature as in the everyday consensus between members of the nursing and medical teams. Research into nursing is essential for the development of the profession and to raise it from

the occupational to the professional level. Duties, responsibilities and competence must be defined by legislation (4-6).

### **Community healthcare**

Community healthcare is defined as a special form of healthcare that deals with active health and social security of the individual, family and community. Due to their biological characteristics, specific ailments or being unaccustomed to a new environment they are sensitive to its harmful influences (3,7). Community healthcare is organised as an independent service or organisational units of primary healthcare in health centres.

### *Community nursing care*

Community nursing care forms an integral part of primary nursing care and therefore primary healthcare. It is performed in the patient's home, health centre, local community and in-the-field. The community nurse, who is a member of the nursing and health team, operates at all levels of health education: primary, secondary and tertiary, and promotes the health of the individual, family and whole population.

### **Health education and health promotion**

Health education is a permanent process that accompanies a person from conception, through pregnancy, birth, the period of childhood and adolescence to adulthood and old age. For each period there is a specific need for knowledge. The community nurse must monitor and adapt to the needs and circumstances or state of the individual, family, group or community and satisfactorily meet their needs while working together with them.

1. Health education at the primary level refers to the treatment that strengthens health, thereby preventing illness. It is intended for a healthy population, the healthy individual and his family and seeks to achieve a higher level of health awareness and interest or motivation in this field as well as responsibility to one's own health.
2. Health education at the secondary level is intended for threatened groups and individuals. It delineates risk, signs of illness, disease and treatment. Participants are trained in self-observation and self-help as well as providing assistance to others with advice or alternative action. Threatened groups or individuals are therefore ready to take appropriate action, discover early signs of anomalies and thus contribute towards an early diagnosis, which results in swifter and more successful treatment and the earliest possible return to one's original state of health.
3. Health education at the tertiary level is connected with the prevention of the return of illness and a reduction of possible consequential ailments. It is intended for patients, invalids and their relatives and involves measures to reduce or abolish long-term injuries or incapacity, reduce suffering and improve the patient's adaptability (8,9).

Under the term of health promotion one comprehends the preservation and strengthening of health, which has a much broader objective than primary

preventive care. This is a process that involves training people to monitor and improve their own health by themselves. It embraces all inhabitants, is directed towards an active lifestyle and includes imparting a certain way of life. Moreover, it also involves designing a social and economic environment and personality factors that are useful to health (10). By promoting health the community nurse encourages people to place health in the highest position on the scale of human values, actively provide for it and have the greatest influence on the economic and social impact on it. It includes all areas of health promotion: preventive care, work in the local community, organisation, environmental protection, public health policy, and areas of the economy, legislation and education.

### **Goals of community nursing care**

The community nurse with her colleagues endeavours to achieve and increase positive health of the individual, family and community and reduce or prevent negative health.

The goals of community nursing care are:

- physical, mental, spiritual and social health and well-being in the social and environmental context,
- preserved and improved health,
- a healthy lifestyle,
- a healthy, improved environment,
- increased human potential for self-help and neighbourly assistance,
- decreased burden of illness,
- prevented or reduced consequences of illness and risk factors, and
- recognisable human physical, mental, spiritual, cultural, and social needs during a time of health and illness, human incapacity and dying.

### **Fields of work in community nursing care**

In the entire process of community nursing care the individual, his or her family and community is the subject of treatment. The individual and members of the narrower and broader community are informed about everything, ready for active co-operation and have faith in the work of the community nurse. The fields of work in community healthcare are:

- the health and social treatment of the individual, family and community,
- nursing care of woman in childbed and new-borns at home, and
- nursing care of patients at home.

### **Subjects in community nursing care**

In practice, community healthcare is of paramount importance for a healthy or sick/injured individual, his or her family and community. They are treated in an environment where they live, learn, play and work. Nevertheless, whether the beneficiary of nursing care is an individual, family or community, a uniform methodological approach or a procedural working method is employed.

#### **1. The individual.**

The community nurse treats individuals from the following groups of inhabitants: women (woman in childbed, women in labour, women in the

fertile period and in menopause), children (new-borns, infants, young and pre-school children, elementary and high school children), adult patients (employees, patients who have chronic incurable diseases, inhabitants of large cities and industrial centres), invalids, senior citizens and socially deprived groups (refugees, romas, the homeless).

The community nurse uses an individual and comprehensive approach that includes physical, mental, spiritual and social aspects. Together with the individual (whether healthy or ill) the community nurse determines what the individual and important others can do for each other by themselves. The activities of the community nurse are directed to studying and seeking ways to establish up-to-date knowledge on health within the context of efforts to lead a healthy life and strengthen and improve health.

A good state of health of the individual is a prerequisite for social, economic and personal development and a decisive component for a quality life. The most common concept employed is that of the working elements, philosophy of community nursing care, scope and working method in the nursing models of Virginia Henderson and Dorothee E. Orem (11,12). They are both oriented to developing responsibility for one's own health and to supporting risk groups of inhabitants. The Henderson model of nursing defines fourteen basic living activities; Orem's model is based on the level of self-care (self-help) of the individual, family and members of the community. The community nurse must assess in an individual each basic living activity and on the basis of the determined condition plan, implement and evaluate the achieved state. She must also assess the level of self-care and health education. The individual himself, as well as the broader social community, is responsible for preserving and enhancing his health.

## **2. The family.**

The family plays a vital role to ensure the health and quality of life of the individual and society. The family comes into being once the partners begin to discuss having a common life together. With their network of relatives the family represents a specific social and cultural institution in which social bonds and individual freedom are connected in a special way. With regard to the definition of this concept, the family can be considered as:

- a primary group - the cradle of human nature in which as the result of intimate association and personal contacts one acquires the first social and personal experiences,
- a social group in which relations between individuals are deep and continuously linked. Individuals in this relationship experience fullness and contentment. Relationships of "communities by blood" are labelled as original and natural, and
- a social institution that fulfils important social goals: sexual satisfaction, reproduction, educating children and maintaining emotional ties. Like each social institution, the family has material wealth, cultural symbols and recognisable values.

The community nurse encounters different forms of family: core, extended and single-parent as well as families in various periods of development. Thus one can distinguish between the periods of newly-marrieds, birth of the first

child, a family with schoolchildren and adolescents, creation of a new family, empty home once the children have left, and an old family. The community nurse must be acquainted with:

- the characteristics of individual periods of development, the most common health problems, and social and material conditions, as well as
- Maslov's hierarchical scale of needs adapted to the family:
  - basics needs for survival and physiological ones (state of health and health education of family members as well as conditions of hygiene),
  - safety and protection (living conditions and economic standard),
  - love, disposition and sense of belonging (communication in the family and with the broader environment),
  - respect (relations between family members and with the broader environment), and
  - self-fulfilment (education and employment of family members).

Using this data, the community nurse determines together with the family members the position in the family, plans and implements nursing care and establishes values. This is important to maintain the dynamic equilibrium in the family and ensure a high quality of life for it.

Many people live in communities that are not ranked among the above-mentioned families, yet the functions they perform are the same. In these groups the problems which they meet and ways of solving them are similar to those in conventional families. That is why the community nurse treats as a family all those groups who think they are indeed a family.

### **3. The community.**

Nurses have long treated the community as a subject or customer. Despite the relatively large emphasis, the concept of "community as customer" is not suitably defined. For this reason it neglects nursing care in the field of the community as customer.

Nursing care is intended to assist a community in determining, expressing and successfully solving problems associated with health.

The health of a community means meeting common needs by determining problems and managing reciprocal effects within the community as well as between the community and broader society. This demands devotion, efficient communication, a presence and settlement of conflicts, collaboration, solving relations with the broader society and mechanisms to ensure interaction among the participants and adopt decisions. The health of a community means the joint achievement at the highest level of physical, mental and social health, which corresponds to the knowledge and resources attainable (3,7,10).

The activities of a community nurse in a community are preventive at the primary, secondary and tertiary level. The first two incorporate the promotion, preservation and strengthening of the community's health, disease prevention and risk factors, extending life and raising the quality of life. The working characteristics of a community nurse in the community are:

- orientation to the group,
- promotion of health,

- preventive care before curative,
- inter-disciplinary and inter-sector operation,
- support for an active role of the individual, and important others in the nursing process,
- a holistic approach,
- continuous nursing and observation of the principle of organisation, and
- management while respecting ethical principles.

### *Team-work in community healthcare*

In community healthcare team-work is indispensable. The community nurse works together with the nursing and health team.

Team-work is defined as the work of a group of people in which each individual contributes his or her professional knowledge and is responsible for his or her work, which is directed towards a common goal.

An important role is played by the team leader who plans, organises and co-ordinates work. The behaviour of the team members, their motivation and level of association depend on the method of leadership.

The team members communicate among themselves and work interactively. The team in basic healthcare consists of health staff and other professionals with whom they first join together.

Members of the nursing team in community healthcare are nurses with college and higher level professional qualifications, specialists in community nursing care and health technicians who are integrated in performing nursing care of the patient at home. The health team includes specialist physicians, nurses from healthcare services covering various individual groups of citizens (dispensaries) as well as the community nurse and health technician. On the basis of the assessed health and social circumstances, condition or problems of an individual, family, group or community other experts are involved: physiotherapists, occupation therapists, hospital psychologists, social workers and others.

The aim of team-work is to provide nursing care or healthcare for the individual, family, group or community, whose goal is to achieve optimum health. The paths and directions of communication of nursing team members are many as the nursing team must collaborate with: members among themselves, patients and their family members or relatives, members of the health team, important others (neighbours and friends), and other services in health centres, clinics and outside of these institutions.

Nursing team members solve complex, unique and unrepeatable problems of the individual, family, group or community. The model of primary nursing care, which is developing in community healthcare, permits an ongoing and co-ordinated process. It provides a holistic team approach while respecting the needs, benefits and will of subjects and their active role. A prerequisite for this is an efficient information communications system, which is also computer supported, and the good operation of all services.

## **CASE STUDY: COMMUNITY AND DISPENSARY NURSING CARE IN SLOVENIA**

### **Regulation of nursing care**

In Slovenia, community and dispensary nursing is relatively well regulated. As such, it is regulated by several legal documents, two of the being of utmost importance.

1. Health Care and Health Insurance Act.

We should start by one of the most important legal acts – the Health Care and Health Insurance Act (in Slovene “Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju”) (13), which was adopted in 1992. According to this Act, the task of health workers in primary healthcare activities is also to unite and work together with other health and social welfare, educational and training institutions, companies, organisations and individuals in order to design and implement programmes that strengthen, preserve and give back health (13), including nursing care.

2. Instructions for the implementation of preventive health protection at the primary level.

The most important legal regulation that regulates the implementation and schedule of preventive activities, including preventive community nursing care, is a special regulation entitled Instructions for the implementation of preventive health protection at the primary level (in Slovene: “Navodilo za izvajanje preventivnega zdravstvenega varstva na primarni ravni”) (Official Gazette of the Republic of Slovenia, 1998) (14). It was adopted in 1998, on the basis of Health Care and Health Insurance Act (13).

The instructions to perform preventive healthcare at the primary level provide quality preventive healthcare of individual groups of inhabitants and patients treated in community care (14).

### **Community nursing care**

The community nurse plans, performs and evaluates nursing care of the individual, family and community in a state of health and well-being and in a state of illness, injury, incapacity, distress and undesirable conditions. The health and social treatment of the individual, family and community as well as nursing care of women in childbed and new-borns at home is ranked as preventive, whereas nursing care of the patient at home is regarded as curative treatment.

#### *Preventive community nursing care*

Preventive community healthcare comprises the following (14):

- eight community visits to a new-born or infant of up to 1 year of age and two further visits to blind and disabled mothers;
- one community visit to a child who is 2 or 3 years old;
- two community visits per year to persons who are blind or who have poor eyesight with other disturbances and who are 7 to 25 years old, if they are cared for at home;
- a community visit to an pregnant woman;
- two community visits to insured persons older than 25 years of age:
  - patients who have active tuberculosis ,

- patients who have muscular and nervous-muscular diseases,
- paraplegics and tetraplegics,
- patients who have multiple sclerosis or cerebral palsy,
- persons with disturbances in their development,
- invalids,
- patients who have chronic ailments, and
- persons older than 65 years of age;
- programmed health education in:
  - the family,
  - local community, and
  - specific groups.

### *Nursing care at home*

The nursing care of a patient at home is planned and implemented on the basis of an order which, as a rule, is made by a physician. The frequency of curative visits and duration of nursing care depend chiefly on the patient's state of health and his social and economic abilities.

### **Provision of community nursing and home care**

Today, in Slovenia about 850 nurses is providing community nursing care (preventive activities) and home care (curative activities) (15). The data on visits in 2006 are given in Table 1 (15).

**Table 1.** Provision of community nursing care (preventive activities) and home care (curative activities) in Slovenia in 2006 (15)

<b>Indicator</b>	<b>N</b>
Number of all visits	1,141,735
Number of preventive (community nursing) visits	228,646
Number of curative (home care) visits	913,089
Number of visits per community health nurse per year	1,384

From the Table 1 could be seen, that in Slovenia about 80% of community nursing/home care visits is because of treatment of a disease, and about 20% because of prevention. This ratio is not the same in the whole of Slovenia. Out of nine health regions, the highest percent of preventive visits is in Ljubljana health region (23.6%), while the lowest percent is in Novo mesto health region (only 15.4%). The discussion about reasons is beyond the scope of this module.

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module. You can also try to find from international bibliographic databases (e.g. PUBMED) articles on this issue

and read them. Critical discuss the importance of community nursing role in public health.

### **Task 2**

From Health statistics yearbook of your country, find detailed data on provision of community health care and home care in your country.

### **Task 3**

Prepare community nursing care plan of patient and family. Use computer information system, if available, for planning.

### **Task 4**

Discuss your plans with your colleagues. Also discuss about advantages, weaknesses, opportunities and threats of using the e-documentation.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HUMAN DEVELOPMENT AND HEALTH PRACTICE</b>
<b>Module: 4.6</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Economic and human development, human resources development in health, ethics
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• aware of complexity of the development and recognize essential factors influencing the described relations;</li> <li>• increase knowledge on possible different interpretations human goals and ethics in health care practice;</li> <li>• understand importance of careful definition of vision and mission of development; and</li> <li>• improve human resources development and management.</li> </ul>
<b>Abstract</b>	Development is not only economic category, but a complex issue.
<b>Teaching methods</b>	Teaching methods include individual preparation, case study, interactive small group discussions, and exercises. After individual reading and group discussion about elements of theoretical background and case study, fulfilling tasks given in exercises and summing up what the group has learned.
<b>Specific recommendations for teachers</b>	Work under teacher supervision / individual students' work: 70/30%. Seminar room, computer and internet connection or dictionaries and basic textbooks on health system development, education and ethics
<b>Assessment of Students</b>	Assessment of written reports on given tasks (seminar paper) and oral examination through defending results of given tasks.

# HUMAN DEVELOPMENT AND HEALTH PRACTICE

## Želimir Jakšić

### THEORETICAL BACKGROUND

The World is changing in traditional way of thinking by redistribution of political power and economic development, scientific advancement and technical possibilities, but recently it is recognized that social relations, culture and ways of communication, human and social capital have a distinct role. Learning and use of existing knowledge should be part of solution.

There is not a simple and safe way to solution, but we have to simplify and first define what one would like to achieve, based on our estimate of needs and available resources.

**Development** was during 1980s used to describe the process of economic growth and changing in economic structure (e. g. division of labour, industrialization, increase in per capita national income), and that predominant understanding may be traced even now in utilitarian approach to relations of economics and health. However, the adverse results of social inequities after abrupt introduction of neo-liberal economies, human costs of Structural Adjustment Programmes, weakening of social networks (“social capital”) and growth of social evils (crime, corruption, insecurity, violence, wars) in spite of apparent economic growth, at the beginning of 1990s resulted in reviving the philosophical, political and socio-economic expectations of the better future for humanity.

**Human development concept** was introduced (Mahbub ul Haq, Human Development Report 1990) as idea of advancement of the richness of human life. Human Development Index (HDI) was designed as a measure combining life expectancy, education and income. The broader approach to human development was underlined importance of human capabilities and freedoms, “enabling them to: live a longer and health life, have access to knowledge and a decent standard of living, and participate in the life of their communities and decision affecting their lives” (A. Sen. Development as freedom, Oxford University Press, 2001). In this way human development shares common vision with human rights, because in both of them freedom is essential and the basis of self-respect and dignity of all people. The importance on economic inequity, poverty, deprivation, illiteracy and injustice as breaks in the process of development are recognized. Culture and knowledge, innovations and human creativity, became important stimulants of progress besides economic incentives.

### Human Resources Management

Human resources are gradually placed in centre of interest, particularly in health care provision. However, major changes emerged during the last decades:

- Human Resources Management developed from previous Personnel Administration and Manpower Planning and Development activities. Even the titles explain the character of change. At present a new slogan indicates further steps: “Working together (in teams and with patients)”. Administration

(disciplined and clear formal regulations, control and accounting of resources, frequently with bureaucratic tendency) is superseded by management (with priority in better resource utilization, decentralized decisions related to health care implementation), and followed now by entrepreneurship (creating new opportunities, innovation, orientation toward the future, result orientation and risk taking in resource mobilization and allocation).

- Another direction of change is from “scientific management” to “human relations”, to “human capital” and “ethical leadership”. In case of motivation for work it is another intended change: from stimulation by money and incentives to encouragement by recognition of achievements and relying on responsibility.

**Table 1.** Simplified presentation of dominant approaches to management of people at work

<b>“Scientific management”</b> Taylor, 1920-30.	<b>“Human relations”</b> Mayo, 1935-60.	<b>“Human resources”</b> Olsen et al.1970-90.	<b>“Leadership based on principles”</b> Covey et al. 1990 - 90.
People do not like to work, they work only for money	People like to feel important, but under supervision	People like to contribute to common purpose	People are responsible when accepted and free
Simplify tasks and strictly control performance	Discuss plans and listen to complaints	Fully develop participation in plans and decision	Leadership has to be honest, based on ethical principles
Develop standards and regulations	Expected development of self-control	Motivation will grow through participation	Satisfaction at work will enhance quality of work

### **“Knowledge society”**

The XXIst century is meant to have several essential problems to solve: unequal progress in different countries and in depreciated groups and individuals in countries; growing environmental problems, including shortages of water and energy; ageing of population, double burden of health risks as result of epidemiology in transition, social and cultural changes in an global postindustrial and information World with not yet known health and social consequences. For this entire problem, starting with economy, the solution is found out in creative production and use of knowledge. The problem is how the knowledge is understood and how it could be measured. Is it factual knowledge, an objective truth or proper knowledge presenting individual or group ideology? Do we need scientific knowledge or wisdom? Is heart of the problem recognising true or false results or application of what we know, both factual and from experience? Today dominate measures of rigorous but formal criteria, academic or administrative competitive comparisons, more about production then about use and utilization of knowledge. As P Liessman critically observed the concept of knowledge society was transformed into a postulate of informed society (“Information age”), and consequently a necessity of life-long learning.

### **Ethics**

Ethics remain the most important frame of human aspects and quality of health care. The main traditional human ethics ordered doing well, but in the modern times the

dominant rule is doing right. This is a deep change. At the beginning of 21<sup>st</sup> century when most of human values are shaking and uncertain, it is not clear which type of rules will prevail. The increased gap between those who have material goods and power and those who are poor, depreciated and marginalized is producing critical situations in political, social and health matters: in individuals frequent stress, addictions, social isolation, and suicides; in communities diminished solidarity and increased violence; in states market orientation, uncertainties, crisis of democracy, bigger mortality; damage to environment, domination of more powerful, wars and terrorism.

The problem is aggravated by abrupt introduction and imposing of formal rules and concept of justice strange to local culture. In many developing countries, including those in transition, the major intention is, for instance, formal introduction of bio-ethical codes and request of individual decisions, in societies in which is culturally deeply rooted communitarian (familial, tribal) approach.

Besides described and often discussed “big” ethical problems related to life and death (artificial insemination, abortions, suicide, euthanasia etc.), for health practice are often important daily “small” problems, often hidden by daily routine or covertly present as special care and interest for benefit of offended (like private interests of professionals, imbalance in power of health worker and patients, inequity of arrangements and attitudes toward patients by age, gender, social position, private relations, finding balance between quality and costs etc.). On the relation and trust between professionals and people in need frequent “small” ethical problems may finally have a greater impact than scarce “big” problems.

### **CASE STUDY: “DOM NARODNOG ZDRAVLJA” (HOME OF PEOPLE’S HEALTH), COMMUNITY HEALTH CENTRE, MEDICAL POLICLINIC - GROWING BIG AND LOOSING SOUL**

Community Health Centre (Domovi narodnog zdravlja, DNZ) was an original concept in organization of primary health care. The first root of that concept one can trace more than 90 years back (1921), when the first health centres were organized as an active part of “hygienic services” (A. Štampar) in the former Yugoslavia. They had the following departments: for **hygienic education and propaganda**, for epidemiology and for “social medicine”, i.e. preventive services and integrated (dispensary) care for priority risk groups and “social” illnesses (maternal and child health, school hygiene and malaria, tuberculosis, venereal diseases, trachoma et similar). The principle of “dispensary medicine” was integration of prevention, social support and curative medicine. DNZ covered one or more districts, operated health posts in small communities, and were responsible to regional hygienic institutes. In Yugoslavia in 1940 were 10 institutes of hygiene, 51 DNZs and 159 health posts, out of them in Croatia 2 hygienic institutes, 12 DNZs and 53 health posts, a small number for more than 600 local communities. Principal source of financial resources was state budget with only some examples run by health cooperatives. Major change started in 1948 when new health centres (“Domovi zdravlja”, DZ) financed through health insurance was organized. They incorporated all out-patient services at the primary care level, including previously private general practitioners and all special dispensaries working for a short time as self standing institutions. The Law on

organization of health services 1961 established them as “self-managed organizations”, founded by commune and financed through compulsory health insurance. They continue to contribute to health education but started also during sixties to participate in medical education (undergraduate and postgraduate) for nurses and physicians. The DZ were, besides, the cradle of a new specialization of General/Family Practice in 1964 and remained the most important basis for organized postgraduate teaching and research in primary health care. In 1974 health insurance was decentralized to the communal level. At that time health centres were expected to deliver comprehensive primary care based on dispensary type of work. They were either self standing organizations or merged with all other health units in a district, i.e. also with specialized medical services based in outpatient departments of hospitals. The regular technical meetings of professionals in best of DZ contributed to development of a system of permanent vocational education. During the 30-years period of 1961-91 the numbers show restructuring of organizations and an increase of DZs in comparison with the MCs and particularly with the independent smaller health posts (Zdravstvene stanice”, ZS), Table 2.

**Table 2.** Number of medical centres (MC), Health centres (DZ) and Health stations (ZS) in Croatia in 1961, 1979 and 1991

Year	MC	DZ	ZS
1961	16	43	154
1979	25	63	57
1991	25	98	10

The average size of individual health centres was also rising so that in 1991 only 47 DZ have been staffed up to 19 physicians, 14 DZ employed 20-39 physicians and 18 more than 40 physicians. Of them 5 had even more then 90 employed physicians and two more then 200. The false philosophy was that big organizations are more efficient. However, the opposite was true. The “soul” of an original “home of health” was lost. Team work was replaced by bureaucratic management and control. The additional contribution by local community diminished, what combined with general economic crisis lead to dissatisfaction of health worker and consequently clients. The analyses showed that integrated approach to health care was successful around general practitioners only in small DZs, but preventive and social aspects were poorly treated in big organizations, where prevailed polyclinic treatment. The participation of people and close relation with community were also disrupted and formally performed only on “higher” administrative and political levels. This was the way how the last days of self-governing socialism demonstrated inefficiency in Yugoslavia. During the severe aggression on Croatia after partition of Yugoslavia 5 MC and 21 DZ were destroyed, but the decentralized system and devotion of health professionals contributed to successful protection of people. After the war, during the time of transition, the main solution for described weak points of DZs, otherwise adequate organizational pattern of primary health care, was found in “privatisation”.

The preventive services and important public health nursing became part of centralized state public health services, and teams of general practitioners persuaded to start independent (“private”) contractual relations with the Croatian state health insurance. Previous DZ in that way remained only an administrative shell caring for premises. The integrated approach to health care remained only a traditional attitude

of some of general practitioners and some of MCH and school dispensaries. It happened right in time when in many developing and of the most developed countries ideas of group practices and small health centres became popular.

The case is interesting because demonstrates how socio-political and cultural factors influence not only public health principles, but also organizational patterns. Besides, the health technology based on human relations obviously is suffering from big organizational structures.

## EXERCISES

### **Task 1. A changing world: first think about necessity and available resources**

**Your task is to write:**

- a) Mission statement of your organization;
- b) Vision statement of your organization.

Mission is declaration of existing general objectives and principles of operations of an organization, and vision outlines what the organization wants to become. Both have to include purpose, accepted values, specificities (what distinguishes them from others), responsibility toward members, clients and society.

#### **Consider external situation and needs:**

- Important leads in economics: producing or selling, innovations and role of research and learning in economic development;
- The waves of socio-political changes:
  - Egalitarian and libertarian issues - globalisation/neo-colonialism (look for broader context of social policies);
  - Technicism/humanism, quality/equity ("Panakea" or "Hygiea" in health tradition);
  - Individualism/communitarianism (individual or personal liberty and social justice).
- Suggested middle way solutions:  
Sustained development policy, human rights promotion (supported by humanistic and religious organizations) – are they realistic solutions?

#### **Consider internal situation and needs:**

- Collaborators' expectations and interests: genuine or pretended (instrumental). What is needed: diversification or homogenisation, centralization or decentralization?
- Social concern: What is more important? Quality or Equity (practice guidelines based on Evidence Based Medicine or professional autonomy, scientific rigidity or social sensitivity and flexibility)?
- Management issues: How to stimulate pro-active attitude and change from stale health administration (order) towards management of services (best use of resources), and further to entrepreneurship (opening new opportunities) in the health system: research, education, practice.

**Consider own intentions (be honest and look for own interests):**

- Would you really like to become an innovator or would you prefer to remain hidden performer, protected in an administrative system (how much are you afraid of uncertainties);
- In which way you would like to strengthen your leadership? (authoritarian way, democratic, broad-minded participatory way, or laissez faire direction);
- Are you ready to accept risks of innovations? Do you have any political expectations or ethical issues limitations?

**Consider type and characteristics of necessary change:**

- Essential characteristics
  - **novelty**: transferred or original idea (your imagination is decisive);
  - **intensity**: reforms or radical solutions (masked or open, step by step or great leap);
  - **horizon**: short-term or long-term: results visible at once or later;
  - **target**: organizational or functional, described in terms of **4P** (M.Morgan): **Procedures/People/Process/Products**
  - **support** you will need (tolerance, acceptance, commitment) and from whom;
  - **expansion method** you are planning (by diffusion, through further problem solving, research and development process).
- Estimated necessary resources and feasibility of change.
- Estimated time for implementation and first results. Be realistic, according to experience of some economists (D. Salamon) the time needed for change in technology is **3-5 years**, in the market behaviour and habits of people **8-10 years**, in management **10-12 years**.

**The criteria for assessment of your written statements** will be:

4. clear and easy understandable (not ambiguous);
5. realistic and rational (not just idealistic jingle);
6. socially, ethically and culturally acceptable; and
7. memorable and vibrant (not bureaucratic and dull).

**What you have learned during this exercise?**

Reflect on your experience and discuss it with colleagues.

**Task 2. Big issues of “small” ethical problems in routine health practice**

One may argue that all ethical problems are “big”, because of their gradual but growing influence on identity and moral personality of professionals, the trustfulness of whole profession and behaviour of people. They are usually a slippery slope between normal, traditional and “expected” behaviour and corruption of basic moral conventions. Sometimes people do what is far from their declared principles. The best way to learn about ethics is not to know by heart principles, but to discuss the experiences of daily practice.

**Your task is to “discover” the main daily ethical problems in health practice you know, discuss the reason they are present and how one may prevent them to reach the risky level.** To list them you may first reflect on the following short (and oversimplified) stories (cases).

### **Case 1. Confronting interests**

“I may trust only in tests done in laboratory where I can supervise the quality of work. You have been already in two other laboratories, but you can see that results, although falling in the same range, slightly differ. This is the reason that I have to ask you to repeat the tests and this time in laboratory I am supervising. New results will not necessarily change your treatment and the diagnosis may remain same, but it is better to test again and be sure and safe. If you do not follow my sincere recommendation, I believe you better find another doctor!” said the doctor who is a famed specialist.

What the patient will do?

### **Case 2. Restricted choice**

An elderly woman with osteoarthritis of her knee is trying to find a new doctor, because two previous doctors she consulted recommended her almost only to observe diet and reduce weight, and did not listen to her experience of beneficial massage with an ointment she has forgotten name. They also repeatedly insisted on physical therapy in spite of her complaint to the health administrator. They offended her because she is sure they would listen to her more carefully, when she could pay them some money. The third doctor who was asked to take her on his list refused her telling that his list is full.

### **Case 3. Hidden external influences**

After talks with the representative of a well-known pharmaceutical firm the physician was persuaded that a new drug for diabetics type II would be better for his patients and he decided that all of them should change therapy and use the new recommended drug. Because of his interest the representative of the firm decided to facilitate doctor's attendance to an international congress in Rome, paying him the air ticket. Has doctor accepted that offer?

### **Case 4. Ethics of public programs**

The public media announced invitation to all women over age 40 to report for a mammography test for early diagnosis of breast cancer. The procedure is safe and life-saving they stated, and all women with positive and suspicious results will be immediately advised to find an expert for further treatment. For those who cannot pay for further treatment there would be a chance to get help by charity organization. Is it correct that the invitation does not tell anything about possible drawbacks?

### **Case 5. Priorities**

A policy is discussed about the way to arrange the list of priorities for some surgical treatments in short supply. The usual points are discussed: to keep strictly and only the order in which patient came to ask for treatment or would it be necessary to look for some additional facts. Under discussion were: judgment of relevant experts about medical factors (e.g. urgency, expected best results), age and gender, familiar conditions (e.g. number of dependents), other social factors (socially recognized important people, experts, creative artists, national symbols etc.), and sponsors able to materially contribute to the development of similar services by additional equipment or training of health workers.

Although the group was aware that the existing practice will not be in accordance with principles of their choice, they agreed that only the order of coming and age of patient (younger have advantage) may be used as criteria of priority. Was this a correct decision?

#### **Case 6. Informed consent**

The informed consent of patient is important and the requirement was introduced that patients should sign a printed statement before a number of important medical procedures. Asked to sign such document, an elderly man asked for 2-3 days time to consult members of his family. It was explained to him that it should be a personal decision and a shorter time can be given to him for thinking it over, but the final decision has to be his own. After explanation the man refused to sign.

Was anything wrong in described procedure?

#### **Case 7. Life is multi-dimensional**

A middle aged man, worker, living alone, with chronic respiratory problems was frequently coming to his doctor for new drugs and few friendly words. One day quite unexpectedly he brought a sum of money, not complaining and not asking for anything, but telling to the nurse and doctor who came into the nurse's room, that this money he prepared for them. Surprised doctor and nurse felt offended, because they never asked money from their patient, and asked "But why are you doing this, have we not been always kind with you?" "Indeed, and this is the reason that I brought to you this small amount of spared money." The doctor and nurse refused money and after a short argument patient took the money back and left. After several days the doctor and nurse heard from neighbours that the man committed suicide.

The life is multi-dimensional and simple rules are not always adequate.

#### **Case 8. How to assure equity**

How to decide whether a health unit is contributing to health equity among people? Obvious answer is that (a) no cases of discrimination are recorded. This is, however only the peak of the iceberg. To be confident about the sustainable fight against inequity there must be fulfilled also other conditions (b) like guaranteed universal access, regardless of personal characteristics, physical and geographic restrictions, ability to pay et similar. (c) Adequate knowledge and skills, empathy, and concern of professionals for patient, i.e. style of work are an additional but probably the most important prerequisite. The additional requirement includes (d) personal relations, observing privacy and dignity of people, understanding of cultural and social differences. Even more is required by the further task: (e) full responsibility and participation in the process of health care both by health professionals and patients. The crucial measure (f) would be advocacy of health needs of people in front of higher authorities and fair distribution of resources among the broader scope of other services, representing the disadvantaged and handicapped people. Proactive attitude is the most difficult additional duty requiring political skills and full engagement in the life of community. It is partly out of reach of local powers, but without raising that voice the chances for benefits remain doubtful.

Using the described scale try to estimate how is a certain health unit you know contributing to equitable health of people.

### **Case 9. Inequity as avoidable inequality**

In a school all children are treated equally (school lunch, physical activity, learning conditions), but their health, growth and development, never end as equal and they are disappointed. In another school the children are treated in an equitable way and their health, growth and development have a tendency to be comparable, and they feel satisfied. illustrate what is happening in these schools and how you understand difference between equality and equity.

### **Case 10. Ethical intervention ladder**

There are always many complaints that the general conditions, state policies, role of industries, media and other parties are responsible for poor health care. Should public health programs organized or supported by state persuade people to start participate in health programs and coerce adults to lead healthy lives (by anti-smoking laws, traffic regulations etc.), actively intrude into personal and familial life. Or, opposite, has state be just a careful observer, simply monitoring the current situation, provide information, enable healthy choices, providing incentives for healthy behaviour, and restrict and eliminate free choices of people only in cases when the health risk of others is endangered along what is called the “intervention ladder”.

Look for “stewardship model“ of public health application of ethical principles (Nuffield Council on Bioethics. Public health: ethical issues. A guide to the report, 2007. Internet: [www.nuffieldbioethics.org](http://www.nuffieldbioethics.org))

**The criteria for assessment of your result:** (1) Your awareness of hidden “small” ethical problems in practice, (2) Demarcation of ethical problems: personal and professional, balancing interests of professionals and those in need, formal consent and free decision of choice, quality and costs of medical procedures, equity and equality, (3) Group reflection on origins of unethical behaviour, and ways to prevent it, (4) Group opinion on intervention among colleagues (e.g. in case that one of colleague is alcoholic, corrupt, prone to fraud patients, unacceptably poor in knowledge and skills).

### **What you have learned during this exercise?**

Reflect on your experience and discuss it with colleagues. Learning by reflecting life stories as opposite to learn principles.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>EDUCATION AND TRAINING AS PART OF HEALTH PRACTICE</b>
<b>Module: 4.7</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Development, knowledge society, learning, education, training, human resources development, culture, ethics
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• aware of complexity of the relation of health care practice and education;</li> <li>• increase knowledge on possible different interpretations of knowledge managements, education, culture, and ethics in health care practice;</li> <li>• understand importance of careful definition of vision and mission before objectives of education and training are chosen; and</li> <li>• improve human resources education and management.</li> </ul>
<b>Abstract</b>	Education, training and permanent learning are essential for health manpower development.
<b>Teaching methods</b>	Teaching methods include individual preparation, case study, interactive small group discussions, and exercises. After individual reading and group discussion about elements of theoretical background and case study, fulfilling tasks given in exercises and summing up what the group has learned.
<b>Specific recommendations for teachers</b>	Work under teacher supervision/individual students' work: 70/30%. Seminar room, computer and internet connection or dictionaries and basic textbooks on health system development, education and ethics.
<b>Assessment of Students</b>	Assessment of written reports on given tasks (seminar paper) and oral examination through defending results of given tasks.

# EDUCATION AND TRAINING AS PART OF HEALTH PRACTICE

Želimir Jakšić, Herman R. Folmer, Luka Kovačić

## THEORETICAL BACKGROUND

### The health system is complex and dynamic

Education and training is a common starting point in most of interventions aiming towards improving health care practice. However, choice of contents, methods and educational technology is part of local health culture, general cultural, social and political conditions. Fragmentary introduction of new element into existing system might be not only inefficient, but also introduce confusion and even damage. Therefore one has to understand essential policies and realities of the whole system. Here are described possible wrong managerial decisions in two directions: acceptance of circumstances as a fixed structure not open to any change (conventional error) and opposite to this assuming that everything is open to change (utopian error).

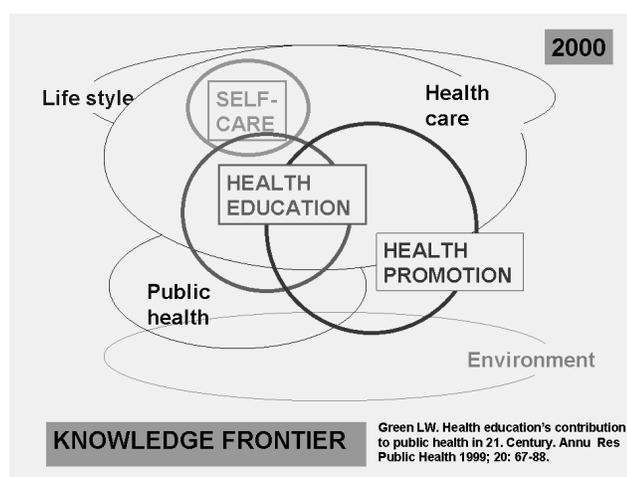


Figure 1. Complexity of the health care system

The right approach is obviously somewhere between these two errors, but it is often hidden by tradition, all kinds of ideologies and direct political utilities. One has also to consider that the system is dynamic and changes may occur unexpectedly because usually not all facts are known, and local circumstances change under influence of broader environment, a changing World.

### “Knowledge society”

The XXIst century is meant to have several essential problems to solve: unequal progress in different countries and in depreciated groups and individuals in countries;

growing environmental problems, including shortages of water and energy; ageing of population, double burden of health risks as result of epidemiology in transition, social and cultural changes in an global post-industrial and information World with not yet known health and social consequences.

**"Century of learning"**

Economics & management

**"The next society will be a knowledge society"**

**Peter Drucker**  
The Economist, Nov 1, 2001.

🕒 FACT 🕒 INFORMATION 🕒  
🕒 KNOWLEDGE 🕒 WISDOM

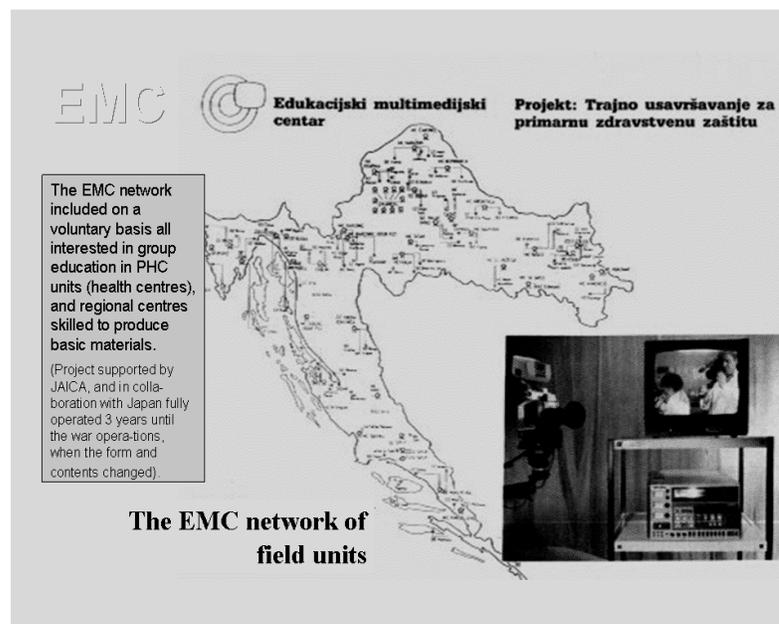
**Figure 2.** The knowledge society

For all of these problems, starting with economy, the solution is found out in creative production and use of knowledge. The problem is how the knowledge is understood and how it could be measured. Is it factual knowledge, an objective truth or proper knowledge presenting individual or group ideology? Do we need scientific knowledge or wisdom? Is heart of the problem recognising true or false results or application of what we know, or both, factual and from experiences? Today dominate measures of rigorous but formal criteria, academic or administrative competitive comparisons, more about production then about use and utilization of knowledge. As P Liessman critically observed the concept of knowledge society was transformed into a postulate of informed society ("Information age"), and consequently a necessity of life-long learning.

### **Learning**

Learning is by itself not a simple process of acquiring new information and remembering facts, but a complex transformation of personality and development of new ways of behaviour. Because of that it has to be acquired, it is not possible to transfer it. It is an interaction of experience and reflection, abstract conceptualisation and practice (D Kolb's model of learning, 1986). One has to differentiate training (acquiring a skill) and learning (acquiring of knowledge) and education (imparting and accepting of knowledge, but also becoming cultured). First is memorizing facts and know-how, but it needs further reflection and inter-relation with own experience, what is leading to interpretation and understanding of meaning, followed by obtaining proper attitude of mind and finally gain the whole integrity. Oversimplifying that process or interrupting it to early create disappointments. One well known related to health care was in seventies of last century, when funcionalists tried to simplify

education of front-line health workers, training them what needs to be done in certain conditions without understanding why (“*medicina simplicata*”). Many textbooks have been printed in form of cook-books. It was shown, however, that such training could be successful only when supplemented with education about rational of processes and significance on the given task for the role of health worker. The other unfortunate example is at present under severe pressure of copious information, when facts are received without context and inter-relation, what is producing a feeling of learning and knowledge, and is quite opposite, producing “half-educated” intellectuals, insecure or not critical to suggestions, so that marketing messages could be accepted as important new knowledge.



**Figure 3.** The Educational Media Centre Network in Croatia as a support for education in primary health care

Educational goals have often to combine quite opposite capabilities and attitudes: How to become critical and trustful? How to be pro-active and thoughtful? How to collaborate with others, keep own believes and tolerate opposite? How to decide in emergencies or under threat of uncertainties without relevant data? How to combine scientific rigor, professional dignity and political skills? How to participate in and lead teams, developing them from hierarchical, to functional, and to interdisciplinary ones?

The content of learning is special item to be considered. New technologies facilitate approach to new information (distance learning, internet etc), but in the same time open an important question: how to escape of an avalanche of information, potentially interesting, but not necessarily useful. How to chose what is (1)valid and credible, (2)important and relevant for practice, (3)applicable and acceptable.

The scientific facts are not sufficient for their interpretation, the cultural and ethical values are necessary.

## Culture

Culture is one of the most complex expressions with many connotations. The term may be understood as just production of arts (cultural industries), or as traditional folklore, or ultimately all manifestations of social life such as customs, religions rituals, habits of association and institutions. The controversies might appear between, for instance, between national and international understandings (in search for identity), among intellectualism, spiritualism and aestheticism (as different approaches or ideologies of expected social progress), between cognitive and emotional reactions (in creation of personal style and manner).



**Figure 4.** Film as a attractive media used in health education

A separate feature is identity of health culture. It is built from many layers of people's experience and believes, years of interaction with health and medical professionals, complementary, alternative and anti-medicine, obsolete slogans and commercial messages, lasting, persistent and resistant to change. For countries in transition a widely spread attitude that health may be sacrificed for economic development is difficult to change in believe that, contrary, health is of vital importance for economic development. It is a world-wide problem in many developing countries, collectively, as well as in families, and even individuals.

## Education and development

The different connotations exist in many essential factors connected with the role of education in development. There is not one rule and one truth to be implemented.

Therefore it is wrong to transfer and import solutions, but necessity to harmonize approaches in a tolerant way and most important to analyse not only short living policies and economic suggestion, but also cultural and ethical aspects. Learned people should not only become knowledgeable and aware of new possibilities, but also better understanding the own position, capabilities and interests. Educated personal attitude is decisive: indifference of those who know little is most hazardous, but equally dangerous are utopianism and despair of sophisticated academicians without touch with practice.

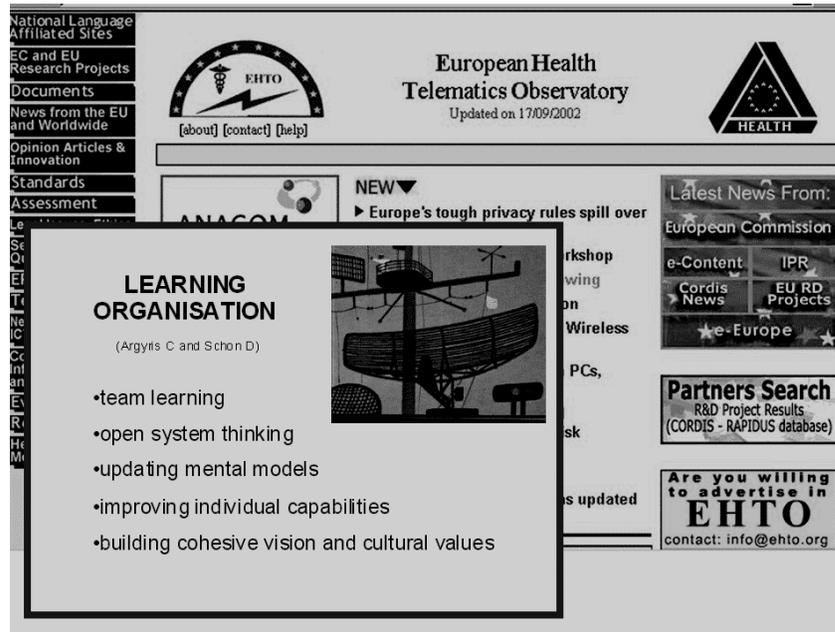


Figure 5. Education for health is important factor contributing to the development

## CASE STUDY: INTERNATIONAL POSTGRADUATE COURSE “PLANNING AND MANAGEMENT OF PRIMARY HEALTH CARE IN DEVELOPING COUNTRIES”

### Introduction

From 1978 until 1996 at the Andrija Štampar School of Public Health, School of Medicine, University of Zagreb organized 17 international courses of 9 week duration. Each course was attended by between 18 to 25 participants, 358 of them in total, from 62 mostly developing countries. The participants attended the courses were medical doctors, nurses, environmentalists, economists and other professionals, usually younger than 35, from middle level management. The courses were organized as a joint cooperative program between the governments of Yugoslavia (former) until 1989, and Croatia 1990-1996, and The Netherlands.

The course was designed to link planning and management with specific technical procedures and social functions of health workers more than theoretical considerations of techniques in planning and management.

### **Course aim and objectives**

The principal **aim of the course** was to train professionals in the field of planning and management of primary health care in developing countries. The course was designed to link planning and management with specific professional contents of primary health care and the understanding of social processes which play an important role in decision-making and cooperation in the field of primary health care. According to the stated aims, participants experienced in management of primary health care were recruited.

The **specific objectives** of the course were:

- To develop and support positive **attitudes** towards primary health care as a part of social development and towards the people as the main active element in the health system; to reinforce positive attitudes to rational methods in the planning and administration of services.
- To develop **skills**:
  - in analyzing and solving technical and organizational problems of health services and techniques in the judgment of alternative solutions;
  - in resource allocation and health planning, particularly development of adequate health manpower;
  - in communication, team work and leadership.
- To increase **knowledge** to be used in:
  - listing and assessment of technological and managerial problems encountered in primary health care;
  - problem-solving methodology;
  - analysis of status of health, trends in community development and health priorities, relation of health to other sectors of development;
  - orientation as to the position and involvement of the community in health care planning and practice;
  - planning and management of integrated comprehensive primary health care services tackling typical problems such as maternal and child health and family planning, prevention and control of epidemic and endemic diseases, nutrition, health education, organization of medical care;
  - health manpower planning, development and leadership;
  - monitoring and evaluation of health services and control of implementation of health plans;
  - training and research in primary health care.

### **Course content**

The course was organized in blocks which last on the average about one week. Every block combines theoretical parts of teaching, individual reports by participants and working group results, practical exercises and field visits. Planning and management were linked with the contents of primary health care and actual examples, so that

individual programs developed into more complex ones and finally into the whole system. The final choice of contents and order of presentation were adapted according to the needs of participants.

**Block 1 (Introductory block)** dealt with the refreshment of fundamentals of planning and management. It was an opportunity for the participants to get to know each other. Indicators for particular countries are compared and problems of the development of the policy and strategy “Health for All by the Year 2000” and “Primary Health Care” were discussed.

**Block 2** dealt with general social and economic components and conditions for the development of primary health service as well as with general social and economic aspects of planning and management. The process of policy formulation and broad programming was analyzed. The first two blocks include experiences of the health system organization and development including field visits.

**Block 3** covered questions of selecting topics of appropriate technology and development strategy. This part includes certain PHC components such as environmental problems, sanitation and communicable disease control. Field visit were included. Examples of specific programs such as endemic disease control programs were used to discuss the problem of integrating these programs into comprehensive primary health care.

**Block 4** covered the health program formulation and detailed programming. The comparisons were made between programs under different circumstances (rural, urban settings, migratory population, etc.) The relations between PHC and different parts of health services especially hospitals and specialized medical care were analyzed. Field visits and exercises were organized to demonstrate different working conditions.

**Block 5** dealt with maternal and child health, regarding measures and strategies and particularly manpower planning, training and management of PHC practice. Special attention was given to dilemmas of health manpower at the grass-root level, and to the profiles of the middle-level managers at the district and provincial level.

**Block 6** dealt with major resources, such as: (a) community participation; (b) coordination, supervision, communication and leadership; (c) health economics and management of material and financial resources; (d) mental health, health education and operation of health services.

**Block 7** covered planning and management methods as applied on different models. A model province from a developing country was used for studying indicators, problem analysis, assessment of development trends and priorities, resource allocation, organization, supplies and monitoring of services. Based on the knowledge from previous blocks, participants were taking part in a system of managerial games and exercises and evaluate the results and outcomes by real experiences from their own countries.

**Block 8** dealt with a synthetic approach to PHC from the point of view of contents of work and components as well as from the point of view of organization and management. Major problems of PHC implementation, constraints and obstacles were analyzed by working groups of participants.

At the end of the Course a **final conference** was organized during which participants presented their plans in solving actual problems of PHC in their field for the coming year.

## Teaching/training methods

Participant's responsibility during the course was to participate actively in the teaching program in several ways: to conduct joint sessions, working groups and discussions and to describe problems and experiences of their country as well as to give short lectures on topics they have experience in. According to the assessment of teachers and participants the recruitment of candidates and their active participation in most of cases was very successful. Lecturers were in a position to discuss problems with participants and not to merely give lectures. The main information blocks lasted usually 15-20 minutes and were followed by discussions and further solving of specified problems. Work in small groups of 4-5 participants was a frequent and regular form of teaching. With the aim to elaborate specific primary health care managerial problems in details, the participants were split into 3-4 working groups. Problems were presented in a form of a panel discussion. Very interesting and motivating for the participants were role playing and games (1). The participants also had a task to write the final paper, being a plan of action in PHC management in their position at home for the coming short term period. The Final Conference was held under several topics.

In order to achieve the objectives of the course, on an average, one-day visit to different institutions per week was organized. Every field visit was organized so that participants had specified tasks in observation, surveying and reporting the health care settings and functions.

For the course participants the Course Manual, consisting of ten chapters following in general the structure of the course by blocks, was edited and distributed to the participants as the handbook for the course. The manual has 470 pages and was distributed in the related teaching blocks. The course manual was reedited each year.

The participants were also provided with various materials of the World Health Organization ("WHO: Leadership development for mental health", "Management Development for Primary Health Care", "Primary Health Care Towards the Year 2000", "The Health Centre in District Health System", "Acute Respiratory Infections in Children", "Technical Bases for the WHO Recommendation on the Management of Pneumonia in Children") as well as from almost every institution they visited.

The basic concept and terminology used in the course were in accordance with the terminology of the World Health Organization: "Managerial process for national development within the strategy: Health for all by the year 2000".

## Evaluation

The evaluation process includes a formal evaluation organized at the end of each training block and a more detailed one at the end of the course. Block evaluation consists of anonymous answering to standard questionnaires (based on FAO questionnaire, recommended by a Holland group of experts in 1981 and followed since) followed by oral evaluation in which all participants in turn comment the last block and suggest changes to be made in the blocks to follow. Final evaluation of the course follows the same procedure, only using a more detailed questionnaire.

### Evaluation of the 1994 course

As an example of the evaluation regularly used in the International Course "**Planning and management of primary health care in developing countries**" here is presented part of the official 1994 course Report related to evaluation.

### **Final evaluation questionnaire 1994**

#### *1. The size and the composition of the group*

17 out of 19 participants assessed the size of the group to be just right for the purpose of the course, 1 participant found it to be too small and 1 big. Regarding the composition by professional qualifications, most answers are also in the category of "just right", 11 answers, but 5 of them answered the group was "too mixed" and 3 "not mixed enough".

#### *2. The contacts during the course*

Practically all the answers to the questions on contacts are positive, both regarding professional and informal ones. It is interesting to note that the participants of this year course assessed their contacts (in both categories) as the same positive while in the last year course the contacts within the participants were less positively assessed than the contacts with the staff.

#### *3. The duration of the course*

Most participants evaluated the duration of the course to be just right, both with regard to the program covered (10) and with regard to their own requirements (11).

#### *4. The program of the course*

All the participants assessed the course program to be well balanced, neither too rigid nor too lax. Most of them were satisfied with the balance between free time and amount of homework assignments, but 9 of them assessed to have had not enough free time and only one to have had too much of free time.

#### *5. The relevance of the course*

In this section of the evaluation questionnaire the overall relevance was assessed as well as the relevance of lecture notes and manual, field visits and the equipment used. Most of the participants rated the course as relevant (2 "very high", 10 "high", 6 "acceptable" and 1 "low"). The average was 3.7 on the scale from 5 - very high to 1 - low. The answers regarding some specific aspects of the course also fall in the same categories.

Regarding the training topics, the participants most frequently mentioned the following subjects as the ones most useful for their future work: comprehensive diagnosis, community participation, management techniques, resource allocation, health manpower development and health education. It should be noted that, in answering this question, they listed as much as 19 subjects. 9 subjects were mentioned as not so useful for their future work, but almost all of them only by one participant. This indicates that the choice of topics was very well balanced and matches the interests of the group members.

#### *6. Lectures and practical*

10 participants evaluated the theoretical level to be just right, 7 too high and 2 too low. 17 of them also judged the practical level to be right (neither too complicated nor too simple). For 2 practical were too complicated. The share of both theoretical lectures and practical work was assessed as appropriate, and accordingly, the time available for each of these training forms was perceived as balanced.

#### *7. The teaching methods/techniques*

The participants, when asked to assess to what extent had individual teaching techniques/aids been effective in contributing to increase knowledge, insights and ideas, ranked the following ones as the most effective: field trips, discussions, case studies, practical work.

Most or all of the lecturers were perceived as responsive, stimulating participants' initiative, using their experiences and prepared to discuss about what they said.

#### *8. Organization and facilities*

The administrative and secretarial support was assessed as very good (5) good (7) and satisfactory (6) and, with only one participant assessing it as unsatisfactory.

The average rating for the lecture/meeting rooms was 4.1, i.e. between very good and good; the average rating for the quality of accommodation was 3.3.

Lunch was organized in the School restaurant, as well as dinner in the first week upon arrival. After that, money for dinner was given to participants in order to give them more choice to prepare it according to their own wishes.

The organizers provided the participants with all the relevant information on cultural and sporting events in the city. A guided city tour was organized as well as the visit to the Croatian National Theatre. Participants had the opportunity to play table tennis at the School premises. Various other forms of social activities were also going on, such as the international dinner, dances, parties, etc. as usual, but most of participants expected more.

#### **Experiences and proposals for the 1994**

A general observation for this year's Course was that the course corresponds to the needs formulated by candidates and, on the other side, the group composition is responding to the policies, objectives and methods of work announced in the course.

1. The main orientation of the course to the middle level management is internationally recognized as one of the most important strategies for the implementation of policies of Health for All and strengthening of Primary Health Care. The World Health Assembly has stressed the district action programming as one of the essential elements in national health development, and this is exactly the policy followed by the course in Zagreb. This is well reflected in the criteria for the selection of candidates, course objectives and type of training activities during the course.

2. The essential influence of the type and kind of candidates was evaluated several times before. This year the candidates were on a good professional level and were a very motivated group. All the group members were participating very actively, which was achieved through different types of active assignment, field and group work, exercises and structured round table discussions, as well as through individual contacts with teachers and institutions of interest.

3. The general schedule of the course seems to be adequate. The course is very concentrated and requires maximal effort from every participant. The printed manual has proved to be of great help.

4. The participation of foreign resource persons has again proved to be very satisfactory (J. Eshuis, from the Royal Tropical Institute in Amsterdam, N. Sartorius from the World Health Organization, Zuhul Amato from Turkey, and P. Reitmaier from the University of Heidelberg, Germany). A tradition of inviting guest teacher and resource person from developing countries was continued also this year. This practice to have the firsthand experienced expert from developing world as well as to continue the practice to inform and activate the World Health Organization and other international organizations to support the course in proposing candidates, following them, helping in evaluating the course, and actively participating in course performance and cooperation among similar training institutions is viewed as very useful. For that reason, a proposal for further participation of teachers from developing countries is forwarded (Annex 4).

5. The World Health Organization, The Royal Tropical Institute in Amsterdam, the Ministry of Science and Technology and the Ministry of Foreign Affairs of the Republic of Croatia were of great help in informing and recruiting potential course

participants. With their help the number of applicants was bigger than expected due to political situation in this part of Europe. The Ministry of Health of the Republic of Croatia was very ready to take the sponsorship of the course.

6. This year close cooperation with the Zagreb International Fair continued with organization of panels and practical at their premises and this was a great opportunity to practice the assessment of world medical technology.

7. Missing participants from Americas, which probably happened mostly due to shortage of time between announcement and the beginning of the course, was regarded by other participants as failure of the course organizers.

#### **List of final papers, 1994 Course**

##### **Group A: *Organization and management of primary health care* (Wednesday, July 20, 1994, 9.00)**

1. Adeolu Oluseun Olufowobi, Nigeria: Development of an efficient village health system in Nigeria
2. Ismail Ndifuna, Uganda: Improving PHC activities in Para-village, Mpigi District
3. Kevser Vatansever, Turkey: Strategies for chronic diseases management at health unit level in an urban area
4. Yandie Samuel Kanu, Sierra Leone: Improvement of the district health team
5. Nikita Bulka, Albania: Actualities on rehabilitation of PHC in Korca District

##### **Group B: *Environment and nutrition* (Wednesday, July 20, 1994, 11.30)**

1. Avirmed Buzmaa, Mongolia: Improvement in water supply and sanitation in Mongolia (1994-1995)
2. Bunchuai Siriliang, Thailand: Nutrition in PHC of Thailand
3. Barbara Naomi Zimba, Zambia: Malnutrition and pregnancy wastage in Zambia

##### **Group C: *Community participation and health education* (Thursday, 21 July, 9.00)**

1. Lina Cabel, Philippines: Partnership approach for women's health in region VIII, Eastern Visayas
2. Rosefita Padilla, Philippines: Community health through participatory action research
3. Helen Rivera, Philippines: People empowerment and participation through household health education
4. Riadi, Indonesia: Community action for health in Indonesia
5. Leyla Karaoglu, Turkey: A research proposal for evaluation of existing school health education and its related effect on high school children

##### **Group D: *Special programmes in primary health care* (Thursday, July 21, 1994, 11.30)**

1. Zaddy H.M. Kibao, Tanzania: Evaluation of malaria in Dar-Es-Salaam
2. Angelina Kakooza-Mwesige, Uganda: Report on the CDD/ARI support supervision of Eastern region - B-Uganda
3. Betty Gonza Ntende, Uganda: Family planning services in Uganda Grain Milling Company
4. Omur Cinar Elci, Turkey: Evaluation of the benefits of occupational health units in garment industry
5. Zoe Antoniou, Cyprus: Caring for the elderly - A case study and proposals

6. Bishnu Prasad Bhandari, Nepal: The Britain-Nepal medical trust - its role as NGO in Nepal

**Block evaluation (1994 course - weighted averages of answers to questions by training blocks)**

After each block the course participants were asked to evaluate the teaching/training process: what experiences they gained, how a new knowledge could be relevant to their practice and how much the training material was useful for them. They firstly answered anonymously to 8 questions and than they presented, what they wish, their comments in plenary (it was usually used the round technique). Their answers could be from 1 (the worse) to 5 (the best). In Table 1 the results of the 1994 course as group averages are presented. 1994 course was attended by 19 participants.

**Table 1.** 1994 course block evaluation (weighted averages of answers to questions by training blocks)

<b>QUESTIONS /TEACHING BLOCK</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
1. How do you rate the amount of time made available for this block?	2.9	2.5	3.4	2.9	2.7	2.9	3.1	3.0	3.2
2. How do you rate the instructional level of the sessions for this block?	3.2	3.3	3.0	3.1	3.5	3.1	3.3	3.0	3.2
3. How do you rate the balance between lectures and discussions/practical?	3.3	3.6	3.4	3.7	3.8	4.0	3.8	3.8	3.3
4. How do you rate the quality of the presentation of the sessions for this block?	3.5	3.6	3.4	3.7	3.8	4.0	3.8	3.8	3.3
5. How do you rate the value of the discussions for deepening your understanding of this subject matter?	4.3	3.9	3.9	3.8	3.7	3.9	3.9	3.7	3.7
6. How do you rate the importance of this subject matter for your own work?	3.9	4.0	3.9	4.3	4.2	3.9	3.8	4.0	3.9
7. How do you rate the relevance of the background material to the subject matter treated?	3.7	3.6	3.5	3.4	4.0	3.6	3.4	3.6	3.4
8. How much, in your opinion, did the sessions on this block improve your knowledge and skills?	3.4	4.0	3.9	4.0	4.1	3.7	3.8	3.9	3.8

**International consequences of the Course**

The International postgraduate course “Planning and management of primary health care in developing countries” was organized for 17 consecutive years (from 1978 to 1996) and attended by 358 participants (Table 2). Some countries were very well represented. Ethiopia systematically sends almost each year one participants from health province and one middle level manager from the Ministry of Health (22 participants in total) (3). Very good influence of the Zagreb course to the

development of health services could be seen in the case of Iran. 20 participants trained in Zagreb after return home organized several training courses of the same curricula for middle level managers in Iranian provinces and districts. 2008 Mojgan Tavassoli reported the success story of the Iranian primary health care in the Bulletin of the WHO (4).

**Table 2.** Participants in the international postgraduate course “Planning and Management of Primary Health Care in Developing Countries by countries 1978-1996

County	Number of participants per country	Total number of participants
Ethiopia	22	22
Tanzania, Thailand	20	40
Iran	19	19
Turkey	18	18
Philippines	17	17
Indonesia, Uganda	15	30
China	13	13
Nigeria	11	11
Ghana, Kenya, Zambia	10	30
Bolivia, Ecuador, Iraq	8	24
Egypt	7	7
Bangladesh, Sri Lanka	6	18
India, Yemen, Zimbabwe	5	15
Cyprus, Gambia, Liberia, Mongolia, Sierra Leone, Somalia	4	24
Afghanistan, Albania, Cameroon, Colombia, Jordan, Lybia, Mali, Mauricius, Pakistan, Panama, Vietnam	3	33
Chile, Croatia, Cuba, Djibouti, Eritrea, Lesotho, Nepal, Nicaragua, Sudan, Syria	2	20
Argentina, Burma, Burundi, Bosnia and Herzegovina, Guatemala, Guinea, Jamaica, Malaysia, Mexico, Mozambique, Nive Island (New Zealand), Papua New Guinea, Peru, Seychelles, St. Vincent, Tunisia, Zaire	1	17
Total number of countries: 66		Total number of participants: 358

Appropriate representation we had in the cases of Tanzania (20 participants), Thailand (20 participants), Turkey (18 participants) and Uganda 15 participants). For some countries (China – 13 participants; Nigeria – 11; Indonesia - 15), in spite of large number of participants we can not expect bigger influence because of their relative under representation. From some countries only 1-3 participants attended the Zagreb course (Argentina, Burma, Burundi, Guatemala, Chile, Panama, Mauritius, Nicaragua, Malaysia and others).

## EXERCISES

### Task 1. The “learning society”: what and how? Problem solving and learning on experience

#### *THE NEXT SOCIETY WILL BE A KNOWLEDGE SOCIETY*

(P. Drucker, The Economist, Nov 1, 2001) (2).

#### **Your task: start or improve work in your “learning organization”.**

“Learning organization” is a more or less stable group of small number of colleagues, who regularly meet to reflect on the experience in practice or data from other, steady and carefully chosen sources (better not directly from well known experts, but from documents, journals and also through new technologies such as kinematics, distance learning, tele-education, Internet (Web-based training). Besides, important is horizontal communication and partnership with users (patients, students) and public media. They should know what you are working and you should reflect on their experiences.

Organizational learning is based on the team learning, open system thinking, stimulating individual capabilities, building cohesive vision and cultural values (see D. Schön, C. Argyris) (5,6,7).

#### **Consider attitudes the group should accept:**

- People need to understand the purpose and meaning of what they learn. Enrich functionalist Task analysis of the group: deliberate role, functions, and tasks without further elaboration. If it is difficult to start, recommend that reviewing daily professional activities of group members;
- Recognize intellectual (expert, cognitive) capital and discuss the road from facts to wisdom. Accept that knowledge could be an object of management (Knowledge Management, KM);
- Admit the importance of capability in performing health care, because knowledge alone is not sufficient. The capabilities of group members might be different and this is beneficial for group learning. All capabilities like also all factors of intelligence might be of equal value. Capability is as intelligence a balanced ability in solving problems at work and in life. However, the importance of emotional and social intelligence is particularly large for health professionals;
- Agree to survive the flood of information, escape playing around with vague and ambiguous terms and “interesting” but not relevant information. For critical choice of readings one may use EBM (Evidence Based Medicine)

criteria: the content should be (1) valid and credible, (2) important and relevant for practice, (3) applicable and acceptable.

It might be useful to refresh **understanding of learning processes**:

- Differentiate Factual knowledge (what: consciously reproducible), Procedural knowledge (how: largely unconscious, “instinctive”, forgotten experience), Personal knowledge (assimilated into own cognitive processes);
- Case analysis and problem solving (**PS**): definition and analysis of the chosen problem, generation and comparison of several alternative solutions, application and evaluation of consequence, and finally most important: recapitulating what we have learned;
- Experiential learning (**EL**): especially important in postgraduate and continuous learning. Major dysfunction is separating “theory” and “experience”.

**Effective learning** is not just memorizing facts. Other important conditions are:

- involvement in practice and group reflection about cases and experiences;
- choosing *multum* instead *multa*, especially when learning skills;
- stimulating creativity (e.g. by trying out suggested new techniques, actively participating in research, playing problem-solving games, by writing articles etc.);
- besides technical, reading and other books (not only newspapers, and not only journals);
- practicing physical activity and regular relaxation;

The criteria for assessment of your plans to improve the “Learning organisation”

**You have to include:**

Regular work, at least one hour each month;

Involvement a small group of 4-6 (8) members with similar interests and possible different experiences;

Securing steady input of technical information;

Stress on essential process of group reflection on specified actual cases;

Implementation of new knowledge into practice is decisive criterion in evaluation.

What you have learned during this exercise?

Reflect on your experience and discuss it with colleagues.

## **Task 2. Development of a teaching/learning module**

A teaching/learning module is an element of teaching and learning treating a defined problem in health practice and aiming to solve it by increasing knowledge and experience of involved (health) professionals, stimulate modification of their attitudes and changing their behaviour. It is usually a part of a larger educational program or of continuing learning.

**Your task: Design a one-week seminar to improve management of primary health care teams.**

Consider format for constructing the teaching/learning module:

- Identify what you should change: choose a concrete problem out of actual practice in a setting members of the working group know. Use individual reports or “brain storming” of participants;
- Estimate possible improvements feasible under given conditions (one week of organized teaching/learning);
- Define educational objectives: overall and specific regarding knowledge, skills and attitudes;
- Choose title of the module (it is best to be in form of a question and easy remembered) –it will be probably later revised several times;
- Write short introduction describing rationale;
- Choose the target group of participants (students), particularly those from whom one may expect to implement what was taught;
- List tentative subject contents;
- Discuss appropriate teaching/learning methodology: it should be regarded as a whole dynamic way, not just a list of teaching/learning forms. Learning should be active and task-oriented, a kind of learning by doing. The seminar itself should demonstrate what is recommended as methodological approach. Sometimes a short lecture or description of a case is a good starter. The most important is to be realistic and available time has to be considered. It is not recommendable to cover by information a vast territory without planning time to for “digestion” and reflection about relevant issues;
- Think over how will be assessed what students have learned and how they could demonstrate their capacity to implement it in practice;
- Allow time for evaluation and answer of the group to the question: What we have learned.

#### **Solve logistics and organizational problem:**

- Estimate costs and find the way they are covered;
- Find premises and places for field work;
- Provide and check necessary equipment;
- Make certain that teaching materials are ready and available;
- Think about accommodation and provisions, entertainment and free time of participants;
- Solve formalities: invitations and information of those concerned, invitation of celebrities, publicity, catering etc.

#### **Format of presentation**

- Written rationale and title
- List of specific objective and how they will be assessed
- Schedule of teaching activities by contents, form and time
- Oral explanations, comments and justifications

#### **Criteria for assessment of your result**

- Are the objectives relevant to the identified problem and do the solution follow contemporary tendencies in human resources development?
- Is the way of assessment related to objectives?
- Do contents and methods of teaching/learning correspond to objectives?

- Is the teaching/learning schedule realistic and feasible?

**What you have learned during this exercise?**

Reflect on your experience and discuss it with colleagues.

**Task 3. Supervision and control are important parts of teaching and learning**

**Your task: Read the description of an event from practice, answer and discuss the following questions and others you guess as important.**

*The young health technician has come back from his first supervisory tour. He complained to the medical officer that community is very unhappy with the way in which field workers are collecting data and advising people how to improve hygienic conditions in their households and preserve food. Their behaviour will have repercussion on the whole programme of rural sanitation in this region, he states. Several people complained that damage was done to smoked meat and other food conserved for winter. Sometimes quite large "samples" have been taken and some rotten parts have been destroyed instead used to feed animals. He asked the medical officer to intervene.*

*One of experienced field workers meets the doctor in charge the next day. He is a mature person and works in that locality a long time. He is well-known to everybody, people like him and give him sometimes small gifts consisting of their home products. He states that some of people do not yet understand the meaning of new sanitary measures, but are following all requests because they are nervous and afraid due to recent outbreaks of food poisoning and trichinellosis. He complains that the young supervisor, although coming from the higher schooling, does not know how to communicate with people. He has seen several families and apologised for bad work of field workers who do not only explain what has to be done, but also inspect, take samples and destroy immediately rotten food. He asked medical officer against the new supervisor who is not only inexperienced, but also arrogant.*

*Doctor promised to organise a meeting to discuss situation.*

**Discuss in the group the following and other relevant questions:**

- Is such case an exception or a typical case?
- What is the essential cause of described tension?
- Whose side you think doctor should take?
- Is a general meeting the best way to solve the problem?
- Who is actually responsible for described conflict?
- How you would solve a similar case?

**The criteria for assessment of your result:**

1. Answers to questions, explanation and justification of conclusions;
2. Special attention and weight will be given to the last two questions.

**What you have learned during this exercise?**

Reflect on your experience and discuss it with colleagues.

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## Chapter 5

# HEALTH SERVICES IN MEETING HEALTH GOALS

- 5.1 **Introduction to Primary Care** (I. Švab)
- 5.2 **Primary Health Care** (Ž. Jakšić, L. Kovačić)
- 5.3 **Selective vs. integrated PHC** (Ž. Jakšić)
- 5.4 **Role of Hospitals at the Beginning of the New Millennium** (Ž. Jakšić)
- 5.5 **Mental Health Care** (V. Švab, L. Zaletel-Kragelj)
- 5.6 **Mental Health in Community Life** (S.G. Scintee, A. Galan)
- 5.7 **Hospital in Meeting Comprehensive Health Goals** (M. Košnik, J. Farkaš-Laniščak)
- 5.8 **Healthy City** (S. Šogorić, A. Džakula)
- 5.9 **Occupational Health** (J. Bislimovska, J. Minov, S. Risteska-Kuc, S. Stoleski, D. Mijakoski)
- 5.10 **Psychotherapeutic Service as Integral Part of Comprehensive Health Care** (M. Možina)
- 5.11 **Palliative Care** (U. Lunder)

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>INTRODUCTION TO PRIMARY HEALTH CARE</b>
<b>Module: 5.1</b>	<b>ECTS (suggested): 0.1</b>
<b>Author</b>	<b>Igor Švab, MD, PhD, Professor</b> Chair of Family Medicine, Faculty of Medicine, University of Ljubljana, Slovenia
<b>Address for correspondence</b>	<b>Ivan Eržen</b> Chair of Family Medicine, Faculty of Medicine, University of Ljubljana, Poljanski nasip 10, Ljubljana, Slovenia E-mail: <a href="mailto:igor.svab@mf.uni-lj.si">igor.svab@mf.uni-lj.si</a>
<b>Keywords</b>	Primary health care, family medicine
<b>Learning objectives</b>	At the end of the module, the student should: <ul style="list-style-type: none"> <li>• be able to understand the specificities of primary health care,</li> <li>• be able to describe specific morbidity in primary care, patients' autonomy and organisation of care,</li> <li>• be able to understand the roles of health professionals in primary care.</li> </ul>
<b>Abstract</b>	People experience a lot of health problems during their life. They deal with most of them by themselves, and only a minority of their health concerns deserves a need for professional help. Every health care system has its medical doctor of first contact, who works in the interface of the population and health care. It is characteristic that primary health care takes care of health problems that are common.
<b>Teaching methods</b>	An introductory lecture gives the students first insight in characteristics of cross-sectional studies. The student should then first spend some time observing the organisation of waiting room, observing what the people, that are waiting, are talking about. Then the student spends some time with a practice nurse, helping in preparing the administration, organising appointments and small procedures. After that, the student spends some time with the physician, and fills in the questionnaire about his/her tasks. After the practice visit, the student prepares a report, which is discussed in a small group at the end of the module.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a Community Health Centre availability;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme</li> <li>• the module should be conducted as early as possible during study process.</li> </ul>
<b>Assessment of students</b>	Assessment should be done in the following way: <ul style="list-style-type: none"> <li>• assessment by tutor and staff in practice (feedback),</li> <li>• participation during discussion,</li> <li>• assessment of the report.</li> </ul>

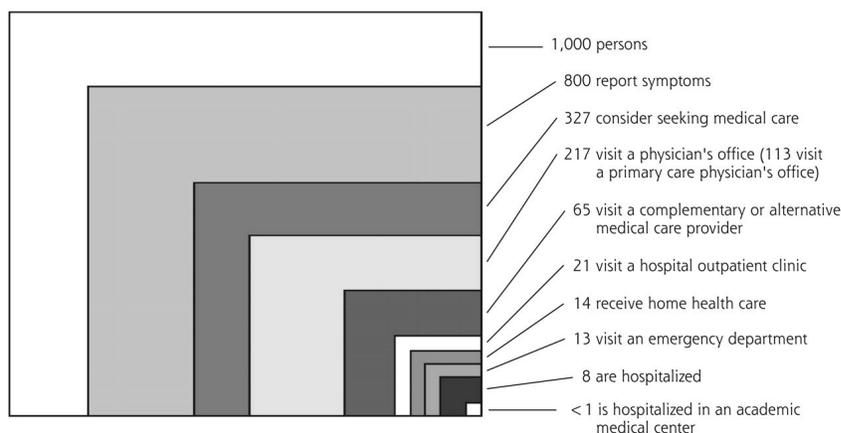
# INTRODUCTION TO PRIMARY HEALTH CARE

Igor Švab

## THEORETICAL BACKGROUND

### Introduction

People experience a lot of health problems during their life. They deal with most of them by themselves, and only a minority of their health concerns deserves a need for professional medical help. In a population of 1000 people, about 750 will experience a health problem during their life. Only 250 will require a visit to the medical facility, 9 will be hospitalised, and only 1 will be examined in a university institution (1, 2) (Figure 1).



**Figure 1.** Estimate, how many people out of 1000 would need for professional medical help at which level of health care.

Every health care system has its medical doctor of first contact, who works in the interface of the population and health care. The development of primary care went in creation of health care teams organised according to the need of the population.

The approach to health care in primary care is different from the approaches in secondary in tertiary care: the emphasis should be put on comprehensive care of the health problems from the viewpoint of the person and from the viewpoint of the disease. The approaches, health problems, the patients and the organisation of health care are different from the ones we know in secondary care.

### Characteristics of primary health care

Primary health care has the following characteristics (3):

- long term relationship with the population it serves;
- personal contact with the patient and his family; and
- comprehensive approach to health problems.

It is characteristic that primary health care takes care of health problems that are common. Quite often these problems are dealt with in a specific way.

### **Morbidity in primary health care**

An average primary care physician deals with at least 80% of all health problems presented to him and only a small minority is sent to other specialists or to hospital. Usually the patient is referred to hospital or the specialist through a referral letter and discharged from this kind of care through a discharge letter. The referral can be done either for a specific short intervention (e.g. specific examination, consultation) or a more long term cooperation is envisaged when the specialist is involved in a long term management of one of the conditions the patient may have (e.g. a diabetic patient in an advanced stage of the disease may require support from a diabetes specialist for that disease).

### **Primary health care task profile**

The specific morbidity in primary care influences the tasks performed by this service,

The content of primary care consists of the following measures:

1. Health promotion and disease prevention, especially within the vulnerable groups of the population (children, women at childbearing age) and with specific diseases and conditions.
2. Management of diseases.
3. Emergency situations.
4. Palliation.

### **Organisation of primary health care**

#### *Professionals*

These tasks are performed in an organisational structure that is variable from setting to setting. Traditionally, primary care was mainly delivered by general practitioners in offices or at home. With the development of medicine and the changing requirements for health services, the following profiles were developed for primary care:

1. The general practitioner  
The main driving force in primary care is a general practitioner, who traditionally took care of all the health problems and all the groups of the population. In some countries his role was seriously challenged and some of his tasks were given to other primary care specialists.
2. Other physicians involved in primary care  
Some countries have introduced specialist care at primary level as well. Therefore we have primary care dentists, paediatricians (taking care of the children), school medicine specialists, occupational medicine specialists, primary care gynaecologists, ophthalmologists, and internists. They usually take care of either a specific group in the population or they take care of a specific health problem
3. Nurses  
Adequate primary care can not function without proper nursing support. In general, two kinds of nurses exist:

- practice nurses are employed to work in practice and take care of the administration of the practice
  - community nurses are a specialized health care profile that works in the community. Their main role is taking care of people at home, coordinating care of patient requiring constant care
4. Other health professionals  
A host of different health professionals may be involved in primary care. The list includes laboratory workers, physiotherapists, emergency car drivers and others
  5. Non-health professionals  
In order the primary health care to function other non-health care workers are necessary. They perform their tasks according to their original education and adapt their knowledge according to their work (e.g. economists).

### *Organisation*

All these professionals may be organised in a dispersed manner through a network. In the recent times, coordination of services within group practices is more common. Some countries (e.g. former Yugoslavia) have developed health centres as organisational form of delivering primary health care. This system has proven to be a good innovation regardless some of the limitations it has encountered.

### **Conclusions**

Adequately organised primary health care is the cornerstone of every health care system. If organised properly, it is able to provide high quality health care for reasonable prices with good health results for the population. This is why it has always received a high priority in health care policy.

## **EXERCISE**

Primary health care can be taught at various levels using different teaching methods, depending on the level of students' knowledge and the teaching aims. The following example of exercise, entitled "Patient in primary care" could be used as a module for students at the beginning of their study. The timetable suggestion is presented in Table 1.

**Table 1.** Timetable for the exercise, entitled "Patient in primary care".

<b>Day</b>	
Day 1	Introduction to primary care lecture Distribution of tasks
Day 2	Critical and preparatory reading
Day 3	Visit to the health centre
Days 4-5	Preparation of the report
Day 6	Discussion in small groups

### Task 1

The student should first spend some time observing the organisation of waiting room. He/she should observe and note down what are the people that are waiting for medical proceedings talking about.

### Task 2

Then the student spends some time with a practice nurse, helping in preparing the administration, organising appointments and small procedures. He/she needs to fill in the questionnaire about nurse's tasks (Figure 2).

**Questionnaire 2: Nurse's tasks**

What kind of tasks does the nurse perform?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

Etc.

How much time does she spend on them?

\_\_\_\_\_

Figure 2. Questionnaire about nurse's tasks.

### Task 3

After that, each student spends some time with the physician and fill in the questionnaires A-B about his/her tasks (Figures 3-5).

**Questionnaire 2: Physician's tasks**

A. Try to assess the severity of the health problems, presented to the physician

Severity Scale	No. of Patients
1. <input type="checkbox"/>	<input type="checkbox"/>
2. <input type="checkbox"/>	<input type="checkbox"/>
3. <input type="checkbox"/>	<input type="checkbox"/>
4. <input type="checkbox"/>	<input type="checkbox"/>
5. <input type="checkbox"/>	<input type="checkbox"/>
6. <input type="checkbox"/>	<input type="checkbox"/>
7. <input type="checkbox"/>	<input type="checkbox"/>
8. <input type="checkbox"/>	<input type="checkbox"/>
9. <input type="checkbox"/>	<input type="checkbox"/>
10. <input type="checkbox"/>	<input type="checkbox"/>

Figure 3. Questionnaire A about physician's tasks.

**Questionnaire 2: Physician's tasks**

B. Try to write down the reasons why the patients came to the office

Reasons for Encounter	Number
1. _____	<input type="checkbox"/>
2. _____	<input type="checkbox"/>
3. _____	<input type="checkbox"/>
4. _____	<input type="checkbox"/>
5. _____	<input type="checkbox"/>
6. _____	<input type="checkbox"/>
7. _____	<input type="checkbox"/>
8. _____	<input type="checkbox"/>
9. _____	<input type="checkbox"/>
10. _____	<input type="checkbox"/>

**Figure 4.** Questionnaire B about physician's tasks.

**Questionnaire 2: Physician's tasks**

C. What were the doctor's decisions?

Decision Made by a Physician	Number
Drug prescriptions	<input type="checkbox"/>
Referrals	<input type="checkbox"/>
Patients sent to laboratory	<input type="checkbox"/>
Other diagnostics	<input type="checkbox"/>
Other (what)	<input type="checkbox"/>
_____	
_____	
_____	

**Figure 5.** Questionnaire C about physician's tasks.

**Task 4**

After the practice visit, the student prepares a written report.

**Task 5**

The report is also discussed in a small group at the end of the module.

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**RECOMMENDED READING**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>PRIMARY HEALTH CARE</b>
<b>Module: 5.2</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Primary Health Care, Public Health
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of principles of primary health care;</li> <li>• recognize;</li> <li>• know ;</li> <li>• improve the knowledge and understanding.</li> </ul>
<b>Abstract</b>	Primary health care is essential health care made universally accessible to individuals and families in the community. It is a base and the entrance of the whole health care system, often has the role of gate keeper. It has to be organized according to social realities in which communities live and work. The health system is developed relatively well among the countries in the South Eastern European region. The health personnel are well-trained and public health services are well established and organized. Around 30% of general practitioners are specialists in family medicine. Health care services in Croatia are organized on three levels: primary, secondary and tertiary. On primary level operate general/family medicine, paediatric, gynaecological and dental practices, public health nursing, diagnostic laboratories and supporting services and pharmacies. The core of primary health services in Croatia are general/family medicine, paediatric services and community nurses. According to the Health Insurance Act in Croatia, there are three main health insurance schemes: basic, supplementary and private health insurance.
<b>Teaching methods</b>	Introductory lecture, exercises, field visits, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a teaching room; field visits to at least two types of municipalities (urban and rural)</li> <li>• equipment: transparencies, colour flow masters, overhead projection equipment; computer, LCD projector</li> <li>• training materials: readings, hand – outs;</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# PRIMARY HEALTH CARE<sup>1</sup>

Želimir Jakšić, Luka Kovačić

## THERORETICAL BACKGROUND

*Primary health care is essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral part both of the country's health system of which it is the nucleus and of the overall social and economic development of the community.*

*Alma Ata Declaration (1)*

### Introduction

The strengthening and further development of primary health care is a policy accepted in many countries. The question is how this concept is implemented in practice.

In the difficult economic and social conditions (to mention only increasing unemployment and international debts), there is both a need for adequate, socially sensitive and well balanced primary health care, and also a growing opposition to these ideas. Under financial restrictions the weaker partner usually suffers more. This is a decisive moment for future of primary health care and for the health of people in general. There is no time to delay decisions or wait.

### The social aspects of primary health care are essential

Primary health care has to be organized according to social realities in which communities live and work. Because of that, a variety of solutions might be expected. Principles have to be applied with full understanding of conditions and with expectation of changes in the period of dynamic development. The socio-economic relations, community structures, differences in power and interest, existing communication and other social networks have to be taken into account. There are also specific ecological conditions which influence the differences in epidemiological situation, health risks and needs.

The orientation of health care towards the needy and the underprivileged (rural populations, youth, elderly, etc.) is one of the important principles. The growing inequalities in health have to be opposed by an essential change in socio-economic relations. The problem cannot be solved by establishing a second - class service for such groups, as it is often in reality. Primary health care has to be differentiated from "primitive" health care.

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<sup>1</sup> Adapted from: Jakšić Z, Folmer H, Kovačić L, Šošić Z, eds. Planning and management of primary health care in developing countries. Training guide and manual. Zagreb: Andrija Štampar School of Public Health, Medical School, University of Zagreb, 1996.

Another social aspect of primary health care is covered by **community participation and involvement**. Communities have to decide what they want in the way of health care and how to achieve it. More than in any other field, there are many false and disappointing ways by which this concept is put into practice. Unrealistic expectations are raised, without changing the general social and political conditions.

New approach to the **technology of primary health care** is needed. In some instances it will be sufficient to adapt existing technologies to needs, but many new ones have to be developed. Self-care, group care and community care are few examples. In reality, however "high-technology" approach has suppressed primary health care, considering it only as a vehicle for delivery of services. Primary health care should be developed as a health **discipline in its own right**. Research and education should support this development.

Primary health care is expected to build a **bridge between traditional and contemporary specialized medicine**. Therefore, it should be organized using the intermediate and combined type of technology. It has to be different from haphazard practices of traditional medicine and also from specialist polyclinics, which are regarded as the prototype of medical "industry".

The organization of volunteers and support of free initiative might be examples of success in practice, but continuity of activities should be secured, the reference and communication with other parts of the health system provided and profit making malpractice avoided.

### **Organizational forms of primary health care**

Different **organizational solutions** in implementation of PHC have to be expected under different conditions, i.e. in individual countries and health systems. This does not mean, however, that every solution is appropriate. Integration of health programmes, interaction and coordination of work of health and other sectors, continuity and building of permanent infrastructure are intended principles. In reality, a strong confrontation among different programmes is a common finding. The controversy between "**selective**" and "**comprehensive**" primary health care reflects deep differences in political interests and social policies.

Primary health care is envisaged as a general solution for all types of communities and all people. It was repeatedly stated that primary health care approach should be the general answer to health needs of all people, regardless whether they live in better developed areas or in poor and underprivileged circumstances, in urban or in rural settings. However, very often primary health care is wrongly conceived as a special project for delivery of health services for poor rural population. Some of these population groups really need to have priority, but they should not be considered in isolation. Primary health care is not a second class service for the underprivileged.

Different intentions are covered under the same name of PHC. For instance, the **role of hospitals** in PHC is a very sensitive point: declarations and realities have to be differentiated.

A system of **community - based health centres** provide a working model, but bureaucratization and over institutionalization have to be avoided. Without strong

political commitment and planned intervention under the name of PHC a service will develop with emphasis on medical cure and care.

**The community-oriented health workers and family practitioners** (volunteers, auxiliaries, nurses, midwives and physicians), their team work and leadership in the health field should be the focus of the system. They should be accepted and close to local culture and because of that accepted by people. In reality their attitudes, interests and training are often far from people's interest and culture. Besides, their power and position in the hierarchy of health services are very low.

The implementation of PHC demands **active support** by the **whole health system**. Among the most important requirements are the appropriate political atmosphere, planning of adequate resources, reorientation of health workers, intersectoral collaboration and networking of the involved institutions.

Verbal support is usually given to these PHC principles but restrictions are imposed. Sometimes, the financial and best human resources are oriented to other parts of the health system. Besides this, PHC is often organized as a special project to other vertical health programmes. The networking is often formal and every sector carefully watches its own resources.

There are differences between intentions and realities in implementation of PHC, but at least intentions are now well formulated. They have to be protected from corruption. Hard work and a long way are ahead.

The question is why the difference, the gap between intention and real practice is still widening in many places. Is it because the economic conditions diminished implementation, simply because not enough was done by responsible groups, or because there is another intention hidden growing a "new vine in old bottles".

## CASE STUDY

### Organization of health care in Croatia

Health care services in Croatia are organized on three levels: primary, secondary and tertiary.

**Primary level:** General/family medicine, paediatric, gynaecological and dental practices, public health nursing, diagnostic laboratories and supporting services, pharmacies. The core of primary health services in Croatia are general/family medicine, paediatric services and community nurses.

**Secondary level:** county hospitals with specialized polyclinics, specialized hospitals for chronic diseases, county institutes of public health.

**Tertiary level:** teaching hospitals, clinical hospital centres and state's institutes of health (e.g. National Institute of Public Health).

Facilities discharging health activities are either in state, county or private ownership. Teaching hospitals, clinical hospital centres and state's institutes of health are state owned. Health centres ("Home of Health"), polyclinics, general and special hospitals, pharmacies, institutions for emergency medical aid, home care institutions and county institutes of public health are county-owned. Polyclinics, pharmacies, general practice and family medicine units, specialty medicine units, as well as laboratories can be private.

Although the county is responsible for organization of the primary and secondary level, the state for the tertiary level, the most important responsibility for

**Table 1.** Health service delivery indicators

Indicators	1992	1995	1998	2001	2003	2006
No. of hospital beds, per 1000 population	6.21	5.75	5.64	5.99	5.62	5.46
No. of physicians, per 100 000 population	197.52	203.58	228.81	237.79	261.78	271.00
Inpatient care admissions, per 100 population	11.73	13.44	14.18	15.79	16.22	16.96
Average length of stay, all hospitals, in days	15.2	13.2	12.6	11.8	11.0	9.94
No of nurses per 100 000 population	444.57	403.52	447.17	499.95	504.16	526.01
No of dentists per 100 000 population	42.49	55.95	67.74	68.08	71.68	74.79
No of pharmacists per 100 000 population	36.53	37.12	45.50	50.37	56.56	59.92

Sources: Croatian Health Service Yearbook, Croatian National Institute of Public Health

the operation of health care is financial responsibility, which is organized by the Croatian Institute for Health Insurance.

The health system is developed relatively well among the countries in the region. The health personnel are well-trained and public health services are well established and organized. Around 30% of general practitioners are specialists in family medicine.

**Table 2.** Number of health institutions by type

Institution/Year	2000	2003	2006
Health centre	120	69	47
General hospital	23	23	22
Clinical hospital and clinic	12	12	12
Teaching hospital	2	2	2
Special hospital	30	29	29
Health resort	5	7	6
Emergency care station	4	4	4
Polyclinic	154	257	314
Nursing care institution	102	138	153
Pharmacy	121	163	177
Private practice units (Doctor's offices, laboratories, pharmacies, etc.)	6137	6598	6571
Occupational health institutions	1	12	12
Institutes of Public Health	21	21	21
Health company	6	5	46

Source: Croatian Health Service Yearbook, Croatian National Institute of Public Health

During 2003 and 2004 started a new intensive project of training of primary physicians as family physicians (180 each year) with the financial support from Croatian Health Insurance Institute (CHII). Some of health delivery indicators are shown in table 1, and health services indicators in table 2.

### **Financing and Reimbursement of Health Care**

Two basic acts regulate health care and health insurance: Health Care Act and Health Insurance Act. In accordance with the former, Croatian citizens have health insurance based on the equal entitlement to overall health care with a high level of solidarity.

Health care in Croatia is financed from several sources. A major part of the Croatian health system is financed according to the national health insurance model. The funds are collected from the contributions from employees' salaries that are paid by employers based on salary percentage, from the farmers' contributions, and from transfers from the central government budget or county budget for certain categories of the population. Croatian government budget is providing more than 85% of funding for health care services (Croatian Health Insurance Institute-CHII funds are collected from compulsory health insurance contributions that are paid from salaries of insured persons). In Croatia health care allocations amount 9% of its GDP, which is significantly higher in comparison to the CEE and SEE countries.

According to the Health Insurance Act in Croatia, there are three main health insurance schemes: basic, supplementary and private health insurance.

Basic health insurance is compulsory and is provided by the Croatian Health Insurance Institute (CHII). Supplementary health insurance is also provided by the CHII as well as by private insurance companies. Private health insurance provides higher standard of health services than provided by the basic, obligatory insurance coverage.

The CHII insurance scheme provides basic health services to insured persons through their legal right on the so-called 'package/basket of health services'. This 'package/basket' strictly identifies health care services covered by the CHII, as well as health services that are paid through the supplementary health insurance scheme.

Apart from the participation charge, some health services are paid directly by the patients, such as non - prescription drugs. The citizens pay full price for some health services in private health institutions. This especially refers to dental health care, specialist-consultation service, and some services provided at private polyclinics, special state-owned or private hospitals (4).

### **Access to health care**

Every citizen has right to choose his/her own primary health medical doctor: general practitioner/family physician or paediatrician (for children), and gynaecologist for control of pregnancy and gynaecological problems. Parents can also choose the GP for their children. This is mostly the case for the rural and underserved areas, but recently also for urban areas in the case that GP is family physician specialist. Individuals with chronic diseases are followed-up by general practitioners/ family physician (or paediatrician for children). GP can ask advice from the specialist if

she/he can not solve the problem of the patient (diagnostic procedure, recommendation for treatment). Prescriptions for the chronic patient are done by GP.

For acute patients the procedure is the same as for the chronic patient. In the case of emergency, the emergency service is called by the patient or family. Emergency cars (ambulances) are equipped by physician, technician and driver. After health problem is solved by emergency services and hospital (if needed), patient will continue his/her care by his/her own doctor.

Patients with long term care use the health services in the same way, if they stay at home. If they need the nursing care there is community nursing service, what can do nursing services in the home. Patients GP is asked to prescribe such services. If patient needs such services for longer period than health insurance administration should confirm such needs. If patient is not able to live at home there is possibility to be hospitalized in the hospital for long term care, or she or he can go to elderly home. Each elderly home has rooms for bed-ridden patients. Nursing care in such situation is taken by nurses and assistant nurses employed by elderly home. Medical care in the elderly home is provided by GP.

Dental care is at primary level and the access to this care is free for everybody. The most of dental care practices are private, but they have the contract with the health insurance for free treatment of population.

Physiotherapy is organized at community level; patients need the referral ticket from GP to the specialist (physiotherapist), who can order physiotherapy.

Patients can be seen by GP free of charge (before April, 2008 patients had to pay tax of 10 kunas per visit – up to 30 kunas per month). For the use of specialist service patient have to pay certain amount. This payment is covered by additional voluntary insurance, and patients who have this type of insurance will not pay tax.

## EXERCISES

### **Task 1: Compare of intentions and realities in primary health care**

Primary health care is a crucial term for the studies in public health and related specialties. Its well known descriptive definition and explanation of meaning is described in the Declaration of Alma Ata (2). There are several layers in the meaning of that term. In this exercise we shall simplify it by speaking about principles and components or elements of primary health care. Dividing these two aspects may help in clarifying the exact meaning as we conceive it in practice.

You should answer the questionnaire individually and then compare the answers with the opinion of others in the group. Individual and group attitudes, estimates and judgements of principles and elements of primary health care as they appear "in theory" and "in practice" will be specified.

In expressing your own opinion in the questionnaire you should consider **real circumstances**. There are **no good or bad answers**, but differences in attitudes and individual experiences. You will find that some questions are ambiguous and general so that it is difficult to answer them. In such situations you should try to think in examples.

If you find differences between your answers and answers of your colleagues, you will discover that speaking in **concrete examples** and pictures contributes to mutual

understanding far better than sophisticated abstract discussions. You will also find that, the same example may be judged differently from different points of view.

When summarizing the experience in the group, consider that the most common “miss – interpretations” of primary health care fall in some of the following categories:

PHC = **primitive** health care

PHC = **peripheral (rural)** health care

PHC = **personal** health care, primary **medical** care.

Besides, there are deep ideological controversies hidden under the term of primary health care. Is it meant to be the same as **basic health care**, or is it **selective** or **comprehensive** (integrated) PHC.

Expected outcomes for the task 1:

1. Answered questionnaire (see Annex)
2. Comments to answers, item by item, after consideration in your working group, discussing particularly differences between optimal and actual, and among situations in various countries.
3. Short summary report and suggestions to the plenary session.

### **Task 2: Comparisons of primary health care under different conditions**

During the visits organized to different places in the country many data are collected about different organizational patterns of primary health care services. This was especially true for the old and new part of big urban areas and for rural areas with dense as opposite to scattered populations. This exercise is aiming to summarize your observations.

Table 3. Comparisons of different organizational patterns of primary health care

<b>SPECIFIC AND TYPICAL CHARACTERISTICS</b>	<b>URBAN SETTING OLD</b>	<b>URBAN SETTING NEW</b>	<b>RURAL SETTING DENSE</b>	<b>RURAL SETTING SCATTERED</b>
Population structure, social networks, community organization and participation				
Specific health risks and services needed				
PHC levels and health institutions				
Main organizational problems and dilemmas				

Using notes and impressions as well as results of discussions with colleagues after different visits summarize specific and typical characteristics of visited places in relation to population structure, specific health risks, structure and organization of primary health care. The task has to be fulfilled in small working groups and reported to the plenary session of participants for consideration.

The organization of health services is directly or indirectly dependent on population structure and dominant health problems, but also on tradition and leadership. Consider inter-relations of these factors. What you can learn after comparing the visited places with your own circumstances? Have you identified some elements or details which would be useful for your services? Have you learned some negative experiences to know what has to be avoided?

Expected outcomes for the task 2:

The table 3 has to be completed and compared with observations of colleagues.

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## ANNEX: PRINCIPLES AND COMPONENTS OF PRIMARY HEALTH CARE QUESTIONNAIRE

Put cross on each scale:	how it should be	how it is now (Under existing conditions)
	No- -----x-----Yes 0 1 2 3 4 5	No-----x-----Yes 0 1 2 3 4 5
<b>1. Principles</b>		
a. PHC makes a part of community development	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
b. PHC satisfies priority needs and demands of all people	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5

c. Community participates in the decisions on PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
d. Community participates in health care activities	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
e. The poor people have better attention	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
f. Traditional arts in prevention and healing are included in PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
g. Principle of equity is implemented in allocation of resources	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
h. The self-reliance is the final goal of PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
i. Special programmes (like tuberculosis) are integrated into PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
j. PHC is an intersectoral approach to solving health problems (e.g. in nutrition)	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
k. The PHC is predominantly oriented to rural areas	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
l. Health services are available and accessible	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
m. Hospitals are oriented to support PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
n. Hospitals are predominantly providing PHC services	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
o. The auxiliaries and voluntary workers make essential part of the PHC	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5

p. The supervision of PHC services is strict and authoritarian	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
r. The referral system is well organized	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
s. PHC includes all types of health services and integrates them	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
t. The training institutions should lead services towards PHC goals	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
u. PHC has to get the major part of financial means	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5

**2. The following are the essential components of PHC:**

a. Education concerning prevailing health problems	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
b. Promotion of food supply and proper nutrition	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
c. Adequate supply of safe water and basic sanitation	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
d. Maternal and child health care including family planning (or birth spacing)	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
e. Immunization against major infectious diseases	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
f. Prevention and control of locally endemic diseases	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
g. Appropriate treatment of common diseases and injuries	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
h. Provision of essential drugs	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5

i. Mental health	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
j. Occupational health	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
k. Programmed care for disabled	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
l. Service for chronically ill persons (hypertension, and diabetes)	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
m. Care for aged	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
n. Dental care	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
o. Provision of emergency services	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
p. AIDS	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5
r. Other (specify)	No-----Yes 0 1 2 3 4 5	No-----Yes 0 1 2 3 4 5

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**YOURS COMMENTS:**

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>SELECTIVE VERSUS INTEGRATED PRIMARY HEALTH CARE</b>
<b>Module: 5.3</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Primary Health Care, Public Health, Organization of Health Services
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of different approaches in implementation of primary health care;</li> <li>• recognize needs for analysis of advantages and obstacles of vertical and integrated health programs;</li> <li>• know listing of the characteristics of different models of organization of primary health care;</li> <li>• improve the knowledge and understanding the function of the health care system.</li> </ul>
<b>Abstract</b>	The major division of health care appeared in many societies between private-curative and public-preventive health care. This influenced all types of health services, hospitals and primary health care units, as well as education of professionals and research. The opponents of integration have been pointing out negative experiences with integration because preventive services often have been "eaten up" by curative services. A special service is used in vertical programs as a vehicle to provide necessary procedures and activities to cover groups "at risk". There are several characteristics of vertical programs which determine their role in primary health care, which are analyzed in this module.
<b>Teaching methods</b>	Introductory lecture, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students' work proportion: 30%/70%;</li> <li>• facilities: a teaching room;</li> <li>• equipment: transparencies, colour flow masters, overhead projection equipment; PC and LCD projection;</li> <li>• training materials: readings, hand – outs.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# **SELECTIVE VERSUS INTEGRATED PRIMARY HEALTH CARE**

**Želimir Jakšić**

## **THEORETICAL BACKGROUND**

### **Introduction**

A very frequent practical problem in planning and promoting health care is finding a balance between selective and integrated, special and general. It is, for instance, a choice between developing an infrastructure of primary health care units or stimulating specific "vertical" programs.

Theoretically balancing special and general does not represent a problem. Both are needed and inter-related. Apparently very selective programs can stimulate other health activities in the community and in fact operate as a nucleus of an integrated program. Programs which are called integrated may simply be just a collection of selective and parallel programs.

In practice the dilemma has its social roots, and one has to understand what lies behind one or another strategy. Centrally initiated projects usually have to show success in a short time. Under these conditions selective programs may actively destroy the existing health culture and infrastructure, but also blindly insisting on integration and development of infrastructure to demonstrate achievement for political benefit of local administration may also disrupt existing social networks and discourage people's participation.

Another important aspect is the cost of integration. Integration and the resulting complexity of services will increase the visible costs, but less compulsiveness and less formal regulation will reduce human costs of integration.

### **Different types of dilemmas**

One may recognize at least four different types of headings under which appears the described type of dilemma.

### **Preventive versus curative services**

The major division of health care appeared in many societies between private-curative and public-preventive health care. This influenced all types of health services, hospitals and primary health care units, as well as education of professionals and research. The opponents of integration have been pointing out negative experiences with integration because preventive services often have been "eaten up" by curative services. There have been reports, e.g. that community health workers are spending all their time in curative activities, in contrast to isolated vertical programs in which they performed "preventive" activities. But isolated preventive activities (like screening without intervention) have not been unaccepted by people and are a technical and ethical disgrace. The dispensary type of work was proposed as a model

of combined activities, and health centres as a combined organizational unit. However, a permanent effort is needed to maintain the right balance.

### Vertical programs versus health services of primary infrastructure

A special service is used in vertical programs as a vehicle to provide necessary procedures and activities to cover groups "at risk". This approach is based on a concept of functionalism, an assumption that there exists a potent and available technology for major health problems. By division of labour and procedures one may increase the effectiveness and even more the efficiency of services solving one problem after another. This proved true in some instances where assumptions were correct, but failed in most of others. Some targets were reached faster, but the effect was only temporary. The coverage was increased on many occasions, but contacts were intermittent, self-limiting and superficial. Services were often expensive, and the beneficial consequences died out after the project was finished. The problem of integration of vertical programs in general health services was widely recognized during the sixties and the general disappointment with the effects was strongly expressed during the seventies, and in Alma-Ata Conference. However, resistance to integration is often very strong, either because of bureaucratic powers running special programs or because of different groups in the shadows, interested in promoting a certain technology.

### Specialist approach versus generalist (holistic) approach

A special case of disintegration and selectiveness in general health services developed with specialization of health workers and particularization of health sciences in many separate disciplines. This disintegration was also developing inside some of the special vertical programs mentioned above. Traditional medicine was, and is also now, often specialized. With the development of new technologies the process has speeded up. On one hand it is a sign of progress, but on the other we can observe negative phenomena. Examples include the development of technology-oriented front-line health workers, crippled by a failure to understand their role in society; work of high level specialists on specific lines in artificial circumstances less and less interested in seeing the health problem as whole and personal problems of the patient. There has been an increase in such "dehumanization" of medicine and malpractice of utilization of available resources, in which both patient and specialist are victims of the system. This problem was recognized 10-20 years ago in many countries, but solutions have been accepted with difficulties. Unequal distribution of the most expensive technology is a consequence of social pressures and preserved under the pretext that high quality has to be guaranteed by specialization. A consumer approach predominates in many circles, stating that the most expensive is also the best. These problems are very pressing in both developing and developed countries, although with different numbers of people and on different levels.

### Health services versus community approach and self-care

This is disintegration of health services from other aspects of community life and health from other sectors. This aspect of selectiveness is widely present, but not yet fully recognized and completely understood. It is a complex problem involving understanding of social change in

communities and their influences on health, distribution of power decision- making, recognition and acceptance of alternative organizations. In the last 10-15 years a breakthrough was made in better understanding that lay people themselves are and should be active in health care.

It is wrong to choose only one side: prevention or cure, vertical programs or general services, specialists or generalists, health services or community involvement. It is always both, but with different balances and a different focus according to circumstances such as population density, kind of health problem, training of health staff and changes in time.

### **The decisive circumstances**

The effects of special vertical programs are related to the fact are they connected with an existing general permanent infrastructure in the community or built in a vacuum. The permanent structure has to be reliable from the standpoint and experience of people. The structure can be any of the following social institutions: local government, health units, schools, political organizations, voluntary organizations, etc.

There are several characteristics of vertical programs which determine their role in primary health care. One of them is the prevalence of health needs and technology capable to solve the problem; example: smallpox eradication. Time needed to solve the problem and terminate the program may be the critical issue.

The examples are centrally planned vertical programs to control some of the endemic diseases.

With resistant problems in which the solution require active contribution of people and changes in their behaviour, it is most important that special vertical programs interact with local people and existing permanent communal services, like schools, health units, voluntary organizations, etc. This is best seen in some experimental and evaluation studies in the field of nutrition and sanitation.

In a situation where health services grow, it is common experience that some of the vertical programs coexist side by side with general health services. To overcome this separation, a formal "integration" is proposed so that working groups of a vertical program are organized as separate units inside regular services. At least some information and coordination of work are forced, and the problem of status or differences in wages and salaries is diminished. Organizing such integration is often very difficult because of changes in authorities and responsibilities, and a double command arising as a management problem.

A similar situation may be produced following the division of labour inside general health services, when some parts of programs grow fast and gradually organize themselves as separate service units. We have a phenomenon that growing produces disintegration. Maternal and child health, dispensaries for special diseases or separate population groups, occupational

Health services, preventive services, etc. can demonstrate such a tendency inside primary health care. If they additionally have or develop a separate authority on a higher level of services or administration, there is a very similar situation which can happen after formal integration of parts of vertical programs into general services. This is then an apparently integrated service but actually functioning as a selective program.

Examples are common in services providing permanent health care for problems considered to have great importance (MCH, tuberculosis control, cardiovascular diseases, etc.).

### **How to make the best balance**

Selective approach and integrated approach may both have positive and negative consequences, depending on time and circumstances. In that sense the two strategies are not completely opposed.

#### **Positive consequences of selective approaches include:**

- momentum in motivating people;
- fast results;
- increased coverage;
- efficient use of certain specific resources.

#### **Among negative consequences one may list:**

- limited duration of effects;
- tendency to develop petrified structures;
- waste in manpower;
- development of narrow professional interests (separate kingdoms);
- inefficient use of resources and poor participation of people in the long run.

The **integrated approach** building into the permanent general infrastructure has these potential advantages:

- interaction with people and supporting participation;
- permanent long-range results;
- equitable coverage (if this is one of the chosen aims);
- motivating local resources and stimulating self-reliance.

#### **As negative consequences one may consider:**

- "the drop in the sea" effect;
- unfavourable results, such as prevention suppressed by curative services;
- slow development;
- "poor quality".

In real life selectiveness and integration are the poles of the same system and the time dimension is neglected: the transformation of services from differentiated to integrated, and than again to differentiate is overlooked. The essential differences are shown in Table 1.

In decision to foster one or another approach, the following arguments are important:

1. Type of **health needs** which are prevalent or most important:

In circumstances in which chronic diseases and long lasting problems prevail, when many multiple diseases and problems appear when prevention has to be stressed,

when psychological and social aspects are important, and when continuity of care is needed - in all these situations an integrated approach has advantage.

2. Participation and **involvement of people:**

When a free choice of services and a closeness of services are needed, when equity needs to be stressed, when one has to utilize potentials of primary groups (families, voluntary organizations etc.) for health care, and when an inter-sectoral approach is needed - the integrated approach again should be the first choice.

**Table 1.** Two understandings of primary health care (PHC)

	<b>SELECTIVE PHC</b>	<b>COMPREHANSIVE PHC</b>
<i>Main carrier</i>	Technical advancement	Community development
<i>Objective</i>	Solution of selected health problems	Comprehensive health improvement
<i>Horizons</i>	Short-term	Long-term
<i>Methodology</i>	Effective programs (vertical initiation)	Building local capabilities (horizontal spread)
<i>Success criterion</i>	Evidence of efficacy	Sustained self-reliance
<i>Typical vehicle</i>	Quantitative management	Social action (qualitative)
<i>Impact</i>	Limited and temporary	Slow and culturally conditioned

3. The **socio-economic position of health services:**

When financial restrictions are expected for a longer time, when a planned and coordinated development of the whole system is desirable, when a tendency is visible that there are dysfunctions in the system (inadequate training, poor management), and when flexibility of the system in relation to changes in environment is needed - in most of the described occasions the integrated strategy might be more useful.

4. The choice is never completely free. It depends on **political circumstances:**

To obtain full effect of developing an integrated infrastructure it is important that decentralization, community participation and inter-sectoral approach are politically stimulated.

## **EXERCISE**

### **Task 1**

Answer the following question: Was message of Alma-Ata Declaration development of horizontal or vertical primary health care? You may check the recommended readings.

### **Task 2**

Two groups of students should confront in arguing one for vertical programs and the other for horizontal (comprehensive) primary health care.

### **Task 3**

Discuss in the small group: Why is idea of vertical programs and selective primary care related to libertarian ideology and comprehensive primary care closer to social and egalitarian attitudes?

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> <b>A Handbook for Teachers, Researchers and Health Professionals</b>	
<b>Title</b>	<b>ROLE OF HOSPITALS AT THE BEGINNING OF THE NEW MILLENNIUM</b>
<b>Module: 5.4</b>	<b>ECTS: 0.2</b>
<b>Author</b>	<b>Želimir Jakšić, MD, PhD, Professor Emeritus</b> Andrija Štampar School of Public Health, Medical School, University of Zagreb
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<b>Keywords</b>	Hospital, Public Health, Organization of Health Services
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• be aware of the role of the hospital in the community;</li> <li>• be aware of the historical development of hospital services;</li> <li>• recognize needs for analysis of the hospital functions;</li> <li>• know listing the characteristics of different models of organization of hospital services;</li> <li>• improve the knowledge and understanding of the of function of the health care system.</li> </ul>
<b>Abstract</b>	During a long history, hospitals were continuously changing so that diversity is one of their characteristics. Being a part of a local culture, they also reflect general global trends. At present, the winds of globalisation are stronger, following an overall trend in technology and economics. Changes in technologies will induce changes in management (“new plants do not survive in old pots”). New imaging technologies need a better clinical feed-back, and the pattern of “industry-like” hospital, where specialists work in their narrow fields on a production-line becomes inappropriate for them. Human resource management becomes more important than economic and technical management dominating at present.
<b>Teaching methods</b>	Introductory lecture, exercises, individual work and small group discussions.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision /individual students’ work proportion: 50%/50%;</li> <li>• facilities: a teaching room;</li> <li>• equipment: PC, internet link and LCD projection;</li> <li>• training materials: readings, hand – outs.</li> </ul>
<b>Assessment of students</b>	The final mark should be derived from the quality of individual work and assessment of the contribution to the group discussions.

# **THE ROLE OF HOSPITALS AT THE BEGINNING OF THE NEW MILLENIUM**

**Želimir Jakšić**

## **THEORETICAL BACKGROUND**

### **Introduction**

The future of hospitals and health services is a fashionable subject in the current discussions at the turn of the century (and the millennium!) (1-8). Nevertheless, it is a necessity because of different technical and economic pressures. Anyhow, it is a challenge because of the complexity and uncertainties in dealing with one of the oldest social institutions, deeply rooted in every culture. While forecasting, dreamers and entrepreneurs meet to express their desires and interests. History has to be called upon and future questioned, the facts reviewed. Different practitioners everywhere hope for new solutions. However, we know that most of predictions are regularly wrong even in the short run. In spite of that, the exercise is useful as a chance for critical consideration of complex facts. So, let us enjoy carefully, once again, our myths and expectations.

### **Past experience**

There is an old saying that those who do not know their past do not have a future. Hospitals had a glorious past (9). It may strengthen self-confidence and our myth that it has been one of the basic institutions of our civilisation. It will continue to fulfil certain essential needs of people being one of the strongest features of humanism, solidarity and charity, as well as of creative potentials in science and technology.

During a long history, hospitals were continuously changing so that diversity is one of their characteristics. Being a part of a local culture, they also reflect general global trends. At present, the winds of globalisation are stronger, following an overall trend in technology and economics.

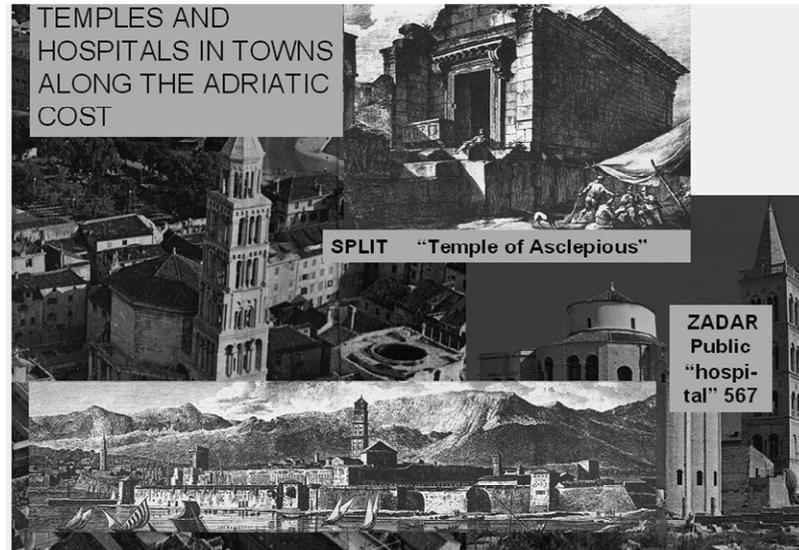
This is producing social tensions and problems. In extreme examples, some prestigious hospitals in many countries serve only the needs of powerful minorities and many expensive technologies are misused at the expense of relevant primary health interventions for a broader circle of poor people. Hospitals are here to stay, but appropriate "social diversity" has to be protected for the benefit of people and efficiency of resource utilisation.

### **A review of different types of hospitals**

Speaking about types of European hospitals, we should consider them in the broadest way, not only their shape and organisation, but also the main structural traits like mission and aims, or position of staff and patients. For our purpose we will choose some which have played a greater role in the history of Europe and which have influenced our thinking today.

When we start thinking about established institutions, we have to describe some of the famous ancestors of hospitals (10):

- The Aesclepieian temples in Ancient Greece (where in front of statues of “saint-mortal” Aesclepius, his daughters Hygiea and Panacea and other members of his families, priests and priestesses interpreted oracles and ordered treatment);



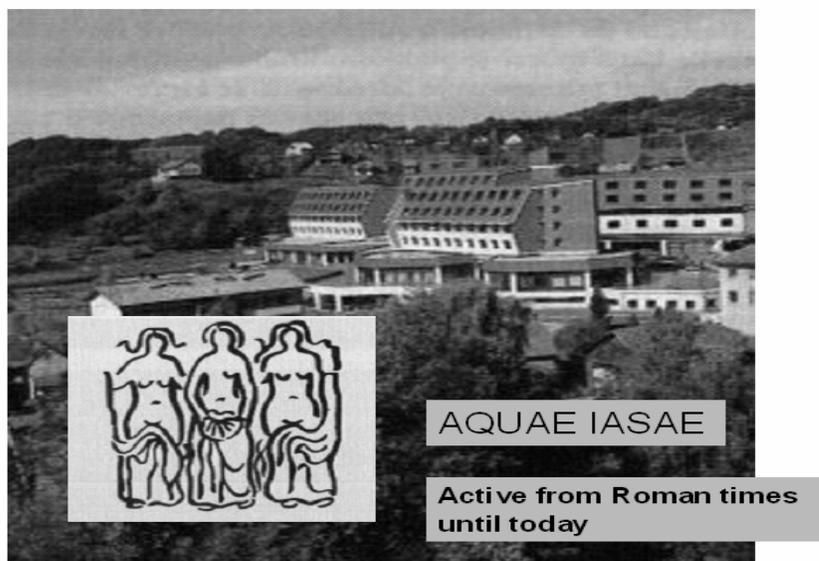
**Figure 1.** “Temple of Asclepius” in Split and hospitium in Zadar

- Valetudinaria (originating from Latin word valetudo – health) and Thermae in Roman Times where soldiers and civilians were searching for health.

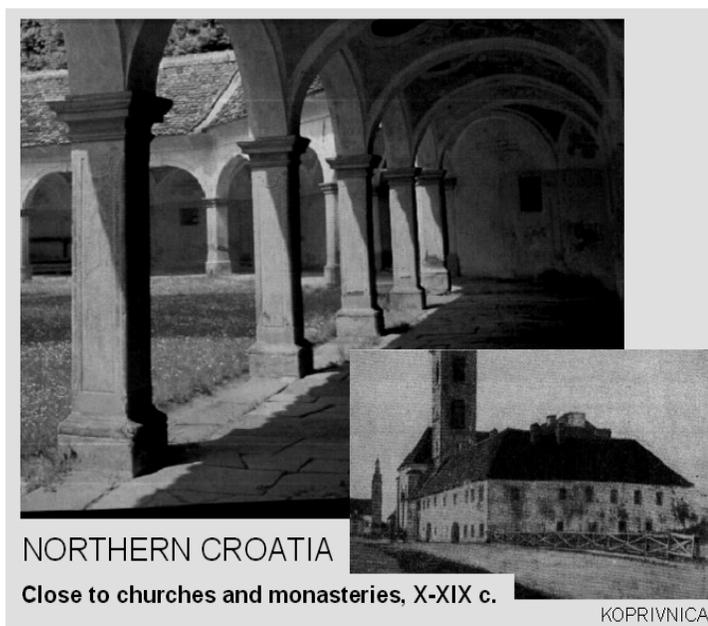
This early recorded examples were sacred places combining the powers of gods and nature for recovering from illnesses, but also strengthening health and capabilities of people. In the same places and with the same idea, we today have spas, rehabilitation centres, thalassotherapeutic, recreational and tourist centres, etc.

Following these old European roots, we come to immediate ancestors:

- Hospitia (original Latin meaning of places offering hospitality) were predecessors of a number of hospitals developed by Christian religious orders in monasteries widespread in the Middle Ages. Hospitia and these hospital served pilgrims, travellers, poor people and others, following the traditional hospitality and seven works of mercy.
- As in the previous times the main aim was to reduce suffering but even more important was to save souls. Very similar arrangements but at a smaller scale, as a shelter for very old and chronically handicapped or ill or very poor, were organised by priests and nuns in rural areas, close to parish churches, and sometimes by neighbourhoods for people without relatives. Some of these continue to serve until now.



**Figure 2.** “Aquae Iasae”, Varaždinske Toplice



**Figure 3.** Hospital close to church, northern Croatia

- A completely different mission had quarantines, lepper-houses, army creases, military lazarettes, and poorhouses organised by local and urban governments at

about the same time. The aim was to protect the community and prevent the spread of epidemics.



**Figure 4.** The first quarantine, Dubrovnik

- Younger hospitals in urban areas were off-springs of hospitals related to monasteries and poorhouses, organised by public authorities to shelter ill people who could not afford it themselves. They were run by physicians and sisters, so that treatment and care were organised according to a new experience of medicine. On one hand, it were help to suffering patients, and on the other serving to protect the urban community to satisfy feelings of justice, solidarity and charity. In the 17th century they started to be separate from asylums, and it was a real beginning of an institution which we now call a hospital.

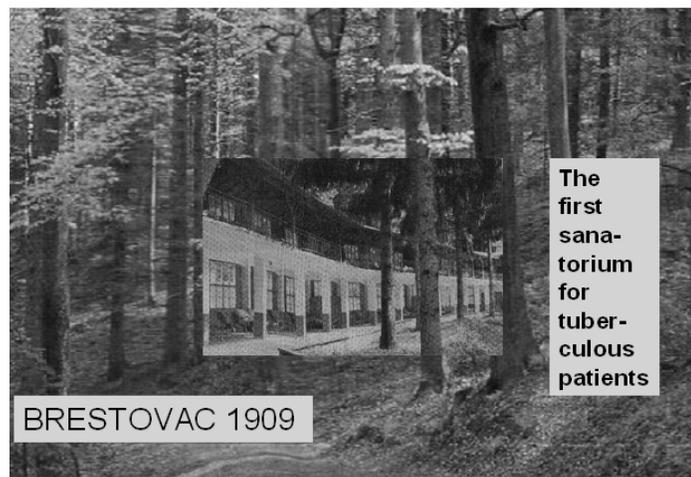
It is difficult to regard present hospitals as direct successors of all these institutions because medical science, technology and management changed thoroughly. In spite of that, some of the principle perceptive can be found in most types of the present hospitals: general hospitals, homes for the elderly and handicapped and similar socio-medical institutions, acute and long-term hospitals, modern hospiciums for palliative care etc. are all closely related by origin.

Modern technology, the birth of scientific medicine and development of complex diagnostic and treatment technologies influenced several types of institutions:

- Specialised hospitals, dispersed (cottage hospitals) and pavilion-type hospitals reflect also specialisation in medicine, different types of patients' needs and relevant technologies, difficulties in transportation in some areas, and better feelings of patients.

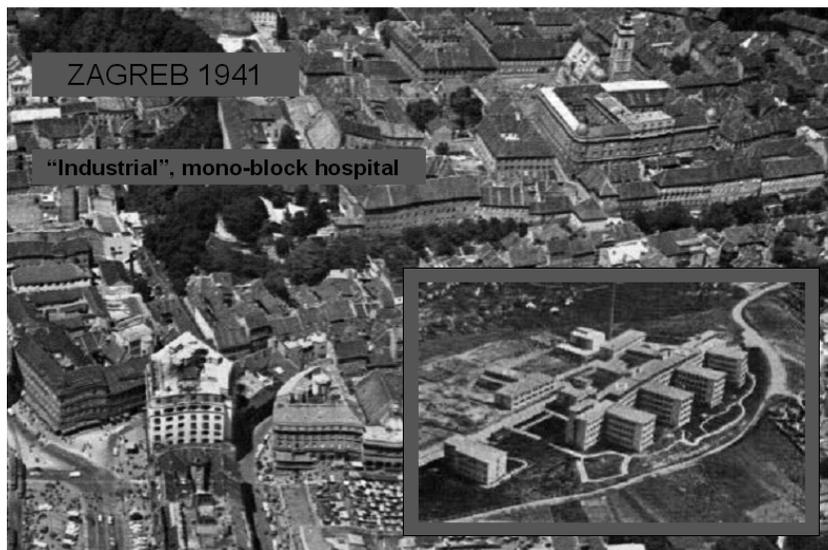


**Figure 5.** City hospitals, Zagreb



**Figure 6.** Sanatorium for tuberculous patients, Zagreb mountains

- “Industrial” or mono-block hospitals were the result of concerns for costs, best use of expensive technologies and experts. Mono-block hospitals are still most preferred. A typical industrial hospital is efficient but presses the staff to work on-lines in an industrial manner, contributing to developing narrow specialism.



**Figure 7.** “Industrial” mono-block hospital, Zagreb clinical hospital

Lately, for various reasons, such as a changed medical technology, a growing urbanisation, better means of communication, multi-morbidity etc. the division of hospitals to special and general hospitals has gradually changed to classification of hospitals to acute (short-stay) and chronic (long-stay) hospitals.

This is a possible reminder of hospital heritage. What may one conclude? Let us underline only general and lasting characteristics:

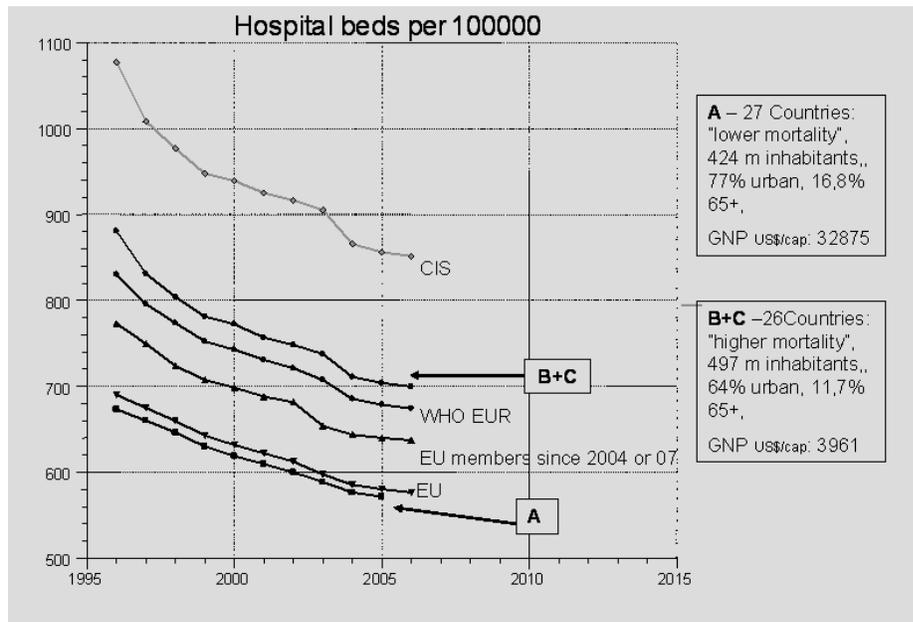
1. Importance, deep cultural influences and social embedding of hospital;
2. Distinct, closed and powerful structure, beyond the role as a unit of health services;
3. Diversity based on different mixtures of continuously same missions (caring for the needy, enhancing social security and quality of life of ill people, protecting community, and collecting experiences and teaching medical arts);
4. Capability of adapting to deep changes under the influence of external developments in spite of solid general structure.

### **Numerical data describing the present situation**

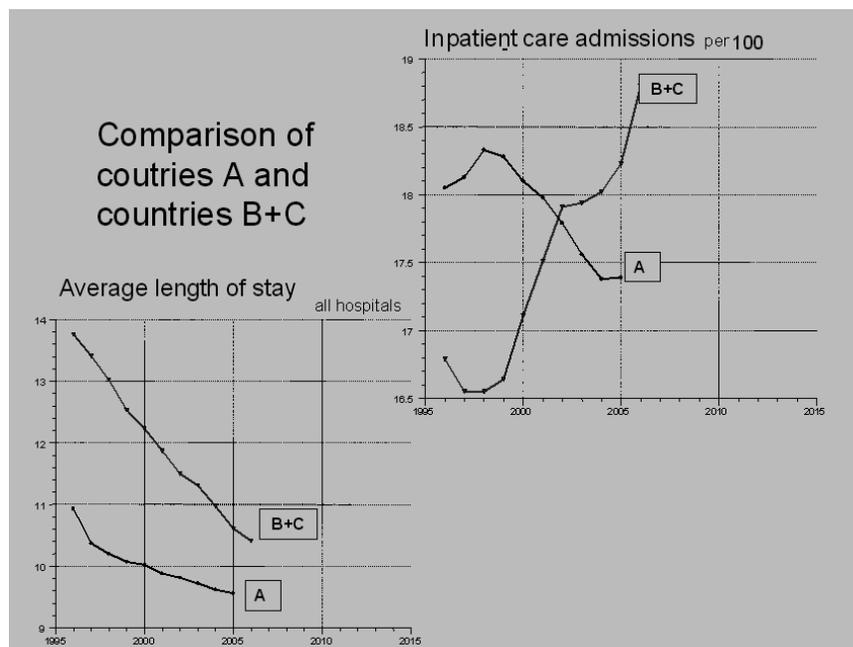
In Europe is working about 30 000 hospitals and they employ the largest part of health workers, representing 3% of the total workforce of Europe making one of the largest industries (11).

During the last decade in most European countries one can observe an increase of beds in long-stay hospitals, while in acute hospitals the number of beds is slowly falling, and in the same time the number of admissions is increasing. Figures 8 and 9 illustrate changes in the period 1980-1998 in Europe (12-14).

In spite of the recent reforms and containment policies around 50% of physicians and 40% of health expenditures are spent by hospitals. Figure 10 illustrates recent situation in Europe (12-14).



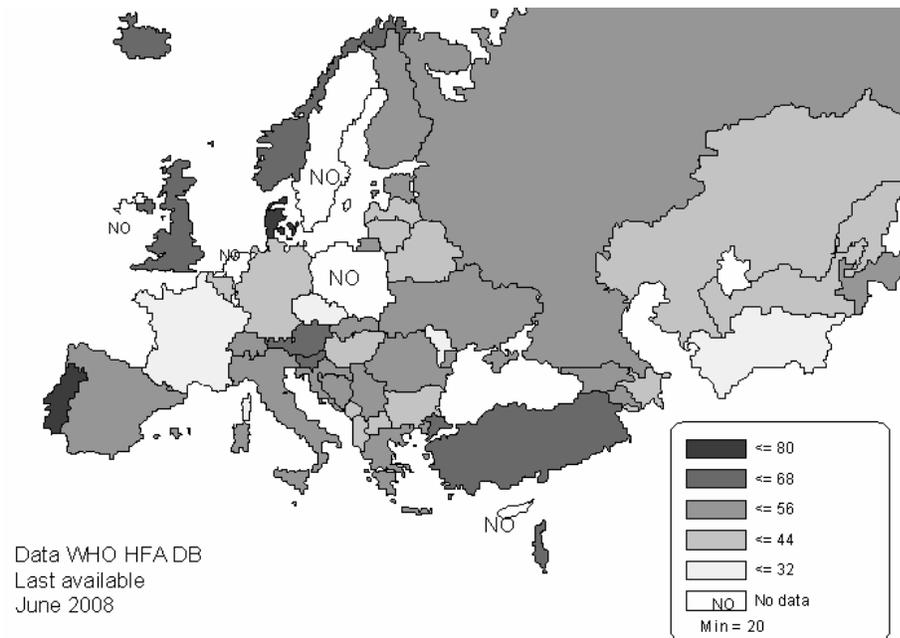
**Figure 8.** Number of hospital beds per 100 000 inhabitants



**Figure 9.** In-patient care admissions per 100 inhabitants

The differences among countries are evident and largely understandable, especially between the North and the South, and the East and the West (12-14). They are understandable

because of the past developments and can be seen in most properties of care arrangements and delivery patterns.



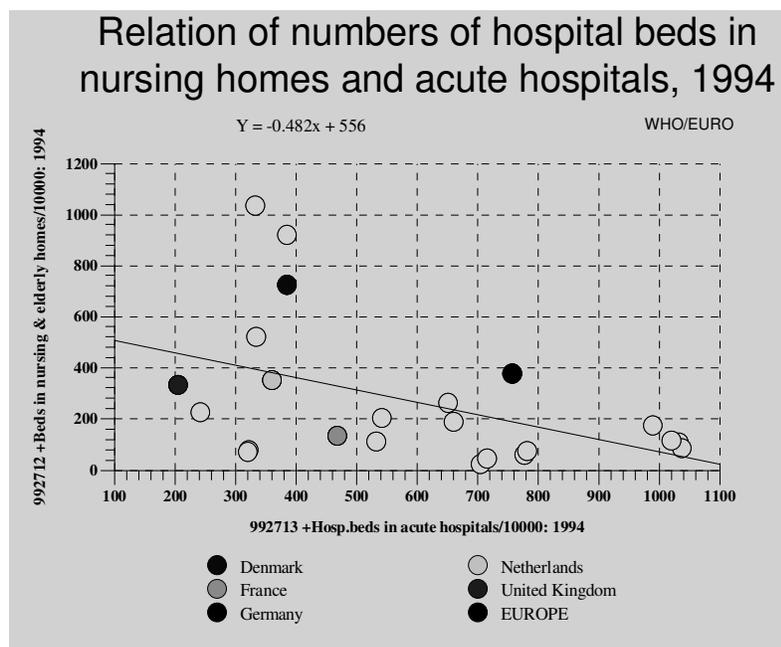
**Figure 10.** Percentage of physicians working in hospitals

As an illustration of striking differences in hospital data, interesting data are shown in figure 11.

Northern countries count higher numbers of long-stay hospital beds and Eastern countries short-stay hospital beds. Although negative correlation has been demonstrated between the number of the first and the other, the relation is not strong and may be explained by several extreme results and by the way how the beds are classified.

Many countries in Europe, except for Nordic countries, face the shortage of beds for low intensity long-term care. This shortage combined with growing needs, undeveloped conditions to support home care, unresolved tensions in financing and running a socio-medical institution between health and social care authorities has pressed general hospitals by necessity to mix together short and long-term care, and consequently work apparently inefficiently.

Last available data for 1995 in comparison with those of 1986 are shown in Table 1. Because of changes in administrative arrangements the comparisons during a longer period are difficult or even impossible. One can recognize differences between established market countries (EU) and CEE countries: rates describing admissions and length of stay in acute care hospitals are higher in CEE countries. There is, however, even a greater difference between Mediterranean and Nordic countries: higher rates of admissions and shorter length of stay. One has to interpret it carefully because weighted averages are calculated from data coming from different sources. In spite of that, one has to accept the fact that the differences exist not only between the European East and West, but even more between the North and the South (15).



**Figure 11.** Long- and short-stay hospital beds in Northern and Eastern European countries.

**Table 1.** Hospital admissions per 100 inhabitants and average length of stay in acute care hospitals 1986 and 1995 in selected groups of countries

Groups of countries	ADMISSIONS		LENGTH OF STAY	
	1986	1995	1986	1995
EU*	15,94	16,62	10,70	8,97
CEE*	17,03	18,36	12,06	9,89
NORDIC*	17,20	16,57	7,85	5,64
SOUTHERN**	12,74	13,61	10,30	8,32

Data by Health for All Data Base. European Region. WHO/EURO, January 2000.

\* Calculations are made for the EU AVERAGE (15 European Union countries), the CENTRAL AND EASTERN EUROPEAN AVERAGE (12 countries not including the ex-USSR countries), NORDIC AVERAGE (5 countries).

\*\* SOUTHERN countries include Croatia, Italy, Portugal, Slovenia and Spain. Calculations are done by ZJ.

In summary, there are considerable differences between countries and groups of countries in Europe, but there is also a general trend towards more admissions, shorter length of stay and a growing number of beds in long-stay hospitals. An important additional fact is that in most countries around half of physicians and 40% of expenditures are used by hospitals.

### Factors influencing the shape and type of hospitals

Hospitals have symbolically followed the path from a temple to a cathedral, and further on to an industrial enterprise and “recreational” centre, always following the leading historical trends and being close social powers.

However, hospitals of Europe live under rather different conditions predisposed not only to different health needs and economic conditions but influenced even more by traditional social and cultural factors. One important European issue was the role of the family and consequently religious, political and social way of life, including the use of social institutions, etc. (16). A number of factors were described in literature as influencing and gradually shaping the hospitals (Figure 12 and Table 2).

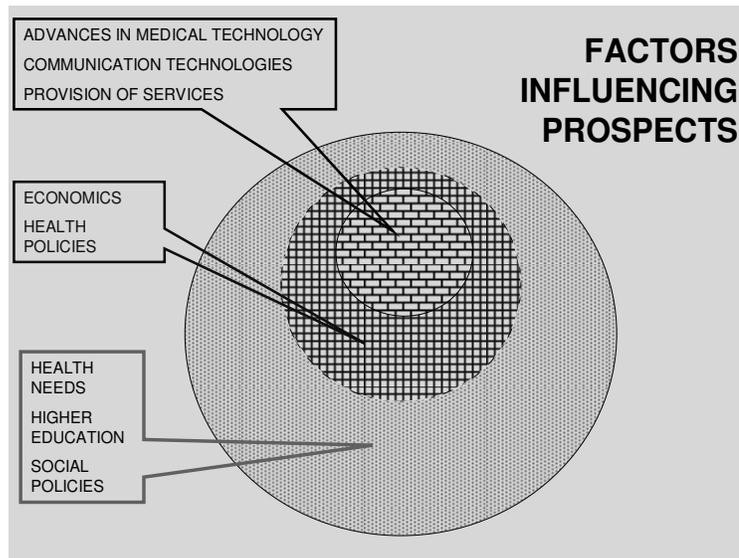


Figure 12. Factors influencing prospects of hospitals

The influences may be formally divided into factors affecting hospitals in different ways. As it is presented the inner circle has a direct and immediate effect, and factors in the outside circle have an important influence, which is visible only a longer period, possibly several decades. The intermediate group of factors is most visible and represents the main concern for managers. Most of factors usually start influence from outside, but they launch internal processes and may present themselves as being genuine.

The factors related to technological and managerial changes, spread fast and affecting many countries, usually starting from the richest and often frustrating the poorest. Most experts a priori regard them as progressive advancements, so they create a fashion and express themselves as obvious internal needs. Their impact is direct and mostly connected with essential technologies, medical and other, interfering with basic procedures.

**Table 2.** A tentative lists of factors influencing prospects of hospitals

<b>INTERMEDIATE CIRCLE</b>
<ul style="list-style-type: none"><li>• <b>Rising costs of medical procedures and interventions</b><ul style="list-style-type: none"><li>- social inequalities and poverty</li><li>- problems of privatisation and market mechanisms in health fields</li><li>- government, charity, economics and social policies</li></ul></li><li>• <b>Health policy</b><ul style="list-style-type: none"><li>- general and family practice</li><li>- home care</li><li>- doctors and patients' rights</li><li>- quality management</li></ul></li></ul>
<b>OUTER CIRCLE</b>
<ul style="list-style-type: none"><li>• <b>Social circumstances</b><ul style="list-style-type: none"><li>- diminishing family ties and breaking down of social networks</li><li>- age structure and trans-cultural migrations of populations</li><li>- mounting of violence and insecurity</li><li>- complex collaboration of charities, non-governmental organizations, free initiatives</li></ul></li><li>• <b>Changes in health needs</b><ul style="list-style-type: none"><li>- health problems of affluence (behavioural, obesity, ...)</li><li>- alarming numbers of impaired, handicapped and dependent people</li><li>- higher pressure towards prevention and rehabilitation</li><li>- returning problems of infections and ecological threats</li><li>- addictions and mental problems</li></ul></li><li>• <b>Higher level of education, information and expectations of people</b><ul style="list-style-type: none"><li>- active partnership and participation in medical decisions</li><li>- awareness of limits of medicine and utilisation of complementary services</li><li>- protection of personal rights and moral concerns in relation to experts</li><li>- increasing prevalence of "minor" psycho-socio-medical problems with severe consequences</li><li>- tightly packed mixture of scientific facts and advertisements</li></ul></li></ul>

The next group of factors often causes tensions and subjective responses because they are understood not as an objective necessity, but individual or group decisions and policies expressing their interests. In that way they operate as external and also as internal factors. They appear to be dynamic, but often looking for dynamics without change. Usually, their essential nature can be recognised and judged only after some time.

The outer circle of factors is producing slow changes, regularly not noticed or ignored as unimportant for some time. However, in the long run these factors are the most decisive ones. They are bound to local conditions and might have a variety of meanings in different countries, regions, or situations.

The majority of described factors start as external, but some is initiated from the inside of an institution by a successful scientific or managerial group or a purposely built R&D department. Recently, the Total Quality Management (TQM) has demonstrated an ambition to stimulate such processes.

In considering the future changes of hospitals, one may systematically consider all factors, recognise those most influential and find strategies to utilise them.

In summary, we may state several, at the first glance, contradictory statements:

- Hospitals, as deeply rooted cultural institutions, will survive. All main types of hospitals (acute, long-stay, community and teaching) will continue to exist, but will probably follow different ways. This statement may be illustrated by monitoring of data about acute and long-term hospitals, as well as about the number of admissions.
- Nevertheless, the old “citadel cannot hold” (17). A wave of alterations in medical styles, becoming gradually more active in diagnostics and treatment, will influence the opening towards community. Besides, the fast change of medical technologies will ask for extremely flexible and permanent innovations. The shift of functions, substitution of techniques, and relocation of places is under way, as can be illustrated by a shorter average length of stay in hospitals, emerging of hospices, spread of day-hospitals, growth of hospital outreach services, etc. It is pending that some types of hospital should be reinvented or developed.
- In a society longing to become hospital-free and declaring against institutionalisation, one third of people might need traditional hospital help. Epidemic of old age, persistent poverty at the level of 20% of people, socially induced pathology (violence, stress, unemployment, insecurity), addicts, the infirm and handicapped, all produce a wide range of needs oriented towards social and health institutions, because social support and family resources are scarce. A great number of different types of institutions, working units, associations, self-help groups etc. increase the need for improved communication, and a greater effort for improved collaboration.

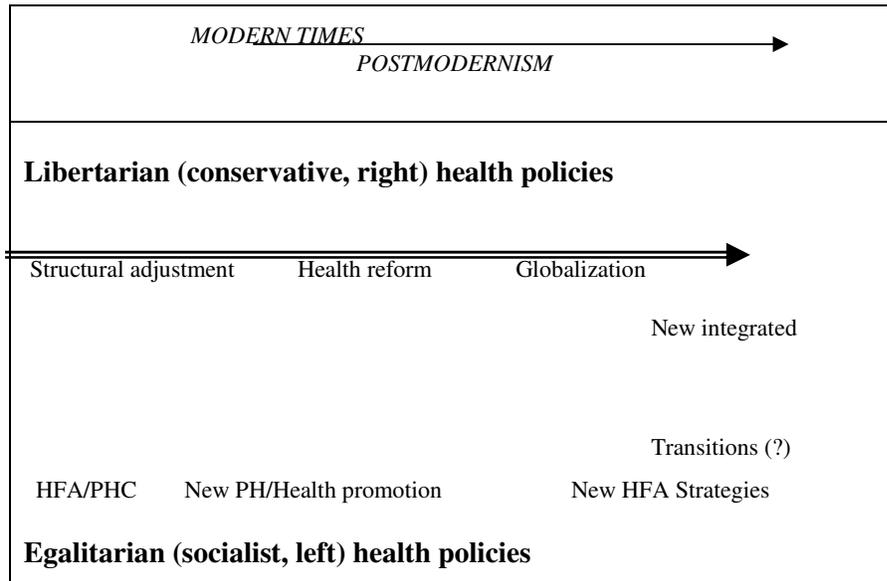
### **Waves of health reforms**

During the last decades there have been permanent waves of health reforms initiated by international organisations and powerful political and economic centres (18-20). During the seventies, Health for All policy (HFA) was globally spread together with all other “for All” (egalitarian) policies initiated by United Nations. It stressed the importance of community based primary health care, and was critical to the medical establishment. It gained support in governments of many, especially developing countries, but it faced resistance by groups of medical experts and some international organisations. It was implemented in some developing countries as selective (vertical) primary care. In most of developed countries it was transformed to a kind of primary medical care based on teams of general practitioners. The reorientation of hospitals was requested towards embedding it within the frames of health care as a support and consulting agency of primary health care. The reduction in the number of hospital beds was seen as important strategies to turn upside down the triangle representing the health system with hospitals on top and primary health care at the bottom, particularly regarding health expenditures. The most important point was equitable distribution of services. The impact of HFA policy was slow, but improvements were globally documented.

In the meantime, the economic and political situation changed from favouring egalitarian to libertarian manner. It was largely ideological and political, based on ideas of neoliberalism. The earthquake produced by the fall of the Berlin wall prompted a tsunami of health reforms not only in countries being previously behind the Iron curtain, but also in all other countries. It also divided international

agencies: on one side World Health Organisation, and on the other side World Bank and other Bretton Woods institutions.

**Table 3.** Time-line of major health policies



Structural adjustment as a new economic and social policy produced the Health reform as a policy for health sector. Health reform was an attempt to raise health concern of people and stimulate medical productivity of health services by pushing health into the area of private interests and competitive state of affairs. Governments were under political and economic pressure from inside and from international agencies to reduce (“target”) social provision and introduce competitive and contractual conditions in public funds. Specifically in the health field, the arrangements were made to separate providers from purchasers and to foster competition among the providers. Health was largely regarded as a private good and health care as a commodity trade. The expectations were to reach better quality of services and higher productivity by spending less public resources. It was welcomed in many countries of Central and Eastern Europe as a sign of freedom, a chance for entrepreneurship and personal achievements, after years of shortages, suppression and imposed discipline.

Although in a number of countries hospitals were partly protected from radical changes, there were attempts in others to strengthen the competition among them as providers by different means, including their “privatisation”. These efforts were not always successful so that already in mid nineties the pendulum was swinging back. However, the tendency to reduce the number of acute hospital beds continued and their substitution by other types of services was promoted.

The described health reforms changed the previous picture of health services in many countries but also destroyed some of the traditional resources without empirical proof of advantages of market relations in comparison with Bismarck or Beveridge principles in the field of health care. Besides, many reforms were under influence of

short-term expectations based on efficiency and narrowly conceived vertical health programmes as is usual in projects influenced by outside donors. A considerable part of liberated energy of health experts was lost in reorganisation and financial management instead being used to improve health care provision. The greatest cost of reforms was seen in the field of growing inequalities in health between the rich and the poor, and also in ethnic majorities versus ethnic minorities, between genders, and among different age groups. Deterioration of health condition of deprived social groups was demonstrated in many developing and developed countries.

The political, monetary and trade powers supported irresistibly the spreading of libertarian ideas to all corners of social life. It started to be a global phenomenon during the last decade of the past century. It should have brought benefits through liberalisation of trade and fast exchange of information. Because it is targeted towards growth and productivity, the potential threats have been recognised in deterioration of ecological conditions, suppression of local cultures, and prescription of political solutions by big powers, because it appears that some people are more global than others. Direct health damages are possible in human trades (migrations, unemployment), spread of social diseases and violence, epidemics, power of transnational corporations with trade and not health interests in medical industries and similar.

In Table 4 possible perspectives of health systems in modern and post-modern times are tentatively presented (21). Selected trends in technical and managerial aspects of development are listed, mostly those in which changes one could witness every day.

**Table 4.** Perspectives of health systems development. Selected technical aspects important for hospitals' future

<b>INDUSTRIAL AGE HOSPITAL</b>	<b>HOSPITAL IN AGE OF INFORMED MARKETS</b>	<b>HOSPITAL &amp; RESPONSIBLE GLOBALITY</b>
Public insurance/funds	Managed markets	Sustainable/fair funds
Providers' dominance	Consumers' importance	Partnership
Medical informatics	Tailored tele-medicine	Cyber medicine
Disease management	EBM and alternative care	Prevention/rehabilitation
Individual patients	Families and groups	New forms of unity
Stationary+ambulatory	Home and family care	Comprehensive care
Rationality	Quality (demand oriented)	Social accountability
Efficiency	Self care	Equity
<b>GROUPS OF SPECIALISTS</b>	<b>GENERAL/FAMILY PRACTITIONERS</b>	<b>INTEGRATED HEALTH TEAMS</b>

In Table 4 these characteristics are shown in parallel, indicating many inter-related and complex processes one can expect. After considering changes in such a way, it becomes clear that many and various results could be foreseen. Different developments are possible in the future. Our individual activity in searching for the best solutions might become the most relevant issue.

One has to conclude that the issue of health in the recent changes of health policies remains unsettled. A search for a new balance between productivity and equity in health is persistent. Is a third sustainable way just another utopia or a valid possibility? Although it is a general political question, there is plenty of room for technical innovations, which will finally decide the way of hospital perspective and social practice.

### Two ways of thinking about the future mission

Missions declaring the outlook towards future are the result of different combinations of two major ways of value systems. These diverse approaches developed to satisfy different human needs and were presented already in the ancient myth about daughters of Asclepius, Panacea and Hygieia. In the life of stationary health institutions they were pictured in old hospicia and valetudinaria. They are evidently present also today in different health policies, and consequently in different types of hospitals (Table 5).

**Table 5. An ancient dichotomy**

<i>Panacea's highlights</i> (from ancient temples to acute and some long stay hospitals)	<i>Hygiea's emphasis</i> (from valetudinaria to rehabilitation hospitals, sanatoria and some hospices)
passive patients' role resting and treating healing diagnosis technical relieving  gods and science people's necessity authority individuals specialists power and excellency	active patients' role activating health promoting application human strengthening  nature and experience people's utility support communion experts trust, acceptance and fairness

Today, basic issues focus around two expressions: quality and equity (22, 23). We may describe them in terms of present-day "Sacred cows", the most au courant concepts, so often quoted in the form of acronyms (Table 6).

However, it is difficult to differentiate them clearly because the terms have changed their connotations. Quality and Equity are the best examples (24). Quality has changed from the traditional meaning of a technical excellence of services towards market oriented meaning of "satisfying people's perceived needs and demands". Equity has changed from the traditional concept of an essential part of

human rights to equity in legal rights, fairness (“the art of possible”) and partnership (“shared responsibility”) (25-27).

Table 6. **Current opposite views in terms of “sacred cows”**

QUALITY	EQUITY
EBM - Evidence Based Medicine	PR – Patients’ Rights
TQM – Total quality management	H/FC – Home/Family Care
PEL – Professionalism, Ethics and Leadership	PHC – Primary Health Care
LO – Learning Organisations	PP – Patients’ Partnership
EE – Efficiency and Effectiveness	SS – Sustainability and Subsidiarity

So we have to conclude that in searching for the best definition of hospital missions there is a tendency of moving towards integration, an attempt at least to break through the traditional institutional walls, in spite of many real life difficulties.

### **Current policies and their criticism**

The missions are translated into policies. Among important policies, expected to solve problems and also open new lasting perspectives, we may identify the following:

- new health market reforms, informed patients’ participation - **The patient-centred hospital;**
- the change in contents, orientation towards health and quality of life - **The healthy hospital;**
- quality management, based on “learning organisations” - **The learning hospital;**
- conservative elitist approach: **Hospital as the centre of excellence;**
- close relations inside the health system, especially primary health care, supporting initiatives such as “hospital at home” - **The collaborative, “well embedded” hospital.**

There is a positive intention in each of the mentioned policies and in some of the examples of their implementation. A combination of them in different quantities may fit to needs and wishes of hospitals in different situations. At the same time they raise opponents and consequently difficulties and constraints.

### **Patient-centred hospital**

Patient-centred hospital in its full meaning should not be just a hospital where all services are organised around patients but where both the patients and the public are well informed about their work and performance and could participate in decisions on strategies for development (28,29). It obviously could help in communication, and “marketing”, but the decision making process should not be delayed or distorted. It also raises a far reaching question, how much of medical “secrets” one should “disclose” to the public? Nobody is apparently waiting for the answer, the process is already running. (See, for instance, web sites of National Committee for

Quality Assurance, Health Care Report Cards, etc.). The time will tell us if it is going to be related to benefits and detriments of patients, medical experts and hospitals as institutions.

The pending questions about tactics remain:

1. Is it wise to change the tradition at the time of growing alternatives emerging in the market not even thinking about presenting the objective results of their work?
2. Are all parts of the health system willing to start the same and how could it be controlled?

### **Health Promoting Hospital**

The European Pilot Project supported by World Health Organization is now over then 10 years old (11,30). The Budapest Declaration of 1991 specified strategies and responsibilities of potential participants in an international network. It was followed by a formal Agreement (1993) and Vienna Recommendations. The core group of 20 hospitals evaluated and reported an impressive set of sub-projects. Subprojects were related to health of patients (patient satisfaction, nutrition, health education, rehabilitation, hygiene and safety), to health of staff, to health of community (promoting children health, prevention of accidents, control of alcoholism, young people information service, etc.), and to metaphorically conceived “healthy organization” of hospitals (effective communication with patients, decentralization, networking etc.). Largely, the projects are improving and complementing hospital services, building outreach services, and better networking with others, aiming to involve or influence a broader group of European hospitals. Most of the participants at present are in the group of hospitals with 200-500 beds. Obviously, one has to consider new roles of different types of hospitals to avoid a change of terms only and to avoid mixing of roles with different other partners in the health system, particularly primary health care. The critical points consider a potential problem in building new hospital based outreach services using the existing resources in an expensive way.

### **Learning hospital**

The development of learning/teaching networks supported by modern technologies of interactive tele-communication seems unavoidable. Sooner or later most health institutions will be interconnected (“virtual integration”), without vertical integration, grounding great potential gains<sup>(31-33)</sup>. As a simple start one may describe a project called EuroTransMed. It involves a growing number of several hundred hospitals in Europe for lunch-time interactive lectures every Tuesday during the teaching semesters. These are coded satellite lectures and discussions in real time.

Several similar national networks exist in countries of Europe. Many world-wide possibilities are open through the Internet. The critical point is not how to get information but how to choose the right ones and organise their use. The flood of information may be counterproductive, thus increasing the danger of hidden control by sponsors and others looking for their individual interests and not for common benefit. It is not at all an easy task for users to judge the quality of information. The clearing and control of information, on the other side, may destroy all potential benefits. Some applications of tele-medicine might suppress the local expertise and experience instead of supporting it. Often it is easier to teach others than to learn ourselves.

### **Centres of excellence**

Centre of excellences are important as references for quality and as the only way to organise and protect one’s own values and rationality in the field of technology transfer under pressures of global economics. There are many unresolved questions (34,35). Should centres of excellence be nominated or let to develop? They could get more resources and a “trade name”,

so that many would like to be considered for such a position. The essential factor for success is an able team of experts with a wide understanding of local health culture and policies, potentials and needs, and at the same time practicing scientific approach and rigour. Experts have to show outstandingly firm integrity. Such teams develop over years. Further structural questions are: Would it be better to concentrate teams in one place (centralised approach) or distribute and disperse them in several institutions? Are teaching hospitals by definition centres of excellence? There is not a pattern showing definitive advantages and the answers depend on local conditions (36). Therefore, this policy will be open to permanent local struggles and a political issue in most countries.

### **Collaborative hospital**

Collaborative hospital is the objective of a broadly supported policy. One can state that it is widely accepted, but rarely realised (6,37-39). The immediate problem of collaboration is that all those who should collaborate are counting on the same resources and because of that they do not trust each other. The other problem is that often hospitals are bigger and stronger institutions and may dictate conditions for collaboration. One of the major difficulties is rather deep mutual misunderstanding with others because of multiple essential differences. One can demonstrate it by considering just a few basic differences between hospitals and primary health care units (Table 7).

**Table 7.** Some characteristics making difference between hospitals and primary health care units

CHARACTERISTICS	HOSPITALS	PHC UNITS
System's property	Closed	Open
Environment	Medical establishments	Community
Priorities	Diagnosis and treatment	Solving health problems
Focus of activities	Solving problems	Work with people
Feeling of safety	Higher	Lower
Way of thinking	Convergent	Divergent

There is no chance to overcome these deep systemic differences by nice words.

In summary, all described policies look acceptable and sound well. However, they have their shortcomings. It is understandable that many hospitals are cautious, as well as their partners in health field and in circle of policy decision-makers. How could somebody believe that the most powerful of all health institutions will start to change beyond what is necessary for marketing purposes and their own interests? The way to show a substantial interest is not to declare intentions in big words but to start changes and evaluate them step by step.

### **Should one consider new types of hospitals?**

The form and name of hospitals will change. We already observe spring ups, such as "hospital substitutes", "hospitals without beds" (day care hospitals), "hospitals at home", "virtual hospitals", "tele-medical hospitals" etc. (40-43). There is a great interest for comparing and evaluating in-patient hospital care and home care (23, 44-50). One has to conclude that new types of hospitals are probable and one has to be prepared for changes. It might be important to consider new types built on foundations of the existing hospitals.

Deep changes have to be expected because of changes in technology. There are already experiences how to deal with them. After a certain time of adaptation, finally one has to build a new structure, which is new, in spite of carrying the old name. The other kind of change is under pressure of people's needs and demands. In this case new buildings might be constructed

based on old concepts but often under a new attractive name. The new name shows a tendency to cover bad feelings and experiences with the traditional institutions, although the contents might be similar.

Under such circumstances the answer to the posed question whether reforms or (re)inventions would be needed should be – both is probable. For instance, reform of teaching hospitals might be needed, invention of health oriented contemporary valetudinaria (as it is described below) and reinventing of new community hospitals (as it is described later under the title of Case study).

### **The teaching hospital**

A traditional teaching hospital fulfilled tasks in research, training and the most complicated part of medical treatment (“tertiary health care level”). It was always complex and difficult, but now it has become almost impossibility. As a consequence, one may observe a movement in different directions.

In most teaching hospitals the research part became the biggest and started to dominate the other two functions. Among other reasons, not an unimportant one is to get resources from research funds, in many countries more copious than health and educational funds. Consequently the stay of patients in teaching hospitals is shortened and applied technologies are sophisticated. Medical services are focused on diagnosis, most complicating treatment procedures and critical events. In that way, clinical training of undergraduates is narrowed to demonstrations using training environment suitable mostly for postgraduate training of specialists.

Teaching hospitals encompassing larger parts in different research fields and absorbing more experts became large institutions, or a system of interconnected institutions. In some examples, this caused them to play a role of a separate part and isolated them from the general health system. The problem of relative isolation led them away to research irrelevant for practice of health care for the time being, and oriented more towards international relations than problems at home.

A related problem is that teaching hospitals are linked to health sector in the government and to universities. To solve that in the few countries where teaching hospitals have not grown too big, teaching hospitals alone with all other capacities for education of health workers were put in the centre of the system in charge to manage regional health care. That was reported to be beneficial for relevant teaching, quality of regional health care, research oriented towards current local problems, but hindering capacity to follow advances in basic biomedical sciences and guarantee prompt and safe transfer of technologies.

In other cases the system was purposely dispersed, and diverse hospitals and institutions took over parts of previous tasks of teaching hospitals in training or research. Co-ordination and rational use of resources became a problem and efficiency was questioned. In spite of that, for most countries a decentralised system is a necessity. The empirical evidence has not provided proof that large institutions are more efficient.

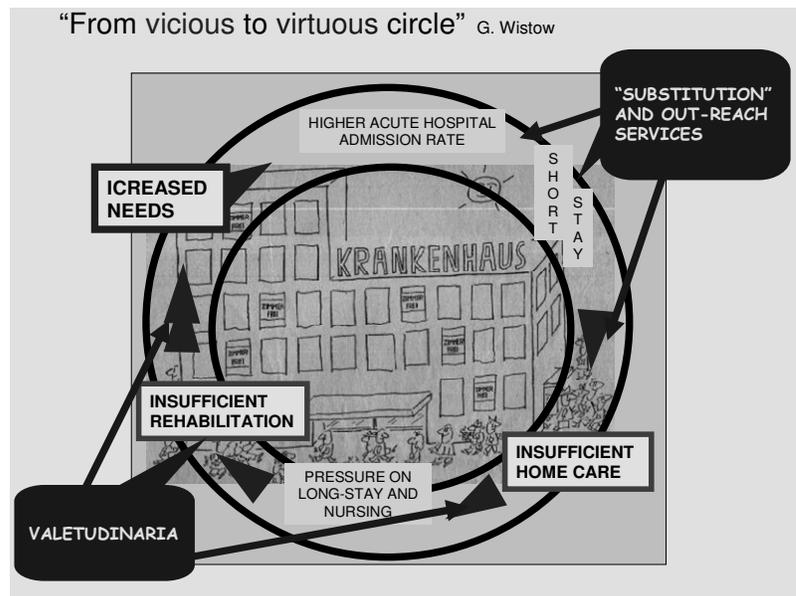
In the times of globalisation, it has become more important how the teaching hospitals will serve as a bridge between countries, while protection against hostile international market is growing. Therefore, the reform of the complex traditionally called teaching hospital is on top of priorities, even though the solutions are not obvious.

The *experience from Croatia* today demonstrates a situation of a small country with a recent war and poor economic situation and a system in transition to libertarian market conditions. Our teaching hospitals are largely decentralised, poorly co-ordinated and so far mostly swinging between tasks of tertiary care and education. Some important research

institutions have been built separately. Our teaching hospitals have a certain regional influence but not a built-up responsibility neither for development of services nor for inter-regional and inter-national collaboration. The shortage of resources for all sectors covered by teaching hospitals (scientific research, health care and education) is at present hiding deficiencies and diverse interests inside institutions, diminishing the total production and generating inappropriate quality of work.

### The new valetudinarium (a public rehabilitation and training centre)

It is well known that the change in population structure of Europe and increased longevity produces greater need for care of the infirm, disabled and lonely persons as well as a growing concern for health, fitness and interest for active recreation. More people need help to warrant better quality of life, rehabilitate their physical, psychological and social functions, to prevent the deterioration of their conditions and to care about themselves. These demands are not new but we have recently been in the middle of an epidemic situation and reasonable forecasts tell us that after 2010-15 and later it has to be expected to become a normal endemic situation in all countries of Europe. A new understanding for these needs will certainly develop, because no feasible solution is possible following traditional or modern approaches. The *vicious* circle should be transformed into *virtuous* circle (51) (Figure 13).



**Figure 13.** From vicious to virtuous circle

The role of hospitals in turning the vicious to virtuous circle is multiple and important. It has to prevent the increasing admission rates by developing better relations with primary services and develop “substitute” and out-reach services (community hospital). The long-stay hospitals and nurseries need to intensify rehabilitation efforts and assure the continuation of rehabilitation at home and in the communities.

These core tasks in caring for the elderly, infirm and handicapped have always been distributed among families, neighbourhoods and special kinds of public institutions (like valetudinaria, spas and asylums), usually supported by voluntary and religious organisations.

As the family role diminished dramatically, particularly in countries and in a period of unseen increase of material standard of life, the pressure for social intervention increased and produced a panic among governments and social services. The pressure is felt also in hospitals. Reaction to that is seen in three directions: a) development of hospices specialised for palliative care, b) various attempts to combine health care with recreational, tourist, climatic, rehabilitative enterprises, aiming predominantly to health protection and promotion, c) support to home care like “hospital at home”, etc.

In all these developments there is a common denominator in the basic philosophy (assisting and enabling for better quality of life), and a similar set of techniques originating from rehabilitation of disabled persons. It is characterised by personal approach to mental and physical functions of each individual but also care for his work opportunities, home and social environment. To these are added clinical experiences in dealing with specific functional problems and introduction of proper behavioural attitudes towards preventive and promotive health activities. An outstanding role is seen in activating the handicapped themselves in all spheres of life, and particularly in appropriate physical activities, what is still restrained in contemporary medical practice. One could say that in the coming years the rehabilitation and prevention will become a relevant general medical approach and unavoidable for successful treatment and healing.

The question is how on the basis of the present institution one could envisage structure and functions of a new valetudinarium supporting home and primary care services in helping people to sustain their functional abilities and what is fashionably called “quality of life”. It might be looked upon as a dominant and appreciated institution in the circle of the hospital family. Many technical and organisational questions are left to be answered and answers might be different according to local cultures what should prevail: the Nordic activism, the Mediterranean takes it easy art of life, or the Central-European orderly regime? The main challenge would be co-ordination and support of resources existing in the families, neighbourhoods and communities as well as primary health and medical resources?

## CASE STUDY

### **An experience from Croatia**

As in many countries in Central Europe, there was a popular tradition in Croatia to treat people in spas, so that inns and traditional hospices, later hotels and hospitals, and finally rehabilitation centres were raised around them. Moreover, rehabilitation was organised in hospital departments of general and some special hospitals (e.g. traumatology), and at last also in special institutes connected with teaching hospitals. The popular treatment of rheumatic troubles of the elderly and other handicapped, of a growing number of injured in traffic accidents etc. was performed in hospitals or by outreach units of hospitals, while primary health care was largely left out and treated the major group of the same patients by pharmacological means. This was a double, expensive and disintegrated way of rehabilitation process gradually discouraged by limitation of insurance funds.

During the last war, because of many wounded and disabled persons, a project was launched with international help to start Community Based Rehabilitation<sup>(52)</sup>. It started in difficult times and developed as a separate project with evident advantages. However, misunderstandings and resistance were strong, based on traditional attitudes about medical rehabilitation as a hospital specialty and little interest of primary health centre to be involved. Many other needs and demands have been identified in local communities besides disabilities of war victims. It was also shown that community based rehabilitation was an effective and

efficient component making the whole rehabilitation system less expensive and improving the final results. In spite of that, after the greatest post-war needs have been over, the project lost support. The question remained if Community Based Rehabilitation could survive competition, misunderstandings and all kinds of passive and active resistance. It might happen that a new type of open door institution has to face the same type of difficulties.

### **A new community-based personal hospital**

When we consider possible changes of hospitals expecting benefits for the entire health system, a community hospital may have the priority. It should become a centre for regional co-ordination of health services, a local focus for accumulation and transfer of knowledge and experiences. The idea is that smaller regional or sub-regional hospitals should be transformed into an institution functioning as a vital local support of primary health care and general/family practitioners, as well as social care and socio-medical institution for palliative care, community based rehabilitation units, etc. This might be a new community hospital (53).

The community hospital itself should be a combination of a traditional general hospital, a health promotion hospital and a learning hospital. Its characteristics might be described with the following attributes:

- short-term (neither ultra acute, one day hospital without beds, nor predominantly a long-term hospital);
- general (not specialized for any particular disease);
- middle sized (200-400 beds) (54);
- active in health promotion, prevention and rehabilitation;
- community oriented, transparent and visible to the community,
- performing and supporting some of out-reach, home-centred health care activities;
- flexible in organization and arrangements;
- keeping open door policy for local health experts;
- performing and supporting teaching and research as part of quality assurance.

The dynamics of changes in the described direction will differ, but probably speeding-up in the coming years. This is clearly a common and important element of a renewed system of hospitals.

We will describe now our experiences in some details.

### **A warning from the Croatian experience**

The history of hospitals in Croatia was similar to those in the Southern Europe, and later in the 18<sup>th</sup> century to the Middle Europe, namely the Habsburg Empire. The strongest impulse to organization of health care at the territory of the former Yugoslavia was the work of A. Štampar after the World War I. His socio-medical views were oriented towards “people’s health”. With great energy and skill he created a system of Institutes of Public Health and health centres. Active in the League of Nations and having been one of the founders of the World Health Organization, Štampar was known as a “bear of the Balkans” because of his energy and, recently, as “the grandfather of primary care” because of his principles (55). Hospitals were not his stronghold and he could understand them only as a supportive part of a comprehensive health system. In his time, hospitals were isolated as centres of medical and social power. To balance that power and private practitioners, his strategy was to develop health and equity oriented primary care.

On these foundations it was not by chance that later “Andrija Štampar” School of Public Health started in Zagreb the first vocational training of general practitioners

(“specialization” in general practice, Professor A. Vuletić). A network of health centres was spread throughout the country, consisting of services provided by GPs and by dispensaries for socially important maternal and child health, tuberculosis, and other public health activities. At the same time, “stationary capacities” were built, as an expression of a tendency towards regional self-sufficiency. The tensions between hospitals and primary services, well known in many countries, were pronounced.

In those circumstances, integration of hospitals with other services was early recognized as a problem. In regional centres for a territory up to 200 000 inhabitants, the merge of general hospitals with all other outpatient, public health and primary care units into one organization, started in 1957 and was in full strength in 1970. The organization was called “Medical centre” and 24-25 of them comprised practically all general hospitals in provincial towns, except 8 in four biggest towns of the Republic (56). Medical centres were meant to functionally interweave prevention and care, in- and out-patient services, even allowing interchange of physicians in and out of hospitals in the same disciplines or services. The marriage existed for more than 20 years with ups and downs, but rarely fully meeting their original objectives. Evaluation studies showed that the success shown in better efficiency was largely dependent on local managers who could envisage and insist on a mission of integrated health care. Without that additional leadership the organizations were lost in solving individual problems separately, further dividing interests with an additional problem of hidden transfer of resources to the stronger part, which was the stationary part in the hospital. Finally, just before the divorce, the flow of resources was legally stopped, so that only administrative frame remained from the original idea of integration.

This experience might be important in consideration of the future of hospitals as a warning not against the idea but about the difficulties in the implementation. Unfortunately, because of coincidence of many external economic and political factors influencing the described outcomes, the main reasons for failure have never been clearly identified.

### **Concluding summary**

1. Considering the future, we have to understand our limits. We may put together our best wishes but we will never reach the actual future surprise and shock. However, by formulating our expectations we contribute to the wide stream of development. The future is not only in adaptation to turbulence of history and solution of present problems, but in contribution by innovations, experiments and daring to change. The solution is in openness to new perspective while swimming in the main stream, and not in protecting the old citadel.
2. The hospital will continue to exist as an important part of a health system. Rather, it will develop in many diverse types of hospitals in the four main classes:
  - group of high-level institutes and hospitals enabled for scientific research and advanced teaching
  - “innovated” community/regional hospitals making the backbone of stationary services, built into the local network of health and social services, with special concern for acute and critical episodes of medical and personal needs of patients
  - long-term hospitals in many forms of combined health and social institution according to local traditions and cultures
  - group of institutions (“valetudinaria”) concentrating facilities oriented towards health promotion, relaxation and rehabilitation, attracting a wide range of people and placed in attractive natural resorts.

3. The hospitals share the destiny with other social institutions influenced by:
  - socio-economic factors such as ageing structure of populations, economic inequalities, immigrants, growth of tensions and violence, problems of affluence
  - fast medical and technological changes in surgery, genetic and molecular interventions and other altering deeply the present medical treatment
  - needs, expectations and attitudes of patients, customers and the public
  - shortages in appropriate staff for human personal care, inter-disciplinarity of staffing and other shifting in human health resources
4. In spite of strong influence of the globalization trends, there will continue diversity in attitudes and running-styles of hospitals in different parts of Europe in accordance with different social, cultural and religious traditions, social policies, role of states, position of families and local communities, etc. There will be unstable mixing of five historically developed pivots: Nordic and Mediterranean, East and West, with a discrete Middle, with possible addition of substantial newcomers outside Europe.
5. Relations and opening to surrounding community might be a promising strategy for most of hospitals (except some national teaching hospitals). In the long run, it might prove superior to closing, defending the gained position or relying predominantly on trans-national medical and pharmaceutical power structures. In sustaining lasting relations with communities win/win strategy should dominate, relying on proper initiatives, collaboration, stimulation and support, avoiding whenever possible the win/lose philosophy, based on replacement or suppression of other local resources and tendency to market domination.
6. It is time challenging leadership and management of hospitals. Open-minded flexibility and entrepreneurship has to be combined with wisdom and critical professionalism. The investment in development of experts and stimulating work conditions has to be balanced with comfort, privacy and satisfaction of personal needs and rights of patients. Support of inter- and trans-disciplinary teams and networking with other institutions are among the most difficult tasks, equal only to survival in flood of information and diversity of unexpected day-to-day running problems.

## **EXERCISE**

### **Recipe for the future: Firm mission and flexible management**

Let us for a moment be a captain steering a big solid ship (such as hospitals are). Standing at its commanding deck, the captain is carefully watching the main, the map and the instruments. What will he find? He will easily spot many swimmers around, trying to climb the deck of the ship, but also many small boats and rafts trying to catch those swimmers (for good, or for bad?). It will disappoint him to observe how some of the passengers, for non understandable reasons, jump into the water and swim to small rowing boats and rafts. At the same time, he will continuously feel in the air strong winds pushing forward new technologies. The instruments will show him the high atmospheric pressure of globalization (for good, or for bad?). Looking forward he is aware of dangers threatening his ship by under cliffs and reefs of publicizing data dealing with safety and efficacy of his services. Besides, the members of his crew repeatedly warn him that water is penetrating different parts of the ship and that it is very difficult to follow exactly his orders and manoeuvres.

## Task

What can he do, and how would he like his ship to be transformed? First, one has to consider the actual situation. The situation because varies in different countries, local circumstances and is permanently changing. Prepare data for selected country, analyse and discuss the situation in small group and present it in panel.

### Point of consideration

However, in all conditions there will be time to respond along with general managerial rules and local style. In most cases a rather aggressive re-adaptation will be necessary (28,57,58). Here are recalled several adequate rules:

- Changes in technologies will induce changes in management (“new plants do not survive in old pots”). For instance, new imaging technologies need a better clinical feed-back, and the pattern of “industry-like” hospital, where specialists work in their narrow fields on a production-line becomes inappropriate for them.
- Human resource management becomes more important than economic and technical management dominating at present.
- Innovations and flexible organisation become more important than maintenance and survival strategies, so often applied in critical situations.
- Autonomy (responsibility and accountability) is needed, but more important are agreed rules of behaviour than encouragement of anarchy.

Management has to develop magic communication skills (what types of skills) being sensitive to requirements of patients (customers), to appreciate professional freedom of experts and to improve relations with competing and sometimes unscrupulous rivals in the market. Bon voyage, in spite of rough sea! *Navigare necesse est.*

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>MENTAL HEALTH CARE</b>
<b>Module: 5.5</b>	<b>ECTS (suggested): 0.25</b>
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<b>Keywords</b>	Mental health prevention, mental health promotion, Slovenia
<b>Learning objectives</b>	After completing this module, students should have increased knowledge about mental health, and they should be aware of the magnitude of the mental health problem in Europe and understand the major obstacles for mental health service and mental health prevention planning.
<b>Abstract</b>	Mental health conceptualize a state of well-being, perceived self efficacy, competence, autonomy, intergenerational dependence and recognition of the ability to realize one's intellectual and emotional potential. Mental health care are services provided to individuals or communities by agents of the health services or professions to promote, maintain, monitor, or restore mental health. Students will become familiar with extensiveness of the problem, and levels of preventing it. It is illustrated by the case of Slovenia.
<b>Teaching methods</b>	Teaching methods include lectures, exercises, individual work, interactive methods such as small group discussions, seminars etc. Plenary lectures are followed by discussion and project work in exercises. The work is done partly individually and partly in small groups.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 50%/50%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Assessment could be based on structured essay, seminar paper, case problem presentations, oral exam and attitude test.

# **MENTAL HEALTH CARE**

**Vesna Švab, Lijana Zaletel-Kragelj**

## **THEORETICAL BACKGROUND**

### **Definitions and explanation of basic terms**

#### *Mental health*

According to World Health Organization (WHO), mental health is more than the mere lack of mental disorder (1-3). The WHO states that mental health conceptualize a state of well-being, perceived self efficacy, competence, autonomy, intergenerational dependence and recognition of the ability to realize one's intellectual, and emotional potential. It is also a state in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his/her community (4). In this positive sense, mental health is the foundation for well-being and effective functioning for an individual and for the community. This core concept of mental health is consistent with its wide and varied interpretation across cultures (4).

#### *Mental disorder*

Mental disorder refers to a psychological or physiological pattern that occurs in an individual and is usually associated with distress or disability that is not expected as part of normal development or culture. It is any of various conditions characterized by impairment of an individual's normal cognitive, emotional, or behavioural functioning, and caused by social, psychological, biochemical, genetic, or other factors, such as infection or head trauma (5).

#### *Mental health care*

According to Last et al. (6), health care are services provided to individuals or communities by agents of the health services or professions to promote, maintain, monitor, or restore health. Health care is not limited to medical care, which implies therapeutic action by or under the supervision of a physician. According to this general definition of health care, mental health care are services provided to individuals or communities by agents of the health services or professions to promote, maintain, monitor, or restore mental health.

#### *Mental health services*

According to Last et al. (6), health services are services that are performed by health care professionals or by others under their direction, for the purpose of promoting, maintaining, or restoring health. In addition to personal health care, health services include measures for health protection, health promotion, and disease prevention. According to this general definition of health services, we could define mental health services as services that are performed by mental health care professionals or by others under their direction, for the purpose of promoting, maintaining, or restoring mental health of a population.

### *Community mental health*

Community mental health is a decentralized pattern of mental health, mental health care, or other services for people with mental diseases accessible and responsive to local needs because it is based in a variety of community settings. Community mental health assessment, which has grown into a science called psychiatric epidemiology, is a field of research measuring rates of mental disorder upon which mental health care systems can be developed and evaluated (7).

### *Mental health prevention*

General concept of disease prevention and its levels (primordial, primary, secondary, and tertiary; detailed description of these levels is out of scope of this module) (6), can be applied to all different fields of population health, also to the field of mental health. Mental health prevention could be described as interventions to avert the initial onset of mental disorder, interventions to treat these disorders and prevent comorbidity and interventions used to prevent relapse, and disability.

### *Mental hygiene*

In public health, the concept of “mental hygiene” is more and more important. Felix and Bowers (8) defined mental hygiene as knowledge and skills requisite to reduce mental disorders and maintain mental health.

### **Levels of mental health prevention**

Before discussing levels of mental health prevention according to public health classification, we need to expose one of most important supportive elements not only for primordial level of prevention, where is usually classified, but for all levels of mental health prevention - a healthy mental health policy - a special document, containing the goals for improving the mental health situation of the country at all levels (9).

Like mental health policy, also stigma as negative companion, and one of the most responsible causes for social exclusion of people with mental disorders, and undertreatment, is penetrating all levels of mental health prevention. Combating stigma should be present at all levels of mental health prevention, and public education in this respect should be one of the most important efforts of public health. There already exist programmes for combating stigma, one of the most prominent being World Psychiatric Association “Schizophrenia. Open the doors” that mission is to dispel the myths and misunderstandings surrounding schizophrenia. Stigma creates a vicious cycle of alienation and discrimination which can lead to social isolation, inability to work, alcohol or drug abuse, homelessness, or excessive institutionalization, all of which decrease the chance of recovery (10). On the other hand, those affected need to be encouraged to seek mental health prevention treatment (e.g. psychotherapy, and support groups).

Similarly as in prevention of other disease groups, also in mental disorders we divide prevention in four groups, being primordial, primary, secondary and tertiary.

### *Primordial prevention*

Primordial level of mental health prevention is aiming at keeping mental disorders from ever occurring.

Activities at this level are mainly focused at total population and are acting by using non-specific measures. The most important activities are taken at the field of:

1. Policy

In this category mental health policy (healthy mental health policy), and social policy targeting reduction of social exclusion, unemployment and stigma, are classified.

Stable and supportive political system, secure environment supporting violence prevention, good housing conditions, good and .accessible educational system, good employment policy, and good care for occupational health are of great importance for well-being of an individual and population, and also determine mental health of a population. Reducing unemployment and enhancing job security, that both proved to be one of the main primary prevention actions in mental health, since unemployment is strongly connected with anxiety, depression and substance abuse.

2. Health promotion

Mental health promotion with providing mental health supportive social environments, especially to endangered and vulnerable population groups (e.g. mothers and young children, workplace mental health promotion, addiction prevention programmes, etc.), as well as promoting healthy environment on general (healthy food supplies, accessible transport, etc.) is the next category.,

Mental health promotion is defined as a process of enabling people to increase control over the determinants of their mental well-being and to improve it (9). It covers a variety of strategies, all aimed at having a positive impact on mental health.

Like all health promotion, mental health promotion involves actions that create living conditions and environments to support mental health and allow people to adopt and maintain healthy lifestyles. This includes a range of actions that increase the chances of more people experiencing better mental health at the community level (4). Examples of mental health promotion interventions include (11):

- improving the social environments in schools,
- designing facilities to encourage meeting and social interaction in communities,
- promotion of healthy lifestyle,
- follow up and support for healthy and good parenting,
- promoting healthy upbringing and education,
- workplace mental health promotion campaigns, etc.

The key areas of mental health promotion in the community to be addressed are therefore directed to:

- reducing work-related stress, including unemployment, and underemployment, but main focus is in reducing stressful working

conditions. Educational programmes for employers and employees about mental distress and mental disorders and prevention are recommended. The Scottish programme Health on the Workplace, for example rewards employers for their interest in healthy and motivating environment and for preventing sick leaves. Similar initiatives are emerging also in Slovenia in last years,

- campaigning for access to education and fighting against poverty and social exclusion are cornerstones of social policy directed towards better mental health of the population (12). Programmes for reducing poverty and social exclusion, this is programmes for reducing homelessness, racism, discrimination and stigmatization are one of the main weapons for reducing the rising mental health morbidity in Europe, as well as in Slovenia (13),
- social support with friendship, good social relations and strong supportive networks improve mental health. Good social relationship reduce the physiological response to stress,
- stress prevention programmes with campaigning for leisure and recreational activities are further preventive measures. Access to relief and rest and recreation in leisure time are included. Body-mind techniques for relaxation could prevent a great deal of distress, and consecutively outbreak of mental disorders in some individuals, as well as other diseases.

### 3. Self-care

At the individual level taking measures of self-care by practicing healthy lifestyles and learning of skills for coping with stress (mental hygiene) is very important part of good mental health (8,11).

#### *Primary prevention*

Primary level of mental health prevention is, like primordial level, also aiming at keeping mental diseases from ever occurring, but it is dealing with endangered and vulnerable population groups (e.g. adolescents, pregnant women, people in employment, disabled, old people etc.) and is acting by using more specific measures like health education. Examples of primary mental disease prevention interventions include:

1. prenatal care and education about parenting,
2. support after childbirth with counselling and practical help in breastfeeding and reducing tension and fatigue,
3. financial and social support to families at social risk,
4. child-abuse awareness and preventive programmes,
5. drug and alcohol free parenting programmes in endangered groups,
6. counselling for crime victims, and
7. somatic disease prevention, since chronic somatic illness increases likelihood for ill mental health.

### *Secondary prevention*

Secondary level of mental diseases prevention involves the early detection of mental disorders and early intervention to reduce the risk of chronicity, disability and suicide. Early detection and treatment in all mental disorders improves their outcome and prognosis.

#### 1. Screening.

Especially important is this kind of prevention in the field of depression, and alcohol disorders:

- early detection of depression as most common mental disorder proved to improve outcomes and reduce suicidal rates as confirmed by many studies. US Preventive Services Task Force (USPSTF) recommends screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up, but the evidence is insufficient to recommend for or against routine screening of children or adolescents for depression (14).

Screening for depression and educating general practitioners (GPs) for recognising signs and symptoms of depression has become one of the most widely used preventive tools all over the world. This kind of education of GPs proved reduction in suicide rates because of such educational campaigns are strongly embedded also in the Slovenian education of family physicians and proved similar results;

- screening and behavioural counselling interventions to reduce alcohol misuse by adults, including pregnant women is recommended as well (14). It is used in many primary practices, as well as in some NGOs, and social settings through self help and counselling. Early recognition is of course to be followed by proper and evidence based treatment being mostly parallel psychopharmacological, psychotherapeutic and educational.

On the other side, USPSTF concludes that the evidence is insufficient to recommend for or against routine screening by primary care clinicians to detect suicide risk in the general population (14).

#### 2. Other types of secondary prevention.

But not only screening programmes are secondary prevention. Other types of secondary prevention are case finding, and health risk assessment (15).

In some cases, also an individual can help to try to find signs of disease him/herself. Self examinations and self help are routine techniques to be transferred and encouraged with individuals with mental disorders, especially when reoccurring. The educational courses and individual counselling on recognising warning signs of disorder and coping strategies, as well as self help groups, are valuable tool in the hands of the individuals at risk and their close ones. This is similar to the case in self-examination of breasts in women to find early signs of breast cancer.

### *Tertiary prevention*

Tertiary level of prevention of mental diseases is: dealing with treatment and care for people with clinically expressed mental disorders. We distinguish between acute, primary, or early phase, and chronically, late or rehabilitation phase:

1. Psychiatric or primary care treatment  
Psychiatric or primary care treatment is aiming at reducing the signs and symptoms of mental disorder, improving coping abilities of patients and families and in improving adherence to treatment process. The ultimate goal is also to improve functioning and the quality of life of patients.
2. Psychiatric rehabilitation  
Psychiatric rehabilitation aims to reduce disability because of mental disorder in the patients' natural surroundings, which is most often his/her home environment. Psychiatric rehabilitation targets patients' assessed and clearly defined personal needs, needs of his/her carers and relatives and uses methods of empowerment and participation to achieve as high level of personal satisfaction as possible.

Multidisciplinary team work is used to define clear rehabilitation goals and steps to achieve them with careful monitoring and follow up. Coping strategies are taught and discussed with patients and family member, distress is managed and medication is maintained almost inevitably. These methods are combined with counselling, motivation, self help, sheltered accommodation, sheltered employment and education if needed.

Majority of rehabilitation takes place in the community, even though this process is started already in the phase of psychiatric treatment. The needed level of rehabilitation support varies enormously and depends on the patients' perceived needs an current functioning more importantly than on the signs and symptoms of his/hers disorder.

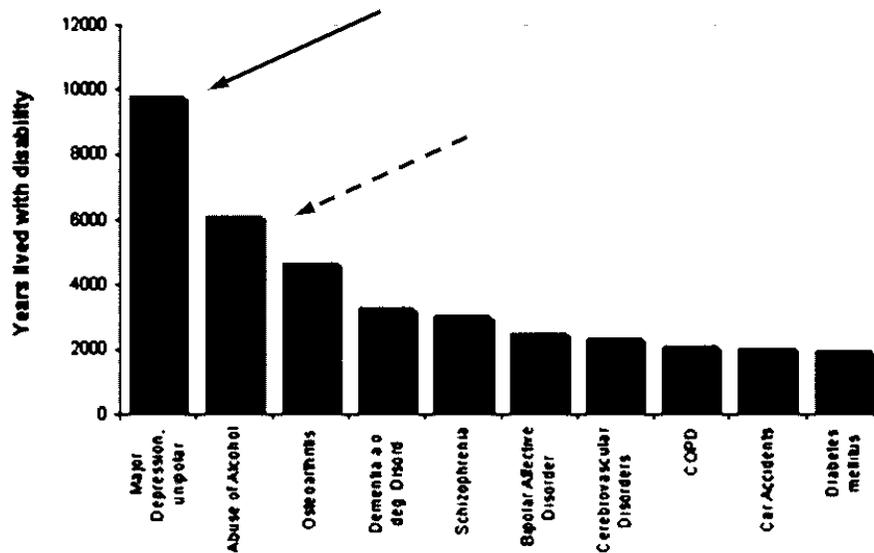
## **Epidemiology of mental disorders in Europe**

### *General considerations*

Mental disorders contribute 12.3% to the total burden of disease; the expected burden will rise to 15% in 2020, this is. 450 million people worldwide. Mental disorders contribute from 31% (Europe) to 43% (USA) to the total disability adjusted life years (16).

The prevalence of mental disorders in Europe is increasing, 12-months prevalence is estimated to 27% in 16 European countries. Every second European will develop mental disorder once in his/her life, women more often than men (33%: 22%) (17). Almost half of the people with mental disorders have more than one diagnosis. Co-morbidity with somatic illness and with psychoactive substances abuse and dependence are most common. Co-morbidity of depressive disorder with coronary heart disease is 45% (18). 48% of somatic symptoms are connected with depression (19), which present difficulties in early recognition and treatment and consequently highly burdens medical services, produces over prescription of different medication and increases the cost of treatments. Overall costs of depression involving direct cost of treatment and indirect cost of sick-leaves, absenteeism and underproduction are rising in developed countries (20). Most common mental disorders are anxiety, depression and substance abuse disorders (21). One fifth of women and one tenth of men will develop depressive disorder at least once in their lifetime (22).

A WHO study, performed by Murray at al. (23), identified depression to be heading the list of disorders responsible for the global burden of disease in industrial countries, following by abuse of alcohol. (Figure 1)



**Figure 1.** Results of the WHO study “Global Burden of Disease”. Source: European Alliance Against Depression (EAAD) (24).

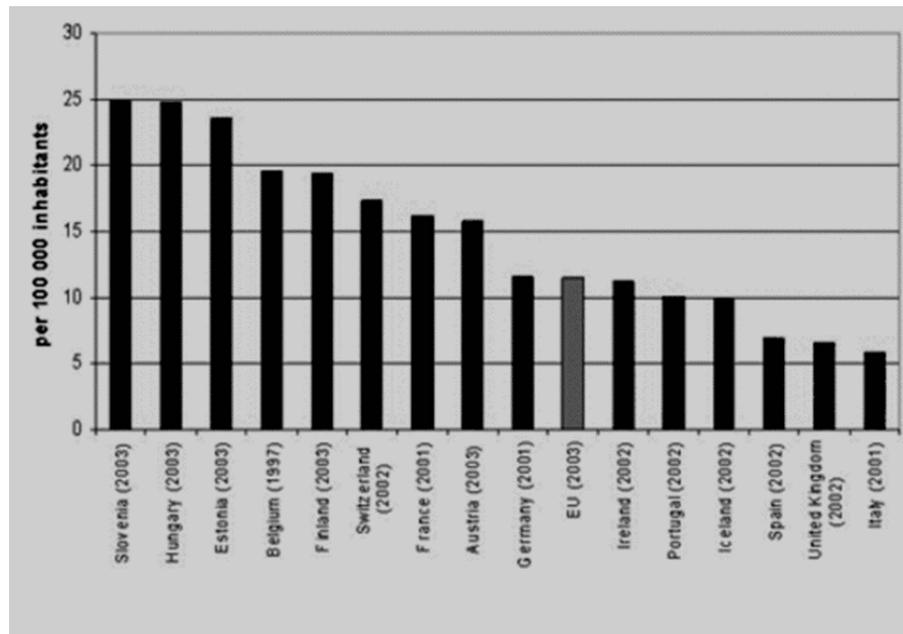
The research proves that the prevalence of common mental disorders connects itself with the lower socio-economic status or social inequality (21). Unequal distribution of wealth is more strongly connected with worse mental and physical health and with early mortality than the GDP (25). The cost of mental disorders in Europe amounts to 295 billion Euro.

Mental disorders remain under-recognised and under-treated. In European Union (EU) only 26% of people with mental disorder get proper treatment. Among reasons for under-treatment are poor accessibility of services for mental health, under-recognition and stigma associated with mental disorders (17).

The most severe consequence of mental disorders is suicidality.

**Suicidality**

More than 90% of suicides occur in the context of a psychiatric disorder, depression being by far the most important one. Annually, more than 58,000 persons in the countries of the European Union commit suicide. Suicide rates (number of people died of suicide per 100.000 population) per country range from 5.92 per 100,000 in Italy up to 25 per 100,000 in Slovenia (WHO-data, 2001-2003) (Figure 2).



**Figure 2.** Suicide rates in EAAD partner countries. Source: European Alliance Against Depression (EAAD) (24).

Europe-wide, dying from suicide accounts for the second highest risk of death for young men and the third highest risk for young women. About 14% of all suicides occur in the age range of 15–24 (Report on the state of young people’s health in the EU, EC Working Paper). Compared to the number of suicide deaths, the number of suicide attempts is assumed to be much higher. Estimates for the younger aged, range from 20 to 30 suicide attempts on every suicide. Given this situation, interventions aiming at the prevention of suicidality and, thereby, especially focusing on children, adolescents and young people are urgently needed.

Mental disorders are also connected to harmful alcohol consumption. In addition to having a direct impact on drinkers it also poses a threat to others. Drink-driving and working under the influence of alcohol; drinking during pregnancy; and violence related to alcohol consumption too often cause early death of mostly young people, invalidity, and social deprivation. Harmful and hazardous alcohol consumption causes more than 7 per cent of early morbidity and mortality in EU, which represents an enormous economic burden to society. At her speech at the 3rd European conference on alcohol policies - Building Capacity for Action, 2008, the Minister of Health of the Republic of Slovenia, Zofija Mazej Kukovič, pointed out that the Estimated annual costs at the EU level resulting from harmful use of alcohol have been estimated to EUR 125 billion, or 1.3 percent of the gross national product.

### *Child and adolescent mental health in EU*

In Europe one adolescent out of five has cognitive, emotional and behavioural difficulties and one adolescent out of eight suffers from a diagnosable mental disorder. The prevalence of these disorders is increasing decade by decade. Suicide

associated with depression, substance abuse, eating disorders, conduct disorders, attention deficit hyperactivity disorders (ADHD) and post traumatic stress disorder (PTSD) in children deserve concerted action. Developmental psychiatric disorders rarely have a spontaneous remission and may cause difficult social adaptation or mental disorder in adult life, if not early diagnosed and treated (26).

### **Mental health on the WHO and EU agenda**

Mental health is the WHO's agenda of priority as well as the European Commission regarding EU population's health.

1. In »Health 21«, adopted in 1999, the Target 6 is dealing with improvement of mental health (27). According to this target, by the year 2020, people's psychosocial wellbeing should be improved and better comprehensive services should be available to and accessible by people with mental health problems. Preventive, clinical and rehabilitative services were supposed to be of a good quality.
2. In 2001 WHO report (28), the following recommendations were accepted:
  - provide treatment in primary care - the management and treatment of mental disorders in primary care is a fundamental step which enables the largest number of people to get easier and faster access to services it needs to be recognized that many are already seeking help at this level. This not only gives better care. It cuts wastage resulting from unnecessary investigations and inappropriate and non-specific treatments. For this to happen, however, general health personnel need to be trained in the essential skills of mental health care. Such training ensures the best use of available knowledge for the largest number of people and makes possible the immediate application of interventions. Mental health should therefore be included in training curricula, with refresher courses to improve the effectiveness of the management of mental disorders in general health services;
  - make psychotropic drugs available - essential psychotropic drugs should be provided and made constantly available at all levels of health care. These medicines should be included in every country's essential drugs list, and the best drugs to treat conditions should be made available whenever possible. In some countries, this may require enabling legislation changes. These drugs can ameliorate symptoms, reduce disability, shorten the course of many disorders, and prevent relapse. They often provide the first-line treatment, especially in situations where psychosocial interventions and highly skilled professionals are unavailable;
  - give care in the community - community care has a better effect than institutional treatment on the outcome and quality of life of individuals with chronic mental disorders. Shifting patients from mental hospitals to care in the community is also cost-effective and respects human rights. Mental health services should therefore be provided in the community, with the use of all available resources. Community-based services can lead to early intervention and limit the stigma of taking treatment. Large custodial mental hospitals should be

replaced by community care facilities, backed by general hospital psychiatric beds and home care support, which meet all the needs of the ill that were the responsibility of those hospitals. This shift towards community care requires health workers and rehabilitation services to be available at community level, along with the provision of crisis support, protected housing, and sheltered employment;

- educate the public - public education and awareness campaigns on mental health should be launched in all countries. The main goal is to reduce barriers to treatment and care by increasing awareness of the frequency of mental disorders, their treatability, the recovery process and the human rights of people with mental disorders. The care choices available and their benefits should be widely disseminated so that responses from the general population, professionals, media, policy-makers and politicians reflect the best available knowledge. This is already a priority for a number of countries, and national and international organizations. Well-planned public awareness and education campaigns can reduce stigma and discrimination, increase the use of mental health services, and bring mental and physical health care closer to each other;
- involve communities, families and consumers - communities, families and consumers should be included in the development and decision-making of policies, programmes and services. This should lead to services being better tailored to people's needs and better used. In addition, interventions should take account of age, sex, culture and social conditions, so as to meet the needs of people with mental disorders and their families;
- establish national policies, programmes and legislation - mental health policy, programmes and legislation are necessary steps for significant and sustained action. These should be based on current knowledge and human rights considerations. Most countries need to increase their budgets for mental health programmes from existing low levels. Some countries that have recently developed or revised their policy and legislation have made progress in implementing their mental health care programmes. Mental health reforms should be part of the larger health system reforms. Health insurance schemes should not discriminate against persons with mental disorders, in order to give wider access to treatment and to reduce burdens of care;
- develop human resources - most developing countries need to increase and improve training of mental health professionals, who will provide specialized care as well as support the primary health care programmes. Most developing countries lack an adequate number of such specialists to staff mental health services. Once trained, these professionals should be encouraged to remain in their country in positions that make the best use of their skills. This human resource development is especially necessary for countries with few resources at present. Though primary care provides the most useful setting for initial care, specialists are needed to provide a wider range of services. Specialist mental health care teams ideally should include

medical and non-medical professionals, such as psychiatrists, clinical psychologists, psychiatric nurses, psychiatric social workers and occupational therapists, who can work together towards the total care and integration of patients in the community;

- link with other sectors - Sectors other than health, such as education, labour, welfare, and law, and nongovernmental organizations should be involved in improving the mental health of communities. Nongovernmental organizations should be much more proactive, with better-defined roles, and should be encouraged to give greater support to local initiatives;
  - monitor community mental health - The mental health of communities should be monitored by including mental health indicators in health information and reporting systems. The indices should include both the numbers of individuals with mental disorders and the quality of their care, as well as some more general measures of the mental health of communities. Such monitoring helps to determine trends and to detect mental health changes resulting from external events, such as disasters. Monitoring is necessary to assess the effectiveness of mental health prevention and treatment programmes, and it also strengthens arguments for the provision of more resources. New indicators for the mental health of communities are necessary;
  - support more research - more research into biological and psychosocial aspects of mental health is needed in order to increase the understanding of mental disorders and to develop more effective interventions. Such research should be carried out on a wide international basis to understand variations across communities and to learn more about factors that influence the cause, course and outcome of mental disorders. Building research capacity in developing countries is an urgent need (28).
3. In 2005, a Mental Health Declaration for Europe was adopted in Helsinki (29). The Ministers of Health of Member States in the European Region of the WHO, in the presence of the European Commissioner for Health and Consumer Protection, together with the WHO Regional Director for Europe, recognized that the promotion of mental health and the prevention, treatment, care and rehabilitation of mental health problems are a priority for WHO and its Member States, the European Union (EU) and the Council of Europe (29). According to this declaration, it is a priority of every country to design and implement comprehensive, integrated and efficient mental health system that covers promotion, prevention, treatment and rehabilitation, care and recovery;
4. This Declaration was followed by the Mental Health Action Plan for Europe (30). This action plan sets out 12 priority areas of action being:
- promoting mental well-being for all,
  - demonstrating the centrality of mental health,
  - tackling stigma and discrimination,
  - promoting activities sensitive to vulnerable life stages,
  - preventing mental health problems and suicide,
  - ensuring access to good primary care for mental health problems,

- offering effective care in community-based services for people with severe mental health problems,
- establishing partnerships across sectors,
- creating a sufficient and competent workforce,
- establishing good mental health information,
- providing fair and adequate funding, and
- evaluating effectiveness and generate new evidence.

It stresses the need for mental health activities capable of improving the well-being of the whole population, preventing mental health problems and enhancing the inclusion and functioning of people experiencing mental health problems (31).

## **CASE STUDY: MENTAL HEALTH CARE IN SLOVENIA**

### **Epidemiological data on mental disorders in Slovenia**

In Slovenia, the burden of mental disorders is measured only indirectly, and only some proxy variables allow us to infer about extensiveness of the problem. On one hand, we have the data on health care resources and health care utilization, which tell one story about the problem (by observing the number of outpatient visits on the primary and secondary level, hospital admissions, retirements and absenteeism due to mental disorders). On the other hand there are data on determinants. The third part of the story tells us morality data, precisely the data on suicide. Thus, the problem of epidemiological data in mental disorders in Slovenia is, that we do not have morbidity data (incidence and prevalence of mental disorders) since we do not have corresponding registries. But this is not only the case in Slovenia. Measuring mental health is very difficult, since the data on mental disorders are tightly connected to personal data protection. On the other hand, measuring the burden of mental disorders isn't a financial priority nor in Slovenia, nor elsewhere.

Mindful project led by Slovenian authors (32), tried to make the methodology of supervising of mental health prevention equal in several EU states, but did not find common indicators for measuring positive mental health in EU.

### *Adult mental health data*

#### 1. Data on determinants of mental disorders

Results of CINDI Health Monitor Survey for 2001 showed that (33):

- 8.4% participants reported depression (males 6.3%, females 10.1%),
- 19.1% participants reported insomnia (males 16.1%, females 21.6%) during the last month prior the survey:
- 7.7% participants (males 5.4%, females 9.5%) took sedatives or sleeping pills during the last week prior the survey,
- 24.3% participants (males 21.0%, females 27.0%) perceived tension, stress, or heavy pressure every day or frequently, and had at least minor difficulties in coping with these feelings (34),
- global prevalence of heavy alcohol drinking for Slovenia was 13.4% (males 22.6%, females 5.5%) (35, 36).

## 2. Suicide

Every thirtieth death in Slovenia is due to suicide, which is approximately 600 persons committing suicide per year and represent one of the nine highest suicidal rates in the world, with standardized death rate of about 22-24 per 100.000 population in total population (males 37-42; females 9-12) (37). The most affected parts are Štajerska, Prekmurje Koroška and Dolenjska, which are placed on the east and east-north of the country. The gender difference is 3.6 (in males) versus 1 (in females), which is in line with other high risk countries. Suicide is connected with mental disorders (depression, alcohol dependence and schizophrenia), with old age, unemployment and poverty (38).

In conclusion, we could say that in adults two major mental health problems in Slovenia at the moment are prominent, being alcohol addiction and suicide, while depression and stress are still under study.

### *Child and adolescent mental health data*

In children and especially in adolescents the major problem is alcohol use and abuse, and possible addiction later, and illicit drugs abuse. Several kind of evidence proves increase in alcohol and other addiction in young people and adolescent group.

#### 1. Alcohol consumption and other addiction

Data from the European School Survey Project on Alcohol and Other Drugs (ESPAD) for the year 2003 showed that the percentage of Slovenian students who had been drinking any alcohol during the last 12 months was 83%, while the proportion of students who have used marijuana or hashish was 28%. The use of other illicit drugs was about 5%, the use of inhalants was 15%, and the use of tranquillisers or sedatives without a doctor's prescription as well as alcohol in combination with pills was 5 and 6% respectively (39). Other results could be found in earlier reports (40, 41).

Other data show that smoking behaviour in adolescence was connected with truancy, substance abuse, suicide attempts and infrequent engagement in sports, thus being a part of problematic behaviour in this life period and indicating that smoking is a life style of more vulnerable part of the population (42).

#### 3. Depression and self esteem

The study on Risk factors in Slovene secondary school students, performed on representative sample in 1998 showed clinically important level of depression in 20.5% of boys, and in 41.5% of girls (evaluated by Zung self-rating depression scale). The average value of results on the depression scale was 45.6, indicating that depression is rather prominent characteristic of secondary school students. Along to these results, average value of self-esteem on the 0-10 self-rating scale was in boys 6.9, while in girls it was 6.3. On general, girls expressed higher level of depression and lower level of self-esteem than boys (43).

#### 2. Suicide

Suicide in adolescent population is among the first three causes of death in all countries that have reliable health monitoring data. In Slovenia 20

adolescent die because of suicide each year, the number of boys being four times greater than the number of girls. The research proved that suicidal adolescents (13,6% of girls and 6,8% of boys) were experiencing family dysfunction and confrontation with unresolved problems prior to suicidal attempts and that they used dysfunctional strategies for their resolution (44), which provided grounds for several preventive actions on the field. Sport and physical activity were defined as protective factors relating to adolescent suicide attempts, being a coping style in distress, even though they had not proven to have a direct effect on non-suicidal behaviour (45).

### *Needs assessment*

The need for research in mental health in Slovenia is in spite of all described initiatives still enormous. We actually do not have randomized clinical trials on various programmes on prevention. It is also true, that recommendations for evaluation of prevention are still not developed on EU level, but should be prepared by EU Taskforce on evidence in mental health shortly.

## **Primordial and primary level of prevention**

### *Mental health policy*

For the time being, a national programme of mental health has not yet been adopted in Slovenia. Mental health is the responsibility of the Council for Health, a Government advisory body which includes experts from the fields of both health and social security.

In Slovenia the former National Programme for Public Health prevention which was operative until 2004 did not include mental health priorities and prevention. The new is in preparation and should be adopted this year. In its draft, mental health is mentioned several times as important field of public health action.

However, national programmes have been suggested for preventing suicide and dependence on alcohol and drugs. The guidelines for alcohol addiction prevention were developed by the Ministerial task group and finished lately. Actual implementation of preventive programmes still lacks continuity.

The Mental Health Act which regulates system of health and social care on the field of mental health, holders of activities, and rights of persons under treatment including voluntary and involuntary admission to treatment, advocacy and care planning was recently adopted (46), what can be regarded as very big step forward.

### *Mental health promotion and mental health education efforts*

In Slovenia there are several health promoting activities which include also mental health component.

Among actions that increase the chances of more people experiencing better mental health, the "Wind in the hair" programme could be classified. This programme is a very successful national prevention programme implemented in local communities with support of National Sports Association (47). Sport activities

with concerts, befriending and rewarding healthy lifestyle activities was successful enough to get a European certificate and to be implemented in several EU countries.

There are also many activities which could be classified on one hand among mental health promotion activities, and on the other among primary prevention:

1. Programmes for infants and toddlers

Programmes for infants and toddlers influence above all parents' behaviour and upbringing, but they should also target social injustice, prevention of physical abuse, violent behaviour and provide psychological counselling at crisis, for example in divorce. In the neighbouring Austria the literacy of parents regarding developmental phases, conflict solving, parenting styles and their access to relevant information about needed help are targeted.

In Slovenia these programmes are strongly connected to primary health care teams and community nurses. Nationally all kinds of prevention programmes are also developed through obstetric dispensaries, those providing counselling and help in prenatal and immediate postnatal periods. The social and psychological interventions are still often lacking.

2. School children and adolescents mental health prevention

The concern about ill mental health of children and adolescents is one of the main areas of interest of Slovene psychiatry from 1950s (48). Until now Slovenia developed a network of mental health services for children and adolescents which were until a decade ago affiliated with the national health care service. The majority of prevention and treatment was developed within the framework of educational and social care provision. School counselling services with psychologists and pedagogues are today part of each school workforce. These experts are strongly connected with child and adolescent psychiatric services, which are in last years more often part of private psychiatric outpatient clinics than the public ones. The development nevertheless follows the principles of holistic and community care with involvement of educational, social and medical institutions in care planning in line with the child or adolescent mental health needs. The role of parents in this process is strongly supported, even stronger when the mental health problems are difficult to manage.

3. "That is me" project

In Celje region "That is me" (in Slovene *To sem jaz*) project was launched for health promotion among youth in 2000 (49, 50). It showed that greatest adolescents' problems are lack of self-confidence and optimism, lack of self-respect and fear of failure. The website was launched to provide information about health and well being and to influence adolescent views and values about their health and well-being and to prevent risky behaviour.

4. "Taking brain to the party" programme

The programme called "Taking brain to the party" (in Slovene *Z glavo na zabavo*) had much success in last years in illicit drug prevention (51). It is strongly supported by media and targets places where young people gather, have parties and exercise risky behaviours.

5. Healthy schools

Schoolchildren mental health prevention is targeted also to the teachers, who should develop sensitivity to emotional needs of children. Schools should develop

programmes preventing violence, abuse and bullying. Adequate counselling is part of the psychological support to victims and perpetrators (if children). These programmes are being developed also in Slovenian network of Healthy Schools. This programme makes an important improvement at early recognition and treatment of eating disorders, anxiety and depression. Substance abuse prevention is included in many local school programmes and developed on the national level as a set of educational interventions in schools.

Mental health prevention for children and adolescents in Slovenia is providing counselling workshops and seminars for teachers, school counsellors and parents about psychopathology, suicidality, social skills training and healthy lifestyle. The programme includes also drug prevention mainly through education. It is performed in primary schools with the guidance of National Institute for Health Prevention and some Regional Public Health Institutes, and with prominent Slovenian child psychiatrists.

The central psychiatric hospital and Child Guidance Clinic are organizing professional crisis interventions in need, for example on occasions of suicidal attempts, suicide or unpredictable violent behaviours in schools.

6. The “European Alliance Against Depression (EAAD)” network

EAAD is an international network of experts with the aim to promote the care of depressed patients by initiating community-based intervention programmes in 17 European countries including Slovenia. It aimed to prevent depression and suicide (52). Results of the Nuremberg pilot study have already shown that the community-based intervention following the 4-level-approach was clearly effective in reducing suicidal acts (about 20 %). When evaluating the efficacy of the EAAD intervention programme, the primary outcome criterion is, in general, again changes of numbers of completed and attempted suicides in EAAD intervention regions.

In Slovene regions Celje and Koroška, which have the highest social exclusion rates and highest suicidal rates, the project included an educational programme about treatment of depression and suicide prevention with general practitioners and medical nurses. The prevention programme has also been implemented with police officers, social workers and priests. The project was evaluated and showed important suicide reduction. The regional programme for suicide prevention in region of Celje conducted by Zavod za zdravstveno varstvo Celje a series of preventive, mainly educational activities for suicide reduction from 2001 (53).

*Problems in mental health promotion and primary prevention*

The main implementation problem of evidence based prevention is lack of human resources and the educational gap among their acquired and needed knowledge and skills. Mental health promotion and prevention workforce is the people who already work in primary or secondary medical services, or the people who work as teachers, psychologist or pedagogues in their school working environments. In last years some initiatives are emerging in educational institutions, for example in the Faculty of Health Sciences of Ljubljana University (study programme Nursing) and in the

Faculty for Education of Ljubljana University (study programme Social pedagogy) for developing mental health prevention and promotion educational programmes at undergraduate and at postgraduate level.

Programmes and projects already described, are not a part of regular curriculum and therefore not accessible to all children and adolescents.

Similarly to other EU countries and US, we witness in Slovenia lack of resources for training and lack of working posts for prevention and promotion. Educational curricula do not follow quickly developing mental health promotion and prevention science and evidence. This level of prevention is underdeveloped, since Slovenia's health care system is still mainly oriented in treatment of diseases and we could hardly say that it is in its way to reorienting health care services towards more comprehensive (54).

### **Secondary level of prevention**

Secondary level of prevention is to be performed by special units of Community Health Centres. Majority of primary care physicians underwent additional educational programmes on recognizing depression and suicidality and improved their diagnosis. Lack of human resources impedes the development and implementation of early recognition and treatment of mental disorders that proves to be most important preventive mental health tool as described in many documents and papers (55).

There are around six so-called Counselling centres for children, adolescent and their parents in Slovenia, which offer different activities in the field of mental health, especially early diagnostic of mental health and learning problems, individual and group therapy. In these centres interdisciplinarity and multidisectoriality is a method of work with a child, adolescent and their parent. Some of these centres are active also in the field of research, education and prevention also.

There exist other activities which could be to the certain extent classified as secondary prevention - crisis telephone lines as for example "Call in mental crisis" (in Slovene: Klic v duševni stiski) could be seen as special form of secondary prevention. This service seems to becoming more and more used also in Slovenia and it is also increasingly reachable through information technology communication.

### **Tertiary level of prevention**

#### *Psychiatric services*

Before presenting the current situation of psychiatric services in Slovenia, we would like to present some historical points of view.

#### **History of psychiatric services in Slovenia**

The historical context of Slovene psychiatry and psychiatric rehabilitation is important for understanding the development of mental health prevention in our country. The beginnings of psychiatry in Slovenian lands reach as far back as the year 1786, when the first ward for mentally ill monks was established in the general hospital of Ljubljana. In 1827, the first specialized ward for the treatment of the mentally ill was founded within the general hospital of Ljubljana. In 1881, a large psychiatric hospital was built in the manner that was at the time regarded to be the right one: outside the town, in unspoiled nature and

tranquilizing greenery. Before the 1940 Slovenia had 1.1 bed per 1000 population. The German and post-war psychocide reduced the capacities by one half. After the war (and nowadays), we made do with 6 psychiatric hospitals - including the University Psychiatric Hospital - and 0.8 beds per 1000 population and the average hospital treatment period of 48 days. During the Second World War, Slovenia was occupied by Nazi-Germany who in 1942 enforced the so-called euthanasia programme with about 450 patients from one of the Slovene psychiatric hospitals.

During the war the University Psychiatric Hospital in Ljubljana helped the anti-nazi resistance in every possible way. It also contributed by diagnosing antifascists who were in danger, as mentally ill and hiding them among the “real” patients. It offered medical help to wounded fighters of the resistance and helped antifascists escape the Nazi controlled areas and join the resistance. Psychiatrists also tried to use “psychiatric diagnosis” to help a Jewish family that tried to escape from Croatian fascist Ustasha across Slovenia to Italy. Two leading psychiatrists were liquidated by the occupator for their cooperation with the resistance, the principal was sentenced to lifetime imprisonment, many of the staff members were interned, and some died in the liberation war.

It is a historical paradox that after the end of the war, in Slovenia, psychocide went on for another ten years. Patients were treated so badly that the mortality was almost as high as it had been towards the end of the war, i.e. about 40% - due to famine and tuberculosis. For Hitler, patients had been “lives unworthy of lives”, for communists they were an obstacle on the way to better socialist future. But in general, the communist regime of ex-Yugoslavia was much “softer” than those in other East European countries.

#### **Political intervention**

A case of intervention from the part of the communist authorities after the war was the following: an internationally renowned author and politician fell from grace and became a kind of dissident. He then fell ill with Alzheimer's disease and was hospitalized at the clinic for distinctively disturbed behaviour at the wish of his wife and children. The authorities often inquired whether detention was still necessary and whether he could not have been taken care of outside the psychiatric clinic. They were truly afraid of the reaction of the international public and the possible reproach that they used psychiatry to do away with political opponents (personal communication with Jože Darovec, former director of Ljubljana Psychiatric Hospital, 2008).

The practice of detention of “dangerous people” during foreign statesmen visits was abolished only in 1968 by prof. Miloš Kobal. He was educated in Great Britain and used his experience from there - as well as his own ideas - for an extremely early reform of the Slovenian psychiatry, as early as 1968/70 - much earlier, in fact, than many other more developed European countries: he diminished the number of beds by sending patients to other suitable institutions (not to the streets like President J. F. Kennedy and F. Basaglia in Italy), opened the majority of the up-to-then closed wards, founded the centre for mental health, the day and night ward, the family care within a family other than a patient's own, established specialized wards for the treatment of addictions in all psychiatric hospitals, designed the dispensary psychiatric care, introduced psychiatric counselling service in most old people's homes and asylums, introduced the long-term therapy by fluphenazine depot in 1969 and the lithium therapy already in 1970 (personal communication with Jože Darovec, 2008).

### Current state of psychiatric services

Psychiatric service is in Slovenia given in all levels of health care system:

1. Primary mental health care.

Acute treatment of all mental disorders is available at the primary health care level, but in a limited way as described previously. Primary health care is delivered by Community Health Care Centres and private practitioners. At the moment there is about 75 Community Health Centres in Slovenia.

Some of Community Health Care Centres, but not all unfortunately, has specialized units called dispensaries – psychiatric dispensary for adults and mental hygiene dispensaries for children and adolescent. The reorientation towards more comprehensive primary health service is questionable since it is under rapid transformation towards privatization;

2. Secondary and tertiary level of mental health care.

At the secondary and tertiary level of mental health care, there are altogether six regional psychiatric hospitals including the University psychiatric hospital. All have wards for general psychiatry, psycho-geriatrics and the treatment of alcohol dependency. The University Psychiatric Hospital also has wards for adolescent psychiatry, drug dependency and psychotherapy. There is also the Child Psychiatry Ward in the Paediatric Clinic.

In 2002, the number of all psychiatric hospital beds was 1569 (56). About 30 beds have been allocated for child and adolescent psychiatry. In the period 1998/99, beds actually in use per 100.000 population (all psychiatric in-patient institution) decreased from 84 in 1965/95 period to 71 (56).

There are 24 child and adolescent psychiatrists in the country. Hospital treatments are becoming shorter and more intensive, with complementary services providing day hospitals and participation in selected activities for time limited follow up.

In Table 1, psychiatric secondary and tertiary services resources are presented, in comparison to some other EU members (9).

**Table 1.** Psychiatric secondary and tertiary services resources in Slovenia in comparison to some other EU countries (9).

Indicator	per 10,000 population				
	Great Britain	Austria	Netherlands	Italy	Slovenia
No. of psychiatric beds	5.80	6.50	18.70	4.63	8.46
No. of beds in psychiatric hospitals		4.50	15.40	0	7.20
No. of beds in general hospitals		2.00	1.00	0.92	1.26
No. of psychiatric beds in other institutions			2.30	3.70	0
No. of psychiatrists	1.10	1.18	0.90	0.98	0.53
No. of neurosurgeons	0.10	0.17	0.10		0
No. of psychiatric nurses	10.40	3.78	9.90	3.29	0.58
No. of neurologists	0.10	0.82	0.37		0.08
No. of psychologists	0.90	4.90	2.80	0.32	0.16
No. of social workers	5.80	10.34	17.60	0.64	0.04

### *Rehabilitation*

Psychiatric rehabilitation methods are developed in institutions and in the community and these systems are connecting themselves with the method of care planning. This is achieved by communication among inpatient and community services as far as possible. Since there is no community psychiatric treatment available in Slovenia yet, except from an attempt of the psychiatric team in the central hospital to perform community psychiatric treatment, these endeavours are sporadic and not available to everybody in need, but rather exceptional and due to personal engagement of mental health workers. The legislation and financing are however anyway being prepared and close to adoption right now in 2008.

In Ljubljana (the capital), a rehabilitation unit of the psychiatric hospital was therefore established to follow up the patients with severe mental illness with high risk for relapse and dual diagnosis. This service is well connected with non-governmental (NGOs) and social services as well as primary health care services. These connections are widely used also by other hospital departments, but nevertheless can not reply to the needs of patients and their families. Crisis interventions are organized by the central primary health care service providing urgent interventions. This service need better collaboration with psychiatrists in the cases of involuntary referrals, but this is not achieved because of lack of psychiatrists and other psychiatric personnel. Professional and user organizations and associations of interested experts have been founded for the group of patients with severe mental illness. The largest are ŠENT, ALTRA, OZARA and PARADOKS which are, together with the psychiatric profession, involved in preventive, mainly anti-stigma programmes. Among the psychosocial services offered are housing facilities with support, day centres, vocational rehabilitation development, sheltered employment and education for professionals, patients and carers. NGOs providing support for people with anxiety, depression, substance abuse and dependence, and for carers, and families of people with dementia are emerging as well in last ten years with increasing influence to health and social policy. The carers (families) organization has developed a network of interest for mental health prevention and promotion in Slovenia at the level of republic and connected itself with international organizations of carers (57).

Here we will shortly introduce only two of NGOs, being ŠENT, and Trading centres since detailed description of all of them is beyond the scope of this module.

1. Slovenian association for mental health ŠENT.

ŠENT is the largest non-profit NGO in Slovenia providing from 1992 coordinated social care for patients with severe mental illness. The difference to other NGOs was at first acknowledging the need for coordination among psychiatric and social care services to improve quality and comprehensiveness of care for people in need. The context of mutual respect provided grounds for quick and stable development of vocational rehabilitation, education of patients, families and professionals, day centres and group homes. All these services are intended for the group of patients (users) with disability due to mental illness and stigma, and supported by carers and patients. ŠENT is today taking lead in anti stigmatization of mental illness, education of professionals for newly emerging community psychiatry and community social work. It provides also advocacy and self help groups mostly in day centres and among families of patients with severe mental illness. The variety of needs, opportunities and demands regarding mental health service development, consumers' movement, legal and organizational issues provide a turbulent environment for continuous

development of this organization. The programmes are comparable to other NGOs listed above.

2. Trading centres for people with disabilities.

One of the rehabilitation initiatives is “Trading centres for people with disabilities”.

One of the biggest trading companies in Slovenia recently planned to implement a programme that would allow people with disabilities better access to their various facilities. This programme, labelled “Kindly to disabled” focuses on all groups of people with disabilities, including the physically disabled, those with learning disabilities and people with disabilities caused by mental disorders. The programme was developed in cooperation with Slovenian Association for mental health ŠENT, which provided counselling on the matter and education for employees about the needs of the disabled. Since the needs of different disabled groups are very different, a series of adaptations including employees’ attitudes and communication skills was proposed beside technical adaptation of the shops’ environments. This action seems to be becoming important preventive step for including the disabled in the society on equal terms. The project should succeed because the disabled strongly participated in the assessment of the needed adaptations and in the education of the employees and employers.

### **Results of some studies on mental health in Slovenia**

There exist some different kinds of research on different aspects of mental disorders and their consequences. The majority of programmes are evaluated regarding their efficiency in experimental circumstances. Among studies are following:

1. Delphi study on alcohol prevention in Slovenia (58)

Alcohol abuse is an avoidable behaviour that can threaten health. In Slovenia, only a few public campaigns against drinking alcohol are under way. It is important to establish which community measures are acceptable to society in Slovenia in order to reduce alcohol-related risks.

This study was a Delphi study with 45 professionals from different disciplines was conducted. Participants offered many suggestions to improve the current situation. After three rounds of questionnaires, 86 participant statements were accepted as a consensus.

Results showed that actions such as: state monopolies, alcohol taxation, legislative restrictions on availability and purchase of alcohol, age-related restriction on sales, drink-driving laws, school-based alcohol education and media information campaigns are most likely to be achieved by consensus. The main target populations for implementation of alcohol-related educational programmes are children, young people and employees.

The conclusions of this study were that as a result of the study, a number of community actions against drinking alcohol that could be acceptable for society can now be suggested. They vary across different target populations, change agents (individuals, organizations and institutions) and methods of implementation.

2. Outcome assessment (59)

Majority of long-term hospitalized patients with severe mental disorders considered resistant to standard hospital psychiatric treatment have been discharged during last decade from Slovene psychiatric hospitals mainly due to economic pressure without any assessment of outcomes or patients' needs. Rehabilitation unit has been established within University Psychiatric Hospital in Ljubljana for inpatients with severe mental disorders. The research was aimed at to find out characteristics and needs of patients with schizophrenia in order to develop hospital service in accordance with patients' needs.

In the study, forty-one long-term hospitalized and frequently admitted patients with diagnosis of schizophrenia were followed through 12 months period by a public psychiatric hospital team due to discharge planning. The patients were assessed regarding their needs, clinical status, global functioning, and quality of life and thoroughly informed about their illness, treatment and rehabilitation plan.

Follow up assessments showed improvement in negative syndrome of schizophrenia, better satisfaction in some areas of patients' lives and a decrease in their needs in spite of considered resistance to standard hospital psychiatric treatment.

The study results prove rehabilitation programme to be successful for patients with severe mental disorders and present some information for further development of services for patients with severe mental disorders in Slovenia.

### 3. Evaluation of stigma

In Slovenia there were several evaluations of attitudes of different groups toward people with mental disorders. One of them is a study entitled "Does psychiatric education reduce stigma?" (60).

Evaluation of discriminative attitudes of medical students towards people with mental disorders was evaluated by a questionnaire before and after the mental health curricula in several faculties that have mental health curricula. The attitudes towards psychiatric patients didn't change much after education, except from lowering the level of fear perceived by students (Table 2).

**Table 2:** Differences between students in discriminative attitudes towards people with mental disorders before the study of psychiatry and after the completion of the cycle of lectures and exercises in the year 2004.

Variable	N	Mean	SD	Difference	P
They are dangerous	83	3.169 3.602	1.177 1.287	0.434	0.024*
They are incompetent	83	3.686 3.181	1.164 1.211	0.458	0.021*
I feel fear to meet them	72	3.375 4.153	1.204 1.206	0.778	0.000*
I feel reluctant to them	72	4.069 4.153	0.983 0.977	0.375	0.013*
I feel alienated to them	73	3.219 3.644	1.133 1.159	0.425	0.034*

LEGEND: SD – standard deviation

The attitudes of patients towards patients were also researched and showed higher discrimination scores among patients', than in students' group. This was interpreted as self stigma, but it might be better defined as an expressed reluctance to participate in the patients' group which is characterised by extreme exclusion, poverty and low life opportunities

Another study was undertaken by a medical student that organized a serial of films presentations of stories of people with different mental disorders. The attitudes of student after these shows were somewhat better in certain areas of discrimination.

### **Future steps for strengthening mental care in Slovenia**

There are several challenges posed in front of public health and clinical sphere in the field of mental care in Slovenia, two of most important being

- one challenge is, of course, adoption of mental health policy and national plan for mental health. According to WHO (61), national mental health policies should not be solely concerned with mental health disorders, but also recognize promotes mental health. These would include the socio-economic and environmental factors, described above, as well as behaviour. Policies for reduction of suicide, anxiety and depression should develop evidence based approach towards improvement of early recognition of mental disorders with increasing sensibility of employers, professional mental health workers and public about early recognition of warning signs of mental disorders, suicidal behaviour, recognizing triggers and circumstances connected with suicide, dangerous behaviour and mental illness. Denmark for example achieved 60% reduction of suicide rate with combination of policies and preventive programmes in last 20 years: among these are reduces access to suicidal means (weapons), with better treatment of somatic and mental disorders after suicide attempts, with improved access to telephone counselling and emergency psychiatry and with increase in social and cultural stability (62);
- another challenge is to reorient mental care towards more comprehensive one, with more emphasis on mental health promotion and mental disorders prevention. Mental health promotion should be mainstreamed into policies and programmes in government and business sectors including education, labour, justice, transport, environment, housing, and welfare, as well as the health sector. Particularly important are the decision-makers in governments at local and national levels, whose actions affect mental health in ways that they may not realize (61). One of the biggest challenges facing Slovenia at the moment in the area of health promotion is increasing concern among both, the general public and among experts and professionals about mental health, (62). Slovenia should build a strong network of experts, institutions and consumers organizations that are responsible in the field of mental health promotion and prevention. To intensify effects, there is a need to harmonize programmes with a long term vision, making them concrete through actions across different settings, at different levels, pointed to different target groups (62).

## EXERCISE

### Task 1

Make a Medline search on medical students-stigma-mental illness, choose several most cited articles and try to propose a model for reducing discrimination in this group for your country.

### Task 2

Search for available needs assessment (mental health) questionnaire and list it. Use the most cited one and exercise its implementation with a close person (without diagnosis)

### Task 3

Make a list of needed mental health services in your local area and try to explain your decisions.

### Task 4

Design a substance abuse prevention programme for your local community.

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<b>MENAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>MENTAL HEALTH IN COMMUNITY LIFE</b>
<b>Module: 5.6</b>	<b>ECTS (suggested): 0.5</b>
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<b>Keywords</b>	Mental health, community mental health services, integrated mental health services
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• Be aware of the mental health as a community's public health problem;</li> <li>• Recognize the main determinants of mental health;</li> <li>• Understand the way public health can contribute to mental health improvement;</li> <li>• Have increased knowledge on the types of mental health services;</li> <li>• Identify the steps to be taken for developing community mental health services.</li> </ul>
<b>Abstract</b>	Mental health is considered a public health problem due to the following particularities of the mental diseases: high incidence and prevalence; long term duration, with consequences over family, social and professional life; cause severe disability; high cost imposed on individual, family and community; associated stigma and discrimination. The main determinants of mental health are: socio-economic, demographic and psychological factors. Public health can bring a major contribution to the improvement of mental health by its main functions, such as: needs evaluation, priority setting, policy development, health promotion and disease prevention, mental health services research and development. According to WHO recommendations, mental health services should be organized based on principles of accessibility, coordinated care, continuity of care, effectiveness, equity and respect for human rights. As well, mental health care should be provided through general health services and community settings. Large and centralized psychiatric institutions need to be replaced by other more appropriate mental health services. The shifting of patients from mental hospitals to care in the community should be based, primarily on the existence of a mental health policy that promotes the development of community-based care. Policies should be drawn up with the

	involvement of all stakeholders and should be based upon up-to-date and reliable information. Mental health policy and service provision should take into account the context of general health systems organization and financing. For a successful implementation of the mental health policy, political, legislative, financial and administrative support is required.
<b>Teaching methods</b>	Teaching methods include: lectures, group discussions, group exercises, role playing. The students will be split in three groups and asked to work on three different subjects for undertaking a situation analysis. The students will do a role play, having assigned different roles in a 'working group' (policy-makers, health professionals, patients, family members, NGOs and other interested parties) appointed to formulate a mental health policy (that includes development of community-based care) and to plan for a community mental health service.
<b>Specific recommendations for teachers</b>	60% work under teacher supervision, 40% individual students' work. No special facilities, equipment or teaching materials are necessary.
<b>Assessment of Students</b>	Multiple choice questionnaire (MCQ) and/or groups work presentations.

# MENTAL HEALTH IN COMMUNITY LIFE

Silvia Gabriela Scintee, Adriana Galan

## THERORETICAL BACKGROUND

### 1. Mental health – a community’s public health problem

In the *World Health Report 2001 - Mental Health: New Understanding, New Hope*, World Health Organization is making the following statement: *mental health – neglected for far too long – is crucial to the overall well-being of individuals, societies and countries and must be universally regarded in a new light* (1). Mental health deserves special attention and it is considered a public health problem due to the following particularities of the mental diseases:

- High incidence and prevalence. Of the 870 million people living in the European Region, at any one time about 100 million people are estimated to suffer from anxiety and depression; over 21 million to suffer from alcohol use disorders; over 7 million from Alzheimer’s disease and other dementias; about 4 million from schizophrenia; 4 million from bipolar affective disorder; and 4 million from panic disorders (2);
- Long term duration, with consequences over family, social and professional life. Neuropsychiatric disorders also account for over 40% of chronic diseases. In many countries, mental health problems account for 35–45% of absenteeism from work (2);
- Cause severe disability. It was estimated that, in 1990, mental and neurological disorders accounted for 10% of the total Daly’s lost due to all diseases and injuries. This was 12% in 2000. By 2020, it is projected that the burden of these disorders will have increased to 15% (1);
- High cost imposed on individual, family and community. There are very few studies that estimate the aggregate economic costs of mental disorders. WHO 2001 World Health Report quotes one such study (Rice et al. 1990) that concluded that the aggregate yearly cost for the United States accounted for about 2.5% of gross national product, a study from the Netherlands that has estimated expenditure on mental disorders as 23.2% of all health service costs (Meerding et al. 1998) and a study in the United Kingdom that found that inpatient expenditure only was 22% (Patel & Knapp 1998). Indirect costs arising from productivity loss account for a larger proportion of overall costs than direct costs. However, all the estimates of economic evaluations are most certainly underestimates, since lost opportunity costs to individuals and families are not taken into account (1).
- Associated stigma and discrimination. Because of this stigma, people with mental disorders experience limitations in employment, education and housing. This in turn affects their ability to gain access to appropriate care, integrate into society and recover from their illness (2).

## *1.1 Main determinants of mental health*

As known, the health status of a population is determined by: (a) biological factors, (b) environmental factors (economical, social and physical), (c) lifestyle (behavioural and cultural factors) and (d) health care systems. The main determinants of mental health are: socio-economic, demographic and psychological factors.

### *1.1.1 Socio-economical factors*

Public health literature shows with evidence based arguments that the main determinants of poor health are poverty and inequity. Furthermore, poverty and associated conditions of unemployment, low educational level, deprivation and homelessness are not influencing mental health only in poor countries, but also affect a sizeable minority of rich countries. Data from cross-national surveys in poor countries (Brazil, Chile, India and Zimbabwe) shows that common mental disorders are about twice as frequent among the poor as among the rich. In the United States, children from the poorest families were found to be at increased risk of disorders in the ratio of 2:1 for behavioural disorders and 3:1 for comorbid conditions (1). The poverty determines not only the onset, but the evolution of psychiatric disorders, as well. The stigma attached to mental diseases creates a vicious cycle of alienation and discrimination – leading to social isolation, inability to work, alcohol or drug abuse, homelessness, or excessive institutionalization – which decreases the chance of recovery and normal life.

### *1.1.2 Demographical factors*

#### *Gender*

In general, the behavioural and mental disorders affect equally the both sexes. There are sex differences on each diagnostic category. Thus, the depressive and anxiety disorders are more frequent in women, while substance abuse and antisocial personality disorders are more common in men (3). Among the reasons of higher prevalence of depressive and anxiety disorders in women there are: hormonal changes as part of the reproductive life cycle, the social role of the women that burdens them with higher responsibilities and exposes them to greater stress, high rates of domestic violence and sexual violence against women, high prevalence of physical disorders among women.

#### *Age*

Mental disorders have a high prevalence among children and adolescents. The most frequent disorders in children are the impairments or delays in the development of specific functions such speech (dyslexia) or overall pervasive development (autism). A high prevalence of mental disorders is also seen in old age, especially for dementia and depression. Thus, the increase in life expectancy of persons with mental disorders, as well as the increasing number of persons who reach an age for which the risk of developing a mental disorder is higher determines a high prevalence of the psychiatric pathology.

#### *Urbanization*

This process is accompanied by increased homelessness, poverty, higher levels of pollution, overcrowding, violence, rapid technological change and disruption in the family structures and loss of social support – factors that have a negative impact on mental health (4).

### ***1.1.3 Psychological factors***

#### ***Individual factors***

The presence of a serious physical disorder may affect the mental health of individual as well as of entire families because of psychosocial consequences such as an infirmity (i.e. surgical removal of one breast) or stigma and discrimination (AIDS). Other individual factors refer to the different life events, either positive (such as: unexpected substantial gains, a great success) or negative (professional failures, losses), or even life change events (job or professional responsibilities change, migration).

#### ***Familial factors***

Unstable or disrupted family environments have a role in the outset and the evolution of mental disorders. A well known example is the concept of 'expressed emotions' studied in the families of patients with schizophrenia. 'Expressed emotions' in these studies have included critical comments, hostility, emotional over-involvement and warmth (1). As well, family life events such as changes in family structure, a serious disease or disability of a family member are affecting mental health.

#### ***Environmental factors***

Mental disorders are firmly rooted in the social environment of the individual, at both micro-group level and the whole society level. At the micro-group level the person could be affected by conflictual relationships, or negative life events such as the disease, the death, the injustices or losses suffered by the members of the group (friends, relatives, colleagues, neighbours, etc). At the whole society level the wars, civil wars, natural disasters, can traumatize entire populations and the effects are higher in the less developed countries with less problems solving capacity (1).

Even if the biological factors, the factors from the physical environment and the health care systems have a smaller influence on the onset of the mental disorders, these are not to be neglected. Almost all of the common severe mental and behavioural disorders are associated with a significant genetic component of risk. As the many other physical illnesses the mental disorders are the result of a complex interaction of two or more factors.

## ***1.2 The contribution of public health to a better mental health of the community***

Public health can bring a major contribution to the improvement of mental health by its main functions, such as: needs evaluation, priority setting, policy development, health promotion and disease prevention, mental health services research and development.

### ***1.2.1 Needs evaluation and development of policies addressed to the priority problems***

Until not so long, accurate evaluation of the mental health status has been impeded, on one hand by the difficulties in defining and identifying the mental disorders, and on the other hand by the inadequacy of data collection systems. Advances during recent decades in standardizing clinical assessment made possible as mental disorders to be diagnosed as reliably and accurately as most of the common physical disorders.

Structured interview schedules and diagnostic symptom/sign checklists allow mental health professionals to collect information using standard questions and pre-

coded responses. The symptoms and signs have been defined in detail to allow for uniform application. Finally, diagnostic criteria for disorders have been standardized internationally (1).

Data on mental health status of a population is not usually found in the routine statistical records and specially designed epidemiological and medico-social surveys are necessary in order to get information on the incidence and prevalence of mental disorders. Besides information on mental health diseases, information on major determinants of mental health and health care systems are necessary in order to identify priority problems and to formulate policies to address these problems.

In fulfilling its role of technical adviser to the Member States in mental health related matters, World Health Organization noticed that there was not enough information on mental health, especially on the available resources to alleviate the mental health problems. Thus, in 2000, the World Health Organization launched the project Atlas to address this gap. The objectives of this project include the collection, compilation and dissemination of relevant information about mental health resources in different countries. The first set of publications from the project appeared in 2001 and the second editions with updated information in 2005. One significant addition in 2005 was the inclusion of information on epidemiology of mental disorders for all low and middle income countries.

Emphasizing the necessity of a well-functioning and coordinated information system for measuring a minimum number of mental health indicators for both the formulation and evaluation of policies on mental health, World Health Organization mentions 'Monitoring of community mental health' among the ten recommendations for action in its *World Health Report 2001 - Mental Health: New Understanding, New Hope* (1).

### ***1.2.2 Health promotion and disease prevention***

Taking into account the high economic and social costs of mental diseases for the society, mental health promotion and mental disorders prevention have a tremendous importance. Mental health promotion strategies have also a positive impact on other problems such as: delinquency among youngsters, school abandon and violence against children. These strategies should take into account both the community needs, and the social and cultural environments.

Mental health promotion strategies could be classified in three main categories (1):

1. *Interventions targeting factors determining or maintaining ill-health.* As an example – programmes that enhance the quality of children-parents relationship, given the fact that psychological and cognitive development of children depend upon the interaction of the children with their parents;
2. *Interventions targeting population groups.* A population group that might need such programmes are elderly. By 2025, there will be 1.2 billion people in the world who are over 60 years of age, close to three-quarters of them in the developing world, which represent an important determinant of mental health disorders increase;
3. *Interventions targeting particular settings.* An example could be school targeted programmes. Besides family, the school is crucial in preparing the children for life. Thus, schools should teach life-skills such as problem solving, critical thinking, empathy, communication skills, interpersonal

relations development and methods to cope with emotions. As well, schools should offer a friendly environment, where the tolerance, the equality between sexes, ethnical, social or religious groups, the creativity, the self-esteem and self-confidence should be encouraged.

Mental health prevention could be done at three levels.

1. *Primary prevention* is predominantly targeted to the mental health determinants and avoids the diseases development, reducing in this way the incidence of the diseases. Community based primary prevention programmes can bring a huge contribution to the well-being of individuals by controlling mental health determinants that action at community level.
2. *Secondary prevention* has the purpose of early detection of diseases, arrest the disease evolution, avoid further complications and sequelae and limit disability. Through cure and reduction of disease duration secondary prevention reduces the prevalence of the diseases. Even if the main contribution belongs to the psychiatric services, the primary health care services or services provided at the community level can help by early detection of the diseases and by monitoring the treatment prescribed by specialists.
3. *Tertiary prevention* reduces the handicap, helps the socio-professional recovery, assures the independence and self-satisfaction on the quality of life of the individual. It comprises both interventions at the level of the individual and modifications of the environment. The best interventions are the integrated tertiary prevention programmes in which community participates covering the social needs of the individuals.

### *1.2.3. Mental health services research and development*

Mental health services have some particularities that make them different. Primarily, in many countries they are not integrated in the general health services. Mental disorders are common and most patients are only seen in primary care, but their disorders are often not detected as the medical team from the primary care level is not trained in detection of mental disorders. The prejudice towards mental health service users, together with the silent debut of mental diseases, keeps a low level of addressability to mental health services. As well, denying their disease, the patients do not address to health services until their disease is too serious and they need hospital care. Numerous studies show that rates of service utilization by people with mental health problems remain low. For instance, in the Netherlands more than 40 per cent of people with bi-polar disorder are estimated not to come into contact with mental health services. The ESEMED study (European Study of the Epidemiology of Mental Disorders), covering six European countries (Belgium, France, Germany, Italy, the Netherlands and Spain), concluded that there was insufficient use of both general and specialist mental health services relative to the prevalence of mental health problems in the population, with only one in four people in need coming into contact with services, although contact rates were higher for some problems such as mood disorders (5). For this reason the active detection of the mental diseases is very important.

A broad range of ingredients of care are requested to meet both medical and social needs of people with mental disabilities, including medication, psychotherapy,

psychosocial rehabilitation, vocational rehabilitation, employment, housing, etc. As well, mental health services can be effective only when provided within a multidisciplinary care team: psychiatrist, psychologist, social worker, etc. The complex needs of many persons with mental disorders cannot be met by the health sector alone. Intersectoral collaboration is therefore essential. Collaboration is needed both within the health sector (intrasectoral collaboration) and outside the health sector (intersectoral collaboration) (6).

Decentralization and health financing reforms have largely been driven by a desire to improve access to health care, advance equity in health service provision and promote the use of cost-effective technologies so as to obtain the best possible health outcomes for populations. On the other hand, financing reforms have also been seen by governments as a method of controlling the cost of providing health care and spreading the cost to other players, especially the users of services. Health financing reforms include changes in revenue collection based on the concept of pooling and reforms in the purchasing of health services. However, general health reforms might have negative impact on mental health: the fragmentation and exclusion of services for people with mental disorders through decentralization; increased out-of-pocket payments that would harm the interests of people with mental disorders, as they are unlikely to have the resources to pay for services; exclusion from the treatment for mental disorders by introduction of pooling systems such as public and private insurance schemes (4).

World-wide, out-of-pocket payment is the most important method for financing mental health care in 17.8% of WHO member countries. In 62.8% of WHO member countries the most important method is tax based; in 14.4% of countries: social insurance; in 1.7% of countries: private insurance; and in 3.3% of countries external grants from international organizations and other countries. In the European Region social insurance is the primary method of financing in 44.9% of countries. Out-of-pocket payment is the second most used method of financing mental health care in 28.9% of countries in the European Region (7).

Mental health services are widely underfunded, especially in developing countries. Nearly 28% of WHO member countries do not have separate budgets for mental health. Of the countries that have such budgets, 37% spend less than 1% of their health budgets on mental health. Expenditure on mental health amounts to under 1% of the health budgets in 62% of developing countries and 16% of developed countries. Thus there is a significant discrepancy between the burden of mental disorders and the resources dedicated to mental health services (4). In order to properly finance the mental health system, decision makers should find ways to mobilize sufficient funds, should use economic research methods to identify how the funds should be allocated to cover the needs and to find cost control tools (8).

## **2. Mental health care in community based services**

The provision of mental health care in community settings has been highly debated in the last two decades. The starting point was the discontent with the long term care hospitals. Long term hospitalization was held accountable by progressive loss of life skills and accumulation of “deficit symptoms” or “institutionalism”. Other concerns included repeated cases of ill-treatment to patients, the geographical and professional isolation of institutions and their staffs, poor reporting and accounting procedures,

failures of management, leadership and administration, insufficient finances, ineffective staff training, and inadequate inspection and quality assurance measures. The resulting response was deinstitutionalization (9).

As there was no scientific evidence that community services alone can provide satisfactory comprehensive care, the best alternative was considered a *balanced care model*. Balanced care is essentially community-based, but hospitals play an important backup role. This means that mental health services are provided in normal community settings close to the population served, and hospital stays are as brief as possible, arranged promptly and employed only when necessary. The balanced care approach seeks to provide services that (9):

- are close to home, including modern hospitals for acute admissions and long-term residential facilities in the community;
- are mobile, including services that provide home treatment;
- address disabilities as well as symptoms;
- provide treatment and care specific to the diagnosis and needs of each individual;
- adhere to international conventions on human rights;
- reflect the priorities of the service users themselves; and
- are coordinated among mental health care providers and agencies.

### *2.1 Types of mental health services*

According to WHO recommendations, mental health services should be organized based on principles of accessibility, coordinated care, continuity of care, effectiveness, equity and respect for human rights. As well, mental health care should be provided through general health services and community settings. Large and centralized psychiatric institutions need to be replaced by other more appropriate mental health services. WHO does not make any recommendation on a specific model for organizing mental health services. The organization and delivery should take into account the country's social, cultural, political and economic context. The various components of mental health services are grouped in three main categories: services integrated to the general health system, community services and institutional services (6).

#### *2.1.1 Mental health services integrated into the general health system*

*Mental health services in primary care* include preventive and curative services and it is delivered by primary care professionals: general practitioners, nurses, community health workers and other health staff based in primary care clinics. This requires significant investment in training primary care professionals to detect and treat mental disorders. Furthermore, primary care staff should have the time to conduct mental health interventions. Clinical outcomes of primary care integrated mental health services depends on the knowledge and skills of primary care staff in diagnosing and treating common mental disorders, as well as on the availability of drugs and of psychosocial treatment. Primary care services are easily accessible and are generally better accepted than other forms of service delivery by persons with mental health disorders. This is mainly attributable to the reduced stigma associated with seeking help from such services. Both providers and users generally find these services inexpensive in comparison with other mental health services.

*Mental health services in general hospitals* include certain services offered in district general hospitals and academic or central hospitals that form part of the general health system. Such services include psychiatric inpatient wards, psychiatric beds in general wards and emergency departments, and outpatient clinics. There may also be some specialist services, e.g. for children, adolescents and the elderly. These services are provided by specialist mental health professionals such as psychiatrists, psychiatric nurses, psychiatric social workers, psychologists. The clinical outcomes associated with these services are variable and depend on their quality and quantity. Mental health services based in general hospitals are usually well accepted. Because general hospitals are usually located in large urban centres, however, there may be problems of accessibility in countries lacking good transport systems. For service providers, mental health services in general hospitals are likely to be more expensive than services provided in primary care but less expensive than those provided in specialized institutions. Service users also have to incur additional travel and time costs that can create additional access barriers in some countries.

### **2.1.2 Community mental health services**

*Formal community mental health services* include community-based rehabilitation service, hospital diversion programmes, mobile crisis teams, therapeutic and residential supervised services, home help and support services, and community-based services for special populations such as trauma victims, children, adolescents and the elderly. Community mental health services need close working links with general hospitals and mental hospitals, with primary care services and informal care providers working in the community. These services require some staff with a high level of skills and training, although many functions can be delivered by general health workers with some training in mental health. Community mental health services provide an opportunity for many persons with severe mental disorders to continue living in the community and thus promote community integration. High levels of satisfaction with community mental health services are associated with their accessibility, a reduced level of stigma associated with help-seeking for mental disorders and a reduced likelihood of violations of human rights.

*Informal community mental health services* may be provided by local community members other than general health professionals or dedicated mental health professionals and para-professionals. Informal providers are a useful complement to formal mental health services and can be important in improving the outcomes of persons with mental disorders. Such service providers usually have high acceptability and there are few access barriers as the providers are nearly always based in the communities they serve.

### **2.1.3 Institutional mental health services**

*Specialist institutional mental health services* are provided by outpatient clinics and public or private hospital-based facilities that offer various services in inpatient wards. Among the services there are those provided by acute and high security units, units for children and elderly people and forensic psychiatry units. Specialist services are usually tertiary referral centres and patients who are difficult to treat make up a large proportion of their case-loads. If well funded and well resourced they provide care of high quality and produce outcomes that are good enough to justify their continuation. Nearly all specialist services have problems of access, associated with a

lack of availability, with location in urban centres that have inadequate transport links, and with stigma attached to seeking help from such services. Specialist services are costly to set up and maintain, mainly because of the high level of investment in infrastructure and staff.

*Dedicated mental hospitals* mainly provide long-stay custodial services. In many parts of the world they are either the only mental health services or remain a substantial component of such services. Mental hospitals are frequently associated with poor outcomes attributable to a combination of factors such as poor clinical care, violations of human rights, the nature of institutionalized care and a lack of rehabilitative activities. Stigma associated with mental hospitals also reduces their acceptability and accessibility.

## 2.2 *Community care based mental health services*

Community mental health services can include a wide array of settings and different levels of care provided by mental health professionals and para-professionals, usually working in multidisciplinary teams (10). Examples of services provided in community care settings are presented below.

*Community-based rehabilitation and treatment programmes* - aiming to assist people with mental disorders to live a full community life. There are many models of community-based service provision such as case management, hospital diversion programmes, intensive home support and outreach services. In the case management model, each patient is allocated a 'case manager' who assesses the patient's needs, develops a care plan, offers linkages with the care providers and advocacy. Intensive case management services can be provided for a short period during a crisis in order to avoid or prevent hospitalization (hospital diversion programme).

*Specialist mental health services* for treatment and care of people with severe mental health problems in the community. Specialist teams need to be organized. Examples are specialist community services to care for people with severe problems such as schizophrenia, bipolar affective disorder, dementia and severe depression. These services need to be accessible 24 hours a day, 7 days a week, and should comprise multidisciplinary staff.

*Housing services* include supported, residential and emergency housing (11). Supported housing ensures the provision of affordable accommodation and a range of supporting services enabling patients able to live independently to maintain their living arrangements. Residential housing enables patients that cannot live independently to acquire skills and confidence in a group setting in order to maximize their independence. Emergency housing provides services to homeless patients who require intensive stabilization (but no hospitalization).

*Crisis intervention services* need to be provided in association with primary care providers, who are usually the first "port of call" in a crisis. This requires good referral and linkage systems with primary care services, as well as with mental health services in general hospitals. In some countries, community mental health teams also provide home-based intensive crisis intervention services through mobile and outreach crisis teams. Hospital diversion programmes in other countries try to divert people in crisis from a hospital admission to other community-based facilities such as crisis shelters.

*Education and training* community mental health services are usually involved in education and training of staff for their own services, as well as of primary health care staff and mental health professionals working in general hospitals.

Community mental health services need to develop good *intersectoral collaboration*, because people with mental disorders have complex needs that cut across service sectors. Links need to be established with primary health care services and with services provided through general hospital settings.

Community mental health services need to participate in *research* especially in the area of service delivery, for example by investigating the effectiveness of different models of service delivery. Community mental health services have first-hand knowledge of delivering community-based services, and this can usefully feed into the framing of research priorities and questions.

People with mental disorders have multiple needs related to health, welfare, employment, housing, criminal justice and education. For these reasons, community mental health services *need to work collaboratively with other sectors and establish clear referral pathways*, mutual supervision and training.

All these services could be combined in different community mental health care models, from country to country, depending on various factors including the socio-cultural context, how national health services are organized and the availability of financial and human resources.

### 2.3 *Developing community mental health services*

Community care facilities exist in only 68.1% of WHO member countries, covering 83.3% of the world's population. Across different income groups, community care facilities in mental health are present in 51.7% of the low income countries and in 97.4% of the high income countries. There were also significant differences between income group and the presence of community care facilities within countries (7). Currently 28% of countries in Europe do not have any community-based mental health services. There is wide variability according to levels of economic development. Only 33% of low-income European countries have community-based mental health services, whereas 91% of high-income countries have such services. Among those countries that do report having community services, the actual extent of service coverage also varies widely (10).

Recent developments in the understanding, treatment and care of people with mental disorders have shown that the most effective care of people with mental disorders is provided at community level. The importance of the community for mental health is highlighted by the World Health Organization in the *World Health Report 2001 - Mental Health: New Understanding, New Hope*, where 3 out of 10 recommendations refer directly to the community (1):

- Give care in the community (3). *'Community care has a better effect than institutional treatment on the outcome and quality of life of individuals with chronic mental disorders. Shifting patients from mental hospitals to care in the community is also cost-effective and respects human rights. Mental health services should therefore be provided in the community, with the use of all available resources. Community-based services can lead to early intervention and limit the stigma of taking treatment. Large custodial mental hospitals should be replaced by community care facilities, backed by general hospital*

*psychiatric beds and home care support, which meet all the needs of the ill that were the responsibility of those hospitals. This shift towards community care requires health workers and rehabilitation services to be available at community level, along with the provision of crisis support, protected housing, and sheltered employment.'*

- Involve communities, families and consumers (5). *'Communities, families and consumers should be included in the development and decision-making of policies, programmes and services. This should lead to services being better tailored to people's needs and better used. In addition, interventions should take account of age, sex, culture and social conditions, so as to meet the needs of people with mental disorders and their families.'*
- Monitor community mental health (9). *'The mental health of communities should be monitored by including mental health indicators in health information and reporting systems. The indices should include both the numbers of individuals with mental disorders and the quality of their care, as well as some more general measures of the mental health of communities. Such monitoring helps to determine trends and to detect mental health changes resulting from external events, such as disasters. Monitoring is necessary to assess the effectiveness of mental health prevention and treatment programmes, and it also strengthens arguments for the provision of more resources. New indicators for the mental health of communities are necessary.'*

The shifting of patients from mental hospitals to care in the community should be based, primarily on the existence of a mental health policy that promotes the development of community-based care. Policies should be drawn up with the involvement of all stakeholders and should be based upon up-to-date and reliable information concerning the community, mental health indicators, effective treatments, prevention and promotion strategies, and mental health resources. Mental health policy and service provision should take into account the context of general health systems organization and financing.

An analysis of the data gathered by Project Atlas (7) shows that only 62.1% of WHO member countries, accounting for 68.3% of the population, have a mental health policy. In European Region 70.6% of countries have a mental health policy. Most countries that report having a policy also have all the essential components incorporated into them: treatment, prevention, rehabilitation, promotion and advocacy. Intersectoral collaboration, collaboration with NGOs, provision of social assistance, human resource development, improvement of community care facilities especially for the underserved are some of the other components also included in the policies of some countries. The Project Atlas does not have data on the degree in which these policies are implemented.

For a successful implementation of the mental health policy, political, legislative, financial and administrative support is required. Necessary investments have to be made in buildings, staff, training, and the provision of backup facilities. Monitoring and evaluation are important aspects of change: planning and evaluation should go hand in hand, and evaluation should, wherever possible, have an epidemiological basis. The policy will need to be reviewed periodically to allow for the modification or updating of programmes (1).

The main principles that should guide the development of community mental health care services are: accessibility, comprehensiveness, coordination and continuity of care, effectiveness, equity and respect for the human rights (6). The development of community mental health services should take into account the comprehensive and locally based provision of treatment and care, accessible to patients and their families. Services should be comprehensive in that they provide a range of facilities to meet the mental health needs of the population. If re-shaping of large hospitals is envisaged, developing of community services should come first. Deinstitutionalization can proceed in stages once community-based alternatives are in place and all the functions of the institution are reproduced in the community.

Planning for community mental health services should not be an isolated process. Service planners have to determine the exact mix of different types of mental health services and the level of provision of particular service delivery channels. No matter how developed a community care network is in place, there will always be a need for long-stay facilities for an extremely small proportion of patients. However, most of these patients can be accommodated in small units located in the community, approximating community living as far as possible, or alternatively, in small long-stay wards in hospitals that also provide other specialist services (6). As the complex needs of many persons with mental disorders cannot be met by the health sector alone, intersectoral collaboration should therefore be taken into consideration, both within the health sector and outside the health sector.

Also, financing issues should be considered. Primarily, the general health financing system should be well understood as even in the countries in which mental health financing is not distinct of the general health financing, it is shaped or determined by this. In order to understand the level of current resources and how they are used, the entire mental health system should be mapped, and the resource base for mental health services should be identified, as well as the allocation strategies. The selection of method for purchasing mental health services should take into account the increase of effectiveness and efficiency in services provision.

## **EXERCISE**

### **Task 1 – Situation analysis**

The students will be split in three groups and asked to work on the following subjects:

- Analyse the national mental health policy;
- Analyse the country's general health system: organization and financing, degree of decentralization;
- Analyse the country's mental health system: organization and financing, human resources.

### **Task 2 – Community mental health services development**

The students will do a role play, having assigned different roles in a 'working group' (policy-makers, health professionals, patients, family members, NGOs and other interested parties) appointed to formulate a mental health policy (that includes development of community-based care) and to plan for a community mental health service focusing on the following issues:

- What needs should be covered;

- What services will be provided;
- What investments are necessary;
- Where the money will come from;
- What would be the implementation strategy.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>HOSPITAL IN MEETING COMPREHENSIVE HEALTH GOALS</b>
<b>Module: 5.7</b>	<b>ECTS: 0.2</b>
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<b>Keywords</b>	Health promotion, health promoting hospitals, health promoting management of chronic disease, Golnik
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• understand the idea of settings approach to health promotion;</li> <li>• be aware of four areas of Health Promoting Hospitals (HPH) strategy;</li> <li>• recognize the benefits of health promotion (HP) in hospitals;</li> <li>• understand the purpose, structure and functioning of International Network of HPH;</li> <li>• be familiar with standards and core strategies for HPH;</li> <li>• acknowledge the importance of new HP and disease prevention services in HPH;</li> <li>• recognize the importance of patients' empowerment for health promoting management of chronic disease.</li> </ul>
<b>Abstract</b>	<p>The Ottawa Charter for Health Promotion put forward the idea that health is created and lived by people within the settings of their everyday life. This settings approach to HP led to a number of initiatives, among them HPH.</p> <p>The HPH strategy focuses on four areas: promoting the health of patients, promoting the health of staff, changing the organization to a health promoting setting, and promoting the health of the community in the catchments area of the hospital.</p> <p>The need for and the relevance of setting standards for HP in hospitals was realized in the International Network of HPH, which acts as a network of networks linking all national and/or regional networks. It supports the exchange of ideas and strategies implemented in different cultures and health care systems, developing knowledge on strategic issues and enlarging the vision. Nowadays, the International Network of HPH comprises 30 member states, 33 national and/or regional networks and more than 650 hospitals.</p>

	<p>There is international consensus that patients should be given recommendations, guidance, and support with regard to HP in hospitals. An important element is the activation of the patient's individual resources and competences in coping with disease. Example of effective intervention of this type of services is the case of Golnik hospital, where introducing specific type of treatment for specific group of patients has developed from hospital vision to national clinical pathway implementation.</p>
<b>Teaching methods</b>	<p>Teaching methods include introductory lectures, exercises, and interactive methods such as small group discussions.</p> <p>After introductory lectures students should choose one of the HPH and try to find out if activities are carried out on all four areas of HPH strategy.</p> <p>Afterwards they should carefully read the case study and try to develop their own program for empowerment of patients for health promoting management of specific chronic disease.</p>
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	<p>Assessment is based on seminar paper and oral exam.</p>

# **HOSPITAL IN MEETING COMPREHENSIVE HEALTH GOALS**

**Mitja Košnik, Jerneja Farkaš-Lainščak**

## **THEORETICAL BACKGROUND**

### **Basics of health promotion**

Health promotion is defined as the process of enabling people to increase control over, and improve their health (1). Health promotion goes beyond health education and disease prevention in as far as it is based on the concept of salutogenesis and stresses the analysis and development of the health potential of individuals (2). Health in this context not only refers to the traditional, objective and biomedical view of the absence of infirmity or disease but to a holistic view that adds mental resources and social well-being to physical health (3, 4). The statement of principles known as the Ottawa Charter for Health Promotion (1), developed by the World Health Organization (WHO) in 1986, is internationally accepted as the guiding framework for health promotion activity.

### **Settings approach to health promotion**

Based on the notion of health as a positive concept, the Ottawa Charter for Health Promotion put forward the idea that health is created and lived by people within the settings of their everyday life. This settings approach to health promotion, founded on the experience of community and organizational development, led to a number of initiatives such as Healthy Cities, Health Promoting Schools, Health Promoting Workplaces, Health Promoting Hospitals (HPH), etc. in order to improve people's health where they spend most of their time (5). The settings approach acknowledges that behavioural changes are only possible and stable if they are integrated into everyday life and correspond with concurrent habits and existing cultures (6).

### **Development of the Health Promoting Hospitals concept**

Twenty years ago, WHO initiated HPH movement in order to support hospitals towards placing greater emphasis on health promotion and disease prevention, rather than on diagnostic and curative services alone. The HPH strategy focuses on four areas: promoting the health of patients, promoting the health of staff, changing the organization to a health promoting setting, and promoting the health of the community in the catchments area of the hospital (7). These four areas are reflected in the definition of a HPH, which states that HPH does not only provide high quality comprehensive medical and nursing services, but also develops a corporate identity that embraces the aims of health promotion, develops a health promoting organizational structure and culture, including active, participatory roles for patients and all members of staff, develops itself into a health promoting physical environment, and actively cooperates with its community (4).

### *Promoting the health of patients*

Health professionals in hospitals can have a lasting impact on influencing the behaviour of patients and relatives, who are more responsive to health advice in situations of experienced disease (8). This is of particular importance for two reasons: firstly, the prevalence of chronic diseases is increasing in Europe and throughout the world (9); secondly, many hospital treatments today not only prevent premature death but improve the quality of life of patients (10). In order to maintain this quality, the patient's own behaviour after discharge and effective support from relatives are important variables. Therefore, one of the HPH's priorities is to encourage healthy behaviour, prevent readmissions and maintain quality of life of patients (7).

### *Promoting the health of staff*

Paradoxically, in hospitals – organizations that aim to restore health – the acknowledgement of factors that endanger the health of their staff is poorly developed (11). These working places, most of which are occupied by women, are characterized by certain physical, chemical, biological and psychosocial risk factors. With the increasing lack and migration of health professionals, hospitals have to compete for the best staff. Hospitals that offer a safe and health promoting working environment and that involve staff in creating such an environment will be more successful to attract, recruit and retain staff (12). Health promotion programmes can improve the health of staff, reduce costly short-term absenteeism rates, and improve productivity and quality (13).

### *Changing the organization to a health promoting setting and promoting the health of the local community*

Hospitals also typically produce high amounts of waste and hazardous substances. Introducing health promotion strategies in hospitals can help reduce the pollution of the environment and the cooperation with other institutions and professionals can help achieve the highest possible coordination of care. Furthermore, as research and teaching institutions hospital produce, accumulate and disseminate a lot of knowledge and they can have an impact on the local health structures and influence professional practice elsewhere (7). In this context, hospitals are expected to expand their role beyond the curative services to a pro-acting vehicle for health improvement. Towards this aim, HPH target the health of individuals (staff, patients, local community population) but they promote the health of their organization as well, by creating a sustainable organization, capable of confronting today's challenges (14).

## **Evolution of the International Network of Health Promoting Hospitals**

A first connection between hospitals and health promotion appeared at the end of the 1970s when health promotion and disease prevention came up in the United States as additional professional services provided by the hospital (15). In order to support the introduction of health promotion programmes in hospitals, the WHO Regional Office for Europe started the first international consultations in 1988. In the subsequent year, the WHO model project »Health and Hospital« was initiated with the Rudolfstiftung

Hospital in Vienna, as a partner institution (13). After this phase of consultation and experimenting the HPH movement went into its developmental phase, being marked by the initiation of the European Pilot Hospital Project by the WHO Regional Office for Europe in 1993. This phase, which lasted from 1993 to 1997, involved intensive monitoring of the development of projects in 20 partner hospitals from 11 European countries (Austria, Czech Republic, France, Germany, United Kingdom, Greece, Hungary, Ireland, Italy, Poland, and Sweden) (16).

Subsequent to the closing of this pilot phase, national and regional networks were developed and the network reached its consolidation phase. Since then, national and regional networks take an important role in encouraging the cooperation and exchange of experience between hospitals of a region or a country, including the identification of areas of common interest, the sharing of resources and the development of common evaluation systems. The International Network of HPH acts as a network of networks linking all national and/or regional networks. It supports the exchange of ideas and strategies implemented in different cultures and health care systems, developing knowledge on strategic issues and enlarging the vision. Nowadays, the International Network of HPH comprises 30 member states, 33 national and/or regional networks and more than 650 hospitals (17).

Many more countries and hospitals are regularly participating in the annual international HPH conferences which have been organized since 1993 in Warsaw, Padova, Linköping, Londonderry, Vienna, Darmstadt, Swansea, Athens, Copenhagen, Bratislava, Florence, Moscow, Dublin, Lithuania, Vienna and - in 2008 - Berlin. A semi-annual HPH Newsletter has been issued also since 1993.

In addition to the national and/or regional networks, specific HPH task forces put efforts into further developing the HPH concept for specific thematic areas or for specific hospital types (e.g. Health promoting psychiatric health care services, Health promotion for children and adolescents in the hospital, Migrant friendly and culturally competent hospitals, Putting HPH policy into action (18 HPH core strategies), Standards for HPH and quality-based reimbursement) (16).

The HPH network is currently developing into an international association. It is governed by an elected international governance board and has a general assembly meeting once a year. The secretariat is based at the WHO Collaborating Centre for Evidence Based Health Promotion in Hospitals in Copenhagen (18). The international HPH conferences, the international HPH Newsletter and other scientific and technical functions are supported by the WHO Collaborating Centre for Health Promotion in Hospitals and Health Care, which is situated in Vienna (19).

Subsequently, the progress of HPH has resulted in a series of influential reports that include The Budapest Declaration on Health Promoting Hospitals, The Ljubljana Charter on Reforming Health Care, and The Vienna Recommendations on Health Promoting Hospitals (20-22). The latest document forms the set of principles on which the HPH concept is based. According to them a HPH should:

1. promote human dignity, equity, solidarity, and professional ethics, acknowledging differences in needs, values and culture of different population groups;
2. be oriented towards quality improvement, the well-being of patients, relatives and staff, protection of the environment and realization of the potential to become a learning organization;
3. focus on health with a holistic approach and not only on curative services;

4. be centred on people providing health services in the best way possible for patients and relatives to facilitate the healing process and contribute to the empowerment of patients;
5. use resources efficiently, cost-effectively and allocate resources on the basis of contribution to health improvement;
6. form as close link as possible with other levels of the health care system and the community (22).

### **Standards and core strategies for Health Promoting Hospitals**

The need for and the relevance of setting standards for health promotion in hospitals was realized in the International Network of HPH. Over a 2-year period a set of standards was developed in order to make the standards applicable and acceptable in all hospitals and in order to make it possible to integrate the standards in existing quality standards for hospitals as established by several international and national quality and accreditation organizations (7). The standards have now been through a pilot test, which has confirmed that they are understandable, meaningful, relevant and applicable. International quality organizations are encouraged to integrate the standards in their already established sets of standards and in the future use of the standards. The final set of five standards concern: Management Policy, Patient Assessment, Patient Information and Intervention, Promoting a Healthy Workplace, and Continuity and Cooperation (23). The standards relate to patient pathways and define responsibilities and activities concerning health promotion as an integrated part of all services offered to patients in every hospital. Each standard consists of a standard formulation, objective and definition of sub standards (24).

In 2001, WHO launched a working group to develop an up-to-date strategic framework for HPH since the situation of hospitals is characterized by a permanent and increasing pressure of their dynamic environments to adapt to changing political and economic, professional and consumer expectations concerning the process and content of hospital services. Two general tendencies can be distinguished within the trend of hospital reforms:

1. strategic re-positioning of the hospital with the need to redefine the range and mix of services (i.e. the distinction between core business and other services, balancing inpatient/outpatient services or acute/chronic/rehabilitative services, inclusion of educative elements, specialization of types of hospitals and departments, and integration with primary care and social services and intersectoral collaboration);
2. assuring and improving quality of services (i.e. to improve the safety, appropriateness, effectiveness and efficiency of services and improve satisfaction of stakeholders, introducing different quality approaches, accreditation and put a stronger emphasis on evidence based medicine and patient's rights) (7).

To be able to identify the specific contributions of health promotion to such strategic re-positioning and quality improvement in hospitals, six general

strategies for the three target groups (patients, staff and the community) were introduced (Table 1).

**Table 1.** Six general health promotion strategies for each group of stakeholders (patients, staff, and the community).

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<b>Health promotion strategies</b>
1. Health promotion quality development of treatment and care, by empowerment of stakeholders for health promoting self-care/self-reproduction
2. Health promotion quality development of treatment and care, by empowerment of stakeholders for health promoting co-production
3. Health promotion quality development for health promoting and empowering hospital setting for stakeholders
4. Provision of specific health promotion services – empowering illness management (patient education) for stakeholders
5. Provision of specific health promotion services – empowering lifestyle development (health education) for stakeholders
6. Provision of specific health promotion activities – participation in health promoting and empowering community development for stakeholders

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Service oriented strategies include quality improvement of already existing clinical and hotel services (strategies 1, 2) or strategies introducing new, primarily educative services with mid-term or long-term health effects (strategies 4, 5). Strategies can be distinguished according to their orientation of treating or managing specific diseases (strategies 2, 4) and strategies oriented at services for maintaining or improving positive health (strategies 1, 5). Concerning settings, strategies developing the hospital setting itself (strategy 3) can be distinguished from strategies of participation of the hospital in developing the community setting (strategy 6) or other settings within the community (e.g. workplaces or schools). By being oriented at improving health gain and not just clinical outcome, these six strategies do not only apply to patients (and their relatives), but in a somewhat modified way also to staff and members of the community the hospital serves and is situated in, resulting in eighteen core strategies for health promotion in hospitals (7, 12).

### **Dilemmas facing Health Promoting Hospitals**

The main perceived barriers faced in the development of HPH are shortages of funds, personnel, time management and professional skills. The WHO refers to the fact that most health professionals in the hospital setting do not readily associate health promotion as part of their role (25). In the past, the projects carried out within the HPH network were characterized by a more traditional focus on health education interventions for patients and to a lesser extent for staff (10). Similar problems to those stated above can be found throughout the HPH movement in the HPH Network Progress Reports (26). Nearly all of the European member states report commonly encountered problems. This is not surprising, however, and perhaps inevitable given that many European countries stress the lack of government-related policy support, lack of individual organizational management commitment and lack of resources set aside for health promotion in hospitals (27). Perhaps the main driver for HPH reform

in Europe is the capacity for hospitals to affect and influence public health reform and therefore directly influence the health of their surrounding communities. Hospitals and their leaders are being held increasingly accountable for the health status of local populations (28). This represents the greatest challenge for the HPH movement and perhaps its biggest failure to date. A broader vision would see the development of not just what could be termed as HPH, but institutions that could be classified as Public Health Hospitals. A Public Health Hospital is one that develops its staff to move away from increasing medicalized subspecialization to an increasing understanding of the wider health agenda (29). It does this as part of a health promoting capacity-building process that leads to an organization's overall structural development, as well as offering a support structure for wider community health promotion initiatives through collaboration with public health agencies (30).

Tountas and colleagues reported that effective planning of hospital health promotion activities is required so that the daily routine is not interrupted. Besides of personnel shortage and lack of funding, lack of health promotion background was found to be perceived as a significant problem (14). On the other hand, Polluste and colleagues compared the implementation of health promoting and quality-related activities in HPH and those hospitals which have not joined the HPH network (non-HPH) in Estonia. In the beginning of 2005, they conducted a postal survey among the top managers of fifty-four Estonian hospitals. The questionnaire was based on the WHO standards for HPH and on the set of the national quality assurance (QA) requirements for health services. The study demonstrated some significant differences in the uptake of health promotion and QA activities between HPH and non-HPH. For example, regular patient satisfaction studies were conducted in 83% of HPH and 46% of non-HPH ( $p < 0.03$ ) and 65% of HPH and 46% of non-HPH cooperated with various patient organizations ( $p < 0.03$ ). Systems for reporting and analysis of complications were implemented in 71% of HPH and 33% of non-HPH ( $p < 0.03$ ); also, the implementation of various guidelines was more developed in HPH. All HPH have carried out a risk analysis on the workplace and staff job satisfaction studies were conducted in 89% of HPH and 41% non-HPH ( $p < 0.05$ ). They concluded that the concepts of HPH and QA are closely related. Making progress in health promotion is accompanied with QA and vice versa. Implementation of health-promoting activities in hospitals promote the well-being and health of patients and hospital staff, and creates a supportive environment to provide safe and high-quality health services (31). To further develop HPH, effort needs to be made to ensure that hospital leaders and management are considered first. If managerial staff have an appropriate understanding of the concept and principles of HPH, then it is more likely that health promotion activities can be introduced into the daily workings of hospitals, and the necessary funds, personnel and training on health promotion skills be provided (32).

It does appear, however, that the HPH movement is spreading rather than diminishing. The focus of the HPH projects is now enlarging, addressing also organizational and community issues such as a change of organizational culture and environmental issues. A future challenge of HPH is still to link organizational health promoting activities with continuous quality improvement programmes, making use of the apparent similarities such as the focus on continuous process and development, involvement and ownership, monitoring and measurement, and to incorporate the principle of health promotion into the organizational structure and culture (12).

## **CASE STUDY: MEETING THE COMPREHENSIVE HEALTH GOALS: THE CASE OF GOLNIK HOSPITAL, SLOVENIA**

### **New health promotion and disease prevention services**

The initial idea of HPH was focused on placing greater emphasis on health promotion and disease prevention, rather than on diagnostic and curative services alone. In public health, disease prevention is usually defined as primary disease prevention which prevents diseases from occurring, secondary prevention which detects disease at an early stage and prevents disease from developing, and tertiary prevention which prevents aggravation or recurrence of disease and secures maintenance of functional level (7). Traditionally, hospitals primarily take care of tasks that relate to secondary or tertiary prevention whereas the primary sector and other social institutions take care of primary prevention. It is, however, increasingly recognized that hospitals can play a significant role in linking all three levels of prevention in order to gain patients' satisfactory outcome (33). The focus stays on effective treatment, but in order to optimize health gain, the outcome concept of hospitals has widened to include, in addition to clinical outcomes, also patient satisfaction, health-related quality of life, and health literacy. All of these aspects have to get the attention within the treatment process.

There is international consensus that patients should be given recommendations, guidance, and support with regard to health promotion in hospitals (23). Health promotion secures that risk conditions are identified and that the patient has knowledge of the significance of these conditions, recommendations for changes, and active support for carrying out these changes. From this perspective follows that it makes sense to invest not only in clinical interventions, but also in other interventions to improve health, like educating patients for self-management and developing situations to make the »healthy choice the easy choice«. An important element is the activation of the patient's individual resources and competences in coping with disease (28). A practical example for empowering patients for co-production would be diagnosis and treatment related patient information, training and counselling (e.g. by informing patients about how they can contribute to the recuperation process, by describing alternatives and side effects), in order to enable patients to participate in the diagnostic process (e.g. by providing all information needed); participate in treatment-related decision-making; actively participate in treatment and care processes (e.g. by complying with the prescriptions). Thus, health promotion and specific disease prevention form a continuum.

### **Empowerment of patients for health promoting management of chronic disease**

Expert interventions in hospitals provide in general only a turning point in disease process, and a basis for recuperation or the successful management of chronic disease. Every contact with hospital based physicians either during hospitalization or ambulatory visit represents an ample opportunity to involve patients in diagnostic and therapeutic management of their medical condition. Personal experience of disease deterioration, even to a slight degree, generally makes patients susceptible to non-pharmacological and pharmacological interventions in which their active role is indispensable. The main part of recuperation or of the day-to-day disease

management has to be performed primarily by the patients themselves, with specific professional support by the hospital, specialized services, or other health care services. This phase of the disease career lasts much longer and is out of direct control of the hospital, but is crucial for the outcome of regaining health and quality of life.

Hospitals have to take this perspective on the disease career into account by either providing necessary disease specific support by themselves or by referring patients to other, specialized providers in the health care system. The more complex and the more rare the disease and its treatment gets, the more likely it remains a task of the hospital itself, but this of course requires adequate legal and financial regulation which allows to provide these services systematically. One example of effective intervention of this type of services is the case of Golnik hospital, where introducing specific type of treatment for specific group of patients has developed from hospital vision to national clinical pathway implementation.

## **Specific immunotherapy: concepts and principles**

### *Introduction*

Specific immunotherapy is a well established form of treatment of patients with some allergic diseases. Among main indications is allergic rhinitis. The goal of specific immunotherapy is to diminish the allergic response to allergens. The outcome of immunotherapy is a decrease in symptoms during allergen exposure, better response to medical therapy and decreased risk of new allergen sensitizations. In very few patients complete disappearance of the disease may be achieved as well.

### *Selection of patients*

Immunotherapy is only effective in carefully selected patients. IgE mediated allergy has to be proven. Appropriate patients are those in whom:

1. allergic symptoms are due to only one allergen or a group of cross reactive allergens;
2. for symptomatic relief high and regular doses of systemic and local drugs are necessary;
3. duration of the allergen exposure season is long.

Clinical studies have shown that patients with multiple allergies do not benefit from immunotherapy. Other diseases which might be the predominant cause of patients' symptoms should be excluded, like structural diseases of the nose and nonallergic rhinitis. Immunotherapy is effective only in patients, where allergy is the only/predominant mechanism of symptoms.

### *Burden of immunotherapy for the health care system*

As immunotherapy is time consuming and requires excellent compliance by the patients in order to get an effect, immunotherapy is not suitable for patients with mild and short lasting allergic diseases, which are easily controlled with medications. It is important also to consider the costs of allergen extracts for immunotherapy which are substantial and the same for patient with severe as for the patient with mild disease.

Immunotherapy has also unpleasant and even dangerous side effects. Local reactions at the site of allergen application (swelling, itching) are quite common; fortunately systemic allergic reactions are extremely rare in pollen and dust mite

immunotherapy. Life threatening reactions are particularly common in patients with unstable asthma and patients with anaphylaxis.

### *Medical and pharmaceutical approach to organization of immunotherapy*

Immunotherapy should be offered only to those patients in whom high efficacy and low risk of side effects of the treatment is expected. However, the main interest of the producers and traders of allergen extracts is a widespread use of immunotherapy concerning safety more than efficacy of the treatment. In order to reach their goal, they run a promotion which is not always based on evidence derived from clinical studies. Sadly enough, many practicing medical doctors are not updated with the results of evidence based medicine, but get most medical information from pharmaceutical representatives and promotion leaflets (34).

### **Introduction of sublingual immunotherapy in Slovenia**

In Slovenia subcutaneous immunotherapy (SCIT) has been used for decades. SCIT applications were mostly limited to the hospital based allergologists. Beside safety aspects the main reason for the limited use of immunotherapy was the way of reimbursement. Allergen extracts were not registered in Slovenia and were only purchased by the health institution on their own expense. Doctors were not able to make a prescription for the allergen extract for the pharmacy. For that reason private and community based allergologists were discouraged to prescribe immunotherapy and consequently didn't get experience in selection and follow up of the patients on immunotherapy.

In 2007 sublingual immunotherapy (SLIT) was registered in Slovenia and reimbursed by health insurance. That form of immunotherapy is suitable also for allergologists with only outpatient practice. As patients don't need to visit doctor for monthly injections and the cost of allergen is reimbursed, we expected much higher interest in prescribing that form of immunotherapy.

Clinical studies of SLIT showed comparable efficacy to SCIT when performed in carefully selected groups of mono/oligosensitized patients. In all clinical trials SLIT was performed with a single allergen or a combination of two allergens in full dose of each allergen. Moreover, studies showed marked dose response. Reducing the dose of allergen to one third, the effect of SLIT was undistinguishable from placebo. However, producers of allergen extracts offered and promoted using:

1. many allergens, whose efficacy was not studied in clinical trials;
2. non-standardized allergen extracts in low dose;
3. mixtures of unrelated allergens.

### *Expected negative effects of introduction of sublingual immunotherapy on health*

Allergologists in Golnik hospital, who are very experienced in immunotherapy, using it for years not only in respiratory allergy, but also in venom allergy, recognized the threat for health care system due to inefficient use of health care resources. Namely we expected:

1. prescriptions of SLIT to patients, in whom there is only a weak indication;
2. insufficient performance of SLIT, namely only prescribing of allergen and not guiding the patient through the process of SLIT;
3. predominant prescribing of mixtures of allergens and even allergens with no clinical relevance.

For that reason we prepared a program for education of allergologists willing to prescribe SLIT and set up a national clinical pathway for SLIT.

## **Activities for setting up a national clinical pathway for sublingual immunotherapy**

### *Activity 1*

First step was to negotiate the conditions for reimbursement of allergen extract with health care insurance company. It was decided, that a patient gets a fully reimbursed SLIT extract after agreement of allergy counsel that predefined criteria for SLIT are fulfilled.

### *Activity 2*

Next step was the selection of the criteria for immunotherapy. We followed European guidelines for immunotherapy (35). We prepared a check-list where the allergologist marked the indication and the selection of the allergen for SLIT. Only allergens which were shown in randomized clinical trials to be effective were put on the list. Only one allergen could be selected for SLIT or in the case of two important non-cross reactive allergens, two separate SLIT were performed. The check list in fact offered the allergologist to become familiar with the standard for appropriate selection of patient and allergen for immunotherapy (Appendix).

### *Activity 3*

Next step was a development of a document, which would guide the allergologist and the patient through the process of SLIT. Prescription of allergen extract must be made on time as the treatment has to begin 2 months before the pollen season. Patient should be instructed how to take the drug, familiar with the local side effect of the therapy, and adherent to therapy. For that reason a check list for the patient was prepared, where all important dates are put (date for the beginning of the therapy, dates of follow up visits, and a table where the patient confirms the use of allergen drops and reports possible side effects). In the beginning of the SLIT patients are offered a phone contact with the allergy nurse to clarify possible misunderstandings. Follow up visits are planned before the pollen season to provide the patient with the medications and at the top of the season to evaluate the efficacy of the SLIT.

All the documents were put in a form of a booklet, which is owned by a patient but the copies of each filled page are put into the patient's medical documentation file in the allergologist's office. The cover of the booklet was used for the detailed explanation of SLIT to the patient, including the instruction for treatment of side effects.

#### Activity 4

Activities were undertaken to obtain a consensus of the members of the Slovenian Association of Allergy and Clinical Immunology on the content and the aim of the clinical pathway. The same approach was used for adult and paediatric patients.

To facilitate the adherence of doctors with the clinical pathway, it was decided that the data on the first year of the immunotherapy would be analyzed and presented as a Slovenian study of introduction of the SLIT. We obtained some sponsorship for the analysis from the producer of the allergen extracts.

In the first year 90 adult patients were recruited by 12 allergologists. Forty-three patients were treated at Golnik hospital and 47 by other allergologists. Indications for SLIT were allergic rhinitis (seasonal 70, perennial 21) and asthma (31). In 2 patients SLIT was started after SCIT discontinuation because of side effects. Majority of patients (73) were treated with a singled allergen, 16 with a full dose of two allergens and only 1 with a mixture of allergens (Table 2).

**Table 2.** Slovenian study of sublingual immunotherapy.

<b>ALLERGEN</b>	<b>house dust mite</b>	<b>grasses</b>	<b>birch</b>	<b>hazel</b>	<b>ambrosia</b>	<b>SUM</b>
<b>MONOTHERAPY</b>	<b>16</b>	<b>31</b>	<b>17</b>	<b>1</b>	<b>8</b>	<b>73</b>
COMBINATION WITH:						
house dust mite	-	-	-	-	-	
Grasses	3	-	-	-	-	3
Birch	1	4	-	-	-	5
Hazel	0	1	7	-	-	8
ambrosia	0	0	0	0	-	0
<b>SUM</b>	<b>20</b>	<b>36</b>	<b>24</b>	<b>1</b>	<b>8</b>	<b>89</b>

\* 1 patient was treated with a combination of grass, birch and hazel pollen.

#### Conclusion

SLIT was effectively introduced in accordance with evidence based medicine and European guidelines for immunotherapy (35). We believe that our approach reached the following goals:

1. optimal clinical outcome of the treatment, namely the minimal possible symptoms of the allergic rhinitis during the period of allergen exposure;
2. optimal patient-related outcome. With the empowerment of the patients we probably achieved a positive perception of the treatment by the patients and improved their satisfaction in spite of long lasting therapy. Finally, by well selected patients, well performed SLIT and appropriate follow up during the pollen season patients had better quality of life in spite of the long lasting difficult therapy and bothersome chronic disease;
3. optimal health care system-related outcome, namely the best ratio between the cost and the outcome of the treatment. The health care resources were directed toward the patients, who were optimally selected and care was taken, that resources were used optimally.

Proposal for introduction of sublingual immunotherapy is presented in Appendix.

## EXERCISE

### Task 1

From the selection of European HPH member states' website addresses choose one and look at HPH activities. Try to find out if activities are carried out on all four areas of HPH strategy and discuss findings with your colleagues.

European HPH member states' website addresses:

<http://www.helse-stavanger.no> (Norway)

<http://www.mfn.sk> (Slovakia)

<http://www.elisabeth-essen.de> (Germany)

<http://itk.ee> (Estonia)

<http://www.vsshp.fi> (Finland)

### Task 2

After carefully reading the case study, try to develop your own programme for empowerment of patients for health promoting management of specific chronic disease. Compare your programme with ideas of your colleagues.

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## APPENDIX

### Proposal for introduction of sublingual immunotherapy (SLIT)\*

Patient's name and surname:	Date of birth:
Allergologist's name and surname:	Registry number:
General practitioner's name and surname:	Registry number:

#### Clinical indications for SLIT

(one or more):

- perennial allergic rhinitis
- seasonal allergic rhinitis
- moderate asthma

#### Reason for SLIT introduction:

- insufficient response on pharmacotherapy prescribed according to guidelines
- complications with SCIT
- patient doesn't want SCIT

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\* Send to: Allergy Council

ADULTS: Bolnišnica Golnik KOPA, 4204 Golnik

CHILDREN: UKC Pediatrična klinika, Vrazov trg 1, 1000 Ljubljana or UKC Maribor, Klinika za pediatrijo, Ljubljanska ul. 5, 2000 Maribor

**Intensity of rhinoconjunctivitis in last season/last year** (fill in together with patient):

	<b>no problem 0</b>	<b>some problem 1</b>	<b>moderate problem 2</b>	<b>a lot of problem 3</b>	<b>extreme problem 4</b>
Sneezing					
Nasal congestion					
Runny nose					
Itching of the eyes					
Lachrymation					
Itching in oral cavity					
Itching in ear tubes					
Cough					
Dispnea					
Urticaria					
Fatigue					

**Medications used in the last year due to allergy:**

	<b>as needed</b>	<b>during season</b>	<b>regularly</b>
systemic antihistaminic			
nasal antihistaminic			
antihistaminic eye drops			
nasal glucocorticoid			
inhalational glucocorticoid			
antileucotriene			
bronchodilator			
systemic glucocorticoid			
other:			

**Allergic senzibilization:**

**Senzibilization with allergens:**

- house dust mite
- grass pollen
- hazel pollen
- birch pollen
- weed pollen
- other:

**Clinically the most important allergen  
(one or more):**

- house dust mite
- grass pollen
- hazel pollen
- birch pollen
- weed pollen
- other:

**Senzibilization confirmed** date \_\_\_\_\_

**When are the problems with allergy most intensive:**

- throughout the year, without seasonal worsening
- throughout the year, with relevant seasonal worsening, the worst in (months)\_\_\_\_\_
- predominantly seasonal, the worst in (months)\_\_\_\_\_

**Pulmonary function testing**

- not performed
- performed, last test date: \_\_\_\_\_  
VC % : \_\_\_\_\_  
FEV1% : \_\_\_\_\_

**Metacholin test**

- not performed
- performed, last test date: \_\_\_\_\_
  - positive
  - negative

**How many years does the patient have symptoms of allergic rhinitis or asthma?**

- up to 2 years
- 2 to 5 years
- 5 to 10 years
- more than 10 years

**Selection of allergen for SLIT:**

- house dust mite
- grass pollen
- hazel pollen
- birch pollen
- other (argumentation)\_\_\_\_\_

Allergologist who proposed introduction of SLIT

DATE

\_\_\_\_\_

\_\_\_\_\_

---

**Patient case presented at the Allergy Council, date** \_\_\_\_\_

**Allergy counsel agrees with proposal:**

YES NO

COMMENTARY \_\_\_\_\_

**Proposed initiation of SLIT:** allergen 1 date \_\_\_\_\_,

allergen 2 date \_\_\_\_\_

Head of the allergy counsel

DATE

<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>THE HEALTHY CITIES</b>
<b>Module: 5.8</b>	<b>ECTS (suggested): 0.2</b>
<b>Authors</b>	<b>Selma Šogorić, MD, MPH, PhD, Associate Professor</b> “Andrija Stampar” School of Public Health, Medical School, University of Zagreb <b>Aleksandar Džakula MD, Teaching Assistant</b> “Andrija Stampar” School of Public Health, Medical School, University of Zagreb
<b>Address for Correspondence</b>	<b>Selma Šogorić</b> “Andrija Stampar” School of Public Health, Medical School, University of Zagreb Rockefellerova 4, Zagreb, Croatia E-mail: <a href="mailto:ssogoric@snz.hr">ssogoric@snz.hr</a>
<b>Keywords</b>	Community, health promotion, health policy, public health, “healthy city”;
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• understand “Healthy cities” project</li> <li>• identified key healthy cities ideas and values</li> <li>• recognize possibilities for community participation;</li> <li>• increase knowledge on health policy development</li> </ul>
<b>Abstract</b>	The World Health Organization (WHO), Office for Europe initiated the Healthy Cities Project in 1986 as a long-term international development project that seeks to put health on the agenda of the local, city level political decision-makers. Healthy City is a process; it is about the change, innovation and formal system reorientation. It is not award recognizing past merits; it is a tool helping to address our cities present and future societal and developmental challenges. The Healthy City Project challenges city administrations to take seriously the process of developing health-enhancing public policies and create physical and social environments that support health but, as well, strengthen citizens’ participation.
<b>Teaching methods</b>	Lecture (2) Seminar (2) – student presentations and discussion Individual/small group work (2) – exercise
<b>Specific recommendations for teachers</b>	Total of 6 teaching hours consist of: 4 contacts hours: 2 lectures + 2 seminars (presentations + discussions based on the exercise findings); 2 individual/small group hours work (exercise “Healthy cities practice – case problems”).
<b>Assessment of Students</b>	Case problem presentation (exercise findings and conclusions) + structured essay.

# **THE HEALTHY CITIES**

## **Selma Šogorić; Aleksandar Džakula;**

### **THEORETICAL BACKGROUND**

The World Health Organization (WHO), Office for Europe initiated the Healthy Cities Project in 1986 as a long-term international development project that seeks to put health on the agenda of the local, city level political decision-makers. The idea of the Healthy City was likable since everyone could imagine the city he/she/it would like to live in, and in the fifteen years time the group of the 35 (First phase) cities extended into 3000 cities Europe wide, connected together through the WHO, Euro and the Network of the European National Healthy Cities Networks. Other regional WHO Offices (Pacific region, Eastern Mediterranean, ASIA, PAHO) supported the HC project development so we entered 21 century with over 5000 Healthy Cities worldwide (1,2).

The Healthy Cities approach is grounded on system theories that perceived community as an eco-system with capacity to work towards solutions to its own community identified problems. The Healthy City notion of community is focused on identifying community strengths instead of (just) diagnosing its' problems and deficits. Theories of community, based on the exact opposite of Mrs. Thatcher's now famous notion that "There is no society there are only individuals", suggest that communities form a whole, which is greater than the sum of the individuals within them. The concept of community relates to a geographical entity as well as to sub systems such as social groups, or those joined by business or family ties, but it includes simultaneously the idea of mutuality and shared norms and values (3).

In order to secure project stability and continuity initiation of the Healthy City requires explicit political commitment and consensus across party political lines, leading, throughout the years, to the development of the sound project infrastructure (HC Office, Steering Committee, Coordinating Committee, working groups, alliances, etc.), and creation of the clear city health and development strategy (City Health Profile, City Health Development Plan).

Healthy City is a process; it is about the change, innovation and formal system reorientation. It is not award recognizing past merits; it is a tool helping to address our cities present and future societal and developmental challenges. And there were many of them for the (post war and transitional) Croatian Cities.

The Healthy City Project challenges city administrations to take seriously the process of developing health-enhancing public policies and create physical and social environments that support health but, as well, strengthen citizens' participation.

With the wide variety of projects Healthy Cities Networks aimed to bring improvements into the life of their citizens - children (safe playgrounds, additional medical care, healthy kindergartens) and youth (free time activities), elderly (neighbourly help, 'elderly for elderly' volunteer care, help at home, day centres, hospice and palliative care services) and disabled (removing architectural barriers, guide for disabled, beach adapted for disabled, lowering public telephones and adjusting transport) young families (successful parenting skills, counselling and hot lines, children and parents communication...) and socially deprived groups. (4) Cities

administration commitment to that task is evident from their yearly official analysis (city social profile), City Council working guidelines (yearly business plans) or changes in budget allocation. For example the City of Rijeka made the resolution (not obligated by national legislation, but as their own, additional obligation) to provide for “minimum 5% of the total city revenues for the social program”.

Public opinion changed as well. (Quotation – citizens’ views) “People become aware that what we do today is good for their children... Healthy city project helps us do the most we can, given the circumstances we live in... Work on the project results in the increased awareness, pride that it is our city and that I am responsible for it...” (Quotation – citizens’ views) “The main challenge of the Healthy City project is to continue bringing efficiently together all parties interested in solving the identified problems, and developing mutual trust and co-operation.” It is necessary “to maintain the existing achievements, and to further upgrade them, providing vision for future in urban planning, economic and human development of the city.”

Mentioned examples could clarify how the Healthy Cities (idea and tools) could help to buffer the problems and negative health trends in communities. It changes the way in which individuals, communities, private and voluntary organizations and local governments think about, understand and make decisions about health. Croatian cities and public health professionals accepted “healthy city” idea from very beginning and used this new approach to empower communities during period of transition, war aggression and various health challenges appeared after first steps of the “Healthy city project” in 1986 (5).

## **CASE STUDY**

### **Unemployment**

At the end of 90-ties unemployment, especially among young and mid career workers, was one of the hottest issues in the Croatian cities. It was addressed in three different but complementary ways - as the issue of sustainable economic development, through the empowerment of unemployed and as the training (vocational) challenge.

#### **City of Labin**

The City of Labin, for example, had fascinating results with so-called “entrepreneurial incubator”, generating new jobs by providing shelter (city subsidies working premises) to potentially successful small/middle size businesses. In the two years time supported enterprises had to demonstrate their ability to grow and generate new jobs locally in order to become eligible to get a city land (on very privileged price) to build own working halls and extend business.

#### **City of Zagreb**

In the City of Zagreb majority of the unemployed (29.1%) were those with no working experience, while the second largest group (15.9%) were those with 20-30-year working experience who unexpectedly lose their jobs due to their firm bankruptcy. The strategy to address this problem developed by the Healthy City project team in Zagreb went in two directions. One set of interventions was run by the Zagreb Employment Agency and included provision of the new education

opportunities, additional training and re-training free of charge for the end users (unemployed). The other set of interventions (as well financially supported by the City) was run by the Zagreb Association of the Unemployed that provided a series of workshops for their members on 'How to Succeed in Finding Job'. Through the workshops most of the participants improved self-confidence, identified own potentials, developed personal job-finding plan and learned how to present themselves to potential employers. Over half of them (61%) succeeded in the few months time – to find a job or get re-trained.

### City of Split

The Split Healthy City project tried to address the lack of entrepreneurial skills in general population (in our culture people expect that job will be given to them, very few have a courage and skills to start own business, author remark) by putting emphasis on primary school children training. With the project named PETRA they introduced the project management techniques in the school curricula enabling young children to design and run own projects i.e. develop management skills early in life.

### Environment protection and quality improvement

The protection and improvement of the environment quality was another area of the greatest importance for Croatian cities. Between 1996 and 2006 the City of Rijeka made major improvements; introduced natural gas into the households, protected drinking water (Zvir I and II), improved sewerage collection and disposition (collector at Delta), waste management...

Due to the traffic congestion caused by constantly increasing number of motor vehicles in the City of Zagreb main environmental challenges were connected with the air quality. Zagreb Healthy City project brought together a large group of partner agencies to address (jointly) this problem. Several city departments (*The City Planning and Environmental Health Office, City Office for Urban Design, Building, Housing, Utility and Traffic and the City Health and social welfare Office*) and city owned companies - ZET (*trams, buses and other public transport*), Zagreb Parking (*maintenance and building of parking areas and underground garages*), Zrinjevac (*maintenance of public green areas*), Cistoca (*waste disposal and recycling, cleaning and washing the streets*) worked on development and implementation of the strategy which aimed to solve traffic congestions (through road construction), enhance non-motor traffic conditions (curb lowering and bicycle lane building), foster public transport and use of environmentally-friendly fuel (bio diesel), increase safety and decrease noise and air pollution.

### “Democracy schools – Youth Council”

One of the Croatian Healthy Cities shiniest examples of democratic and participatory practices development is the “Democracy schools – Youth Council” project. Democracy School program is in-school (6 to 8 grade of primary and 1 to 4 grades of secondary schools) training that improves students’ knowledge of democratic practices and develop their social and debate skills. School program enables teenager’s to articulate their expectations from local community, and Youth Councils (established as the City Council advisory bodies) allows their direct participation in

decision-making processes of local authorities (identifying needs and allocation resources for youth programs). Project is highly valued and spread all over Croatia. During the last six years 12 Croatian cities established either City's Children or Youth Councils.

## **EXCERISE**

### **Task 1**

Find Healthy city experiences about successful health promotion programs and compare differences between approaches and tool used in "healthy cities" and traditional public health programs

### **Task 2**

Analyze "healthy projects" in few countries and compare these practices with basic framework created by World Health Organization

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## **RECOMMENDED READINGS**

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>OCCUPATIONAL HEALTH SERVICES - KEY TOOL IN THE DEVELOPMENT OF WORKERS' HEALTH AS PUBLIC HEALTH APPROACH</b>
<b>Module: 5.9</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Occupational Health Services, basic Occupational health Services, workers' health, public health approach
<b>Learning objectives</b>	<p>At the end of this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Be aware of theoretical principles and concept of Occupational Health and Occupational Health Services;</li> <li>• Broader their knowledge on Occupational Health policy with public health approach;</li> <li>• Fully understand and be able to differ the terms Occupational Health vs. Workers' Health;</li> <li>• Recognize the role of all participants and stakeholders in workers' health.</li> </ul>
<b>Abstract</b>	<p>Health at work and healthy work environments are among the most valuable assets of individuals, communities and countries. Nowadays, new broader approach is promoted, recognizing the fact that occupational health is a key, but not a unique element of workers' health. Workers health is a public health approach to resolving the health problems of working populations including all determinants of health recognized as targets of risk management. It focuses on primary prevention of occupational and work-related diseases and injuries, protection and promotion of the health of workers.</p>

	<p>The major component of occupational safety and health system or infrastructure is occupational health service. The Basic Occupational Health Services (BOHS) are an essential service for protection of people's health at work, for promotion of health, well-being and work ability, as well as for prevention of ill-health and accident.</p> <p>BOHS should provide the services available to all workers, addressing to local needs and adapted to local conditions and existing resources. The development of occupational health system and policy requires strengthen governmental stewardship and ensure continuous political commitment to occupational health. OH policy should provide the development of legislation and standards in the field as well as effective mechanisms for financing of occupational health services. The expected results should be ensuring access to basic occupational health services for all workers with establishing essential requirements for service provision and providing the quality assurance systems for occupational health services.</p>
<b>Teaching methods</b>	Teaching methods will include introduction lecture, interactive small group discussions on recommended subjects followed by group reports and overall discussion and teacher's evaluation.
<b>Specific recommendations for teachers</b>	This Module will be organized within 0.2 ECTS credits out of which 2 hours will be done under supervision (lecture and exercise) and the rest is individual student's work. Teacher should advise students to use as much as possible electronic libraries to gather ideas and select examples in their own countries.
<b>Assessment of students</b>	The final mark should be delivered from assessment of the theoretical knowledge (oral exam), contribution to the group work, reports and final discussion.

# **OCCUPATIONAL HEALTH SERVICES - KEY TOOL IN THE DEVELOPMENT OF WORKERS' HEALTH AS PUBLIC HEALTH APPROACH**

**Jovanka Karadžinska-Bislimovska, Jordan Minov, Snežana  
Risteska-Kuc, Sašo Stoleski, Dragan Mijakoski**

## **THEORETICAL BACKGROUND**

### **Introduction**

Health and safety at work as a basic human right and constitutes a social and health dimension of the principle of sustainable development. The occupational health and the well-being of the working people is a key element for the total socio-economic development of every country.

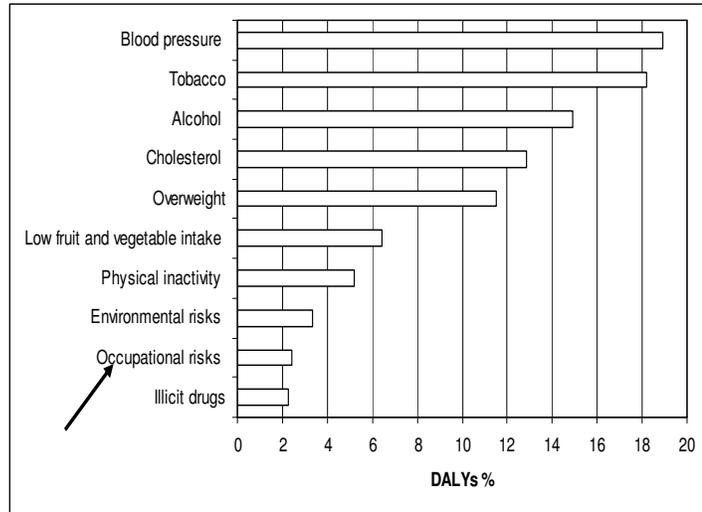
More than the half of the world population belongs to the global working force which is continuously, during its working age, more or less submitted to a large number of factors hazardous to health that originated from the working place.

### **Old and new risks at workplaces**

Beside the traditional problems and risks at work (such as noise, vibration, physical workload, biological and chemical agents, infective agents, bad working conditions) to which 25 to 30% of the working population is still exposed, the new changes of the working processes and the new technology are carrying new risks and challenges of the professional pathology of the working place, even to those that are looking quite safe and harmless. Those are new chemical substances and materials, some of them with unknown and unidentified hazardous effects, new biotechnological and carcinogenic materials, allergenic substances, highly frequented non-ionizing radiation, ionizing radiation, psycho-social stress, unsuitable ergonomic design etc (Figure 1). There are additional effects like social and economic conditions, fluctuation of the work force, working place mobility, psychophysical abuse and violence at the work place. There are the changes in the organization of the work and shift-work, fragmentation of enterprises and increased number of the small-size enterprises and self-employed. Dynamic and growing demand on the work as a result of the market globalization significantly changes the economic structures and the working conditions at almost every single workplace (1).

Accordingly, there are no safety or risk free workplaces in the industry, economic or non economic enterprises, service activities, public or private large, medium or small enterprises. Especially in the developing countries with still present out-of-date technology and use of old equipment, without respect of the existing legislative for protection at work and the health surveillance of the workers seized without a Register of occupational hazards and workplaces with occupational risk.

All of this bring up to work injuries, occupational diseases and work-related diseases such as musculoskeletal, psychological, cardiovascular, respiratory, neurological, cancers etc. that are cause for a long term absence from work, lowered or terminally lost working ability, invalidity or death.



Source: World Health Report (2002)

**Figure 1.** Occupational risks among other threats in WHO/EURO

Despite the traditional occupational illnesses such as pneumoconiosis, which are connected to “hard” working places, the risk of ruined health is present even at work places considered safely like a work with a computer. Some segments of the working population are with a specific vulnerability when exposed to certain professional risks: female working force, young and old workers, farmers, workers in an informal sector, middle and small enterprises, self-employed etc. Especially serious is the problem with child labour, people with special needs, unemployed.

Respiratory diseases that are occurring due to inhalation of microscopic particles, organic or non-organic (SiO<sub>2</sub>, asbestos, coal dust, pesticides etc), are present in many professions: construction engineering, mining, metallurgy, agriculture, textile industry, tobacco industry, wood industry and pastry product industry. Because of the long latent period of some of this diseases (carcinoma, asbestosis, silicosis) they are still present in the countries with a high level of control and protection at the work place. From the total number of the patients with asthma 5-18% are due to professional causes, 14% of the pulmonary obstructive diseases or 243.000 deaths per year with a the pulmonary obstructive diseases are with a occupational aetiology.

300-350 different chemical, biological and physical agents in professional surroundings are classified as carcinogenic materials. Round 20-30% male and 5-20% female, age 15-64 years, from the active working population can be exposed to those carcinogenic agents. On global level 10.3% of the pulmonary and tracheal cancers are due to exposure to asbestos, cadmium, arsenics, chromium, nickel or silica, and 2.4% leukaemia's are due to occupational exposure. It is assessed that 2-38% out of the total morbidities of cancers are due to the occupational etiological factor.

Musculoskeletal diseases are multi factorial and are connected with the ergonomic factors at workplace, heavy physical workload, repeated bending and sudden moves, as well as repeated monotonous movements, un-physiological continuous posture of the body, vibrations etc, organizational and social characteristics of the work. Especially high is the prevalence to those diseases in construction workers, farmers and health workers. Half of the active working population of USA is complaining about those diseases. The WHO 2002 World report on health is pointing out the fact that 35% of the cases with the low back pain are due to hazardous occupational ergonomic exposure (2).

Globally, the noise is also one of the most frequent risks at the workplace and is cause for 16% of the definite and irreversible hearing loss. The damage to the hearing can additionally become a risk for a numerous accidents and injuries at work as well different consequences from that.

### **Occupational health indicators**

The health indicators in the domain of health and safety at work according to WHO are: the rate for incidence and prevalence of the occupational diseases and work related diseases, rate of fatal accidents and injuries at work, morbidity rate at the active working population, disability incidence in 100000 population.

The influence of the work on the health is difficult to observe. The countries work in different health and insurance systems, the declared rates of the occupational diseases are based on the existing national legislative, effectiveness in detecting, enlisting and registration of the occupational diseases, as well as the compensatory mechanisms and systems for compensation. The extrapolation done according to the incidence of the occupational diseases in the European countries are good informational system going from 3-5 to 1000, gives annual incidence of 68-157000000 cases of occupational diseases.

The risk factors that can cause injuries at work are numerous and at different work places. According to the ILO annually in the world happens 120 000 000 injuries at work out of which 200 000 are fatal injuries at work. That means that the average risk from injuries at work is 42 on 1000 workers with a fatal outcome of 8.30/100 000. The average European risk is 25/1000 for injuries and 6.25 for fatal injuries (3).

This numbers can and must be prevented in the interest of the health and well being as well as from the point of interest for the economy and the productivity of the labour.

### **Occupational Health and burden of diseases**

Aiming to measure the health condition of the population from the aspect of paying off, as well as to assess which intervention that will improve the health needs special attention a concept of DALY (Disability Adjusted Life Years) was introduced. That is a measurement which is measuring the burden from the disease and is presented through total loss due to a damage health from any reason whether it is a premature death or invalidity / limitation in the functioning that can be both physical and mental, in different period of time. Because of that, the use of DALY enables to establish priority for health services, to establish groups with special risk and providing

comparable measurements for intervention as well as for program and sector planning.

According to WHO Global Plan of Action on Workers' Health occupational risks are among ten threats in WHO EURO (2,3 Daly's%). The results published in the Global burden of disease 2002 are pointing that 2.7% of DALY worldwide (38 millions DALY) are result of occupational diseases compeering to 15.9% DALY as a result of malnutrition as a leading reason and 0.5% DALY as a reason listed last (1,2).

The prevention of occupational diseases and injuries is legal and moral obligation although it involves great expenses. According to the European Agency for Safety and Health at work, the cost for occupational diseases and injuries is between 2.6 – 3.8% GDP. Depending on country, different costs are estimated and prescribed: cost for sick- leave and invalidity (Netherlands 1995 - 4.8 billion euros), medical costs (Netherlands1995-0.6 billion euros), production loss due to work disability (Germany 1995 – 45 billion euros), lost for the sick/injured and their families (Great Britain -6.3 billion euros). The total cost for occupational diseases and injuries in Italy in 1996 was 28 billion euros (3).

Economic losses from poor working conditions, occupational accidents and occupational diseases in South East Europe are more than 7 billion USD, annually (about 5% of the GDP) (4).

The cost connected to the occupational diseases and injuries at work can be divided in tree groups:

- Direct (primary and secondary);
- Indirect;
- Immeasurable.

The direct primary cost is: cost for medical care and health protection that are paid from the Health insurance fund for treatment, rehabilitation and therapy of the occupational diseases and injuries at work while the direct secondary cost is covering all the costs that the individual is paying for treatment of his/hers condition which is a result of a certain occupational diseases and injuries at work.

The indirect cost includes absenteeism, time period necessary to regenerated the process of production in which the patient suffering from certain occupational diseases and injuries at work was included, training for the substitute, insurance that has to be paid by the enterprise etc.

The immeasurable cost (pain, suffering of the individuals and their surrounding) is increasing the price of the occupational diseases and injuries at work that in most cases could be prevented.

The poor health care and protection at the work place leads to reduction of the working ability that can cause a loss of 10-20%of the GDP. According to the estimations of the World Bank, 2/3 of the DALY could be prevented with programs for health and safety at work (5).

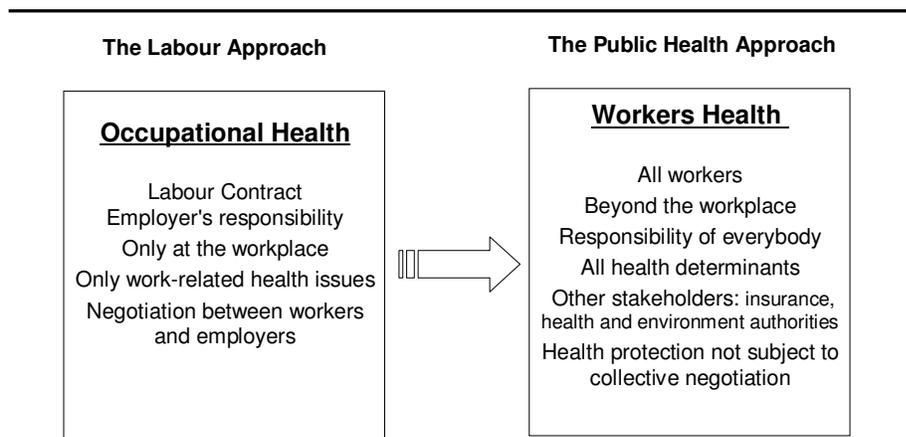
### **Occupational health and key elements**

Health at work and healthy work environments are among the most valuable assets of individuals, communities and countries. "Occupational health is an important strategy not only to ensure the health of workers, but also to contribute positively to the national economies through improved productivity, quality of products, work

motivation, job satisfaction, and contribute also to the overall quality of life of working people and society” (1).

The term “occupational health” on traditional manner includes the maintenance and promotion of workers health and working capacity, but also the improvement of the working environment and safe and healthy workplaces.

Nowadays, new broader approach is promoted, recognizing the fact that occupational health is a key, but not a unique element of workers’ health. Workers health is a public health approach to resolving the health problems of working populations including all determinants of health recognized as targets of risk management. It focuses on primary prevention of occupational and work-related diseases and injuries, protection and promotion of the health of workers. Occupational health constitutes the core of this approach, followed by the other public health activities such as prevention and control of communicable and chronic diseases, health promotion, organization and financing of health services, and environmental health. The workers health approach requires close collaboration of all stakeholders and coordination of all interventions related to the health of workers (1) (Figure 2).



**Figure 2.** From Occupational Health to Workers Health

“In the past two decades the settings in occupational health have become more complex, multifactorial, multimechanism and multioutcome”(6).

The health of the workers depends on a combination of factors and a complex interaction between them:

- working environment: mechanical, physical chemical, biological, ergonomic, psycho-social factors; social determinants related to work: employment status, occupational position, social inequalities and poverty;
- work-related health behaviour: individual preventive health practices and personal health-related behaviour in general;
- access to health services: adequate and affordable occupational health services for primary prevention, cure and rehabilitation.

## **Occupational health system and Occupational health services**

All these facts confirm the need for infrastructure, continuity and security, evidence and quality, comprehensive multidisciplinary content, coverage, cost-effectiveness, multisectorial collaboration in occupational health (OH) system (7).

The development of OH system includes the critical prerequisites like political commitment, legal basis, leading institutions, training and education, methods and guidelines, standards, collaboration of employers and employees, financing and infrastructure (1).

The major component of occupational safety and health system or infrastructure is occupational health service. Unfortunately, today, a lot of workers of the world have never even heard of such services. Even in many industrialized countries the coverage of occupational health services is below 50%, and in most countries of the world the rate is below 10%. The main goal is that all workers have access to OHS (5).

Comprehensive and long-term response from international organizations (WHO, ILO, EC) and joint efforts are recognized and needed in order to develop occupational health system including occupational health services as a key tool. Occupational health services provide also an important instrument for practical implementation of the Conventions and recommendations of international organizations, WHO and ILO as well as implementation of the principles of European Directives on Occupational safety and health. The Government and policy-makers should make more effective use of occupational health approach and practices to support overall socio-economic development, development of modern work life and social and economic dimensions in the national development program. There is a need to define concise national policy and program for development of occupational health services as a system providing expert support for enterprises and working people (8).

ILO Convention No.161 and its accompanying Recommendation No. 171 are used in many countries, as models for establishing requirements for the organization and functioning of occupational health services (9, 10).

EU Document "Improving Quality and Productivity at Work: Community Strategy 2007-2012 on Health and Safety at Work emphasized the need for services to all working people of the world.

The implementation of Article 7 of framework Directive 89/391/EEC reveals considerable disparities with regard to the quality, coverage and accessibility of prevention services. One of the key objectives in the Community Strategy is the development of occupational health services especially for underserved, vulnerable and high risks sectors and workers (11).

60<sup>th</sup> World health Assembly (WHA60), 2007 endorsed the Global Plan of Action on Workers' health (GPA 2008-2017) and urged the Member States to take a number of measures on workers health (1).

This Plan of action is based on several principles in the different priority areas. These principles are intended to guide the formulation, implementation and evaluation of programs and activities in the area of workers health. They consist of: right to health and to favourable working conditions, priority of primary prevention, workplace as a setting for health interventions, coordinated response by the health system, equity in workers health (12).

### **Basic Occupational Health Services (BOHS)**

One of the objectives of WHO GPA is to “Improve the Performance and the Access to Occupation Health Services” and pointing out that all workers should have access to the occupational health services. In order to achieve this goal, the Basic Occupational Health Services (BOHS) approach is recommended, as a joint response to the priority area set for the WHO, ILO and ICOH collaboration. The concept of BOHS is based on the principles of primary health care (equity, universality) with the objective the WHO Global Plan of Action, ILO Convention No161 and Recommendation 171 (7).

The Basic Occupational Health Services are an essential service for protection of people's health at work, for promotion of health, well-being and work ability, as well as for prevention of ill-health and accident (16).

BOHS should provide the services accessible and available to all workers, addressing to local needs and adapted to local conditions and existing resources, effective and cost-effective in service provision.

The objective of Basic Occupational Health is to provide OH services for all workpeople in the world (in both industrialized and developing countries) regardless of the sector of economy, size of company, geographic area, or nature of employment contract. The provision of BOHS should be an integrated part of the social policy of work life and should be guaranteed by public authority.

The OHS infrastructure is called OHS system and it depends on the overall national health system for health services and occupational health and safety. However, the BOHS infrastructure should be the part of integrated infrastructure for health and safety, can be carried out by several types of services units, collaborate with and take support from primary health care, collaborate with safety services and specially should serve underserved, high risks, SMEs (12).

Occupational health services support the employer in improving work conditions, but employer has the primary responsibility for health and safety at work. On one side the appointment of occupational health services does not discharge the employer from his responsibility for work conditions and on other side Occupational health services assist the employer in fulfilling his obligations for health and safety at work (13).

Without prejudicing the responsibility primary responsibilities of the employers and of tripartite collaboration, social partners and the Government the provision of services to sectors which do lack tripartite mechanism are the responsibility of the Government and other public sector in general.

Governments should ensure equity and access to occupational health services and their quality regardless of the mode of service provision. All levels of the health system play a role in the provision of services, from basic functions at the primary health care level to the more sophisticated functions at the regional and national level.

The full coverage of the total working population in the countries should be set as a long - term objective. In the first stage priority should be given to the high-risk sectors and the seriously underserved groups which are most in need.

While specialized comprehensive occupational health services are the best way to support the well established industrial and services sectors, for the underserved sectors and high risk and vulnerable workers it was found appropriate to combine such development with the overall development of primary health care services

system. In organization of such service the possibilities to utilize the WHO/ILO/ICOH Basic Occupational Health Services approach was found appropriate (14).

### **Activities of Occupational Health Services**

The activities of occupational health services are based on prevention and promotion focused on workers' health and work environment. BOHS have a strong focus on primary prevention; the concept is comprehensive and includes prevention, cure and rehabilitation. Activities are complemented by the workplace health promotion. BOHS activities start with process of orientation and planning, and proceed to the identification of needs, risk assessment, proposal and management of preventive and control actions to employers and workers and evaluation of activities on the basis of data on workers' health and work environment with further steps in the process of development (15):

- Planning, orientation and identification of health and safety needs;
- Surveillance of the work environment;
- Surveillance of workers' health;
- Risk assessment ;
- Information and education on risks and advice on need for preventive and control actions;
- Preventive actions for the management and control of health and safety hazards and risks;
- Prevention of accidents;
- Maintaining first-aid and participation in emergency preparedness;
- Diagnosis of occupational and work-related diseases;
- Curative and rehabilitation services;
- Workplace health promotion (healthy lifestyle, general preventive and public health measures);
- Collection of data and record keeping;
- Evaluation of OH activities and their effects and impacts;
- Re-planning and necessary actions for the development of services.

### **Service provision models**

Different models for the provision of occupational health services are available:

- Big industry (in-plant) model is the most widespread, OHS for special sector or trade; Group services and private consultancies organized jointly by SMSE;
- Public health care establishments like community and other local primary health services (health centres, out-patient departments, group medical practices) (16).

The provision of Basic Occupational Health Services (BOHS) should be a priority in countries and economic sectors with high occupational risk and very low coverage of workers by occupational health services. The proposed model of BOHS as a part of integrated infrastructure of OH System should enable provision of OHS on all levels, from basic function at primary health care level, to the more

sophisticated functions (International standard services and comprehensive OHS) at local and national level (4).

The provisions of the BOHS for every worker must be supported by the public sector and mechanisms for delivering and financing should be put in place to protect workers health and safety and to ensure the sustainable development (16).

### **Human resources**

In the optimal case the occupational health services will be provided by a multidisciplinary team: physician-specialist in occupational health, nurse, occupational hygienist and psychologist. In some countries, where not enough specialists are available, primary health care team may provide services with additional training in occupational health. At the secondary level, different support services (diagnostic, analytical etc.) are needed. National centres of excellence - Institutes of occupational health should provide the evidence base for preventive interventions, technical support to OHS, specialized laboratory tests and services and training of OH practitioners, and to plan and monitor implementation of OHS. Workers should be actively involved in the evaluation and control of the hazards. The risk management tools should be the basis of the intervention on the workplace settings (16,17).

Occupational health services can also seek support from inspection agencies - labour and public health inspectorates.

State policy should support education and training of experts for occupational health services through the specialization in the areas of occupational health, participation in field research and establishment of professional associations of occupational health services.

### **Financing of OHS**

According to ILO convention No161, on OHS, the employer has the main financial responsibility for providing occupational health services. So, the financing reflects employer's responsibility for working conditions and it is presented by the different options: direct financing, indirect financing or public funding.

The direct funding is focused on: Big industry model, Group services or Consultancies. Indirect financing includes the various insurance schemes, special funds or shares. In some countries occupational health is covered by public funding through the central government or local authorities.

### **Instead of conclusions**

The development of occupational health system and policy requires implementing one step-by step approach. As a start point is necessary to strengthen governmental stewardship and ensure continuous political commitment to occupational health. OH policy should provide the development of legislation and standards in the field as well as effective mechanisms for financing of occupational health services. The expected results should be ensuring access to basic occupational health services for all workers

with establishing essential requirements for service provision and providing the quality assurance systems for occupational health services.

For realization of the planned steps should stimulate national and international efforts for capacity building and establishing critical core capacities of countries to deal with workers health. The key message should be the integration of the development of occupational health services into national strategies, health systems performance improvement plans, and health sector reforms, in particular with regards to primary health care and public health.

## EXERCISE

After introductory lecture, students work in small groups and are asked to discuss on recommended subjects:

- The situation of Occupational Health Services in their country;
- Identify possible problems in students country and discuss on the priorities;
- Suggest improvement, taking into account any possible obstacles.

Each group will produce a written report on the tasks. Timing: 2 hours.

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<b>MANAGEMENT OF HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>PSYCHOTHERAPY AS INTEGRAL PART OF COMPREHENSIVE HEALTH CARE</b>
<b>Module 5.10</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	psychotherapy, Slovenia, Austria
<b>Learning objectives</b>	After completing this module students and public health professionals should have increased knowledge of modern psychotherapy as autonomous profession which is integrated as part of the public health service. Through the comparison of developed psychotherapy services in Austria and undeveloped psychotherapy services in Slovenia, they should be aware of the different phases and challenges with which modern psychotherapy is confronted in its endeavours to become an integral part of comprehensive health care.
<b>Abstract</b>	This module describes the history and present status of psychotherapy in Austria and Slovenia. Austrian psychotherapy is one of the most developed in the world and a good example of positive development. Slovenian psychotherapy is confronted with many problems of a country in transition.
<b>Teaching methods</b>	Teaching methods include lectures, exercises, individual work, interactive methods such as small group discussions, seminars etc. Plenary lectures are followed by discussion and project work in exercises. The work is done partly individually and partly in small groups.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 50%/50%;</li> <li>• facilities: a computer room;</li> <li>• equipment: computers (1 computer on 2-3 students), LCD projection equipment, internet connection, access to the bibliographic databases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Assessment is basing on structured essay, seminar paper, case problem presentation, oral exam and attitude test.

# PSYCHOTHERAPY AS INTEGRAL PART OF COMPREHENSIVE HEALTH CARE

Miran Možina

## THEORETICAL BACKGROUND

### Introduction

In this module following topics will be shortly covered: basic terms, historical development and expansion of psychotherapy, psychotherapy as a profession, fields of activity of psychotherapists, psychotherapists' organisations, training, and economic aspects (1), as well as significance of psychotherapy for public health.

### Definitions and explanation of basic terms

#### *Psychotherapy*

According to European Association for Psychotherapy (Appendix 1 to the Board Minutes, Siracuse 17th to 18th of October 2003) the profession of psychotherapy is defined as (2):

- the practice of psychotherapy is the comprehensive, conscious and planned treatment of psychosocial, psychosomatic and behavioural disturbances or states of suffering with scientific psychotherapeutic methods, through an interaction between one or more persons being treated, and one or more psychotherapists, with the aim of relieving disturbing attitudes to change, and to promote the maturation, development and health of the treated person. It requires both a general and a specific training/education,
- the independent practice of psychotherapy consists of autonomous, responsible enactment of the capacities described in paragraph 1; independent of whether the activity is in a free practice or institutional work.

#### *Psychotherapy approaches*

The main psychotherapy approaches and schools are: psychoanalytic-psychodynamic, cognitive behavioural, systemic family, existential-humanistic, person-centred and related experiential approaches, postmodern and integrative approaches. All these approaches can have different modalities: individual, marital, family and group therapies (3). There is an ongoing discussion about whether methods should be applied in a »pure« way or whether »integrative« models are not perhaps better. Nevertheless, many common basic elements can be perceived which today contribute to our understanding of the effectiveness of psychotherapy over and above the specifics of a particular approach or school (1).

### Historical development and expansion of psychotherapy

The foundation of modern psychotherapy was systematically developed at the end of 19<sup>th</sup> century and in the first decades of 20<sup>th</sup> century with the work of Sigmund Freud

(1856–1939). Psychoanalysis was for many decades the only psychotherapeutic approach, but after the Second World War many new approaches were developed (for example, cognitive behavioural, humanistic, systemic family approaches and many others). Over the last twenty years the term psychotherapy has become an international “supra-term” for different psychotherapeutic approaches to describe a curative influence of the relationship between psychotherapist and patient/client on neurotic, psychotic, psychosomatic and somatopsychic disorders.

Psychotherapy became globalised since it expanded all over the world. It can be estimated that there are about 700.000 psychotherapists worldwide (most of them, about 300.000, in Europe and about 200.000 in North America) (1).

## **Characteristics of psychotherapeutic profession**

### *Psychotherapy as a profession*

Psychotherapy as an autonomous profession is practised during last 20 years. In 1985 the first Law on Psychotherapy was passed in Sweden, and other European countries followed (for example Italy, Austria, Germany, Netherlands and others). These laws have the effect of promoting the development of psychotherapy as a profession. There are professional regulations in other countries, such as USA, Argentina and Chile, which, however are subsumed under the vocational group of psychologists, psychiatrists and clinical social workers, and in which psychotherapy as a profession in its own right does not always appear. Within the framework of these professions there have been reimbursements of psychotherapy services from insurance schemes for many years in the USA and Canada (1).

### *Fields of activity of psychotherapists*

Psychotherapy is practised by most therapists in private practice or in institutions such as psychiatric wards/clinics or counselling offices mostly on two large areas:

- treating mental disorders, and
- encouraging personal growth by clients who have no psychiatric diagnosis.

So, psychotherapy is effective as primary, secondary and tertiary prevention, what will be discussed later on.

Patients are treated usually in sessions lasting one hour, either individually, in groups or in a family context. The most important form used is the psychotherapeutic interview, sometimes in connection with exercises designed to stimulate new experiences with healing effects (1). Psychotherapists have also developed effective practice on the interfaces with social work, schools and management. And increasingly, psychotherapists are being called upon to take care of acute trauma patients in the wake of catastrophes, refugees etc.

### *Psychotherapists' organisations*

Until far into the 20<sup>th</sup> century, only specialists and those within the inner circle were aware of the existence of different forms of psychotherapy. Not until the founding of umbrella organisations was it possible to extend the scientific and developmental dialogue and thereafter to be perceived in a serious fashion by the public at large. In the meantime, umbrella organisations have been set up on all continents with the aim of developing psychotherapy in their countries and on their continent in general (1).

The most representative umbrella organisation in Europe is European Association for Psychotherapy (EAP) (4). The EAP represents 128 organisations (28 national umbrella associations, 17 European-wide associations for psychotherapy) from 41 European countries and by that more than 120.000 psychotherapists. Membership is also open for individual psychotherapists.

Based on the "Strasbourg Declaration on Psychotherapy of 1990" (5), the EAP represents high training standards for a scientifically based psychotherapy and stands for a free and independent practice of psychotherapy. The declaration has following five points:

1. Psychotherapy is an independent scientific discipline, the practice of which amounts to an independent and free profession.
2. Training in psychotherapy takes place at an advanced, qualified and scientific level.
3. The multiplicity of the methods of psychotherapy is assured and guaranteed.
4. A full psychotherapeutic training covers theory, self-experience, and practice under supervision. Adequate knowledge of various psychotherapeutic processes is acquired.
5. Access to training is through various preliminary qualifications, in particular in human and in social sciences.

One of the most important endeavours of EAP at the moment is to create a common platform of Psychotherapy Regulations in the EU, with the eventual goal of central legislature and licensing procedures. Benefits of such platform would be:

- EU-wide recognition of psychotherapy as a profession,
- freedom of movement for psychotherapists,
- uniform training standards and licensing procedures,
- overall increase in quality of psychotherapeutic standards.

### *Training*

The necessary training to become a psychotherapist, which lasts several years, has three main pillars:

- self experience,
- theory, and
- practical work under supervision.

The EAP requires for its "European Certificate of Psychotherapy" a minimum of 3200 hours training, both in introductory (so called propaedeutics) and an approach specific training. Most training takes place in private institutions as a postgraduate training or as a "second profession" education. During last years there is a growing interest of the universities for psychotherapy programmes. For example, in October 2005 private university Sigmund Freud in Vienna opened the three level (bachelor, master and doctoral) psychotherapy study where different approaches are integrated under the same roof.

### *Economic aspects*

Psychotherapy has also become a market. The fees range from gifts to hourly fees of 100 Euro and more depending on the economy of the country in which psychotherapist

practises. In countries with a higher degree of regulation of psychotherapy, public institutions and social securities are providing more and more public money for psychotherapeutic treatment. In many countries in which psychotherapy has not reached this status yet, only the richer patients have access to it (1).

### **Significance of psychotherapy for public health**

As mentioned above, psychotherapy is effective on several levels of disease prevention, being from primary to tertiary.

#### **1. Primary prevention.**

The role of psychotherapy in primary prevention is keeping mental disorders from ever occurring. Already Freud's way of doing psychoanalysis had this dimension because he has shown that every person who is interested to improve the quality of her or his life can profit from psychoanalysis before some recognizable mental disorder appears. Freud's message is still modern: "Live more conscious life! Be more aware of the complexity of mental functioning and realize your potential in work and love!" During the last 40 years this message was spread to millions of people in different psychotherapy approaches, especially in working with groups, for example in sensitivity training (6), or encounter groups (7), especially in dealing with endangered and vulnerable population groups (e.g. adolescents, pregnant women, unemployed people, disabled, old people etc.). Many psychotherapists developed programmes that are combined with psychoeducative approach:

- for children and families (8,9),
- for mothers with infants to support them after childbirth with counselling and practical help (10),
- for groups where members learn how to cope with stress or be more assertive in everyday life situations
- for child-abuse awareness and preventive programmes,
- preventing violence
- somatic disease prevention, since chronic somatic illness increases likelihood for ill mental health
- drug and alcohol free parenting programmes in endangered groups, etc.

#### **2. Secondary prevention.**

The role of psychotherapy in secondary prevention is in early detection of mental disorders and early intervention to reduce the risk of chronicity, disability and suicide. Especially important is this kind of prevention in the field of depression, and alcohol disorders. Psychotherapists are well educated for recognising signs and symptoms of depression and alcohol problems. Early recognition is of course to be followed by evidence based treatment being mostly parallel - psychopharmacological, psychotherapeutic and educational.

Psychotherapists contribute also to health risk assessment. Self examinations and self help are routine techniques to be transferred and encouraged with patients with mental disorders, especially when reoccurring. The educational courses, group and individual counselling on recognising warning signs of disorder and coping strategies are valuable therapeutic tool in the hands of the patient and his or her relatives. Already during 1970's many

psychotherapists found ways to spread psychotherapeutic methods in self-help groups (11,12).

2. Tertiary prevention.

The role of psychotherapy in tertiary prevention is in the treatment and care for people with clinically expressed mental disorders in acute, primary, or early phase, and chronically, late or rehabilitation phase. Since the prevalence of mental disorders in Europe is increasing (13) and because psychotherapy is especially effective in treating the most common mental disorders (anxiety, depression and substance abuse disorders) (14) the significance of including psychotherapy as integral part of comprehensive health care is also becoming more and more important. During last 30 years psychotherapists have proven the effectiveness of psychotherapy in treating all kinds of mental disorders in general and that different approaches have relative similar efficacy (15).

## **CASE STUDY: PSYCHOTHERAPY IN AUSTRIA AND SLOVENIA INTRODUCTION**

In the following section the comparison will be made between developed Austrian psychotherapy services which are integrated in the health system and undeveloped psychotherapy services in Slovenia. The comparison makes clear that psychotherapy must overcome different challenges and develop through different phases to become an integral part of comprehensive health care.

### **Austria: psychotherapeutic service as integral part of comprehensive health care**

#### *Historical perspective*

Pritz outlined the brief history of psychotherapy in Austria (16). Vienna is the cradle where at the end of 19<sup>th</sup> century Freud laid foundations of scientific psychotherapy. Freud called his method “psychoanalysis”. It became popular all over the world and even today it is still often used as synonym for psychotherapy. Several other psychotherapy methods were developed in Austria as a result of contacts with Freud, for example Individual Psychology, developed by Alfred Adler (1870-1936), and Logotherapy, developed by Viktor Frankl (1904-1997). The era of National Socialism (1938-1945) put an abrupt end to the sensational development of psychotherapy in Austria but after 1945, signs of new life in psychoanalysis began to stir.

#### *Towards a new concept*

In the 70's there was a boom in new psychotherapy approaches (for example person-centred psychotherapy according to Carl Rogers, psychodrama, Gestalt therapy, autogenic training, hypnosis, systemic family therapy, etc.). An enthusiastic phase of development ensued, reinforced when departments bearing the word “Psychotherapy” in their title were set up at the medical faculties of the Universities of Vienna, Graz and Innsbruck. Since 1980 there have been regular

introductory lectures and seminars at the Departments of Psychology and Pedagogy at the above mentioned universities.

An important step was taken in 1981 with the foundation of the Umbrella Organization of Austrian Psychotherapeutic Associations. This organization first united 7 associations who set their sights on promoting psychotherapy in Austria. The legal situation at that time was such that only medical doctors were permitted to practise psychotherapy as a curative treatment. However, nearly 80 % of those carrying out psychotherapy did not come from medical background, but from other psychosocial professions, in particular psychologists, social workers and teachers. This led to a public discussion about quality control in psychotherapy in combination with the will of the Umbrella Organization to push through legal regulations for psychotherapy as a profession in its own right.

### *The beginning of self-standing track*

After intensive and controversial discussions both among public at large and the psychotherapy associations, the Law on Psychotherapy was finally passed of in July 1990. This Law, which requires a 7-year training and enables psychotherapy practised as a profession in its own right, had far-reaching consequences for the development of psychotherapy in Austria. In 1991 the General Social Security Law was changed to include the provision that every Austrian citizen who is in need of psychotherapeutic treatment for an illness must be provided with such treatment as a part of public health service. Since then work is ongoing to ensure that this Law is actually put into practice, and today in all 9 Federal provinces insurance companies have made possible to obtain psychotherapy within public health service (which was before normal for other forms of medical treatment). Today around 5500 trained psychotherapists in Austria are active in the health care service and the social services.

So one of the consequences of the new Law was an exponential growth of the expenditure by Health and Social Insurance for Psychotherapy (source: Hauptverband der österreichischen Sozialversicherungsträger, 28<sup>th</sup> May, 2002, cited by Pritz (16)) (Table 1). The whole psychotherapy market (private and public together) in 2002 in Austria had a volume of approximately 200 millions Euros per year.

**Table 1.** Exponential growth of the expenditure by Health and Social Insurance for Psychotherapy in period 1992-2000 in Austria.

<b>Year</b>	<b>Millions Euros</b>
1992	3.20
1993	6.90
1994	8.43
1995	10.54
1996	11.85
1997	12.79
1998	14.17
1999	15.70
2000	16.13

Also, the psychotherapy training is regulated by a law. All education and training institutes and facilities require an accreditation from the Health Ministry for which a Psychotherapy Board is responsible. This Board, made up of representatives of all psychotherapy approaches, university professors and other representatives of psychotherapy, consists almost entirely of psychotherapists, and its members number approximately 60 persons. It is the Board's task to examine the applications for training accreditation, which is granted only after a rigorous examination of scientific qualifications and abilities of the trainers.

### *Current position in relation to health care system*

Today psychotherapy is integrated in the health care system in whole of Austria. All public health insurance associations have a system of supplementing payment for treatment; in certain cases they underwrite the whole amount. Treatment is carried out in private practises and also in public institutions belonging to the health insurance associations and in counselling offices which are subsidised from public funds, of which there are approximately 500 in the whole Austria. Psychotherapy is expanding within hospitals, too.

### *International significance*

It is not a surprise that recently Austria as one of the most developed countries in psychotherapy field in the world gave another three very important contributions for the development of globalised psychotherapy: the foundation of the World Council for Psychotherapy, the foundation of faculty study of psychotherapy and the foundation of European Psychotherapy Universities Network.

With the foundation of the World Council for Psychotherapy in 1995, in Zurich, Switzerland, psychotherapy attained a new quality of communication which had never existed previously (17). International professional congresses had been held for many years, but a synoptic view was missing and the importance of overcoming prejudices towards other modalities and developments in the profession had not received enough attention. The unified view creates new insights and new hierarchies of importance; at the same time the situation is stimulating for all questions relating to psychotherapy. At the World Congresses which have been held so far, in 1996, 1999 and 2002 in Vienna, and 2005 in Buenos Aires, approximately 4000 delegates from more than 150 countries took part each time and contributed to the dialogue.

### *Training*

The integration of psychotherapy to the academic world of universities is crucial for its affirmation as the autonomous scientifically based discipline and as the autonomous profession. In October 2005 Sigmund Freud University (SFU) (18) from Vienna started with the faculty study of psychotherapy (the enrolment is possible immediately after the secondary school) which is organized in accordance with Bologna process (three levels - bachelor, master, doctor). This is the first project of faculty study in psychotherapy in the world which enables students to choose psychotherapy as the first profession providing a Bachelor's and Master's degree in psychotherapy science and that also integrates different psychotherapy approaches under the same roof. While psychotherapy training was offered exclusively at postgraduate level by psychotherapy training institutions in the past, SFU blends academic training for psychotherapists with comprehensive research activities

previously carried out at various research institutes separately. The University cooperates with a number of psychotherapy training institutions in various areas. The project has also symbolic meaning because it takes place in Freud's town and under his name opens new chapter in the development of psychotherapy.

In 2007 Austrian psychotherapists gave initiative for establishing the European Psychotherapy Universities Network (EPU) (19). EPU has the following mission statement:

- has a pluralistic perspective on emotional topics, psychotherapeutic approaches and practice;
- cooperates in psychotherapy research, psychotherapy education and treatment activities;
- promotes psychotherapy as an academic discipline and profession in its own rights;
- promotes public founding of psychotherapy;
- provides scientifically based information on psychotherapy to the public.

## **Slovenia: psychotherapy in a country in transition**

### *Slovenia in transition*

In the Communist period (1945-1991) Slovenian state welfare system had advantages in securing easy access to child care, education, employment, entertainment, health, housing, maternity leave and pensions on a universal basis. Yet the standard of services was unsatisfactory in many instances, choice was very limited, and inequality was introduced by the privileges given to members of a large number of elites. Formally the Yugoslav Federation had moved to a policy of "self-management" in industry and policy areas such as housing in the 1970's. In reality, this meant that employees had a lot to say in *how* services were run, but policies and budgets were imposed from above. Nongovernmental organizations were frowned upon, despite the fact that in the pre-Communist period there were many such small scale organisations in operation. Self-management was not introduced even formally to traditional welfare services at that period. In line with other Communist countries, the prevalent mode of handling long-term health and psychological problems was institutionalization. Institutions exist(ed) for people with learning difficulties, physical disability and mental illness, side by side with orphanages. While the physical state of these institutions was reasonable, if poor the social segregation was almost total (20).

Although better off economically than other East European and ex-Soviet Union states, Slovenia has experienced an increase in unemployment and a parallel decrease in growth of real wage and Gross Domestic Product (GDP) in the beginning of the nineties. In spite of the revival of economic growth after 1993, the inequalities of income nevertheless increased, and the unemployment remained relatively high. At the end of the 1990's Slovenia had ad per capita annual GDP of approximately \$10,000 and the unemployment rate of approximately 14.5. Under the circumstances of economic restructuring, the system of social security has functioned relatively efficiently. The share of funds devoted to various cash benefits for the population increased from a total of 15.9% of the GDP in 1992 to 17.6% of the GDP in 1999. In 1999 GDP was 20 billion US\$. A cause of greater concern are the data, which are

showing a considerable growth in the number of individuals and families whose assets had been so reduced after the 1993 that they were not sufficient for subsistence. At the end of 1990's the investment of money in health care is approximately 7.5% of the GDP and in social welfare system approximately 17.5% of the GDP (21-23).

After the democratic shift private practice in the health and social care system became allowed. Since then the number of private practises has been increasing, posing numerous questions on how to structure and regulate relations between the public and the private sectors.

At the end of the 1990's Slovenia has been confronted with many difficult challenges on the macro level:

- the number of recipients of various cash benefits and other social transfers is rising,
- the share of elderly inhabitants is rapidly increasing,
- there is a growing number of children and young people suffering from violence and sexual harassment,
- due to economic uncertainty short-term conditions for creating a young family are not improving,
- the proportion of people with various addiction problems is on the increase, etc.

#### *The development of psychotherapy in Slovenia*

When psychoanalysis spread greatly after World War One, its influence also reached Slovenia. Especially the generation of young artists, born around 1900, showed great interest in the new science. However, after 1934 interest in psychoanalysis was diminished and no psychoanalytic circle was formed (24). In the "hard years" of Communist period psychoanalytic works were discouraged. For example, the only book related to Freud's work that was translated into Slovenian language in the seventies was Emil Ludwig's *Der Entzauberte Freud* which was extremely critical. During the 1950's and 1960's the conditions for development of psychotherapy slowly improved, especially in the line of psychiatric services. All over former Yugoslavia (which Slovenia was part until 1991), dispensaries of mental health became part of the outpatient medical service. Professional collaboration among psychiatrists and psychologists in these dispensaries slowly became an everyday need. At first, the task of psychologists was to develop psychodiagnostic measures, but they grew increasingly more involved in the clinical therapeutic work, as well. Among psychiatrists and psychologists, a growing need for additional education emerged. Though possibilities for postgraduate education in Slovenia improved, a systematic psychotherapeutic training was available only abroad.

In Slovenia, psychotherapy as an organized professional movement began at the end of the 1960's when the endeavours of some psychiatrists and clinical psychologists fruitfully joined. The year 1968 was a turning point in the development of psychotherapy in Slovenia when first systematic training of clinical psychologists and psychiatrists interested in psychotherapy started. Thus, the first Slovenian psychotherapy training was designed as a sub-specialization for psychiatrists and clinical psychologists. Since it took place within the health service, it was organized as a psychotherapy section of the Slovenian Medical Society. Renowned Croatian and Serbian psychoanalysts participated as guests. The one-year psychotherapy course

(propaedeutics) comprising theory, self-experience, and practice under supervision, soon became an integral part of specialization for clinical psychologists and psychiatrists.

At the end of the 1960's, on the grounds of cooperation with professionals from Austria (Otto Wilfert, Raoul Schindler), sensitivity trainings were introduced to Slovenia, which led to an increase of interest in group dynamics on the part of various professionals (e.g. in education, psychiatric and care-taking institutions). Some Slovenian psychologists fruitfully combined knowledge of group dynamics and psychotherapy with counselling in the context of social work. They also found possibilities to combine psychotherapy and voluntary work in the area of psychosocial help to children and adolescents with psychosocial problems (25).

In the 1970's first psychotherapy publications appeared and new inpatient psychotherapeutic facilities developed in Ljubljana, the capital of Slovenia, such as a psychotherapeutic centre, a psychotherapeutic ward in the psychiatric hospital, a centre for the treatment of alcoholism, etc. The contacts of Slovenian psychotherapists with psychotherapy associations in the former Yugoslavia (The Association of Yugoslav Psychotherapists was also established in 1968) and abroad expanded. The psychotherapeutic training (psychodynamically oriented) was advanced and included theory, self-experience in the group, and practice under supervision. The 1970's brought progress in the field of alcoholism treatment as well. Besides the therapeutic-rehabilitative approach which developed in the network of health organizations, there was an extensive growth of self-help groups (so-called "Clubs for alcoholics in treatment"). Psychotherapy (principally group psychotherapy) was given an important role in the integrative approach to treatment and rehabilitation of people with alcohol addiction (26).

In the 1980's a group of Lacanian oriented theoreticians played an important role in popularizing psychoanalytic concepts through intensive translation work and through writing original papers mainly on theoretical psychoanalysis. The leading figure of this group, Slavoj Žižek (27), is nowadays the most popular and translated Slovenian author in the world. He linked psychoanalytic theory with philosophy and the critique of ideology and art.

During the same period, in the 1980's and 1990's, a blossoming of different psychotherapy approaches took place. In the years 1986-90, new psychotherapy approaches or schools began entering Slovenia, usually with initial seminars, designed to offer an introduction and motivate possible candidates for further trainings. The scope of these new offers with qualified foreign teachers increased and so did the number of interested candidates, especially from the ranks of professional helpers, who in psychotherapy saw either a chance to build on their professional competence or an alternative activity for personal fulfilment.

The collapse of communism and the Balkan wars halted the initial development of new approaches. The reasons were that some foreign teachers considered Slovenia – also after the ten days' war in 1991 – a dangerous area, and that the disintegration of Yugoslavia decimated some training groups comprising members of different nations of the formerly uniform state.

The socio-political change in Slovenia in the beginning of 90's coincided with the founding of EAP and its efforts to define psychotherapy as an independent profession on a high professional level. In 1998 the Slovenian Umbrella Organisation of Psychotherapy (28) was founded which united seven associations and became a

member of EAP. At the same time Psychotherapists' Society of Slovenia grew out of the above mentioned psychotherapy section of Medical Society and united individual psychotherapists (mostly psychodynamically oriented clinical psychologists and psychiatrists).

### *Current state of psychotherapeutic service*

#### **Organization**

Individual approaches or schools of psychotherapy in Slovenia are mostly organized as societies, some operate as institutes. The training consists of three basic parts: personal experience, theory and practical work with clients under supervision. However, some of the societies have not been offering their members a sufficient quantity of integral training in accordance with the European Certificate of Psychotherapy (ECP) as yet, therefore it is their priority to supplement their training possibilities and to bring them in accordance with the training standard of the ECP. As far as training is considered, all societies depend more or less on foreign teachers because they do not have enough teaching staff themselves. Therefore, one of the societies' priorities in the near future is: how to develop training programmes with more Slovenian teachers.

#### **Number, structure, and qualifications of psychotherapists**

At the moment it is still difficult to say how many psychotherapists there are in the Umbrella Organisation and in Slovenia in general. The Umbrella Organisation does not have a complete register of psychotherapists of single societies yet. In the register of Psychotherapists' Society there are around 50 psychotherapists and approximately 150 associated members. Most societies only have a small number of fully trained psychotherapists: some of them are "grandparents" and some have completed their training abroad. The majority of members in the societies are without completed training. Besides, most therapists are employed in their original professions i.e. as (clinical) psychologists, psychiatrists, social workers, education workers, and their possibilities to work as psychotherapists differ: they dedicate only a small part of their working hours or a part of their free time to psychotherapy. So psychotherapy training improves their professional competence in their primary professions, but they use it to a much smaller extent to practise psychotherapy in the narrow sense of the word. Thus, only estimates of the total number of psychotherapists are possible for the time being: we believe that in the Umbrella Organisation and in the Psychotherapists' Society there are from 200 to 250 people with the professional identity of a psychotherapist.

Since psychotherapy in Slovenia was founded in the seventies as a sub-specialization for clinical psychologists and psychiatrists, these two professions are still the prevailing among the psychotherapists. Only more recent approaches, in the late eighties, began training other professions as well: social workers, (social) education workers, occupational therapists, teachers and others. In the recent years when the Umbrella Organisation as well as the Psychotherapists' Society have been offering propaedeutics, also representatives of professions other than beside humanities have gained access to a psychotherapeutic training. There is an agreement that basic professions of psychotherapists can be first of all: medicine, psychology, education – pedagogy/andragogy, rehabilitation – occupation therapy, sociology, social work, theology, and anthropology.

### **Research**

There is no scientific research institute for the time being, though there have been initiatives in this direction for quite some time. Given that single societies i.e. approaches have neither sufficient personnel nor financial means for operating such an institute, it is intended to be operated by the Umbrella Organisation and also serve the needs of the individual approaches.

### **Availability of psychotherapeutic service**

Clients can contact a psychotherapist either on their own initiative or upon recommendation of their general practitioner or psychiatrist. Since the demand is much greater than the supply, many clients remain without psychotherapeutic help. Only a minority of them is lucky enough to reach a psychotherapist working for the public health or social care system or in the private practice. Psychiatrists and clinical psychologists who offer psychotherapy as a part of their daily routine are employed mainly in psychiatric hospitals, dispensaries of mental health and counselling centres for children and adolescents. Social workers at Centres of Social Work offer counselling as a part of their daily routine. Many social workers have received training in various forms of psychotherapy and include this knowledge in their counselling but officially they are not allowed to do so and are not paid to do psychotherapy.

After the democratic shift in 1991 the private practice was allowed in the field of medicine, clinical psychology and social work. Today there are approximately 25 private psychiatrists, 5 pedopsychiatrists, and 15 clinical psychologists. The national health insurance allows them psychotherapy and pays them for it. No other professions (social workers, let's say) can be paid to practice psychotherapy. It is also interesting that only psychologists with the specialization in clinical psychology are allowed to do psychotherapy. Many psychologists who are interested in practicing psychotherapy legally, cannot do it because it is very difficult to get a specialization in clinical psychology in the health care system. There is no part state financing system. There are no more than five psychotherapists in Slovenia who earn their living with psychotherapy alone.

The patients who get psychotherapy from psychiatrists and clinical psychologists in the health system are treated free of charge, i.e. the cost is covered by the national health insurance which pays the same for psychotherapy in the public or private sector: 35 Euros for individual analytic or behaviour-cognitive therapy (60 minutes), 100 Euros for family and couple therapy (for 2 therapist, 90 min), 100 Euros for group therapy (10 members, 110 min) with one therapist or 180 Euros if there are two therapists, 30 Euro for relaxation techniques (50 min) and 18 Euros for a so called "superficial measure" (30 min). A few others have the luck of possessing sufficient financial means and may find a psychotherapist practising psychotherapy in his free time. The charges for those clients who pay themselves range from 20 to 60 Euros per hour of psychotherapy. Most of the clients can afford the lowest charge and most of the clients can't afford the highest.

The psychiatric hospitals admit mainly people suffering from psychoses and alcoholism. Alcoholism and suicide were rife in the pre-1990 period, and continue to be the two major social problems associated with personal vulnerability. It is estimated that 80,000 people suffer from alcoholism, a huge proportion in a country

of not more than two million inhabitants. They constitute approximately 80 per cent of all psychiatric admissions. Like its neighbour Hungary, Slovenia has the highest European/world rate of completed suicide (around 35 persons per 100,000). Famous Slovene psychiatrist Milčinski (29) laid grounds for suicide treatment in Slovenia and attributed an important part of it to psychotherapy. Since most people with alcohol problems are motivated for symptomatic treatment, only a small part of them is included in the treatment of alcoholism in psychiatric hospitals which is based on sociotherapy and psychotherapy (30). The treatment of psychotic patients is based predominantly on antipsychotic drugs, while psychosocial rehabilitation is insufficient. The regime includes formal occupational therapy, therapeutic communities and group therapy. In reality the psychiatric hospitals present a very medicalized environment with many negative effects of institutionalization, where for example even volunteers are often not allowed to enter. In spite of the fact, that "many psychiatrists and psychologists are well educated, not only in their own field but also in areas as philosophy (many of them are distinguished authors), and although in the past 15 to 20 years many health professionals have received training in various forms of psychotherapy, relatively little effect is seen in the day to day running of psychiatric services" (31). The psychotherapeutic model hasn't brought any essential changes to the predominant medical model in psychiatric hospitals. There are also no psychotherapy wards or clinics for psychosomatic problems.

It is encouraging, though, that psychotherapy has found its way to all Slovenian psychiatric hospitals and that it is gradually developing, although there is still a lot of disbelief if not opposition. In the psychiatric hospital, covering the region of Gorenjska, for example, a ward for behaviour-cognitive therapy with eight beds was established in 1998 where mainly anxious-depressive disorders, as well as eating disorders, psychotic and personality disorders, etc. are successfully treated. Given our psychiatric hospitals financing system, this ward is making a loss which is being compensated from the income of classical psychiatric wards. Financially, therefore, there is a paradox - the more involved and high-quality the treatment is, the worse it is paid and vice versa.

In elementary and secondary schools, psychotherapy as a method is officially not allowed. Psychologists, special pedagogues and social workers who work in schools are allowed to use psychotherapeutic elements only in special cases (if there is a need for a brief treatment or a crisis intervention, for example) but they have to direct pupils and families to specialized institutions (counselling centres for children and adolescents, dispensaries of mental health, pedopsychiatric clinics) if they need psychotherapy. In spite of the official guidelines many of the above mentioned professionals take it on themselves to build on their psychotherapeutic knowledge and skills (mostly in Gestalt, reality, behaviour-cognitive and family therapy) which help them in their everyday work.

In the Communist period, Catholic Church was excluded from the political arena but it remained a strong and influential institution. After the democratic shift Caritas was established and has organized psychotherapeutic training for its counsellors in the 1990's. At the moment Faculty for Theology is organizing a two-year postgraduate study in marital and family therapy. In the capital, Ljubljana, there is a Franciscan Family Center which has become quite popular during last years. Namely, its leader, father Gostečnik (32), published some books in which he connects

in a popular way relational psychoanalysis and systemic psychotherapy with Christian spirituality.

### *Slovenian psychotherapy in a quantum leap?*

The last three years seem to be especially important for the expansion of psychotherapy in Slovenia. Namely, important new projects promise to bring a quantum leap in its development: faculty study of psychotherapy, initiative for Law on Psychotherapy, national network of centres for psychotherapy and psychotherapy journal. The initiatives for these projects were closely connected to the fruitful collaboration of Slovenian umbrella association with EAP and with Austrian colleagues at the Sigmund Freud University.

#### **Faculty study of psychotherapy**

In October 2006 Sigmund Freud University (SFU) from Vienna and Slovenian Umbrella Association for Psychotherapy have started with the faculty study of psychotherapy (the enrolment is possible immediately after the secondary school) which is organized in accordance with Bologna process (three levels – bachelor, master, doctor) (33). Parallel the special project team prepared the application for the accreditation of bachelor, master and doctoral degree in psychotherapy Slovenia. The benefits of Slovenian accreditation would be many, for example student status, the possibility of state concession with the reduction of study costs. The innovative potential of the faculty study of psychotherapy is big and is opening many possibilities for the realisation of new goals, for example the reduction of the insufficient number of psychotherapists in Slovenia, the integration of Slovenian psychotherapeutic scene, the improvement of the quality of the practice (for example in the frame of faculty outpatient department), the shortening and the simplification of the psychotherapy education, bigger emphasis on psychotherapy research etc. Potential employability possibilities for masters in psychotherapy science will be in social and health care system, in schools, health tourism, in the field of psychosocial rehabilitation, psychosocial help programmes, palliative care, psychosocial counselling, in public, private, non-profit organisations and international charity organisations.

#### **Initiative for Law on Psychotherapy**

In 2006 the Working group for Law on Psychotherapy from the representatives of Slovenian Umbrella Association for Psychotherapy and from Psychotherapists' Society was established at the Ministry of Health to prepare a draft of Law on Psychotherapy. After many intensive and controversial discussions it seems that the draft will be finished in autumn 2008 and will be opened for public discussions. The consensus was reached on some main points that are in accordance with EAP Strassbourg declaration:

#### **National network of centres for psychotherapy**

As described above the accessibility of psychotherapy services in Slovenia is low. According to the increasing number of mental disorders Slovenia would need at least 5000 psychotherapists but there are only about 250 psychotherapists with appropriate qualifications and most of them don't work full time as psychotherapists. Also the students of psychotherapy and trainees don't have enough possibilities for supervised

practice. So in 2007 the umbrella organization (stimulated by the psychotherapy faculty study project) gave initiative for establishing the National network of centres of psychotherapy. In spring 2008 centres in Ljubljana, Koper and Nova Gorica started to work and in autumn new centres in Celje, Maribor, and Slovenj Gradec will join. The network will offer psychotherapy at a reasonable price (40 Euros a session) and also free service for socially deprived clients. The centres will be connected to psychotherapy faculty project so that the students could practice under supervision. The network counselling phone line already started and different projects which will embed psychotherapy in local communities are planned.

### **Psychotherapy journal**

In 2007 Slovenian Umbrella organization has launched the first specialized journal “Kairos – Slovenian Journal of Psychotherapy” in Slovenian and English language (34). Articles are published from all fields of psychotherapy, as well as interdisciplinary articles and articles from neighbouring fields. The main aim of the journal is to encourage the development of psychotherapy as the autonomous profession on the scientific basis in Slovenia and abroad.

### *Trying to compare psychotherapeutic services in both countries*

It is quite obvious from the comparison between Austria and Slovenia that the development of psychotherapy has some common characteristics. The main phases of development or the main characteristics that stimulated the development were:

- development of different psychotherapy approaches;
- forming of the umbrella organisation that united different approaches for the sake of promoting psychotherapy as an autonomous profession;
- promotion of psychotherapy through publications;
- regulation of the field through the Law on Psychotherapy: regulation of training through accreditation of training institutions, licence system (register of psychotherapists), ethical control;
- integration of psychotherapy in the public health care system;
- building a global network of psychotherapists and psychotherapy organisations;
- integration of psychotherapy training to the academic world of universities and building a network of psychotherapy universities.

In the future Slovenian psychotherapists have many more steps to do to integrate psychotherapy in the health care system. Good Law on Psychotherapy would be the crucial step. Learning from good Austrian example can help them to make a good strategy that would of course also include the special characteristics of Slovenian context.

## **EXERCISE**

### **Task 1**

Make an internet search on “psychotherapy law” and compare different law regulations of psychotherapy in Europe (for example Austria, Germany, Italy,

Netherlands, Sweden, UK) and try to propose a model for further development of psychotherapy as an integral part of comprehensive health care in your country.

### **Task 2**

Make a list of needed mental health services in your local area and explain the need of psychotherapy as an integral part of these services.

### **Task 3**

Find a psychotherapist in or near your local community and make an interview about his or her practice. Pay special attention to the level of integration of his or her practice in the public health and social care system.

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<b>MANAGEMENT IN HEALTH CARE PRACTICE</b> A Handbook for Teachers, Researchers and Health Professionals	
<b>Title</b>	<b>PALLIATIVE CARE</b>
<b>Module: 5.11</b>	<b>ECTS (suggested): 0.2</b>
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<b>Keywords</b>	Palliative care, health care services
<b>Learning objectives</b>	After completing this module students and public health professionals should: <ul style="list-style-type: none"> <li>• Recognise major palliative care development challenges and characteristics</li> <li>• increase knowledge of trajectories of advanced chronic diseases</li> <li>• understand the implications of future trends of demographics and diseases changes for health care organization</li> <li>• identify most important decisions in the policy planning</li> </ul>
<b>Abstract</b>	Population ageing and the implications these present for care towards the end of life are major public health issues for 21 <sup>st</sup> century. In the line with aging of the population, the pattern of diseases that people suffer and die from is also changing. Palliative care should be an integral part of health care and take place in any setting. Palliative care services are structured in three levels of ascending specialization, referred to the expertise of the staff providing the service: palliative care approach, general palliative care and specialist palliative care. Priority care needs for the three illness trajectories, for short period of evident decline (mostly cancer), for chronic illnesses with intermittent exacerbations and sudden dying (organ system failure), and for slow dwindling (mostly frailty and dementia) are different and specific palliative care services are needed through different length of time.
<b>Teaching methods</b>	Short lectures give students theoretical knowledge and insight into a range of characteristics of palliative care and its services. With case study, small group discussions, illustrations from personal experiences, students determine existing palliative care services in their region and then they identify the main problems. Through study of recommended reading and internet search, they try to find or create their own solutions and models from range of views from all stakeholders.
<b>Specific recommendations for teachers</b>	<ul style="list-style-type: none"> <li>• work under teacher supervision/individual students' work proportion: 30%/70%;</li> <li>• facilities: lecture room or a nursing home;</li> <li>• equipment: LCD projection equipment, internet connection, access to the bibliographic data-bases;</li> <li>• training materials: recommended readings or other related readings;</li> <li>• target audience: master degree students according to Bologna scheme.</li> </ul>
<b>Assessment of students</b>	Multiple choice questionnaire (MCQ), seminar paper.

# PALLIATIVE CARE

Urška Lunder

## THEORETICAL BACKGROUND

### Introduction

Until the last few decades, most people died quickly, following an infection or injury, or soon after the initial symptoms of an advanced and untreatable condition like cancer, diabetes, or heart disease. Modern living conditions and advances in health care have ensured that most will die slowly, and mostly in old age (1).

In the line with aging of the population, the pattern of diseases that people suffer and die from is also changing. Increasingly, more people die as a result of serious chronic disease, and older people in particular are more likely to suffer from multi-organ failure towards the end of life (2). Diagnosing any one disease as the main cause of death can be difficult to do with certainty as many older people suffer from several conditions together that might all contribute to death. Dementia is an example of one condition that is regularly under-diagnosed.

The top five predicted causes of death for 2020 are (3):

1. heart disease,
2. cerebrovascular disease (including stroke),
3. chronic obstructive pulmonary disease,
4. lower respiratory infections (in situations with progressive dementia, or other frailty conditions), and
5. lung cancer.

Population ageing and its implications are major public health issues for 21<sup>st</sup> century, and palliative medicine and palliative care increasingly becoming more and more important.

### Definition and description of palliative care

#### *Definitions of palliative care and palliative medicine*

The core of palliative care is well understood, but because of the complexity of palliative care there are various definitions used around the world. Palliative care is defined by the World Health Organization as an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (4).

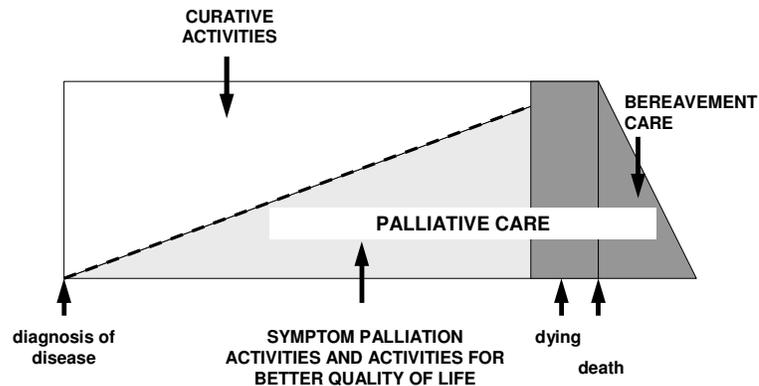
An important part of palliative care is palliative medicine. According to European Association for Palliative Care, palliative medicine is the appropriate medical care of patients with advanced and progressive disease for whom the focus of care is the quality of life and in whom the prognosis is limited (though sometimes may be several years). Palliative medicine includes consideration of the family's needs before and after the patient's death (5).

### *Palliative care characteristics*

Palliative care provides relief from pain and other distressing symptoms, affirms life, regards dying as a normal process, and intends neither to hasten nor prolong death. Palliative care integrates the psychosocial and spiritual aspects of patient care, and offers a support system to help patients live as actively as possible until death. It also offers a support system to help family cope during the patient's illness and their own bereavement.

Using a team approach, palliative care addresses the needs of patients and their families, including bereavement counselling if necessary. It enhances quality of life, and may positively influence the course of the illness.

It is applicable early in the course of the clinical phase of the disease with other therapies, also such as chemotherapy and radiotherapy, and includes those investigations needed to understand distressing clinical complications (Figure 1).



**Figure 1.** Schematic presentation of placement of palliative care into clinical phase of natural course of disease.

Palliative care should be offered as needs develop and before they become unmanageable.

### **Why palliative care is a public health problem?**

Quality of care at the end of life is a global public health problem because of the large number people affected. Palliative care can with its patient centred care, and self-management orientation prevent needless suffering. Additionally, it could have a potential to prevent morbidity in the bereaved.

### **The range of problems for different diseases**

People living with serious chronic diseases face a wide range of problems. Each disease brings specific symptoms (6), for example:

- ischemic heart disease may cause the chest pain of angina, breathlessness and fatigue,
- stroke may cause difficulty moving or talking, while

- chronic obstructive pulmonary disease may restrict activity because of breathlessness, fatigue and depression.

Chronic diseases often come together and so add up to cause many problems affecting the quality of people’s lives. Prevalence of problems in the last year of life is presented in Figure 2.

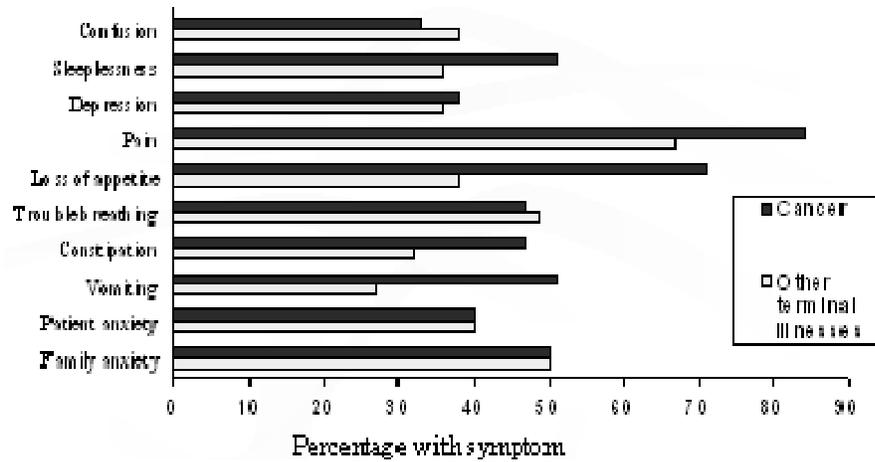


Figure 2. Prevalence of major problems in the last year of life (6).

### Models of the typical disease trajectory for common serious chronic diseases

According to Lynn and Adamson (7), models of the typical disease trajectory for common serious chronic diseases are as follows.

1. Trajectory 1: short period of evident decline, typically cancer.  
This entails a reasonably predictable decline in physical health over a period of weeks, months, or, in some cases, years (Figure 3).

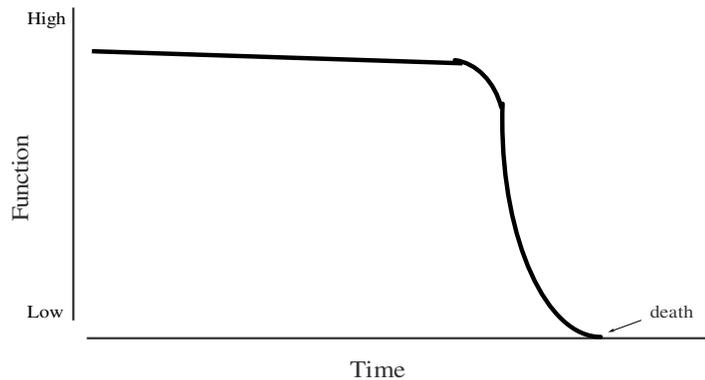
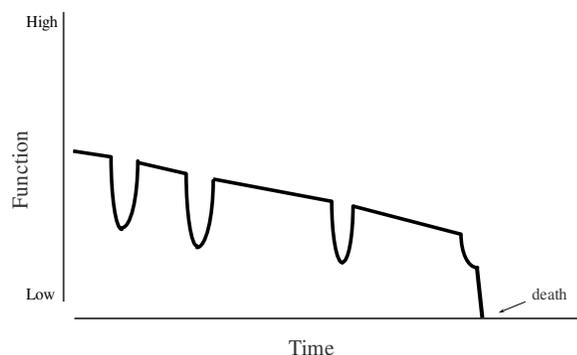


Figure 3. Model of typical trajectory of an illness due to cancer. Source: Lynn and Adamson 2003 (7).

This course may be punctuated by the positive or negative effects of palliative oncological treatment. Most weight loss, reduction in performance status, and impaired ability for self care occurs in patients' last few months. With the trend towards earlier diagnosis and greater openness about discussing prognosis, there is generally time to anticipate palliative needs and plan for end of life care. This trajectory enmeshes well with traditional specialist palliative care services, such as hospices and their associated community palliative care programmes, which concentrate on providing comprehensive services in the last weeks or months of life for people with cancer. Resource constraints on hospices and their community teams, plus their association with dying, can limit their availability and acceptability.

2. Trajectory 2: long term limitations with intermittent serious episodes, typically organ failure (heart failure, respiratory failure, liver failure, renal failure). With conditions such as heart failure and chronic obstructive pulmonary disease, patients are usually ill for many months or years with occasional acute, often severe, exacerbations (Figure 4).

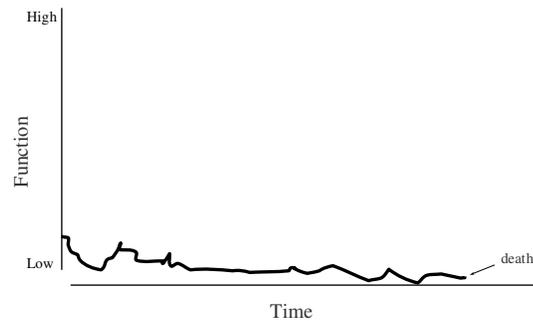


**Figure 4.** Model of a typical illness trajectory for organ failure such as heart failure. Source: Lynn and Adamson 2003 (7).

Deteriorations are generally associated with admission to hospital and intensive treatment. This clinically intuitive trajectory has sharper dips than are revealed by pooling quantitative data concerning activities of daily living. Each exacerbation may result in death, and although the patient usually survives many such episodes, a gradual deterioration in health and functional status is typical. The timing of death, however, remains uncertain. In one large study, most patients with advanced heart failure died when expected to live for at least a further six months. Many people with end stage heart failure and chronic obstructive pulmonary disease follow this trajectory, but this may not be the case for some other organ system failures.

3. Trajectory 3: prolonged dwindling, typically dementia. People who escape cancer and organ system failure are likely to die at an older age of either brain failure (such as Alzheimer's or other dementia) or generalised frailty of multiple body systems.

This third trajectory is of progressive disability from an already low baseline of cognitive or physical functioning (Figure 5).



**Figure 5.** Model of a typical illness trajectory for dementia or frailty. Source: Lynn and Adamson 2003 (7).

Such patients may lose weight and functional capacity and then succumb to minor physical events or daily social "hassles" that may in themselves seem trivial but, occurring in combination with declining reserves, can prove fatal. This trajectory may be cut short by death after an acute event such as a fractured neck of femur or pneumonia.

### **Clinical and organizational implications**

#### *Priority care needs for the three trajectories*

Trajectories allow us to appreciate that "doing everything that can be done for a possible cure" may be misdirected. The priorities are needed, and priority care needs for the three illness trajectories are as follows (8):

1. Priority care needs for short period of evident decline (mostly cancer) are as follows:
  - adapting services to rapid changes in the patient,
  - controlling symptoms,
  - providing support for families: training, respite, and counselling through bereavement,
  - ensuring continuity of the clinical team,
  - life closure and completion.
2. Priority care needs for chronic illness with intermittent exacerbations and sudden dying (organ system failure) are as follows:
  - preventing exacerbations and providing early treatment,
  - planning for urgent situations,
  - making decisions about the benefits of low-yield treatments,
  - mobilizing services to the home,
  - preparing families for sudden death,

- life closure and completion.
3. Priority care needs for slow dwindling (mostly frailty and dementia) are as follows:
    - fostering caregiver endurance, loyalty, and reliability,
    - providing long-term personal care services and supervision,
    - helping family caregivers to find meaning and avoid severe burdens,
    - avoiding undesired prolongation of life,
    - keeping skin intact,
    - finding pleasurable moments to enjoy,
    - life closure and completion.

### *Palliative care services levels*

Palliative care services are structured in three levels of ascending specialization. These levels refer to the expertise of the staff providing the service.

1. Level one - palliative care approach.  
Palliative care approach is that palliative care principles should be appropriately applied by all health care professionals.
2. Level two – general palliative care.  
At an intermediate level, a proportion of patients and families will benefit from the expertise of health care professionals who, although not engaged full time in palliative care have had some additional training and experience in palliative care.
3. Level three – specialist palliative care.  
Engaged in palliative care full time and palliative services are their core activities, provided by an inter-disciplinary team, under direction of a consultant physician in palliative medicine.

### *Palliative care services*

Palliative care should be an integral part of health care and take place in any setting.

In each health area all three levels of services provision should be available in all care settings, including acute general hospitals and the community. Services should be sufficiently flexible to allow movement of patients from one care setting to another, depending on their clinical situation and personal preferences.

### **Palliative care in the community**

The most palliative care is likely to be delivered in the primary care setting. Studies have indicated that people with terminal diseases spend most of their final year of life at home (9,10). One of the main principles in palliative care is to provide services to patients in a setting of their choice. Most people would prefer to die at their home (11,12). The development of community based palliative care services is vital in the future development of palliative care services in order to best meet the needs and personal preferences of patients with advanced cancer or progressive life-threatening disease of other aetiologies.

The majority of care in the community is provided by a family physician and a community nurse, and a specialized palliative care nurse can become involved in the care of patients with advanced incurable disease. Other disciplines are also involved in the care of patients in the community to varying degrees. These include the physiotherapist, the occupational therapist, and social worker.

There are many factors that prevent patients from receiving adequate care in the community and which result in the often unnecessary admission of patients to hospitals, nursing homes or specialist palliative care units. The main reason has been identified as a lack of support for carers in the community (9,10,13). Although most of the last year of life is spent at home, approximately 90% of patients dying from cancer are admitted to a hospital in their last year (9).

#### **Specialist palliative care team**

Hospital palliative care teams have evolved into specialist inter-disciplinary consulting teams, who offer advice and support to professional health care providers regarding the management of patients with progressive disease. Specialist palliative care team in the acute general hospital should consist of at least a consultant in palliative medicine, a specialist palliative care nurse, a social worker, and a secretary.

#### **Specialist palliative units**

A particular hospital, depending on the regional needs, may designate a ward or a unit to function as the specialist palliative care unit for patients requiring specialist palliative care. Specialist palliative care team in such a unit consists of full interdisciplinary teams (specialized physicians, nurses, social workers, psychologist, physiotherapist, occupational therapist, pharmacist, dietician, coordinator of spiritual care, volunteers).

#### **Day care centres**

Day care centres are usually attached to the specialist palliative care units. They offer access to specialist care, a change of environment for patients, and respite for their families and carers.

Above national palliative care programme, guidelines or standards for specialist palliative care settings should be established, which would ensure a national consistency of standards for all specialist palliative care centres.

#### **Hospice**

Hospice is usually nongovernmental organization, also with a holistic approach to the end of life care, dependant on attitude, expertise and understanding rather than a specific mechanism and setting. It most often includes a house and inpatient unit, but can be also organized as an institution with homecare teams and bereavement support only. It can increase the sensitivity for more holistic, proactive and anticipating approach towards the dying, through individual treatment, sincere communication, attention to detail, continuity of care, and team work. It is a concept of choice and empowerment at the end of life. It is a concept of dignity, autonomy and respect for the dying and the family. It is a potential denominator for public change in attitudes, behaviour, and life-decisions led by understanding and compassion. It can also be an important link to promote palliative care in the wider community.

#### **Present status**

Some countries are now developing national and regional palliative care strategies, and each country needs to decide which options of care are their priorities that can be offered or planned for. However, if people do not receive information on what care is available, it is difficult to argue that best care has been offered. Currently, most health care systems

are not set up in a way that makes it easy for people to receive palliative care or to die where they would wish.

There is still too much unnecessary suffering at the end of life in contemporary society and inadequate services to relieve it through insufficient professional knowledge, organizational possibilities through inexistent services network and lack of interest in palliative care.

Another barrier to better development of palliative care is lack of policy-makers interest in organizational and strategic planning for people with palliative care needs already at the present and in the future.

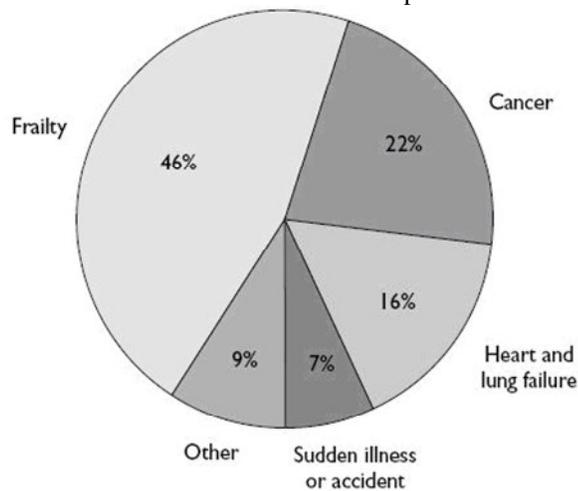
At the same time, palliative care for non-malignant diseases has been voted in British Medical Journal in April 2008 as the area of health care in which doctors can make the greatest difference to patient care.

### **Palliative care and the future**

The proportion of people in each trajectory will shift with medical advances and lifestyle changes:

- as people reduce smoking and otherwise prevent lethal cancer, more people will live long enough to develop vascular and heart disease,
- to the extent that prevention (through diet, medications, and exercise) is effective for heart disease, more people will live long enough to encounter dementia and frailty,
- dying from cancer tends to peak around seventy years of age, and heart and lung disease about a decade later,
- most people who survive past eighty-five eventually need daily care and accumulate evidence of multisystem lack of reserves.

Thus, to the extent that prevention and early treatment are successful, more people are likely to live their last years with frailty and dementia (8). In Figure 6, major medical conditions before death for Medicare beneficiaries are presented.



**Figure 6.** Major medical conditions before death, for Medicare beneficiaries. Source: Lunney, Lynn, and Hogan 2002 (14).

## CASE STUDY: SOME PUBLIC HEALTH ASPECTS OF PALLIATIVE CARE IN SLOVENIA

This case study is basing on policy paper entitled “Organizing palliative care in Slovene health care system” which represents the last overview concerning the status of palliative care in Slovenia (15).

### Epidemiological data

#### *Some basic mortality and morbidity indicators*

In Slovenia with approximately 2 million inhabitants there are around 19,000 deaths per year. The life expectancy at birth is 74.04 years for men, and 80.93 years for women (16).

The three main causes of death in Slovenia are cardiovascular diseases, neoplasm and diseases of respiratory system (17).

Regarding neoplasm, Slovenia is a country with a middle size morbidity and mortality rate caused by cancer. The leading cancer for the male population is lung cancer (16.8% out of all cancer sites in males) and for the female population is breast cancer (21.0% out of all cancer sites in females) (18).

#### *Where majority of deaths occur?*

According to data from 2002, approximately 59% of all deaths in Slovenia occur in hospitals and other institutions, and 41% occur at home (Table 1) (19). The situation is still approximately the same in present time.

**Table 1.** Place of death in Slovenia in 2002. Source: National Public Health Institute 2003 (19)

Place of death	Number of deaths	%
Health and social care institutions	10,993	59.14%
hospitals	7,781	41.86%
nursing homes	3,212	17.82%
Home (or other places)	7,595	40.86%
Total	18,588	

**Table 2.** Epidemiological estimation of symptoms in the last year of life in Slovenia (20)

Symptom	Patients with cancer	Patients with other terminal illnesses
Confusion	1,600	5,550
Sleeplessness	2,550	5,400
Depression	1,900	5,250
Pain	4,250	10,050
Loss of appetite	3,600	5,700
Trouble breathing	2,350	7,350
Constipation	2,350	4,950
Vomiting	2,550	3,900
Patient anxiety	2,000	,000
Family anxiety	2,500	7,500

Additionally, from the Table 2 data we can estimate the most frequent symptoms in the last year of life based on the work of Higginson (20). In this estimation we must be aware of the fact that patients often have many concurrent symptoms at the last days of life.

Epidemiology - numbers and causes of death can give indication of need for palliative care, especially when coupled with information on symptoms, emotional, social and spiritual problems. With this approach we have to be aware of data inconsistencies and gaps (e.g. recorded cause of death is subject of fashion, or can be inaccurate in older people where there are multiple causes) and different diseases have different patterns of progression. But this simple approach can provide us with useful insight for planning and implementation purposes

## **History and present state of palliative care in Slovenia**

### *Short history*

The hospice movement, with home service and education programs, started in the middle of the 1990's in Ljubljana, the capital city of Slovenia. Slowly, then in about a decade, palliative care started to penetrate the health care system.

### *Present situation*

It is now present in seven cities in Slovenia, in three of them, Ljubljana, Maribor and Celje their palliative care teams offer not just education to the public and volunteers for home support for the families, but a whole range of palliative home care services. This includes palliative nursing care, social and psychological care for patients and their families at their homes.

Nurses in each hospice in Ljubljana, Maribor and Celje are paid by the National Health Insurance Company.

General practitioners and community nurses are not involved in organized palliative care initiatives yet. A particular concern is that Slovenia lacks around 200 primary care physicians and even more nurses at the present time. The problem of palliative care implementation on the primary care level needs to be closely examined, and solutions wisely proposed together with a sensitive evaluation of the possible reality.

All hospices together, provide home care for around 500 patients annually. They organize of workshops, seminars and presentations.

There are around 110 volunteers working in the hospice organizations at the moment. New groups of volunteers are trained every year.

Bereavement services are organized in all hospices, and there is also a traditional bereavement children's group holiday every summer.

New regional organizations of hospice in different parts of Slovenia are developing, particularly for education on psychosocial topics for volunteers and the public. Hospice movement in Slovenia serves as an important model of hospice and palliative care to be implemented into national health system.

Pain programs, like in other countries, started much earlier in most hospitals than the palliative care programs. There are outpatient pain clinics in nearly every hospital in Slovenia.

### *Main palliative care services in Slovenia*

Main palliative care services in Slovenia are:

1. The University Clinic of Respiratory and Allergic Diseases Golnik has established a palliative care unit within a long-term care department of the hospital. There is a palliative care team with a physician four nurses, social worker, psychologist and volunteers.
2. The major institution for cancer patients, Institute of Oncology Ljubljana, has recently established a Department for palliative care.
3. At General hospital Jesenice few hospital beds are available for palliative care as well.
4. The Palliative Care Development Institute was founded in 2000 as a training and resource centre, education, research and advocacy. The Institute plays a crucial role in the strategic planning and policy development of palliative care on the national level.

### *Palliative care policy*

The Palliative Care Development Institute in co-operation with the Ministry of Health prepared a National strategic plan for palliative, but it is still in the process of wide discussion, confirmation and ratification.

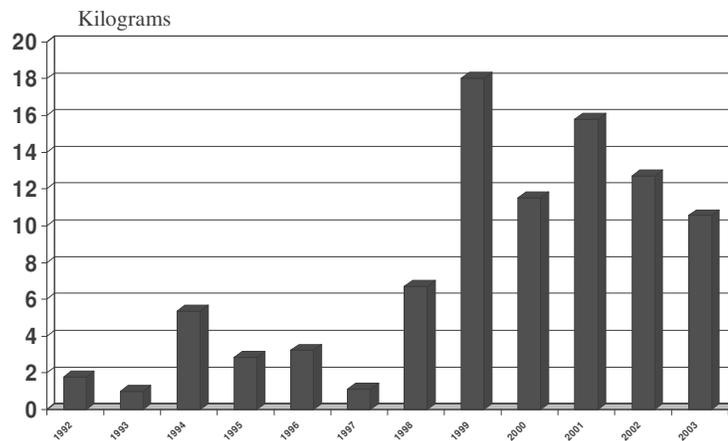
The National Committee for Palliative Care at the Ministry of Health is overseeing and co-ordinating a pilot study on palliative care implementation in the health care system.

The process of developing standards of care for patients at the end of life is under way, but still at an early stage in Slovenia.

### **Pain as the main palliative care problem**

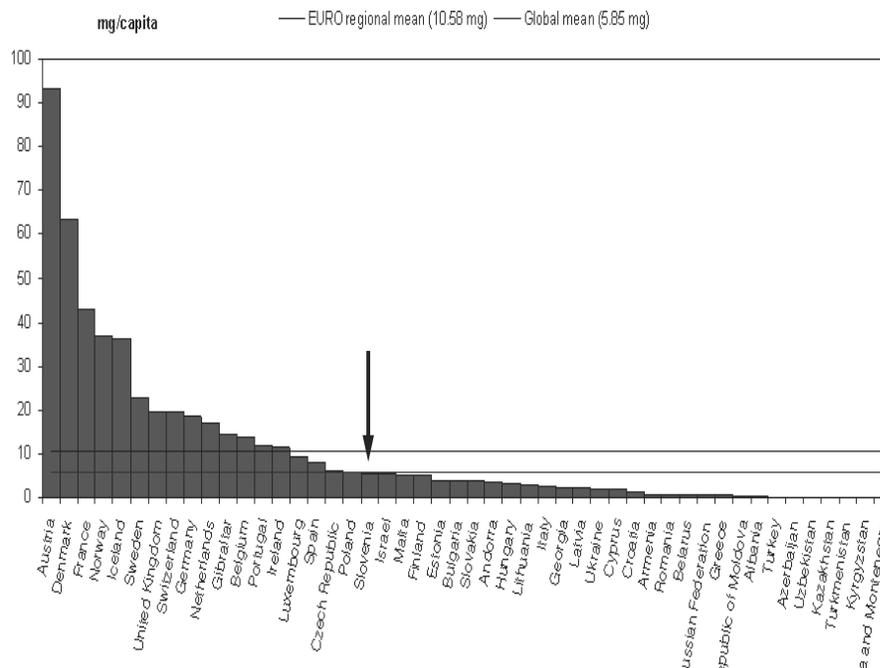
Pain is the major symptom for patients in need of palliative care and therefore drug consumption for pain treatment is an indirect indicator of the development of palliative care. All the essential drugs for pain relief are available in Slovenia, with a normal procedure for prescribing.

Figure 7 shows total morphine consumption in Slovenia from 1992-2003 (21).



**Figure 7.** Total consumption of morphine in Slovenia in 1992–2003. Source: International Narcotics Control Board 2005 (21).

There was a sudden increase in opioid consumption after 1998, most probably due to the activities listed previously and new pain relief drugs available on the market. The decline in last three years demonstrates the need for regular extensive postgraduate education on pain management. As compared to the rest of Europe, consumption of morphine in Slovenia is at the global mean level, but under the average European mean level in 2003 (Figure 8).



**Figure 8.** Consumption of morphine (mg/capita) in Europe in 2003. Source: International Narcotics Control Board 2005 (21).

A study of quality of care at the end of life at the Oncology Institute, Ljubljana, presented at the International Conference on Palliative Care in Cancer, Ljubljana (22), showed a retrospective record analysis of quality of care for 145 patients in 2002 for the last 6 months of life. The results suggested, that the documentation among health care professionals was incomplete and co-ordination often inappropriate. 75% of patients received opioids, with successful treatment to the goal of mean VAS 3 in 47% of patients. The major weak points in the care of patients at the Oncology Institute as compared to the literature were higher rates of prescriptions for antibiotics, transfusions, and parenteral hydration in the last days, and lack of evaluation of the common symptoms in palliative care except pain (e.g. breathlessness, nausea, vomiting, tiredness, etc.). No patient received chemotherapy, albumin or vasoactive support in the last days of life. In the documentation less data was available on other symptoms and especially about psychosocial problems of patients and their families. No other symptoms except pain were evaluated by a scale, so it was impossible to evaluate the effects of treatment, as documented. From the study, it was more than obvious how urgent it is to put palliative care standards in

place. The study indicated urgent need for extensive professional training, a better documentation system and co-ordination among all professionals in the health system.

National guidelines for pain management have been published in 1999, and have already been updated. The WHO-book on Pain and Symptom Management for Children with Cancer has been translated into Slovenian. In addition to the guidelines, there was a successful educational campaign organized to train doctors and nurses all over the region on the basics of pain management.

## **The future of implementation of organized palliative care in Slovenia**

### *Reasons for slow implementation of nationally organized palliative care in Slovenia*

The possible reasons for the absence of nationally organized effective palliative care programme in Slovenia could be the historical development of the Slovene society. There has been long subjugation of the country to another's rule; our independence began only in 1991. This situation through the centuries contributed to the development of a closed national character. People are not used to discussing and solving their problems publicly. The suicide rate in Slovenia is one of the highest in Europe.

In the period of socialism, death was pushed into the sphere of the private, and the Church, which was competing for the public's attention, would not enter the private sphere (23). There was no interest in the development of public institutions, like palliative care units in hospitals or hospices. There was a strict hierarchical organization of the health care system, and the concept of team work was not developed. Nursing, which is the most involved in the care of the dying patient, still has little power because of its subordinate position within the health care system (24).

Medical doctors, probably because of the lack of palliative care program during their study and lack of organizational solutions, do not feel comfortable in the area of palliation and rather emphasize the curative approach.

Finally, there was a complete absence of financial support from the government for all non-acute diseases (therefore also for the palliative care programs). We could conclude that:

- the incidence of chronic and progressive diseases in Slovenia compares to central European countries, but not to their level of palliative care development: palliative care is not organized nor sufficiently developed in the Slovene health care system;
- in Slovenia, like in the majority of European countries, the proportion of older population is increasing, needs for palliative care will become larger (25);
- statistical data about evaluation measures and quality of services in palliative care are not available, and therefore not very reliable qualitative and financial estimations of costs for existing initiatives of palliative care are possible.

### *Main issues and obstacles for strategies for the implementation of palliative care into national health system*

The main issues in palliative care for Slovenia are:

1. to develop common vision for palliative care for the people who need it now and for the growing population of elderly, who will need it very soon;
2. to produce common standards in palliative care;
3. to introduce regular undergraduate and postgraduate education;
4. to ensure better teamwork and continuity of care across all settings;
5. to introduce efficient clinical and managerial solutions to ensure better health outcomes and patient satisfaction; and
6. to bring better understanding that every clinical decision is also a financial decision and therefore responsibility in the clinical management should be introduced.

On the other side, the main obstacles for the implementation of organized palliative care are:

1. lack of knowledge and appropriate attitude among health care professionals;
2. lack of organizational motivation to reach better health and satisfaction outcomes;
3. lack of clearly defined common standards in palliative care;
4. lack of understanding of team work and continuity of care;
5. lack of the public understanding what palliative care is;
6. lack of economic analyses on end-of-life care;
7. lack of governmental understanding of palliative care and its benefits; and
8. lack of governmental recognition of the growing needs of patients with chronic and progressive diseases in the past, and therefore lack of financial incentives.

Common examples of attitudes presenting direct barriers to palliative care development are:

- “We are already providing this form of care.”
- “We do not have enough money for this development.”
- “We only need to train general practitioners.”
- “We already are starting non-acute departments where nurses are offering care to patients.”
- “In tertiary hospitals we should not have this type of patients.”
- “Nursing homes should provide such services.”

Such remarks are often heard and illustrate a range of individual and institutional barriers and lack of understanding of benefits which can be achieved. To respond to this situation a combination of well trained palliative care teams with clear ideas and vision on the one hand are needed, along with generic education and a change of attitudes with the ability to build on earlier successes in order to achieve worthwhile results.

As Gomez-Batiste et al (26) observed, individual and institutional resistance might be very strong and it is vital to understand the reasons that underpin it and work towards achieving a consensus of views. This can help to distinguish between palliative care services and for example, pain clinic or oncology services, in a context where palliative care standards have been clearly defined. This is particularly important where there is a political dependency of one service on another, rooted in local power positions. Once a number of good initiatives are underway, however, and this has been consolidated, local experience is frequently the most effective rejoinder to criticism. It then becomes possible to focus more on issues of extension and coverage.

### *Assessment of needs*

Baseline studies to assess needs provide vital information on kinds of services that should be developed. Objective assessment of needs and analysis of baseline context is also crucial for effective monitoring of the results of a new initiative. We can use a simple and pragmatic approach to estimate need in palliative care by Higginson that has three components (20):

- epidemiology;
- comparison with services available; and
- effectiveness and cost-effectiveness analysis - national and local.

### *Possible strategies for palliative care in Slovenia*

There are three main options of possible strategies for palliative care in Slovenia:

1. No change in the current government policy or strategy.  
This would most probably lead to a variety of very slowly evolving and differently formulated palliative care services on different levels of the health care system, not being integrated into a useful network of the path of every patient, without proper quality standards, coverage, equity, possibilities for quality measures and planning towards meeting needs. It would definitely be a very unsatisfactory experience for patients and their families, and health care professionals as well.  
It would also be possible to expect similar events of misuse and exploitation of the circumstances like the events in Hotel Črni les, in the 2001-2003, as reported in the media. Inappropriate care and financial exploitation was discovered in the situation of absence of organized palliative care on the national level.
2. Incremental or modest policy change; the development of palliative care units within nursing departments in every large hospital.  
If new governmental policy helps alleviate some of the aspects of the current problem, like supporting the development of long-term nursing departments in hospitals only and not acting strategically on all levels of health care where patients die, very similar results to the first option can be expected. Public health goals (coverage, equity, quality standard care, efficiency and efficacy) could not be reached in this way.
3. Radical policy alternatives.  
By applying bold changes, most if not all of the policy goals could be achieved. To guide reforms, many participants in health care should embark on an era of innovation, evaluation, and learning. Among those are clinicians, educators, insurance house, provider organizations and government agencies together with the development of palliative care teams and patient advocacy organizations.

## **EXERCISES**

### **Task 1**

Carefully read the part on theoretical background of this module. Critically discuss the characteristics of palliative care services and their supportive role in different trajectories of disease in a small group of students (fishbowl method could be used).

## Task 2

From domestic and international bibliographic data-bases find out how different successful models of palliative care services can meet people's needs at the end of life.

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## Index

- Access to health care, 212, 519
- Accessibility, 120
- Accreditation, 64
- Activities, occupational health, 638
- Adequacy, 120
- Administration, 104, 105
- Affordability, 120
- Ageing, 191
- AHRQ mission, 144
- Austria, psychotherapy, 647
- Availability, 120
- Biosimilar medical product, 221
- BOHS, 637
- Bradshaw's classification, 130
- Broad programming, 113,
- Bulgaria, economy, 194
- Bulgaria, employment policy, 206
- Bulgaria, pensioning system, 201
- CDC, 24
- Charter, Ottawa, 445
- CINDI Slovenia, 168
- CINDI, 168
- Command, 118
- Community based hospital, 555
- Community health care, 468
- Community health needs, 282, 369
- Community mental health, 563
- Community palliative care, 666
- Community, 471
- Comprehensive health program, 531
- Constrain, 107, 115
- Coordinator, team, 428
- Coverage, 120
- Croatia, hospitals, 554
- Croatia, primary health care, 416, 517
- Croatia, privatization, 418
- Cross-sectional studies, 167
- Culture, 491
- Curative services, 527
- Decision analysis, 14,
- Declaration, Munich, 447
- Declaration, Vienna, 445
- Demand, 128
- Detailed programming, 113
- Development, 478
- Dom narodnog zdravlja, 480
- Economic assessment, 191
- Economics, 74
- Education and development, 492
- Education, 489
- Effectiveness, 68, 79, 120
- Efficiency, 68, 77, 79, 120, 122
- EMEA guidelines, 228
- Employment policy, Bulgaria, 206
- Entrepreneurship, 90
- Epidemiology of mental disorders, 567
- Equality, 46
- Equity, 45, 68, 70
- Ethics, 45, 479
- EU, 223
- Evaluation, 118, 153
- Evaluation, international course, 496
- Evidence based policy, 235
- Family medicine, 410
- Family, 470
- FDA, 24
- Financing, 210
- Financing, health care, 519
- Financing, occupational health, 639
- Formal group, 427
- GDP, 8, 214
- General practice, 410
- Goal, 107
- Golnik, 614
- Group process, 430
- Group survival scenario, 437
- Group, 425
- Group, formal, 427
- Group, informal, 427
- Health 21, 446
- Health and development, 4,
- Health care demand, 128
- Health care level, 16
- Health care need, 127, 131
- Health care provider, 129
- Health care supply, 129
- Health care system, 16, 209
- Health care, 13, 17, 129
- Health care, access, 519
- Health care, financing, 519
- Health demand, 128

Health education, 468  
 Health financing, 87, 95  
 Health for all, 443, 444  
 Health needs assessment, 134  
 Health needs, 15, 29, 52, 121, 126, 127, 131, 133, 268, 360  
 Health organisation, 141  
 Health policy analysis, 155  
 Health policy development, 449, 154  
 Health policy, 20, 25, 26, 29, 31, 36, 43, 89, 108, 112, 147, 154, 188, 248, 272, 395, 400, 418, 444, 469, 544, 563, 624  
 Health practice, 478  
 Health program, comprehensive, 531  
 Health program, integrated, 530  
 Health program, vertical, 528  
 Health promoting hospital, 550  
 Health promotion, 29, 35, 468  
 Health reform, 408  
 Health services, curative, 527  
 Health services, occupational health, 636  
 Health services, preventive, 527  
 Health survey, 166  
 Health system, 12, 15, 489  
 Health targets, 445  
 Health, 15  
 Healthy city, 625  
 History, hospital, 534  
 Home of people's health, 480  
 HOPE mission, 144  
 Hospice, 667  
 Hospital, 534, 608  
 Hospital, Golnik, 614  
 Hospital, health promoting concept, 608  
 Hospital, health promoting, 550  
 Hospital, history, 534  
 Hospital, learning, 550  
 Hospital, patient centred, 549  
 Hospital, reform, 545  
 Hospital, teaching, 552  
 Hospital, type, 536, 543, 551  
 Hospitals, community based, 555  
 Hospitals, Croatia, 554  
 Human development concept, 478  
 Human development, 478  
 Human resource management, 478  
 Impact, 120, 122  
 Indicators, occupational health, 633  
 Informal group, 427  
 Input, 120  
 Institute of public health, 16, 18, 282  
 Integrated health program, 530  
 Integrated primary health care, 515  
 Intervention, 117, 167  
 Kalimo's classification, 130  
 Knowledge society, 479, 489  
 Labin, healthy city, 626  
 Labour market, 199  
 Learning hospital, 550  
 Learning society, 502  
 Learning, 490  
 Level of health care, 16  
 Local community, 17  
 Management cycle, 111  
 Management team, 428  
 Management, 104, 105  
 Market, 86, 90  
 Maslow's scale, 471  
 Mental disorders, epidemiology, 567  
 Mental health 564, 571, 575, 602  
 Mental health, child and adolescents, 593  
 Mental health, community, 562, 592  
 Mental health, determinants, 593  
 Mental health, EU, 570  
 Mental health, prevention, 563  
 Mental health, primary prevention, 565  
 Mental health, secondary prevention, 566  
 Mental health, services, 596, 598  
 Mental health, Slovenia, 573  
 Mental health, tertiary prevention, 566  
 Mental health, WHO, 570  
 Mental hygiene, 566  
 Millennium Preston Curve, 6  
 Mission, 144  
 Monitoring, 153  
 Morbidity, primary health care, 510  
 Munich Declaration, 447  
 Need, 127, 131, 133  
 Needs assessment, 134  
 Nursing care, 466

Nursing care, quality, 454  
 Nursing care, Slovenia, 473  
 Nursing process, 466  
 Nursing role, 447  
 Nursing standards, 458  
 Objective, 107, 113, 120  
 Obstacle, 107, 115  
 Occupational health services, 636  
 Occupational health, 629, 630  
 Occupational health, indicators, 633  
 Organisation, 14, 117, 209  
 Organization, primary health care, 510, 516  
 Ottawa charter, 445  
 Outcome, 120  
 Output, 120  
 Palliative care, 661  
 Palliative care, characteristics, 662  
 Palliative care, clinic, 665  
 Palliative care, community, 666  
 Palliative care, Slovenia, 669  
 Patient centred hospital, 549  
 Patient safety, 49  
 Patient's need 185  
 Patient's right, 48, 157  
 Patient's satisfaction, 63, 183  
 Pensioning system, Bulgaria, 201  
 Perceived need, 133  
 Plan of action, 114  
 Plan of application, 113  
 Planning, 106, 111, 114  
 Policy agenda, 150  
 Policy alternatives, 151  
 Policy analysis, 14, 149  
 Policy analysis, 155  
 Policy cycle, 149  
 Policy implementation, 153  
 Prevention of mental health, 563  
 Preventive services, 527  
 Primary health care, 20, 408, 466, 509, 515, 520, 521, 526  
 Primary health care, Croatia, 416, 517  
 Primary health care, integrated, 515  
 Primary health care, social aspects, 515  
 Primary level, 16, 35  
 Priority setting, 115  
 Privatization, Croatia, 418  
 Process, 120, 158  
 Programming, 107, 113  
 Psychotherapy, 643  
 Psychotherapy, Austria, 647  
 Psychotherapy, history, 643  
 Psychotherapy, public health, 646  
 Psychotherapy, Slovenia, 647, 650  
 Public health intervention, 167  
 Public health needs, 131  
 Public health program, 8  
 Public health services, 22, 29, 3  
 Public health, 22, 26, 29, 80, 95  
 Public policy, 149  
 Quality assurance, 456  
 Quality improvement, 65  
 Quality of health care, 57  
 Quality, 453  
 Quality, nursing care, 454  
 Reform, hospital, 545  
 Relevance, 118, 121  
 Secondary level, 34  
 Selective primary health care, 527  
 Slovenia, mental health, 573  
 Slovenia, palliative care, 669  
 Slovenia, psychotherapy, 647, 650  
 Slovenia, public health policy, 31  
 Slovenia, public health services, 30, 35  
 Split, healthy city, 627  
 Suicides, 26, 568, 577,  
 Survival scenario, 437  
 SWOT, 458  
 System analysis, 13  
 System, 13, 15  
 System, functional, 15,  
 System, rational, 15,  
 System, social, 15,  
 Target, 107, 113  
 Task, 118  
 Teaching hospital, 552  
 Team building, 425  
 Team coordinator, 428  
 Team work, 427  
 Team, 425  
 Tertiary level, 32  
 TQI, 60, 544, 549  
 TQM, 60  
 Vertical health program, 528

Vienna Declaration, 445  
Vision, 144  
WHO, 239, 447  
WHO, mental health, 570  
World Bank Development Report  
2004, 4  
Zagreb, healthy city, 626