



REVIEW ARTICLE

Pay-for-performance and tools for quality assurance in health care

Doncho M. Donev¹

¹ Institute of Social Medicine, Faculty of Medicine, Ss. Cyril and Methodius University, Skopje, North Macedonia

Corresponding author: Professor Doncho M. Donev, MD, Ph.D.

Address: Institute of Social Medicine, Faculty of Medicine, Ss. Cyril and Methodius University, Skopje, North Macedonia

Phone: +38970244760

E-mail: dmdonev@gmail.com

Abstract

Ongoing health care reforms in the countries of Southeast Europe (SEE) to modernise and promote the health sector include the introduction of innovative payment methods for health care providers in hospitals and outpatient services. The idea of remunerating health workers according to the work they do and the results they achieve has been present in the countries of SEE for more than four decades. This includes the need to develop and implement objective measures and criteria to regulate the work of health facilities and health professionals. Implementing the "Pay-for-performance" (P4P) model is a major challenge with the risk of compromising the quality of health services in all countries, and positive experiences for quality assurance have been modest in many countries around the world. Standards and norms (S/N), clinical pathways (CPW) and checklists (CL) are necessary regulatory tools that complement each other to protect the quality of health services and implement the "Payment for success" (P4S) model. The absence of S/N, CPW and CL in the implementation of the P4P model leads to inefficiencies, inadequate/unrealistic numbers, and poor quality of health services, as well as more frequent medical errors. With the development, introduction and implementation of S/N, CPW and CL in the application of the P4S model, everyone benefits: patients, healthcare organisations and their employees, health insurance companies, ministries of health and the state.

Keywords: Checklist; Clinical paths, clinical pathways; Patient safety, Pay for performance; Quality assurance, healthcare; Quality of health care; Standardisation, standards

Introduction

Ongoing health sector reforms in the Western Balkans region and, in a broader context, in the countries of South Eastern Europe (SEE) and beyond, aimed at joining the European Union (EU) and modernising and promoting the health sector over the last twenty or more years, include several fundamental trends and activities: 1) increasing the transparency, efficiency and sustainability of the health system; 2) introducing professional management in health facilities; 3) payment based on health services provided, known as pay-for-performance (P4P) in inpatient and outpatient care; and 4) improving the quality, safety and availability of health services through evidence-based medicine (1-5).

P4P is an innovative remuneration method to motivate and reward healthcare providers in hospitals and outpatient settings (individual physicians and clinicians or clinical teams, organisational units, services or hospitals) according to the work invested and the results achieved. The P4P method has been applied for more than two decades in most countries of the SEE and beyond in Europe and the world (1, 6-12). P4P can be defined as "a strategy for improving health care delivery that relies on the use of market or purchasing power, with incentives that reward providers for achieving a number of payer goals, including efficiency of service delivery, submission of data to the payer, and improvement in quality of care and patient safety" (13). In developing countries, there is a great deal of heterogeneity in the design of P4P schemes for providers and their autonomy, in the motivational criteria and the way performance and outcomes are monitored and reported, and in the number of financial bonuses and sanctions (1-4, 6-10).

According to the Agency for Healthcare Research and Quality, the P4P method "is intended to provide financial incentives to doctors and other healthcare providers to

achieve defined quality, efficiency or other goals. The collective goal of the P4P approach is to reduce the costs of the health system while improving quality by changing the behaviour of doctors, patients and hospital staff through a system of rewards and punishments" (11, 13).

However, the incentives of the P4P system have significant flaws and can be counterproductive - neither reducing the costs of the health system nor improving the quality of health services and care. Punishing participants for poor performance can further reduce individual performance, especially when motivation and commitment are required (11-13). The initial enthusiasm and success in implementing variants of the P4P model are often questioned because there is no clear and repeated evidence of their success and there is no clear and dominant successful P4P model. A key policy dilemma remains: Will P4P improve the quality of health care and nursing? (1, 4, 6-10).

The idea of rewarding health personnel according to performance and success has been known in SEE countries for more than four decades, and with it the need to develop and apply objective measures, criteria and benchmarks against which health facilities and health workers must be measured. The implementation of P4P methods is a major challenge because there is insufficient evidence that the use of financial incentives contributes to improving the quality of health care. There is also a risk that the quality of health services will be compromised, and positive experiences are modest in many countries around the world (4, 7, 9).

Standards and norms (S/N), clinical pathways (CPW) and checklists (CL) are necessary regulatory tools that are complemented to ensure consistent application of P4P methods and protection of the quality of health services and patient safety (14-22).

So far, several attempts have been made in Macedonia and other SEE countries to develop and implement S/N, CPW and CL and to apply the P4P method in health care, but without satisfactory results:

- In 1977-80, S/N in primary health care (PHC), specialist consultative services, and in some preventive medicine/ public health activities were prepared and adopted (14);
- In the 1980s and after, there were attempts in several SEE countries, such as Slovenia, Croatia, Serbia, Macedonia etc., to develop S/N and CPW in inpatient care;
- At the end of the 1980s, at the request of the SFR Yugoslavia Health Care Trade Union, "regulations for the variable part of the salary depending on performance" were elaborated and adopted, which in practise provided for rewards or penalties of 10-20% of the salary;
- In the last decade, the introduction of CL in certain health care sectors (surgery, paediatrics, obstetrics and neonatology) has started, but the experience so far is modest.

Objective: The focus and aim of this paper is to clarify the approaches and tools to protecting the quality of health care services when applying P4P methods in health care, especially in hospitals, to present the Macedonian experience and the experience of some other countries in the SEE region and broader in terms of remuneration of health personnel according to the work done and the results of the work (outcome), as well as international experiences, observations and guidelines on the protection of the quality of health services and patient safety towards improvement in the application of models from Pay for Performance (P4P) to Pay for Success (P4S).

The importance of standards and norms, clinical pathways and checklists for the implementation of the pay-for-performance model in health care

The experience in the countries of SEE and beyond in Europe and other countries teaches us that standardisation of health

care and health services still has a long way to go. Implementing the P4P model is a major challenge with the risk of compromising the quality of health services and jeopardising patient safety, and positive experiences are modest in many countries around the world (7, 9, 18). S/N, CPW and CL are necessary tools that complement each other to ensure quality of health care and good clinical practise in the application of the P4P model.

According to the Institute of Medicine in the United States (since 2015 the National Academy of Medicine), quality of health care is defined as "the extent to which health care services provided to individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" and "patient safety is no different from the provision of quality health services and care" (10, 21). Donabedian describes health service delivery as a continuum of structure, process, and outcomes and argues that quality of care is an end product when structures are translated into outcomes through processes (23). In the continuum of service delivery, each of the above aspects of quality is given equal importance. The quality of structure consists of human and important material resources such as infrastructure, equipment, medicines and supplies, communication and transport. Sufficiently trained and motivated staff is a prerequisite for optimal quality of health care and nursing. The process simply means whether services are delivered optimally and safely according to service delivery standards through technical and non-technical performance (23). Technical performance means that scientifically proven services are delivered at an appropriate time. For example, a routine antenatal examination should measure the woman's weight, check blood and urine samples for infections and signs of pre-eclampsia, palpate the abdomen and measure blood pressure and abdominal circumference. Non-technical performance

relates to interpersonal relationships, provider behaviour, privacy and confidentiality (10, 23, 24).

Outcomes are the key consequences of service delivery, such as morbidity, mortality, readmissions and transfers, hospital infections and complications, out-of-pocket costs and customer satisfaction (8, 23, 24). The most complex and probably simplest definition of quality is used by proponents of total quality management: "Do the right thing right, right away". Quality assurance refers to a systematic, ongoing process aimed at improving performance, using implicit or explicit data. Essentially, quality assurance is a set of activities carried out to set standards and monitor and improve performance so that

health services and care are delivered as efficiently and safely as possible. The absence of minimum standards can compromise quality and safety, lead to patient dissatisfaction and reduce demand for services in the long term (2, 10). The absence of S/N, CPW and CL leads to inefficiency, inappropriate/unrealistic numbers and poor quality of health services, as well as more frequent medical errors (2, 3, 8, 10, 21).

The benefits of S/N, CPW and CL are multiple, both for health institutions and staff and for health policy and decision-makers (ministries of health, health insurance funds) and, above all, for patients and the population as a whole (Box 1).

Box 1. Multiple benefits from the use of standards and norms, clinical pathways and checklists (2, 10, 17, 18, 20, 21-23)

1. Benefits for patients and the population

- Improved quality and safety of health services and clinical work;
- Better multidisciplinary teamwork in inpatient treatment;
- Uniform criteria for referral to a specialist, admission and discharge from hospital;
- Standardisation of services and a uniform therapeutic approach;
- Precise recording of interventions, surgical procedures and prognostic parameters;
- Faster treatment with better outcomes, fewer complications, reduced hospital mortality;
- Lower personal costs for the patient (fewer visits, more rational treatment, shorter sick leave);
- Protection of rights and strengthening of cooperation and active role of patients.

2. Benefits for health institutions and staff

- A higher level of accountability of health personnel for good clinical practise;
- easier assessment of the volume and quality of work and the workload of health personnel;
- Risk reduction and "management" of health services and procedures;
- Localisation of specific liability for errors and negative outcomes in health care;
- Reducing the costs of unnecessary procedures, analyses and medications;
- Shortening the duration of hospital treatment and reducing readmissions;
- Aligning the quality of work of health personnel;
- Better internal quality and cost control for health services;
- Support for learning/training and transfer of new knowledge into daily work;
- A reduced number of legitimate medical error claims;
- A unique approach to pricing medical services;
- Identification of actual needs for health facility financing;
- Control and evaluation of contractual obligations and plans of health institutions.

3. Benefits for health policy and decision makers (MoH, HIF)

- Provision of high quality, efficient and economic health care;
- Setting standard costs for health services and treatment of a particular disease;
- Agreeing the number and price of health services for health institutions and staff;
- Appropriate allocation of funds for financing health care;
- Appropriate distribution of the work of health care institutions and staff by levels of health care system;

- Rational use of the capacities of the health system;
- Reduction of irrational consumption and slower growth of costs in the future;
- Collection of "online" data for quality control and external monitoring of the work of health care institutions;
- Promotion of good clinical practice and evidence-based medicine;
- Realistic health care planning and programming.

Objectives of standardisation of procedures and processes in the provision of health services and standardisation of time

The main objective of standardising procedures, the order in which health services are delivered and standardising the time required to perform certain services is to increase the level of accountability of doctors and other health care providers and to improve the quality of health care services in order to achieve better outcomes and thus reduce morbidity and premature mortality. However, it is difficult to attribute morbidity and mortality only to the quality of services provided, as several other factors can influence these outcomes, such as severity of illness and pre-existing other diseases, delays in seeking health interventions and care, and non-adherence to treatment regimens (10, 17, 18, 20, 23). At the same time, it is very important to have an optimal workload and to realistically assess how many and what kind of services a doctor and other health personnel can and should provide during regular working hours (14, 18, 20). From an economic point of view, the goal is to determine the real prices of health services and the real costs of health institutions for normal/optimal work through the financial possibilities of the health system as well as to equalise price differences - standardisation of health services between health institutions. Standardisation of health services also prevents deviations from basic principles and procedures in the execution of health services (18, 20).

What are health standards and norms, clinical pathways and checklists?
S/N, CPW and CL stand for a prescribed or

agreed set and sequence of medical steps and standardised clinical procedures that constitute a health care service or episode of hospital care and that must be performed according to medical science to achieve a specific positive medical outcome (14, 18, 21-28). The clinical pathway and checklists make it possible to record all relevant procedures or to record the reasons why the procedure was not performed (21, 24-30). S/N, CPW and CL have a dual function: 1) they regulate relations in the health facility with established professional-methodological norms and rules for the behaviour of health personnel in the delivery of health care; and 2) they set the stage for the regulation of socio-economic relations between health care providers and health care users mediated by the Health Insurance Fund (HIF) and the Ministry of Health (MoH) (14, 18).

Standards and norms in health care

Standards and norms refer to the minimum and appropriate mix of personnel by profile and number, health system infrastructure, equipment and supplies required to deliver specific health services efficiently, fairly and sustainably to the expected population at different levels of the system (14, 20, 31). A health care service standard is a prescribed or agreed set of medical procedures that constitute a health care service and that, according to medical

science, must necessarily be performed to achieve a specific medical outcome. The standard of performance includes the preparatory and the final procedure as well as the content of the service as a whole, for the performance of which a time norm is specified (14, 18, 20). Clinical standards are

measures or quality statements. They are established on the basis of evidence-based best practise guidelines to ensure safe and high-quality care. Therefore, standards would imply an absolute limit below which the quality of health services and care must not fall (minimum standards), while norms represent a consensus on the quality goals to strive for (aspirational norms). Clinical standardisation is the process by which standards and protocols for health professionals and trainees are identified, adopted and applied in practise. The basic effects and benefits of clinical standardisation are as follows: 1) It supports patient safety and ensures consistency in care; 2) It ensures care for patients and families; 3) It increases efficiency and optimises health care resources; and 4) It improves health outcomes and accountability for physicians and trainees (16, 18-20, 31). The time norm for physician activity is the agreed time required to provide a particular health service or procedure in a manner determined by the standard of health care, taking into account an average level of technical equipment, an average level of professional knowledge and work experience of doctors/teams and other health personnel, and an average level of work intensity and workload. The time norm for the doctor and his/her team includes the time required by mid-level and high-school level nursing staff to perform work in their domain, such as sterilisation of instruments and supplies, maintenance of medical equipment, requesting and handling materials and medicines, medical documentation and records, etc. (14, 18, 20). The technical-methodological approach and process of developing standards and norms in health care goes through several phases. First, it is necessary to create a unified nomenclature of health care services, which is systematised by the individual branches of medicine, i.e. health care activities, through the law. Several methods are used in the development of S/N

in health care, namely: the statistical method of work, the method of expertise, the experimental method and the field method (14, 20). Previous experiences and already prepared S/Ns for specific activities in the country, as well as materials from other countries, domestic and foreign literature, should be used as materials for the preparation of S/Ns, with the necessary adaptation to the existing conditions in the given environment/country (14, 18, 20). Review of the S/N by experts in the field is necessary to make adjustments based on comments, opinions and suggestions from peers and heads of departments/services. The final correction of the S/N is done after a 'broad public debate' where opinions, comments and suggestions are sought from health facilities in the country, HIF, MoH and others (14, 15, 18). Translating clinical standards into practise means: 1) Engaging clinicians and physicians to promote a high level of clinical acceptance; 2) Consulting existing best practises and evidence for guidelines; 3) Using existing standardised clinical content; 4) Gathering local input to ensure that standards fit a particular context; 5) Optimising the time of staff and physicians who serve on boards and working groups; and 6) Establishing clear documentation standards and approval procedures (16, 18, 31).

Clinical pathways

Clinical pathways (CPWs) are tools that guide evidence-based health care. Their aim is to translate clinical practise guideline recommendations into clinical care processes within a single culture and health facility. The clinical pathway is a structured multidisciplinary care plan with the following characteristics: 1) It serves to translate guidelines or evidence into local structures; 2) It describes in detail the steps during treatment or care in a plan, pathway, algorithm, guideline, protocol or other "action inventory"; and 3) It aims to standardise care for a specific clinical problem, procedure or health episode in a

specific population. CPW is an evidence-based practice or way in which a particular group of patients with a predictable clinical course or disease or condition should be managed/treated, i.e. that the various tasks (interventions) of professionals involved in patient care are defined, optimised and sequenced in writing in terms of minutes/hours (emergencies), days (for acute care) or home visits (home treatment), including the expected protection and care process. In doing so, procedures should be guided by best practice (18, 21, 22, 26, 27).

CPW has been applied internationally since the 1980s. The use of CPW in European countries has increased since the 1990s, starting with the United Kingdom, and currently pathways are used in most European countries. In some European countries (e.g. Belgium, Germany, the Netherlands, Slovenia and Bulgaria) there is increasing activity in the development and application of CPW (21, 22, 24, 26). The European Pathway Association (EPA), the world's largest professional organisation for CPW, was established in 2004 to support the development, implementation and evaluation of CPW/care pathways in Europe. In 2018, the EPA had registered members in more than 50 countries (26, 27).

Checklists

A checklist (CL) is a tool that helps not to forget any step during the process, to perform tasks in the established order, to check the fulfilment of a set of requirements or to systematically collect data for their later analysis. It helps to improve the efficiency of teamwork, promote communication, reduce variability, standardise care and increase patient safety. The purpose of CL is to provide guidance, i.e. to help health workers manage treatments, to provide the best and most reliable care, e.g. during childbirth in different settings, to reduce adverse events due to negligence and treatment errors (28-30).

In the last 10 years, CL has been increasingly used as a list of procedures and interventions performed within individual health services in almost all specialties (27-29). It is particularly widespread in paediatrics, obstetrics and surgery, starting with the most common safety messages CL for paediatric and adult surgery, safe birth, CL in neonatal intensive care units, high-risk interventions, paediatric intensive care and time-dependent pathologies, e.g. paediatric trauma, etc. (24, 29, 30).

Clinical studies have shown that CL helps to reduce mortality and morbidity rates in many specialties (24, 28-31).

Measuring the performance of healthcare staff and the quality of health care in hospitals

Clinical effectiveness - performance and evaluation are based on clinical standards, clinical indicators and clinical audits.

Clinical standards include clinical guidelines, clinical pathways and local practice protocols. Clinical indicators are benchmarks that allow comparison of health services, institutions, and departments, and the staff there, with similar ones (18, 27, 31).

Clinical audits are methods for evaluating and improving clinical practice. They can be defined as "systematic measurement and evaluation of the efficiency and effectiveness of organisational systems and processes". Clinical audits analyse the quality of clinical care and outcomes, including the procedures used for diagnosis and treatment, the use of resources, and the adequacy of assessment of clinical outcomes and patient quality of life (18, 31).

Clinical control includes methods to improve clinical practice by systematically measuring and evaluating the efficiency and effectiveness of organisational systems and processes for: 1) Analysis of the quality and outcomes of clinical care, including procedures used for diagnosis and treatment; 2) Use of resources; and 3)

Adequacy of methods for assessing clinical outcomes and patient quality of life. The basic elements for good clinical practise with performance measurement and the

potential barriers to quality and performance monitoring are presented in Box 2.

Box 2. Elements for good clinical practise and possible barriers to quality of health services and performance monitoring (18, 22, 23, 27-31)

Basic elements for good clinical practice and performance measurement:

- Strengthening individual, team and organisational awareness and responsibility for good clinical practise and enhancing the safety and quality of health care;
- Organisational policies and strategies and the clinical practise that implements them;
- Provision of human and material resources for good clinical practise;
- Information and communication with staff, relevant factors and the public for good clinical practise;
- Training and professional development to support good clinical practise;
- Performance indicators to be developed at all levels of the institution to measure and demonstrate the effectiveness of the good clinical practise strategy and policy.

Potential barriers to health service quality and performance monitoring:

- A long tradition of professional autonomy, collegiality and self-regulation, creating an organisational culture that hides weaknesses and in which it is difficult to point out and punish mistakes;
- Lack of close collaboration with all professional groups in introducing changes/reforms;
- Lack of standards/clinical pathways to improve the quality and control of health professionals' work;
- Lack of support and commitment from health professionals for successful implementation of good clinical practise and P4P;
- Lack of equipment and medicines required for the standard/clinical pathway;
- Lack of data on treatment outcomes/effects in general;
- High interdependence of health systems and many external factors that weaken the link between actual and measured performance, case mix and variability.
- Demotivation of health personnel due to penalties, audits and trials, inadequate conditions and insufficient funding for safety and quality;
- Speed in introducing superficial changes without preparation, motivation and collaboration;
- Shortage of staff and overload of health professionals;
- Insufficiently developed health information system;
- Insufficient professionalism, autonomy and support for management.

All hospitals should participate in the measurement and evaluation process and have their clinical practises monitored externally on a regular basis to ensure safe and quality health care. They should also report on factors relevant to the outcome of the assessment process and take action to improve (18, 22, 23, 31). Reforms to overcome barriers to quality monitoring and performance measurement can only be successful if health professionals are informed and motivated to change their behaviour through positive approaches and collaboration in implementing change.

Overcoming barriers is neither quick nor easy and therefore requires a systematic approach that includes education and continuous professional development, professionalism and autonomy of health institution management, and acceptance of standards/clinical pathways and work norms (18, 27, 31).

Discussion

The evaluation of performance payments (P4P) has not kept pace with the haste with which it was introduced. The limited number of evaluations is typically small in

scope and design, making it difficult to draw general conclusions. As a result, the empirical basis for P4P in health care is rather weak, despite the enthusiasm of its proponents (4, 7-10, 12). There are numerous criticisms and challenges when it comes to P4P models in health care. P4P schemes also reduce clinicians' job satisfaction and intrinsic motivation and tempt doctors and administrators to cheat the system. In addition, clinicians may align their treatment plans too closely with P4P processes and practises and move away from providing care tailored to individual patient needs. Finally, but not comprehensively, it is difficult to accurately attribute performance outcomes to a single clinician, as patients often receive care from multiple providers (6, 7).

In Macedonia, the P4P model was officially introduced on 1 July 2012, with the obligation for each doctor to report online to the Ministry of Health on the procedures/interventions performed during the month, with a monthly salary variation per doctor of +/- 20%. The model measures the individual workload of doctors as the number of procedures performed in a month, rather than the performance of a clinical team or hospital, without an established system for assessing the team, doctors' skills, professional experience and titles, the complexity and quality of procedures and care, and the outcomes of inpatient treatment and care. Thus, the Macedonian P4P model is a simple form of payment for reporting (P4R), subjective and prone to error and manipulation. Despite doctors' voices and strikes until the end of 2012 against the health policy proposed by the Ministry of Health, the P4P model was implemented with strong political influence and without sufficient transparency and quality measures, leading to widespread dissatisfaction among doctors in the public health sector. This has led to conflicts within clinical teams and departments, as well as an exodus of doctors to private hospitals and outpatient clinics (4).

With S/N, CPW and CL, potential side effects of P4P models can be prevented and overcome, such as tunnel vision, one-sidedness, and superficiality, or a focus on quantitative aspects of clinical performance that can be easily measured, and neglect of unmeasured areas of health service quality, adverse selection or incentives to avoid the most difficult patients, undermining or potentially reducing the internal/intrinsic motivation of professionals as a key feature of quality health care, inequity - creating perverse incentives to exclude disadvantaged groups, overcompensating or rewarding providers who already meet or exceed the target threshold, and misreporting, gaming or cheating (11, 12). International interest in P4P in health care is growing and debates are shifting from ideological justification to technical implementation, although the long-term impacts and risks of P4P are unknown and preliminary assessments of the quality and outcomes framework show both benefits and negative consequences (12, 13). P4P programmes are implemented in a variety of ways, and there are many factors that can influence the potentially positive or negative impacts of these programmes. Direct evidence is not sufficient to draw firm conclusions, but collaboration, provider motivation and acceptance, and alignment of measures with organisational goals can be important in maintaining effective programmes. Interventions that are developed transparently from the evidence base and aim to improve clinical processes and patient outcomes are more likely to be effective (9, 12).

The ideal P4P model, according to social science research, is a programme design that sets the standard for excellence and offers a reward for anyone who achieves a certain level of performance. In such a design, everyone who reaches the standard is rewarded and no one is punished for not reaching the standard. The disadvantage of this 'ideal' P4P strategy is that it is difficult to budget for, as it is never known in

advance how many individuals will reach the standard required for the reward (13). The main barriers to implementing S/N, CPW and CL are negative staff attitudes and resistance, hierarchy, poor design, inadequate training, overlap with other worksheets, work overload, cultural barriers, lack of replication, etc. (30, 31).

Conclusion

P4P is an insufficiently precise instrument whose implementation is complicated to implement due to unexpected difficulties and consequences, and the advantages and disadvantages should be consciously and fairly assessed by managers and policy-makers. Optimal P4P systems should allow all participants to be rewarded for adhering to and achieving standards and improving quality, tending to reduce costs.

S/N, CPW and CL are only approximate and average values with possible variations when other elements are taken into account (cultural level and structure of the population, spatial and working conditions, frequency of diseases and specificity of pathology of certain areas, etc.). It is necessary to emphasise the role of leadership in the implementation of S/N, CPW and CL in each area of medicine and health care with adequate staffing, to lead the implementation and evaluation of the results, to inform the rest of the team and to modify the process as necessary according to the problems identified.

S/N, CPW and CL are dynamic indicators and it will not be possible to completely solve all problems in providing health care, but it will certainly help to improve and standardise the quality of health care, determine the real and clear prices for services and successfully implement the

P4P model, and achieve complete, efficient and rational health care for the entire population.

With the application of S/N, CPW and CL as tools for professional regulation, monitoring and implementation of the P4P model, health care costs will be reduced and the saved funds can be used to reward some of the staff with P4P. The basic requirements for the practical implementation of S/N, CPW and CL are legislative and IT support and a balance between the professional, technical and administrative autonomy of health workers and managers on the one hand and the political dimensions and influences in health institutions, on the other. By setting parameters to evaluate performance and success, the P4P model can be elevated to a higher level in the P4S model if performance leads to success through good quality of health care, patient safety, positive outcomes and patient satisfaction. For the successful implementation of the P4P model, it is necessary to establish an objective evaluation and reporting system. It is not only important that HOW MANY, but also HOW health services/ interventions/ procedures have been implemented.

When applying new payment methods for providers, the logical question is - WHO WINS, WHO LOSES? The answer is simple - without S/N, CPW and CL in the application of the P4P model, everyone loses, and with the development, adoption and application of S/N, CPW and CL in the P4S model, everyone wins, patients, health institutions, and staff, decision makers (HIF, MoH) and the state.

Conflicts of interest: None declared

References

1. Kovacs RJ, Powell-Jackson T, Kristensen S, Singh N, Borghi J. How are pay-for-performance schemes in healthcare designed in low- and middle-income countries? Typology and systematic literature review. BMC Health Services Research, Apr. 7, 2020; 20(291): 1-14. Available at: <https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/s12913-020-05075-y.pdf> Accessed: Sep. 5, 2021.
2. Lori DiPrete Brown L, Miller Franco L, Rafeh N, Hatzell T. Quality Assurance of Health Care in Developing Countries. Quality Assurance Project. Quality Assurance Methodology Refinement Series. Available at: http://pdf.usaid.gov/pdf_docs/PNABQ044.pdf. Accessed: Nov. 5, 2018.
3. The Center for Medicare Advocacy. Healthcare reform: The ABC's of delivery system reform. The Center for Medicare Advocacy, 2010. Available at: http://medicareadvocacy.org/Print/2010/Ref orm_10_02.11.DeliverySystems.htm. Accessed: Nov. 15, 2019.
4. Lazarevik & Kasapinov. Medical Doctors' Attitudes towards Pay-For-Reporting in Macedonia. Maced J Med Sci 2012; Available at: <http://dx.doi.org/10.3889/MJMS.1857-5773.2012.0246>. Accessed: Nov. 10, 2018.
5. Burazeri G, Laaser U. Health status of the populations in the Western Balkans region. (Editorial). SEEJPH 2021, posted: 11 March 2021. DOI:10.11576/seejph-4232. Accessed: Oct. 20, 2021.
6. NEJM Catalyst. What Is Pay for Performance in Healthcare? NEJM Catalyst Innovations in Care Delivery, March 1, 2018. Available at: <https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0245> Accessed: Sep. 25, 2021.
7. Kyeremanteng K, Robidoux R, D'Egidio G, Fernando SM, vNeilipovitz D. An Analysis of Pay-for-Performance Schemes and Their Potential Impacts on Health Systems and Outcomes for Patients. Critical Care Research and Practice, Jun 19, 2019; 1-7. Available at: <https://www.hindawi.com/journals/ccrp/2019/8943972/> Accessed: Sep. 25, 2021.
8. Peluso, A., Berta, P. & Vinciotti, V. Do pay-for-performance incentives lead to a better health outcome?. Empir Econ 56, 2167–2184 (2019). <https://doi.org/10.1007/s00181-018-1425-8> Accessed: Oct. 12, 2021.
9. Mendelson A, Kondo K, Damberg C et al. The Effects of Pay-for-Performance Programs on Health, Health Care Use, and Processes of Care. Annals of Internal Medicine, March 7, 2017. Available at: <https://www.acpjournals.org/doi/10.7326/M16-1881> Accessed: Oct. 12, 2021.
10. Das, A., Gopalan, S.S. & Chandramohan, D. Effect of pay for performance to improve quality of maternal and child care in low- and middle-income countries: a systematic review. BMC Public Health 16, 321 (2016). Available at: <https://doi.org/10.1186/s12889-016-2982-4> Accessed: Oct. 12, 2021.
11. Rosenau PV, Lai LS, Lako C. Managing Pay for Performance: Aligning Social Science Research with Budget Predictability. Journal of Healthcare Management, 2012; 57(6): 391-404.
12. Gillam SJ, Siriwardena AN, Steel N. Pay-for-Performance in the United Kingdom: Impact of the Quality and Outcomes Framework—A Systematic Review. Ann Fam Med Sept/Oct 2012; 10(5): 461-8. Available at: <http://www.annfammed.org/content/10/5/461.full>. Accessed: Nov. 10, 2019.
13. Agency for Healthcare Research and Quality (AHRQ). Pay for Performance (P4P): AHRQ Resources. Agency for Healthcare Research and Quality, Rockville, MD, USA. March 2012. Available at: <http://www.ahrq.gov/qual/pay4per.htm>. Accessed: Nov. 16, 2019.
14. Donev D. Co-Author & Co-Editor: Standard of Functions and Norms for Work of the Outpatient Dispensary and Non-hospital Specialist Services in Macedonia. Skopje, 1980: 466 pg.
15. Kriznik NM, Lame G, Dixon-Woods M. Challenges in making standardization work in healthcare: lessons from a qualitative interview study of a line-labeling policy in

- a UK region. *BMJ Open*, Nov 1, 2019; 9(11): 1-8. Available at: <https://bmjopen.bmj.com/content/9/11/e031771> Accessed: Oct. 12, 2021.
16. Nova Scotia Health Library Services. Clinical Standardization. Available at: <https://library.nshealth.ca/ClinicalStandardization> Accessed: Oct. 20, 2021.
 17. Modern Medicare - The World of Healthcare, Equipment, and Technology. Standardization of healthcare policies: A potential booster shot. Available at: <http://modernmedicare.co.in/articles/cover-story/standardisation-of-healthcare-policies-a-potential-booster-shot/> Accessed: Nov. 5, 2012.
 18. Government of Western Australia Department of Health. Setting Standards for Making Health Care Better - Implementing Clinical Governance in WA Health Services 2005. Available at: http://www.safetyandquality.health.wa.gov.au/docs/clinical_gov/1.3%20Setting%20Standards%20for%20Making%20Health%20Care%20Better.pdf. Accessed: Nov. 10, 2012.
 19. Radbruch L, Payne S, Eds. White Paper on standards and norms for hospice and palliative care in Europe: part 1. European Association for Palliative Care. *European J Palliative Care*, 2009; 16(6):1-2.
 20. Ministry of Health Kenya. Norms and Standards for Health Service Delivery. Ministry of Health Kenya, 2006:42 pg. Available at: http://www.hennet.or.ke/downloads/1206721802Norms_and_Standards_-_Complete.pdf Accessed: Nov. 10, 2012.
 21. Rotter T, Battenburg de Jong R, Evans Lacko S, Ronellenfisch U, Kinsman L. Clinical pathways as a quality strategy. In: Busse R, Klazinga N, Panteli D, Quentin W, Eds. *Improving healthcare quality in Europe Characteristics, effectiveness, and implementation of different strategies*. WHO-EURO / OECD, 2019. Available at: https://www.ncbi.nlm.nih.gov/books/NBK549276/pdf/Bookshelf_NBK549276.pdf Accessed: Oct. 12, 2021.
 22. Keber D. Clinical pathways: A significant tool of clinical management. [In Serbian]. In: Donev D, Jakovljevic Dj, Eds. *Proceedings from the ECPD International Summer Schools on Management of Healthcare Institutions*. European Center for Peace and Development (ECPD) at the University for Peace established by the United Nations, Belgrade, 2013: 210-26. Available at: http://www.ecpd.org.rs/pdf/2015/books/2013/2013_zbornik_menadzment_zdravstvenih_institucija.pdf Accessed: Sep. 5, 2021.
 23. Donabedian A. The quality of care. How can it be assessed? *JAMA*. 1988; 260:1743-8. Available at: <http://www.choplearningservices.com/cqi/pre/1988%20Donabedian%20Quality%20of%20Care.pdf> Accessed: Oct. 12, 2021.
 24. Krstevska Blazhevskaja S, Donev D. Intrapartum procedures for prevention of infections and complications in mothers during childbirth. *Prilozi-Contributions, Sec. Biol. Med. Sci., MASA* 2018; 39(2-3): 113-20. Available at: http://manu.edu.mk/prilozi/39_2_3/13.pdf Accessed: Oct. 23, 2021.
 25. Donev D. Social and Preventive Medicine – Public Health, Scientific and Professional Terminology. [In Macedonian]. Macedonian Academy of Sciences and Arts Lexicographic Center, Skopje, Dec. 2018:710.
 26. European Pathway Association. About care pathways. Available at: <https://e-p-a.org/care-pathways/> Accessed: Oct. 23, 2021.
 27. Lawal AK, Rotter T, Kinsman L, et al. What is a clinical pathway? Refinement of an operational definition to identify clinical pathway studies for a Cochrane systematic review. *BMC Medicine*, Feb 2016; 14(35). Available at: <https://doi.org/10.1186/s12916-016-0580-z> Accessed: Oct. 26, 2021.
 28. Performance Health Partners. Why Checklists Are Important In Healthcare by Performance Health Partners. Available at: <https://www.performancehealthus.com/blog/why-checklists-are-important-in-healthcare> Accessed: Oct. 23, 2021.
 29. Thomassen O, Espeland A, Softeland E, et al. Implementation of checklists in health care; learning from high-reliability organizations. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 2011, 19:53. Available at:

- <http://www.sjtrem.com/content/19/1/53>
Accessed: Oct. 23, 2021.
30. Concha-Torre A, Alonso YD, Blanco SA, et al. The checklists: A help or a hassle? *Anales Pediatría*, 2020; 93(2):135.e1-135.e10. Available at: [https://www.sciencedirect.com/science/artic](https://www.sciencedirect.com/science/article/pii/S2341287920301253)
31. European Medicines Agency. ICH guideline E6 on good clinical practice. Available at: <https://www.ema.europa.eu/en/ich-e6-r2-good-clinical-practice> Accessed: Oct. 23, 2021.

© 2022 Donev. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.