



EDITORIAL

**Facing the COVID-19 challenge:
When the world depends on effective public health interventions**

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On December 31, 2019, the Wuhan Municipal Health Commission in Hubei Province, People's Republic of China, reported a cluster of 27 cases of pneumonia of unknown aetiology with onset of symptoms on December 8. There was a common exposure to a wholesale market for seafood, fish, and live animals in Wuhan City (1). It was a report that many of us in the field of epidemiology and public health read from the news and alerts notified by the WHO, but... at that time (almost) nobody could even imagine the tsunami that was coming for most of the world.

After the initial outbreak in China, it was quickly determined (on January 7) that the disease was caused by a new coronavirus, which had many similarities to the one which caused the 2003 SARS pandemic. These similarities explained why it was named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (2). This virus has characteristic club-shaped spikes that project from their surface, which in microscopic image resembles the solar corona, from which their name derives. As a curiosity to additionally explain the term, the original Latin word *corona* meant 'garland worn on the head as a mark of honour or emblem of majesty,' and, by extension, 'halo around a celestial body.' In fact, the word has come down through time more or less unchanged in Spanish and Italian (and other Latin-based Romance languages), in which the word for 'crown' is today written exactly as 'corona'.

In parallel to the identification of the causative viral microorganism, public health measures were initiated. According to the information disclosed by the Chinese authorities, an epidemiological investigation led by a national team of specialists began on December 31, 2019, and the following public health procedures were implemented: case

isolation, identification and follow-up of contacts, environmental sanitation and laboratory research (3).

Since then, the situation has changed dramatically. The WHO first declared a global public health emergency on January 31, then announced on February 11 that the new coronavirus disease should be renamed "COVID-19", and on March 11, declared the outbreak a pandemic (4).

After the already described onset of the outbreak in China, coronavirus cases started to spike in South Korea and other Asian countries at the beginning of February, and later in the month, COVID-19 cases began to increase in Italy and Spain sharply. Many other European countries were also affected, and on March 11, President Trump banned all travel from 26 European countries. On March 13, he declared the US national emergency. The situation has escalated to a scenario of severe consequences and, at the time of writing this Editorial, there have already been identified 3.3 million cases in the world, with about 1.2 million being active and ongoing cases, roughly 1 million recoveries, and more than 234,000 deaths (5). The virus has spread to at least 185 countries and regions around the world in four months, with half of humanity being locked down, something unprecedented in the memory of those of us who are living in this moment.

In terms of health alone, the challenge is unprecedented. Coordinated national responses, along with intelligent use of field data tools for surveillance of cases and contact-tracing, are needed to prevent the unrestrained spread of the virus and reduce the impact on the normal functioning of hospital systems. It is also crucial to search for a vaccine and proper treatments.

Given the global dimension of this challenge, which requires worldwide and regional coordination and coherence, and despite criticism

from individual governments and specific circles, we should strengthen with total determination the role and resources available to the WHO and, in our European dimension, to the ECDC.

When it comes to finding guidance to guide our actions, in addition to all the inspiration provided by the above-mentioned international institutions, our set of ten "Essential Public Health Operations" (EPHOs) framework has proven to be vital in tackling this challenge (6,7). In this case, it is obvious the importance of the surveillance of population health (EPHO 1), and the monitoring and response to health hazards and emergencies (EPHO 2). However, we cannot forget the relevance of all other essential operations, such as: the communication and social mobilization for health (EPHO 9); the one which allows us to articulate solutions for an effective vaccine (EPHO 10 and 5); the health protection interventions including environmental, occupational, and food safety (EPHO 3); the promotion of population health and well-being tackling inequalities and the broader social and environmental determinants (EPHO 4); the proper health governance for health, together with reliable infrastructures and financing to ensure the resources and viability of public health interventions (EPHO 6 and 8); and, the responsibility to ensure a competent workforce (EPHO 7).

And speaking of the latter, which many of us are passionately committed to, ASPHER, as Europe's representative organization for Schools of Public Health, has made a courageous statement in response to the situation raised by the novel coronavirus disease (COVID-19) outbreak emergency (8), including the demand for recognition of public health professionals, and the provision of resources required to carry out their mission properly. The full ASPHER statement can be

read through the link <https://www.aspher.org/articles,4,68.html>, and the complete list of signatories is available at <https://www.aspher.org/aspher-covid19-statement-signatories.html>.

Beyond the strict public health and healthcare dimension, our societies will also need to tackle the significant economic and social challenges posed by this appalling event. The new coronavirus will cause direct damage due to the sharp fall in demand and supply-side disruption. Its consequences will depend on the duration of the crisis and how it is managed at every level (international, supranational and national). In many of our countries, we are already seeing or foreseeing an impact on employment, along with all the associated consequences for social cohesion and politics, and for people's health.

Effective leadership capability at these three levels is critical. Moreover, if we do well, we have the potential to emerge even better and stronger than we are now. We can try to avoid old mistakes and build a fairer society. On the other hand, the effects of the crisis may be a motivation or incentive to improve in various economic areas, such as technology, mobility, and energy dependence. Furthermore, the pandemic comes at a critical juncture for multilateralism and integration.

Let me conclude with a sentence from the Spanish Nobel laureate Jacinto Benavente: "Life is like a journey on the sea: there are days of calm and days of stormy weather; the important thing is to be a good captain of our ship." This is sound advice for Public Health practice and, but it is not always easy to take, especially in the permanent situation of uncertainty, feelings of vulnerability, or over-information, most of the time confusing and distressing, that brings the crisis of the COVID-19 under its arm.

Nevertheless, we live in a world where we are interconnected, we share more than ever what

we know, and I am sure that solutions will come much sooner than we could ever conceive.

For all these reasons, there is reason for optimism, and for thinking that Public Health

will come out more recognized and strengthened not because of our selfish interest, but for the good of our people.

References

1. Li Q, Guan X, Wu P, et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia. *N Engl J Med* 2020; 382:1199-1207. DOI 10.1056/NEJMoa2001316.
2. Xu J, Zhao S, Teng T, et al. Systematic Comparison of Two Animal-to-Human Transmitted Human Coronaviruses: SARS-CoV-2 and SARS-CoV. *Viruses*. 2020; 12(2): 244. DOI 10.3390/v12020244.
3. Adhikari SP, Meng S, Wu YJ. Epidemiology, causes, clinical manifestation and diagnosis, prevention, and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. *Infect Dis Poverty* 2020; 9(1):29. DOI 10.1186/s40249-020-00646-x.
4. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - March 11 2020. Geneva: WHO; 2020. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>.
5. Johns Hopkins University (JHU). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE). Baltimore: JHU; 2020. <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>.
6. Foldspang A. Towards a public health profession: the roles of essential public health operations and lists of competences. *European Journal of Public Health* 2015; 25(3): 361–362. DOI 10.1093/eurpub/ckv007.
7. Martin-Moreno JM. Self-Assessment Tool for the Evaluation of Essential Public Health Operations in the WHO European Region. Copenhagen: World Health Organization, Regional Office for Europe; 2015. ISBN 978 92 890 50999
8. Middleton J, Martin-Moreno JM, Barros H, Chambaud L, Signorelli C. ASPHER Statement on the Novel Coronavirus Disease (COVID-19) Outbreak Emergency. *Int J Public Health* 2020;65(3):237-238. DOI 10.1007/s00038-020-01362-x.