Reimagining global health systems for the 21st century: lessons from the COVID-19 pandemic

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The COVID-19 pandemic: A reminder for a strong global health system

The COVID-19 pandemic is a timely reminder of the nature and impact of global health threats that could become Public Health Emergency of International Concern (PHEIC). 1 The virus has spread quickly to all countries (although with variable epidemiological patterns), and has overwhelmed even some of the most advanced health systems. 2 As of 12 April 2021, the pandemic has caused more than 136 million cases and 2.93 million deaths. 3 But beyond morbidity and mortality, it affects the whole of society and government, and causes serious socioeconomic loss. 4–6 With the emergence and spread of new variants of the virus, 7 it is highly likely that the virus will be circulating and staying with us for the foreseeable future. The longer and the more severe the pandemic, the greater are the social and economic disruptions and the political challenges. 8

The COVID-19 pandemic spread throughout the world due to inadequate preparedness for global health security (GHS). 9 The spread and consequence of the virus is intensified by gaps in the implementation of the programmes in the third Sustainable Development Goal, 10 including universal health coverage (UHC), 11 and tension between UHC and GHS. 12–13 The pandemic demonstrates that health security is not only a national but also a regional and global common good. 14 It substantiates that is not only a national but also a regional and global common good. 14 It substantiates that the world needs a strong global health system now more than ever.

The aspiration to build a strong global health system can be realised with a paradigm shift from nationalism and self-reliance to multilateralism, shared responsibility, and mutual accountability among countries and regions.

A strong global health system requires technical awareness and political will towards universal health coverage and health security at national, regional and global levels, including the richest and most powerful countries.

Countries (individually and collectively) should have a coherent and context-specific national strategy, build the capacity of their health systems, minimise fragmentation, improve governance and tackle upstream structural issues, including socioeconomic inequities.

Why should countries do more towards a strong global health system?

Countries have several incentives to plan and act locally, regionally and globally towards a strong global health system that can prevent, detect and respond to PHEIC. Pandemics not only cost lives but also pose some of the greatest risks to the global economy and security. 17 As the world’s population becomes more mobile and interdependent, and with biodiversity reduction and ecological degradation, global health threats increase and traditional defences at national borders cannot protect people against the invasion of a disease or vector. 18

We argue that countries have at least three foreign policy imperatives why they should cooperate more intensively on global health; namely for security, economic and moral
reasons. Health security risks can easily be transmitted from one place to another. The benefits of investments for GHS in one country often extend to the wider region or the globe. The implication is that health security requires a regional and global level response, management and coordination.

On the other hand, the impact of a pandemic extends much beyond mortality and causes serious socioeconomic losses. The spread of the virus triggered lockdowns which have sparked fears of an impending financial and debt crisis. Many have lost their jobs, which pose increased dependency and pose social insecurity. The COVID-19 pandemic has disrupted the functioning of global supply chains, heightened uncertainty in consumption and investment and international trade, resulting in shortages of goods across the world. Social distancing, self-isolation and travel restrictions have led to a reduced employment across many economic sectors. Overall, the COVID-19 pandemic impacts economies. As a result, governments have strengthened institutions that facilitate international trade and relations or, on the contrary, may become increasingly isolationist, avoiding international cooperation.

Countries do also have a moral obligation in the prevention and control of PHEIC. As the COVID-19 pandemic has demonstrated, when a disease with pandemic potential emerges, neighbouring countries (bordering states) and those well integrated in the globalised economy (mainly high-income countries (HICs) and middle-income countries (MICs)) are the first to be impacted by the epidemic after the country of origin. Low-income countries (LICs) will only afterwards be affected by the pandemic, which raises a lot of concern in LICs as they have weak health systems and often limited social protection mechanisms. Such rapid viral spread is related to the globalised economies and population mobility for which HICs and MICs play a significant role. This global interconnection implies that HICs and MICs do have a historical and moral responsibility to support initiatives for the preparedness, prevention, detection and response of the pandemic in LICs. This is somehow similar to the climate emergency which is affecting LICs despite the fact that HICs and MICs have historically contributed to most of the greenhouse gas emissions, causing climate change. This demands ‘common but differentiated responsibilities’ that impose obligations more heavily on wealthier nations than on others.

**WHAT SHOULD BE DONE TO STRENGTHEN THE GLOBAL HEALTH SYSTEM?**

The aspiration towards a safer world will be realised only if all countries have not only strong essential capacities for implementing the International Health Regulations (IHRs), but also health systems for UHC and realise strong synergy between IHR (GHS) and UHC. Compliance with the IHR is a critical step towards an effective response to epidemics (and pandemics), on the other hand, UHC is crucial to establish a first line of defence against threats to health, and to enable all people to ‘obtain the health services they need without suffering financial hardship when paying for them’.

COVID-19 demonstrates that health security is a local, regional and global common good, which requires not only an individual action but also a collective response that is possible if there is adequate technical capacity and political will not only at local and national but also at regional and global levels. This thus requires multilevel governance arrangements that coordinate actions at local (subnational), national, regional and global levels.

**Local and national**

The pandemic reveals that all countries around the world should build their IHRs’ core capacities and health systems according to the primary healthcare approach.

There is an urgent need to further increase investments in comprehensive public health programmes. This is possible only if countries have a coherent and context-specific national strategy that guides alignment of investments from external support with local resources. It is also vital that disease control activities are integrated with other health services at the primary healthcare level to minimise fragmentation, and that sufficient health workers are recruited and retained. For instance, there are substantial opportunities, including integration and linkage, for synergies in the delivery of care for people with HIV/AIDS and non-communicable diseases. This opportunity should be leveraged to increase effectiveness, efficiency, responsiveness and health outcomes.

The response to COVID-19 reveals that the management of PHEIC requires proactive and prompt leadership. There are lessons on this around the world. For instance, Vietnam and many Asian countries, with recent experiences of the SARS pandemic to guide them, were extremely successful in dealing with the pandemic. Vietnam quickly recognised the devastating nature of the pandemic and acted early. The government created a National Steering Committee chaired by the vice-prime minister, with a clear structure at the start of the pandemic, and adopted an approach of transparency in reporting information about the COVID-19 epidemic. Politics has been at the core of how governments have prepared for and responded to the COVID-19 crisis. The responses to COVID-19 demonstrate that technical solutions require political decisions. The governments of HICs with a successful response to COVID-19 exhibit the key characteristics of justice and comprehensive public health: governing for the common good; shared and clear responsibilities between different actors; rational, compassionate and transparent communication; and legitimate leadership and trust.

The response to the pandemic should be guided by governance, which is balancing both sound analysis and decision speed, centralised and decentralised decision-making, societal deliberation and participatory representation, innovation and bureaucracy, and science and politics.
Certain population groups, including the elderly, suffer a disproportionate share of severe disease and death. Countries should apply the principles of precision public health by investing in data systems and people-centred delivery platforms. The COVID-19 pandemic illustrates how utterly unprepared certain countries were for such an approach to disease control. Precision public health helps to more granularly predict and understand risks and customise treatments for more specific and homogeneous subpopulations. Adequately disaggregated data, used responsibly, are necessary to design effective strategies that aim to reduce the risk of transmission in vulnerable populations. A detailed assessment of the number of at-risk individuals can inform possible shielding strategies.

COVID-19 has been a stress test for public services and social protection systems. Surveillance is key; the health of vulnerable and marginalised groups must be regularly monitored and reported transparently. Universal systems must be sensitive to differences in population groups, identify and remove barriers to accessing essential services. Countries with strong social protection systems have been able to respond rapidly to epidemics, meet sudden surges in demand for services, maintain universal access, and deal with population-specific and location-specific challenges.

Regional and global
In a hyperconnected and densely populated continent, such as Europe, control measures across borders have to be better coordinated. This arrangement requires a broader strategy (whole of government) and societal consensus (whole of society) on ways to deal with such a crisis, in which timely measures and collective adherence are crucial. There are lessons from African countries which have managed to coordinate the response at both national and continental levels. African countries came together and created task forces to improve and strengthen their responses against COVID-19.

The response to pandemics could be enhanced through strengthening systems towards GHS and UHC. However, LICs still require financial support to build their core capacities and health systems, designed according to the primary healthcare approach for a comprehensive public health. It is in the interest of HICs and MICs to provide support to strengthen the capacity of essential public health functions in LICs. HICs should continue to deliver their international assistance responsibility and cooperation obligations such as IHR. The COVID-19 pandemic urges countries to reshape their collective actions and international assistance for global common good. The pandemic can be an opportunity to reset global health governance and financing. This opportunity can be seized if we build a sense of collective identity and develop collective action to address the multiple factors affecting global health. Such a global health finance framework would have to include components of a multinational taxation system, a financing pool for global common good as well as a strong multilateral regulatory and institutional agency such as an autonomous and well-funded WHO.

HICs can also support the production and procurement of vaccines in MICs. Mechanisms such as parallel importation and voluntary licences, or even a temporary Trade-Related Aspects of Intellectual Property Rights waiver for the time of the pandemic, such as proposed by South Africa and India, could facilitate that. MICs can use their pharmaceutical infrastructure to produce vaccines to reach the needs of several billions. There are lessons that could be learnt from other global health programmes for increased production of vaccines and therapeutics. For instance, voluntary licensing for the production of HIV antiretrovirals (ARVs) has demonstrated that these mechanisms facilitated the scale-up of ARV manufacturing in India and other MICs. This led to significant price reductions and a massive increase in access to affordable products in low/middle-income countries (LMICs). Providing voluntary licensing for the production of vaccines, such as via WHO’s COVID-19 Technology Access Pool (C-TAP), will have a similar effect in increasing access to the vaccines in LMICs.

HICs can also do more in research and development. Interdisciplinary understanding and engagement, which is even much more than multidisciplinary approach, is vital for effective control of the pandemic. Social science research, including political science, sociology, psychology, anthropology and economics, is vital to help understand why some communities, countries or regions have managed to control their epidemics better than others. Innovative studies are also needed to investigate why some people have more effective responses than others so that we can better prevent and treat disease. Efforts to gear up biomedical research and quickly develop new vaccines and therapeutics obviously are of utmost importance. It is commendable that HICs are supporting the implementation of the COVID-19 Global Research Roadmap to guide a united COVID-19 agenda for research and development. It is of utmost importance to develop a framework for equitable, practical and ethical distribution of vaccines. Financial and political commitment by HICs to WHO’s Access to COVID-19 Tools-Accelerator, the related COVAX global vaccine facility as well as the above mentioned C-TAP are crucial in the fair distribution of vaccines and other COVID-19 tools.

CONCLUSION
The COVID-19 pandemic is a timely reminder of the nature and impact of PHEIC and their inevitability. The pandemic demonstrates that the world needs a strong global health system now more than ever. The aspiration to build a strong global health system can be realised with a paradigm shift from nationalism and self-reliance to multilateralism, shared responsibility, sovereignty, strategic dependency, and mutual accountability among...
countries and regions. We argue that the global health community can progressively strengthen the global health system through actions at national, regional and global levels. This is possible if all countries, individually and collectively, have the technical awareness and political will towards UHC and health security globally, including the richest and most powerful countries.

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