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Editorial

Coronavirus disease 2019: emerging lessons from the pandemic

And so, four months into the global pandemic, there are now more than 3.5 million reported cases and more than 250,000 deaths worldwide.[1] The figures are likely to be an underestimate in view of under-reporting and underdiagnosis. Several countries that were hard hit early on such as Italy, France and Spain appear to have past the peak of the first wave of the pandemic, whereas others including Russia, Brazil and India remain on the ascendancy. Casualty numbers will continue to rise in the coming months and years as a consequence of infection and disruption of health services, disease screening and immunisation programmes, and management of chronic diseases. There will also be wider socio-economic impacts on health owing to lost income, poverty and hunger.

So, what have we learned so far? First, rapid response is the key. As Dr. Michael Ryan, Executive Director of the World Health Organization's Health Emergencies Program, said at a briefing on the coronavirus disease 2019 (COVID-19) outbreak in March, "Speed trumps perfection … Be fast and have no regrets". This is a highly infectious virus wherein its transmissibility appears to be greatest before and around the time of symptom onset.[2] Unfortunately, the speed of its exponential spread has exceeded the response times of most health systems, and several countries were caught flat-footed. Both the US and UK governments, for example, have been criticised for their suboptimal response to COVID-19. They were slow to react to the threat, to implement wide-scale testing, to source sufficient ventilators and personal protective equipment for healthcare staff and to recognise the vulnerabilities of nursing and residential care homes. Where speed is of the essence, top-down bureaucracy can be a major hindrance. Lower level agencies end up being reactive, awaiting national instruction, rather than being proactive in anticipating local needs and responding quickly to local issues. Decentralisation of response may help speed up reaction times and enable adapted responses.

Second, there is no single magic bullet for this pandemic, be it contact tracing apps, point-of-care tests or antivirals. A combination of measures is clearly required. Physical distancing and hygiene measures are paramount. Also essential is the ability of local systems to identify possible cases early, to trace their contacts and to isolate both cases and contacts to break chains of transmission. Although testing is essential to confirm cases, the infrastructure and processes for testing introduce delay that could allow spread to take place before effective measures are implemented. Moreover, there are limitations with all the existing types of tests, including concerns of their sensitivity and specificity.[3,4] Support and monitoring of persons who are in quarantine are essential, to monitor for possible deterioration, adherence with quarantine, as well as for psychosocial and welfare support.

Transparency is also the key. The value of transparency of information, plans and strategies is about the 'Why?'—Why are we taking a particular course of action? In liberal democracies, this transparency is the key to public trust. Public trust in government will undoubtedly influence people's compliance and support of national directives to 'shelter-in-place' or 'lockdown'. Transparency also requires sharing of information. In the absence of this, where there is a void, there is a risk that people fill the void with ideas that may not be well founded or could even be counterproductive. There is the very real risk of further pandemic waves or localised outbreaks that may require the reimposition of lockdown measures. The continued support of the public will be the key as personal hygiene and physical distancing measures as well as increased public vigilance for illness will be required for many months to come. The public health benefits of such measures must be made clear.[5]

Experience from around the world highlights the importance of community engagement.[6] We have to be careful not to adopt a veterinary approach, treating the population as helpless victims, but consider them as a potential community asset. This does not sit comfortably in the UK as it is not usual practice to meaningfully engage with communities, and we are more comfortable with the familiar top-down bureaucracy. The latter may be accepted in peacetime, but as time passes, it is likely there will be greater clamour for decentralisation of disease control efforts and greater empowerment of local communities and authorities. Moreover, national decreed responses tend to be 'one size fits all'; this does not always meet local needs or fit local contexts. Local agencies know their local situation, communities and partners, and are likely to be best placed to deliver a tailored response.

COVID-19 also demonstrates how once again the distribution of infectious diseases follows a social gradient. Like tuberculosis, HIV and measles, COVID-19 affects many marginalised and socio-economically disadvantaged population subgroups more than others. These trends happen both within and between countries. In the UK, a social gradient is evident, with greater infection prevalence and severity in deprived areas.[7] COVID-19 has also disproportionately affected people from black and ethnic minority groups. This will to a large extent reflect endemic issues of marginalisation, poverty, socio-economic disadvantage, poor housing and insecure jobs. Elsewhere, migrant workers in Thailand, Singapore and the Gulf states who work and live in poor conditions are at high risk of outbreaks, and many will lack access to health services.[8]

Similarly, rural populations in low- and middle-income countries are likely to be at high risk owing to the inadequacies in disease surveillance and rural health care.

Public health threats are deadly. As a speciality, public health is seen by some as a backwater for failed doctors. Public health is not sexy. Cardiology is sexy. Neurosurgery is sexy. No surprises then that public health struggles for influence over the specialities or resourcing. But, if COVID-19 has shown us anything, it is that populations die from public health threats. If intensive care units, hospitals and clinics are full, it is because public health measures have failed. Medicine treats the effects of diseases, but public health addresses the root causes. It is harder to put out a fire once it has started.

Public health investment is value for money. In the UK, public health has been grossly underfunded and under-resourced for years, and more cuts in public health funding are in the pipeline. Deprioritized. This has consequences. Although the UK has a decent health protection system, it could have been stronger had the government invested in it more. Communicable disease control teams kept COVID-19 at bay for a month, delaying the epidemic. The economic costs of a month of lockdown far exceed the miniscule investments in public health. Because of COVID-19, public health is suddenly in the spotlight. When this is all over, there is a risk it will be quickly forgotten again. There is also the frightening possibility that science and public health will be made a scapegoat for political failings during the COVID-19 crisis. This is despite the best efforts of public health professionals and scientists, having done as much as they can with the available resources.

Finally, COVID-19 is a global health security issue. It has direct impacts on the world's economies and dire consequences socioeconomically. David Beasley, Executive Director for the UN World Food Programme, has warned of a hunger pandemic in low- and middle-income countries, with more than 265 million people at risk.[9] This pandemic disaster is also likely to have a long tail of consequences including those already seen, and the mental health effects could be profound.[10] As we warned previously, this threat cannot be dealt with by nations in isolation as the virus respects no borders. Global concerted action is required if we are to effectively eliminate this existential threat.[11]

Conflict of interest

A Lee and J Morling are co-editors of this journal and declare no other conflict of interest.

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