

COVID-19 Pandemic and the Crucial Role of Health System Preparedness

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ABSTRACT

The COVID-19 pandemic is a global health and economic crisis of a scale never witnessed before. Beginning in China, it has within a few months devastated many countries across the globe, requiring an unprecedented mobilization of health systems. The pandemic is yet another reminder that we need to ramp up national capacities to detect a disease early and respond rapidly, strengthen national institutions and rely on evidence base for policymaking. It is high time that we paid heed to these lessons and be ready for future imminent epidemics and pandemics.

Keywords: COVID-19; Pandemic; Health system response; Public health

SHORT COMMUNICATION

We are all in the middle of a global public health crisis that is moving at a speed and scale never witnessed before. As of 2 September 2020, 213 countries had reported 25,602,665 cases of COVID-19, including 852,758 deaths to the WHO [1]. Apart from the disastrous impact on human life and economy, COVID-19 has overwhelmed the health systems across the world. The early experience in countries with large-scale community transmission in China, Europe and USA required unprecedented mobilization and preparedness of health systems [2]. The public health strategy requires a robust health system capacity to detect all cases early and take proactive action, as has been described before by us [3]. The lessons articulated are highly relevant for the developing countries especially those with a relatively weak epidemiological and laboratory capacity.

Since droplet infection is the main driver of SARS-CoV-2 transmission, social distancing, hand washing, cough etiquettes and wearing masks are recommended as important public health measures. Many countries enforced lockdown to reduce the spread of the infection and improve preparedness in the event of a possible surge in cases. The lockdown in India shows that social distance is an important prevention strategy, as demonstrated by an increase in doubling time of the cases of COVID-19 [4]. However, before lifting the lockdown, conditions must be met to equip health system to detect cases, isolate and trace their contacts, to manage the new cases; and to ensure that the community is fully engaged in preventing the spread of the disease using non-pharmaceutical interventions. The role of media cannot be underestimated in communicating credible and evidence-based information to the public and advocating implementation of evidence-based and affordable public health measures. It is therefore essential to have a comprehensive risk communication strategy that is ethical and

useful in local context and empower people to take right decisions and limit misinformation [5]. Psychological impact of pandemic has also been documented [6]. An effective strategy led by domain experts must address mental health issues. The disease affects all age groups but is disproportionately severe among older people and those with underlying conditions such as hypertension, cardiovascular disease and diabetes. They need to be made aware, protected and advised on avoiding exposure to the virus.

Recognizing the nosocomial spread of COVID-19 virus and health care workers being at a greater risk of infection, we need to improve triage, treatment and infection prevention at the health care settings to ensure they are protected. As COVID-19 can easily overwhelm the existing health system, the requirements of hospital beds and essential supplies could go beyond what the governments have planned for. In such an event, countries will need to find ways to increase their surge capacity to treat COVID-19 patients while maintaining essential services in health care facilities. To fulfill the need for a large number of personnel, mapping of personnel including the existing network of trained epidemiologists in disease surveillance, outbreak investigation and management must be mobilized urgently. In addition, services of many public health professionals who are members of various associations can be sought for voluntary or paid support in epidemiological work and data analysis.

COVID-19 is an unprecedented crisis but also is an opportunity to strengthen public health system and national preparedness for future public health emergencies. Investment on health, especially at primary care level, must be increased substantially. Ramping up readiness and response capacities at all times, requires country-level coordination, a strong epidemiology and laboratory capacity and network, robust surveillance and early warning system, supported in addition by the logistics and supply chain management for life

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saving medicines and essential technologies. The plan can be fully implemented only if there is enough trained staff available in their respective jobs such as for contact tracing, case management and infection prevention and control. Simulation exercises must be done frequently to keep the system fully activated with updated staff and skills. The International Health Regulation (2005) a legally binding treaty that has been signed by all member countries of WHO provides invaluable guidance on enhancing capacities to combat public health emergencies of international concern and mounting rapid and effective response to epidemics.

The enormous potential of national institutions and individual experts must be unleashed to deliver uninhibitedly on its mandate, and establish effective collaboration with international organizations and associations. Training courses on field epidemiology such as India Epidemiological Intelligence Services (EIS) must be expanded so that enough trained epidemiologists are available to tackle problems. Such skill-based programmers can ultimately transform public health in the countries [7]. The disease surveillance programmer needs to be strengthened urgently at all levels. Adequate salaries should be offered to epidemiologists so trained good quality epidemiologists can be recruited and retained to generate evidence for policymaking. Epidemiological data once collated and analyzed must be shared on public domain. Finally, countries must ensure self-reliance in diagnostics, drugs and vaccine, follow science and evidence-based policy formulation and allocate adequate resources on a sustainable basis for maintaining national capacity for responding to future pandemics. One must never forget that COVID-19 is neither the first nor the last pandemic to hit humanity.

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