



Editorial

Time to revisit national response to pandemics

The coronavirus disease 2019 (COVID-19) pandemic is not the first, and certainly not the last to savagely hit the world. Previous pandemics have also attracted global attention¹. There is invariably a nationwide response at the time of crisis, but the efforts wane off soon after the pandemic. Political commitments shift towards other emerging issues of national and global importance. Restoration of economic activities assumes priority. Lessons learnt from the pandemics are quickly forgotten. Funds earmarked to strengthen pandemic preparedness plans are reduced or diverted. Health system remains weak, at times getting weaker because of the impact of the pandemic and continues to be inadequately equipped to combat next such event.

History is replete with such events². The last two decades of this millennium have already made us confront severe acute respiratory syndrome coronavirus (SARS-CoV), Middle East respiratory syndrome coronavirus (MERS-CoV), avian flu, H1N1 flu pandemic and SARS-CoV-2 - all of which saw these causative viruses spread quickly and causing widespread havoc. Global response to the COVID-19 pandemic has exposed inherent weaknesses in our preparedness and response³. The lessons learnt and costly mistakes must make us wiser enough not to repeat these and take pre-emptive steps.

The next pandemic is imminent. An estimated 1.7 million viral species are circulating among wildlife and 50 per cent of these have the potential to cause human infections⁴. In the absence of serious efforts to preserve the environment and wildlife ecology, it is impossible to prevent the emergence of these novel pathogens from animals, a few of which will have the capacity to jump species and become swiftly transmissible among humans. This can ignite epidemics with potential to explode into pandemics. Maintaining a state of perpetual pandemic preparedness is not an option,

rather a necessity for the global community to mitigate mortality and morbidity. This will prevent economies sliding back by decades and loss of lives and will minimize the ensuing disruptive social chaos.

Public health has to be pushed higher on a national development agenda. It is well established that investments in health sectors provide substantially better returns, all of which may not be calculable in economic returns. The National Health Policy of India (2017) articulates increasing investment in health to 2.5 per cent of the national gross development product (GDP) by 2025 from a meagre 1.15 per cent in 2017⁵. Even if complied with the National Health Policy, India's allocations shall be far below that of a large number of developing and developed countries⁶. COVID-19 has irrefutably demonstrated the need for greater increase in this share of GDP in health. It also beckons for this much earlier than 2025. The allocated funds should establish comprehensive services in a planned way.

Health services are usually considered synonymous with preventive, curative, protective, rehabilitative and restorative services. Without undermining the importance of these components of health systems, pandemics have frequently and forcefully reminded policymakers to allocate more funds for public health, especially in establishing and maintaining adequate capacity for early anticipation, detection, confirmation and mounting effective interventions for any outbreak using a One Health approach⁷.

The National Pandemic Preparedness Plans (NPPP) were developed by all countries between 2005 and 2010 in anticipation of influenza pandemic⁸. These are great resources which can be modified in the context of experiences and gaps identified in the COVID-19 pandemic. Accordingly, anticipated technological advances can be implemented in the immediate future⁸. The NPPP should not be driven by the health sector.

It has to be a “national” and “whole-of-society” plan in the true sense with active role and participation of all sectors and communities. A national high-powered and multisectoral decision makers’ platform should be created to oversee the state of preparedness, provide policy directives and infuse adequate resources into its operations. As with wars, simulation exercises for different scenarios should be regularly undertaken to validate operations, monitor readiness and carry out continuous improvements in access, coordination, quality and safety of interventions under the NPPP.

In a country like India where health is a State subject, the NPPP needs to be replicated as State Pandemic Preparedness Plan (SPPP) as well. Alignment, coordination and collaboration between NPPP and SPPPs should be ensured for efficiency, cost-effectiveness and seamless operations including capacity building in accordance with the International Health Regulation (IHR) (2005)⁹. The IHR (2005) is a legally binding international instrument that calls upon countries to report unusual events, promote the development of core capacities of health systems and work together to obviate the impact of public health emergencies of international concern¹⁰. The core capacities are directed to prevent, report, detect and respond effectively to epidemics and similar unusual biological, chemical and radiological events.

The IHR (2005) also enunciates best and evidence-based practices and specific measures at ports, airports and ground crossings to limit the spread of health risks to neighbouring countries, and to prevent unwarranted travel and trade restrictions so that traffic and trade disruption is kept to a minimum, thus protecting national and global economy.

The private sector is already a dominant player in the curative services. As much as 70 per cent of Indian curative healthcare services are provided through private sectors. Engagement of private sectors through public-private partnership (PPP), as has been in practice in some areas (tuberculosis control, national urban health mission, *etc.*)¹¹, should be encouraged and facilitated. This will strengthen public health in India through access to the vast, modern and easily accessible resources in private health sector. Guidelines and modalities for PPP in health have been developed. Their implementation for responding to epidemics can be institutionalized. The National Health Policy articulates the need for PPP⁵. Greater access of communities to private sectors

provides opportunities for interaction, which can be utilized for educating public and facilitation of risk communication.

Community is the key to control pandemic. Containment of a swiftly transmissible virus demands absolute cooperation and engagement of the community. The NPPP and the SPPPs must emphasize on the development and implementation of a comprehensive risk communication strategy that addresses context-specific needs of India with diversity in sociocultural norms, educational status, languages, faiths and beliefs as well as demography. These strategies should also systematically address the multisectoral, multidimensional risks and impacts of pandemics and devise communication tools to promote prevention and response to pandemics. Trust and transparency must be fundamental to obtain absolute public engagement and to bust the myths and misinformation, ensuring that stigma and discrimination are strongly rejected¹².

COVID-19 and several earlier events have shown the misused power and impact of social media in fanning misinformation and rumours. Notwithstanding this hazard, communication strategy must utilize and direct social media to obtain community engagement and reduce fear and panic^{13,14}. The reach of social media is already phenomenal¹⁵ and is bound to increase manifold in the near future with advancement in affordable technologies.

Rich technical expertise available in a large number of academic and research institutions and the pharmaceutical industry in India has to be harnessed for the promotion of R&D in the production of local technology-driven solutions including point-of-care diagnostics, drugs and vaccines as well as innovative use of information and communication technologies for data collection and analyses and offering telemedicine. Enhancing the capacity of the national regulatory authority in promoting indigenous production of equipment, reagents and other materials and instituting fast-track approval processes for indigenous and imported material and equipment are needed for responding to the epidemics.

It is often said that global public health is driven by events in India. It is because of India’s demographic and technological strength. International development partners and a large number of reputed national public health institutes are willing to work together to augment India’s inherent capacity. It is time to consider

harnessing their technical expertise in establishing a near-perfect system to combat any pandemic in the future.

Conclusion

The COVID-19 pandemic has created opportunities to build an improved response mechanism for future pandemics. Concerted, well-funded, comprehensive, planned and all-encompassing activities should facilitate building sustained institutional capacity to provide swift and effective nation-wide response to disease outbreaks. This could be done through access to appropriate technologies and improved logistics for efficient supply chains. These will also promote developing multisectoral stakeholder consortia at national and State levels to coordinate actions and launch comprehensive whole-of-the-society response to emerging infections. Overall and long-term target should be to encourage and ensure convergence of all stakeholders for human health, animal health and environment to collaborate in implementing the One Health approach and protecting human life, reduce misery and avoid damage to the national economy.

These are doable actions. The national will and determination are key to mitigate the serious impact of pandemics such as COVID-19 in India.

Conflicts of Interest: None.

Rajesh Bhatia^{1*} & Priya Abraham²

¹Former Director, Communicable Diseases, World Health Organization South-East Asia Region Office, New Delhi 110 002

& ²Director, ICMR-National Institute of Virology, Pune 411 001, Maharashtra, India

*For correspondence:

drrajesh.bhatia1953@gmail.com

References

- World Health Organization. *Pandemic influenza preparedness and response: A WHO guidance document*. Geneva: WHO; 2009.
- Centres for Disease Control and Prevention. *Past pandemics*. Available from: <https://www.cdc.gov/flu/pandemic-resources/basics/past-pandemics.html>, accessed on March 27, 2020.
- Peeri NC, Shrestha N, Rahman MS, Zaki R, Tan Z, Bibi S, et al. The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: What lessons have we learned? *Int J Epidemiol* 2020. pii: dyaa033.
- Daszak P, Carroll D, Wolfe N, Mazet J. The global virome project. *Science* 2018; 359 : 872-4.
- Ministry of Health and Family Welfare, Government of India. *National Health Policy 2017*. Available from: https://www.nhp.gov.in/nhpfiles/national_health_policy_2017.pdf, accessed on March 28, 2020.
- Centers for Medicare & Medicaid Services. *National healthcare expenditure data*. Available from: <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccounts/historical>, accessed on March 27, 2020.
- Bhatia R. Implementation framework for one health approach. *Indian J Med Res* 2019; 149 : 329-31.
- World Health Organization. *Essential steps for developing or updating a national pandemic influenza preparedness plan*. WHO; 2018. Available from: https://www.who.int/influenza/preparedness/pandemic/essential_steps_influenza/en/, accessed on March 25, 2020.
- World Health Organization. *Revision of the international health regulation*. Geneva: WHO; 2005.
- World Health Organization. *IHR Procedures concerning Public Health Emergencies of International Concern (PHEIC)*. WHO; 2005. Available from: <https://www.who.int/ihr/procedures/pheic/en/>, accessed on March 27, 2020.
- National Health Mission. *Framework for Implementation*. Ministry of Health & Family Welfare, Government of India; 2013. Available from: https://nhm.gov.in/images/pdf/NUHM/Implementation_Framework_NUHM.pdf, accessed on March 28, 2020.
- World Health Organization. *Ethical considerations in developing a public health response to pandemic influenza*. WHO; 2007. Available from: http://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf, accessed on February 23, 2020.
- Studzinski NG. *Comprehensive pandemic risk management: A systems approach*. London: Visiting International Research Fellow Policy Institute, King's College; 2020. Available from: <https://www.kcl.ac.uk/policy-institute/assets/Pandemic-risk-management.pdf>, accessed on February 29, 2020.
- Ren SY, Gao RD, Chen YL. Fear can be more harmful than the severe acute respiratory syndrome coronavirus 2 in controlling the corona virus disease 2019 epidemic. *World J Clin Cases* 2020; 8 : 652-7.
- India Today Tech. *WhatsApp and MyGov launch official coronavirus and COVID-19 alert service for India, here is how you can use it*. Available from: <https://www.indiatoday.in/technology/news/story/whatsapp-and-mygov-launch-official-coronavirus-and-covid-19-alert-service-for-india-here-is-how-you-can-use-it-1658295-2020-03-21>, accessed on March 21, 2020.