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**Special Issue on the
COVID-19 Pandemic**

Combating the COVID-19 Crisis: Emerging Issues and Challenges

Health Systems Preparedness for COVID-19 Pandemic

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Summary

Some nations in the world and some states in India have had more success in containing this pandemic. Recent efforts in strengthening the health sector have focused largely on reforms in modes of financing, but as the pandemic brings home to us, the main challenge in India remains the challenge of the organization of public services using a health systems understanding. A close to community comprehensive primary health care, quality assurance, and planned excess capacity in public health systems, a more robust disease surveillance systems that can integrate data on new outbreaks and the indigenous technological capacity to scale up innovation and manufacture of essential health commodities are some of our most important requirements for both epidemic preparedness and response.

Key words: COVID-19, comprehensive primary health care, health systems approach, health systems preparedness

INTRODUCTION

The COVID-19 pandemic has taken the world by storm. At one level, this is surprising, since it is only one in a series of viral respiratory illness epidemics that have been occurring repeatedly over the last century. Its more common and less dangerous form, the seasonal flu, causes minor epidemics every year with over 28,798 reported cases and over 1218 deaths in India last year.^[1]

The main difference in the current coronavirus infection, as compared to the flu, is the extended duration of illness in an infected person, As well as the longer persistence of viable virus in fomites, both of which lead to a higher infectivity rate. If the case mortality rate is about 2%, (the most commonly cited figure), this would be twenty times that of the seasonal flu, but less than that of earlier severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) pandemics.^[2] The problem is that, given this higher infectivity, the additional mortality could come as a surge that would overwhelm health systems, which we could see from Italy's experience.^[3] However, if disease incidence is spread out (what is called flattening the curve) and properly managed, and the basic steps taken to identify, test, isolate, treat and trace are continued, restriction of activities can be selective and of very short duration, as was shown by South Korea.^[4] These do not lead to the elimination of the disease but to containment, where the small and steady trickle of cases will continue while

life around resumes a normal pace. Once a vaccine arrives, elimination of the disease becomes a distinct possibility, but not till then.

The only special additional feature of the COVID-19 management Is what has come to be known as the lock-down. This refers to the broad, sweeping, suddenly imposed restriction of all social activity and movements leading to enormous economic damage and even loss of lives as a consequence of loss of livelihoods and decreased access to all essential services, including essential health care. Since the main justification for this lock-down is health systems preparedness, the better the baseline of preparedness, the less the need to resort to extreme social restrictions with its terrible humanitarian and economic consequences.^[5]

Some nations, like South Korea, the Scandinavian countries, Australia and New Zealand have done well in dealing with the pandemic – some with stay at home restrictions and others without.^[4] Within India, there is the remarkable experience of Kerala.^[6] What all of them share is not the degree of restriction

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of social movements and activities, but a robust health-care system which could mount a system-wide response.

THE IMPORTANCE OF PRIMARY HEALTH CARE

Policing cannot achieve the contact tracing, quarantine, and searching out of new cases that disease containment needs. It happens through community engagement which, in turn, requires enormous amounts of public cooperation and trust. It also needs a system of healthcare embedded in the community that reaches out to every household. Primary health-care systems, which are in close touch with local self-governments, and have an active engagement with the vulnerable in the community, generate the trust and outreach required. A cadre of motivated, trained, and functional community health workers such as ASHAs are essential to bridge the gaps between health-care providers and communities. States, which have better trained and supported ASHAs, tend to do much better. The state of Kerala, had in addition to ASHAs a cadre of nurses and para-medicals working under the local panchayat whose task was outreach to the elderly, the disabled and those requiring palliative care in the community. It is no surprise therefore that Kerala could quarantine close to 100 persons for every contact and provide the necessary shielding for the vulnerable.

Unfortunately in most parts of the country, especially in urban slums (like in Mumbai) and in the central and northern states, primary health-care systems are under-staffed and under-equipped.^[7] Further they provide a very selective package of care limited to immunization, care in pregnancy and the three major national disease control programs. If they shift to COVID care, all other elements of healthcare suffer.^[8]

IMPROVING HOSPITAL CAPACITY AND PERFORMANCE

The thrust of reforms in recent years has been to shift the role of the government from being a provider of hospital services to becoming a purchaser of care from private hospitals. The ideological understanding on which this is based, is that with demand side financing, the poor who are currently unable to access private health-care services because they cannot afford it would now be able to do so. They could exercise choice and that would improve quality of care in both private and public hospitals. The PM-JAY scheme was introduced as a government-funded health insurance program that would provide coverage for all those below the poverty line. In the current pandemic, though a reimbursement package for COVID-19 was quickly included into the PM-JAY, few empanelled private hospitals have admitted or claimed reimbursement for the same.

As it stands today, despite the push for the purchase of hospital care from the private sector, public policy remains almost completely dependent on public hospitals to cope with the COVID-19 case load. However, public health services are designed on the basis of the minimum capacity that is required with the understanding that the rest of those seeking healthcare

could go to the private sector. What is required now is a rapid expansion of public hospital capacity, if necessary by acquiring private hospitals. Moreover, in terms of preparedness for future pandemics, what is required is to build public hospitals with a planned excess capacity, such that at times of pandemic or any disaster this can be drawn upon to manage the surge.

One aspect of quality assurance in healthcare that has gained prominence with the pandemic is infection control within health-care facilities. People coming in search of care for their COVID-19 symptoms mingle with those suffering from comorbidities and vulnerabilities in the outpatient wards or as in-patients, thereby leading to a major spread of illness. Fearful of infection, most private hospitals have closed down. What is required is to put in place protocols for preventing hospital-acquired infections. The National Health Mission had introduced the National Quality Accreditation Scheme (NQAS), but this is yet to go to scale. In Kerala, where many government hospitals, had been quality certified, nosocomial infection is much less.

ACCESS TO HEALTH TECHNOLOGIES

One important health systems failure has been in facilitating access to essential health commodities. India is known as the pharmacy of the third world. It has the technological know-how to make the necessary test-kits, medicines, equipment, and protective clothing. However, decades of trade and industrial liberalization have left it completely dependent on imports for all of this. It is only since April this year, as the difficulties with global supply chains became apparent, that India decided to scale up indigenous manufacture. As a result, the required essential health commodities may only become available in required quantities three months after the onset of the epidemic.

THE DISEASE SURVEILLANCE INTERFACE

One of the most important steps in health systems preparedness is having a robust disease surveillance system in place. The paradox in India is that the country had built up a flu surveillance system as part of a reasonably robust Integrated Disease Surveillance Program (IDSP). However, instead of tweaking it to include COVID-19 surveillance, weekly reports that were made available in the public domain stopped after the first week of February. The current set of COVID-19 figures reported daily by the media do give some understanding of trends, but are not reliable for either calculating incidence rates or mortality rates since their denominators are not at all clear, and also since those with mild and moderate symptoms, (who represent at least half if not more of all cases) were not tested. If on the other hand reports had been integrated with the IDSP, and clinical case definitions had been used, supported by rapid expansion of testing, we would be having a much better disease surveillance system. In its absence, one has to be cautious about all the measurement of rates, including the entire system of categorization into zones.

THE SOCIAL DETERMINANTS THAT MATTER

Another major determinant of health outcomes relates to social determinants. Communities with higher levels of education and health awareness are more likely to self-report and to take preventive measures. Persons living below the poverty line are more likely to be working and living in conditions where the practice of social distancing is impossible. Further like with all disease, malnutrition and inadequately treated chronic illness make the poor even more vulnerable.

But perhaps in this pandemic, the biggest adverse social determinant is the way a very high level of stigma has exacerbated polarization by religion, caste, and class.^[7] As the spread of the epidemic gives rise to anxieties and panic, instead of building up the social solidarity that is required to contain the pandemic, what we see is a further fracturing of society, as communities attribute the source of the problem to whosoever they perceive as the other. This “other” could be a migrant, or someone belonging to a minority religion, or a marginalized caste, or someone hailing from a different state. However, government actions have either ignored such trends or remain unaware of how sub-texts of official messaging about the pandemic, could actively contribute to victim blaming and shaming. It is essential that governments take up vigorous social communication to break down such stigma and build solidarity.

IN CONCLUSION: THE CASE FOR A HEALTH SYSTEMS APPROACH

The best way and time of preparing for an epidemic is well before it begins. The next best time is now.

At the core of such health systems preparedness, is the requirement for a strong primary health care system, which is close to the community, which provides a comprehensive range of services and which has an outreach program that reaches the most vulnerable. A second requirement is that public health facilities are designed to provide a more comprehensive range of services, with a planned excess “surge” capacity that can be drawn upon when there is a disaster. This should replace the current emphasis on minimal essential packages of care and make us re-examine the notion of efficiency in public systems. The third lesson is to have in place a quality certified set of public health-care facilities and hospitals. It is time that the government scaled up the NQAS and, within this, infection control to every government facility. A fourth requirement is to build the capacity for indigenous manufacture of essential health commodities and be ready to scale it up at short notice. A fifth requirement is a robust disease surveillance program that generates the quality of data required to guide containment and mitigation strategies.

All of the above need a massive expansion in government health expenditure and much of it would go into training,

recruiting, and deploying of a much larger public health workforce than has been hitherto attempted. Under the National Health Mission, from 2005 to 2012, there had been an increase in public health expenditure that went into strengthening public health infrastructure and service delivery, but even then, this was not enough. Since then public health expenditure has remained stagnant, and far short of the 2.5% of the GDP that governments own policy documents^[9] have been calling for.

Commenting on this, a note of caution had been sounded a few years earlier that the “chronic and sustained under-financing of public health systems over the past 4 years has now reached such critical levels that there is a serious threat to health security of the nation as well as to its economic growth, not only in the long run, but also in the immediate; not only for the poor, but for everyone.”^[10]

For many in this generation, this may be the first pandemic that they are experiencing. However, it is unlikely to be the last. The measures being taken to address the current pandemic must seamlessly flow into a larger plan of health systems strengthening that can achieve the required preparedness within the next three to five years.

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REFERENCES

1. Government of India. Integrated Disease Surveillance Programme; 2020. Available from: <https://idsp.nic.in/index4.php?lang=1&level=0&linkid=313&lid=1592>. [Last accessed on 2020 May 06].
2. The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team. The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) — China 2020; 2020. Available from: <http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51>. [Last accessed on 2020 May 09].
3. Armocida B, Formenti B, Ussai S, Palestra F, Missoni E. The Italian health system and the COVID-19 challenge. *Lancet Public Health* 2020;5:e253.
4. Normile D. Coronavirus cases have dropped sharply in South Korea. What's the secret to its success. *Science* 2020;7:Mar 17. Available from: <https://www.sciencemag.org/news/2020/03/coronavirus-cases-have-dropped-sharply-south-korea-whats-secret-its-success>. [Last accessed on 2020 May 10]. doi:10.1126/science.abb7566.
5. The Economist. The 90% Economy that Lockdowns will Leave Behind. *The Economist*; 2020.
6. The Economist. Vietnam and the Indian State of Kerala Curbed Covid-19 on the cheap. *The Economist*; 2020.
7. Lancet T. India under COVID-19 lockdown. *Lancet* 2020;395:1315.
8. Cash R, Patel V. Has COVID-19 subverted global health? *Lancet* 2020. Available from: [https://doi.org/10.1016/S0140-6736\(20\)31089-8](https://doi.org/10.1016/S0140-6736(20)31089-8). [Last accessed on 2020 May 11].
9. Govt. of India. National Health Policy 2017. Available from: <https://mohfw.gov.in/documents/policy>. [Last accessed on 2020 May 11].
10. Sundaraman T, Mukhopadhyay I, Muraleedharan VR. No respite for public health. *Econ Polit Wkly* 2016;51:39-42.