



Health Infrastructure and South Asia's Epidemic/Pandemic Preparedness

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Introduction

It's been almost three years since the emergence of the first case of Covid-19 in November 2019. So, what lessons South Asia has learned from this pandemic? What reforms the respective countries in the region have brought forward? Is South Asia prepared to cope with future medical emergencies? Answers to these questions are important since health infrastructure in South Asia has already been in shambles for the last few decades partly because of the focus of regional states on traditional security. Now the situation has reached to a level where the region cannot afford to further ignore the issues related to improving health infrastructure. There are many other notable factors outside the health sector that significantly impact the progress in dealing with the pandemic such as religious beliefs, gender issues, illiteracy, malnutrition, and poverty. Nonetheless, health infrastructure has remained unable to cope with emergencies at such a massive level. In line with this thinking, this study discusses the existing health infrastructure of South Asia and its problems. It also discusses the reforms needed to cope with medical emergencies.

Regional Responses to Covid-19

In the early stages of the outbreak there has been a mix of responses to contain the spread of Covid-19. For instance, India implemented containment methods to keep the epidemic reasonably steady. Containment aims to completely stop the spread of the virus, preferring more severe management measures. Implementing a country-wide blockade, the government executed broad measures to slow the spread of the epidemic by enforcing border prevention and control measures. Moreover, several states enforced curfews

and limited the operating hours of public places. At a later stage, it shifted to mitigation techniques which was meant to prevent and control the spread of the epidemic, postpone the pandemic's speed and minimize its overall harm. Despite containment and mitigation, the number of patients was rising because of certain variables such as shortage of medical resources and premature relaxation measures, which contributed to the rapid deterioration of the epidemic situation. As the outbreak slowed down, the limitations were gradually relaxed. India also implemented a comprehensive contact tracing method that involves tracking down anyone who comes into frequent contact with someone who has tested positive for an infectious disease, which played a positive role in epidemic control.

In parallel, Pakistan devised a mitigation approach, for instance, the government took strict measures to limit the spread of COVID-19 by imposing smart lockdowns which was a useful strategy and the effectiveness of this policy was assessed based on the daily number of new cases and deaths in the country. The implementation focused on the care of critically ill patients, exhibiting the characteristics of 'treatment over prevention'. Pakistan and India imposed limitations such as restricting indoor social gatherings, closing gyms and restaurants that offer indoor services, and limiting the number of religious ceremonies. Both countries opted for different strategies but their impact on reducing the pressure on their health infrastructure was limited because of the poor state of the health infrastructure as well as the sheer scale of the pandemic.

Nevertheless, restrictions and testing rates have been variable across countries throughout the pandemic. For instance, the Sri Lankan government introduced measures such as a ban on air travel and

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an island-wide lockdown. Similarly, the government of Bangladesh imposed intermittent nationwide lockdowns. Furthermore, in Nepal, the government implemented strong measures to contain the disease that included the closing of international borders, implementing a nationwide lockdown, expanding laboratory capacity, and establishing quarantine facilities.¹

Health Infrastructure in South Asia: An Overview

South Asia's health infrastructure is already weak. The national health infrastructure in Pakistan comprises 1,201 hospitals, 5,518 Basic Health Units, 683 Rural Health Centres, 5,802 dispensaries, 731 Maternity & Child Health Centres, and 347 TB centres. The total availability of beds in these health facilities is approximately estimated to be around 123,394.² The available health infrastructure in Pakistan face issues in health service delivery because of rapid population growth, unequal distribution of health professionals, shortage of skilled workers, insufficient funding, and limited access to high-quality health care services. The number of private hospitals, clinics, and diagnostic labs has gradually increased and is helping to support Pakistan's healthcare systems.

Currently, 60 per cent of the total Indian population resides in rural areas. To provide healthcare facilities to them, the government has established 25,743 Primary Health Centres, 158,417 Sub Centres, and 5,624 Community Health Centres. At present, 713,986 beds are available in government hospitals in India which amounts to 0.55 beds per 1,000 population.³ The government hospitals are struggling with shortages of resources and healthcare facilities, i.e., there are insufficient beds, rooms, and medicines. There is a lack of government-supervised resource allocation in the health sector. The government must propose a comprehensive strategy for dealing with epidemics that includes the construction of specific medical care centres, emergency response plans, and steps to improve living conditions. India's health infrastructure is lacking in terms of medical equipment manufacture, as the country imports

approximately 65 per cent of its medical equipment. Due to India's poor government health infrastructure, treatment at private medical institutions is expensive. The government should increase healthcare expenditure and should boost its share of healthcare funds.⁴

The outbreak of Covid-19 pandemic has exacerbated existing weaknesses in the healthcare systems of the regional countries. Once Sri Lanka was known for its health care system and the country used to import 85 percent of its medical supplies, but today the sovereign debt crisis has crippled its economy and has pushed the country's medical sector to the verge of collapse. Sri Lanka's primary medical sector is under-resourced and experiences shortage of medicines and supplies. Moreover, the private sector has around 200 hospitals, with a bed capacity of 5,120. According to a survey conducted by the World Health Organization (WHO) in 2020, there were approximately 831 functional ICU beds, with an average ICU bed availability of 3.8 beds per 100,000 population.⁵ Not just Sri Lanka but the blooming economy of Bangladesh in 2017 also suffered a lot of hurdles, where approximately 58 per cent of medical doctors worked in the private sector. There were only 1.1 doctors per 10,000 population in rural areas, compared to 18.2 per 10,000 in urban areas. Moreover, less than 20 per cent of health workers served over 70 per cent of the people living in rural areas. Similarly, Nepal was already facing a shortage of medical doctors, nurses, and paramedics before the emergence of Covid-19. As per government data, there were approximately 1,395 intensive care beds and 480 ventilators.⁶

Key Challenges

Insufficiency of Hospital Beds

During the outbreak of the Covid-19, hospitals frequently faced shortage beds and ventilators. As India has the world's second-largest population, the healthcare infrastructure does not fulfil the requirement as per population ratio. The average population served per government hospital is 90,972 and the hospital beds capacity is 2,012, which is a major concern. Similarly, in Pakistan, there



was lack of ventilators and beds in hospitals. In response to the turmoil, Prime Minister Imran Khan announced new healthcare reforms to address the health sector's shortcomings. The reforms included \$300 million in funding for extra ventilators, beds, and medical equipment.⁷

Shortage of Healthcare Centres

In comparison to other countries in South Asia, India has a limited number of healthcare centres. The National Commission on Health proposed one sub-centre for every 5,000 people, one Primary Health Care Centre for every 30,000 people, and one Community Health Centre for every 100,000 people.⁸ However, temporary healthcare centres were increased during the pandemic to give better services. Furthermore, the healthcare system in Pakistan was severely challenged by disease outbreak. Following the emergence of Covid-19, Pakistan's healthcare system was faced with immense pressure, with thousands of cases being registered every day also affecting the frontline workers. In Pakistan, healthcare includes 70 per cent private and 30 per cent public sectors. There are approximately 175,000 doctors registered to serve the people.⁹ However, due to poor service structure, excessive workload, and a lack of funding, many Pakistani doctors choose to practice abroad. Pakistan's healthcare system has gradually improved over time. In addition, major cities established isolation centres to boost hospital capacity for infected patients. However, Pakistan is still vulnerable to Covid-19 because it is a low-income nation with a poor healthcare system and a population of about 197 million people. Even now there is a need to evolve policies, designs, strategies, and activities to manage the epidemic. Pakistan's healthcare is inadequate as it is a country with a large population which requires a high level of sustained medical services. To combat outbreaks that continue to threaten the population, Pakistan's health system must undergo a drastic transformation in the years to come.

Inadequate Number of Blood Banks

Another major drawback is the number of licenced blood banks in India and Pakistan. As there

are few blood banks in the region, people nowadays use social media platforms and numerous campaigns to donate blood to those in need.

Lessons Learned: The Way Forward

The lessons learned during Covid-19 must be used to design policies and initiatives for the spread of other epidemics like, for instance, monkeypox. As history has taught us that we must not take anything for granted in responding to viral infection outbreaks. The public health infrastructure sector must be supported through funds and incentives to help recruit and retain staff in the governmental public health workforce.¹⁰ Considering that the possibility of future outbreaks or epidemics will always be there, Pakistan and India, two developing states, must be cautious and vigilant for the next wave of the spread of an infectious disease. Moreover, water-borne diseases are also increasing due to the floods in Pakistan which are directly related to climate change, such recurrence of disasters coupled with epidemics makes it clear that non-traditional security is a challenge for Pakistan and India and both countries need to set aside their differences to work on the challenge at hand.

In South Asia, there are few medical centres or hospitals that specialize in epidemic research. As a result, the government should develop new medical research institutions and hospitals dedicated to research and expertise in treating specific epidemic diseases. These medical research institutions must be well equipped with the necessary testing facilities and unique medications to treat epidemics. Furthermore, relative departments in large hospitals must be established to cope with epidemic infections. An emergency epidemic response strategy must be developed so that the government could have a clear direction for taking quick action. This plan must address various aspects, including the assessment of epidemic risk, precautionary measures to control the spread of infection, and a plan to provide an adequate number of staff and medicines. To overcome the consequences of such epidemics the government should prepare a first-hand plan to counter and contain possible damage that epidemics bring along.



This is not the case with South Asia only. Many developed countries had faced similar problems that South Asia was facing, even the magnitude of health emergencies was much higher than South Asia. However, they were able to manage difficulties since the health infrastructure in those countries was resilient and had the capacity to absorb large number of patients. South Asia, for its part, has to come a long way to make its health infrastructure

resilient enough to deal with medical emergencies. In line with thinking, this piece will reflect upon the strategies that South Asia, more particularly India and Pakistan had opted to tackle Covid-19, and what were the shortcomings in the existing health infrastructure that need to be addressed to make the region well prepared for future infectious diseases outbreaks.

Notes and References

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