

Pandemic Preparedness in South Asia: Outlining A Plan for Regional Cooperation

Zoonotic diseases, transmitted from animals to humans, are on the rise. As the COVID-19 pandemic has shown, they not only impact health systems but have serious socio-economic implications too. Focusing on South Asia, the most densely-populated subregion of the world, Chathuni Pabasara and Ravindri Paranagama pull together various strands of the issue to highlight the region's particular vulnerability to such transboundary pandemics and lay out regional action required to prevent similar devastation in the future.

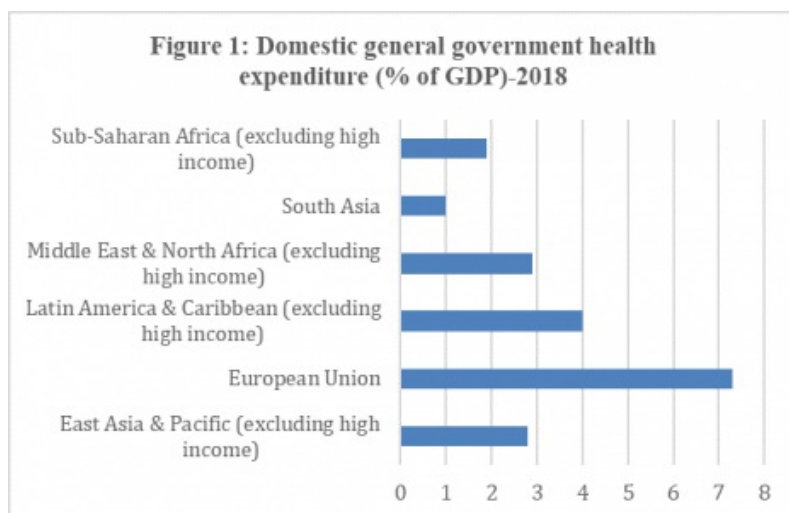
Approximately [60% of emerging infectious diseases](#) in humans reported globally are zoonotic diseases – diseases that can be transmitted from animals to humans. In just the last three decades, over 30 new human pathogens have been found, of which [75% have originated in animals](#). Most emerging zoonotic diseases in recent decades, such as SARS and Nipah virus, have originated in Asia, in particular in the [South and Southeast Asia subregions](#).

Zoonotic diseases will continue to increase more rapidly if the problem is not addressed immediately. Neglected zoonotic diseases kill [two million people a year](#); it is therefore in the best interests of governments and health authorities to cooperate in tackling the social, economic and developmental challenges posed by this situation.

The South Asian Context

Home to a rich range of biodiversity, a tropical region such as South Asia is a breeding ground for pathogens. It is particularly vulnerable to infectious diseases due to a number of factors that include poverty, scarce resources, unequal access to vaccines, dense population, rapid urbanisation, and globalisation and interconnectedness.

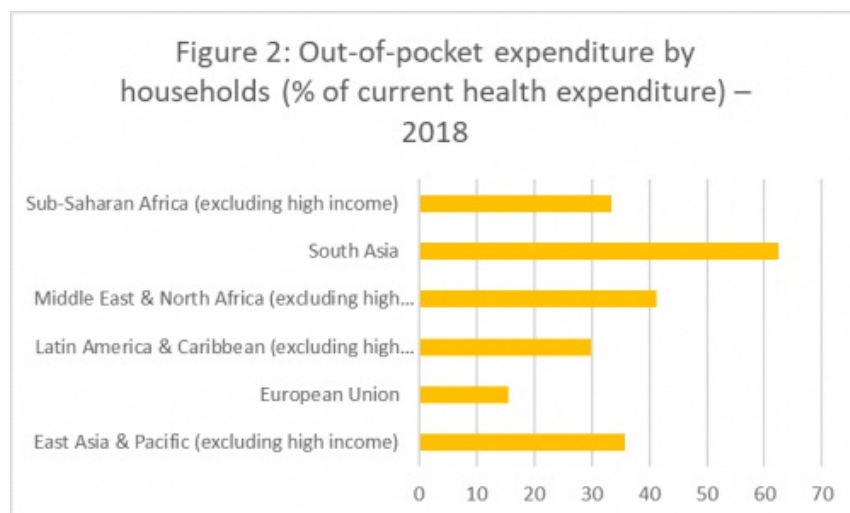
Despite its glaring vulnerabilities, South Asia falls behind other world regions with government health expenditure as a percentage of GDP accounting for a mere [1% of GDP](#) (Figure 1), when the WHO recommends at least [3% of GDP](#).



Source: Data from World Bank, World Development Indicators

Note: Regional groupings as given in World Bank data; some regions exclude high income countries to reflect that the differences in expenditure, as shown, are not income-based.

Insufficient resource allocation to the health sector limits equitable access to healthcare services, increasing the burden of out-of-pocket (OOP) healthcare payments on households (Figure 2). Excessive OOP payments on healthcare reduce the ability of low-income households to consume non-health goods and services, pushing them deeper into poverty, especially as low-income households are more likely to suffer jobs and earnings losses during crises.



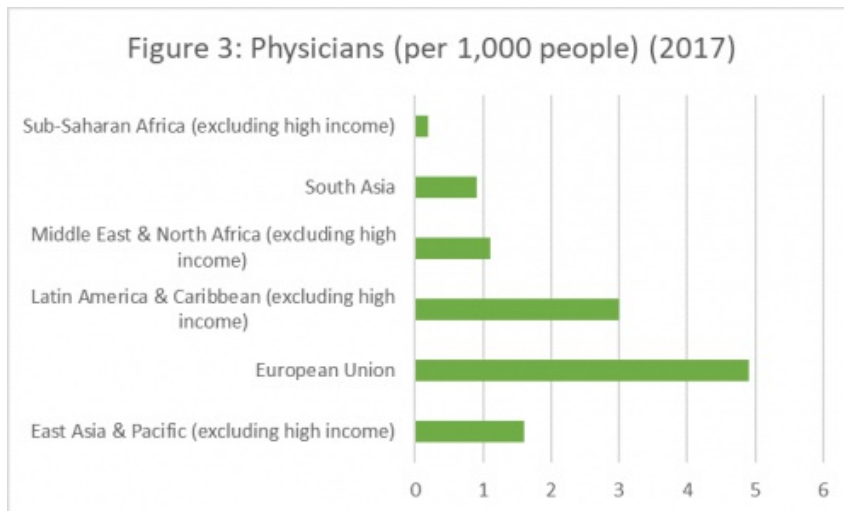
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According to [UNESCAP](#) simulations, as many as [132 million people in South Asia](#) could be pushed into extreme poverty as a result of COVID-19 related measures, which were proposed due to a lack of preparedness for the gravity of the current outbreak. This may be the largest increase in the number of poor caused by COVID-19 in any region throughout the world, and has undone the progress of the last decade in relation to the [Sustainable Development Goals](#) (SDGs).

Although South Asia has so far experienced a relatively [low mortality rate from COVID-19](#), this may not be sustainable in the long term with other emerging diseases as outbreaks may travel even more swiftly, further weakening regional health systems. The prevalence of various [communicable and noncommunicable diseases](#) and malnourishment among poorer socio-economic groups could also increase the mortality rate from future pandemics.

Poverty, scarce resources in healthcare infrastructure, a shortage of healthcare workers (see Figure 3 for an example) and a lack of epidemiologists and trained veterinarians in the region further lead to the neglect of zoonotic diseases, aggravating the region's vulnerabilities in fighting the outbreak of diseases.

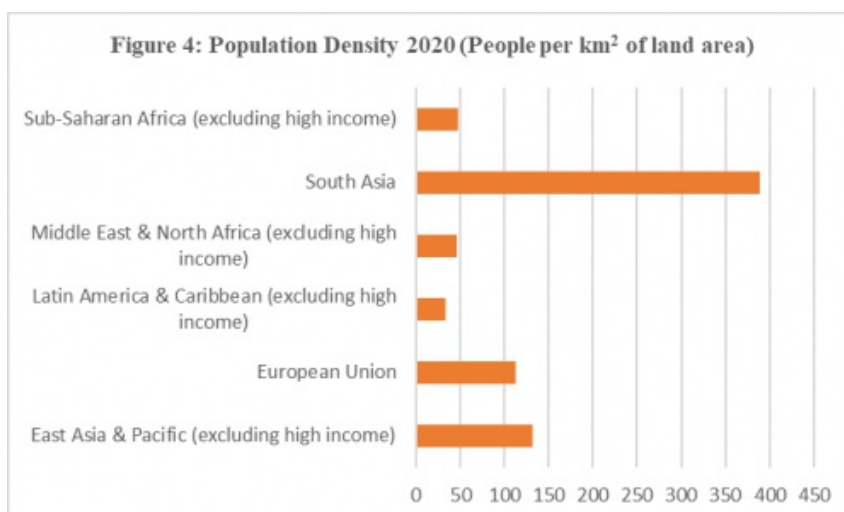


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Countries in South Asia are also vulnerable to [vaccine nationalism](#) due to their limited fiscal capacity. This affects their ability to compete with wealthier nations who can procure life-saving vaccines far more easily. Current trends indicate that many low-income countries will not have a majority of their populations immunised against COVID-19 until well into [2022, or even 2023](#) for some of the poorest countries. Export bans on resources (like [raw materials and equipment](#) for vaccine production) originating in countries such as the USA, have adversely affected the roll out of COVID-19 vaccines to the most vulnerable, including in South Asia. Developed countries in the West have also felt impelled to [block waivers to Intellectual-Property \(IP\) rights](#) on the COVID-19 vaccine, that would have otherwise allowed generic drug manufacturers in developing countries to produce vaccines at lower costs.

High population density exacerbates these pressures. Since 2018, Asia has had the highest population density compared to other world regions, with [147 inhabitants per square kilometre](#); South Asia as a subregion is the most [densely populated](#) (Figure 4), increasing the risk of easier and faster transmission of disease between people in a given area.



Source: World Bank, World Development Indicators

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Rapid urbanisation and the associated high-density living in South Asia are a further social determinant of the spread of infectious diseases. Overcrowding leads to the lack of proper housing; slums or shanty towns are common in the region, where people are in close contact with each other and prone to health hazards due to a lack of ventilation and sanitation systems. These [poor conditions of living contribute](#) to the creation of clusters that easily spread disease elsewhere in the region as a result of free movement.

As zoonotic diseases are [transboundary in nature](#), globalisation and the growing interconnectedness of the world through trade, investment and tourism make the transmission of such diseases easier between different regions too. South Asia's proximity to, and growing integration with, East Asia (a subregion particularly vulnerable to zoonotic diseases) increases its susceptibility to such disseminations.

Despite this marked vulnerability, the region lacks robust national plans and legal frameworks focused on the surveillance and control of zoonotic pathogens that are of [increasing concern for public health](#). Zoonotic diseases are impossible to eliminate due to their animal origins. With increasing human contact with animal species that are potential hosts of infectious diseases – due to continued destructive ecological changes, human population growth and economic development – pandemics remain an inevitable and imminent threat.

Building South Asia's Outbreak Readiness: What Can be Done?

Following the 2003 SARS epidemic and the 2009 H1N1 pandemic, the world recognised the need for 'readiness' strategies to combat future public health risks. However, it is easy to become desensitised and complacent over time when virus cases begin to fall; hence, the [lack of preparedness](#) in managing COVID-19. Interventions that are sustainable over the long term are therefore of utmost importance in preventing another pandemic and similar, or even more severe, social, economic and development damage.

A comprehensive strategy for pandemic preparedness is one that addresses the aforementioned socio-economic inequalities and vulnerabilities. At the national level, such interventions often include poverty alleviation, improving the living conditions in densely populated areas, provision of accessible and affordable healthcare with investments targeted at increasing the number of intensive-care beds, and assuring adequate supplies of trained personnel, critical medicines, equipment, and personal protective equipment (PPE).

However, the cross-border nature of COVID-19 has demonstrated the futility of a 'country first' approach. This is why world leaders have called for an [international treaty](#) to enhance cooperation in fighting future pandemics. Taking South Asia's socio-economic factors and elevated vulnerability to pandemics into account, a [region-specific plan](#) is even more pragmatic. With adequate political will, regional organisations like [SAARC](#) and [BIMSTEC](#) are best suited to lead collective regional action in this field, with the strong supporting the weak, because even a regional response is only as strong as its weakest link. The main components of such a regional response can now be identified and are outlined in the key recommendations below.

Key Recommendations

Establish a working group on regional health security to formulate and oversee pandemic preparedness. This working group can conduct a preliminary assessment to identify the region's pandemic preparedness, and institutional capacities at the national, district and local levels. It can also establish clear responsibilities and best practices for public health authorities of member states to eliminate ambiguities during public health emergencies. These activities must be regularly reviewed for their effectiveness based on country-specific factors and new and emerging information obtained through surveillance and information-sharing tools.

Address inequalities in preparedness-capacity and resource-availability among member states. This will require regular capacity-building and training programmes. Bilateral and multilateral partnerships with institutions such as the WHO, Centers for Disease Control and Prevention (CDC) and the European Centre for Disease Prevention and Control (ECDC) can also be leveraged to enhance expertise, tools and technologies, and reviewing priorities.

Create sustainable funding for pandemic-preparedness activities. While national governments might find the mobilisation of resources to prevent future pandemics – an invisible enemy as opposed to the very real effects of the COVID-19-induced economic downturn and other longstanding developmental challenges – unappealing, the current pandemic and its heavy economic cost are in fact the results of past failures to efficiently mobilise resources on time. As the threat of future pandemics looms over South Asia, new taxes, foreign aid and support from international financial institutions can all be utilised, in the first instance. However, since such activities must be an ongoing function, eventually funding will need to be acquired through more sustainable means. Examples may include regular re-assessments of ongoing budgetary allocations and increasing tax revenue in countries such as the [Maldives and Sri Lanka with room to improve progressive taxation](#) – direct taxes – given higher levels of inequality.

Create regional databases to facilitate the early detection of emerging infectious diseases. Disease surveillance collects, aggregates and analyses information at every level of a health system (national, district and community levels), enabling experts to identify unusual trends, mount timely and effective control measures and report the occurrence of a Public Health Emergency of International Concern (PHEIC). National surveillance information (emerging variants, laboratory results, case and death counts, source and risk of the outbreak, etc.) can subsequently be fed into a regional database that is shared amongst the public health agencies of participating nations to inform response activities. Disease surveillance also increases the availability of more precise information such as risk and transmissibility, as opposed to [ambiguous warnings that policymakers often hesitate to act upon](#).

Develop diagnostic capabilities through a region-wide animal- and human-laboratory network that enables the rapid identification of specimens. An example of this is a [mobile application developed by Thailand's Ministry of Public Health in partnership with the CDC](#) that is used by farmers and animal- and human-health officers to flag deaths, illnesses and abnormal health events, which allows for faster disease investigations and response to control potential outbreaks. Likewise, agricultural communities in South Asia can be trained to use similar technologies to report abnormal health events and to enhance the scope of threat surveillance.

Develop regional R&D, manufacturing capabilities and resilient supply chains for vaccines, medicines and equipment to reduce reliance on the West. Nationalistic behaviours such as [advance purchase agreements and the hoarding of COVID-19 vaccine doses](#) by the world's richest nations have hampered the developing world's ability to inoculate vast swaths of its population during the current pandemic. Thus, building regional self-sufficiency in vaccine- and drug-production will need to be made a priority for the nations in the regions.

Target investments at a regional level into the production of critical ingredients and components required in the drug- and vaccine- manufacturing process. This will call for collaboration across the region on a number of factors that contribute towards favourable investment conditions such as macroeconomic stability, political stability, policy continuity, costs of raw materials, research facilities, availability of skilled labour, availability of local suppliers, preferential trade agreements and treaties, legal framework, customs procedures, tariffs and transport infrastructure. South Asia can also draw on the experience of India as a leading manufacturer for the pharmaceutical industry on what works and what does not. The process may provide a counter to the region's geopolitical volatility.

Draw investments and expertise from Asian economies. Monopolistic behaviours by some Western countries during the COVID-19 crisis have reinforced the region's need to ramp up end-to-end drug discovery, development and production using alternative sources. Investments and partnerships with advanced Asian economies like China [that have developed research capabilities in pharmaceuticals on par with Western countries](#) can play a crucial role here.

As the world comes to the sobering realisation that disease outbreaks are becoming increasingly commonplace, preparedness for future pandemics must be prioritised as a matter of economic and national security. It is, however, not cheap; and with South Asia's uneven socio-economic landscape, the only way forward can be through cooperation and trust among the countries in the region. Because no one is safe until everyone is safe.

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Banner Image: Shubham Dhage, 3D illustration of a network of ethereum in dark. Red, white, and black colored ethereum, [Unsplash](#).