Lessons from COVID-19: Evidence from Five Emerging Markets

Maureen Lewis Luke Stuttgen Anne Coyne

October 2022



Introduction

COVID-19 wreaked havoc with health systems across the globe. Starting in early 2020, the highly infectious virus sped around the world in a matter of months. While infection rates have varied across settings, the health and economic impacts have been significant (HLIP 2021; WHO 2022). This report on five of the world's largest Emerging Market economies—Brazil, India, Mexico, Russia, and South Africa—drew on recent evidence and unpublished comparative country studies. The experiences of these large countries offer lessons on health system resilience for the global community and opportunities for investment in a post-pandemic world.

This short overview is based on a more extensive Aceso Global analysis of the five countries and their experiences with COVID-19 (Lewis, Stuttgen and Coyne, 2022) Given the certainty of future pandemics, these lessons offer important insights for Emerging Markets as they grapple with prevention, preparation and responses to inevitable future threats.

Health System Resilience

Resilience can be defined in three dimensions:

Absorb	Adapt	Transform	
Prepare, mitigate, prevent	Modify and change	Create a new system	

Health system resilience encompasses the ability of countries to absorb shocks, recover from them, and constructively adapt and transform their structures and systems to reflect long-term change and uncertainty (Mitchell 2013).

The figure to the right shows the key technical areas of health system resilience, emanating from the country report findings. Each of these factors are critical in establishing a resilient health system and provide the structure for the report.

Policy Context

The COVID-19 pandemic has resulted in almost 500 million COVID-19 cases and over six million official

Policy Context

Cross-cutting Issues

Cross-cutting Issues

Digital Transformation

Source: Mitchell 2013; Haldane et al. 2021

deaths across the world as of March 2022. The pandemic and the measures to respond to it led to a severe economic crisis with global gross domestic product (GDP) falling by 3.3% in 2020 in line with the economic impact of the 2008 financial crisis (World Bank 2022).

COVID-19 hit the five countries very differently due to varying demographics, health systems characteristics, government response, timing of surges, emergence of new variants, and a number of other factors. Brazil was the hardest hit based on death rates, followed by Mexico. South Africa was better prepared due to its recent history with HIV/AIDS, but the pandemic still strained its epidemiological capacities and responses. India confronted major infections late in the pandemic and, despite substantial lead time, was unprepared and scrambled to treat patients



(Our World in Data 2022). Both Russia and India responded with significant efforts in domestic vaccine production and produced local vaccines that were shared outside their borders. While Russia maintained the second highest official rate of cases throughout most of the pandemic, their deaths per capita were the second lowest above India until a surge in 2021 upended the number of fatalities.

Health Policy Measures. The complexity of COVID-19 as both a scientific and political problem resulted in a variety of policy responses and reflected each countries' ability to absorb and adapt. A common early response was export restrictions on medical goods, including personal protective equipment (PPE), devices, and pharmaceuticals. Over time these responses shifted towards policies that encouraged domestic production or regulated prices for medical services and easing of registration and approval processes. Lockdowns and mask mandates were embraced in all five countries though unevenly and often late in the pandemic (HLIP 2021; WHO 2022; World Bank 2022).

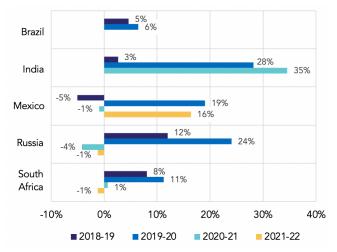
Economic Measures. The economic impact of the pandemic had profound effects on health and economies reflecting job losses and restriction on movements and economic activity. Countries attempted to offset these economic losses and lessen the impact on households, beginning with monetary stimulus with declines in interest rates early in the pandemic. Broad fiscal stimulus measures included job creation and tax deferrals, income support to the unemployed, and cash transfers that targeted informal workers. All five countries had some combination of economic responses, only varying by the degree and scope of public initiatives (Gentilini 2022).

Health Financing

All five country governments stepped up health spending at the onset of the pandemic (see graph). Though differing in the trajectory, expenditures in all five countries have increased, and have served to raise overall public health spending.

Despite government spending, only in Russia is the public sector the dominant payer of health care, while out of pocket spending and private insurance combined tend to dominate in the other four countries. However, Mexico is evenly split between public and private. The private sector saw contraction in demand while the public sector saw rising demand during the pandemic, and often sought to collaborate with private providers, which may provide the basis for a stronger public-private relationship going

Change in Public Health Budgets, 2018-2022 (%)



Sources: Brazil ANAHP Observatory 2020 -2021; Government of India Economic Survey 2021-22; México Evalúa 2020-2021; Deloitte 2021; and South Africa National Treasury 2018, 2020, and 2021.



Digital Transformation

COVID-19 has fundamentally altered the delivery of health services by rapidly advancing the use of technology and digital tools. This digital health revolution has affected almost every aspect of health care delivery, from services and apps to supply chain and procurement to telemedicine to electronic health records. Additionally, e-learning was launched to ensure the pipeline of trained healthcare professionals (HCPs) and continuous training. Not only did the pandemic provide the impetus for a significant shift in the degree of digitalization in the health space, it changed the trajectory of technological adoption and resulted in major transformations of the health sector in four of the five countries, as Mexico has not yet seriously invested in digital solutions.

Limited interoperability hampers digital transformation in all five countries, but other barriers are important: (1) regulatory issues such as data privacy laws and reimbursement rates for telemedicine; (2) technological limitations, for example inadequate digital infrastructure and internet access across the countries; and (3) cultural concerns that include data privacy concerns, training gaps, and citizen uncertainty (Deloitte 2021a; Deloitte 2021b; EY 2021; Kantar 2021; and KPMG 2021).

Human Resources

COVID-19 had a catastrophic impact on healthcare workers and placed health workforce management and policy under a microscope. The pandemic shed light on the gaps in supporting HCPs, particularly mental health issues, and led to a variety of measures that hold promise for medium and long-term solutions for healthcare workforce strengthening. These measures include overtime wage increases, new e-learning initiatives, donations of PPE and supplies from private entities, and service awards. Human resources play an integral role in health system resilience; equitable and human-centric healthcare service begins with healthcare worker empowerment.

Throughout the pandemic, there have been significant issues around healthcare workers, including personnel shortages, unsafe working conditions, a lack of PPE, insufficient training, and low or unreliable pay. During the first year and a half of the pandemic, at least 115,000 healthcare workers died due to COVID-19 globally (WHO 2021). This graphic shows various adaptive and transformative measures to support HCPs, each present in at least one of the five countries.



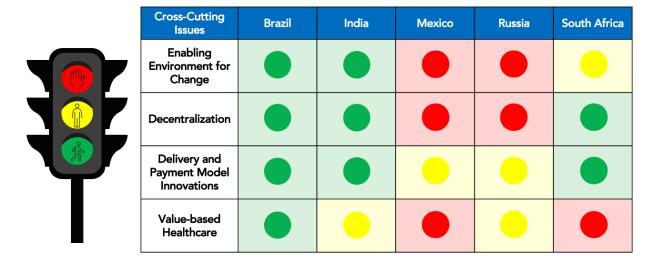
Sources: Deloitte 2021a; Deloitte 2021b; EY 2021; Kantar 2021; and KPMG 2021.



Cross-Cutting Issues: Lessons for Building Health System Resilience

Among the five countries, Brazil and India are best poised to see transformations in their health sectors following the pandemic, closely followed by South Africa. Brazil and India have adapted better to constraints, often despite initial setbacks, adopted timely responses, and attempted to pivot from the disasters to forge new directions. South Africa lags but is adapting. Cross-cutting issues set the stage for country resilience.

The high-level stoplight status of each country's readiness for transformation in five areas:



The five focus countries have mixed public and private healthcare systems, which provide a basis for resilience, and an enabling environment for investment. The advantage of a mixed system is that where governments or the private sector may not be interested in innovation, the other may be, and both are key to a functioning, resilient system. The circumstances around decentralization are similar, as it offers alternative responses to system shocks like a pandemic.

Investments in delivery and payment arrangement innovation can reap rewards as efficiency and quality move to transform the healthcare system, and while countries like Brazil, India, and South Africa have robust investments—either because of or in spite of the pandemic—many other countries have underdeveloped healthcare systems that would benefit from initiatives in these areas (Harzheim 2020). Payment systems are challenging to implement but are drivers of demand and efficiency in healthcare systems. Value-based Healthcare (VBHC) is in its infancy, and the five countries require investment in integrated care, measurement, and quality enhancement, complementing the delivery and payment upgrading to effectively embrace VBHC. The IT and innovation in payment and delivery that are a focus of the report remain central to a value-based healthcare system.

Lessons from these cross-cutting factors can help build resilient health systems that will withstand adversity and setbacks, as these factors have the potential for transformation.



Opportunities for Building Resilience in the Five Countries and Beyond

The pandemic has opened up opportunities for rethinking healthcare delivery systems, the ways information can and should be used, how financing plays a role in driving healthcare, and the constraints that human resource investments have imposed on health systems. These areas offer opportunities for the public and private sectors to engage and participate in building resilient healthcare systems.

- 1. Enabling Environment for Building Resilience
 - Engage with government/trade associations on resilience reviews
 - Sponsor public-private forums on collaboration and regulation
 - Encourage peer learning across levels of government through forums of good practice
- 2. Training, Retraining, & Continuous Education
 - Comparative analysis of country experiences to define best practices in education—particularly online training and digitalization
 - Address management issues and IT training jointly
 - Upgrade and expand nurse training to enhance clinical practice, improve safety, and expand use of digital tools for management and clinical care
- 3. Demonstration Projects
 - Encourage public-private collaboration through financing innovative public-private partnership (PPP) models
 - Test alternative pandemic reporting processes between public and private
 - Engage with public and private sectors on VBHC demonstration projects
 - Support initiatives to demonstrate effective impact of IT use, data analysis, and management upgrades
- 4. Developing Effective IT Systems
 - Incentivize IT investments and experimentation in the health sector
 - Finance case studies of adoption of IT innovations and their impacts
 - Support scale up of IT through grants or in a set of facilities
 - Establish health IT award programs
 - Address interoperability issues with guidance and standards
- 5. Advancing Delivery and Payment Models
 - Identify successful alternative delivery models globally and nationally as a basis for developing a cadre of good practices
 - Compile experiences of innovative payment arrangements to show ways to improve performance
 - Harness claims analysis for VBHC/performance and results
- 6. Pandemic Preparedness
 - Laboratory excellence and upgrading
 - Partnerships in laboratory development for virology
 - Partnerships in virology research
 - Sponsor meetings on public-private dialogue and collaboration and pandemic processes for data and reporting, preparedness, and public contracting



References

- Deloitte. 2021. "Multi-Country Project on Sustainable Health Care Systems in South Africa: Findings Report." Unpublished White Paper. London, U.K.: Deloitte Touche Tohmatsu Limited.
- Deloitte. 2021. "Sustainable Healthcare System in Russia." Unpublished White Paper. London, U.K.: Deloitte Touche Tohmatsu Limited.
- Ernst & Young. 2021. "Sustainable Health Care Systems in India." Unpublished White Paper. London, U.K.: Ernst & Young LLP.
- Gentilini, U. 2022. "Ideas, evidence and practices from the world of social protection." https://www.ugogentilini.net/
- Government of India. 2022. "Economic Survey 2021-22." New Delhi: Government of India.
- Government of India. 2021. "Economic Survey 2020-21." New Delhi: Government of India.
- Haldane, V., De Foo, C., Abdalla, S.M. et al. 2021. "Health systems resilience in managing the COVID-19 pandemic: lessons from 28 countries." *Nature Medicine* 27, 964–980. https://doi.org/10.1038/s41591-021-01381-y
- Harzheim, E. 2020. "'Previne Brasil': Bases of the Primary Health Care Reform." *Ciência & Saúde Coletiva*, 25(4):1189-1196. https://doi.org/10.1590/1413-81232020254.01552020
- HLIP. 2021. "A Global Deal for our Pandemic Age." Report of the G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response. G20 HLIP.
- Kantar. 2021. "Health Systems Resilience During the COVID-19 Crisis: Brazil Chapter: Multi-Country Project on Sustainable Health Care Systems in Selected Emerging Markets." Unpublished White Paper. London, U.K.: Kantar Group.
- KPMG. 2021. "Leading directions to sustainability and resilience in Mexico's health system." Unpublished White Paper. Netherlands: KPMG International Limited.
- Lewis, M., Stuttgen, L., and Coyne, A. 2022. Health System Resilience in the Face of COVID-19: Evidence from Five Emerging Markets. Working paper. Washington, DC: Aceso Global.
- México Evalúa. 2021. "Gasto en salud en el Presupuesto 2022: prometer no empobrece." https://www.mexicoevalua.org/gasto-en-salud-en-el-presupuesto-2022-prometer-no-empobrece/



- México Evalúa. 2020. "Gasto en salud: el presupuesto real." https://www.mexicoevalua.org/numerosdeerario/gasto-en-salud-el-presupuesto-real/
- Mitchell, A. 2013. "Risk and Resilience: From Good Idea to Good Practice." OECD Development Co-operation Working Paper 13. Paris: OECD.
- National Treasury. 2021, 2020, and 2018. "Budget Information: National Budget." Department of National Treasury of the Republic of South Africa. http://www.treasury.gov.za/documents/national%20budget/default.aspx
- OECD. 2022. OECD. Stat. https://stats.oecd.org/
- Ribeiro, A., Londres, A., Medici, A. et al. (eds). 2020. "Observatório 2020." *ANAHP*. Annual Publication, 12th Edition. São Paulo: Brazil.
- Ribeiro, A., Medici, A. et al. (eds). 2021. "Observatório 2021." ANAHP. Annual Publication, 13th Edition. São Paulo: Brazil.
- Ritchie, H., Mathieu, E., Rodés-Guirao, L., Appel, C., Giattino, C., Ortiz-Ospina, E., Hasell, J., Macdonald, B., Beltekian, D., and Roser, M. 2022. "Coronavirus Pandemic (COVID-19)."

 Our World in Data.
- WHO. 2022. Global Health Expenditure Database. https://apps.who.int/nha/database.
- WHO. 2022. "Third round of the global pulse survey on continuity of essential health services during the COVID-19 pandemic: November-December 2021." Interim report. Geneva: World Health Organization.
- WHO. 2021. "Health and Care Worker Deaths during COVID-19." Departmental news, October 20, 2021. Geneva: World Health Organization. https://www.who.int/news/item/20-10-2021-health-and-care-worker-deaths-during-covid-19
- World Bank. 2022. "COVID-19 Research." Research & Outlook Brief. Washington, DC: The World Bank. https://www.worldbank.org/en/research/brief/COVID19-research
- World Bank. 2022. GDP growth (annual %). World Bank national accounts data and OECD National Accounts data files. https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG



Aceso Global is a non-profit organization that catalyzes global healthcare performance and innovation. We provide strategic **healthcare advisory services** in low- and middle-income countries to design and deliver highly customized, evidence-based solutions that address the complex nature of healthcare systems. We are committed to promoting strong health systems and affordable, **high-quality care** that produce **better health outcomes** for all.



1616 P Street NW Suite 103 Washington, DC 20036

www.acesoglobal.org