



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

COVID-19 vaccination challenge: what have we learned from the Brazilian process?



Despite a long tradition of strong primary health-care systems, some Latin American countries—such as Brazil and Mexico—have suffered the worst during the pandemic. Political denialism and conflict, lack of resources, and weak institutional contexts within federalised systems can account for high case numbers and mortality within these countries.¹ However, towards the end of 2021, Latin America had some of the highest vaccination coverage in the world. The EU had reached a vaccination coverage of approximately 74·3% of the total population with at least one dose as of Feb 12, 2022, yet such statistics mask the vast differences between member states, ranging from 93·6% in Portugal to only 29·8% of the population in Bulgaria.² In some African countries, vaccination remains the privilege of a very small minority.³ How has Brazil, a Latin American country that had so many problems during the initial years of the pandemic, had such success in its vaccine programmes, with a vaccination coverage of 83% (one dose)?

Managing the pandemic requires political decision-making and commitment^{4,5} to provide resources, make tough decisions as to relevant countermeasures, to establish leadership, improve training and education, and support the resilience of the health-care system and the health-care workforce.^{4,6,7} In Brazil, federal, state, and municipal governments failed to provide this political determination, and political decision making led to denialism of the pandemic. Under the Government of the Brazilian President Jair Bolsonaro, the federal government denied the science and the severity of the pandemic at the cost of the health and wellbeing of Brazilians. As of February, 2022, the Ministry of Health has still not developed a national plan to combat the pandemic. States and municipalities continue to be neglected and receive insufficient assistance and resources.⁸ Influenced by political interests, the federal government has disrupted the flow of financial resources and slowed the delivery of essential supplies to certain regions. Consequently, the federal government reduced the capacity of the health system to respond to the crisis and failed to offer support to health workers.^{8,9}

However, the scenario is very different for vaccination programmes. On the supply side, Brazil is used to implementing mass vaccine campaigns against many endemic infectious diseases through the National Immunization Program (Programa Nacional de Imunizações [PNI]).¹⁰ The PNI, created in 1973, has coverage of more than 95% of the target population despite the extreme inequalities across Brazil.¹¹ The characteristics of the Brazilian health system (Sistema Único de Saúde [SUS]) are important for the implementation of the PNI. In the past decade, Brazil has structured the SUS on the basis of territorial embeddedness, meaning that services are located and provided inside the territories where people live, a focus on primary health care, and local health clinics and health teams connected to local communities.¹² The SUS also invested in mandatory vaccination campaigns, creating policies with national unified campaigns offered in communities, including in schools and inside people's homes.¹⁰

Therefore, Brazil has one of the most consolidated immunisation programmes in the world, which has made it possible for the implementation of vaccination against COVID-19 to advance, even though the Brazilian government has actively acted to stop progress in other areas of pandemic response. The consequence is that, except for buying the vaccines, the health system is capable of implementing vaccination drives with little general hesitation or challenge, if the necessary resources are provided, given the high degree of resilience and self-organising abilities. We will have to wait and see what effect the culture of denialism has had on parents' willingness to get their children vaccinated, and the knock-on effect at the population level of low vaccination amongst children.

So far, a key lesson from the COVID-19 pandemic is that routine public-health expertise and clinical resources are very important for the crisis's policy implementation. So, when thinking about how health systems can be resilient to crisis: the more public-health services become routine and are embedded into the community, into citizens' lives and into health workers' daily activity, the easier it might be to both adopt

Published Online
March 10, 2022
[https://doi.org/10.1016/S2214-109X\(22\)00049-3](https://doi.org/10.1016/S2214-109X(22)00049-3)

already existing provision of services and to anticipate what areas can be deployed without political tension to serve the population at risk.

We declare no competing interests.

Copyright © 2022 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY-NC-ND 4.0 license.

Gabriela Lotta, *Michelle Fernandez, Ellen Kuhlmann, Clare Wenham
michelle.vfernandez@gmail.com

Department of Public Administration, Getulio Vargas Foundation, São Paulo, Brazil (GL); Institute of Political Science, University of Brasília, Brasília 70910-900, Brazil (MF); Clinic for Rheumatology and Immunology, Hannover Medical School, Hannover, Germany (EK); Department of Health Policy, London School of Economics, London, UK (CW)

- 1 Fernandez M, Machado C. What are the political Challenges of COVID-19 in Latin America? In: Fernandez M, Machado C, eds. Covid-19's political challenges in Latin America. Cham: Springer, 2021.
- 2 European Commission. Country overview report: week 3 2022. 2022 <https://covid19-country-overviews.ecdc.europa.eu/> (accessed Feb 3, 2022).
- 3 WHO Regional Office for Africa. Key lessons from Africa's COVID-19 vaccine rollout. 2021. <https://www.afro.who.int/news/key-lessons-africas-covid-19-vaccine-rollout> (accessed Jan 8, 2022).
- 4 Greer SL, King E, Massard da Fonseca E, Peralta-Santos A. Coronavirus politics: the comparative politics and policy of COVID-19. Ann Arbor: University of Michigan Press, 2021.
- 5 Davies SE, Wenham C. Why the COVID-19 response needs International Relations. *Int Aff* 2020; **96**: 1227–51.
- 6 Burgess RA, Osborne RH, Yongabi KA, et al. The COVID-19 vaccines rush: participatory community engagement matters more than ever. *Lancet* 2021; **397**: 8–10.
- 7 McKee M. Drawing light from the pandemic; a new strategy for health and sustainable development. A review of the evidence for the Pan-European Commission for Health and Sustainable Development. 2021. <https://apps.who.int/iris/bitstream/handle/10665/345027/9789289051798-eng.pdf?sequence=1&isAllowed=y> (accessed Jan 8, 2022).
- 8 Ferigato S, Fernandez M, Amorim M, Ambrogi I, Fernandes LMM, Pacheco R. The Brazilian Government's mistakes in responding to the COVID-19 pandemic. *Lancet* 2020; **396**: 1636.
- 9 Barberia LG, Gómez EJ. Political and institutional perils of Brazil's COVID-19 crisis. *Lancet* 2020; **396**: 367–68.
- 10 Teixeira AMS, Domingues CMAS. Monitoramento rápido de coberturas vacinais pós-campanhas de vacinação no Brasil: 2008, 2011 e 2012. *Epidemiol Serv Saude* 2013; **22**: 565–78.
- 11 Temporão JG. O Programa Nacional de Imunizações (PNI): origens e desenvolvimento. *História. Ciênc Saúde (Porto Alegre)* 2003; **10** (suppl 2): 601–17.
- 12 Organisation for Economic Cooperation and Development. Primary health care in Brazil. 2021. <https://doi.org/10.1787/120e170e-en> (accessed Jan 23, 2022).