

Monkeypox in Brazil between stigma, politics, and structural shortcomings: Have we not been here before?

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Keywords: Monkeypox in the Americas; Health policy in Brazil; Infectious diseases in Brazil; Health systems in LMICs; Social determinants of health; Epidemic preparedness

Introduction

At the time of writing, there have been 51,519 confirmed cases of monkeypox in the Americas,¹ and health practitioners worry about the continent's preparedness to prevent a more extensive and persistent outbreak.² In Brazil, there are already 9,312 cases – the world's second most affected country and the largest pool of notified human infections in Latin America – with the majority in São Paulo, the continent's largest city.³ Although the disease's fatality rate has been low so far, there is a possibility that monkeypox will spread across Brazil's vast territory and affect disproportionately the poor and other vulnerable populations, as has been the case for other infectious diseases in the country's epidemiological history.⁴

The monkeypox outbreak has arrived while the country has not yet fully recovered from the COVID-19 pandemic, which, according to the World Health Organization (WHO), has been responsible for more than 688,000 deaths in Brazil. The situation is especially dramatic as the country is still immersed in intense political, economic and fiscal crises following the October 2022 tumultuous presidential elections. This may impose additional difficulties on adopting national, comprehensive and coordinated short-term public health measures.

Brazil has faced similar threats during the recent COVID-19 pandemic,⁵ and, crucially, it should now learn from its mistakes. In this viewpoint, we argue that in the early response to the COVID-19 epidemic in Brazil, underestimating its effects in five inter-related areas was a fatal mistake, and these factors should not be ignored by the new government when tackling monkeypox or any other future epidemic threats.

We highlight five critical perils that need to be confronted to pre-empt public health and social crisis in connection with the epidemiological outbreak: the stigma associated with the infection; the misinformation surrounding it; the health system's shortcomings; the country's technological dependence on foreign vaccines and treatments, and the governance crisis within which the fight to the epidemic plays out (Fig. 1).

We present these societal, systemic, and technological challenges as individual but interrelated threats, carrying repercussions for the management of the epidemiological outbreak, and ultimately, for the intensity and duration of the epidemic.

Some of these threats are particularly acute due to the characteristics of the epidemic and the shortcomings of Brazil's health system. But these challenges are mostly generalizable to many low- and middle-income countries in Latin America and elsewhere. Although such threats are not unique to Brazil, we argue that their concomitant pressure and unexpected interactions make the situation combustible in Latin America's largest country.

Stigma and social vulnerabilities

Monkeypox infection has a low case-fatality ratio, but prejudice and stigma – blaming and shaming individuals for their infection – can also produce harmful effects, as we have learned from past epidemics.⁶ In monkeypox's case, there seems to be a significant stigma attached because of its origins in the African continent and its association with the Men Who Have Sex with Men population group that primarily reported the disease.⁶ In Brazil, the explosive combination of the previous federal government's latent homophobia, fanned by the growth of the extremist right, increased discrimination at work and school and foment distrust in accessing health services to report symptoms and inform contacts.

Because of the stigma, monkeypox can become another pretext for the extreme right and religious



The Lancet Regional Health - Americas 2022;■: 100394

Published Online XXX

<https://doi.org/10.1016/j.lana.2022.100394>

1016/j.lana.2022.100394

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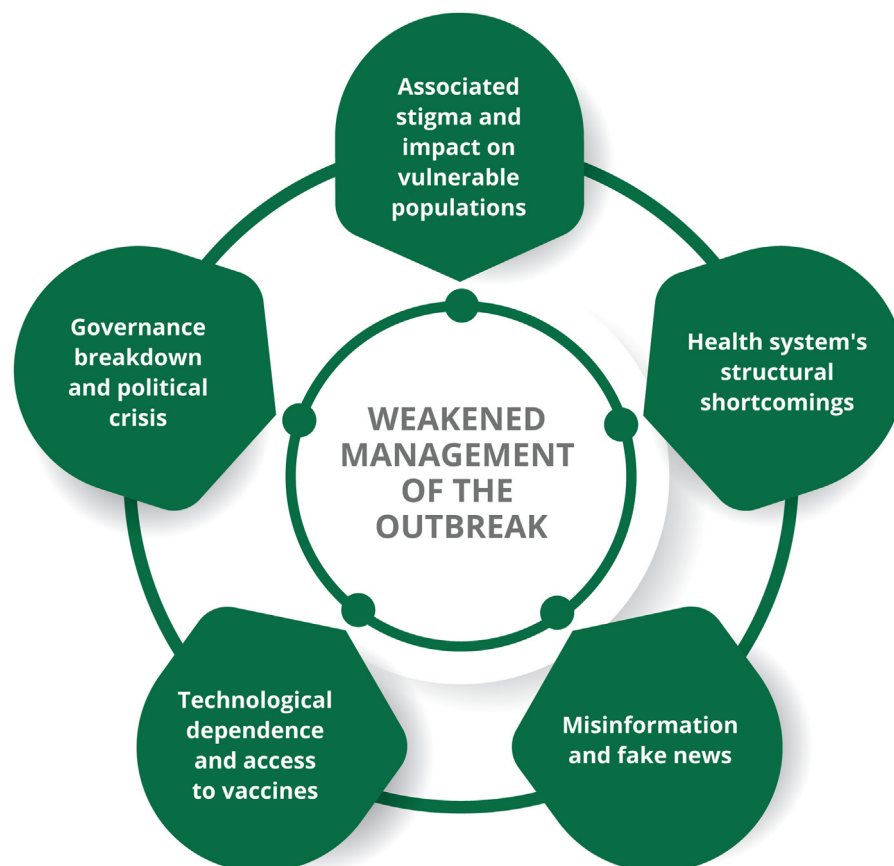


Fig. 1: Structural threats to tackling the monkeypox outbreak in Brazil.

conservatives to encourage discrimination and violence against LGBTQIA+ communities, with Brazil being one of the countries with the world's highest number of lethal crimes against this population group.⁷ Brazil's President Jair Bolsonaro even suggested in a derogatory tone that mostly homosexuals wanted access to the monkeypox vaccine, branding this population group as the only ones susceptible to the virus, and as if homosexuality were the real problem, rather than referring to vaccination as a necessary health prevention strategy.⁸

But the reality is that Brazil has a track record of progressive policies to fight infectious diseases by mitigating the stigma and guaranteeing the rights of more at-risk populations such as gay men, trans people, drug users, and those suffering from mental disorders. Homophobia was declared a criminal offence in the country by a Supreme Federal Court (SFC)'s judicial decision in 2019. Brazil's world-beating response to AIDS brought significant lessons regarding focusing on prevention campaigns without discriminating against the most affected segments of society.⁹

These lessons from past epidemics indicate that in Brazil as elsewhere, a response to a monkeypox

outbreak focusing on more vulnerable groups will have to involve affected segments and communities to preempt or mitigate stigmatization, and disseminate information from a human rights-based perspective, where the most vulnerable and affected are seen as part of the solution.¹⁰

The epidemic of misinformation and fake news

The arrival of monkeypox in Brazil appears to have recreated the conditions of the recently experienced 'COVID-19 infodemic', the epidemic of disinformation and fake news in the media. During COVID-19, in the face of the intentional neglect of epidemiological information by the Bolsonaro government, journalists and civil society strived to report facts, check contents, and mobilize Congress and the Federal Supreme Court to react to misinformation disseminated through official government channels and by those holding public office.

No plan to deal with a new epidemiological outbreak can ignore the risk of an infodemic,¹¹ or the power of misleading or inaccurate messages to alter individual

perceptions and behaviours; the consequences may include the population rejecting vaccination or subscribing to scientifically unproven and possibly harmful treatments. In this respect, there is already an ongoing misinformation campaign in Brazil linking monkeypox cases to COVID-19 vaccines based on the chimpanzee adenovirus.¹²

At the national level, information vetting by health authorities evaluating both the message (information content) and the messenger (author/source of information) is key but has not been carried out.¹³ Interventions must be aimed at refuting false claims, conspiracy theories, and pseudoscientific therapies on social media platforms and in the media, as this information harms the prevention and control of the disease, as well as possible immunization campaigns.

Fighting a monkeypox infodemic will also require renaming the disease and virus variants,¹¹ to avoid links to specific communities, geographical locations, or animal species. In Brazil, there is evidence that the term “monkeypox” has already inspired retaliation against animals, with monkeys violently killed in the countryside of São Paulo.¹⁴

Preexisting health system shortcomings

Rapid and effective response to a possible monkeypox epidemic will require a responsive, integrated, and well-funded health system. However, Bolsonaro’s government’s poor performance during COVID-19 laid bare the consequences of poor preparedness and lack of contingency plans.

The constitutional principles of universality, equity, and comprehensiveness are crucial as the basis of Brazil’s public health system. Brazil’s pragmatic ability to respond to outbreaks has already been tested in the past, from eradicating smallpox in the 1970s to controlling the growth of the HIV pandemic, which has remained stable since the 2000s.

However, the country’s health financing structure, with 60.4% of expenditures from the private sector, generates fragmentation in the services not linked to the public network and inequalities in the population’s access to certain services.¹⁵

Real-time data are essential for decision-making, health workforce planning, and the supply of diagnostic equipment, medicines, and vaccines. Despite Brazil’s developed health information systems, during COVID-19, surveillance efforts and data collection were patchy and slow to pick up, particularly at the beginning of the pandemic.^{5,16} The limited epidemiological data available at the beginning of this monkeypox outbreak suggests these problems have not been overcome.¹⁷ Although international guidance documents are now posted on the Ministry of Health website and cases are reported weekly,³ regular, granular and consolidated surveillance data are still lacking. Collaboration between

media and state managers will be needed to develop alternative dashboards to monitor the evolution of the pandemic and disseminate information on local responses.

Unlike other middle-income countries (MICs), Brazil has an extensive public network of primary healthcare, with 40,000 Family Health teams, 260,000 Community Health Agents, and 60% of the population enrolled in the national primary health system (PHS) in 2019. This model maintains proximity with the territory and communities, links users to services, and enables the monitoring of households, families, and vulnerable people.¹⁸

Although it has chronic funding and personnel management problems, this PHS has been used strategically to combat other outbreaks and epidemics in Brazil, such as dengue, Zika, yellow fever, and Chikungunya. However, during the COVID-19 pandemic, Brazil’s system was not used effectively; mainly due to a lack of tests, ineffective detection of cases, patients with mild symptoms not being monitored, and the absolute absence of contact tracing. The PHS was not adequately staffed to respond to the COVID-19 threat and remained poorly integrated with the surveillance system and other levels of care.

Existing tools will need to be updated and implemented within the PHS in Brazil to investigate novel epidemiological outbreaks. These include collecting field data, monitoring cases and contacts, training professionals to identify transmission chains, using information technologies, and public health communication. A recent study¹⁹ has shown the potential for multiple uses of telemedicine in Brazil for integrating services, sharing expertise, training, and continuing education of health professionals.

Technological dependence and limited access to vaccines

Although no specific monkeypox vaccine has been developed yet, a few smallpox vaccines appear to offer some protection,²⁰ and have been approved for prophylaxis abroad.²¹ The world race to develop and hoard effective, high-value monkeypox vaccines has already started.

During COVID-19, Brazil’s policy to procure, manufacture, or develop vaccines has been erratic throughout the pandemic, and lives were lost. The same mistakes cannot be repeated this time. The country’s COVID-19 vaccination policy was marred by contradictions, uncertainty, lack of transparency, and hidden political agendas,²² as Bolsonaro’s government first belittled the severity of the pandemic and openly opposed policies to contain its spread, then questioned the safety and efficacy of the available vaccines.²³ After dithering on manufacturing and purchasing available vaccines, the government eventually signed international contracts for their supply, according to its critics,

with an eye on the upcoming presidential elections.²⁴ An official parliamentary investigation concluded in 2021 that the government's response to the COVID-19 epidemic and its handling of supplies was blatantly negligent.²⁵

More to the point, this new zoonotic crisis reopens the old debate on the opportunity to develop local production capacity for vaccines in MICs to improve pharmaceutical security and swiftly design vaccines suitable to local needs. Brazil is one of the emerging economies with proven domestic vaccine production capabilities.²⁶ Its network of public laboratories currently provides 90% of the needs of the National Immunization Program, securing nationwide coverage for key vaccines.²⁷ Its production capacity has been credited with enabling the country's successful vaccination programs,²⁸ as well as for allowing the government to negotiate price reductions for AIDS treatments.²⁹ The barriers to developing local R&D and manufacturing capacities in MICs are still multiple and not trivial.^{30,31} However, the rationale for not investing in developing local capacity must be reconsidered against the backdrop of rapidly succeeding global zoonoses.

Governance and political crisis

Monkeypox arrived in Brazil amid intense and concomitant political and economic crises, with a tumultuous presidential election taking place at the time of writing. President Bolsonaro ran his reelection campaign by encouraging armed violence against opponents, threatening a coup, and questioning the reliability of electronic voting.³² This limited the opportunities offered by the elections to debate the most adequate policy response for Brazil's many challenges at this critical juncture. Despite monkeypox's rapid advance in community transmission, the Ministry of Health did not follow WHO's example to declare the outbreak a Public Health Emergency of National Importance. There are no national prevention campaigns to speak of. Few laboratories have the capacity to conduct testing, and a monkeypox diagnostic test was only approved in September 2022.³³ Only recently, the National Medicines Regulatory Agency has approved the use of existing vaccines in Brazil,³⁴ and none of these measures has been planned under a comprehensive, national surveillance program.³⁵

Brazil is not only repeating the fragmented and uncoordinated response to COVID-19; the resulting governance and political crises provoked by Bolsonaro's rule are a fundamental determinant of why Brazil is not launching a response to the monkeypox health emergency to equitably increase the availability of tests, vaccinations, and treatments. From its onset, the federal government downplayed the threat posed by SARS-CoV-2. Bolsonaro's government not only worked to forestall the

COVID-19 pandemic response by rejecting calls for isolation, allocating insufficient resources to ensure an effective surveillance strategy, delaying the procurement of vaccines, and promoting ineffective treatments; it also sought to weaken the social contract between the state and its population, its institutions, and the rule of law. The federal government's policy decisions exacerbated preexisting inequalities and prevented disenfranchised communities and vulnerable groups from accessing constitutionally guaranteed rights to health and education while defunding public health and education systems.

Across Latin America, more than one populist government gave up its coordinating role, disregarding scientific evidence and transferring responsibilities to subnational governments.¹⁶ Brazilian states and municipalities, along with the Brazilian National Congress and the SFC, have actively worked to fill the leadership vacuum left by the previous government. Still, these institutions could not avoid the heavy toll of infections on the Brazilian population. After 30 months of seeking to resist these pressures, Brazilian society and governments are still immersed in a two-level conflict against the previous administration.

Enabled by the decentralization of powers provided by federative pacts or health emergency legislation, Brazilian states and municipalities can partly fill the vacuum left by the federal government. As subnational executive responsibility is closer to the demands of the population, they recognize the evolution of the health crisis firsthand, report cases, and coordinate services and prevention measures. Subnational health systems and community and civil society organizations can play a crucial role in containing outbreaks and epidemics.

A national plan, however, will be essential to fight future epidemics because it can account for health disparities and local inequalities in policy decisions, especially in allocating resources.³⁶ The support of international bodies – such as the WHO and the Pan American Health Organization – once again will be critical.

The ways forward

Monkeypox is likely to pan out very differently from COVID-19,³⁷ but the international community has nonetheless called for robust public health surveillance and control measures to prevent this new virus from spreading and becoming the next global epidemic.³⁸ However, important insights on the required response for future epidemics can be drawn from the recent past for Brazil and other Latin American countries.

First, it deserves consideration that unexpected challenges can arise in not-so-obvious domains (in the shape of threats to vulnerable populations from preexisting systemic weaknesses or transient political

circumstances), and weaken a country's health governance and response. Local, state-level contingency and preparedness plans can make a difference in unexpected health crises, particularly when oversight at the federal level is paralyzed by ideological stances and political calculations.

Health systems must be strengthened and adequately resourced to integrate surveillance, management, and healthcare delivery functions, particularly with PHC institutions. An extended PHC network is a precious asset, and represents ears on the ground for any surveillance system, but it will only work if properly funded, adequately staffed, and functionally connected with the rest of the system. Strengthening domestic pharmaceutical production capacity can improve vaccine security and stabilize supply chains to respond to unforeseen demands through the system.

Finally, promoting human rights-based approaches must always be at the heart of epidemic responses to allow policies and interventions to be led by core principles such as equity, the inclusion of the most vulnerable, and the participation of affected communities as part of the solution rather than the problem.

Given the electoral advances of conservative movements in Brazil and elsewhere, which explicitly advocate against epidemic control measures and the rights of diverse population groups, challenges are to be expected for the management of epidemiological outbreaks around the world. For the new government emerging from the 2022 elections in Brazil, the way forward in tackling future epidemics will be signposted by the mistakes made in the past in societal and political domains. And the solutions will need to include Brazil's diverse social and political groups.

Contributors

M.C.S., L.G.B., V.P., and G.R. collected the data. All authors contributed to the data analysis, interpretation, and writing.

Declaration of interests

The authors declare no competing interests.

Acknowledgements

Funding: This study received support from the Confap-MRC call for Health Systems Research Networks. Specifically, GR received the award from the Newton Fund/ Medical Research Council (UK), Grant Reference MR/R022747/1. MS received the award from the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP), 2017/50356-7. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

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