

News in focus



Brazil has buried many during a recent COVID-19 surge. Here, gravediggers lay a victim to rest in Abaetetuba, Para state.

'WE ARE BEING IGNORED': BRAZIL'S RESEARCHERS BLAME ANTI-SCIENCE GOVERNMENT FOR COVID SURGE

Researchers say that President Jair Bolsonaro's administration has undermined science during an epic public-health crisis.

By Luke Taylor

More than a year after Brazil detected its first case of COVID-19, the country is facing its darkest phase of the pandemic yet. Researchers are devastated by the recent surge in cases, and say that the government's failure to follow science-based guidance in responding to the pandemic has made the crisis much worse.

They add that President Jair Bolsonaro's administration has publicly undermined

science while refusing to implement protective national lockdowns and spreading misinformation.

"Being a scientist in Brazil is so sad and frustrating," says Jesem Orellana, an epidemiologist at the Oswaldo Cruz Foundation's centre in Manaus. "Half of our deaths were preventable. It's a total disaster."

A surge in coronavirus infections has brought many of Brazil's intensive-care units to the brink of collapse. And daily and monthly death tolls have reached record

highs. Since the pandemic began, more than 400,000 people in Brazil have died from the illness caused by SARS-CoV-2, representing 13% of the world's COVID-19 mortalities – even though the country has less than 3% of the global population.

Bolsonaro, a polarizing figure who has been likened to former US president Donald Trump, has been contradicting scientific opinion since the beginning of the pandemic, when he called COVID-19 a "little flu". Late last year, he also implied that COVID-19 vaccines

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could be dangerous, saying: “If you turn into a crocodile, it’s your problem.”

Brazilian researchers were well aware of Bolsonaro’s anti-science stance heading into the pandemic. After taking office in 2019, he slashed funding for Brazil’s universities and for its science and education ministries. He also accused Brazil’s National Space Research Institute of falsifying satellite data that showed accelerated deforestation in the Amazon. Still, his handling of the COVID-19 crisis came as a shock, says Natalia Pasternak, a microbiologist and president of the Question of Science Institute in São Paulo. “I don’t think that any of us could foresee that it would be this bad.”

Bolsonaro’s administration did not respond to a request for comment from *Nature*’s news team.

Tried-and-tested tools

Bolsonaro’s government has gone against scientific advice a number of times during the pandemic, including promoting unproven COVID-19 cures. But the most costly of its errors, says Orellana, has been ignoring tried-and-tested pandemic-containment strategies.

Despite research showing that face masks can reduce the chances of transmitting and catching SARS-CoV-2, Bolsonaro weakened a federal mandate for the wearing of masks last July. He has also refused to wear a face mask himself, even after testing positive for COVID-19. And he declined to issue national orders to close non-essential businesses during the pandemic, saying lockdowns would be economically harmful, and labelling state governors who enforced them “tyrants”.

“Sadly, in the twenty-first century, we are failing at a national level to incorporate old, efficacious tools that could save tens of

thousands of lives,” says Orellana.

A study that tracked COVID-19 outbreaks across Brazil from late February to early October last year found that regions using strict measures such as lockdowns and mask mandates had fewer deaths per capita than did other comparable regions (M. C. Castro *et al. Science* <https://doi.org/f9b2>; 2021).

“In the absence of a coordinated action from the federal level, what we saw were different responses at local levels, that were not

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sufficient to avoid the heavy death toll,” says Marcia Castro, chair of the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health and one of the study’s authors.

“The government has been a denialist of the pandemic,” says Gabriela Lotta, who studies public administration and government at the Getulio Vargas Foundation in Rio de Janeiro, Brazil. “It denies that it is serious, denies that it needs intervention, and denies the necessary measures defended by science to face it.”

Although scientists acknowledge that the current COVID-19 surge in Brazil is partly due to the spread of coronavirus variants – in particular, a highly transmissible version of the virus called P.1 – they say government inaction has allowed the spread to happen.

The P.1 variant probably emerged in Manaus, a city in the Amazon, in November 2020 (N. R. Faria *et al. Science* <https://doi.org/gjqk3t>;

2021). In January, after Manaus was overrun with P.1 infections, Orellana pleaded at a public meeting of the Inter-American Court of Human Rights for politicians to close travel in and out of the Amazon.

But people infected with P.1 and their family members were airlifted across the country for treatment, and airports and bus terminals remained open. By March, scientists found that P.1 was the dominant variant in six out of eight Brazilian states they studied. Neighbouring nations tried to shut themselves off from Brazil, but many are now seeing more cases of P.1 inside their borders.

Mauricio Nogueira, a virologist at the FAMERP medical school in São José do Rio Preto, Brazil, says researchers in Brazil are unable to study SARS-CoV-2 variants properly because Bolsonaro has cut funding for science so severely. “We don’t have funds to do basic research, such as to understand how the variants are more or less virulent,” he says. “We don’t have the lab equipment or reagents for that.”

As variants continue to evolve – there are currently about 90 circulating in Brazil – this inability to investigate them properly threatens the country’s pandemic recovery. Some studies suggest that variants can diminish the protection that COVID-19 vaccines offer.

Public messaging

Brazilian scientists say that the Bolsonaro administration’s promotion of misinformation has made things worse. Some, including Orellana and Pasternak, are increasingly putting aside their research to make television appearances in which they promote practices such as social distancing.

“It’s very difficult to implement preventive measures when misinformation comes directly from the federal government,” says Pasternak.

Brazil’s politics have left scientists feeling “helpless”, says Nogueira. “We have the tools or at least the capability to help the country, but we are being ignored and not supported by the leaders of the country.”

Efforts to counter Brazil’s current surge have not been helped by the country’s slow vaccine roll-out, says Ricardo Gazzinelli, president of the Brazilian Society for Immunology. Bolsonaro questioned the “rush” to procure vaccines last year because he thought the pandemic was coming to an end.

Only about one in ten Brazilians has received a COVID-19 vaccine so far. If the vaccine roll-out doesn’t scale up and people continue to ignore mask guidance, deaths from COVID-19 in Brazil could exceed half a million by mid-June, according to models developed by the Institute for Health Metrics and Evaluation at the University of Washington in Seattle.

“All we can do right now is brace for impact,” says Nogueira.



Brazilian President Jair Bolsonaro has downplayed the threat of the COVID-19 pandemic.