

# Pandemic healthcare pressure linked to large number of COVID-19 deaths in Brazil

October 6 2021, by Dr Sabine L. Van Elsland, Stephen Johns

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Half of Brazil's COVID-19 deaths in hospitals could have been avoided by minimizing shocks to the healthcare system, according to the latest report by the Imperial College COVID-19 Response Team.

Brazil's freely accessible line list data constitutes one of the world's largest databases to characterize the pandemic impact of COVID-19 in a middle-income country. The team collaborated with a large number of Brazilian and international partners to analyze this data.

## **Gamma variant**

In Brazil, COVID-19 fatality rates in hospitals fluctuate extensively since the beginning of the pandemic and vary dramatically across the country. The data showed that in many of Brazil's state capitals, over half of the older COVID-19 patients died in short time periods lasting several weeks. After the emergence of the Gamma variant, the shocks were transient and largely subsided with reduced healthcare demand. The pressure on the Brazilian healthcare system, large inequities of healthcare resources, and shortages in healthcare capacity across Brazil drive the high fatality rates.

## **Deaths avoided**

Without the added pressure on healthcare due to the pandemic and without pandemic resource limitations, approximately one quarter of Brazil's COVID-19 deaths in hospitals could have been avoided according to the report. In addition, if there had been no inequities in baseline fatality rates across the country, half of Brazil's COVID-19 deaths in hospitals could have been avoided according to the report.

## **Healthcare resources**

The researchers suggest that investments in healthcare resources, healthcare optimization, and pandemic preparedness are critical to minimize population wide mortality and morbidity caused by highly transmissible and deadly pathogens such as SARS-CoV-2, especially in

low- and middle-income countries.

Dr Oliver Ratmann of Imperial College London says that "the key take home message from our study is that the impact of novel SARS-CoV2 variants on COVID-19 mortality needs to be considered in the wider context of health care inequalities and limited resources. These factors are often overlooked, but also represent critical determinants of COVID-19 mortality".

Prof Ester Sabino of Universidade de São Paulo says that "the shocks in fatality rates across Brazil's state capitals have occurred since the beginning of the pandemic and not only since the emergence of the Gamma variant."

Prof Márcia Castro of Harvard University says that "the extensive geographic variation and temporal shocks in fatality rates across Brazil's state capitals are an urgent call to action, for sustained investments into the world's largest public [healthcare system](#), continued efforts to limit the spread of SARS-CoV-2, and improving vaccine access and uptake."

**More information:** Report: [www.imperial.ac.uk/mrc-global-19/report-46-Brazil/](http://www.imperial.ac.uk/mrc-global-19/report-46-Brazil/)

Provided by Imperial College London

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