

Correspondence

COVID-19 mortality among Indigenous people in Brazil: a nationwide register-based study

ABSTRACT

Coronavirus disease 2019 (COVID-19) has disproportionately affected Black people and minority ethnic groups, but there are limited data regarding the impact of disease on Indigenous people. Herein, we investigated the burden of COVID-19 on the Indigenous population in Brazil. We performed a populational-based study including all cases and deaths from COVID-19 among Brazilian Indigenous people from 26 February to 28 August 2020. Data were obtained from official Brazilian information systems. We calculated incidence, mortality and fatality rates for the Indigenous population for each of the five Brazilian regions. Brazil had an incidence and a mortality rate of 3546.4 cases and 65.0 deaths per 100 000 population, respectively. The case fatality rate (CFR) was 1.8%. The Central-West had the higher estimates of disease burden among Brazilian Indians (incidence rate: 3135.0/100 000; mortality rate: 101.2/100 000 and CFR: 3.2%) followed by the North region (incidence rate: 5664.4/100 000; mortality rate: 92.2/100 000 and CFR: 1.6%). Governmental actions should guarantee the isolation, monitoring and testing capabilities of Indigenous people and rapidly to provide social protection and health facilities.

Keywords Brazil , COVID-19, Indigenous people, mortality

To the Editor

Vulnerable populations and minority groups have faced enormous challenges during the COVID-19 pandemic.^{1–4} In Brazil, Black and Indigenous people are expected to be at higher risk for COVID-19.⁵ However, there are limited data regarding the impact of COVID-19 on Indigenous communities.

In this nationwide register-based study, we estimated the incidence and mortality rates of COVID-19 in Brazilian Indians according to the five macro-regions (Northeast, North, Central-West, Southeast and South) in the country. Data on COVID-19 cases and deaths were extracted from the microdata catalogue and official bulletins for each Brazilian state between 26 February and 28 August 2020. Estimates of Indigenous population were obtained from the National Indian Foundation (FUNAI, acronym in Portuguese) (<http://www.funai.gov.br>). COVID-19 case fatality rate (CFR) (%) was calculated by dividing the number of deaths by the number of COVID-19 cases.

A total of 29 008 cases and 532 deaths of Brazilian Indians from COVID-19 were analyzed. The national incidence and mortality rates were 3546.4 cases and 65.0 deaths per 100 000 population, respectively; and the CFR was 1.8%. The Central-West had the higher estimates of disease burden

among Brazilian Indians (incidence rate: 3135.0/100 000; mortality rate: 101.2/100 000 and CFR: 3.2%) followed by the North region (incidence rate: 5664.4/100 000; mortality rate: 92.2/100 000 and CFR: 1.6%) (Table 1).

From these findings, some explanations can be offered. Even during the COVID-19 pandemic, miners and lumbermen continued to explore Indigenous lands, especially in North and Central-West regions in the country. There are numerous highways cross Indigenous lands and the contact between Indigenous people and truck drivers for commercial exchanges is frequent,⁶ which may facilitate the contamination of Indigenous communities. Additionally, because of commercial relations, many Indigenous people need to contact non-Indigenous people in proximal cities where the SARS-CoV-2 was already circulating.^{7,8} Once the disease is present in a tribe, cultural factors and typical behavioral aspects, such as sharing household items, community housing and some hygienic practices, may have facilitated its spread.⁸

Moreover, many Indigenous communities have difficulty to access primary health facilities, basic medicines and hospitals equipped with ventilators and intensive care unit beds that would be needed to treat severe cases of COVID-19.^{7,9} Unfortunately, this situation has been exacerbated by reduction in the investments of the More Doctors Program

Table 1 Incidence, mortality and case-fatality rates for COVID-19 among Indigenous population according to Brazilian regions

Region	Indigenous population	Registries of COVID-19 in Brazilian Indians		Estimates		
		No. of cases	No. of deaths	Incidence rate/100 000	Mortality rate/100 000	CFR (%)
Northeast	208 691	4726	66	2264.6	31.6	1.4
North	305 873	17 326	282	5664.4	92.2	1.6
Central-West	130 494	4091	132	3135.0	101.2	3.2
Southeast	97 960	1992	27	2033.5	27.6	1.4
South	74 945	873	25	1164.9	33.4	2.9
Brazil	817 963	29 008	532	3546.4	65.0	1.8

(Programa Mais Médicos, acronym in Portuguese),^{10,11} which resulted in the dismissal of more than 8000 doctors for primary health care in 2019, mainly affecting Indigenous communities in remote areas.

Our findings showed a high, but disproportionate burden of COVID-19 on the Indigenous population in Brazil. Governmental actions should guarantee the isolation, monitoring and testing capabilities of Indigenous people and rapidly to provide social protection and health facilities.

Conflict of interest

The authors have no conflict of interest to declare.

Author's contributions

All authors contributed equally to the manuscript.

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