

## POLITICAL BEHAVIOR AND COVID-19 MORTALITY: HOW MANY LIVES IN ONE VOTE? (\*)

Beatriz Rache<sup>(\*\*)</sup>, Miguel Lago<sup>(\*\*\*)</sup>, Fernando Falbel<sup>(\*\*\*\*)</sup>, and Rudi Rocha<sup>(\*\*\*\*\*)</sup>

By late March 2021, Brazil had recorded more than 312,000 deaths by COVID-19, representing 148 deaths per 100,000 inhabitants. On March 9, 2021, Brazil recorded the highest number of daily COVID-19 deaths in the world, surpassing the seven-day rolling average observed in the United States. Compared to 2020, Brazil also recorded an acceleration rate of 100.7% in the daily average of deaths by COVID-19: in 2020, the average was of 673; by March 28, 2021, it reached 1,350.

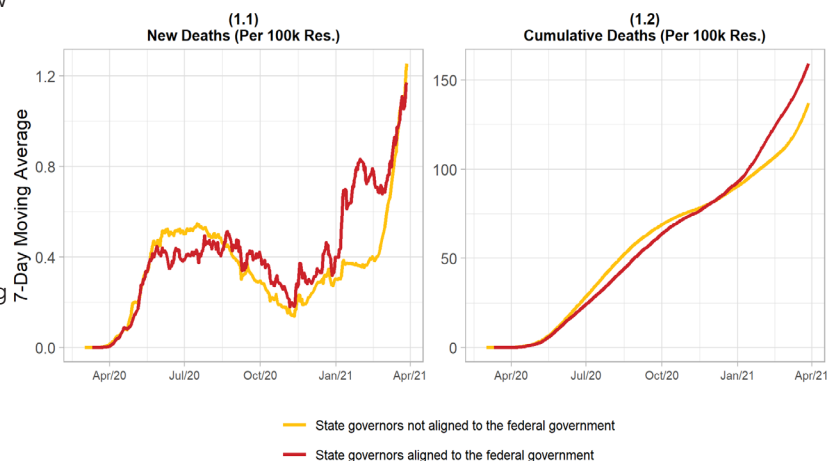
Since the beginning of the pandemic, the federal government's response has been heavily criticized for institutional instability – with four health ministers being appointed in 12 months – its lack of coordination with state and municipal governments, and its delay in negotiations to obtain the vaccines, PPE and other resources needed. Less studied, but no less important, is the influence of the president's speech on popular behavior. Since March 2020, Jair Bolsonaro has taken a direct stand against the measures recommended by scientists to respond to COVID-19. Drawing an artificial dichotomy between the economy and health, he became the main opposer to policies intended to restrict mobility and to enforce social distancing. He further criticized the use of masks, drew crowds, encouraged businesses to remain open, and advocated for drugs and treatments with no proven efficacy against COVID-19.

Bolsonaro is an extremely charismatic leader, with great capacity to engage with his electorate. In 2018, he had 46% of the valid votes in the first round. The literature points that political leaders have concrete effects in the behavior of followers (Acemoglu and Jackson 2015, Iyengar and Simon 2000). For the Brazilian case, Ajzenmann et al. (2020) had already demonstrated that in municipalities where Bolsonaro had the most votes in the 2018 elections, social distancing tended to be relatively lower and COVID-19 cases increased shortly after the president made public statements minimizing the severity of the crisis and its risks to health, in the first few months of the pandemic. In the face of the acceleration in COVID-19 deaths observed in 2021, we analyze whether deaths accelerated more in states and municipalities with higher support for Bolsonaro, as proxied by vote shares in the 2018 election.

Working with official data (available at: <https://covid19br.wcota.me/>), we extracted the number of daily COVID-19 deaths by municipalities and states up to March 28, 2021. To measure acceleration in deaths, we first calculated the daily average of deaths since the first death was recorded in each location for 2020 and 2021 (until March 28, 2021). We then calculated the percentage change, by location, between these two figures. We also analyzed the evolution of the seven-day rolling average in deaths, daily and total, cumulatively.

To measure adherence to social distancing in states and municipalities, we used the Index of Social Isolation (ISI) developed by In Loco, a tech company. This index reflects the percentage of individuals who remained at home each day in each municipality or state, based on data collected from mobile device apps and anonymized. We specifically estimated the monthly average level of isolation by location and compared the figures for March 2021 and February 2020, the first month of the sample and the only month before the pandemic for which data is available.

We used data from the 2018 presidential elections provided by the Superior Electoral Court (TSE) at the municipal level. As in Ajzenmann et al. (2020), we calculated the percentage of valid votes for Bolsonaro in the first round by municipality and by state. As a measure of alignment between state and federal governments, we created a dummy variable based on analyses of statements made by state governors and their presence in events promoted by the federal government. Thus, we coded the state governments of Acre, Amazonas, Goiás, Minas Gerais, Paraná, Rio de Janeiro, Rondônia and Roraima as aligned to the federal government.

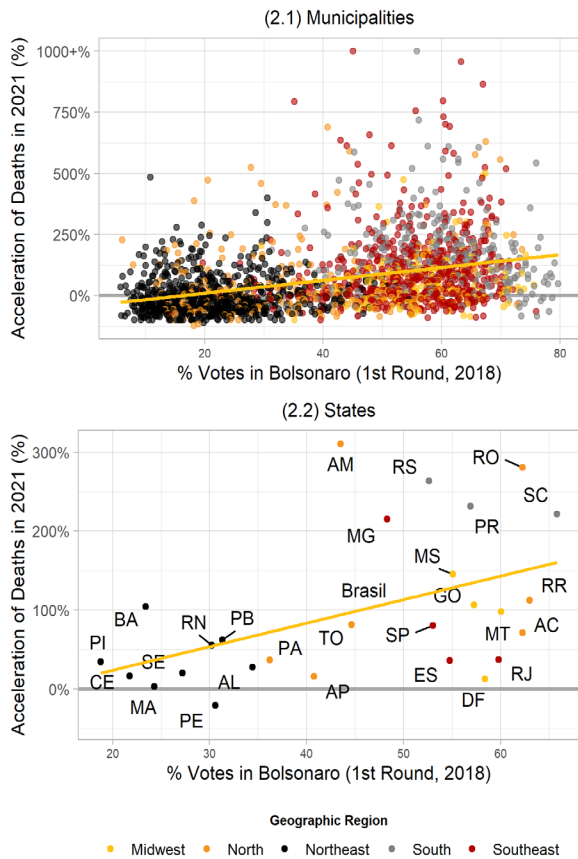


Graphs 1.1 and 1.2. Evolution in the rolling average of deaths by COVID-19

Graphs above document the acceleration in deaths in early 2021. The seven-day rolling average for new daily deaths per 100,000 inhabitants rose and, by March 28, 2021, it was more than two times higher than in the worst moment of 2020 (Graph 1.1). In terms of total deaths per 100,000 inhabitants, in January 2021, the states whose governments were aligned to the federal government exceeded the total death toll of the states that were not (Graph 1.2).



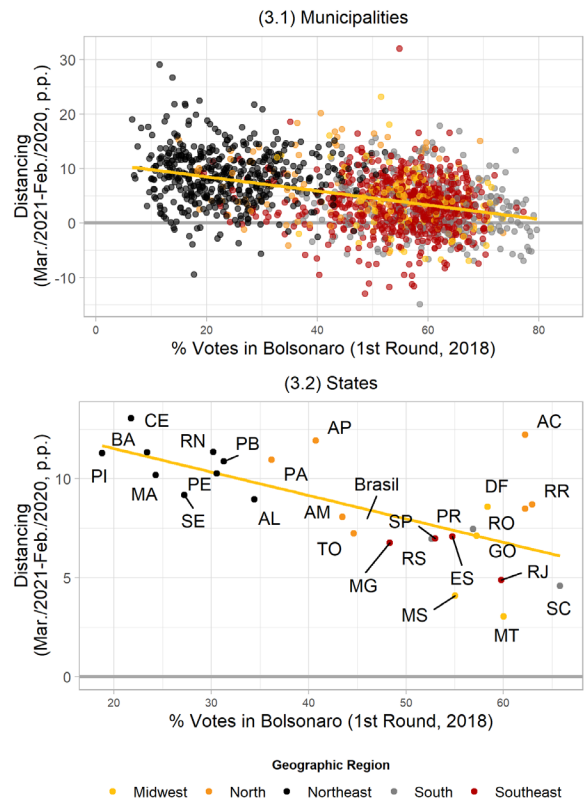
Graphs below show the acceleration of average new daily deaths in 2021 compared to 2020 – for municipalities and states, respectively – vis-à-vis the percentage of votes in Bolsonaro in the first round of the 2018 elections. Municipalities with a higher proportion of votes in Bolsonaro show higher rates of death acceleration in 2021 compared to the average of 2020 (Graph 2.1). We also see a contrast between municipalities in the South and Northeast regions: the former presented the highest percentage of votes in Bolsonaro and the highest rates of death acceleration; the latter showed the lowest percentage of votes in Bolsonaro and the lowest rates of death acceleration (Graph 2.1).



Graphs 2.1 and 2.2. Percentage of votes in Bolsonaro and death acceleration rate in municipalities and states

Graph 2.2 shows data for states. In Piauí (PI), for example, the state with lowest percentage of votes in Bolsonaro in the first round (18.8%), the rate of death acceleration is one of the lowest (34.6%). In Santa Catarina (SC), where Bolsonaro received 65.8% of the valid votes in the first round – this is the state where Bolsonaro had the highest share of votes in the first round – the rate of death acceleration exceeded 200%.

We then looked at social distancing data, a potential mechanism underlying the correlations reported above. Graphs 3.1 and 3.2 show how support for Bolsonaro is related to social distancing. Similar to Ajzenmann et al. (2020), we find that the greater the support for Bolsonaro, the lower the rate of social distancing in the Brazilian states, compared to February 2020 (before the pandemic). Again, pictures for states in the South and Northeast are quite different: in March 2021, Northeastern municipalities presented higher levels of social distancing compared to February 2020, while in Southern and Southeastern states these levels were lower. For comparison, Brazil recorded an average of 29.9% in social distancing in February 2020 and 37.8% in March 2021, a difference of 8 percentage points.



Graphs 3.1-3.2. Percentage of votes in Bolsonaro and social distancing in municipalities and states. We represent in the graph the difference between the average percentage of individuals staying at home each day in March 2021, subtracted from the average for February 2020.

These results indicate a positive relationship between electoral support for the president and the acceleration of mortality by COVID-19 in 2021 in Brazil. Mortality has accelerated precisely in the states and municipalities that voted more in Bolsonaro in 2018 and where social distancing rates have been lower – that is, in places that are more aligned with, and susceptible to, the president's speech. To put it shortly, political and electoral support for Bolsonaro has direct correlation with mortality: the more votes for him, the greater has been the loss of lives.

#### Notes

(<sup>1</sup>) Originally published in Portuguese on April, 2021 at [https://ieps.org.br/wp-content/uploads/2021/04/IEPS\\_NT18.pdf](https://ieps.org.br/wp-content/uploads/2021/04/IEPS_NT18.pdf)

(<sup>\*\*</sup>) M.A. in Economics; Researcher, Institute for the Study of Health Policy –IEPS (<https://ieps.org.br/>).

(<sup>\*\*\*</sup>) M.A. in Political Science; Executive Director, IEPS.

(<sup>\*\*\*\*</sup>) Student, Fundação Getulio Vargas's Sao Paulo School of Business Administration (FGV EAESP); Intern at IEPS.

(<sup>\*\*\*\*\*</sup>) Ph.D. in Economics; Professor, FGV EAESP, Research Director, IEPS.

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