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Our paper “The complexity of SARS-CoV-2 non-pharmaceutical interventions in Brazil” discusses a unique and novel dataset on the adoption and easing of NPIs in Brazil, this data is connected to inter-city/region borders, epidemiology and the spread of infectious disease. Our data were gathered in a municipal-level survey conducted by the Brazilian Confederation of Municipalities (Confederação Nacional de Municípios – CNM) and the analysis was conducted by the authors as part of a partnership between the authors and CNM agreed on in April 2020. The CNM interviewed 4027 (72.4%) of 5,568 mayors and the Federal District’s government between 13 May and 31 July 2020. We analysed 13 out of 47 questions of the questionnaire, those were questions pertaining to the adoption and easing of non-pharmaceutical interventions in Brazil.

We summarised our results in Figure 1, which includes, A) Restrictions of non-essential services in the country and the cumulative number of municipalities reporting at least one case. B) Adoption and easing of NPIs in the country. C) Easing of NPIs in Brazil. D) Easing of NPIs in the state of Minas Gerais (MG).

In sum, our study shows that:

1. The majority of all mayors in Brazil adopted NPIs before having confirmed SARS-CoV-2 cases in their municipality;
2. However, relaxation of NPIs begun as early as the end of March. Easing NPIs was not always related to reductions in confirmed cases, nor coordinated nationally.
3. Decisions to ease NPIs were not coordinated between bordering cities, as we illustrate in Figure 1D for the state of Minas Gerais. We chose Minas Gerais because of the high response rate (100% of mayors interviewed, though 12.8% answered partially), and because almost one sixth of all Brazilian municipalities are located in that state. Municipal borders do not limit the flow of individuals, who may shop or work across towns.
4. Among 505 municipalities with a peak of at least 20 daily cases that also reported relaxing NPIs, 452 (89.5%) did so before reaching local peak.

This research is timely as Brazil faces a lack of national coordination in the enforcement of COVID-19 control measures. Early and cohesive closure of non-essential activities was short-lived, and municipalities are now lifting distancing measures asynchronously. With decreasing options for governments to impose nation-wide/regional lockdowns, the efficient use of local measures will become increasingly central worldwide, and this research makes an important contribution to understanding the challenges of this process. City borders are porous and cities that have maintained strict social distancing policies may face a growing number of cases because of external decisions. Policy evaluation of Brazil’s management of the pandemic will need to account for the uneven duration of social distancing within Brazil.

Corresponding author: Andreza Aruska de Souza Santos (andreza.desouzasantos@lac.ox.ac.uk)

NOTES TO EDITORS:

Link to Preprint: <https://www.lac.ox.ac.uk/files/preprint709pdf>

CADDE Project

CADDE is a Brazil-UK Project funded by FAPESP and Medical Research Council that aims to improve outbreak preparedness to viral threats in Brazil <https://www.caddecentre.org/>

For more information contact:

Andreza Aruska de Souza Santos

Director of the Brazilian Studies Programme, University of Oxford

Phone/WhatsApp: +44 7501819464