Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

The challenges of the lack of occupational data and the absence of information about COVID-19 in workers in Brazil

Hermano Albuquerque de Castro,[a,1] Carlos Eduardo Siqueira,[b,1] and André Reynaldo Santos Périssé[a,1,*]

[a]Public Health Researcher (Pesquisador Titular), Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation, Rua Leopoldo Bulhões, 1480 — Manguinhos, Rio de Janeiro, RJ 21041-210, Brazil
[b]Associate Professor of Environment and Public Health, School for the Environment, University of Massachussetts Boston, Boston, MA, USA

The Lancet Regional Health - Americas 2022;11: 100245
Published online 31 March 2022
https://doi.org/10.1016/j.lana.2022.100245

Primary data collection is essential to assist public managers in monitoring diseases and planning services and actions; even more so in the face of global health crises such as the one generated by SARS-CoV-2. Databases with numerous missing data are a major challenge in epidemiological studies and could result in biased interpretations.

Two years into the pandemic, we now have better understanding that, due to its biological characteristics and its socioeconomic effects, it has unequally affected population subgroups.[1] Unemployment, informality and jobs classified as essential have been linked to higher mortality from COVID-19, but there is no accurate, reliable information on the number of work-related cases and hospitalizations in Brazil. This is a very important information gap in a country where unemployment reached 13.5 million people and 38 million workers had no formal employment contract at the end of 2021 (40.6% of the employed population).[2]

Brazil has several disaggregated databases that have been used by various institutions to study the impacts of COVID-19 on different occupations, like e-SUS Notifica, SIVEP-Gripe and SIM. However, these databases have more than 90% missing data for occupational variables, such as morbidity indicators, or with great heterogeneity among Brazilian states for mortality indicators (SIM). Data from employment records have been used as denominators to measure COVID-19 impact, but only among formal workers. The Census 2020 was cancelled due to the pandemic emergency and will be carried out in 2022, but the funding assigned to the project suffered severe cuts. Currently, the latest available information for work and employment dates from 2010, when there was full employment with low informality and income growth in the country and does not take into account the country's economic crises since 2015. The universal scope of the Census allows the collection of more accurate individual information, making the population as a whole visible and enabling broad access to data, such as demographic and socioeconomic.[4] The data collected allows for the calculation of fundamental public policy indicators, such as age/gender distribution, fertility rate, mortality rate, and life expectancy. The absence of census data can generate long-term impacts in the distribution of resources to municipalities, the parliamentary representation of each state and the implementation of government programs such as the new *Auxílio Brasil*.

The most recent effect of the new SARS-CoV-2 Ômicron variant further intensified the unemployment and adverse effects on several productive sectors, such as civil aviation.[3] The lack of occupational health data in Brazil and in several countries around the world makes it difficult to guide public policies about restrictions and flexibility in work environments. The false dilemma between health and work imposed by the Brazilian government and the erratic handling of the pandemic have been responsible for incalculable human losses and deterioration of the population's living and working conditions. Data gaps prevent accurate scientific analysis of the impacts of COVID-19 on Brazilian workers.

Contributors

Authors contributed equally on writing, review and editing.

Declaration of interests

None.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

*Corresponding author.
E-mail address: aperisse@ensp.fiocruz.br (A.R.S. Périssé).

© 2022 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

[1] These authors contributed equally to this work.

Correspondence

References

1 Editorial. COVID-19—break the cycle of inequality. *Lancet Public Health*. 2021;6:e82.

2 Instituto Brasileiro de Geografia e Estatística — IBGE. Desemprego [Internet]. Brazil; 2021. Available from: https://www.ibge.gov.br/explica/desemprego.php Accessed 18 January 2022.

3 United Nations — Brazil: Realizar o Censo é garantir que ninguém fique para trás. [Internet]. Brazil; 2021. Available from: https://brasil.un.org/pt-br/126901-artigo-realizar-o-censo-e-garantir-que-ninguem-fique-para-tras. Accessed 10 March 2022.

4 CNN Business: Airlines cancel another 1,600 flights, citing worker coronavirus cases. USA; 2022. Available from: https://edition.cnn.com/2022/01/06/business/more-canceled-flights-airlines/index.html. Accessed 7 February 2022.