

LETTER

INFECTIOUS DISEASES

Social disparity in magnifying glass: The inequality among the vulnerable people during COVID-19 pandemic

The editorial written by Stein and Ometa¹ about the dilemma between health system and socioeconomic conditions created by the COVID-19 pandemic has called our attention as a very appropriated topic. Indeed, there are different repercussions of COVID-19 pandemic in unequal societies, which goes from financial issues to chances of adherence to the current recommended measures of the WHO. For instance, social distancing and basic hygiene without proper social, economic and healthcare support may contribute to exacerbate disparity in fragile societies.

In Brazil, the virus SARS-COV-2 is spreading fast and crashing our healthcare system and economy. However, demographic data show that 48% of Brazilians live in places without sewage and 35 million do not have access to running water in their homes.² Furthermore, 5%-10% live in slum-like areas known as “favelas”,³ where most residences accommodate an average of five individuals per room, with a housing density ten-fold higher than the rest of the city.⁴ Finally, 40.6% of the Brazilian working-age population are in the informal economy, living without social protection.⁵ Keeping these in mind, it seems to be more challenging for socially vulnerable people to stay at home without adequate conditions to accomplish WHO's recommendations of social distancing and hygiene. Recently, an ecological study using a neighbourhood analysis in the Northeast Brazil showed an association between social inequality and COVID-19 fatality rate and discussed the need of urgent strategies to reduce the spread and mortality from COVID-19 in high deprivation communities.⁶

If the COVID-19 was not challenging enough, Brazil still struggles with other important infectious diseases, such as Dengue fever, Zika e Chikungunya. These viral mosquito-borne infections (*Aedes aegypti* mosquito) are endemic in Brazil and can show initial similar signs and symptoms to COVID-19. The rainy season is the most favourable time for mosquito proliferation and disease spread,⁷ which this year the seasonality (usually peaks in April) is coinciding with the spread of SARS-COV-2 in Brazil.⁸ Socially vulnerable people are more prone to acquire *Aedes aegypti*-related infections due to poor and overcrowded housing, poor sanitation and high-density housing in “favelas”.^{9,10} Furthermore, Brazilian politicians are using the pandemic for political dispute and personal gain, resulting in different state and federal policies and messages, resulting in confusing and inefficient measures to tackle the COVID-19 pandemic.^{11,12}

The potential overlapping of outbreaks can lead to an even more catastrophic scenario with a higher burden of co-infections, taking these vulnerable people suffering from mosquito-borne infections,

to health units and exposing them to SARS-COV-2, resulting in an overall adverse outcome. While many developed countries have struggled to give assistance to COVID-19 patients, Brazil must battle against two powerful enemies, the virus and the denials of the population and politicians. Brazil has been used as a bad example worldwide in the way the country is facing the pandemic, but many other non-developed countries, especially the African ones may be struggling with some of these problems as well.

Unfortunately, there are evidences that susceptibility to COVID-19 goes beyond pre-existing comorbidities. It encompasses social, cultural and economic conditions, extending the COVID-19 vulnerability to a more complex environment.^{6,11-13} Although the full scenario sounds too pessimistic, there is still hope. There are examples of countries that are dealing with similar limited resources but are efficiently battling the current world pandemic with minimal casualties.¹⁴ It is necessary the union of efforts from public agents to every single citizen, at individual- and population-levels, in order to act consciously and responsibly, making the most to control the spread of the current threat: the SARS-COV-2 infection.

DISCLOSURE





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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

Andre Luis Ribeiro Ribeiro¹ 
 Naama Waléria Alves Sousa¹ 
 Paulo Ricardo Martins-Filho² 
 Vitor Oliveira Carvalho³ 

¹Private practice, INCOM – Instituto de Cirurgia Oral e Maxilofacial (www.insituitoicom.com), Belém, PA, Brazil

²Investigative Pathology Laboratory, Federal University of Sergipe, Sao Cristovao, Brazil


³Department of Physical Therapy, Federal University of Sergipe

(Universidade Federal de Sergipe - UFS), Postgraduate Program
in Health Science (The GrEAt Group - Grupo de Estudos em
Atividade Física), Sao Cristovao, SE, Sergipe, Brazil


Correspondence

André Luis Ribeiro Ribeiro, INCOM – Instituto de Cirurgia
Oral e Maxilofacial. Rua Municipalidade, 985, Umarizal, Belém,
PA, Postal code: 66050-350, Brazil.
Email: andre.ribeiro.13@ucl.ac.uk

ORCID

Andre Luis Ribeiro Ribeiro  <https://orcid.org/0000-0001-8124-2156>

Naama Waléria Alves Sousa  <https://orcid.org/0000-0003-1872-2354>

Paulo Ricardo Martins-Filho  <https://orcid.org/0000-0001-8779-0727>

Vitor Oliveira Carvalho  <https://orcid.org/0000-0003-0007-2541>

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