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HOMELESSNESS IN BRAZIL DURING THE COVID-19 PANDEMICS

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ABSTRACT

Brazil has suffered the fifth highest morbidity and second mortality of global COVID-19 cases. Although persons experiencing homelessness (PEH) have been hit early on by the SARS-CoV-2 spreading, estimative of cases and deaths in such vulnerable population during pandemics remains unknown in Brazil. Nonetheless, São Paulo presented the highest worldwide COVID-19 IgG sero prevalence to date, detected in PEH most likely due to vulnerability and outdoors exposure. As other Brazilian vulnerable populations such as incarcerated and indigenous populations have specific healthcare services and statistics, COVID-19 pandemics may have hit the hardest in PEH populations nationwide. As already established for other vulnerable populations, PEH healthcare assistance should be registered and monitored throughout Brazil. Moreover, monthly records of PEH cases and deaths should be retrospectively recovered for health, epidemiological and humanitarian purposes. Delay on mass vaccination of vulnerable populations may have impacted on an increase of cases and deaths, despite concomitant nationwide decrease in general population. Brazilian COVID-19 pandemics has taught that vulnerable populations, particularly PEH, should be always included as priority in early testing, surveillance, monitoring and mass vaccination plans.

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INTRODUCTION

Low socioeconomic status has been indicated as a determinant of premature mortality in non-communicable diseases, independently and with more given power than well-known clinical risk factors. Despite low socioeconomic status may indicate poverty at the personal level, it may also imply income and social inequality at the collective and environmental levels (1). The SARS-CoV-2 pandemic has affected vulnerable populations worldwide and impacted on human social welfare, mostly due to pre-existing socioeconomic inequalities (2). Additional economic losses due to distancing, self-isolation, and lockdown have also increased social vulnerability, associated with disparities in policy responses, particularly in emerging countries (2). The novel coronavirus has severely affected Latin America, particularly Brazil, currently presenting the second worldwide highest death toll worldwide and the fifth highest active transmission rates worldwide, with about 32 million confirmed cases and more than half million deaths (3). Despite initially brought to Brazil in February 2020 by upper class passengers from international flights, disease spreading rapidly reached vulnerable populations throughout the country. Social vulnerability has been included as a risk factor for death due to COVID-19 worldwide, including populations disproportionately concentrated on segments at greater

social disadvantage (1). Informal settlements (slums) have been considered the least prepared for the COVID-19 pandemic, lacking basic infrastructure such as tap water, sewers, waste service, and adequate household, mostly in overcrowded spaces, making social distancing and self-quarantine almost impossible (4). In addition, the toll on vulnerable population lives and livelihoods may have had immediate and long-term harmful effects. Nonetheless, COVID-19 pandemic has increased poverty and deeply impacted vulnerable person lives in Brazil, rising homelessness and rough sleepers. Pandemic spreading has deepened pre-existing inequalities, exacerbating vulnerabilities of elderly, comorbidity patients, and persons lacking home and adequate food intake (5). As expected, independently of age and comorbidities, household in the least developed northern and northeastern Brazilian regions and Indigenous ethnicity were risk factors that significantly increased likelihood of COVID-19 death (1). During pandemics, PEH may have relied in meals and water at the streets, with no community shelters and limited access to self-hygiene and preventive measures, making ineffective the actions offered by public services on protective virus acquirement and spreading (6). In such scenario, PEH way of living may have only increased their vulnerability throughout and after the pandemics, along with increase in perception of virus transmission risk by the general population (7). The Brazilian National Vaccination

Plan Against COVID-19, first issued on December 16th 2020, and in its seventh edition by May 17th 2021, centralized vaccine purchase and distribution by the Federal Government (8). The plan prioritized higher risk populations in its later versions, including 1. Institutionalized elderly older than 60 years, persons with disabilities and experiencing homelessness; 2. Indigenous populations living in reservation areas; 3. Health professionals; 4. Elderly older than 60 years; 5. Traditional riverside communities; 6. Traditional African origin communities (Quilombo); 7. Persons with health comorbidities; 8. Persons deprived of liberty (PDL); 9. Safety and Rescue Forces; 10. Army, Navy, and Air Force 6. Thus, social vulnerability of persons experiencing homelessness (PEH), indigenous populations (ID) and persons deprived of liberty (PDL) should be included as different priority groups for vaccination. However, PEH vaccination started only in May, 2021(9).

DEVELOPMENT

Homelessness in Brazil: As stated by the Brazilian Presidential Executive Order 7,053/2009, “persons experiencing homelessness (PEH) are a heterogeneous populational group sharing extreme poverty, broken or fragilized family relationship and inexistence of regular conventional household, using public facilities and degraded areas as temporary or permanent living and subsistence spaces, as well as using public shelter units for temporary overnight accommodation or housing” (10). The Brazilian National Vaccination Plan of the Ministry of Health has estimated the adult population of homelessness for vaccination in Brazil as 140,559 persons from 18 to 59 years old, assuming that elderly (60 years or older) was included as first priority and that vaccination in Brazil has been destined to 18 years or older(11). As the National Plan guidelines stated that “vaccination of homelessness must not be denied due to lack of personal identification, which should be provided after the first vaccine administration”(12), homeless recognition and health assessment may be among the few positive points of the COVID-19 pandemics in Brazil. Homeless people may have suffered with COVID-19 due to deprivation of their basic needs, including incapability of comply with preventive recommendations (13). In addition to higher exposure, homeless persons present precarious condition of life and unhealthy determinants including compromised immune system, higher rates of co morbidities and chronic sexually transmitted diseases, leading to more severe onset of COVID-19 (13).

Due to lack of official reports, COVID-19 reports in PEH have been scarcely reported in Brazil. Based on chronological data from news media coverage, the only reports were 1/130 (0.66%) positive PEH of São José dos Campos, São Paulo on May 2020(14); none/50 (0.0%) in Marica, Rio de Janeiro on July 2020 (REF12); 1/171 (0.58%) of São Carlos, São Paulo on July 2020(15); 11/330 (3.6%) PEH and 3/124 (2.4%) shelter staff in Campinas, São Paulo on November 2020(16); and 1/37 (2.7%) PEH in Campo Grande, Mato Grosso do Sul, on November 2020(17). Such absence of official data on homeless populations in Brazil has negatively impacted on health care surveillance, since mostly health information systems have no specific record on these populations, reaffirming their social invisibility (5). Fortunately, in addition to local public services, non-governmental organizations have played a central role in key strategies to control the virus spreading in homeless population, including emotional support, distribution of clean water, hygiene items and daily meals, and information on protecting themselves by volunteer groups talking to them on streets (5). Despite such few reports, a solely comprehensive serosurvey study on homeless was conducted during the pandemics, performed in late August 2020 at Sao Paulo city, northeastern Brazil(18). At the time, no participant in the study was positive in swab samples for SARS-CoV-2-specific by RT-qPCR assay, including 203 homeless individuals and 87 shelter workers, indicating an absence of active infection in the surveyed populations(18). In contrast, IgG antibodies were found in 111/203 (54.7%) homeless and 41/87 (47.1%) shelter workers, with no statistical differences between groups, indicating a non-recent exposure (19). Such prevalence has been the highest reported worldwide to date, with a systematic review comprising 23 countries,

including Brazil, the SARS-CoV-2 seroprevalence in the general population varied from 0.4% (8/816) in Malaysia to 22.1% (117/528) in Iran as of August 2020 (19). Another study was focused on drug use and association to higher risk of infection and severe forms of COVID-19 infection in Brazil (20). In this study, out of 821 inpatient men in an addiction section of a reference hospital, history of homelessness (25.1%) was a major associated risk factor of COVID-19 severity, besides smoking (82.5%), arterial hypertension (26.6%), and respiratory problems (23.4%) (20). Important to mention that almost a third of samples (28%) presented three or more associated risk factors in this study, which may indicate that COVID-19 in homelessness may be aggravated by drug use or vice-versa (20). Co-infection with tuberculosis, previously observed in other viral pandemics of severe acute respiratory syndrome (SARS) but not fully established yet on COVID-19, has become a public health concern worldwide(21). Not only tuberculosis patients may acquire COVID-19, but also COVID-19 victims may have a higher post-infection risk of tuberculosis, with a more difficulty of treatment (22). Moreover, simultaneous occurrence of respiratory diseases along with COVID-19 may delay proper diagnosis and treatment (23). Unfortunately, no study to date has surveyed homelessness, tuberculosis, and COVID-19 pandemics, particularly in Brazil.

A perception study on COVID-19 impact on homelessness was conducted in Rio de Janeiro, the second biggest Brazilian city, assessing 395 semi-structured questionnaires related to sociodemographic profile, strategies for survival, health and social care support, and access to services during the pandemic from August to October 2020 (5). Respiratory problems were the most mentioned health problem by study participants, aggravating homeless vulnerability under the COVID-19 pandemics (5). In addition, despite in low numbers and having higher education level when compared with men in this survey, women in this survey were more impacted by COVID-19 regarding health problems, emphasizing their additional vulnerability (5). As mentioned above, PEH were left out as priority in the original National Vaccination Plan, first published on December 16th 2020 (8). Few days later, on December 22nd the Recommendation number 073/2020 was issued by the National Health Council at the Brazilian Ministry of Health, requesting the inclusion of PEH as vaccination due priority group due to socioeconomic vulnerability and potential severity of infection during the COVID-19 pandemics (24). Despite homelessness was included a month later in the second edition of the vaccination plan, issued on January 25th 2021, only almost six months later (on June 9th, 2021) the Technical Note number 768/2021 was release by the National Health Surveillance Secretariat to guide health professionals due to difficulty of identification and adequate vaccination of such populations (12). Noteworthy, the well-known “Street Clinics”, a healthcare service provided in trailers and city infrastructure directed to vulnerable persons in major Brazilian cities, have relieved the situation of homeless persons during the COVID-19 pandemics (Marçon, 2021, Salud Colectiva). The ways of governing street life including discourses, technologies, and practices, have facilitated access but emphasized the precariousness of PEH living conditions, pointing for ways to comprehend human degradation, response, perseverance, and rights (25). Only recently, due to relentless work of the Priest Julio Lancellotti throughout the pandemics in São Paulo, the Brazilian Chamber of Deputies has overridden a presidential veto (who has also defunded health assistance and access for vulnerable populations) and issued a new federal law after his name prohibiting “hostile architectures” in public areas which have the exclusive purpose of avoiding PEH access and use (26).

PEH worsening situation has not been limited to Brazil, as PEH inequality and vulnerability have deepened worldwide during pandemics. In the USA, the Interagency Council on Homelessness has published a report detailing efforts to direct the COVID-19 pandemic effects on PEH, particularly in 2020, towards helping save lives and preventing the collapse of emergency medical system(27). Despite such report has been considered biased due to federal administration defunding interests at the time, it remains as the reference document on pandemic impact on PEH. In addition to

present this document as the health system protection “from and not for” the most vulnerable, no responsibility has been taken for misreporting and underreporting, in overall failing to keep 600,000 persons from homelessness (27). Also in Germany, vaccination rate in 2021 for SARS-CoV-2 in PEH was comparatively very low while infection prevalence was elevated, indicating such population as at the higher risk for COVID-19 (28). A review study of COVID-19 in PEH of North America and Europe has identified a series of health impacts, such as SARS-CoV-2 infection, morbidity, mortality, and hospitalization, fear of infection, access to housing, hygiene, food, mental health, substance use, and treatment services (29). The study has pointed that despite mostly with unmet health needs in the northern hemisphere, PEH attendance has been considered as adequate in Chicago, San Francisco, Boston, Edinburgh, and Slovakia; and reportedly improved in New Orleans, Ireland, and England (29). Finally, COVID-19 in PEH has been reported and discussed in Canada, Australia, Italy, Hungary, Scotland, Denmark, China, and Japan.

CONCLUSIONS

Persons experiencing homelessness (PEH) in Brazil presented the highest worldwide COVID-19 IgG seroprevalence to date and have probably been hit early on and the hardest by the SARS-CoV-2 spreading, with unknown estimative of cases and deaths. Despite all difficulties, PEH should be registered and monitored throughout Brazil, as indigenous, incarcerated, and other vulnerable populations. Moreover, monthly records of PEH cases and deaths should be retrospectively recovered for health, epidemiological and humanitarian purposes. Delay on mass vaccination of vulnerable populations may have impacted on an increase of cases and deaths, despite concomitant nationwide decrease in general population. Brazilian COVID-19 pandemics has taught that vulnerable populations, particularly PEH, should be always included as priority in early testing, surveillance, monitoring and vaccination plans.

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