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Inequity in access to health and racism: epidemiological analysis during the COVID-19 pandemic

Desigualdad en el acceso a la salud y racismo: análisis epidemiológico durante la pandemia de COVID-19

Iniquidades no acesso à saúde e racismo: análise epidemiológica durante a pandemia de COVID-19

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ABSTRACT

Objective: *to analyze the epidemiological data of Severe Acute Respiratory Syndrome (SARS), and the access to health of black people in Brazil during the pandemic, comparing them with previous years.* ***Method:*** *epidemiological, descriptive, and quantitative study of SARS cases in black patients, reported in the information system on epidemiological surveillance of influenza of the Ministry of Health, between 2017 and 2020.* ***Results:*** *it was observed that, in 2020, there was an increase in the prevalence of SARS cases in blacks, in addition to a significant increase in lethality when compared to the general population. Furthermore, it was found that mortality was significantly higher in individuals with SARS who required ventilatory support.* ***Conclusion:*** *skin color is a determinant of several social and health vulnerabilities in Brazil and worldwide, having a direct impact on the increased morbidity and mortality of the black population during the pandemic.*

Descriptors: *Coronavirus Infections; Health Care Disparities; Racism; Severe Acute Respiratory Syndrome; Social Determinants of Health.*

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RESUMEN

Objetivo: *analizar los datos epidemiológicos del Síndrome Respiratorio Agudo Severo (SRAS) y el acceso a la salud de los negros en Brasil durante la pandemia, comparándolos con años anteriores.* ***Método:*** *estudio epidemiológico, descriptivo y cuantitativo de casos de SRAS en pacientes de raza negra, reportados en el sistema de información de vigilancia epidemiológica de Influenza del Ministerio de Salud, entre 2017 y 2020.* ***Resultados:*** *se observó que, en En 2020, hubo un aumento en la prevalencia de casos de SARS en negros, además de un aumento significativo en la letalidad en comparación con la población general. Además, se encontró que la mortalidad fue significativamente mayor en las personas con SARS que requirieron soporte ventilatorio.* ***Conclusión:*** *color de la piel es un determinante de varias vulnerabilidades sociales y de salud en Brasil y en todo el mundo, teniendo un impacto directo en el aumento de la morbilidad y mortalidad de la población negra durante la pandemia.*

Descriptores: *Infecciones por Coronavirus; Disparidades em Atención de Salud; Racismo; Síndrome Respiratorio Agudo Grave; Determinantes Sociales de la Salud.*

RESUMO

Objetivo: analisar os dados epidemiológicos da síndrome respiratória aguda grave (SRAG) e o acesso à saúde de pessoas negras no Brasil durante a pandemia, comparando-os com os anos anteriores. **Método:** estudo epidemiológico, descritivo e quantitativo de casos de SRAG em pacientes negros, notificados no sistema de informação em vigilância epidemiológica da influenza do Ministério da Saúde, entre 2017 e 2020. **Resultados:** observou-se que, em 2020, houve um aumento da prevalência dos casos de SRAG em negros, além de um aumento significativo da letalidade quando comparada à população em geral. Além disso, verificou-se que a mortalidade foi significativamente maior em indivíduos com SRAG que necessitaram de suporte ventilatório. **Conclusão:** a cor da pele é um determinante de diversas vulnerabilidades sociais e de saúde no Brasil e no mundo, tendo impacto direto no aumento da morbimortalidade da população negra durante a pandemia.

Descritores: Infecções por Coronavírus; Disparidades em Assistência à Saúde; Racismo; Síndrome Respiratória Aguda Grave; Determinantes Sociais da Saúde.

INTRODUCTION

The concept of health is known as complete physical, mental and social well-being[1]. This definition allowed us to understand health as a set of social and economic factors, such as race, ethnicity, gender, income, access to education, habitation, which are responsible for an individual's illness process[2]. In Brazil, the Unified Health System (SUS), founded in 1988, consolidated the understanding of comprehensive health care. SUS is based on promotion of social justice and guaranting of universal, free and equal access to health. In this context, it's possible to analyze the ways in which structural racism directly impacts on universal access to health.

To better understand the process of illness in black people, it is necessary to comprehend racism as a systematic manner of discrimination based on race, which manifests through conscious or unconscious practices that result in disadvantages or privileges, depending on the racial group in which they belong[3].

This cultural phenomenon must be faced from a structural perspective. Thus, structural racism can be defined as a set of actions taken by institutions and the social structure that result, even indirectly, in disadvantages or privileges based on race[3].

Structural racism in healthcare's perspective is manifested in the quality of care, the assistance provided and the general and specific mortality rates. Brazil has shown an increase in life expectancy and a reduction in mortality in recent decades, however, this increase is not so significant in black population, which still suffers from high rates of morbidity and mortality[4]. This situation highlights the origin of discriminatory access to health, responsible for the production and exacerbation of health inequities[5]. The Ministry of Health (MH) of Brazil implemented the National Policy for Integral Health of the Black Population (Política Nacional de Atenção Integral à Saúde da População Negra- PNAISPN) in 2007, seeking to reduce health inequities suffered by black population. This policy recognized the social conditions of black population and racism as determinants of health and conceived actions such as a plan for the prevention and reduction of vulnerability of young blacks and a mandatory collection of race information in medical records as ways to face and overcome the structural racism in SUS[4].

Despite these advances, it is known that periods of economic and political crises, such as the COVID-19 pandemic, can exacerbate existing inequalities[6]. The new virus, SARS-CoV-2, which causes COVID-19, appeared in December 2019 in Wuhan, China, and spread quickly around the world. The World Health Organization (WHO) declared a pandemic due to the disease in March 2020. Severe Acute Respiratory Syndrome (SARS) is the main manifestation of the disease's severe form and the main cause of death. SARS is known by respiratory failure that requires mechanical ventilation and management in an Intensive Care Unit (ICU)[7]. Another major concern about spreading the new virus is related to the

way health systems around the world react and deal with their internal inequalities[8,9].

Moreover, it is important to carry out an analysis of the situation of the black population in this pandemic time. To do that, our objective is to analyze the epidemiological data of SARS, and the access to health of black people in Brazil during the pandemic, comparing them with previous years. Considering that Brazil has the largest universal access health system and more than half of its population declare itself black/people of color, this study can analyze how social determinants, as race, interfere in the maintenance (or not) of health.

METHOD

This is an epidemiological, descriptive and quantitative study of SARS cases in self-declared black patients notified to the Influenza Epidemiological Surveillance Information System (SIVEP-Gripe) of the Ministry of Health's Health Surveillance Secretariat, Brazil. The analyzed period of time was from January 1st to Setember 30th of 2017, 2018, 2019 and 2020. The data was accessed by the Integrated Health Surveillance Platform (Plataforma Integrada de Vigilância em Saúde- IVIS) of the MH, which makes it openly available to the population[10].

In Brazil, there are 210,147,125 inhabitants and its demographic density is 24.69 inhabitants / km² (2019). Among these, 15,813,298 people declared themselves black, according to population estimates by the Brazilian Institute of Geography and Statistics (IBGE) and the Federal Court of Accounts (Tribunal de Contas da União- TCU)[11,12].

The cases included were those that filled out the notification form for SARS from January 1st to June 16th in 2017, 2018, 2019 and 2020 and were listed as black in "race" criteria. The criteria for filling out the notification form for SARS cases is: individual hospitalized presenting fever, even if referred, accompanied by cough or sore throat, and presenting dyspnea or O2 saturation <95% or respiratory discomfort or who died due to SARS independent of hospitalization[13].

The analyzed variables were: Epidemiological Week; race/color of the patient [white; brown; black; indigenous; yellow; ignored]; ICU admission [yes; not; ignored]; Use of ventilatory support [yes; not; ignored]; Final diagnosis [SARS of other etiologies;

Unspecified SARS; COVID-19]; Outcome [cure; death; ignored].

All data were analyzed using descriptive statistics and presented in raw numbers and frequency measures. The cases from 2017 to 2019 were analyzed by epidemiological week using simple arithmetic mean and measures of minimum (the lowest number among these three years for each epidemiological week) and maximum (the highest number among these three years for each epidemiological week). Otherwise, 2020's cases were analyzed by epidemiological week using raw numbers of weekly cases. The incidence of SARS cases was calculated using the number of cases among black individuals divided by the black population and multiplied by 100 thousand inhabitants. The case lethality was calculated using the number of deaths in black individuals divided by the number of cases among black individuals and multiplied by 100.

The research was carried out from a secondary database and nominal data of the patients or any others that allow identification of the individuals were not accessed. This study follow international and national ethics standards, specially the Resolution of the National Health Council of Brazil No. 510, of April 7, 2016.

RESULTS

There were 38.236 cases of SARS, 11.187 (29.25%) deaths, 18.316 (47,90%)
hospital discharges and 8.733 (22.84%) undefined evolutions in 2020. The incidence was 241,79 and the lethality 29,25. Besides that, 19.921 cases (52.10%) were diagnosed with COVID-19, of which 7.838 died. In this case, the incidence was 125,97 and the lethality was 39,35. Black individuals had no record of etiological diagnosis for SARS in 22.127 (36.40%) of cases.

SARS's cases increased by 2.310%, deaths increased by 5.103%, patients who needed ventilatory support increased by 1,805%, patients who were admitted to the ICU increased by 1.882% and lethality increased by 115% between 2019 and 2020 (Figure 1). Among the patients with COVID-19, 6.194 were admitted to the ICU (31.09%).

The cases of SARS, SARS with COVID-19 and non-COVID-19's etiology registered a significant increase from epidemiological week 11 (Figure 2).

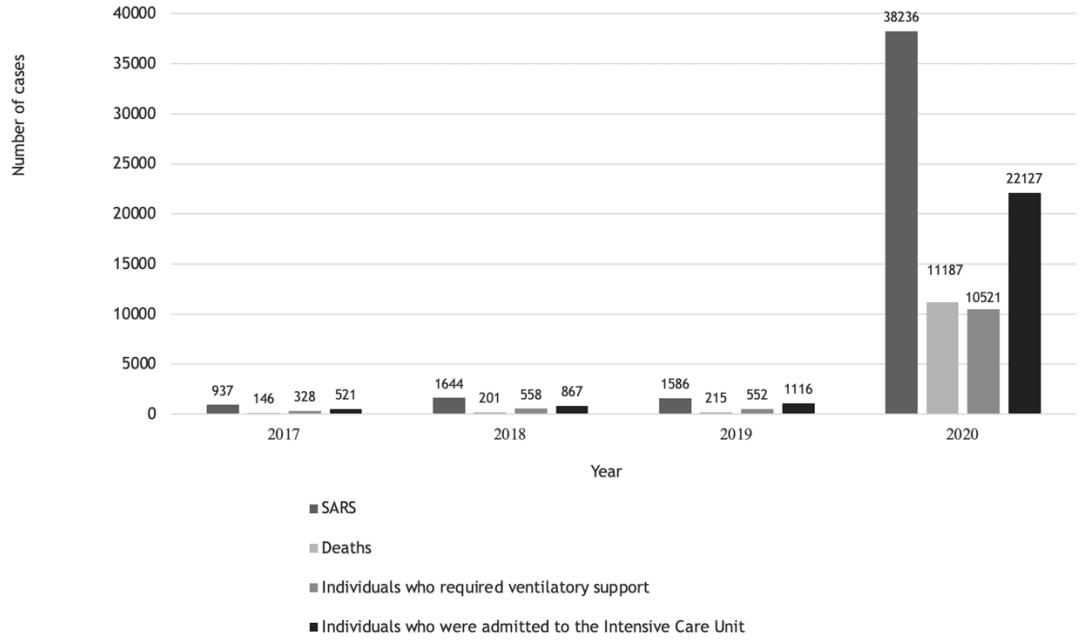

Figure 1 - Number of cases, deaths, individuals who required ventilatory support and individuals who were admitted to the Intensive Care Unit among patients with Severe Acute Respiratory Syndrome, from January 1st to June 16th in 2017, 2018, 2019 and 2020. Source: Influenza Epidemiological Surveillance Information System of the Health Surveillance Secretariat of the Ministry of Health of Brazil.

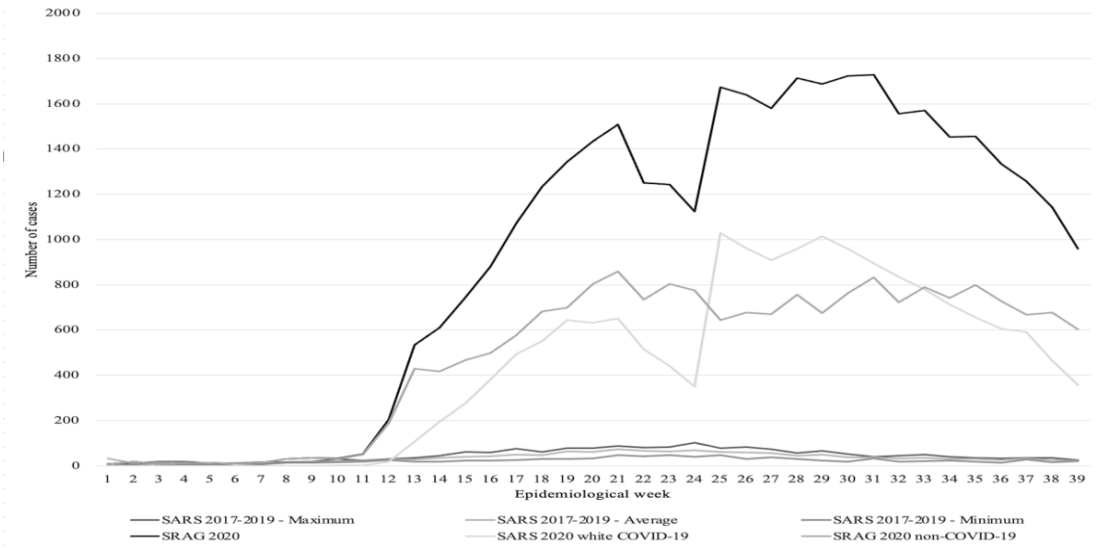

Figure 2 - Cases of Severe Acute Respiratory Syndrome, Severe Acute Respiratory Syndrome with COVID-19 and Severe Acute Respiratory Syndrome non-COVID-19 according to the epidemiological week, from January 1st to June 16th in 2017, 2018, 2019 and 2020. Source: Surveillance Information System Epidemiological Report of the Health Secretariat of the Ministry of Health of Brazil.

DISCUSSION

The expressive increase in the number of cases and deaths of SARS and severity indicators among black

individuals in 2020 when compared to previous years was one of the findings, which can possibly be explained by the spread of SARS-CoV-2. The number of cases remains high even when excluding those confirmed for COVID-19, possibly representing COVID-19's cases underreported as SARS. Underreporting in Brazil is serious according to and is mainly explained by the lack of tests and by the medical biases of filling out patient records, which can identify cases of COVID-19 as SARS, pneumonia and even sepsis[14,15].

De Souza et al[16] suggested a pattern in access to diagnosis in the metropolitan region of São Paulo linked to individual's per-capita income: the lower the income, the lower the chance of being diagnosed by laboratory tests and clinical criteria. This is due to health marginalization's process faced by the poorest, who often depend exclusively on services offered by government and are subject to greater precariousness and less availability of ICU beds and respirators, as well as greater morbidity and mortality[17,18]. Considering black people among the poorest is greater in Brazil, the possible underreporting is even greater among black people than general population of the country[19].

It is known that the crisis triggered by COVID-19's pandemic did not affect everyone equally: there was a significant exacerbation of health inequities. Individuals with a disadvantaged socioeconomic status are exposed to several risk factors, such as living with many people in the same house, the lack of options to work at home, labor and food weaknesses and stressors that are capable of weaken their immune system, in addition to the social stigma that increases waiting time until seeking health services in situations of illnes[20]. Black people is strongly affected by the pandemic and suffers from difficulties in accessing the health system and in achieving social distancing[21].

Racism occurs so brutally and imperatively in Brazil that 33% of patients with SARS had no record of race data, while 36% of black individuals did not have a definite testing diagnosis[10]. Information on the race of the patients only started to be collected about a month and a half after MH's declaration of community transmission of the disease throughout the national territory. This determination occurred only after manifestation by the Brazilian Society of Family and Community Medicine, as well as by anti-racist social

movements[22]. The lack of understanding of the importance of registering individual's race may be indicative of outdated and racist scientific concepts still presented by health professionals[23].

The lethality of SARS by COVID- showed that for every 100 people with SARS or SARS and COVID-19, black population suffer 3 more deaths when compared to the general population[10], an extremely alarming data. This pattern, however, is repeated in other places of the world such as the United States. Karan and Katz[24] demonstrated that in places with insufficient resources for all patients in healthcare, black people lose priority due to algorithms that contemplate comorbidities and life expectancy of those in hospital beds. In Chicago, black people, which make up only 29% of the population, at one point in pandemic accounted for 70% of deaths by COVID-19[25]. Afro-Americans are those who do the least test for the disease, even when they attend the service with suggestive signs[26].

As evidenced, a black person infected with SARS-CoV-2 is not only exposed to the risk factors that precede an infection, but is also judged by the color of their skin within the health system, which determines who will be better or worse assisted by the health team. In addition, a black population still carries historical and cultural marks of a racist society that perpetuates structural racism in everyday relationships[3]. 28.8% of patients in Brazil with SARS and COVID-19 were allocated to ICU beds, while the allocation rate in ICU beds for black patients was 31.09%[10], in agreement with other studies in the literature that reinforce marginalization suffered by blacks in access to health, which results in late access to health services and more complicated clinical condition[16-18].

These findings violate articles 1st and 2nd of the Universal Declaration of Human Rights, written in 1948, which states that "all human beings are born free and equal in dignity and rights"[27]. Therefore, there can be no distinction of race in guaranteeing these rights, and this violation goes against the commitment established with the 2030's Agenda of the United Nations (UN), which has as its objectives the reduction of racial inequality[28].

The disparity in access and health care also oppose to the country's own internal commitments: universality of access and use of the health system is a principle of SUS and establishes that "health is a citizenship right of all people and it is up to the State to

ensure it"[29]. In this specific context of the pandemic, the Health Surveillance Guide of the Ministry of Health stipulates that groups exposed to greater risks and their causal factors should be part of the investigation and epidemiological surveillance, so that it is possible to create appropriate interventions, which evidently does not occur[30].

In Brazil, systemic racism culminates in socioeconomic disadvantages, although there has never been an officially consolidated political system of racial segregation. Black people, concentrated in the poorest areas of the country, suffers from numerous inequities that negatively influence their access to the health system[31].

According to IBGE's report of Social Inequalities by Color or Race in Brazil[32], in 2018 only 29.9% of management positions were held by black people and only 24.4% of elected federal deputies were black, despite this population (blacks and brown) represent most of the Brazilian nation. In the same year, the poverty rate for black and brown people (people of color) was 32.9%, more than double when compared with white people, which was 15.4%. Regarding education, in 2018, the total illiteracy rate in black population was 9.1%, against 3.9% found in white people. The homicide rate per 100 thousand young people in black population was more than 3 times higher than in whites, in 2017. According to the NU, from 2005 to 2015, homicide rate per 100 thousand inhabitants decreased 12% for non-blacks and increased 18.2% among blacks in Brazil[33]. The survey "Violence against black youth in Brazil", carried out by the Federal Senate in 2012, found that 55.8% of interviewed people agreed with the phrase "the violent death of a young black man shocks society less than violent death of a young white man"[34]. A young black man is murdered every 23 minutes in Brazil, according to the UN[35]. The mortality rate in pregnant black women with COVID-19 compared to white women with the same disease is 2 times higher[36]. These data, added to the disqualification logic, are an expression of a true genocide inflicted on black and poor population of Brazil[37].

Structural racism can be also seen in Brazilian's society through these data that show the position of black population in several socioeconomic areas. The false story of racial democracy spread in Brazil, without racism itself being removed from that

society[38], which reverberates in the current pandemic situation.

This study reinforces the UN's finding that racism is a factor that limits health care for black individuals, related to the way knowledge and hegemonic biomedical rationality were built, in a scenario full of racism, social injustice, domination and brutality[39,40]. It is known that several studies, incompatible with ethical protocols adopted for research in white people, were constantly carried out in black population without even their consent, among them, drug research and lethal surgical procedures[41].

Historically, epidemics have exposed racism in health systems around the world, such as yellow fever, the 1918's flu and HIV/AIDS[38]. This long period of exploration and subjugation directly impacts in health care. This contributes to the construction of a racist knowledge and practice that harms, for example, doctor-patient relationship with black population. These issues can be seen in the maintenance of health injustices[39]. Thus, it is necessary to recognize the hegemonic health system as a supporter of oppression and neglect of life experiences that influence illness, as well as rethink this system in an anti-racist way, since racism is also a health issue public.

This recognition can bring important reflections on the policies and strategies for welcoming and comprehensive care for the non-white Brazilian population, which is usually the one that most seeks or needs Primary Health Care services, and which, in the context of the pandemic, had a direct relationship with the rates of lethality and mortality of COVID-19[42].

The present study is limited by the use of secondary data, subject to underreporting and possible errors in filling in by physicians. There is a need for measures to control and interfere in this situation, as well as more detailed studies that complement current analyzes.

CONCLUSION

Skin color is a determinant of several other social and health vulnerabilities in Brazil and in the world and it is necessary to understand the strength and violence of racism in order to understand the meaning of these findings. The present study makes evident how this phenomenon directly affects the health care of black people and its impacts in quality of life and

morbidity and mortality of these individuals, especially during pandemics, when health inequalities are exacerbated.

This can be shown by the alarming disparity between rates of lethality observed in our study about black people and general population. In addition, our study reveals that to promote health and human rights it is necessary to offer a universal health access system interconnected with anti-racism advocacy public policies.

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