# Gender and racial inequalities in the access to and the use of Brazilian health services 

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#### Abstract

This paper aims to evaluate gender and racial inequalities in the access and use of health services in Brazil Based on the 2019 Na tional Health Survey (PNS). Its main objective is to understand how white, black, or brown men and women seek medical care in Primary Health Care, the gateway to the Brazilian health system. Analyses from a gender perspective show that cultural and social patterns affect individual actions and choices and mainly access to and use of health services. The results also show that men and women reproduce the expected gender behavior, socially and culturally constructed, which impacts their self-assessment of health status, care, and their exposure to the risk of disease and death. The intersectional analysis reveals that racial inequalities are aligned with those observed between men and women, exponentiating vulnerabilities for self-identified black or brown people, reflecting the structural socioeconomic inequalities of Brazilian society. In this context, the universality and integrality recommended in the Unified Health System contribute as a public policy to the guarantee of rights, equalization of opportunities, and adequate access to equal care. Key words Inequalities, Gender, Health services, Health policies


## Introduction

In the year that the Unified Health System (SUS) completed thirty years of its existence, all its resolving capacity, coverage, quality, and effectiveness was put to the test due to the COVID-19 pandemic. Besides immediate public health issues for prevention, service, and disease-related care, countries had to address the severe social and economic impacts due to the social distancing measures to face the pandemic and the monitoring of chronic disease and medical emergencies that, together, had a potential risk of collapsing health care networks.

In Brazil, the advent of the pandemic in March 2020 found a universal public health system with constitutional rights regarding access to its services, although severe service distortions and bottlenecks, especially those related to PHC, the gateway to the Unified Health System (SUS). The historical hotspots in public hospital care were even more exposed, such as the Regulation System (SISREG) responsible for the well-known waiting lines for appointments, tests, and surgeries; the capacity or lack of hospital beds; the unequal distribution of resources and equipment, and the public-private divide in access to health. We should emphasize that the whole scenario briefly described is circumscribed from a broader perspective of the country's political and economic crisis since 2015, which affects women, men, black, white, brown, and indigenous people in different social classes. Social inequalities are structuring axes of Brazilian society, whose results are reflected in the various dimensions of the quality of life, restricting access, opportunities, and the fulfillment of legally established social rights.

Many of these inequalities could be seen during the pandemic, showing that historically excluded and socially disadvantaged groups were more vulnerable to the risks associated with the new virus and also to unemployment, school dropout, poverty, and violence. In particular, mainly when analyzed together with the racial dimension, gender inequalities have gained contours and nuances to deepen pre-existing inequalities and reveal new vulnerabilities.

Providing an overview of the epidemiological and health care profile in 2019, the release of the latest edition of the National Health Survey (PNS) ${ }^{1}$ of the Brazilian Institute of Geography and Statistics (IBGE) adds to the great effort to systematize essential information to understand the complexity of the current period and contributes to the study of the evolution in time of
the indicators of access to health by the different population groups. In this sense, this paper aimed to outline an analysis of the access to and use of PHC services through the data collected by the research, focusing on gender and racial inequalities whenever the sample's representativeness allowed the intersectional analysis of the information. Whenever possible, the indicators were also compared with the PNS $2013^{2}$ and the supplement of the 2008 National Household Sample Survey ${ }^{3}$ to bring a temporal perspective to the analysis.

To this end, the paper was structured in four sections besides this Introduction: (i) Brazilian PHC and its challenges; (ii) Sex and gender inequalities in access to and use of health services; (iii) Determining factors for access to and use of Brazilian health services; and (iv) Conclusions.

In section (iv), calculation of indicators and logistic model fitting were performed with R Project 4.0.0 ${ }^{4}$ software and functions of the sur$v e y^{5}$ package, considering the complex sample of these surveys. The significance of the model's terms was assessed using the Wald test at the $5 \%$ level, and the overall fit quality was verified with the Archer-Lemeshow test ${ }^{6}$, also at the $5 \%$ level.

## Brazilian primary health care and its challenges

The universal right to health is constitutionally provided as a duty of the State and was embodied in the creation and structuring of the Unified Health System (SUS) (Laws 8.080/1990 and $8.142 / 1990$ ). It emerged to overcome inequalities, segmentation, and lack of access to health, which were critical in previous decades. The SUS was established under the principles of universality, comprehensiveness, and decentralization to provide care regardless of individual contribution capacity and its inclusion in the capitalist logic. With its budget, which provides for different sources of financing, since its foundation, the SUS has suffered decrease blows to its financial structure through measures such as the Untying of Federal Revenue (DRU) and payroll tax exemptions with direct impacts on payments earmarked for its financing, which has resulted in growing insecurity in the quality and supply of public health services and an incentive to deepen the public-private divide in health care for the population. The most recent decrease blow to the financing of the public health system was Constitutional Amendment 95/2016, which froze social spending for 20 years.

Organized per the complexity of its services, the SUS gateway and guiding axis of the system is the so-called Primary Care, which is characterized by a set of actions that include the promotion and protection of individual and community health, acting in the treatment, prevention, diagnosis, and maintenance of health ${ }^{7}$. This axis includes PHC Units (better known as health posts), the Family Health Clinics, and the Municipal Health Centers. The services included in this level of health care cover important programs, emphasizing Family Health, which works through a multidisciplinary team in promoting specific groups (Children, Women, Older adults), controlling and monitoring chronic diseases, and oral health.

This paper analyzes only access and use of PHC services. The latest PNS data confirmed the population's strong dependence on public health services since $71.5 \%$ of people declared they had no access to private medical or dental health plans in 2019, a level similar to that found by the survey in 2013. This dependency was slightly higher for men ( $72.6 \%$ vs. $70.5 \%$ for women), children, and young people ( $74.5 \%$ ), and substantially higher for black or brown people (almost $80 \%$ vs. $61.2 \%$ for whites). SUS dependence was $84 \%$ among those with no education or incomplete primary education, an abysmal difference compared to those with Higher Education level, where just over $30 \%$ had no access to private health plans, which are socioeconomic inequalities that reflect the uneven access to health services and show the importance of the public system as a means of reducing inequalities.

Also, while $76.5 \%$ of people used to search for the same place, doctor, or health service when they needed care, 7 out of 10 people search for it in the public service. As the main Primary Care program, the Family Health Strategy expanded its coverage from $53.3 \%$ of households registered in the program in 2013 to $60.0 \%$ in 2019 , with significant regional variations ( $71.2 \%$ in the Northeast and $51.9 \%$ in the Southeast). As registration coverage does not characterize access or service, a decline was observed in the number of home visits considering the 12 months before the survey. In 2013, $47.2 \%$ of registered households had at least one visit from a member of the Family Health team, dropping to $38.4 \%$ in 2019 , with $23.8 \%$ of registered households not even receiving a visit by the Community Health Worker (ACS) or the Family Health team member in the same year. The proportion of households that received at least one visit from an ACS to combat endemic
diseases (dengue and malaria) between 2013 and 2019 also fell ( $69.3 \%$ and $64.6 \%$, respectively).

In general, the PNS data indicate a greater demand for health care from 2013 to 2019, a deteriorated general perception of health by the population, and more people failing to perform usual activities for health reasons. These indicators have significant differences between population groups and regionally, as we will see in the following sections.

## Gender inequalities in access to and use of health services

Preliminary analyses of PNS 2019 data corroborate already known results about gender differences in access and use of health services, in which women tend to seek more health services, either for preventive, general check-up appointments or for health issues specific to reproductive health, such as prenatal care and preventive care. According to the latest edition of the survey, the proportion of women who visited a doctor in the 12 months before the interview was $82.3 \%$, while the percentage of men was $69.4 \%$.

In order to discuss possible factors that determine or contribute to this differentiated behavior, it is essential to point out that sex and gender are not substitutes or interchangeable terms. While the first refers to the male and female biological sex (still in a dichotomous form in the IBGE's household sample surveys), the second addresses a social construction through expected (or not), accepted (or not), and valued (or not) roles and behaviors, depending on the first.

In epidemiological studies, both sex and gender can determine health conditions and different behaviors in the use of services, whether for care, treatment, or prevention. However, as epidemiologist Krieger ${ }^{8}$ points out, it is necessary to understand that we are both "sex" and "gender": "we do not live as a person with "gender" in one day and a body with "sex" the next day; we are both, simultaneously, and for any given health outcome, it is an empirical question, not a philosophical principle, whether the different permutations of gender and sex matter - or are irrelevant". Gahagan et al. ${ }^{9}$, in turn, recognize that the integration of sex and gender in research strengthens the general health evidence base and contributes to adequate planning of public health actions and policies for a better adaptation of care and treatments to achieve care equity. Barata ${ }^{10}$ states that "the health inequalities observed between men and women must be analyzed based on this dou-
ble determination: gender relationships and the peculiarities of biological sex".

Empirically, the data show that the mortality of men has been higher than women in all age groups of the life cycle, but emphasizing the $15-$ 29 years age group, in which the high incidence of deaths justifies male excess mortality due to external (non-natural) causes. Gender-related social behaviors largely explain this excess mortality, with men culturally having greater exposure to risky work situations (occupations with a higher level of unhealthiness or excessive physical effort) and in social life (car accidents and violence or even tobacco and alcohol abuse). Once again, the PNS results corroborated these behaviors through the information collected on adequate food, alcohol and tobacco use, and physical activity (Table 1). Women ate better and consumed less alcohol and tobacco in 2019, despite the observed increased consumption compared to 2013 (alcohol consumption at least once a week went from $12.9 \%$ to $17 \%$ ). Finally, differences in physical activity between men and women were observed. When this was done for leisure or work, men were more active. However, women were more active than men when physical activity was carried out during trips (shopping, work, taking children to school, doctor, and fetching water).

On the other hand, considering only information in which subjects self-assessed their health condition, women tended to refer to worse health status in population surveys. In the PNS $2019,61.9 \%$ of women rated their health status as good or very good, and this percentage was $69.6 \%$ among men. Blacks or browns reported worse health status than whites, and black or brown women were the ones whom least rated their health status as good or very good (57.8\%). This difference by sex and color or race was maintained throughout the historical series, even with a tendency of deteriorated self-rated health for all groups compared to 2013 and 2008.

Barata ${ }^{10}$ argues that gender issues must be considered, although some explanations for the higher morbidity reported among women are centered on biological factors since the universal and historical role assigned to women as responsible for the care of their children and other family members probably determines the greatest attention to health and disease issues and, therefore, a keen perception of the problems themselves. Another issue pointed out by the author also addresses the inclusion of women in general in more hazardous occupations associated with lower income, mo-
notonous tasks, and psychological and emotional stress (including the possibility of moral and sexual harassment). While women have a lower mean hourly workload than men, when adding weekly hours dedicated to unpaid work (housework and care), women's compounded workload (manual work-intensive) is higher than men. According to Cobo ${ }^{11}$, the sum of hours worked in the labor market, chores, and care for women (total workload) was higher than men by 2.4 hours per week. This double shift may be behind the results of the PNS, which pointed out that $9.6 \%$ of women failed to perform usual activities due to health reasons ( $6.3 \%$ of men), but men proportionally failed the most to perform usual tasks due to work-related reasons ( $16.1 \%$ and $10.6 \%$ of women).

According to studies developed by Gomes et al. ${ }^{12}$ and Levorato et al. ${ }^{13}$, men tend to seek medical attention only when there is pain or some severe health problem. Besides cultural and gender issues, where the cultural construction of masculinity overlaps the needs for care and medical care, men also claim that the opening hours of public health units do not match their work realities, although women are equally included in the labor market, regularly access the system, including preventively. White, more educated men with higher income tend to seek more private appointments when there is a need; however, on a scale of consumption of these services still much lower than women.

These differentiated behaviors do not allow isolating the effects of sex or gender in determining the incidence of diseases among men or women since a more significant number of diagnoses may be related precisely to women seeking more health services because they are more attentive to their health status. For example, according to the PNS, concerning chronic noncommunicable diseases (NCDs), $56.9 \%$ of women and $46.5 \%$ of men aged 18 and over reported having been diagnosed with at least one chronic disease in 2019. Arterial hypertension was the most reported NCD and was diagnosed in $26.4 \%$ of women and $21.1 \%$ of men. However, differences were observed in the preventive and monitoring aspects of the disease, with a higher percentage of men who never measured blood pressure ( $2.1 \%$ versus $1.2 \%$ ), a higher proportion of hypertensive women with medical care in the last year ( $74.5 \%$ against $68.9 \%$ of men) and among those who took all prescribed blood pressure medications in the last two weeks ( $89.6 \%$ against 83.1\%) (Table 2).

Table 1. Proportion of men and women aged 18 or over by lifestyle dimensions due to exposure to health risk factors. Brazil, 2019.

| Lifestyles | Men <br> $(\%)$ | Women <br> $(\%)$ |
| :--- | :---: | :---: |
| Recommended consumption of vegetables and fruits | 10.2 | 15.4 |
| Consumption of minimally processed foods | 22.9 | 24.4 |
| Regular consumption of soft drinks | 11.6 | 7.2 |
| Consumption of alcoholic beverages at least once a week | 37.1 | 17.0 |
| Alcohol abuse in the previous 30 days | 26.0 | 9.2 |
| Driving after alcohol consumption in the last 12 months | 20.5 | 7.8 |
| Current users of tobacco products | 16.2 | 9.8 |
| Recommended level of leisure physical activity | 3.2 | 29.2 |
| Recommended level of physical activity at work | 31.2 | 34.4 |
| Recommended level of physical activity in commuting | 9.1 | 32.2 |
| Recommended level of physical activity in domestic chores | 21.8 |  |

Note: PNS 2019 considered a proper diet the minimum weekly intake of five vegetables and five fruits (including natural juice). The regular consumption of soft drinks refers to the consumption referred for five days or more per week.

Source: IBGE, National Health Survey 2019.

The second highest incidence of NCDs investigated by the research was a chronic back problem, for which $24.5 \%$ of women and $18.3 \%$ of men reported having a diagnosis and which, as pointed out by Barata ${ }^{7}$, may be associated with different types of paid and unpaid work performed by men and women (especially those of a reproductive, monotonous, and exhausting nature for many hours, carried out mainly by women). WRMD, arthritis, and rheumatism also appeared with a much higher incidence among women. The diagnosis of depression was reported by $10.2 \%$ of the adult population but with an incidence almost three times higher for women than men ( $14.1 \%$ and $5.1 \%$, respectively). Diabetes and high cholesterol also affected more women than men, but it is noteworthy the percentage of men who never took a blood test to measure blood glucose compared to women: $9.2 \%$ and $3.7 \%$, respectively (Table 2 ).

All NCDs investigated by the PNS showed an increased incidence compared to 2013, and, for most of them, care was provided by the PHC Unit (UBS). For example, $46.6 \%$ of hypertensive patients, $40.9 \%$ of diabetics, and $29.7 \%$ of those diagnosed with depression reported the last visit to a UBS. This represents a pressure for resources and expanded services when people enter the SUS, which, due to the higher incidence of NCDs in women, can proportionally affect them more than men, as we will see more closely in the next section.

Finally, concerning obtaining the necessary medication for treatment continuity, $16.3 \%$ of people managed to obtain all the drugs prescribed in the public health service, and $15.0 \%$ indicated that they had obtained part of them. There is a slight difference by gender, where $32.3 \%$ of women obtained all or some of the drugs in this way, against $28.8 \%$ of men. A similar pattern occurs when there is a difference by color or race, with slight differences in which black or brown people obtained all or some of the drugs in a more significant proportion $(33.8 \%$ and $28.0 \%$ for whites). In 2013, the proportion of people who managed to obtain drugs in the public service was similar, with $15.6 \%$ obtaining all and $18.5 \%$ obtaining part of them. Differences by gender and color/race are similar to those observed in 2019. Concerning 2008, the results are not directly comparable because the wording layout of the questionnaire is different, but the results indicated that $32.5 \%$ of the people claimed to obtain all free prescription drugs, and $15.1 \%$ obtained part of them in this way.

## Determining factors for access and use of Brazilian health services

Pinheiro et al. ${ }^{14}$ argue that despite its subjective character, self-assessment of health status is frequently used in population surveys and is of special relevance in explaining the use of health services. As seen earlier, women and, in particular,

Table 2. Proportion of men and women 18 years of age or older who reported a diagnosis of chronic non-communicable diseases. Brazil, 2019.

| Chronic Noncommunicable Diseases | $\begin{array}{c}\text { Total } \\ (\%)\end{array}$ | $\begin{array}{c}\text { Men } \\ (\%)\end{array}$ | $\begin{array}{c}\text { Women } \\ (\%)\end{array}$ | $\begin{array}{c}\text { Difference } \\ \text { M-W }\end{array}$ |
| :--- | ---: | ---: | ---: | :---: |
| (percentage |  |  |  |  |
| points) |  |  |  |  |$]$

Note: (1) Schizophrenia, bipolar disorder, psychosis, or OCD.
Source: IBGE, National Health Survey 2019.
black or brown people were the ones least reporting good or very good health status in the PNS 2019. Also, this self-rated health has deteriorated over the past decade for all gender and color/race groups with different intensities. Between 2008 and 2019, white men reduced their assessment of health status to good or very good by $2.9 \%$, while white women reduced it by $7.4 \%$, black or brown men by $10 \%$, and black or brown women by $13 \%$ (Chart 1). The results presented in this section were calculated considering only the records in which the informant was the person himself to investigate whether this differentiated self-perception contributed to different access to and use of health services, thus excluding cases in which the answer was given by another resident or by a non-resident, besides cases where this information was not available.

As previously seen, the historical series shows that men and women tend to seek medical care to treat their health very differently. More women than men declared visiting a doctor last year, but this difference was reduced throughout the series. In 2019, the difference was 12.7 percentage points (p.p.) in favor of women ( $84.3 \%$ against $71.6 \%$ ), increasing to 15.4 p.p. in 2013 and 19.3 p.p. in 2008. Once again, color or race contributed to the differences found. In 2019, white women saw
a doctor in the last year in a more significant proportion than black or brown women ( $86.4 \%$ and $82.8 \%$ ), and a similar situation was found among white ( $75.8 \%$ ) and black or brown men ( $68.3 \%$ ). The indicator increased for all groups analyzed, but men proportionally showed more significant growth in the demand for a medical appointment last year, $19.8 \%$ against $6.5 \%$ of women.

The overall deteriorated perception of health may be associated with this greater demand for medical care since people with more positive self-assessment tend to seek less health care. The proportion of people with a medical consultation in up to one year, among those who declare having good or very good health, was 10.9 pp lower than the others in 2019, a more negligible difference than those observed in 2013 ( 13.4 pp ) and 2008 ( 17.7 pp ). In 2019, $80.2 \%$ of men who rated their health as fair, poor, or very poor visited the doctor in the last year, and $67.9 \%$ among those who rated their health status as good or very good visited the doctor in that same period (difference of 12.3 pp ). The percentages among women were, respectively, $81 \%$ and $89.6 \%$ (difference of 8.6 pp ). The breakdown by gender was more determinant than people's color or race. Even among the group that had their last medical appointment in up to one year, women visited


Graph 1. Proportion (\%) of men and women, by gender and race/color, who self-referred a health status as good or very good. Brazil, 2008/2013/2019.

Note: Results for yellow or indigenous people are not shown.
Source: IBGE, National Health Survey 2019.
doctors more often, a mean of 4.5 appointments, compared to 3.5 for men. Again, self-assessment plays a relevant role, with the group of good or very good health having a mean of two fewer appointments in 12 months than the others (Table 3).

The PNS also estimated that 39 million people ( $18.6 \%$ of the population) sought medical care in the two weeks preceding the interview. When considering only the responses in which individuals gave information about themselves, the percentage goes to $22.7 \%$ of the population. Gender differentials and health self-assessment maintained their explanatory role. This last factor was responsible for an average difference of 14.2 pp in the proportion of seeking care in the period, a difference that remained relatively stable for the breakdowns of gender and color or race. Again, the group with the most significant demand for medical care was white women. The percentage of seeking medical care in the previous two weeks was $36.8 \%$ among white women with less positive self-rated health. On the other hand, black or brown men with positive self-assessment were the group with the lowest search ( $12.0 \%$ sought care).

Only $3.6 \%$ of women who sought care in the previous two weeks did so for pregnancy reasons.

Disregarding this group, we observed that the main reason for seeking care for both men and women was illness (pain, fever, and diarrhea) or continuing treatment of illness ( $49.2 \%$ for women and $45.8 \%$ for men). In turn, men sought more health care due to accidents, injuries, or fractures, mainly black or brown men, reaching $8.7 \%$ of the reasons for this group $(6.4 \%$ for white men).

The place where the first care was sought did not show a significant difference by gender, with approximately $59 \%$ seeking care in hospitals or public outpatient clinics and $38 \%$ in private ones. However, a difference was identified by color or race, in which blacks or browns sought more public care ( $68.0 \%$ against $29.4 \%$ private) than whites ( $48.7 \%$ against $48.9 \%$ private). In general, $71.1 \%$ of people were attended on the first attempt, with some differentials mainly related to the reason for the demand. This number is a considerable drop compared to that observed in previous surveys when the proportion of people who managed to obtain medical care in the first attempt was $95.6 \%$ in 2008 and $94.6 \%$ in 2013. However, part of this difference can be associated with the update of the item, implemented in the 2019 edition of the PNS, in which the response category "Was scheduled to another day/another

Table 3. Proportion of men and women. by gender or color/race. with appointments in the last year and mean appointments in the last year. according to self-assessed health status. Brazil. 2008/2013/2019.

| Gender or color/race | $\mathbf{2 0 0 8}$ <br> $(\%)$ | $\mathbf{2 0 1 3}$ <br> $(\%)$ | $\mathbf{2 0 1 9}$ <br> $(\%)$ | Percentage <br> variation <br> $\mathbf{2 0 0 8 / 2 0 1 9}(\%)$ | Mean <br> appointments <br> in 2019 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| With appointments last year |  |  |  |  |  |
| Men | 59.8 | 64.5 | 71.6 | 19.8 | 3.5 |
| Women | 79.1 | 79.9 | 84.3 | 6.5 | 4.5 |
| White | 74.1 | 77.2 | 82.3 | 11.0 | 4.1 |
| Black or brown | 69.1 | 71.3 | 77.3 | 11.9 | 4.2 |
| White men | 62.8 | 68.7 | 75.8 | 20.8 | 3.6 |
| Black or brown men | 57.1 | 60.9 | 68.3 | 19.7 | 3.4 |
| White women | 81.3 | 82.5 | 86.4 | 6.3 | 4.4 |
| Black or brown women | 77.1 | 77.7 | 82.8 | 7.4 | 4.6 |
| People with appointments last year and good or very good self-assessed health |  |  |  |  |  |
| Men | 54.0 | 60.2 | 67.9 | 25.7 | 2.8 |
| Women | 75.3 | 76.1 | 81.0 | 7.7 | 3.8 |
| White | 69.9 | 73.3 | 79.4 | 13.7 | 3.5 |
| Black or brown | 63.2 | 65.9 | 72.3 | 14.5 | 3.3 |
| White men | 57.5 | 64.8 | 72.9 | 26.7 | 3.0 |
| Black or brown men | 50.6 | 55.8 | 63.3 | 25.2 | 2.7 |
| White women | 78.1 | 79.2 | 84.0 | 7.6 | 3.8 |
| Black or brown women | 72.3 | 73.0 | 78.5 | 8.5 | 3.7 |
| People with appointments last year and regular. poor. or very poor self-assessed health |  |  |  |  |  |
| Men | 77.1 | 75.2 | 80.2 | 4.0 | 4.9 |
| Women | 88.0 | 86.9 | 89.6 | 1.9 | 5.6 |
| White | 86.6 | 86.4 | 89.1 | 2.9 | 5.5 |
| Black or brown | 82.5 | 80.7 | 85.1 | 3.2 | 5.3 |
| White men | 80.6 | 79.7 | 84.5 | 4.9 | 5.4 |
| Black or brown men | 74.6 | 72.0 | 77.9 | 4.4 | 4.5 |
| White women | 89.8 | 89.9 | 91.3 | 1.7 | 5.6 |
| Black or brown women | 86.7 | 85.0 | 88.7 | 2.4 | 5.6 |

Note: Results for yellow or indigenous people are not shown.
Source: IBGE, National Health Survey 2019.
place" was included for the question about service in the first attempt, which covered $26.0 \%$ of people.

A logistic regression model was adjusted to better quantify the factors that influenced the success in the first search for care, considering success in this first search as the response variable, and gender, color or race, age groups, self-assessed health status, the reason for seeking care and location of demand as explanatory variables, controlling by Federation Units. Only cases in which people provided information about themselves were also considered to adjust the model, totaling 25,150 records in the PNS 2019
sample of people who reported having sought care in the previous two weeks.

Initially, the complete model was adjusted, considering all variables, including an interaction term between gender and color or race. The inclusion of this interaction term did not bring a statistically significant gain to the model by the Wald test ( $\mathrm{p}=0.595$ ). The remaining terms were maintained in the final model. Table 4 illustrates the results obtained, together with the odds ratios (OR) and 95\% confidence intervals. The Ar-cher-Lemeshow test indicated a good fit of the model to the data, with a p-value of 0.573 . The inclusion of terms referring to the Federation

Table 4. Coefficients of the logistic model for success in the first attempt to receive care and the respective odds ratios.

| Fator | Coeficiente | Razão de chances (IC 95\%) |
| :---: | :---: | :---: |
| Intercept | 1.97 | - |
| Gender |  |  |
| Men | - | 1 |
| Women | -0.15 | 0,86 (0,79; 0,95) |
| Color or race |  |  |
| White | - | 1 |
| Black or brown | 0.07 | 1,07 (0,96; 1,19) |
| Age group |  |  |
| Less than 30 years | - | 1 |
| 30-49 years | -0.16 | 0,85 (0,74; 0,98) |
| 50-64 years | -0.25 | 0,78 (0,67; 0,90) |
| 65 years and over | -0.32 | 0,73 (0,62; 0,85) |
| Self-assessed health |  |  |
| Very poor, poor, or fair | - | 1 |
| Good or very good | -0.07 | 0,93 (0,84; 1,04) |
| Reason for search |  |  |
| Accident |  |  |
| Disease | -0.65 | 0,52 (0,40; 0,68) |
| Tests | -1.34 | 0,26 (0,20; 0,35) |
| Prevention or follow-up | -1.32 | 0,27 (0,20; 0,35) |
| Location searched |  |  |
| Hospitals or public outpatient clinics | - | 1 |
| Hospitals, offices, or private outpatient clinics | 0.15 | 1,17 (1,04; 1,31) |

Units showed a significant gain to the model, using the Wald test ( $\mathrm{p}<0.001$ ). However, these were not shown in the referred table because it is not an analytical group of interest in this work and due to the number of coefficients (26).

Gender, age, reason, and search location were the factors most associated with obtaining care in the first attempt, so that women were less likely to perform the visit on the first attempt ( $\mathrm{OR}=0.86$ ). As noted earlier, women seek care more often, while men tend to do it when they are in pain or a more serious health problem, which may justify them having a better chance of success in the first attempt at care. The difference between whites and blacks or browns was not statistically significant. Previous studies point to black/brown greater dependence on the public health system and worse self-rated health for these groups. Col-
or or race did not show a statistically significant difference with the inclusion of these factors in the logistic model.

There is a significant difference for age groups, with the older ages less likely to obtain care on the first attempt. In turn, the reason that stood out with the highest likelihood of success in the service was an accident, since the others have OR below 1. Also, those who sought it in private facilities are more likely to obtain care in the first attempt.

Among those who failed to receive care on the first attempt, just over half ( $53.0 \%$ ) sought it again, and of these, approximately $90 \%$ managed to have their health care met. More broadly, the proportion of people who were successful at seeking health care, whether at the first attempt or a later attempt, was approximately $85 \%$.

## Conclusions

The setting outlined by the PNS 2019 gained new contours in the atypical year of 2020. Information such as the self-perceive health status, previous existence of chronic diseases, access to medicines, and use of primary health care services are essential to outline the profile of medical care and health system users while allowing the assessment of latent emergency demands and the system's capacity for care and resolution, precisely the health care aspects which were most under pressure in 2020 by the pandemic of COVID-19.

The data analysis showed the perennial importance of SUS to fulfill the Brazilian population's constitutional right to health, despite the various structural issues that currently limit its performance, especially those concerning its financing that profoundly impact the offer and quality of services provided. Nevertheless, 75\% of the Brazilian population does not have access to health care through private plans and depends exclusively on the public health service. The social, economic, and political crises that marked the data analysis period, especially in recent years, associated with the population aging process, show a deteriorated self-perception of people's general health status, a higher incidence of NCDs, and a higher incidence of NCDs higher medical care demand.

Gender and racial inequalities are founding structures of Brazilian society reflected in the data now analyzed. The PNS 2019 confirmed the tendency for women to be more careful with their health than men. However, we should not evaluate women and men as homogeneous groups since whites and blacks/browns behave and approach differently when it comes to health care.

The fact that men are more likely to get care on the first attempt is related to the fact that most of these first appointment referred to external causes, which require immediate emergency care and is a typical cause of male behavior.

In this sense, the results indicate that the study of societal gender roles exponentiated by color or race of men and women is fundamental for understanding the determinants of access to and use of health services. These socially expected behaviors of men and women due to their biological sex still permeate the higher exposure of men to risky situations and the unequal dedication of women to the affairs and care of other people. Such behaviors impact the use and access to health services, whether due to women reaching older ages in a more significant proportion than men, or because of the greater critical attention they give to their health and those they care for, or the effects of labor and reproductive activities performed by each gender, whether due to the emotional impact arising from this whole set of factors affecting men and women differently.

However, once the difficulties and factors that lead each one to access the health system are overcome, the universality and comprehensiveness recommended in the SUS tend to reduce inequalities and impact less on the chances of continuing the service or obtaining medications, hospitalizations, and treatments. It follows that investing in guaranteeing resolutive and efficient care at all health levels, notably at the gateway to a system as complex as the SUS, may not resolve profound issues in the shaping of Brazilian society, such as gender inequalities but are fundamental in equalizing opportunities, realizing rights, and promoting well-being and quality of life.

## Collaborations

B Cobo worked on the project organization, design, bibliographic review, data analysis, writing, and final review. C Cruz worked on the design, bibliographic review, writing, and final review. PC Dick worked on the design, methodology, data analysis, writing, and final review.

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