

# Health of homeless individuals: among complaints, symptoms, and determinants of chronic diseases

Saúde dos indivíduos em situação de rua: entre queixas, sintomas e determinantes das doenças crônicas

*Salud de las personas en situación de calle: entre quejas, síntomas y determinantes de enfermedades crónicas*

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## Abstract

**Introduction:** The rough-sleeping population is vulnerable due many factors determining or conditioning their health and contribute to the raising the index of clinical comorbidities, as mental health, chronic and infectious diseases. The marginalization of the homeless population leads to a gap on the health care that sometimes is supplied by non-profit organizations, which play a fundamental social role. **Objective:** To map the clinical profile of the homeless population of Curitiba (PR) attended by a voluntary initiative in the period of a year. **Methods:** It's an observational study based on the medical records of the 509 patients older than 18 year that had their first health-care attendance provided by the World Doctors Association, branch Curitiba (PR), in the year of 2019. **Results:** The predominant sociodemographic conditions were white males, aged between 36 and 45 years old, that have attended elementary school and were homeless for less than a year. The main complains that lead to health care search were pain (45,19%), dermatologic lesions (15,71%) and ophthalmologic complains (6,68%). Most of the patients exhibited chronic systemic arterial hypertension (9,03%), HIV/AIDS (3,53%) and diabetes mellitus (3,53%). There were also identified a great amount of past reported physical trauma (59%). The research found a statistical correlation between hypertension and chronic use of medications ( $p=0,001$ ). Less than 10% of the rough-sleeping attended population sought medical care due mental health complains. Of the female studied population, 70% reported substance use and, approximately half of them, the regular use of chronic use medicines. Even though, contraceptives were only reported by a minority of this population (18,57%). **Conclusions:** Pain, dermatologic and ophthalmological complains were the main medical care seeking reason by the rough-sleeping population, besides the prevalence of systemic arterial hypertension as a chronic illness. These findings can subsidize and direct healthcare actions oriented to this marginalized population.

**Keywords:** Homeless persons; Epidemiology; Mental health; Women's health; Prevalence.

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## Resumo

**Introdução:** A população em situação de rua é vulnerabilizada por diversos fatores que determinam ou condicionam sua saúde e ocasionam aumento dos índices de comorbidades clínicas, entre elas as doenças mentais, crônicas e infectocontagiosas. A marginalização dos indivíduos que se encontram em situação de rua abre uma lacuna na assistência em saúde que, por vezes, é suprida por organizações sem fins lucrativos que exercem um papel social elementar. **Objetivo:** Mapear o perfil clínico da população em situação de rua de Curitiba (PR) atendida por iniciativa voluntária no período de um ano. **Métodos:** Trata-se de um estudo observacional descritivo de base documental realizado com fichas clínicas dos 509 pacientes maiores de 18 anos e que tiveram seu primeiro atendimento médico realizado pela Associação Médicos do Mundo, filial Curitiba (PR), no ano de 2019. **Resultados:** Indivíduos do sexo masculino, de etnia branca, faixa etária entre 36 e 45 anos, que cursaram o ensino fundamental e que se encontravam havia menos de um ano em situação de rua foram as condições sociodemográficas predominantes. As principais queixas motivadoras da procura pelo atendimento foram dor (45,19%), lesões cutâneas (15,71%) e queixas oftalmológicas (6,68%). Parte dos indivíduos mostrou acometimento crônico por hipertensão arterial sistêmica (9,03%), HIV/AIDS (3,53%) e diabetes *mellitus* (3,53%). Também foi identificada quantidade significativa de relatos de histórico de traumas físicos (59%). Encontrou-se correlação estatística entre hipertensão e medicamentos de uso contínuo ( $p=0,001$ ). Menos que 10% dos indivíduos procuraram atendimento médico por queixas de saúde mental. Das mulheres que fizeram parte do estudo, 70% relataram fazer uso de substâncias e aproximadamente metade delas, uso regular de medicamentos. Já o uso de anticoncepcionais foi relatado por uma minoria delas (18,57%). **Conclusões:** As queixas de dor, as lesões cutâneas e as demandas oftalmológicas foram os principais motivadores da procura por ajuda médica pela população em situação de rua, além da prevalência de hipertensão arterial sistêmica como doença crônica. Os achados podem auxiliar e direcionar ações em saúde voltadas para essa população marginalizada.

**Palavras-chave:** Pessoas em situação de rua; Epidemiologia; Saúde mental; Saúde da mulher; Prevalência.

## Resumen

**Introducción:** La población en situación de calle es vulnerable por diversos factores que determinan o condicionan su salud y terminan por aumentar los índices de las comorbilidades clínicas, incluyendo enfermedades mentales, crónicas e infectocontagiosas. La marginación de los sujetos que se encuentran en situación de calle hace una laguna en su asistencia en salud que, por veces, es suplida por organizaciones sin fines de lucro, las cuáles ejercen una función social muy importante. **Objetivo:** Mapear el perfil clínico de la población en situación de calle de Curitiba (PR) atendida por una iniciativa voluntaria en el período de un año. **Métodos:** Se trata de un estudio observacional descriptivo documental basado en historias clínicas de 509 pacientes mayores de 18 años y que tuvieron su primera atención médica realizada por la Asociación Médicos del Mundo, filial Curitiba (PR), en 2019. **Resultados:** Las condiciones sociodemográficas predominantes fueron los varones, de etnia blanca, con edades entre 36 y 45 años, que frecuentaron a la escuela primaria y que estaban en la calle a menos de un año. Las quejas principales que motivaron la búsqueda de atención fueron dolor (45,19%), lesiones cutáneas (15,71%) y quejas oftalmológicas (6,68%). La mayoría de los individuos mostró acometimiento crónico por hipertensión arterial sistémica (9,03%), HIV/SIDA (3,53%) y diabetes *mellitus* (3,53%). Aún fue identificada una cantidad significativa de informes de traumas físicos (59%). Se encontró también una correlación estadística entre hipertensión y medicamentos de uso continuo ( $p=0,001$ ). Menos del 10% de las personas buscaron atención médica por problemas de salud mental. De las mujeres que participaron en el estudio, el 70% informó haber consumido sustancias y aproximadamente la mitad de ellas hace uso habitual de medicamentos. Sin embargo, el uso de anticonceptivos fue informado por una minoría de las mujeres (18,57%). **Conclusiones:** Las quejas de dolor, lesiones cutáneas y oftalmológicas fueron los principales motivadores para que la población sin hogar buscara ayuda médica, además prevaleció la hipertensión arterial sistémica entre las enfermedades crónicas. Los hallazgos de esta pesquisa pueden ayudar y orientar las acciones de salud dirigidas a esta población marginada.

**Palabras clave:** Personas sin hogar; Epidemiología; Salud mental; Salud de la mujer; Prevalencia.

## INTRODUCTION

The homeless population derives from the difficulties faced in the urbanization process and from the inability of public policies to cover all their needs. To belong to this segment of society is to be subject to marginalization and social vulnerability. In the street context, the social determinants of health (SDH), which consider social, economic, cultural, ethnic, gender, psychological, and behavioral factors, are strongly linked to the occurrence of health problems and, consequently, are risk factors in this population. There are high rates of clinical comorbidities, with a direct contribution to a greater risk of morbidity and mortality.<sup>1</sup> It is estimated that homeless individuals have an average life expectancy between 42 and 52 years, an undeniably lower number compared to the 76.6 years estimated for the general Brazilian population.<sup>2,3</sup>

The helplessness of access to health by these individuals causes their search to occur through emergencies and acute conditions,<sup>2</sup> contributing to a decrease in care and quality of life. In addition to the deficit in health, education, income, and life span, such individuals, when compared to the standard of society, have a high incidence of infectious diseases, metabolic disorders, parasitic, dermatological, ophthalmological, cardiovascular, pulmonary, digestive, and musculoskeletal diseases.<sup>1,2,4-11</sup> An example is the high risk of tuberculosis, described as up to 48 times more frequent in this group than in the general population.<sup>4,5</sup> The prevalence of unsuccessful treatments is also high in this population, having as predictors drug use, advancing age and co-infection with the human immunodeficiency virus (HIV).<sup>5</sup>

The homeless population also suffers from mental and psychiatric illnesses, such as schizophrenia, depression, and personality disorders, generated, in large part, by the use of legal and/or illegal substances.<sup>1,2</sup> There is also homelessness as a risk factor for violence, trauma, and burns,<sup>2,10</sup> which reinforces the situation of vulnerability and marginalization of this group.

Voluntary initiatives, civil society associations, and non-profit non-governmental organizations (NGOs) working to improve the health of the homeless can play an important role in approaches to promoting and accessing basic health care. Although Brazil has an effective Unified Health System (*Sistema Único de Saúde* – SUS) and the Street Clinics strategy (*estratégia Consultórios de Rua* – eCR) established in the National Primary Care Policy (*Política Nacional de Atenção Básica* – PNAB) in 2011, reorganized as a team composition in 2021 by the Ministry of Health and with guaranteeing free care to the entire population, the proximity with which these voluntary organizations provide their assistance, often in events aimed at integrative actions, can improve the connection with more vulnerable individuals by removing barriers such as discrimination and stigma.

Although it is possible to find several Brazilian studies that describe sociodemographic data of the homeless population in different regions of the country, information on the clinical health profile is necessary so that public health initiatives and strategies can be adapted to the needs of this group of individuals.

In this scenario, the present study aimed to map the clinical profile of the homeless population assisted by *Associação Médicos do Mundo*, Curitiba, Paraná (PR), branch, during a complete year of its activities.

## Study environment

*Associação Médicos do Mundo*, originally established in the city of São Paulo, São Paulo (SP), emerged due to the growth of the homeless population and its high demand for assistance with different approaches: health, legal, social, and others. The activities of the Curitiba (PR) branch began in June 2018. According to data from the Ministry of Social Development, 2,310 homeless people were registered in Curitiba (PR) in 2019. The actions take place monthly at *Praça Tiradentes*, in the center of the city, where several services are available, including those aimed at prevention and health promotion in the areas of medicine, dentistry, nursing, nutrition, psychology, pharmacy, biomedicine, and physiotherapy. All service is carried out with previously registered and trained volunteers. Qualified and active professionals and academics from the most varied courses in the health area are part of it. For all care provided, a clinical record is generated to monitor the individual, who can participate in the monthly actions and go through all the sectors offered by the association.

## METHODS

This is a descriptive, observational, documentary-based study, prepared with data contained in the clinical records of homeless individuals treated by the *Associação Médicos do Mundo* branch of Curitiba (PR), in 2019. The perspective of a full year of medical care allowed the broad description and evaluation of the clinical profile of the beneficiaries.

The records of individuals aged 18 years old or older, who had their first medical care by the association in 2019, were included, that is, all new care provided in the year. The records excluded from the study were those of minors, even if accompanied by a legal guardian during the service; of individuals who sought some other type of non-medical service; incomplete records; and individuals who were already under medical care since the previous year.

Descriptive statistics were used for data analysis, illustrated by graphics and tables to structure the clinical profile obtained. Data variables included health complaints, associated symptoms, chronic diseases, past medical history, among others. Statistical comparisons, when possible, were performed using the prevalence coefficient (PC) and Pearson's  $\chi^2$  test. The analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 20.

This research was submitted and approved by the Research Ethics Committee of *Faculdade Pequeno Príncipe*, on June 17<sup>th</sup>, 2020, under Opinion No. 4.093.022.

## RESULTS

509 clinical records were analyzed. The PC resulted in 220.3 consultations performed in the period studied for every thousand homeless people in Curitiba. The mean age of individuals was 36 to 45 years (PC=69.7/1,000), with a predominance of males (PC=187.4/1,000), and white ethnicity (PC=116.5/1,000). In terms of schooling, there was a prevalence of people with elementary education (CP=98.3/1,000) and who had been homeless for less than a year (CP=199.9/1,000). Other sociodemographic data are summarized in Table 1.

Among the main health complaints that led homeless individuals to seek medical care, pain was the most mentioned for 45.19% or 230 of them, confirmed by the PC in relation to the total number of homeless people (PC=99.6/1,000). Skin lesions and ophthalmologic complaints ranked second and third, respectively. Among the identified chronic diseases, systemic arterial hypertension (SAH) prevailed in 9.03% of the population (PC=32.5/1,000) (Table 2).

There are records of previous involvement by sexually transmitted infections (STIs) and tuberculosis, acute myocardial infarction, stroke, among others with fewer reports. A high prevalence of trauma was also observed, with more than half of the individuals (59%; 300) reporting a positive history for this condition (Graphic 1).

### Cardiovascular health

Blood pressure values measured at the time of care showed that more than 35% of individuals meet the stage II SAH criterion; about 30% in stage I SAH; and less than 25% were considered normotensive (Table 3 and Graphic 2).<sup>12</sup> The total PC confirms the finding for the 2,310 homeless people in Curitiba, resulting in 145 per thousand. In addition, a correlation was found between SAH

**Table 1.** Sociodemographic profile of the homeless population of Curitiba, Paraná, assisted by the actions of *Associação Médicos do Mundo* in 2019.

Characteristic	n (%)	PC/1,000 homeless individuals (n=2,310)
Age (age range in years)		
18–25	59 (11.59)	25.5
26–35	133 (26.13)	57.6
36–45	161 (31.63)	69.7
46–60	131 (25.74)	56.7
>60	24 (4.72)	10.4
Unable to inform	1 (0.20)	0.4
Gender		
Male	433 (85.07)	187.4
Female	70 (13.75)	30.3
Other	6 (1.18)	2.6
Ethnicity		
White	269 (52.85)	116.5
Brown	164 (32.22)	71.0
Black	52 (10.22)	22.5
Indigenous	8 (1.57)	3.5
Yellow	5 (0.98)	2.2
Not informed	11 (2.16)	4.8
Education		
Illiterate	22 (4.32)	9.5
Elementary/Middle school	227 (44.60)	98.3
High school	187 (36.74)	81.0
Higher education	34 (6.68)	14.7
Technical education	14 (2.75)	6.1
Just literate	17 (3.34)	7.4
Not informed	8 (1.57)	3.5
Time living on the streets (years)		
Less than 1	277 (54.42)	119.9
From 1 to 2	77 (15.13)	33.3
From 3 to 5	34 (6.68)	14.7
More than 5	110 (21.61)	47.6
Not informed	11 (2.16)	4.8

PC: prevalence coefficient.

and continuous use medications, with Pearson's  $\chi^2$  value of 0.001. No correlation was found between SAH, drug use, and gender.

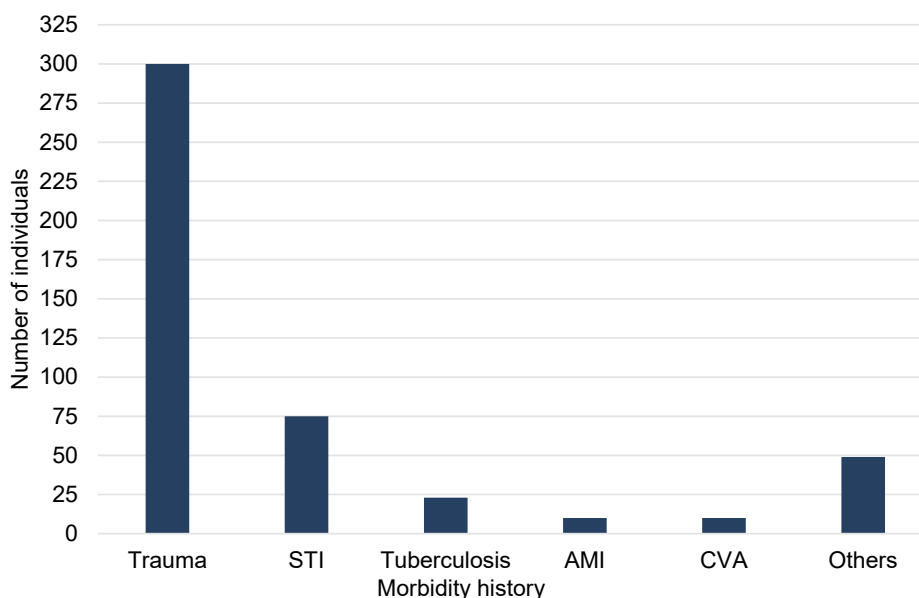
## Mental health

Complaints related to mental health that motivated the search for medical help were present in 45 records (Table 4). Only five of these individuals reported using psychotropic medications, although, when

**Table 2.** Distribution of data regarding health complaints, associated symptoms and chronic diseases of homeless individuals who sought the services of *Associação Médicos do Mundo* in 2019.

Main health complaints	n (%)	PC/1,000 homeless individuals (n=2,310)
Pain	230 (45.19)	99.6
Skin lesion	80 (15.71)	34.6
Ophthalmological complaints	34 (6.68)	14.7
Cough	30 (5.89)	13.0
Psychological complaints	26 (5.11)	11.3
Dyspnea	19 (3.73)	8.2
Chemical addiction	19 (3.73)	8.2
Itching	18 (3.53)	7.8
Hypertension	16 (3.14)	6.9
Malaise	15 (2.95)	6.5
Chronic diseases		
Systemic arterial hypertension	75 (9.03)	32.5
HIV/AIDS	18 (3.53)	7.8
Diabetes <i>mellitus</i>	18 (3.53)	7.8
Chronic obstructive pulmonary disease	12 (2.36)	5.2
Asthma	11 (2.16)	4.8
Hypothyroidism	8 (1.57)	3.5
Chronic kidney failure and other nephropathies	4 (0.78)	1.7
Congestive heart failure	3 (0.59)	1.3
Arthrosis	3 (0.59)	1.3
Anxiety	3 (0.59)	1.3

PC: prevalence coefficient.



STI: sexually transmitted infections; AMI: acute myocardial infarction; CVA: cerebrovascular accident. The following were cited as "others": pneumonia, cancers, asthma, dengue, anemia, cholelithiasis, hernias, meningitis, nephrolithiasis, ulcers, among others.

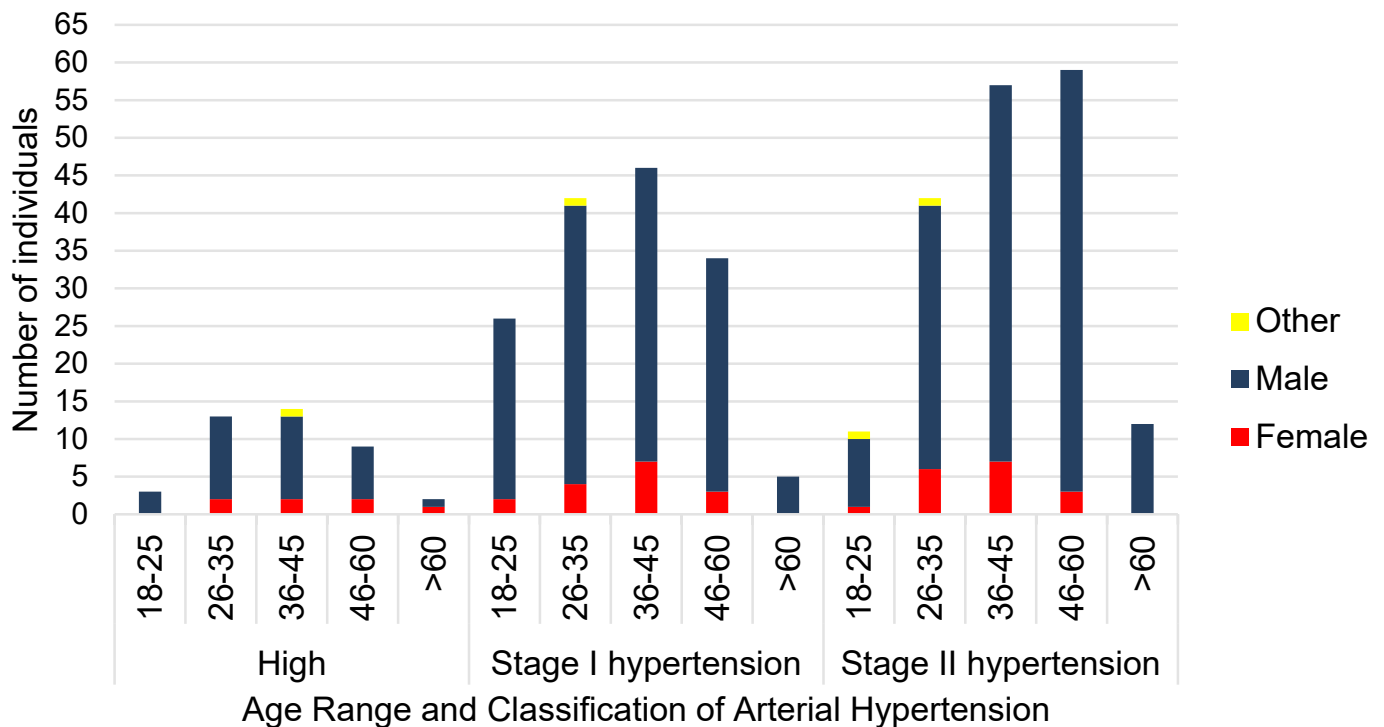
**Graphic 1.** Previous morbid history prevalent in homeless individuals in Curitiba, Paraná.

**Table 3.** Relationship of blood pressure measurement in actions and statistical correlations with other variables.

Blood pressure	n (%)	PC/1,000 homeless individuals (n=2,310)
Normotension	126 (24.75)	54.5
High blood pressure	41 (8.06)	17.7
stage I SAH	154 (30.26)	66.7
stage II SAH	181 (35.56)	78.4
Not informed	7 (1.38)	3.0
Correlated variables	X <sup>2</sup>	
SAH and continuous use medications	0.001	
SAH and substance use	0.151	
SAH and gender	0.085	

PC: prevalence coefficient; SAH: systemic arterial hypertension.

Although the parameters were updated in 2020, the values were classified according to the recommendations of the American Heart Association,<sup>12</sup> since the guideline was updated at the time of collection: normotension (systolic blood pressure <120 mmHg or diastolic blood pressure <80 mmHg), high blood pressure (systolic blood pressure between 120 and 129 mmHg and diastolic blood pressure <80 mmHg), stage I hypertension (systolic blood pressure between 130 and 139 mmHg or diastolic blood pressure between 80 and 89 mmHg), and stage II hypertension (blood pressure systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg).



The blood pressure classification was based on the classification recommended by the American Heart Association,<sup>12</sup> as it was the updated guideline at the time of collection, as commented in the caption of Table 3.

**Graphic 2.** Cardiovascular health profile of homeless individuals in Curitiba, Paraná, assisted by Associação Médicos do Mundo in 2019.

**Table 4.** Profile of homeless individuals with complaints related to mental health attended by *Associação Médicos do Mundo* in 2019.

Characteristics	n (%)	PC/100 homeless individuals included in the survey (n=509)
Gender		
Female	2 (4.44)	2.9
Male	42 (93.33)	9.7
Others	1 (2.22)	16.7
Age (age range in years)		
18–25	8 (17.78)	13.6
26–35	10 (22.22)	7.5
36–45	11 (24.44)	6.8
46–60	15 (33.33)	11.5
>60	1 (2.22)	4.2
Use of legal and/or illegal substances		
Yes	39 (86.67)	7.7
No	6 (13.33)	1.2
Mental health complaints		
Abstinence	1 (2.22)	0.2
Anxiety	3 (6.66)	0.6
Chemical addiction	19 (42.22)	3.7
Depression	2 (4.44)	0.4
Insomnia	2 (4.44)	0.4
Nervousness	1 (2.22)	0.2
Psychological complaints	20 (44.44)	3.9

evaluating data regarding medications of continuous use by individuals who did not report any problems related to mental health, this number increased to 53 individuals.

In view of the specific sample of the study, in the analysis of the PC (per 100 people), the male gender prevailed (9.7/100) and the most vulnerable age group was 18 to 25 years old (13.6/100). Among the mental health cases treated, the prevalence of the use of licit and/or illicit substances, whose need is felt due to complaints related to chemical dependence and other psychological complaints, stands out.

Of the 39 individuals who reported regular use of licit or illicit substances, eight reported consuming only one substance in isolation; 13 claimed to use two drugs; seven, use of three drugs; and 11, four or more drugs simultaneously. The substances mentioned were alcohol (87.18%), cigarettes (76.92%), cocaine (28.20%), crack (43.59%), ecstasy (5.13%), popper/glue (5.13%), LSD (7.69%), and marijuana (35.90%). No statistical correlation was found between mental health complaints and substance use ( $\chi^2=1,870$ ).

## Women's health

Of the 509 individuals assisted, 70 (13.75%) self-declared as female, representing 30% of the total number of homeless women in the city of Curitiba. About 70% of these women reported being users of licit or illicit substances. Continuous use medications were mentioned by almost half of them, the main ones being: psychotropic, anti-inflammatory/analgesic and antihypertensive. The use of contraceptives was



reported by only 13 women and, in other 33 clinical records, this information was absent. The complaints that most led to seeking care were pain and dysuria, and the main chronic diseases were SAH and hypothyroidism. Trauma history was also prevalent for this group. Data concerning gynecological health show that 10% of women had had their last gynecological exam more than two years ago and almost 9% did not remember when they had performed it. Table 5 presents the complete profile of data related to women's health.

**Table 5.** Profile of homeless women assisted by *Associação Médicos do Mundo* in 2019.

Characteristics	n (%)	PC/100 homeless women (n=231)
Age (age range in years)		
18–25	11 (15.71)	4.8
26–35	18 (25.71)	7.8
36–45	25 (35.71)	10.8
46–60	14 (20.00)	6.1
60+	2 (2.86)	0.9
Ethnicity		
White	40 (57.14)	17.3
Indigenous	2 (2.86)	0.9
Not informed	1 (1.43)	0.4
Black	3 (4.29)	1.3
Brown	24 (34.29)	10.4
Time living on the streets (in years)		
Less than 1	42 (60.00)	18.2
From 1 to 2	9 (12.86)	3.9
From 3 to 5	4 (5.71)	1.7
More than 5	10 (14.29)	4.3
Not informed	5 (7.14)	2.2
Education		
Illiterate	5 (7.14)	2.2
Elementary/Middle school	29 (41.43)	12.6
High school	22 (32.43)	9.5
Higher education	9 (12.86)	3.9
Technical education	2 (2.86)	0.9
Not informed	1 (1.43)	0.4
Only knows how to read and write	2 (2.86)	0.9
Use of legal and/or illegal substances		
Yes	45 (64.29)	19.5
No	24 (34.29)	10.4
Missing data	1 (1.43)	0.4
Chronic use of medications		
Psychotropics	12 (17.14)	5.2
Anti-inflammatories and analgesics	10 (14.29)	4.3
Antihypertensives	5 (7.14)	2.2
Bronchodilators	5 (7.14)	2.2
Others	16 (22.86)	6.9

Continue...

**Table 5.** Continuation.

Characteristics	n (%)	PC/100 homeless women (n=231)
Use of contraceptives		
Yes	13 (18.57)	5.6
No	24 (34.29)	10.4
Missing data	33 (47.14)	14.3
Chronic diseases		
Systemic arterial hypertension	10 (14.29)	4.3
Hypothyroidism	5 (7.14)	2.2
Asthma	3 (4.28)	1.3
Depression	3 (4.28)	1.3
Diabetes <i>mellitus</i>	3 (4.28)	1.3
HIV/AIDS	3 (4.28)	1.3
Others	11 (15.71)	4.8
Trauma history		
Yes	39 (55.71)	16.9
No	29 (41.43)	12.6
Missing data	2 (2.86)	0.9
Main complaints		
Pain	37 (52.86)	16.0
Dysuria	5 (7.14)	2.2
Ophthalmological complaints	4 (5.71)	1.7
Edema	4 (5.71)	1.7
Vomiting/nausea	4 (5.71)	1.7
Disease history		
STI	14 (20.00)	6.1
CVA	2 (2.86)	0.9
Cholelithiasis	2 (2.86)	0.9
Tuberculosis	2 (2.86)	0.9
Gynecological health		
Regular cycle	24 (34.29)	10.4
Irregular cycle	13 (18.57)	5.6
Menopause	10 (14.29)	4.3
Missing data	23 (23.86)	10.0
Last gynecological exam		
Last month	4 (5.71)	1.7
Between 1 and 6 months	5 (7.14)	2.2
Between 6 and 12 months	12 (17.14)	5.2
Between 1 and 2 years	6 (8.57)	2.6
More than 2 years ago	7 (10.00)	3.0
Does not recall	6 (8.57)	2.6
Never	1 (1.43)	0.4
Missing data	29 (41.43)	12.6

PC: prevalence coefficient; STI: sexually transmitted infections; CVA: cerebrovascular accident.

In addition to the 70 records aimed at the female gender and, therefore, capable of constituting an analysis of women's health, another six participants were classified as transgender and transsexual. Regarding their health, a percentage of 50% of substance use/abuse was obtained, with cigarettes being the most used, followed by marijuana, alcohol, and crack. Of the total, two individuals reported using continuous medication (psychotropic drugs and hormone replacement). The clinical complaints that motivated these individuals to seek medical attention were pain (66.66%), inflammation, psychological complaints, and otorrhea.

## DISCUSSION

The present study aimed to map the clinical profile of the homeless population served by the *Associação Médicos do Mundo* branch of Curitiba (PR), Brazil, during a complete year of its activities.

Regarding the sociodemographic profile, the homeless population of the capital of Paraná was predominantly male, with a mean age between 36 and 45 years and white ethnicity. The available Brazilian literature shows some uniformity in terms of gender<sup>1,2,5-7,10,11,13</sup> and agrees that the majority are adults,<sup>9-11</sup> although some studies disagree as to the age group, citing the 24 to 53.3 years age range.<sup>2,4-9,11,14</sup> Research from other countries, as well as from other Brazilian states, point to a non-white predominance of this population.<sup>1,7,11,14-16</sup> Therefore, although the data from the sociodemographic profile points out in this study to the predominance of whites in the homeless population, this must be balanced equally with data from the 2010 Census, in which 19.7% of the population of the capital of Paraná declared themselves to be brown and black.

The main clinical complaint motivating the demand for voluntary medical assistance was pain. Campos et al.,<sup>17</sup> in their specific study on the presence of this symptom in the homeless population, reported severe pain in 61.2%, and musculoskeletal pain was the most common one. Of the affected individuals, 64.6% did not receive specific treatment for pain, despite reporting medical care as an improvement factor for the complaint, in addition to the use of alcohol and drugs.

Regarding complaints of skin lesions, our findings (15.71%) were lower when compared to other studies, which indicated high involvement by skin disorders in the individuals in question.<sup>2,17,18</sup> The Portuguese study by Fernandes et al.<sup>18</sup> pointed out the prevalence of dermatoses in 86.5% of the consultations. The main ones reported were *tinea pedis*, onychomycosis, seborrheic dermatitis, and eczema. Likewise, the review by Fleisch and Nash<sup>19</sup> found a high prevalence of *tinea pedis* compared to the general population and indicated the lack of access to baths and clean socks as a causal factor.

The ophthalmological complaints obtained (6.68%) were also lower than the values presented in the literature, which ranged from 41 to 44% in the studies by Jiang et al.<sup>11</sup> and Fleisch and Nash,<sup>19</sup> respectively. According to the first, the main diagnoses were cataract (10.4%), suspected glaucoma (9.8%), corneal pathologies (4.2%), ocular trauma (3.5%), and retinopathy (3.5%). Fleisch and Nash<sup>19</sup> emphasize the need for glasses (41%) and the importance of low visual acuity in the morbidity of these patients, causing increased risk of trauma and violence, inability to obtain food and shelter and difficulty in employability.

Sexually transmitted infections also make up the pathological burden of this public; some studies indicate involvement and history of up to 34%. The review by Caccamo et al.<sup>20</sup> points to infection by *Chlamydia sp.* as the most frequent (2.8 to 18.3%), followed by gonorrhea (0.4 to 24.9%), herpes (1.1 to 11.8%), hepatitis B (1.42 to 17%), and C (3.77 to 12%), syphilis (0.2 to 3.5%), and genital warts (3.5%). In addition, the study also exposed a higher percentage of women who reported infection compared to men (19.1 and 1.9%). This study pointed to older age, sexual engagement with multiple partners, and sexual orientation as predictors of infection.

Tuberculosis, another important predictor of morbidity, had its previous involvement pointed out by 25 individuals, and cough was present as the cause of 5.89% of the care provided. The first is a common finding in the literature,<sup>5,10,21</sup> with a 20% greater preponderance in this category compared to the general population, with greater involvement by the pulmonary form of the disease and lower treatment rates.<sup>21</sup>

Trauma history was an important report, present in approximately 60% of the patients seen. Research by Rosendale et al.<sup>22</sup> and Stubbs et al.<sup>23</sup> showed the importance of trauma in these patients, with traumatic brain injury (TBI) being pointed out as one of the main causes of hospitalization in the homeless population, with a prevalence of 22.5 % in the course of life. Another interesting fact is that the increase in trauma episodes with age was related to the deterioration of physical and mental health and a greater share of those affected in the group in question.

Despite the fact that 9.03% of the individuals assisted reported having the diagnosis of SAH as a chronic condition, data from the measurement of blood pressure at the time of consultations showed a high rate of individuals with this increased parameter. This finding agrees with the tendency of the homeless population to be impacted by cardiovascular diseases.<sup>19,24,25</sup> Palmer<sup>25</sup> exposes in his systematic review that this population has a three times greater risk of being affected by cardiovascular diseases and even mortality caused by them. Fleisch and Nash<sup>19</sup> presented as causative factors for the situation the unbalanced diet, obesity, and drug use and correlated them inversely with the socioeconomic status and the mortality rate from cardiovascular diseases in these individuals.

Although in this study, complaints related to mental health were indicated as the cause of only 8.84% of visits, the literature is unanimous about the high involvement of these individuals by psychiatric problems, reaching rates of up to 77.5%.<sup>2,10,14,26</sup> According to the review by Schreiter et al.,<sup>26</sup> 61% of the mental illnesses that afflict these individuals are related to the use of substances, especially alcohol (55.4%) and other drugs (13.9%). Other studies also point to the presence of depression and suicidal ideation, anxiety, personality disorders, and affective and psychotic illnesses.<sup>10,14,26</sup>

There are few works in the literature that address the health of homeless women. Our results showed that 64.29% of the women were active regarding the use/abuse of licit substances. It was possible to compare this information with the findings of the Spanish study by Guillén et al.,<sup>27</sup> which showed a prevalence of use of 83.3% in the month prior to the survey. The use of contraceptives was addressed in a Scottish study carried out by Hawkins and Montague-Johnstone,<sup>28</sup> which found 43% of women using some contraceptive method, a higher percentage than that found in our population (18.57%). The main chronic diseases described in our research were similar to those found in the literature.<sup>29,30</sup> Some studies indicate greater HIV/AIDS involvement than those found by us, as is the case of Doran et al.,<sup>30</sup> in which 50.7 % of women participating in the survey were affected by the comorbidity. The high level of pain involvement found both in the general street population and in women was also mentioned by this study, in which 79.3% of the women suffered from pain that limited their activities. Regarding the performance of the last gynecological examination, an American investigation observed that 69.2% of the participating women had had a gynecological examination in the last year, a much higher figure compared to the 30% found in our study population.

## CONCLUSION

The present research shows a deficiency, in the official health system, in assistance to the homeless population, which ends up being supplied by non-governmental organizations. This shows that this

population ends up being violated in the face of non-compliance with their right to health, both in terms of their individual right and in the macropolitical sphere. Voluntary actions are satisfactorily complementary, but not a substitute for public policies.

It is also considered that the profile of homeless individuals in the capital of Paraná does not vary much from that revealed in other regions of Brazil and even in other countries, if interpreted locally. However, comparing such numbers without taking into account the historical contexts of each region and its migratory process can mask reality.

The clinical profile of homeless individuals assisted by *Associação Médicos do Mundo*, Curitiba (PR) branch, showed significant rates of pain, skin lesions, and ophthalmological problems. Stages I and II of SAH and complaints related to mental health were also present. Finally, this study adds to one of the few available in the literature that brings the health profile of homeless women in Brazil. With this, it is expected that our data can help and direct more health actions aimed at the population in question.

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## CONFLICT OF INTERESTS

Nothing to declare.

## AUTHORS' CONTRIBUTIONS

**RSG:** Project administration, Formal analysis, Conceptualization, Data curation, Writing – original draft, Investigation, Methodology, Visualization. **LCLP:** Data curation, Writing – original draft, Visualization. **RS:** Writing – review & editing, Supervision, Validation, Visualization. **LR:** Writing – review & editing, Methodology, Visualization. **LCS:** Writing – review & editing, Methodology, Visualization. **FBC:** Project administration, Formal analysis, Conceptualization, Writing – review & editing, Methodology, Supervision, Validation, Visualization.

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