

# KNOWLEDGE OF THE POPULATION SERVED BY BASIC HEALTH UNITS IN THE NORTHEAST REGION OF ANÁPOLIS, GOIÁS, ABOUT SYPHILIS

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## ABSTRACT

Brazil is experiencing a syphilis epidemic with a growing number of cases. Therefore, the challenge of identifying, treating, and guiding the population to adopt preventive measures is one of the priorities for public health. Thus, this study evaluated the level of knowledge about syphilis in the population served by Basic Health Units (BHUs) in the northeastern region of Anápolis, Goiás. This is an observational, cross-sectional, and descriptive study in which a questionnaire was administered to individuals seeking care at the BHUs during 2023, and an informational booklet was provided. Data from 45 participants were collected, of whom 51.11% were female, 42.22% were married, and 48.89% had a high school education. Regarding knowledge, 71.11% stated that they knew what syphilis is. As for the etiological agent of the disease, 31.11% responded that syphilis is caused by bacteria. Regarding transmission, 82.2% responded that it is transmitted through sexual contact. It was concluded that the majority of study participants were women between the ages of 18 and 39. Most were incorrect about the etiological agent, but they were correct about the mode of transmission. Furthermore, most correctly identified the initial clinical manifestation of the disease and recognized that the main method of prevention is the use of condoms (84.44%). However, when analyzing risk behavior, 6.67% of the sample had sexual relations with non-steady partners in the last six months, of which 33.33% did not use condoms. Accordingly, this study may contribute to more targeted health promotion interventions in this region, aiming to disseminate knowledge to this population.

**Keywords:** Sexually Transmitted Infections; *Treponema pallidum*; Public Health.

## INTRODUCTION

Syphilis is a sexually transmitted infection (STI) that is bacterial and systemic, caused by the etiological agent *Treponema pallidum*. Its most common mode of transmission is sexual contact, which is the most common route; however, it can also be transmitted vertically or through blood transfusion (BRASIL, 2021a). It should be noted that infection with this bacterium does not confer protective immunity to the individual (BRAZIL, 2021b).

Syphilis has clinical manifestations and different stages, classified as primary, secondary, latent, and tertiary syphilis. Diagnosis requires correlation between clinical data and laboratory tests.

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The presence of signs and symptoms compatible with syphilis facilitates clinical suspicion, but there are no pathognomonic signs or symptoms. It is evident that syphilis is a notifiable disease in Brazil. However, underreporting is still prevalent, with implications for epidemiology (BRASIL, 2022a). In 2018, 13,328 cases of acquired syphilis were reported. Given these facts, in 2016, health authorities recognized that Brazil is experiencing an epidemic (CALDEIRA *et al.*, 2022).

When analyzing epidemiological data on syphilis, there has been an increase in the number of cases in Anápolis, Goiás (BRAZIL, 2022b). Given this, this research is justified, since there are no studies on this topic that associate the increase in the number of cases with the knowledge of the population of Anápolis, which could inform projects and public policies in the city. Thus, the objective is to determine the level of knowledge about syphilis among the population served by Basic Health Units (UBS) in Anápolis-GO.

## **METHODOLOGY**

This is an observational, cross-sectional, and descriptive study in which a questionnaire was applied to allow an objective assessment of knowledge about syphilis in the study population.

The study was conducted in selected UBSs from a list of health regions in Anápolis, Goiás, provided by the Municipal Health Secretariat (SEMUSA). According to the list, the selected UBSs in the northeast region were: USF Santos Dumont, USF Filostro, USF Santa Maria, and USF Santa Isabel. In addition, an informational booklet on syphilis was made available to all participants. A total of 202 questionnaires were analyzed, of which 45 correspond to the northeast region, which was surveyed.

The results were presented by descriptive statistics, using simple frequency and percentage, and calculated with the Statistical Package for Social Sciences (SPSS 21.0). Prevalences were compared using the Chi-square test, and regional scores were analyzed with the Tukey test, adopting a significance level of  $p < 0.05$ . The knowledge level of the study population was stratified into high (more than 16 points), moderate (between 11 and 15 points), and low (less than 10 points) using a numerical score. This study followed all the standards established by Resolution 466/2012 of the National Health Council.

This work was submitted to the Ethics and Research Committee of UniEVANGÉLICA and received approval (CAAE: 69878623.4.0000.5076).

## RESULTS

When analyzing the sociodemographic profile of the northeastern region of Anápolis, it can be observed that the majority is represented by women, accounting for 51.11%, with a predominant age group between 30-39 years and 50-59 years. Most of the sample self-identifies as mixed race, and in terms of marital status, 42.22% are married and 48.89% have a high school education. Finally, the majority's income is equivalent to one minimum wage. Regarding the participants' knowledge of syphilis, 71.11% said they knew what syphilis is. Of these, 59.38% were male. As for the etiological agent of the disease, 40% responded that syphilis is caused by a virus, compared to 31.11% who answered correctly by selecting the option "bacteria." Regarding transmission, sexual contact was the most voted item (82.2%), of which 54.05% were female. Regarding forms of prevention, the most selected option was "always use a condom," chosen by 84.44% of participants, 52.63% of whom were female.

Regarding clinical manifestations, only 6.67% of participants correctly identified all the correct alternatives: fever and weakness, lesions near the genitals, painless lesions in the mouth and/or genital region, and lesions on the feet and hands. Of these, the most frequently selected was "lesions near the genitals" (64.44%), which is the initial manifestation of the disease.

Regarding the sexual behavior of the population in the Northeast region, 82.22% of participants reported being heterosexual. When asked about sexual relations in the last six months, 73.33% reported having relations with regular partners, of which 66.67% did not use condoms. Meanwhile, 6.67% of the sample reported having sexual relations with non-steady partners in the last six months, and of these, 33.33% did not use condoms (Table 1).

**Table 1.** Sexual behavior of the study population. Anápolis, GO, 2023 (n=45).

Questions and Answers	n
<b>Sexual orientation</b>	
Asexual	0
Heterosexual	37 (82.22)
Homosexual	02 (04.44)
Bisexual	01 (2.22)
Transsexual	0
al Don't know	05
<b>About sexual partners</b>	

One steady partner	34 (75.56)
More than one partner	01 (02.22)
I do not have sexual relations	10 (22.22)

**Sexual relations with a steady partner in the last 6 months**

Yes	33
No	12

=n = simple frequenc= ; % = percentage. Source: Authors (2024).

The knowledge of the region's population was also analyzed using the score and the results were correlated with the sociodemographic profile (Table 2). Thus, there was a clear dominance of scores between men and women. When analyzing the age group with the lowest scores, it was 51 years or older (63.15%), and those who scored 16 points or more were individuals between 41 and 50 years old (20%). Most of those who scored between 11 and 15 points had elementary school education. In addition, it is worth noting that the highest score (18 points) was obtained by an individual with higher education.

**Table 2.** Correlation between knowledge and sociodemographic profile Anápolis, GO, 2023 (n=45).

	CLASSIFICATION BASED ON SCORE		
	Up to 10 points n	11 to 15 points n	16 points or more n (%)
<b>Gender</b>			
Male	10	10	02 (09.10)
Female	11	11	01 (04.36)
<b>Age</b>			
18	0	0	0
21	05 (62.50)	03 (37.50)	0
31	02 (22.22)	06	01 (11.11)
41	0	04 (80.00)	01 (20.00)
51	12 (63.15)	06 (31.57)	01 (05.28)
<b>Education</b>			
Illiterate	0	0	0
Elementary	04	05	0
High School	12	09	01 (04.54)
Higher Education	04	07	0

n= simple frequency; %= percentage. Source: Authors (2024).

### CONCLUSION

It was concluded that most of the respondents were women, aged between 18 and 39, mixed race, heterosexual, married, with high school education. Regarding the population's level of knowledge about syphilis, most participants were unable to identify the etiological agent of the disease. However, most correctly identified sexual contact as the main form of transmission. In addition, it was also possible to observe that most respondents were aware of the primary clinical manifestation of the disease and understood that the main form of prevention is through the use of condoms, confirming the relationship between knowledge and the minimization of risky behaviors. It is also noteworthy that there was a clear dominance of scores when comparing men and women.

The respondents who had the most knowledge were the youngest, as well as those who had completed elementary school.

It is worth noting that this study can help develop more specific health promotion interventions for this region, with the aim of disseminating knowledge locally in order to change the population's knowledge about this disease, which is so prevalent in the city.

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