

## The screening and control of sexually transmitted infections in the brazilian territory: A narrative literature review



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### ABSTRACT

Sexually Transmitted Infections (STIs) continue to be a noteworthy concern for public health in Brazil, despite endeavors to manage them. The Notifiable Diseases Information System (SINAN) assumes a central role in the registration and monitoring of these infections, but challenges endure. Additionally, not all STIs are subject to mandatory reporting, and there is underreporting and instances of patients who do not seek healthcare facilities promptly, resulting in substantial costs for the Unified Health System. The objective of this study was to converse about the screening and control of Sexually Transmitted Infections in Brazil. It is a narrative literature review, the results and discussion of which illustrate that educational strategies play a fundamental role in altering risk behaviors across different age groups. Nevertheless, the effective implementation of public prevention policies for STIs hinges on the awareness and continuous training of the multidisciplinary team, particularly Primary Health Care teams. Public policies encompass the promotion of vaccination against HPV and viral hepatitis, the dissemination of health information, and access to tests and treatments. Despite the presence of policies and initiatives concentrated on STIs, the numbers disclose the ongoing significance of prevention and health education strategies. STIs exert a significant impact on socioeconomic indicators, notably affecting vulnerable populations. Hence, the diagnosis, treatment, and public awareness of these infections persist as priorities. The multiprofessional Primary Health Care team plays a fundamental role in the screening, diagnosis, and treatment of STIs, and health education plays a pivotal role in reducing transmission.

**Keywords:** Sexually Transmitted Infections, Primary Health Care, Primary Care, Multidisciplinary Team.



## 1 INTRODUCTION

Sexually Transmitted Infections (STIs) are diseases caused by microorganisms (bacteria, viruses, fungi), which are transmitted through unprotected sexual contact with infected people (DOMINGUES, 2020). Among the symptoms of manifestations of some STIs, we can mention the manifestations through abnormal secretions, lesions in the genital or anal region. Some examples of STIs are: genital herpes, syphilis, gonorrhea, and human papillomavirus (HPV) infection, other examples, which are notifiable, are viral hepatitis, human immunodeficiency virus (HIV) infection, congenital syphilis, and gestational syphilis (HERNANDES, 2019). The Notifiable Diseases Information System (SINAN) is the system used for the proper registration of infections performed by professionals, developed by the Brazilian Ministry of Health (PIMENTEL, 2020).

If left untreated, or inadequately treated, STIs can develop complications such as infertility, cancers, Pelvic Inflammatory Disease (PID) and congenital infections, among other consequences, which is a serious public health problem in the country, generating a high cost to the Unified Health System (SUS) (SCOTINI, 2023). Authors such as Andrade, 2022, point out that health promotion through educational strategies plays a crucial role in addressing STI prevention, improving quality of life, encouraging self-care, promoting a healthy sex life, and modifying risk behaviors in various age groups, including youth, adults, and the elderly. In this sense, public policies focused on the prevention and treatment of STIs are extremely valuable, but if the multidisciplinary team is not sensitized and trained, the implementation and maintenance of these policies will not influence the incidence and prevalence of STIs. One of the support mechanisms for prevention and low-cost early treatment is rapid tests for STIs, which include Syphilis, Hepatitis B and C, and HIV, however, the mere existence of these and other tests is not effective if professionals are not trained (DA FONSECA, 2023).

## 2 METHODOLOGY

It is a narrative research with a qualitative approach, which makes it possible to synthesize knowledge, characterizing productions on a given subject (SANCHES, 2021). Extensive publications, appropriate to describe and discuss the development or the "state of the art", were used. The present study was carried out in the second half of 2023, and the survey of theoretical references was based on the delimitation of the problem to be studied, that is: what exists in the literature about the screening and control of Sexually Transmitted Infections in Brazil?

Data collection consisted of the selection of national theoretical references related to the theme. The Scielo database (Scientific electronic library online) and the LILACS database (Latin American Literature and VHL) were used, including the descriptors duly registered in the DecS: Sexually Transmitted Infections, Primary Health Care, First Level of Health Care, Multiprofessional Team. The inclusion factors were articles published in a journal without Portuguese, available in full online and



no more than five years old. The exclusion factors were manuals, books and works that did not fit the theme.

### 3 RESULTS AND DISCUSSION

#### 3.1 EPIDEMIOLOGY AND HISTORY OF SEXUALLY TRANSMITTED INFECTIONS

Since the creation of the National STD/AIDS Program in 1986, over the decades, several policies and initiatives related to Sexually Transmitted Infections (STIs) have been implemented, as already mentioned. The launch of the First Clinical Protocol and Therapeutic Guidelines (PCDT) for comprehensive care for people with STIs was a milestone in the history of the fight against STIs in the country. In addition, in 2015, there was an expansion and update of the SenGono Project, which evaluated the resistance of gonococci to antibiotics. In 2016, a collaboration was established with the Federal Council of Nursing (Cofen) to carry out rapid tests for HIV, syphilis and viral hepatitis, as stipulated in Cofen Decision No. 244. In 2018, the human papillomavirus (HPV) vaccine was implemented for boys aged 11 to 14 years in the Brazilian public health system (DIAS, 2021; TROMBETTA, 2022).

The Pan American Health Organization's (PAHO) Plan of Action for the Prevention and Control of HIV/STIs (2016-2021) aimed to accelerate the eradication of human immunodeficiency virus (HIV) epidemics and STIs as public health problems in the Region of the Americas by 2030 (DA SILVA, 2023). Vertical transmission of HIV and congenital syphilis was included in this plan, with specific criteria and indicators. Finally, in 2020, sentinel surveillance of male urethral discharge syndrome was implemented, with the purpose of monitoring data in qualified health units, based on the results obtained in the SenGono Project (LANNON, 2021).

According to the World Health Organization (WHO), in 2016 there was an incidence of 376.4 million cases of curable STIs in people aged 15 to 49 years, including 127.2 million cases of chlamydia, 86.9 million cases of gonorrhea and 6.3 million cases of syphilis. Even so, it should be noted that there are cases that are not reported and treated, or not diagnosed due to lack of demand for a health unit. In the Region of the Americas, there were an estimated 29.8 million cases of chlamydia, 13.8 million cases of gonorrhea, and 2 million cases of syphilis (MARQUES, 2022).

Estimates such as this reveal the importance of action strategies aimed at STIs, both in prevention, control and treatment, some examples being the National Program for the Control of Viral Hepatitis, which offers detection, treatment and prevention tests, as well as awareness campaigns; the National STD/AIDS Program, which involves the distribution of condoms, HIV testing, treatment, and awareness campaigns about HIV/AIDS and other STIs; the School Health Program (PSE), which involves partnerships between the Ministry of Health and the Ministry of Education and promotes health education in schools, addressing topics such as STI prevention and sexual health promotion



among young people; and the Harm Reduction Policy, which focuses on minimizing the risks associated with injecting drug use and risky sexual practices (MESQUITA, 2020; DE SÁ, 2019).

Despite the efforts to plan and execute actions related to public policies aimed at STIs, the number of cases of individuals infected by these microorganisms and their prevalence in the Brazilian territory is still alarming. Therefore, according to Miranda, 2021, it is crucial to continuously reinforce the role played by Primary Health Care (PHC) in providing comprehensive care to people affected by STIs and their sexual partners. This implies, for example, ensuring that vaccination against HPV and viral hepatitis A and B is widely addressed, disseminating health information, and expanding access to tests and treatments. In addition, it is essential to improve the training of health professionals in addressing issues related to sexual health (BARBOSA, 2020).

### 3.2 TRANSMISSION, TREATMENT AND PREVENTION

The way in which these infections spread is through sexual contact, which can occur orally, anally, or vaginally, between individuals who are infected. In addition, there is the possibility of mother-to-child transmission during childbirth, throughout pregnancy, or through breastfeeding (DE LIMA, 2020). Despite the efforts of PHC teams and the implementation of public policies with information on transmission, treatment, and prevention of STIs, it is perceived that the population is still affected, which influences avoidable public spending (BATISTA, 2019).

The treatment of Sexually Transmitted Infections (STIs) is essential to control the spread of microorganisms, prevent complications and improve the quality of life of the user, being specific for each type of STI, and may involve the use of antibiotics and antiretrovirals, or other specific medications, depending on the infectious agent involved, in addition to topical creams and medications to support the treatment (SILVA, 2020). Examples of STIs that are treated with antibiotics include gonorrhea, syphilis, and chlamydia; for treatment with antiretrovirals, there is HIV, genital herpes and viral hepatitis. It is important to assess the general condition of the affected person for treatment, in addition to following specific protocols, with the support of complementary exams (LIMA, 2020).

Another important measure in the treatment and control of STIs is the precaution of reinfection and interruption of the chain of transmission, so sexual partners should be tested and treated whenever possible. In this sense, the professionals of the PHC teams play a fundamental role, considering that the diagnosis and treatment are usually made at this level of care, which is also a level that allows the bond with the patient, allowing the professional to have greater success in counseling regarding the importance of covering the person at risk (SILVA, 2021).

In view of the immunological window and other factors that can impair the collection and results of tests, it is ideal that PHC teams focus on screening, indicating testing for all users with an active sexual life, at least once a year, or whenever indicated. In reproductive planning, patients are



asked about the importance of using condoms, even with the use of contraceptive methods, such as contraceptive pills and tubal ligation, since only the use of condoms can serve as a strategy for preventing STIs. In addition, it is advisable to reduce the number of sexual partners, carry out regular exams, and get vaccinated (such as against HPV and hepatitis B) (DE SOUZA, 2022).

It is important to note that some STIs, such as HIV, have no cure, but can be controlled with appropriate treatment, becoming undetectable and promoting quality of life for users living with the virus. Therefore, early detection, effective treatment, and prevention are key elements in the management of STIs (MONTEIRO, 2019).

### 3.3 ROLE OF THE MULTIDISCIPLINARY TEAM IN SCREENING FOR SEXUALLY TRANSMITTED INFECTIONS

The theme of prevention and control of STIs is not only related to treatment expenditures, but it is observed that the quality of life of the population is associated with its indicators; thus, the lower the incidence of STIs, the better the quality of life of the population, which is also reflected in educational levels. In addition, the healthier the population, the more productive it becomes, influencing the economy. In this way, investments in public policies provide an optimization in the development of a country, and the high proliferation of STIs directly interferes with socioeconomic indices, especially by affecting vulnerable populations (CASTOLDI, 2021). Therefore, it is crucial for health professionals to carry out early diagnosis and health education with the population (DA SILVA, 2020).

The young population can be considered a vulnerable group to STIs due to different risk situations, such as the initiation of sexual intercourse and the refusal to use contraceptive methods and condoms. In this sense, the professionals involved in health education are also those who have the greatest contact with these populations. Therefore, it is ideal that education teams are trained for this intervention. Several incentives, such as the School Health Program (PSE), support this demand, establishing a bridge between education and health teams, which is of great value for public health. Health units have a pre-defined coverage territory, and schools are considered useful social facilities for health promotion (SPINDOLA, 2021).

For continuing education related to health education for the population, it is necessary to sensitize professionals, so that they can effectively and positively influence the population (CAMARA, 2021). Another relevant social equipment is the Non-Governmental Organizations (NGOs), which cover all life cycles, including the elderly, who are also considered vulnerable, due to the increased incidence of some STIs in this population. Thus, it is essential that PHC teams are close to all social facilities in their area, encouraging all those involved to achieve greater effectiveness of screening actions, with early detection and treatment of STIs (FREITAS, 2022).



Measures such as campaigns with the performance of Rapid Tests by trained professionals in community spaces and vaccination campaigns are examples of the initiatives of the first level of health care, represented by PHC teams (DA SILVA, 2020).

#### **4 FINAL THOUGHTS**

Sexually Transmitted Infections (STIs) represent an ongoing public health challenge in Brazil and around the world. These infections, caused by a variety of microorganisms, have significant impacts on the quality of life of those affected and generate substantial costs for the Unified Health System (SUS). Understanding the epidemiology, history, and control strategies of STIs is critical to addressing this public health problem effectively. The implementation of public policies and programs for the prevention and control of STIs has played an important role in raising awareness, disseminating health information, and accessing tests and treatments.

The active involvement of health professionals, along with awareness and continuous training, is essential for the successful implementation of public policies and the improvement of the population's quality of life. Health promotion, through educational strategies, is a valuable approach in the prevention of STIs in all age groups, with a special focus on the young population. Health education plays a crucial role in modifying risky behaviors, promoting a healthy sex life, and encouraging self-care.

However, the ongoing incidence of STIs and the costs associated with them show that there is much to be done. Early diagnosis, effective treatment, and prevention remain key elements in the management of these infections. It is essential that health teams raise awareness about the importance of using condoms, reducing the number of sexual partners, getting regular checkups, and getting vaccinated.



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