

## **SYPHLIS IN BRAZIL AND THE GROWING NUMBER OF CASES**

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**Rafaela Zacheo Zanon**

<https://orcid.org/0000-0003-0235-0023>

**Caio José Faleiro Ribeiro**

<http://lattes.cnpq.br/3186698720135517>

**Débora Teodoro Carrijo**

<http://lattes.cnpq.br/0282338040835811>

**Giovanna Fidélis Rodrigues**

<https://orcid.org/0000-0003-0754-2382>

**Kaio Murilo Santana Corrêa**

<http://lattes.cnpq.br/7840841582866214>

**Luiza Akemi Komagome**

<https://orcid.org/0000-0002-1717-2277>

**Marco Antônio Marques Valadares Santana**

<http://lattes.cnpq.br/3414171093779071>

**Michelle Lorrane Bezerra Hipólito**

<https://orcid.org/0000-0002-0244-4081>

**Pedro Henrique Dias Órfão**

<https://orcid.org/0000-0001-8505-5462>

**Rafael de Moraes Câmara**

<http://lattes.cnpq.br/1601930122776883>

**Rafaela Borges Nogueira**

<https://orcid.org/0000-0002-7127-0433>

**Vinicius Dias de Oliveira**

<http://lattes.cnpq.br/7050007598489419>

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**Abstract:** This article aims to discuss the reality of syphilis in the country and discuss justifications for its increase in recent years. This is a literature review on the increase in the number of syphilis cases in Brazil, from 2010 to 2018, carried out through consultations with DATASUS and scientific works on the same topic, in Portuguese, English and Spanish, published in the period from 2017 to 2022. Syphilis is a chronic infectious disease caused by the bacterium *Treponema pallidum*, transmitted sexually or vertically, treated with a penicillin-based antibiotic and can manifest itself in several ways, including asymptomatic. Even though it is a well-defined and well-known disease, it is still considered a public health problem in the country due to the increasing number of cases of both acquired, gestational and congenital syphilis. Among the factors that explain this difficult control of syphilis in Brazil are the low adherence to barrier contraceptive methods; the multiplicity of partners; early onset of sexual activity; the high transmissibility of the disease; disinformation; the difficult access to the health service in some regions, in addition to the low rate of monitoring and treatment of individuals already infected, especially in pregnant women, which culminates in vertical infection. This is reflected not only in the Brazilian reality, but also worldwide, reaching 12 million cases per year worldwide. As a result, it is essential to disseminate information on the forms of contagion and prevention of the disease, and on the importance of monitoring and early treatment of those infected, in order to interrupt transmission and prevent new infections.

**Keywords:** Syphilis, Epidemiology, Brazil, Sexually Transmitted Diseases.

## INTRODUCTION

Syphilis can be defined as an infectious disease of chronic evolution whose etiological

agent is the spirochete bacterium: *Treponema pallidum* and is transmitted sexually (orally, vaginally or anal), hematogenously or vertically. With the clinical picture, often asymptomatic, the disease has a silent and aggravating transmission cycle, in which early diagnosis is difficult. If not treated initially, it can progress to chronicity, triggering irreversible sequelae.<sup>5,6</sup>

Considered a public health problem in Brazil and in other countries, this became part of the National List of Compulsory Notification, with Congenital Syphilis added in 1986, Gestational Syphilis in 2005 and Acquired Syphilis in 2010. However, despite the existing epidemic control and the low cost of treatment with Penicillin G Benzathine, the number of Brazilian cases continues to grow.<sup>3,7</sup>

The behavioral change of the population, associated with socioeconomic conditions, has a direct effect on the increase in annual infection rates. The poor or absent use of barrier contraceptive methods, the multiplicity of sexual partners and the prolongation of sexual life are risk behaviors that lead to greater exposure and bacterial transmission. On the other hand, cultural, economic and geographical aspects can impair access to health services for certain groups and, consequently, make the understanding of the course of the disease poor.<sup>6</sup>

In view of the above, this study aimed to compare and analyze the increase in the number of syphilis cases in view of population and pathological dynamics in Brazil.

## METHODOLOGY

This is an epidemiological study of the number of syphilis cases and deaths in Brazil, from 2010 to 2018, carried out through consultations with DATASUS. Articles on the same theme were also used for comparison with the data obtained. The critical aspects for the selection of articles were: works

written in Portuguese, published between 2012 and 2018 on the Scielo and PubMed platforms using descriptors in health sciences standardized by BIREME: syphilis, mortality and epidemiology.

## EPIDEMIOLOGY

Despite being an old disease, with well-established definition, etiopathogenesis, diagnosis and treatment, in addition to the low drug cost, Syphilis is still considered a public health problem by the World Health Organization. (OMS)<sup>2</sup>. As it is a Sexually Transmitted Infection (STI), low adherence to condom use, sexual relations with multiple partners, and early initiation of sexual activity, especially the necessary misinformation on the subject, facilitate the spread of the disease, making it difficult to control cases. by the public health service<sup>6</sup>.

Between 2014 and 2018 (Figure 1), the number of cases of Acquired Syphilis increased three times (from 25.1 to 75.8 cases per 100,000 inhabitants; of Gestational Syphilis by 2.4 times (from 8.9 to 21.4 cases per 100 thousand inhabitants). 8.9 to 21.4 cases per thousand live births and the rate of Congenital Syphilis by 1.6 times (from 5.5 to 9.0 cases per thousand live births). occurs in an unbridled way and that, even with the timely notification of the number of cases by SINAN, the subsidies of public policies to curb the disease are still insufficient<sup>4</sup>.

It is estimated that carriers of syphilis (primary and secondary) infect about 46% to 60% of their sexual partners. Therefore, clinical evaluation and laboratory follow-up are essential for all patients, as well as for individuals who have had recent sexual exposure for up to 90 days. Addressing

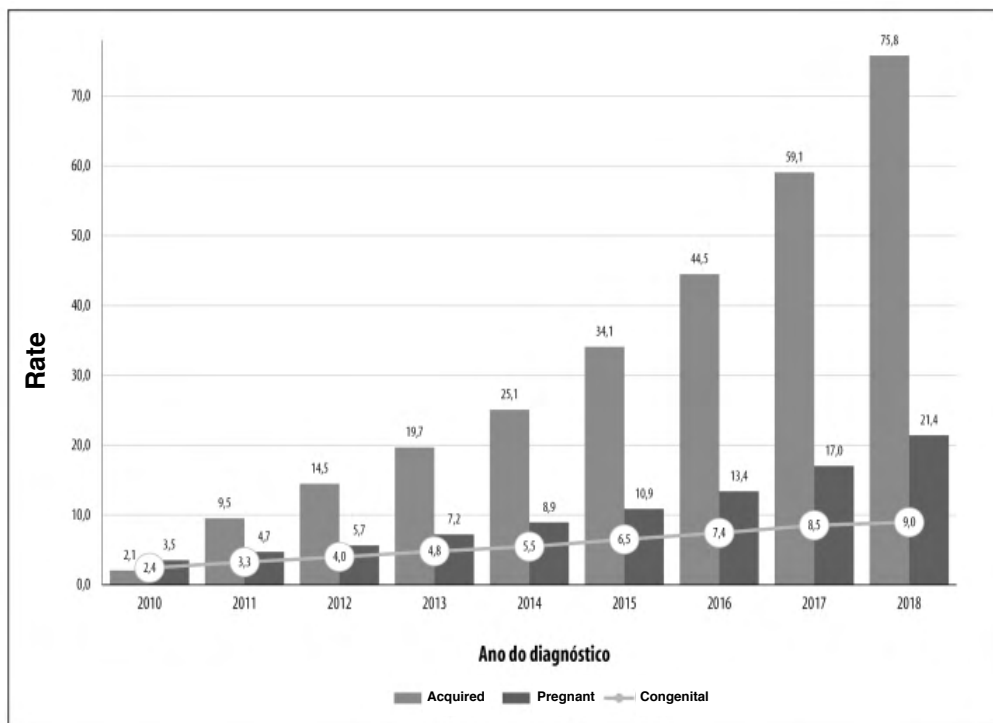


Figure 1 – Detection rate of acquired syphilis (per 100 thousand inhabitants), gestational and congenital syphilis (per thousand live births) in Brazil, between the years 2010-2018.

Source: Notifiable Diseases Information System

sexual contacts helps to reduce the burden of infection in the community, tracking asymptomatic people and identifying sexual risk networks.<sup>5</sup>

Furthermore, worldwide, syphilis is more prevalent in key populations, especially in men who have sex with men (MSM), sex workers and injecting drug users, who have risky sexual behaviors that increase the incidence of the disease. In addition, cultural and socioeconomic aspects, such as low education, low income and difficulty in accessing health units -the poorest communities in the country, where public health services are scarce, such as in riverside communities- potentiate the emergence of infections.<sup>6</sup>

The W.H.O. estimates an incidence of 12 million new cases of syphilis annually in the world, of which 1 million are pregnant women.<sup>2</sup> As in Figure 1, this increase of 2.4 times in cases of gestational syphilis and 1.6 times in cases of congenital syphilis indicates how alarming this is for this public. Thus, it is evident that pregnant women also need methodical surveillance against syphilis to identify the disease early, as well as start effective treatment as soon as possible to avoid poor prognosis and, above all, congenital transmission. Vertical transmission of syphilis is relatively simple to prevent. The newborn of an infected and adequately treated pregnant woman, in principle, is not considered a suspected case of congenital syphilis. However, for this prevention to be effective, it is necessary that the rapid screening test and serology for syphilis be performed during prenatal care in the first and third trimesters, and during hospitalization for childbirth, especially if there is a history of risk exposure or sexual violence. If the disease is identified, treatment must be immediate with the injection of Penicillin G Benzathine. In cases of low adherence to prenatal care associated with undiagnosed or poorly treated syphilitic

infection, if there is vertical transmission during pregnancy, the infection can generate serious effects, such as spontaneous abortion, early fetal death, stillbirth, neonatal death, premature birth, low birth weight and congenital syphilis<sup>1,5</sup>.

Therefore, the social obstacles to the control of the disease differ with the facilities of its sensitive diagnosis, quick and inexpensive treatment and its data collection by the National Information System of Notifiable Diseases (SINAN). Evidencing that, despite the existence of sufficient apparatus for pathological control, the role of Primary Care in the promotion, protection and reduction of damage to health in the country is not fully operational.<sup>3</sup> This way, the performance of Primary Health Care (PHC) represents an important and strategic point in the fight against acquired, gestational and congenital syphilis, since it is the gateway to the first contact with the individual, where consultations must be carried out. of primary prevention, acting in the orientation of the patients, and also in the diagnostic consultations, guaranteeing an early and effective treatment. This longitudinal care must create a link between the health service and the users of the Unified Health System (SUS) so that a change in this epidemiological situation can be initiated.<sup>1</sup>

## CONCLUSION

Despite being a disease with existing epidemic control and low cost of treatment, syphilis is still considered a public health problem with an alarming annual infection rate. In the case of an STI, the low adherence to condom use causes the transmission to occur in a rampant way, increasing the numbers of syphilis in young people, the elderly and pregnant women. Therefore, it is of paramount importance that Primary Care performs educational lectures on the subject, addressing

the disease and its prevention. Along with this, insert ways to promote the promotion of men's health, trying to attract them to perform tests and even correct treatments, as this class still has a culture of non-participation in the health service. For pregnant women, there must be systematization of requests for screening for the disease so that there is an anticipation of diagnoses and rapid treatment, avoiding problems such as vertical transmission. And, given the growing numbers analyzed within the young population, strategies must be adopted to include the subject within youth networks and schools with the objective of raising the awareness of this group aiming for better results in the present as well as in the near future and together with all of the above improve the performance of the existing projects for greater control of the disease in Brazil.

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