

## **ANALYSIS OF THE PANORAMA OF CONGENITAL SYPHILIS IN THE MUNICIPALITY OF SANTA MARIA (RS, BRAZIL) IN THE PERIOD FROM 2018 TO 2021**

### *ANÁLISE DO PANORAMA DA SÍFILIS CONGÊNITA NO MUNICÍPIO DE SANTA MARIA (RS, BRASIL), NO PERÍODO DE 2018 A 2021*

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#### **ABSTRACT**

**Objective:** to analyze the data regarding the notifications of congenital syphilis in the municipality of Santa Maria, RS, Brazil, from 2018 to 2021. **Method:** epidemiological research with a quantitative approach carried out through the public database of the department of diseases of chronic conditions and sexually transmitted infections. The research variables were basic data on clinical monitoring of syphilis, specifically congenital syphilis. **Results:** regarding the number of cases, it was observed that 2019 was the year with the highest number, totaling 154 cases. In 2020, the lowest rates were recorded, with 37 cases. In addition, with regard to the diagnosis, it is noted that it was performed in the 1<sup>st</sup> and 3<sup>rd</sup> gestational trimester. In the age group, the highest incidence occurred in pregnant women between 20 and 29 years old and between 30 and 39 years old. There was a higher prevalence of latent syphilis in pregnant women in 2018 (35%) and 2021 (36%), and in 2019 (39%) and 2020 (54%) the highest occurrence was of ignored cases, according to the clinical classification. **Conclusion:** the data presented are relevant, since they may contribute to the knowledge of health professionals, managers and also the population regarding the panorama of congenital syphilis in the municipality of Santa Maria/RS, allowing the planning and elaboration of public policies that contribute to the improvement of syphilis care and surveillance, especially during the gestational period.

**Keywords:** Public Health, Treponema Infections, Prenatal Diagnosis, Notification.

#### **RESUMO**

*Objetivo:* analisar os dados referentes às notificações de sífilis congênita do município Santa Maria, RS, Brasil, no período de 2018 a 2021. *Método:* pesquisa epidemiológica de abordagem quantitativa, realizado por meio do banco de dados públicos do departamento de doenças de condições crônicas e infecções sexualmente transmissíveis. *As variáveis da pesquisa foram, dados básicos de monitoramento clínico de sífilis, especificamente a sífilis congênita. Resultados:* referente ao número de casos, observou-se que 2019 foi o ano com maior número, totalizando 154 casos. Já em 2020 registrou-se as menores taxas, sendo 37 casos. *Ademais, no que se refere ao diagnóstico nota-se que ele foi realizado no 1º e 3º trimestre gestacional.*

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Na faixa etária, a maior incidência ocorreu em gestantes entre 20 a 29 anos e entre 30 a 39 anos. Houve uma maior prevalência de sífilis latente nas gestantes no ano de 2018 (35%) e 2021 (36%), sendo que nos anos de 2019 (39%) e 2020 (54%) a maior ocorrência foram de casos ignorados, segundo a classificação clínica. Conclusão: os dados apresentados possuem relevância, uma vez que poderá contribuir para o conhecimento de profissionais da saúde, gestores e também da população quanto ao panorama da sífilis congênita no município de Santa Maria/RS, permitindo o planejamento e elaboração de políticas públicas que contribuam com a melhora da atenção e vigilância da sífilis, sobretudo durante o período gestacional.

**Palavras-chave:** Saúde pública, Infecções por *Treponema*, Diagnóstico Pré-Natal, Notificação.

## INTRODUCTION

Syphilis is a systemic Sexually Transmitted Infection (STI), exclusive to humans, caused by the spirochete bacterium *Treponema pallidum*. Its transmission can occur through sexual intercourse with an infected person, blood transfusion or vertically from the mother to the fetus. Despite being a chronic disease, it has treatment and cure. The antibiotic Benzathine (Penicillin Benzathine), administered by intramuscular injection (TEIXEIRA *et al.*, 2022), is recommended as the first choice treatment.

Even after treatment and cure, the person is not immune to the infection, and can be reinfected if there is new contact with the bacteria (BRASIL, 2021). The clinical manifestations of the disease not treated or treated incorrectly include different changes, such as skin and visceral changes, which can be asymptomatic or cause, in the case of infected pregnant women, more severe cases such as stillbirths and neonatal death (TEIXEIRA *et al.*, 2022). Congenital Syphilis (CS) occurs when the bacteria is transmitted transplacentally or by contact of the newborn (NB) with the genital lesion at the time of delivery (KEUNING *et al.*, 2020).

According to the World Health Organization (WHO), worldwide, there are about 12 million new cases of syphilis per year, and of these, between 1.5 and 1.85 million cases occur in pregnant women, and 50% of them will have children with complications due to the disease (WHO, 2016). In Brazil, according to the 2021 Epidemiological Bulletin, in 2020, more than 61,000 cases of syphilis were reported in pregnant women, as well as 22,065 cases of CS, with an incidence rate of 7.7 cases per 1,000 live births. It should also be considered the pandemic situation as a result of COVID-19, which caused a reduction in the detection and underreporting of cases of the disease (BRASIL, 2021).

Congenital syphilis (CS) continues to be a serious public health problem, remaining in the ranking among the infections that most cause fetal and neonatal death worldwide (GAVIS; ARRIETA, 2020). Thus, the WHO's goal is to eliminate congenital syphilis, proposing an occurrence of 0.5 cases for every 1,000 live births (WHO, 2012). In Brazil, this goal was also adopted and adapted by the Ministry of Health - MH (BRASIL, 2021). However, data shows that disease rates have increased, indicating impairment in achieving objectives (RAMOS, 2022).

It is considered that the challenges to combat syphilis, as well as CS, are associated with factors such as the offer of rapid tests for detection, misinformation of the population, fewer adherences to the use of condoms and the reduction of the use of benzathine penicillin in Primary Health Care (PHC) due to the shortage of the drug. Thus, we note the need and importance of the so-called surveillance-assistance-prevention triad, considered as the basis of most public health programs. In the scope of syphilis care, it is of paramount importance that surveillance occurs throughout prenatal care, in order to be one of the strategies for the prevention of complications related to infection (ARRUDA; RAMOS, 2020).

In this sense, knowing and understanding the epidemiological indicators of a municipality allows the planning and execution of surveillance actions, with a view to minimizing the impacts of syphilis, as well as reducing inequality in access to treatment (ARAÚJO, 2020; MASCHIO LIMA, 2022). In addition, the search for the elimination of CS must be carried out by the municipalities through projects in line with the proposals developed by the WHO (MASCHIO LIMA, 2022).

In view of the above, the objective was to analyze the data regarding the notifications of congenital syphilis in the municipality of Santa Maria, Rio Grande do Sul, Brazil, from 2018 to 2021.

## **METHOD**

This is an epidemiological research with a quantitative approach. Quantitative studies are considered statistical studies, which aim to describe the characteristics of a given scenario (PROETTI, 2017), while descriptive epidemiological studies examine how a health condition changes according to the determinants, which are configured as all conditions that influence health, being physical, biological, social, cultural and behavioral (LIMA-COSTA; BARRETO, 2003).

The research scenario was the municipality of Santa Maria, located in the central region of the State of Rio Grande do Sul (RS), which has an estimated population of 283,676 inhabitants and 1,780.194 Km<sup>2</sup> of territorial area (IBGE, 2021). The municipality's health network consists of 15 Basic Health Units (BHU); 14 BHU with Family Health teams (FHS); seven district health units; three Emergency Care services; a Community Health Agents strategy; a Clinical Analysis Laboratory; a specialized care service for people with HIV/AIDS, Sexually Transmitted Infections and Hepatitis; and a reference center for Tuberculosis (TB) (FARIA, 2018).

The choice for the research scenario was made through the experiences of the authors in clinical practice and the lack of actions in the scope of prevention and health promotion aimed at pregnant women during prenatal care, associated with the high rates of the disease in the municipality.

The information related to the syphilis rates of the research municipality was extracted from data available in the public database of the Department of Diseases of Chronic Conditions and Sexually

Transmitted Infections (DCCI). Indicators and Basic Syphilis Clinical Monitoring Data were collected, specifically congenital syphilis. The data refer to the period from 2018 to 2021, and have information regarding the diagnosis of pregnant women, gestational age, age group, clinical classification and adherence to treatment.

The tabulation and calculation of the indicators were performed using the data obtained by measuring the tables generated by the DCCI and tabulated in the Microsoft Excel 2016 software, and the analysis was performed by descriptive statistics, and the data were presented in number of individuals (n) and percentage (%).

As these are data in the public domain and found online, obtained through the DCCI, it was not necessary to be approved by the Ethics and Research Committee to carry out this research.

## RESULTS AND DISCUSSION

Data regarding CS in the municipality of Santa Maria, RS, Brazil, from 2018 to 2021 were analyzed. The data in Table 1 demonstrate the number of pregnant women with syphilis and their gestational age. Also, it was found that in 2019 there was a greater number of cases of syphilis in pregnant women, totaling 154 cases. The year 2020 presented the lowest number of cases within the analyzed period, corresponding to 37 notifications. Still, it can be seen that the diagnosis of syphilis, in its majority, was made in the 1<sup>st</sup> trimester of pregnancy and in the 3<sup>rd</sup> trimester, and this occurred in all years.

The lowest number of cases notified in 2020 may be due to the Covid-19 pandemic, and at the national level the same low number of notifications could be observed, as demonstrated by Carvalho *et al.* (2022), who demonstrated in their study that in 2020 there were 47,956 cases of syphilis in pregnant women, of these 6,272 cases in the southern region of the country alone, while in 2021 there were 23,296 cases of syphilis in pregnant women, with 2,925 cases in the southern region of Brazil (CARVALHO *et al.*, 2022).

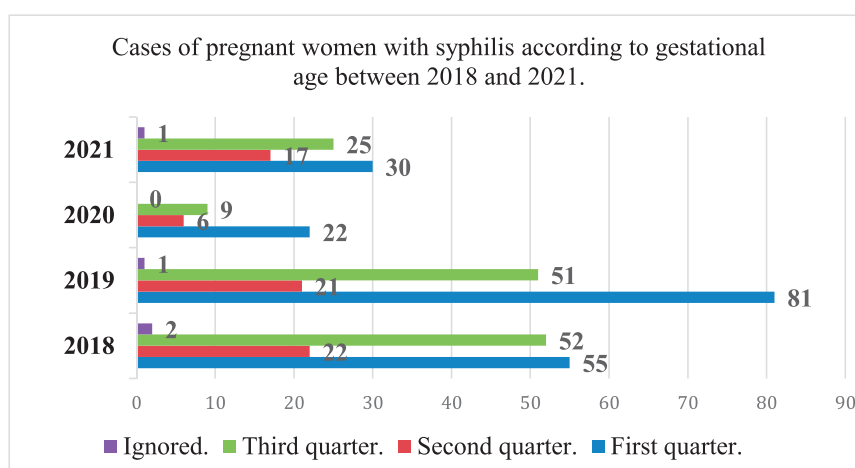
Regarding syphilis detection tests, it is recommended that they be performed in the 1<sup>st</sup> trimester of pregnancy. However, research shows a divergence with this recommendation, since a study carried out in the northeast region, in which data were used between 2007 and 2015, showed the predominance of the diagnosis in the 2<sup>nd</sup> and 3<sup>rd</sup> trimester of pregnancy, in addition, it can be observed that a total of 5,324 cases of syphilis in pregnant women and a total of 8,293 cases of CS were reported in this period (FERREIRA *et al.*, 2017).

In the same meantime, the epidemiological and operational indicators of RS corroborate that of the aforementioned study, since in 2021 1,665 cases of syphilis were reported in pregnant women, and most of these cases were identified in the 1<sup>st</sup> and 3<sup>rd</sup> trimester of pregnancy (BRASIL, 2021). In the same year, 867 cases of CS were detected in children less than one year of age. In recent years, there

has been an expansion of the diagnosis, but, despite this, cases of gestational syphilis, for the most part, continue to be detected late, this may be related to misconduct in the effectiveness of prenatal care or its late onset (CONCEIÇÃO *et al.*, 2019).

It is important to continue the investigation of the serology of the pregnant women until the last trimester of pregnancy, and on admission for delivery a non-treponemal test can be performed, such as the *Venereal Diseases Research Laboratory* (VDRL), related to a treponemal test, due to false-negative results that may occur from non-treponemal tests (ANDRADE *et al.*, 2018). The VDRL is performed through serial dilution and the result is given by titration, where false-negative results happen due to the pro-zone effect, which reflects an excess of antibodies in the analyzed sample and so it is of great importance that when performing this examination the sample is always evaluated pure and at a 1:8 dilution. In addition, these results can occur in the early phase of infection, latent and late (MORAES; D'ALMEIDA; CONDE, 2019).

**Graph 1** - Cases of pregnant women with syphilis according to gestational age between 2018 and 2021.



Non-treponemal assays, such as VDRL, identify non-specific antibodies (anticardiolipin) to *Treponema pallidum* antigens, which may result in false positives, especially at low titers. This is because these antibodies can be found in other conditions that provoke the release of cardiolipin, such as systemic lupus erythematosus, antiphospholipid syndrome, collagenosis, chronic hepatitis, abusive use of illicit injectable drugs, leprosy, malaria, mononucleosis, leptospirosis or due to the temporary effect of certain medications (GODOY *et al.*, 2021). Regarding age group, the highest incidence occurred in pregnant women between 20 and 29 years old and between 30 and 39 years old (Table 2). A research carried out in the southern region of Brazil obtained similar results, where 67.41% were aged between 20 and 34 years. Another relevant data was verified in the research by Padovani *et al.* (2018), which demonstrated data from pregnant women who did not undergo prenatal care and were 7.4 times more likely to be infected, and, in 53.7% of cases, the treatment of women was inadequate or not performed (PADOVANI *et al.*, 2018).

The absence or inadequate prenatal care is widely reported as a factor that potentiates adverse effects during pregnancy and delivery, affecting women and newborns. Examples of these effects include congenital syphilis, abortion, stillbirth, neonatal death, and prematurity (MACEDO *et al.*, 2020).

In addition, in this research, there was a higher prevalence of latent syphilis in pregnant women in 2018 (35%) and 2021 (36%), and in 2019 (39%) and 2020 (54%) the highest occurrence was of ignored cases, according to the clinical classification (Table 3). In the study by Souza *et al.* (2021), the notifications of syphilis in pregnant women between 2014 and 2019 were analyzed, where there were 15,198 reported cases, and therefore, it was demonstrated that 33% of the cases had the clinical classification ignored, 27% were cases of primary syphilis, 6% of secondary syphilis, 14% of tertiary syphilis and 21% of latent syphilis.

**Table 1-** Cases of pregnant women with syphilis according to age group between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age group	10 to 14 years	4	3	2	1	0	0.0	0	0.0
	15 to 19 years	29	22	30	19	5	14	9	12
	20-29 years	64	49	74	48	20	54	44	60
	30 to 39 years	33	25	44	29	11	30	20	27
	40 years or more	1	1	4	3	1	3	0	0.0
Total		131		154		37		73	

*n*: number of subjects

**Table 2 -** Cases of pregnant women with syphilis according to the clinical classification between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Clinical classification	Primary Syphilis	19	15	23	15	5	14	9	12
	Secondary Syphilis	3	2	8	5	0	0.0	5	7
	Latent Syphilis	46	35	43	28	10	27	26	36
	Tertiary Syphilis	23	18	20	13	2	5	13	18
	Ignored	40	31	60	39	20	54	20	27
Total		131		154		37		73	

*n*: number of subjects

Regarding staging, primary syphilis is associated with the appearance of lesions, between 10 and 90 days after infection, in the region of entry of the bacterium. In secondary syphilis, fever, malaise, lymph node enlargement and spots on the body may occur, which appear between six weeks and six months after the initial wound healing (TEIXEIRA *et al.*, 2022). Latent syphilis can be classified into two phases: the recent phase, where it is interrupted by recurrence of secondary manifestations, and the patient is still infectious (TEIXEIRA *et al.*, 2022); and the late phase, where the patient is no longer infectious, and this phase can last for many years without the appearance of any symptoms (TEIXEIRA *et al.*, 2022). After the latency period, tertiary syphilis, which is the most aggressive, can cause cardiovascular, neurological and bone lesions, and lead to death (TEIXEIRA *et al.*, 2022).

When the pregnant woman is in the primary and secondary stages of the disease, this is where there is a greater chance of transmission to the baby. One of the difficulties encountered in CS is in monitoring the child after birth, since at birth most do not present clinical manifestations. However, during the first years of life, important lesions may develop, which can cause irreversible sequelae. Thus, the assistance provided and the awareness of the mother in relation to this information is what will collaborate in the adherence to this monitoring (FELIZ *et al.*, 2016).

It is important to highlight the importance of syphilis prevention and treatment measures, since this infection is part of the preventable perinatal cause, and can be controlled from the correct diagnosis and treatment during pregnancy, directly reflecting on the quality of prenatal care (CARDOSO *et al.*, 2018). In Brazil, there was an expansion of prenatal monitoring coverage, and, as a consequence, there was a decrease in maternal mortality; however, neonatal deaths remain above the recommended, and among the most common causes is CS (SANTOS; SOUZA, 2021).

In order to reduce maternal and children morbidity and mortality, in 2011, the Ministry of Health created the Rede Cegonha (Stork network) program, which aims to expand the access of pregnant women to health services, ensuring humanized care during pregnancy, delivery and puerperium, and comprehensive care for the children from birth to 24 months of life (SANTOS; SOUZA, 2021). Despite this, a survey conducted in Recife showed that most pregnant women had seven prenatal consultations, but showed great dissatisfaction with the quality of care and service provided. This becomes an important factor, which can contribute to non-adherence to the practices recommended by health professionals and thus may increase the risk of vertical transmission of syphilis during pregnancy (SILVA *et al.*, 2017).

One of the consequences of syphilis during pregnancy is abortion, which can be avoided with the correct diagnosis and treatment. Thus, the study by Dornelles *et al.* (2021) analyzed the mortality rate of abortions due to syphilis in Brazil between 2009 and 2018, and demonstrated that over the years the mortality decreased, and in 2009 the mean was 5.54 cases of abortion per 100 pregnant women and in 2018 it was 2.22 cases per 100 pregnant women.

In this same study, it was observed that the north, northeast, south and southeast regions showed a reduction in the lethality rate in 2009 when compared to 2018, while the central-west region had an increase in the rate in the same period and, until 2017, The region that had the highest mortality rate was the northeast, however, in 2018 the southern region had the highest mortality rate in Brazil, with 2.83 cases of abortion for every 100 pregnant women (DORNELLES *et al.*, 2021).

In relation to this, Table 4 shows data on the final diagnosis of congenital syphilis, and most cases were newly diagnosed and this was observed every year. However, in almost every year, cases of abortion and stillbirth were also reported, and in 2018 there were 6 abortions and 5 stillbirths, in 2019 there were 9 abortions and 3 stillbirths, in 2020 there were 2 abortions and in 2021 there were 3 abortions and 1 stillbirth.

The study by Malveira and collaborators (2021) brought data from the entire country, where a total of 180,818 reported cases were observed between 2009 and 2019, and of these, 168,227 (92.7%) corresponded to recent congenital syphilis, 6,600 (3.7%) were from abortions caused by syphilis, 6,218 (3.4%) were from stillbirths due to syphilis and 408 (0.2%) from late congenital syphilis and in total 1,835 deaths from congenital syphilis were recorded in children under 1 year of age during this period.

**Table 4** - Cases of congenital syphilis according to final diagnosis between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Final diagnosis	Recent	46	81	61	84	7	78	26	87
	Late	0	0.0	0	0.0	0	0.0	0	0.0
	Abortion	6	11	9	12	2	22	3	10
	Stillbirth	5	9	3	4	0	0.0	1	3
	Total	57		73		9		30	

*n*: number of subjects

Regarding the age group of the mother and the reported cases of CS (Table 5), the prevalence in pregnant women between 20 and 29 years old can be noted almost every year, except in 2020, where 44% of the cases were in women between 30 and 39 years old. Data from a study carried out in São Paulo showed that cases of syphilis in pregnant women and CS were higher in women aged 20 to 29 years, and in cases of CS only 57% were identified during prenatal care, and of these, less than 7.2% underwent adequate treatment (MEDEIROS *et al.*, 2022).

**Table 5** - Cases of congenital syphilis according to the mother's age group between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Mother's age	10 to 14 years	2	4	0	0.0	0	0.0	0	0.0
	15 to 19 years	6	11	9	12	2	22	3	10
	20-29 years	33	58	33	45	3	33	16	53
	30 to 39 years	15	26	28	38	4	44	11	37
	40 years or more	0	0.0	3	4	0	0.0	0	0.0
	Ignored	1	2	0	0.0	0	0.0	0	0.0
Total		57		73		9		30	

*n*: number of subjects

In this research, it was noted that the maternal diagnosis was mostly made at the time of delivery/curettage, and it was only in 2019 (58%) that most cases were identified during prenatal care (Table 6). In addition, it can be seen that there was a large occurrence of inadequate maternal treatment, and that in 2021, only 3% of pregnant women underwent treatment adequately and 23% did not start treatment (Table 7). In Minas Gerais, a study showed that 62.8% of the maternal diagnosis was



made during prenatal care, and 59.6% of the mothers underwent treatment inappropriately, in addition, the sexual partnerships of these women were not treated (AMORIM *et al.*, 2021).

**Table 6** - Cases of congenital syphilis according to the time of diagnosis of maternal syphilis between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Moment of maternal diagnosis	During prenatal care	25	44	42	58	4	44	11	37
	At the time of delivery/curettage	30	53	24	33	5	56	18	60
	After delivery	1	2	7	10	0	0.0	1	3
	Unrealized	0	0.0	0	0.0	0	0.0	0	0.0
	Ignored	1	2	0	0.0	0	0.0	0	0.0
Total		57		73		9		30	

*n*: number of subjects

**Table 7** - Cases of congenital syphilis according to the mother’s treatment schedule between 2018 and 2021.

		2018		2019		2020		2021	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Maternal treatment schedule	Adequate	6	11	7	10	1	11	1	3
	Inadequate	47	82	51	70	7	78	22	73
	Unrealized	2	4	5	7	1	11	7	23
	Ignored	2	4	10	14	0	0.0	0	0.0
Total		57		73		9		30	

*n*: number of subjects

Research carried out in the southern region of the country, which evaluated, in 2018, the rapid tests for syphilis of all pregnant women hospitalized for delivery or abortion at the Carmela Dutra Maternity, showed that 72.7% of pregnant women made the diagnosis during prenatal care and 27.3% made the diagnosis only at the time of hospitalization, of which 44% performed the treatment correctly and 56% incorrectly (ROEHRS *et al.*, 2020). In addition, when evaluating the treatment of sexual partnership of properly treated pregnant women, it was observed that 70% of the partners treated the infection together with the pregnant woman, 12.6% did not treat it and 17.4% did not have this information in the medical record. In the group in which the treatment was considered inadequate, 28.8% partners treated syphilis during prenatal care, 11% did not treat it and 60.2% did not have this information in the medical record (ROEHRS *et al.*, 2020).

Adequate treatment in pregnant women, as well as sexual partnership, is essential to reduce the risk of reinfection during pregnancy; but there is low coverage in the treatment of these partnerships. In São Paulo, a study showed that among 57% of pregnant women diagnosed, less than 23.1% of partners were treated (MEDEIROS *et al.*, 2022). Another relevant finding was in relation to adolescent pregnant women, where, in 2019, four cases of syphilis were reported in pregnant women aged 10 to 14 years, and of these, two cases became CS.

In addition, a significant number of pregnant women aged 15 to 19 years can be noted, and in 2019 this age group represented 12% of the reported cases of syphilis, and in 2020 it represented 22% of the cases. In the state of Paraná, a survey was carried out which identified an increasing number of cases of syphilis in pregnant adolescents between 2007 and 2016, totaling 444 cases reported in the studied period, of which 96.8% were pregnant women aged 15 to 19 years (MOROSKOSKI *et al.*, 2018). In Brazil, the number of reported cases of pregnant women represents half of the number of cases of CS, and this may be associated with prenatal failure (RIGO *et al.*, 2021).

## CONCLUSION

Cases of syphilis in pregnant women aged between 20 and 29 years were predominant, and most cases were identified in the first and third quarter of pregnancy. In addition, when diagnosed, most pregnant women did not perform the treatment adequately. Regarding CS, most maternal cases were identified at the time of delivery/curettage. In view of this, it can be seen that there is a failure in prenatal care, which can be improved with the training of professionals, and issues such as the importance of notification, adequate treatment for the pregnant women and for the partner, in addition to emphasizing the need for the active search for these cases.

It is important to emphasize that the constant qualification of health professionals, especially nurses, is a determining factor for the reduction of cases of contamination of gestational syphilis and CS. Also, due to the cases of gestational syphilis in adolescents it is important to pay greater attention to this group, and it can be invested in public policies for sex education in schools, disseminating information through health education related to Sexually Transmitted Infections (STIs), contraceptives and unwanted pregnancy.

Thus, the data presented are relevant, since they may contribute to the knowledge of health professionals, managers and also the population regarding the panorama of CS in the municipality of Santa Maria/RS, allowing the planning and elaboration of public policies that contribute to the improvement of syphilis care and surveillance, especially during the gestational period. It will also assist in carrying out health education actions focused on the subject, allowing the subject to be better understood by the population, always seeking the prevention and timely treatment of syphilis.

The limitation of the study is the fact that it was worked with secondary data, whose quality is directly dependent on the complete and adequate recording of information related to people with congenital syphilis by the workers of the teams that are in care.

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