



EXPERIENCE IN IMPLEMENTING ACTIONS AND STRATEGIES TO COMBAT GESTATIONAL AND CONGENITAL SYPHILIS

EXPERIÊNCIA DE IMPLEMENTAÇÃO DE AÇÕES E ESTRATÉGIAS PARA O ENFRENTAMENTO DA SÍFILIS GESTACIONAL E CONGÊNITA

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RESUMO

Objetivo: Relatar as ações e estratégias realizadas em nível de gestão municipal para o diagnóstico precoce da sífilis gestacional e o enfrentamento da sífilis congênita. **Método:** Trata-se de um estudo do tipo relato de experiência desenvolvido em um município paulista. **Resultados:** Diferentes atividades foram realizadas, com destaque para as capacitações para execução de teste rápido; reuniões de equipe e elaboração de protocolos e fluxogramas, envolvendo a dispensação de medicação e notificações, prescrição de penicilina benzatina pelo profissional enfermeiro e de ações de prevenção da sífilis congênita na Atenção Primária à Saúde; e monitoramento mensal das gestantes com sífilis gestacional e suas parcerias. **Conclusão:** É preciso dispor de recursos que incluem contínuo planejamento da gestão, ações de educação permanente, efetivo trabalho em rede, identificação dos desafios envolvidos no processo de trabalho em saúde e a implementação de ações nos serviços da Atenção Primária no enfrentamento da sífilis gestacional e congênita.

Descritores: Sífilis Congênita; Atenção Primária à Saúde; Saúde Materno-Infantil; Serviços de Saúde; Enfermagem.

ABSTRACT

Objective: Report the actions and strategies carried out at the municipal management level for the early diagnosis of gestational syphilis and to combat congenital syphilis. **Method:** This is an experience report study developed in a municipality in São Paulo. **Results:** Various activities were carried out, with emphasis on training for rapid testing; team meetings and the development of protocols and flowcharts, involving the dispensing of medication and notifications, prescription of benzathine penicillin by nursing professionals, and actions to prevent congenital syphilis in Primary Health Care; and monthly monitoring of pregnant women with gestational syphilis and their partners. **Conclusion:** It is necessary to have resources that include continuous management planning, continuing education actions, effective networking, identification of the challenges involved in the health work process, and the implementation of actions in Primary Care services to combat gestational and congenital syphilis.

Descriptors: Congenital Syphilis; Primary Health Care; Maternal and Child Health; Health Services; Nursing.

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INTRODUCTION

The World Health Organization estimates that 661,000 children were born with congenital syphilis in 2016⁽¹⁾. It is also estimated that there are more than 30,000 cases of congenital syphilis only in the Americas⁽²⁾. In Brazil, until June 2022, 31 thousand cases of syphilis in pregnant women and 12 thousand cases of congenital syphilis were reported⁽³⁾.

Different strategies are aimed at achieving improvements in the quality of maternal and child health care in a joint and integrated manner with health agencies, in an attempt to reduce syphilis rates, such as expanding coverage in the diagnosis of syphilis through the provision of rapid tests and the administration of benzathine penicillin, especially within the scope of Primary Health Care⁽⁴⁻⁸⁾.

Effectively combating gestational and congenital syphilis depends on favorable conditions for the development of public policies and the commitment of administrators to provide actions aimed at improving the quality of care for pregnant women during prenatal care. Furthermore, it is essential to raise awareness among healthcare professionals about the importance of early diagnosis, as well as effective treatment for pregnant women and their partners⁽⁹⁾.

In this sense, the care provided by teams should not be restricted to biological aspects, making the use of technology-assistance models in health essential, as a way of providing comprehensive care⁽¹⁰⁾. However, there is a lack of studies in the literature on successful experiences in the organization of services to offer health care supported by health surveillance, continuing education, and care management actions, as guidelines for the work practice of nurses in the context of Primary Health Care.

Thus, this study presents an extremely relevant and current theme in the context of Brazilian public health, especially in view of the persistent challenges in controlling gestational and congenital syphilis, with potential for replicability, impact, and contribution to the advancement of scientific knowledge, and the role of nursing in Primary Health Care. It also seeks to contribute to knowledge in this area by presenting theoretical, scientific, and practical content to answer the following question: What actions and strategies are implemented at the municipal level for the early diagnosis of gestational syphilis and to combat congenital syphilis? Thus, it aims to report the actions and strategies implemented at the municipal level for the early diagnosis of gestational syphilis and to combat congenital syphilis.

METHOD

This is a descriptive experience report study about the actions and strategies developed to combat gestational and congenital syphilis in a municipality located in the Center-West of the State of São Paulo, with an approximate population of 149,718 inhabitants. It offers various services, including 13 units based on the Family Health Strategy model (covering 40% of the population), six Basic Health Units in the traditional model, two School Health Centers, a Sexually Transmitted Diseases/Acquired Immunodeficiency Syndrome (STD/AIDS) Program Team, two maternity wards, and a medium- and high-complexity teaching hospital, which serves as a reference for 68 municipalities in the region.

It is particularly worth highlighting the role of the

STD/AIDS Program, which has the mission of carrying out promotion and prevention actions focused on sexually transmitted infections (STIs), as well as promoting the quality of life of affected people, reducing prejudice, discrimination, and other negative social impacts related to STIs, in accordance with the principles of the Unified Health System (*Sistema Único de Saúde*, SUS). It is composed of a coordinator (nurse), five strategic health agents, and a gynecologist.

The Municipal Health Department (*Secretaria Municipal de Saúde*, SMS) shares the management of public municipal health services with two Social Health Organizations, a Public Higher Education Institution and the São Paulo State Health Department, and has different sectors in its organization, among which the Health Education and Communication Sector stands out, responsible for planning and carrying out training, qualifications and continuing education actions aimed at the different services of the municipality. Among the SMS team are nurses in the role of Coordinators of different sectors, in addition to the Primary Health Care Coordination itself, a characteristic that extends to Social Organizations and the management of Basic Health Units.

This report emerges from the actions and strategies implemented by the STD/AIDS Program since mid-2012 and continuing through 2024, described and discussed in the scientific literature. It is based on institutional documents, the agendas of monthly meetings held between the municipal management, the STD/AIDS Program, and the management of the Health Units, and on the experiences and life stories of the authors involved in this process. It is crucial to highlight the importance of reporting and describing this achievement throughout the period mentioned as a way of shedding light on the fact that combating gestational and congenital syphilis requires management support and must consider different actions and strategies, and, above all, that it is a procedural and sometimes lengthy process, emphasizing the importance of continuous monitoring of the process.

RESULTS AND DISCUSSION

The need for changes in the health work process was the subject of the first discussions between the coordination of the STD/AIDS Program, the municipal management, and the different services in mid-2012, due to the syphilis detection rate: 41.7% (per 100,000 inhabitants).

Thereafter, monthly meetings began to be held with the intention of identifying areas for improvement in the health work process of the service teams, among which the following stand out: failures in the early diagnosis of gestational syphilis; missed opportunities in syphilis screening; inadequate treatments; failure to report; lack of knowledge about syphilis among different professionals and users; low number of professionals trained to perform rapid testing; discontinuity in post-treatment follow-up during prenatal care; failure to screen and treat partners; and prejudice and stigma towards syphilis among professionals.

Team meetings are important spaces for analyzing health indicators, redefining behaviors traditionally inserted into daily health work processes, reinforcing aspects relevant to the quality of assistance, implementing continuing education, providing opportunities for mediating conflicts that arise within teams, and for empowering workers, to make them see themselves as part of a collective, which can positively reflect on the planning and organization of care, the

quality of assistance, and the implementation of evidence-based practices⁽¹¹⁾.

In consideration of the identified problem and in line with the initiatives of the Ministry of Health, different actions and strategies began to be planned and carried out by the municipality's STD/AIDS Program Team, with support and partnership from the municipal management and the managers of the Basic Health Units, which enabled greater adherence to the proposals such as: home visits by community health agents and strategic health agents for active search; increase in condom dispensers in health services and other social facilities; implementation of various health education actions aimed at STI prevention in different settings and contexts, including the private network and supplementary health care; offering rapid testing on demand at Basic Health Units, without the need for a time or appointment; and carrying out rapid testing for all pregnancy confirmations.

As the number of rapid test performers did not include a large portion of the professionals eligible for such activity, training was carried out, in conjunction with the Epidemiological Surveillance Group of the São Paulo State Health Department, to increase the number of people qualified for screening and/or diagnosis of syphilis, hepatitis B and C, and HIV (Human Immunodeficiency Virus) in the routine of services and in extramural actions. This action also began to be linked to the admission of new workers eligible to perform rapid testing.

Thus, dental surgeons, nurses, pharmacists, physicians, psychologists, occupational therapists, and residents of the Uni and Multiprofessional Residency Programs were gradually trained, allowing for expanded access to syphilis diagnosis in routine services and optimizing the initiation of treatment and cure for individuals diagnosed with the infection. Given this characteristic, it is possible to affirm that rapid testing, offered promptly, enhances the early identification of new cases, enabling progress towards the cure of the pregnant woman with syphilis and consequently a favorable outcome for the child⁽¹²⁾.

Concomitantly with the development of these trainings, the need to update and/or prepare institutional documents focused on the work process of health service teams in combating syphilis and other STIs was perceived, which were constructed with the involvement of different professionals, whether from assistance, service management, or municipal management.

The first of these refers to the monthly monitoring carried out by the nurse at the Basic Unit and sent to the STD/AIDS Program in an anonymous and coded form regarding all pregnant women diagnosed with syphilis during pregnancy and their partners, containing: date of diagnosis, date of the last control exam, date of treatment, and date of return. Regarding newborns, the following data were monitored: follow-up appointments with nurses and physicians at the Unit, in addition to the ophthalmologist at the specialized service. This information continued to be provided until discharge from syphilis treatment, whether of the pregnant/postpartum woman, child, or partner.

Notifications and positive results of syphilis in pregnant women (conventional serology and rapid tests) then began to be closely monitored for better care management by nurses at Basic Health Units in conjunction with the municipality's Epidemiological Surveillance Center and the STD/AIDS Program itself, to ensure that all pregnant women with notification could receive appropriate treatment and

monitoring. It is worth noting that when the partner of a pregnant woman was in prison, the STD/AIDS Program coordinated with the Prison Administration Secretariat for testing and treatment.

The role of nurses in Primary Health Care in Brazil is an instrument for changes in health care practices in the SUS, responding to the proposal of a care model centered on comprehensiveness, disease prevention, health promotion, and quality of life^(11,13). Nurses are key players in tackling gestational and congenital syphilis, given that, due to their training and the configuration of the teams at Basic Health Units, they play an important role in managing care and services, in coordination with other actors and services, and in developing continuing education and health education actions.

It should be noted that health education actions are of fundamental value in the early diagnosis of gestational syphilis and combating congenital syphilis, as they enable evidence-based practice by workers and greater knowledge by users and communities about STIs, involving mechanisms of transmission, diagnosis, and treatment.

In this sense, nurses have an important role in developing these actions to strengthen the process of changing health practices in the SUS, contributing to a more active and meaningful participation by professionals in the care process, and to the production of quality assistance that recognizes the participation of the agents involved: workers, managers, users, families, and communities⁽¹⁴⁾.

Other documents were prepared as improvements in service work processes were identified, with updates whenever necessary: care based on a syndromic approach; medication dispensing and notification flowchart; protocol for the prevention of congenital syphilis in Primary Health Care; monitoring of the results of syphilis tests and treatment performed on the pregnant woman and her partner to be attached to the pregnant woman's card; home monitoring form for congenital syphilis; and consent form for contact with the partner when she was in prison.

In addition, it is worth highlighting others with potential for replication in other scenarios, such as the treatment, monitoring, discharge proof card, and the Standard Operating Procedure (SOP) for prescribing benzathine penicillin by the nurse. The first was inspired by the vaccination card, made of heavier paper, containing on its front side the identification of the user and service, on the inside the dates of the syphilis exams with the respective Venereal Disease Research Laboratory (VDRL) values, dates of application of benzathine penicillin, and treatment of the partner. This card not only served to record the follow-up of the person with syphilis, but also to prevent repeat treatment due to lack of proof of treatment. The SOP, on the other hand, meant that prescriptions were not tied solely to the medical professional and their presence at the Basic Health Unit, confirming the important role of nurses in combating syphilis.

This series of activities aimed at combating syphilis in the municipality had a direct impact on the health work process of the teams at the Basic Health Units, especially due to the support of the municipal administration and the different services, and the involvement of the teams. This fact can be seen in the higher number of reported cases of acquired syphilis and gestational syphilis, the decrease in cases of congenital syphilis, the increase in the number of people receiving complete treatment, the increase in the number of rapid test performers, and the increase in the number of rapid tests carried out, request for training for professionals and

health education actions in different social facilities, such as companies, industries and educational institutions, number of institutional documents prepared focused on the management of syphilis, for the Luiza Matida award at the Congress of the Brazilian Society of Sexually Transmitted Diseases, in addition to strengthening the network of the partnership with the Epidemiological Surveillance Group of the State Health Department of São Paulo and other municipalities under its responsibility.

Just like team meetings, networking ensures greater integration between the actions offered and the comprehensiveness of care, avoiding gaps in assistance or discontinuity of follow-up that result in unfavorable outcomes, since the lack of treatment or inadequate treatment of pregnant women with syphilis constitutes a loss of opportunity and failure in the prevention of congenital syphilis⁽¹⁵⁾. In this way, teamwork should contribute to improving access and the quality of health care provided to users and the population of the territory, and promote the satisfaction of the professionals involved.

However, despite the successful experience of the multiple actions implemented to combat gestational and congenital syphilis in the municipality, it is essential to identify challenges to its maintenance, such as: turnover of health professionals in services; changes in management at municipal, state, and federal levels; different routines and nuances that permeate the work processes of the services; failures in diagnosis and treatment; resistance or difficulty in adhering to treatment on the part of the pregnant woman and/or her partner; underreporting of cases, among others. Finally, it is also worth noting that congenital syphilis is a predictor of the quality of prenatal care, and its high incidence highlights the fragility of the maternal and child health care network⁽¹²⁾.

Because it is an experience report, this study describes a specific reality. However, it provides healthcare managers with replicable strategies, playing an important role in combating syphilis. It is also relevant to the health work process, as it offers support and inspiration for practice and new research, aligned with the knowledge and experiences gained in the daily management and services, with their strengths and weaknesses.

CONCLUSION

This report describes the experience of actions and strategies implemented at the municipal management level

REFERENCES

1. World Health Organization. Syphilis [Internet]. Geneva: WHO; 2023 [cited 2024 Oct 3]. Available from: <https://www.who.int/news-room/fact-sheets/detail/syphilis>
2. Pan American Health Organization. With rising trends of syphilis and congenital syphilis in some countries in the Americas, PAHO calls for reinforcement of public health measures [Internet]. Washington: PAHO; 2022 [cited 2024 Oct 3]. Available from: <https://www.paho.org/en/news/5-7-2022-rising-trends-syphilis-and-congenital-syphilis-some-countries-americas-paho-calls>
3. Brasil. Ministério da Saúde. Sífilis: entre janeiro e junho de 2022, Brasil registrou mais de 122 mil novos casos da doença [Internet]. Brasília: Ministério da Saúde; 2023 [cited 2024 Oct 3]. Available from:

for the early diagnosis of gestational syphilis and combating congenital syphilis in a municipality in the state of São Paulo. Furthermore, it demonstrated that to transform the unfavorable epidemiological panel of syphilis, it is necessary to have resources that include continuous management planning, continuous education actions and health education actions, effective networking, identification of the challenges involved in the health work process, and implementation of actions and strategies in Primary Health Care services to combat gestational and congenital syphilis.

Nursing plays a central and strategic role in combating syphilis, especially in Primary Health Care, where multiple work processes are interconnected for better continuity and coordination of care, with emphasis on intersectoral, individual, and collective actions. Furthermore, the different activities carried out by nursing in conjunction with different sectors, actors, and municipal management described in this report demonstrate how much nursing is strengthened by an innovative and committed perspective, which enhances teamwork and the integration of services, contributing to the health care practices developed in Primary Health Care.

Although in this study the different actions reported were coordinated by the STD/AIDS Program, these can be planned and replicated by different actors and services that make up the Health Care Network, with special protagonism for Primary Health Care nurses. Thus, the activities reported, from the survey of points for improvement focused on the health work process of service teams and the challenges encountered, through the description of the actions and strategies planned and implemented, to the preparation of different institutional documents, can guide the implementation by other municipalities and services of activities aimed at combating syphilis.

Studies with other levels of evidence are recommended to confirm the impact of the actions described, expanding their replicability in other contexts. Finally, combating gestational and congenital syphilis, as a relevant public health problem, should be considered a priority on the public policy agenda and organized in a systematic and integrated manner by municipal management.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

<https://www.gov.br/saude/pt-br/assuntos/noticias/2023/fevereiro/sifilis-entre-janeiro-e-junho-de-2022-brasil-registrou-mais-de-122-mil-novos-casos-da-doenca>

4. Brasil. Ministério da Saúde. Portaria GM/MS nº 5.350, de 12 de setembro de 2024. Altera a Portaria de Consolidação GM/MS nº 3, de 28 de setembro de 2017, para dispor sobre a Rede Alyné. Diário Oficial da União. 2024 Set 13;Seção 1(178):90.
5. Costa IB, Pimenta IDSF, Aiquoc KM, Oliveira ÂGR da C. Congenital syphilis, syphilis in pregnancy and prenatal care in Brazil: An ecological study. *PLoS One*. 2024;19(6):e0306120. <https://doi.org/10.1371/journal.pone.0306120>
6. Carvalho RR de, Carvalho F, Oliveira EB de, Silva RS da, Rados DV, Mattiello R, et al. Doubts about the

- diagnosis and treatment of syphilis in pregnancy among primary care professionals in a telehealth service. *PLoS One*. 2024;19(6):e0306192. <https://doi.org/10.1371/journal.pone.0306192>
7. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Doenças de Condições Crônicas e Infecções Sexualmente Transmissíveis. Agenda Estratégica para Redução da Sífilis no Brasil 2020-2021 [Internet]. Brasília: Ministério da Saúde; 2021 [cited 2024 Nov 23]. Available from: https://bvsm.sau.gov.br/bvs/publicacoes/agenda_reducao_sifilis_2020_2021.pdf
 8. Conselho Federal de Enfermagem. Nota técnica COFEN/CTLN nº 03/2017 [Internet]. Brasília: COFEN; 2017 [cited 2024 Oct 3]. Available from: <https://www.cofen.gov.br/wp-content/uploads/2017/06/NOTA-TÉCNICA-COFEN-CTLN-Nº-03-2017.pdf>
 9. Moura JRA, Bezerra RA, Oriá MOB, Vieira NFC, Fialho AV de M, Pinheiro AKB. Epidemiology of gestational syphilis in a Brazilian state: analysis in the light of the social-ecological theory. *Rev Esc Enferm USP*. 2021;55:e20200271. <https://doi.org/10.1590/1980-0-220X-REEUSP-2020-0271>
 10. Felix VC, Teixeira SVB, Silva LR da, Penna LHG, Barreto ACM, Pereira AL. External environment of woman and congenital syphilis in the light of Levine's Conservation Theory. *Rev. enferm. UERJ*. 2022;30(1):e64047. <https://doi.org/10.12957/reuerj.2022.64047>
 11. Sousa MF de, Santos BMP dos, Paz EPA, Alvarenga J da PO. Complexidade das práticas da enfermagem na atenção primária à saúde. *Enferm. foco (Brasília)*. 2021;12(Supl.1):55-60. <http://dx.doi.org/10.21675/2357-707X.2021.v12.n7Supl.1.5211>
 12. Santos LC dos, Silva FM, Domingos T da S, Andrade J, Spiri WC. Leadership and empowering behavior: understandings of nurse managers in Primary Health Care. *Acta Paul. Enferm. (Online)*. 2023;36:eAPE00051. <http://dx.doi.org/10.37689/acta-ape/2023AO000511>
 13. Ogata MN, Silva JAM da, Peduzzi M, Costa MV, Fortuna CM, Feliciano AB. Interfaces between permanent education and interprofessional education in health. *Rev Esc Enferm USP*. 2021;55:e03733. <https://doi.org/10.1590/S1980-220X2020018903733>
 14. Silva CMSC da, Junges JR, Barbiani R, Schaefer R, Nora CRD. Processo de trabalho na vigilância em saúde no Brasil: uma scoping review. *Cad Saude Colet*. 2021;29(4):604-615. <https://doi.org/10.1590/1414-462X202129040274>
 15. Bezerra ML de MB, Fernandes FECV, de Oliveira Nunes JP, de Araújo Baltar SLSM, Randau KP. Congenital Syphilis as a Measure of Maternal and Child Healthcare, Brazil. *Emerg Infect Dis*. 2019;25(8):1469-1476. <https://doi.org/10.3201/eid2508.180298>

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