

**Conclusion:** Despite free access through the SUS, a gap remains between knowledge and preventive practice among health science students. Low testing rates, inconsistent condom use, and underuse of PrEP and PEP reveal deficiencies in combined prevention. Higher education institutions must implement continuous and effective strategies to make academic training a tool for health promotion and professional responsibility regarding STIs and HIV.

**Keywords:** Sexually transmitted infections, Pre-exposure prophylaxis, Post-exposure prophylaxis, Sexual and reproductive health, Health science students.

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#### ANALYSIS OF CONGENITAL SYPHILIS INCIDENCE INDICATORS IN A NORTHERN BRAZILIAN STATE (2020–2023)

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**Introduction/Objectives:** Congenital syphilis (CS), a vertical infection caused by *Treponema pallidum*, is associated with stillbirth, prematurity, low birth weight, and early neonatal death. Despite being preventable through timely prenatal diagnosis and treatment, its rates remain high in Brazil, especially in the Northern region, where factors such as low education, poverty, and limited access to healthcare hinder control efforts. This study aimed to analyze CS incidence indicators between 2020 and 2023 in a Northern Brazilian state, identifying temporal patterns and factors contributing to disease persistence.

**Methods:** Descriptive study using secondary data from the Notifiable Diseases Information System (SINAN), Ministry of Health documents, World Health Organization reports, and scientific publications from SciELO and PubMed. Confirmed cases from 2020–2023 were included. Indicators analyzed included annual case counts and incidence rates per 1,000 live births. Descriptive statistics and trend graphs were used to illustrate case evolution and compare national and international targets for vertical transmission elimination.

**Results:** A total of 1,625 CS cases were reported between 2020 and 2023. The highest number occurred in 2020 (427 cases), followed by 2023 (412), 2022 (397), and 2021 (389), showing no clear downward trend. The national incidence

rate in 2022 was 10.3 per 1,000 live births, exceeding the PAHO target (< 0.5/1,000). Additional data showed high neonatal mortality, late prenatal initiation, and failures in testing. Studies suggest a link between CS and adverse socioeconomic conditions, as well as the COVID-19 pandemic's impact on prenatal care coverage and quality.

**Conclusion:** The findings highlight the persistence of CS as a public health problem. The continued high incidence reinforces the need to expand testing, improve prenatal care quality, ensure timely treatment of pregnant women and partners, and address structural inequalities. CS elimination requires intersectoral action, active surveillance, and greater equity in maternal–child healthcare.

**Keywords:** Congenital syphilis, Vertical transmission, Prenatal care, Maternal and child health, Health surveillance.

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#### EPIDEMIOLOGICAL ANALYSIS OF CONGENITAL SYPHILIS IN SOUTHERN BRAZIL: A DECADE OF DATA (2014–2024)

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**Introduction/Objectives:** Congenital syphilis is a major public health concern in Brazil, reflecting failures in early diagnosis and prenatal care. This study aimed to analyze the epidemiological profile of congenital syphilis in the country, considering sociodemographic, clinical, and care-related variables, including maternal age and education, prenatal care attendance, newborn sex, case classification, clinical outcome, and temporal and geographic distribution.

**Methods:** Observational, ecological, and quantitative study using data from DATASUS. Statistical analysis was performed in Microsoft Excel using ANOVA and Tukey tests, with  $p < 0.05$  and a 95% confidence interval.

**Results:** The state of Rio Grande do Sul accounted for 56.6% of all notifications. Most cases (67.1%) occurred among individuals identified as white ( $p = 0.0019$ ). Approximately 95.9% of mothers had received prenatal care ( $p = 0.0256$ ). Cases were most frequent among mothers with completed secondary education (20.4%;  $p = 0.014$ ). Regarding final case classification ( $p = 0.0238$ ), 91.3% were classified as recent congenital syphilis, 5.7% as stillbirth or miscarriage due to syphilis, and only 0.1% as late congenital syphilis. Regarding case outcomes ( $p = 0.0215$ ), 95.2% of newborns were recorded as alive. Temporal analysis ( $p < 0.001$ ) revealed an 87.67% increase in the mean number of cases between 2014 and 2017, with Santa Catarina showing the greatest proportional growth (147.1%).