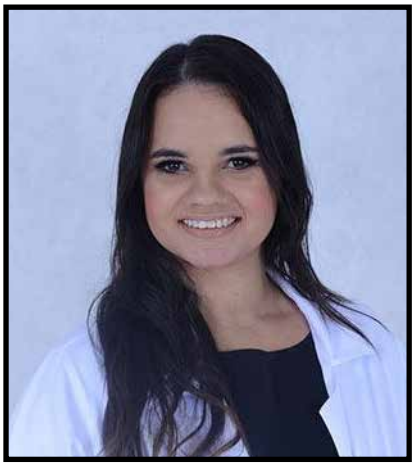
ISSN: 1676-4285

OBJN Online Brazilian Journal of Nursing
ENGLISH
Federal Fluminense University
AURORA DE AFONSO COSTA NURSING SCHOOL



Spatial analysis of reported cases of syphilis in pregnant women and congenital: ecological study

Dhyanine Morais de Lima[1], Nanete Caroline da Costa Prado[1], Wenysson Noleto dos Santos[1], Rebecca Stefany da Costa Santos[1], Mariana Melo Da Cruz Domingos Góis[1], Richardson Augusto Rosendo da Silva[1]

1 Federal University of Rio Grande do Norte

ABSTRACT

objective: Perform spatial analysis of reported cases of GS and CS in RN. Method: ecological study with a quantitative approach using secondary data, which highlights the results related to gestational and congenital syphilis in Rio Grande do Norte, RN. The collection of reported cases of SG and SC in RN will occur retrospectively from January 1, 2007 to December 31, 2017. The collected data will be related to the general data, the individual report and the residence data according to SINAN. All data collected will be organized in the Microsoft Excel for Office 365 program for tabulation, and later SPSS 20.0 will be used to obtain the number of cases of GS and CS in each municipality, in addition to the number of live births, i.e., statistical analysis.

Descriptors: Syphilis; Spatial Analysis; Geographic Information Systems.

Lima DM, Prado NCC, Santos WN, Santos RSC, Góis MMCD, Silva RAR. Spatial analysis of reported cases of syphilis in pregnant women and syphilis congenital: ecological study [preview note]. Online Braz J Nurs [Internet]. 2019 [cited year month day];18(2):e20196241. Available from: https://doi.org/10.17665/1676-4285.20196241

CONTEXTUALIZATION OF THE THEME AND RESEARCH PROBLEM

Syphilis is a sexually transmitted infection (STI) which is systemic and exclusive to humans. In addition to sexual transmission, acquired syphilis, the most common, vertical transmission to the fetus during the gestation period of a mother with Gestational Syphilis (GS), untreated or inadequately treated, called congenital infection or Congenital Syphilis (CS), is also recurrent. In addition to these routes, syphilis can be transmitted by blood transfusion and direct contact with infected objects, although less recurrent [1].

In the last Epidemiological Syphilis Report, there was a constant increase in the number of cases in pregnant women, congenital and acquired, in the last five years. This epidemiological situation in the country is attributed to several factors such as the increase in testing coverage, with the expansion of the use of rapid tests, in contrast to the reduction in condom use, resistance of health professionals to administer penicillin in Primary Care and the worldwide shortage of penicillin[2].

The use of spatial analysis as a health surveillance tool such as the Geographic Information System (GIS), can be used to obtain information that helps control syphilis. The GIS can provide a description of the health situation in a given geographical space, as well as the observation of the concentration of cases using maps. Through this method, it is possible to appropriately allocate resources to regions in risk situations identified by this method [3].

OBJECTIVES

General

Perform spatial analysis of reported cases of SG and SC in RN.

Specific

- Check the incidence of GS and CS cases in Rio Grande do Norte/RN;
- Analyze the spatial distribution of GS and SC cases in Rio Grande do Norte, from 2007 to 2017.

METHOD

This is an ecological study with a quantitative approach using secondary data, which highlights the results related to gestational and congenital syphilis in Rio Grande do Norte, RN. The study will be developed in the state of Rio Grande do Norte/RN, since it presented a considerable report rate of cases of GS and CS at national level. In the capital alone, the report rate was 35.58% in the period from June 2011 to September 2015, according to DATASUS. As the objective of this work is to perform the spatial analysis of reported cases of GS and CS in the state of Rio Grande do Norte, we chose to study the entire population, since this will be composed of GS and CS cases in the period from January 1 from 2007 to December 31, 2017 in order to observe the temporal trend and spatial distribution of congenital syphilis in the state of Rio Grande do Norte in the last 10 years.

The collection will take place retrospectively of reported cases of GS and CS in RN from January 1, 2007 to December 31, 2017. The collected data will be related to the general data, the individual notification and the residence data according to SINAN.

All data collected will be organized in the Microsoft Excel for Office 365 program for tabulation, and later SPSS 20.0 will be used to obtain the number of cases of GS and CS in each municipality, in addition to the number of live births, i.e., statistical analysis. Later, this database will be included in the Terra View 4.2.0 program together with the digital mesh compatible with the program. The data collection instrument will be the compulsory report form from SINAN, which is composed of other information, including general data, where the report date of the illness and the severity of the disease, in addition to the residence data such as, municipality residence, district and zone will be used as study variables. The study will be conducted in accordance with Resolution No. 466/12 of the National Health Council, which addresses the guidelines and regulatory standards for research involving human beings. The research will be sent to the Research Ethics Committee of the Federal University of Rio Grande do Norte (UFRN).

REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Guia de Vigilância em Saúde [Internet]. 2.ed. Brasília: Ministério da Saúde; 2017 [cited 2019 jun 29]. Available from:http://portalarquivos.saude.gov.br/images/pdf/2017/outubro/06/Volume-Unico-2017.pdf.
2. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Boletim Epidemiológico: SÍFILIS [Internet]. Brasília: Ministério da Saúde; 2017 [cited 2019 jun 29]. Available from: http://portalarquivos.saude.gov.br/images/pdf/2017/novembro/13/BE-2017-038-Boletim--Sifilis-11-2017-publicacao-.pdf.
3. Soares KKS. Análise espacial dos casos notificados de sífilis em gestantes e sifilis congênita no estado do Espírito Santo. Vitória. Dissertação [Mestrado] – Programa de Pós-graduação em Saúde Coletiva, Universidade Federal do Espírito Santo; 2017. [cited 2019 jun 29]. Available from: http://repositorio.ufes.br/bitstream/10/10119/1/tese_11290_2015_Karllian%20Kerlen%20Simonelli.pdf

AUTHOR PARTICIPATION IN THE RESEARCH:

DE LIMA DM and SILVA RAR contributed to the conception, construction of the project and writing of the article; PRADO NCC, DOS SANTOS WN, SANTOS RSC, GÓIS MMCD collaborated in writing the article.

Received: 07/08/2019
Revised:02/24/2020
Approved:03/27/2020