

Repository

Dataset name: dengue_incidence_data.csv, egg_density_index.csv

Version: 2.0

Data collection period: 2016 to 2019

Dataset Characteristics: Multivalued

Number of Columns: dengue_incidence_data.csv = 209; egg_density_index.csv = 209

Number of Rows: dengue_incidence_data.csv = 36; egg_density_index.csv = 36

Missing Values: Yes

Area(s): Public health, Epidemiological Surveillance, Dengue

Sources:

- Secondary:

- a. Municipal Health Department of Natal, State of Rio Grande do Norte, Brazil
- b. Brazilian Notifiable Diseases Information System (Sinan)

Description: The dataset comprises survey data from the following sources: dengue_incidence_data.csv, egg_density_Index.csv: public data provided by the Municipal Health Department of Natal, State of Rio Grande do Norte, Brazil; and data of the Brazilian Notifiable Diseases Information System (Sinan). The objective of this paper was to analyze incidence data of dengue cases registered in each neighborhood of Natal city, weekly sampled (52 epidemiological weeks a year) between 2016 – 2019).

Finally, the data dictionary is presented in Table 1 and Table 2.

Table 1: Description of Dataset Features - Dengue incidence data

Attributes (Brazilian portuguese/english)	Description	datatype	Value
Bairro/neighborhood	neighborhood name	text	
S201601	S = Week, 2016 = Year,	Numerical	

	01 = First Epidemiological Week		
The next columns follow a sequential order, 52 weeks per year (from 1 to 52) and 4 years from 2016 to 2019, completing 208 values.			
S201952	S = Week, 2019 = Year, 52 = Fifty-second Epidemiological week		

Table 2: Description of Dataset Features - Egg Density Index

Attributes (Brazilian portuguese/english)	Description	datatype	Value
Bairro/neighborhood	neighborhood name	text	
S201601	S = Week, 2016 = Year, 01 = First Epidemiological Week	Numerical	
The next columns follow a sequential order, 52 weeks per year (from 1 to 52) and 4 years from 2016 to 2019, completing 208 values.			
S201952	S = Week, 2019 = Year, 52 = Fifty-second Epidemiological week		

References

[1] Brazil (2020). Brazilian Notifiable Diseases Information System (Sinan). Home page Available from: <http://portalsinan.saude.gov.br/o-sinan>

Article: Data-Driven Computational Intelligence Applied to Dengue Outbreak Forecasting: a case study at the scale of the city of Natal, RN-Brazil

Authors:

Ignacio Sanchez-Gendriz^{1,3*}, Gustavo Fontoura de Souza², Ion de Andrade¹, Adrião Duarte Doria Neto³, Alexandre de Medeiros Tavares⁴, Daniele Barros¹, Antonio Higor Freire de Moraes², Leonardo J. Galvão-Lima¹, Ricardo Alessandro de Medeiros Valentim¹

* Correspondence Author: ignaciogendriz@gmail.com

¹Laboratory for Technological Innovation in Health (LAIS), Hospital Universitário Onofre Lopes, Federal University of Rio Grande do Norte (UFRN), Natal/RN, Brazil;

²Advanced Nucleus of Technological Innovation (NAVI), Federal Institute of Rio Grande do Norte (IFRN), Natal/RN, Brazil,

³Department of Computer and Automation, UFRN, Natal/RN, Brazil;

⁴Municipal Health Department, Zoonoses Control Center, Natal/RN, Brazil.