# Reduction of Vaccinal Coverage of Measles in Brazil and the Resurgence of the Disease Between 2017 and 2019: an Epidemiological Alert 

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Introduction: Measles a disease caused by Paramixovirus is an infectious disease with high transmissibility through the dispersion of salivary secretions from infected people. Clinically, it presents with fever, dry cough, coryza, tarsal conjunctivitis, enanthema (Koplik's spots), maculopapular rash craniocaudally disseminated, leukopenia and other changes in blood tissue. In Brazil, the National Immunization Program (PNI), that aims vaccination coverage (CV) - population immunized against a certain disease - of $95 \%$ brought several remarkable advances for public health, such as the elimination of measles circulation in 2016, certified by the Pan American Health Organization. However, in recent years, measles has again become a serious public health problem, whose outbreaks have generated alarming data suggestive of a deficit in the integration of surveillance, prevention and promotion actions of health.

Objectives: To analyze measles vaccination coverage in Brazil, during the period of 2017 to 2019; tabulate epidemiological data and identify the probable causes of measles recurrence in Brazil.

Methods: Ecological retrospective study with data obtained from DataSUS (TabNet), Epidemiological Reports and Bulletins from the Health Ministry. For the analysis of the possible causes for the reintroduction of the virus, a literature review was carried out in the SciELO and PubMed databases, using the boolean operators "Vaccine" and "measles". Articles were selected whose research location was Brazil. Articles whose methodology was not clear or well described were excluded.

Results: Between 2017 and 2019, 23,751 cases in Brazil were confirmed. In 2017 vaccination coverage was $68.05 \%$, a number that dropped to $66.95 \%$ in 2018. From 2017 to 2018, 10,262 cases were confirmed, 9,783 cases in Amazonas; 389 in Roraima; 54 in Pará; 45 in Rio Grande do Sul; 19 in Rio de Janeiro; while Sergipe, Pernambuco, São Paulo, Rondônia, Bahia and the Federal District registered four cases or less. The decline in 2019 was even more abrupt: $42.68 \%$ CV. That year 13,489 cases were confirmed in Brazil; 12,296 in São Paulo; 429 in Paraná; 155 in Rio de Janeiro; 151 in Pernambuco; 115 in Minas Gerais and 35 in Bahia. During these years, 27 deaths were confirmed in five national states: Roraima, Amazonas, Pará, Pernambuco and São Paulo.

Discussion and Conclusions: The population's lack of information regarding the severity of the disease led to a decrease in vaccination coverage (CV), this coupled with the entry of the Venezuelan genotype D8 virus into Brazilian territory, culminating in the reintroduction of measles in Brazil. In order to minimize the emergence of new cases and achieve the elimination of this pathology once more it is necessary to increase vaccination coverage to values above $95 \%$ (national vaccination coverage target according to PNI for the eradication of the disease) and to improve the integration of internal political-preventive actions so that they include the entire Brazilian population and immigrants in the fight against this disease.

Key-words: Measles; Immunization; Vaccination coverage.

