MALARIA IN THE BRAZILIAN AMAZON: META-ANALYSIS OF THE DISTRIBUTION, EPIDEMIOLOGICAL PROFILE, RISK FACTORS, AND IMPLICATIONS FOR PUBLIC HEALTH

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Introduction: Malaria is an infectious, febrile, acute, and potentially severe disease caused by the parasite *Plasmodium* spp. It has a significant impact on morbidity in tropical and subtropical countries. In Brazil, *P. vivax*, the main species found in the Americas, has a heterogeneous geographic distribution, with temporal and spatial variations, including areas of high incidence, disease-free regions, and locations with low transmission risk**.**
Aims and scope: To determine an accurate meta-analysis of the epidemiological profile of malária in the Amazon Basin in Brazil.
Methods: This was a retrospective, descriptive, and cross-sectional epidemiological study based on the meta-analysis of secondary data on malaria in the Brazilian Amazon Region, between 2012 and 2023. The data were collected through the National Center for Epidemiological Intelligence and Genomic Surveillance (CNIE), available on the Ministry of Health's website, and included in the research were malaria cases resulting from *Plasmodium vivax* infection. Descriptive analysis was performed using the Stata software to assess the following variables: race/color, age, sex, and the parasitic incidence in the Amazon basin per 1,000 inhabitants.
Results and findings: During the analyzed period from 2012 to 2023, a total of 3,010,283 malaria cases were reported, of which 41,160 were in pregnant women and postpartum women. The majority of the reported cases were in males (61%), of mixed race/color (67.5%), and in the age group of 20–29 years (19.49%). The analysis conducted to evaluate the incidence per 1,000 inhabitants revealed that during the analyzed period, the incidence was 5.92 cases per 1,000 inhabitants. Geographical maps based on models indicate the highest concentrations of malaria cases per 1,000 inhabitants in the states of Acre (19.92), Roraima (10.86), Amazonas (9.30), and Amapá (9.28).
Conclusions: Malaria was highly prevalent. Our results can guide future health initiatives through public policies aimed at strengthening epidemiological surveillance, intensifying vector control measures, and expanding access to early diagnosis and treatment. Additionally, integrated actions between the health, environment, and education sectors are crucial to reduce malaria transmission and minimize its impact on the Amazonian population.

Keywords: Brazilian Amazon, Malaria, Public Health.