

**TITLE:** COMPARATIVE ANALYSIS FOR THE EPIDEMIOLOGICAL ASPECTS OF DENGUE VIRUS.

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### **ABSTRACT**

Dengue is an acute febrile disease of viral etiology in the classic form and serious when it presents the hemorrhagic form. Dengue is now the most important arboviral disease that affects the humanity, being a serious public health problem worldwide, especially in tropical countries, where environmental conditions favor the development and proliferation of *Aedes aegypti*. In this study, we conducted a comparative analysis of the epidemiology of dengue disease in Brazil, for a better understanding of the context of this epidemic and guiding future clinical diagnoses. In 2015, there were 1.649.008 cases of dengue in Brazil. During this period, the southeast region registered the highest number of cases (62.2%) compared to the national total, followed by the northeast (18.9%), midwest (13.4%), south (3.4%) and north (2.1%). Analysis of the monthly distribution in Brazil shows that the peak incidence occurred in April (230 cases/100.000 inhabitants), followed by a decrease in May (116 cases/100.000 inhabitants) trend that is observed in subsequent months to October; from November, the incidence begins to experience mild increasing trend. Among the municipalities with the highest incidence per population stratum in relation to the number of inhabitants are: Rio Claro/SP, with 10.805 cases/100,000 inhabitants; Sorocaba/SP, with 8815 cases /100,000 inhabitants and Campinas/SP, with 5766 cases/100.000 inhabitants. In 2015, there were 1.569 confirmed cases of severe dengue and 20.329 cases of dengue with warning signs. In the same period of 2014 were 764 confirmed cases of severe dengue and 8.436 cases of dengue with warning signs. The Southeast region recorded the highest cases of severe dengue and dengue with warning signs (863 severe; 15.000 with alarm signals) and São Paulo (625 severe; 13.074 alarm signals), Minas Gerais (123 severe; 984 with alarm signals) and Rio de Janeiro (50 serious; 340 alarm signals). In this period, 863 deaths were confirmed by dengue, an increase in the country of 82.5% compared to the same period from 2014, when they were confirmed 473 deaths. The results of clinical and epidemiologic data presented in this study provide important aspects about the dengue virus profile in Brazil and in the world, and can assist in government decisions, professionals of health and society in choosing stocks and diagnostics to combat this disease that there is no specific treatment for dengue infection, nor any vaccine to prevent it. Pending the development of a new vaccine, the only effective means of prevention is to protect individuals against mosquito bites.

**Keywords:** Dengue virus, diagnosis, clinical, laboratory

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