

Yellow Fever Outbreak in Brazil: A crucial time for epidemiologic surveillance

Brote de febre amarela em Brasil: um momento crucial para a vigilância epidemiológica

Surto de Febre Amarela no Brasil: um momento crucial para a vigilância epidemiológica

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Dear Editor:

Arthropod-borne viruses have become a significant public health problem; with the emergence and re-emergence of arboviral diseases worldwide, diseases such as Dengue, Zika and Chikungunya fever have caused a considerable burden of morbidity and mortality.¹

Brazil lived a crucial time for public health and epidemiologic surveillance on the fight against yellow fever (YF) from July/2016 to June/2017, mainly in southeastern states (Espírito Santo, Minas Gerais, Rio de Janeiro and São Paulo) where the highest population concentration occurs, being the most economically developed region of the country. In this ongoing outbreak, the Brazilian Ministry of Health (BMH) reported 779 confirmed cases, 262 confirmed deaths, in addition to 1659 epizootics of non-human primates (PNH). In 2018, 130 human cases were confirmed, and 53 of these died, representing a lethality rate of 40.8%, 162 under investigation and 2650 epizootics in HNP.^{2,3} The Brazilian epidemic YF in the last 10 years, mainly concentrated in Minas Gerais and Espírito Santo states, which had the highest number of confirmed cases, but eventually expanding to Rio de Janeiro and most recently to São Paulo.⁴

In 2018, the expansion of viral circulation in Brazil is maintained in urban areas, such as in the state of São Paulo, increasing the risk of re-urbanization of the transmission cycle of the yellow virus, given that certain affected areas present a considerable index of *Aedes aegypti* infestation.

Unfortunately, amid this public health crisis, Brazil is also undergoing economic and political issues which led to substantial budget cuts, affecting capacity of public health departments, such as epidemiological surveillance, and its ability to respond promptly and efficiently. Therefore, it is imperative that the states strengthen their surveillance activities and support health facilities in early identification of suspect cases. We should also encourage prevention strategies, such as mosquito control programs and health education. Only then, we will be able to curb this outbreak and its potential dire consequences for our population.

An extremely important factor in preventing the spread of YF disease is the notification of cases of epizootics, deaths of non-human primates, which act as sentinels for this disease, once identified a case of epizootics should initiate the vaccination of the population of the site.⁵

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BMH raised YF vaccination campaigns in cities in southeast region, adopted fractioned vaccination as a way to guarantee vaccines to population under risk. It must be implemented a greater etymological vectors (to identify the presence of YF virus in mosquitoes), greater epidemic control in roads, ports and airports related to vaccination cards, avoiding circulation of susceptible people circulation to risk areas as public health strategy to reduce YF virus circulation to other states and districts considered to be free, preventing a new outbreak in other regions. As it is treated as an immunopreventable disease, we must invest in the production of a new vaccine, safer, more efficient and with less adverse effects.

Keywords: *Yellow Fever. Epidemiological Monitoring. Epidemiology.*

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