

# Situational analysis of epidemiological characteristics of dengue cases in Kota Bharu district, Kelantan from 2018-2022

**Ahmad Zulfahmi Mohd Kamaruzaman, Zulhusni Najib, Sharina Dir, Wan Soliha Wan Mohd Hanafi, Siti Aishah Zakaria**

Kota Bharu District Health Office, Kota Bharu, Kelantan, Malaysia

## ABSTRACT

**Introduction:** Dengue fever is a significant public health concern in Malaysia, posing substantial challenges to healthcare systems and the population at large. As a vector-borne disease, the virus is transmitted by *Aedes* mosquitoes, which thrive in urban and semi-urban environments. The country's tropical climate provides favourable conditions for mosquito breeding, contributing to the persistence of dengue transmission. Dengue fever continues to be a significant public health challenge worldwide, including in the district of Kota Bharu. The purpose of this study was to identify the epidemiological trend of dengue cases during a five-year period in Kota Bharu, characterise the epidemiological features, and offer insight into future dengue case management strategies. **Materials and Methods:** A descriptive study was done using data collected from E-Dengue from 1 January 2018 till 31 December 2022. The collected data were subsequently entered and analysed using SPSS version 26. **Results:** Between 2018 and 2022, Kota Bharu district registered 7504 dengue cases, with 2019 having the most cases (3365 cases). Majority of the cases involved adults (62.2%). There were nearly equal numbers of cases recorded among men and women, 3672(48.9%) and 3832(51.1%), respectively. According to the sub-district, the majority of cases were recorded in Panji (21.2%), followed by Kubang Kerian (15.7%), and Badang (12.5%). Other than fever, headache (92%), myalgia/arthralgia (90.3%), and nausea/vomiting (35.3%) were the most frequently reported symptoms. **Conclusion:** Dengue fever offers a serious health risk, particularly in Kota Bharu, where incidence rates are rising and its effects on people's lives and healthcare infrastructure are profound. This descriptive study provides an epidemiological insight for a comprehensive strategy that includes vector control, surveillance, community involvement, and ongoing research.