Epidemiological Characteristic of Dengue Cases In Kota Kinabalu from 2016-2021: A Descriptive Analysis

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ABSTRACT:

INTRODUCTION: In Sabah, the number of dengue cases had risen significantly. The mosquito-borne flavivirus that causes dengue infection is transmitted by female Aedes mosquitoes. Therefore, the aim of this study is to determine the 5-year epidemiological trend of dengue cases in Kota Kinabalu, describe the epidemiological characteristics, and provide insight into how to better manage dengue cases in the future. METHOD: Data from five years of dengue cases registered in E-Denggi were reviewed and analysed retrospectively using Microsoft Excel. RESULT: According to the database, there was a high prevalence of dengue cases in 2020 (n= 1079, 25.8 percent). Pantai subdistrict had the highest number of dengue cases (n=885,20.8 percent) and three of the seven fatal dengue cases occurred in this area. Pantai (n= 247, 22.7 percent), Petagas (n= 170, 15.7 percent), and Luyang A (n= 161, 14.8 percent) are the most vulnerable to dengue outbreaks in the urban area. Furthermore, nine out of the eleven dengue hotspot areas involved residential areas. There were also a total 4245 dengue cases reported, with 2328 (54.55 percent) being male and 1917 (45.45 percent) being female. Sixty eight percent of cases (n= 2882) were in the 15-59-year-old age group while mortality due to severe dengue were those at the age of 0-14-years old (n=2) and those at the age of more than 60 years old (n=4). In addition, vomiting and abdominal pain were the most common warning signs, with vomiting (n =1831) and loose stool (n = 532) being more common in fatal cases. Aedes Albopictus is the primary vector of dengue fever in Kota Kinabalu. The data revealed that Aedes Albopictus immatures (n=1131) were more prevalent in water containers inside households than Aedes Aegypti immatures (n=128). CONCLUSION: Dengue can only be controlled and prevented if the entire community gets involved. Vulnerable locations should be targeted more frequently for integrated vector management (IVM) that includes social mobilisation and behavioural modification at the community level. Housing areas in Pantai, Petagas, and Luyang A subdistricts should also be the focus of COMBI's efforts. There should be regular campaigns and programmes to raise awareness among school children, adults in the workforce, and the general public about the increased risk of death for those in the most susceptible age groups. There should be strict enforcement of all mosquito control measures, including measures to protect people from mosquitoes and steps to prevent mosquitoes from breeding.

KEYWORDS: Dengue Cases, Integrated Vector Management, Vector Control