

**A retrospective analysis on incidence of hand, foot, and mouth disease in Kota
Kinabalu, district of Sabah Malaysia**

ABSTRACT

Malaysia is one of the most affected countries by hand, foot, and mouth disease (HFMD) outbreak. Sabah, as a state of Malaysia, has an incidence of 2,200 HFMD cases in 2018. Kota Kinabalu hits the highest records of HFMD cases compared to other districts. Given the marked increase in HFMD cases, HFMD become a public health concern which is associated with a substantial economic and social burden. From the perspective of public health, it is important to study the disease patterns and associated risk factors. This paper describes the incidence of HFMD and potential demographic risk factors in this understudied Kota Kinabalu District. A total of 3,327 HFMD cases from year 2013 to 2018 were obtained from the Kota Kinabalu Health Office. Cases were classified according to year of incidence, patient's gender, age, and ethnic. Incidence of HFMD and percentage of severe HFMD were calculated for each category. Odd ratio of severe HFMD for each category was assessed with logistic regression model. Chi-square tests were implemented to identify the association between the case characteristics and severe HFMD. This study found that male and Sabah indigenous group are predominant in HFMD incidence. Chi-square test indicated that severe HFMD is significantly associated with patient's age and ethnicity.