

The Changing Incidence of Dengue Fever in Hulu Langat, Selangor: A 5-Year Registry-Based Analysis

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ABSTRACT

INTRODUCTION: Dengue fever, a mosquito-borne disease that occurs in tropical and subtropical areas of the world, is a significant threat for the mankind in both developing and developed countries. Dengue virus infection is a systemic disease and has dynamic change in clinical phase. This research aimed to study the epidemiology of dengue with reference to demographic profile, circulating serotypes and complications. **METHODS:** A literature survey was conducted and demographic data between 2014 and 2018 in e-Dengue registry were analysed to describe the epidemiology of dengue cases in Hulu Langat. **RESULTS:** The highest incidence rate, 254.3 per 100,000 populations was recorded in 2015 (n=14,939). Urban sub-districts (88.3%), male (57%), Malay (61.5%), age group 18-40 years old (51%) and landed house (61%) contributed most of the cases. Case-fatality rate increased from 2014 to 2017 (0.0018 to 0.0022) but decreased in 2018 (0.0014). Out of 114 mortalities, majority were male (53%), age 18-40 years old (46%) and Malay (63%). Complications recorded were liver failure (60%), renal failure (51%), encephalitis (18%) and myocarditis (18%). In year 2014-2015, DEN-1 serotype was dominantly reported (52.2% and 56.5%), shifted to DEN-3 in year 2016-2017 (34.8% and 43.4%) and DEN-2 in year 2018 (49.5%). **DISCUSSION:** Hulu Langat, being hyperendemic, the occurrence of multiple organ involvement following dengue infections has become a frequent finding. The study emphasizes the need of epidemiological and entomological surveillance to monitor trends in dengue distribution, seasonal patterns and circulating serotypes to guide dengue control activities, especially in rapidly growing urban and suburban areas.

KEYWORDS: Dengue Fever, Epidemiology, Hulu Langat, Selangor, Malaysia

The Determinant of Early Menarche Among Junior High School Girls

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ABSTRACT

INTRODUCTION: Consuming more food sources of energy and macro nutrients above the recommendation, lower physical activity and mother role have consequences to early menarche among girl teenagers, then related to the risk of degenerative disease at the later age. The objective of the study is to analyse the factors that related with early menarche among junior high school girls. **METHODS:** This cross-sectional study was undertaken among girls in two junior high school in Padang, Indonesia by using questionnaires from May until June 2018. The data was analysed by Independent-t test. **RESULTS:** A total of 159 junior high school girls were participated in this study. Early menarche was identified in 23.3% girls. Of 22.6% girls was identified as overweight status. There was an association between food intake, physical activity and age at menarche of mother with age at menarche of girls. Early menarche was significantly higher consuming protein (p=0.001), consuming fat (p=0.0001), more frequent of fast food (p=0.0001), lower physical activity (p=0.030), early age at menarche of mother (p=0.0001) among junior high school girls. **DISCUSSION:** Food intake, including fast food intake and physical activity are the modifiable factors that have much attention according to age at menarche among girl teenagers.

KEYWORDS: food intake, physical activity, age at menarche of mother, junior high school girls