TEMPORAL PATTERNS AND A DISEASE FORECASTING MODEL OF DENGUE HEMORRHAGIC FEVER IN JAKARTA BASED ON 10 YEARS OF SURVEILLANCE DATA

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Abstract. This study aimed to describe the temporal patterns of dengue transmission in Jakarta from 2001 to 2010, using data from the national surveillance system. The Box-Jenkins forecasting technique was used to develop a seasonal autoregressive integrated moving average (SARIMA) model for the study period and subsequently applied to forecast DHF incidence in 2011 in Jakarta Utara, Jakarta Pusat, Jakarta Barat, and the municipalities of Jakarta Province. Dengue incidence in 2011, based on the forecasting model was predicted to increase from the previous year.

Keywords: dengue hemorrhagic fever, time series analysis, seasonal autoregressive integrated moving average, forecasting

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