PREVALENCE OF DENGUE FEVER (DF) AND DENGUE HEMORRHAGIC FEVER (DHF): A DESCRIPTION AND FORECASTING

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ABSTRACT

This paper presents the prevalence of dengue fever (DF) and dengue hemorrhagic fever (DHF) admitted at Mindanao Sanitarium and Hospital (MSH), Iligan City from the year 2000-2008.

A total of 606 cases were reported to have DHF and 993 for DF. For DHF, 51.81% were males and ages 4-12 contributed 60.73% of the reported cases. In the 993 cases of DF, it has been noted that 55.09% were males; ages 7-34 showed higher DF susceptibility (72.21%). Majority of the dengue cases reported as of 2000-2004 are coming from Iligan City, specifically in Brgy. Del Carmen and Brgy. Palao. Also, a possible alternating increase-decrease-increase pattern in the number of cases in each year has been noted to be consistent throughout the study period.

Furthermore, this study tries to develop a univariate time series model forecasting the monthly occurrence of dengue cases at MSH. The results showed that the autoregressive integrated moving average forecast curves were consistent with the pattern of the observed values.

Identification of the predominant dengue serotypes that are most common in Iligan city and nearby localities is one of the strongest recommendations of this study. Further recommendations include: (1) analyses of other patients’ profile like blood type, stress factors, and diet, (2) dissemination of this study’s result to the public via forums and (3) expansion of the research locale.

Keyword: Dengue Fever, Dengue Hemorrhagic Fever, Prevalence, ARIMA,