MODELING ON EVENT NUMBER OF ELEPHANTIASIS (FILARIASIS) DISEASE IN EAST ACEH REGENCY USING MULTIVARIATE ADAPTIVE REGRESSION SPLINES (MARS)

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Abstract

Filariasis is a disease that is considered very fast transmission. Transmission of the disease is caused by Filaria worms that are transmitted through various species of mosquitoes. Once bitten mosquito, the parasite will spread. Health Research Data Riset Kesehatan Dasar in 2007 showed that East Aceh included who donated the incidence of elephantiasis disease with the largest percentage in Indonesia with a prevalence of 1.85%. Contributing factors are external factors and internal factors. Trace it, there should be an analysis of the factors that affect the status of infected / whether or not household members (ART) on elephantiasis disease by using descriptive analysis and MARS. Descriptive analysis aims to study the characteristics of ART based of factors, while the MARS analysis to determine factors that influence the elephantiasis disease and classification accuracy. Descriptive analysis showed ART in East Aceh in 2007 as much 109 ART consists of 35.8% (39 ART) that became infected with elephantiasis, and 64.2% (70 ART) are not infected with the elephantiasis disease. MARS method shows the factors that influence is main job ($X_2$) and educational level ($X_2$), The accuracy in East Aceh on the basis of infection status or not of elephantiasis disease of 68.81% and miss classification is 31.19%.

Keyword: ART, Filariasis, MARS
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