

ABSTRACT

Measles is a disease that can be prevented by immunization, it is caused by a virus (Morbillivirus) and potentially cause outbreaks. In 2014, the highest measles cases in East Java was Bangkalan with 469 cases and 11 outbreaks or 11 villages. The purpose of this study was to develop a predictive model of Measles Outbreak on village level by examining immunization influence factors in Bangkalan. This study was used a case control approach. The sample in this study were 43 villages with 11 cases villages and 32 control villages. The respondents in this study were all health officers who in charge with immunization and 374 mothers of children aged <5 years. Data were analyzed using multiple logistic regression test. The results showed that the quality of vaccine management in outbreak area of measles does not correspond with the Ministry Regulation no 42 Year 2013, but 90.9% of villages with outbreaks had high efficacy of measles vaccine. Variables that influence a prediction model of village with measles outbreak were the validity of the coverage data of measles immunization ($p = 0.037$) and measles immunization schedule ($p = 0.035$) with the model prediction of village with measles outbreak in Bangkalan = $-3.855 + 2.466$ (the validity of the report data measles immunization was invalid) + 1.798 (measles immunization schedule was not proper). The conclusion of this study is the validity of the coverage data of measles immunization and schedule of immunization services is a predictor of measles outbreaks on village level in Bangkalan. To prevent measles outbreaks, a village should have high and valid coverage data of measles immunization and good immunization service schedule.

Keywords: measles outbreak, immunization, Bangkalan District