

**ABSTRACT****Determinants of Clinical Diphtheria Incidence in Bangkalan After Sub National Diphtheria Immunization Days In 2012**

The government had held sub-national diphtheria immunization days in 2012 to combat an outbreak of diphtheria in East Java province. After the Sub-National Immunization Days (SNIDs), there were districts which had high incidence and Bangkalan district was the highest. The research aimed to analyze the determinants of diphtheria in Bangkalan after SNIDs. This research was case control study with 31 subjects as case and 124 as control spread in 25 case villages and 25 control villages. Bivariate analysis used chi-square and simple logistic regression. Multivariate analysis used logistic regression. Bivariate analysis result showed that individual and household variables that had associate with incidence of diphtheria in the Bangkalan after SNIDs of diphtheria vaccine in 2012 were DPT immunization status, the status of SNIDs, age, and mother's education level. In this study, there were not associate between village variables with diphtheria in the Bangkalan after SNIDs. Multivariate analysis result showed that the dominant risk factors for diphtheria in Bangkalan after SNIDs were no DPT immunization ( $p=0,012$ ;  $OR=4,765$ ), incomplete DPT immunization ( $p=0,001$ ;  $OR=6,276$ ), 3-7 years of age ( $p=0,014$ ;  $OR=15,137$ ), 7-15 years of age ( $p=0,001$ ;  $OR=41,984$ ), and no immunization in SNIDs ( $p=0,020$ ;  $OR=3,553$ ). The recommendation is implementation of the SNIDs must consider the DPT immunization status and good supervision, related sector cooperation, repeated diphtheria immunization (booster immunization), improving the recording and reporting of immunization coverage, sosialization about immunization is expanded and adapted to the level of public education, and more research on effective counseling and research on titer antibody.

Keywords: diphtheria, sub-national diphtheria immunization days, determinant