MODELING OF INFANT MORTALITY IN THE DISTRICT BOJONEGORO REGRESSION ANALYSIS USING NEGATIVE BINOMIAL

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ABSTRACT

Number of Infant Deaths in Bojonegoro still quite high and has increased every year. This increase is shown by the number of infant deaths in 2008 as much as 7.36% in 2009 and increased to 7.80% and increased again to 9.35%. This study aims to determine whether or not the case in the data overdispersi infant deaths in 2011 were obtained from the District Health Office Bojonegoro using negative binomial regression analysis. This study shows that the average number of infant deaths in each district by 7 cases per year so that cases of infant mortality in Bojonegoro are still very high and the number of cases of infant mortality was highest in Sub Baureno 17 cases. Based on the results of the negative binomial regression provides a better model in comparison with the Poisson regression because it produces a smaller AIC value is equal to 162.00. And negative binomial regression models based on known variables that affect the number of infant deaths is the percentage of LBW (X1), and the percentage of healthy house (X10). So that the model can be formed as follows,

\[ \mu = \exp (-0.412 +0.165 X1 +0.019 +2.425 X10 \Theta) \]

Keywords: Number of Infant Deaths, Regression Negative Binomial