ANALISIS REGRESI COUNT DATA UNTUK PEMODELAN JUMLAH KASUS PENYAKIT TUBERKULOSIS DI KABUPATEN BANYUMAS

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Abstract	Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis. Banyumas Regency is one of the districts with quite high Tuberculosis cases in Central Java. This study aims to analyze the factors that affect the number of tuberculosis cases in Banyumas Regency using regression analysis of count data. Poisson regression is the simplest count data regression model that has the assumption of equidispersion, that is, the mean value equal to the variance. However, in its application, these assumption is often not fulfilled, for example, there are cases of overdispersion (variance value is greater than the mean). In this study, to overcome the case of overdispersion, an approach was used using Generalized Poisson Regression (GPR) and negative binomial regression. The results showed that the data on the number of tuberculosis cases in Banyumas Regency in 2019 was overdispersion. The data modeling of the number of tuberculosis cases in Banyumas Regency with the negative binomial regression model is better than the GPR model. Meanwhile, the only predictor variable that affects the number of tuberculosis cases in Banyumas Regency is the sex ratio of productive age (15-49 years).
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