

## Detecting Overdispersion for Mortality AIDS in Zero-inflated Negative Binomial Death Rate (ZINBDR) Co-infection Patients in Kelantan

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**Abstract :** Overdispersion is present in count data, and basically when a phenomenon happened, a Negative Binomial (NB) is commonly used to replace a standard Poisson model. Analysis of count data event, such as mortality cases basically Poisson regression model is appropriate. Hence, the model is not appropriate when existing a zero values. The zero-inflated negative binomial model is appropriate. In this article, we modelled the mortality cases as a dependent variable by age categorical. The objective of this study to determine existing overdispersion in mortality data of AIDS co-infection patients in Kelantan.

**Keywords :** negative binomial death rate, overdispersion, zero-inflation negative binomial death rate, AIDS

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