

## **Determination Power and Sample Size Zero-Inflated Negative Binomial Dependent Death Rate of Age Model (ZINBD): Regression Analysis Mortality Acquired Immune Deficiency Decency Syndrome (AIDS)**

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**Abstract :** Sample size calculation is especially important for zero inflated models because a large sample size is required to detect a significant effect with this model. This paper verify how to present percentage of power approximation for categorical and then extended to zero inflated models. Wald test was chosen to determine power sample size of AIDS death rate because it is frequently used due to its approachability and its natural for several major recent contribution in sample size calculation for this test. Power calculation can be conducted when covariates are used in the modeling 'excessing zero' data and assist categorical covariate. Analysis of AIDS death rate study is used for this paper. Aims of this study to determine the power of sample size (N = 945) categorical death rate based on parameter estimate in the simulation of the study.

**Keywords :** power sample size, Wald test, standardize rate, ZINBDR

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