

**MODELLING MATERNAL MORTALITY AND INFANT
MORTALITY IN EAST JAVA BY USING BIVARIATE
POISSON REGRESSION**

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ABSTRACT

Maternal mortality is the deaths of women during pregnancy or within 42 days from the termination of pregnancy. Infant mortality that occurred between the time after the baby born until has not been exactly one year old. Until 2012, infant mortality and maternal mortality in East Java still have not reached MDGs target. The number of maternal mortality and the number of infant mortality are two things that are correlated and includes cases that are categorized into discrete variables and Poisson distribution. Therefore many researches about maternal mortality and infant mortality in East Java have been resolved using Poisson regression model. Bivariate Poisson regression is the best method for modeling maternal mortality and infant mortality. The results of this study are variables that significantly have effects on maternal mortality using bivariate Poisson regression is percentage of health professionals. Variable that significantly has effect on infant mortality are percentage of health professionals, percentage of giving birth by healthy professionals, percentage of pregnant women carry K4 program, percentage of PHBS household, percentage of pregnant women get Fe3 tablets, percentage of women are married under 20 years, and percentage of active participants KB.

Keywords: *Maternal Mortality, Infant Mortality, Bivariate Poisson Regression*

