

# Multiple Decrement Models and Join point Regression Analysis

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## Abstract

Newborn decrement is always a major concern in any society. Over the past few years, there have been some leading causes of neonates and child death obtained across India. In order to address this issue, it is necessary to identify the probabilities, annual percent change and solutions to decrements. Therefore, Multiple decrement theory and Joinpoint regression analysis has been used in comparing, evaluating and percent change for neonatal (0-27 days) and child deaths (1-59 months) for the period 2000 to 2013 for India. For this study, the data from John Hopkins University's project "Maternal, Newborn and Child causes of Death" has been taken to show the different causes of neonatal and child mortality for India. Among neonates, Preterm birth complications had been leading cause of deaths followed by Intrapartum related events and Sepsis/ meningitis/ tetanus. While among child, Pneumonia and Diarrhoea has been major cause of deaths from 2000-2013 in India. Joinpoint regression analysis has been frequently used in analyzing the trend in cause-specific mortality.

**Keywords:** Neonatal Mortality (0-27 days), Child Mortality (1-59 months), Multiple Decrement Models, Joinpoint regression analysis, India