

ABSTRACT

Title: DETERMINANTS OF UNDER-FIVE MORTALITY IN KENYA: AN APPLICATION OF NEGATIVE BINOMIAL REGRESSION ANALYSIS

Author: Ng'ethe J.W.

Affiliation: Ministry of Health, Machakos

Introduction: Under-five mortality is a key indicator of the state of public health of a society. Although the global under-five mortality rate declined by 53 percent between 1990 and 2015, the under-five mortality in Kenya remains high at 52 deaths per 1000 live births.

Objective: The main objective of this study was to determine the factors influencing under-five mortality in Kenya.

Methodology: The study involved analysis of secondary data from a population based cross sectional survey, the 2014 KDHS. The population of interest were the mothers who were age 15-49 years and had given birth in the five-year period preceding the survey. The negative binomial regression model was used to evaluate the influence of selected determinants on under-five mortality.

Results: 15,755 women who had at least given birth to a singleton in the five years preceding the survey were included in the final analysis. Each additional child born with a preceding birth interval of less than 24 months increased the risk of the mother losing a child before the attainment of their fifth birthday by 2.41 times (IRR; 2.41, 95% CI; 2.23-2.60). Every additional child delivered when the mother was either less than 18 years or above 35 years old, increased the risk of the mother losing a child by 17% (IRR ;1.17, 95% CI; 1.06-1.29). The women who had given birth to five children or more had a 26% (IRR 1.26, 95% CI; 1.08-1.46) higher risk of losing a child before attainment of their fifth birthday compared to those who had given birth to less than five children.

Conclusion: Preceding birth interval, parity and maternal age at birth are key determinants of under-five mortality in Kenya.