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Inequality and Child Survival in Kenya: A Probit Model Approach

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## Abstract

Research has shown that generally, survival rates of individuals and their welfare levels are related. Consequently, an important summary measure of the wellbeing of a household is the survival or death of any of its members. Child death, particularly under-five mortality is widely acknowledged as a good proxy for a household's wellbeing, because it responds more rapidly than adult mortality, to changes in the environment, including effects of income, and income distribution among many other factors. The link between child survival and these determinants has obvious relevance for the design, formulation and implementation of policies in both health and non-health sectors which have a bearing on child health.

In Kenya, conventional intervention focus mainly on the delivery of various clinical and public health technologies to the neglect of economic and psycho-social constraints that may restrict households from using the available health facilities thereby predisposing the child to higher risks of mortality. One of the most fundamental constraints to the use of health facilities is the income inequality. But the extent to which income, income distribution or any of the other determinants is critical for child survival is not known. This makes it difficult to target financial and other resources appropriately.

The aim of the present study is to estimate welfare weights that can reveal the extent to which household income distribution and other determinants are critical to child survival with a view to facilitating improved targeting of healthcare resources. Using household survey data, the study employs instrumental variable probit model to estimate parameters of an abbreviated social welfare function. The probit index for child survival is computed and used to compare child survival levels by province, given a certain income level, its distribution and the extent to which certain basic needs are met in each province. Child survival probabilities are estimated and reported by sex of the child for each of the provinces. Preliminary findings unravel the complex channels through which income inequality is associated with child survival.