

UNDER-FIVE MORTALITY IN BOLIVIA: SURVIVAL ANALYSIS AND RISK FACTORS FROM 2003, 2008 AND 2016 HEALTH AND DEMOGRAPHIC SURVEYS

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ABSTRACT

Infant mortality under five years (5q0) is a factor associated with the well-being of the population and an indicator of health development and the socioeconomic status of a country. According to the Health Equity Report 2016, the countries with the highest under-five mortality rate in Latin America and the Caribbean are Bolivia and Haiti. This study seeks to identify the effects of individual, household and community (contextual) factors on the under-five mortality rate. Initially, we estimate survival times for 2003, 2008 and 2016 health and demographic surveys using the Kaplan-Meier function. Then, we use Cox's proportional hazards model and Cox's hierarchical (or multilevel) proportional model to compare children under-five's risk of death for different years and covariates. We find an increase in the concentration of deaths in the first year of life over time, especially during the first month of life (neonatal mortality). In addition, the study shows important differences in the risk of death respect to the region of residence (East and West for data from the ENDSA 2003 and Altiplano, Valleys and Llanos for the ENDSA 2008 and EDSA 2016). Hence, for policy recommendations, future studies should focus on the identification of 5q0 risk factors for each region of Bolivia separately.

Keywords: Mortality, Survival, Kaplan-Meier, Proportional Hazards.

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