

An assessment of the relative contribution of household economics, maternal educational attainment and health service accessibility to rapid child mortality decline in three rural Tanzanian districts



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Health and demographic surveillance systems in Ifakara and Rufiji (Tanzania)



INTRODUCTION

Child mortality has declined in most countries in Sub-Saharan Africa since 2000. What is the impact of household economics, maternal educational attainment and health service accessibility on rapid child mortality decline?

OBJECTIVES

- ❖ Measure the level and analyze trends and determinants of child mortality in rural Tanzania
- ❖ Clarify the role that access to nearest primary healthcare points has played in explaining of under-five mortality decline and also to elucidate interaction of proximity with social determinants of child survival as the transition progresses

POPULATION AND METHODS

❖ Population studied in 2010:

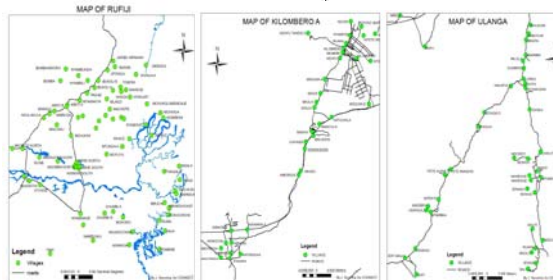
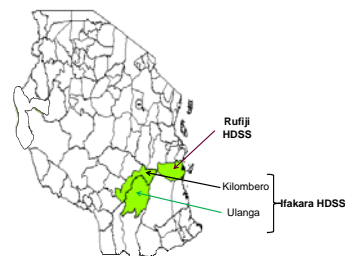
- 200,000 inhabitants, 63 villages
- 3 districts (Kilombero, Ulanga and Rufiji)

❖ Demographic surveillance of population, since 1996 in Rufiji and 1998 in Kilombero

- Data on births, migrations, unions, deaths and causes of death are collected three times a year (once every four months)

- ❖ **Multivariate logistic regressions (Cox model)** used to determine factors of child mortality decline by characteristics of children (sex, age, rank of birth), parents (education attainment, age) households (socioeconomic status, distance to the nearest health facility) in taking into account the time in the regression.

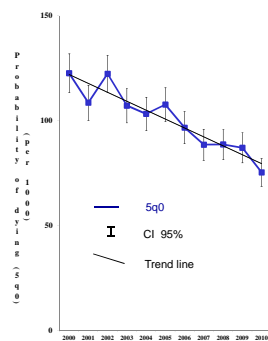
Location of Ifakara and Rufiji HDSS (map of Tanzania)



Child mortality : what are the main factors ?



Child mortality trends (5q0) in Ifakara and Rufiji HDSS, 2000-2010

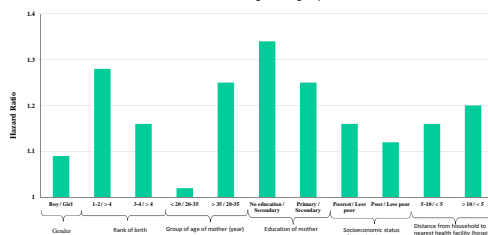


- The mortality has been reduced nearly 40% in ten years, from 122 to 75 per 1000 between 2000 and 2010.

- From 2000 to 2005, the average percentage of annual decrease was slow, only 2%; then it accelerated during the next 5 years with a 6% annual decrease.

Influence of child, mother and household's characteristics on mortality, 2000-2010: multivariate analysis (Cox model)

All other things being equal



Determinants of child mortality

Children of mothers with low education, living in poor households and located more than 5km from health facilities have higher Mortality compared to other children.

CONCLUSION

- ❖ Findings respond to debates at the core of primary healthcare policy in Tanzania that concern the relative effect of geographic health access inequalities vis-à-vis the effect of social and economic status as determinants of rapid improvement in the survival of Tanzanian children.
- ❖ Under-five year old mortality in Tanzania reduced from 137/1000 from 1992-1996 to 81/1000 live births from 2006-2010, placing the country on target to achieve Millennium Development Goals (MDG 4).