

Recent Trends in Mortality Inequality among African Children
Influences of Policy, Economic and Demographic Change

By:

(P.M. Eloundou-Enyegue G. Béninguissé, and P. Owoundi)

In the last two decades, the historical gains in child survival have stalled or reversed in several African countries. Additionally, new concerns are emerging about the possibility of growing inequality among children, including in health and mortality. Coming at a time of structural adjustment and demographic change, these new trends raise questions about the influence of socioeconomic and policy context.

This paper investigates two issues that have so far received little attention in demographic research on child mortality. The first is about the historical trends in mortality inequality among children. How does the socioeconomic inequality in child mortality change as African countries undergo their mortality transition, including during times of stalled decline in mortality? If mortality inequality is changing, a second question is about the sources of these changes: How do public policy, economic trends and demographic change combine to shape national trends in mortality inequality among children?

Cameroon, a central African country, is an ideal setting to study these questions. Until 1990 for instance, this country's rates of infant mortality had steadily declined (roughly at the rate of -1.5% per year since the mid 1960s). In the next decade however, rates increased from 85 to 88‰ and since then, they have stabilized or declined slightly. During the same period, the country had experienced a dramatic economic reversal (including a steep rise in urban unemployment and sharp reductions in public-sector salaries, sometimes as high as -60%) along with structural adjustment programs that reduced public spending in health. Adding to the mix was an onset of demographic transition that brought national fertility levels from 5.8 in 1991 to 5 in 2004, but was also found to be socioeconomically uneven and accompanied by important changes in family structure. Cameroon's reversals in child mortality along with its dramatic transformations in economic, demographic, and policy environment thus provide an opportune environment in which to study the contextual determinants of change in mortality inequality among children. Equally opportune is the availability of national Demographic and Health Surveys in 1991, 1998, and 2004, i.e., before and after Cameroon's reversals in child mortality.

Using data from these Demographic and Health Surveys (DHS), we (a) monitor trends in mortality inequality across different SES groups, and (b) explain these changes in mortality inequality in terms of extant socioeconomic and policy changes. To monitor trends in inequality, we will use measures

of mortality concentration (including the Theil index, MLD, and Gini coefficient) that are fuller-information measures than the more commonly-used differentials. To identify the sources of these changes in inequality, we use decomposition methods that break down the total change of inequality into four components reflecting respectively the influences of (1) increased poverty, i.e., changes in the number of households within various SES categories, (2) differential fertility decline, i.e., changes in the number of children within various SES categories given the changes in (1) above; (3) structural adjustment/ privatization, i.e., the changes in mortality differentials across various SES groups, and (4) general health environment, i.e., baseline mortality. The decomposition framework adapts a framework we have used in our previous research to study the effects of fertility transitions on children's schooling (Eloundou and Stokes 2007; Eloundou and Giroux 2008). Preliminary analyses of the data show important non-linearities in the SES gradient in mortality, and suggest the importance of general health environment and differential decline in fertility.

Our analyses will advance the scientific and policy debates in this area of research. On the scientific front, many studies have investigated the association between poverty and mortality in both developed and developing settings (Antonovsky 1967; Masuy-Stroobant 1988; Brockerhoff and Hewett 2000; Valkonen, 2002; Chauvin and Lebas 2006). Yet how this inequality evolves throughout the mortality transition has not been extensively studied, especially in the context of non-monotonic transitions. On the policy front, the Millennium Development Goals call for drastically reducing (by 2/3) rates of mortality for children under five. Evaluating different sources of possible decline in child mortality would suggest different policy strategies, whether in the realm of the economy, health, or population.

BROCKERHOFF M, and P.HEWETT. 2000. Inégalités de mortalité de l'enfant chez les groupes ethniques de l'Afrique Subsaharienne: *Bulletin of the World Health Organisation* 78(1):30-41.

CHAUVIN P., and Jacques LEBAS (2006), Inégalités et disparités sociales de santé en France: Etat de santé et principales pathologies, pp 331-341.

Eloundou-Enyegue PM and CS Stokes. 2007. "Demographic Transitions and Children's Resources: Growth or Divergence? *Demographic Research* 16(7):195-218.

Eloundou-Enyegue, PM. and S. Giroux. 2008. The Schooling Dividends from Transitions: Extending the Dilution Model (under second review).

Masuy-Stroobant G. 1988. Santé de l'enfant et inégalités sociales. Enquête naissance en Hainaut, Louvain-la-neuve, Ciaco, 288p.