

Socioeconomic Inequalities in Infant and Child
Mortality among Urban and Rural Areas
in Sub-Saharan Africa

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Outline

- **-Introduction**
- **-Excess Urban Mortality due to Natural Conditions in the Physical Environment**
- **-Excess Urban Mortality due to deteriorating living conditions**
- **-Recent trends in Infant and Child Mortality by Urban –Rural residence in several countries of Sub-Saharan Africa**
- **-Determinants of Infant and Child Mortality**
- **-Conclusion**

Recent trends in Infant and Child Mortality

- - Three categories of countries :
 - **Significant improvement** in the mortality levels (Ghana, Guinea, Mali, Niger, Nigeria, Senegal, Togo and Uganda)
 - **Deterioration** of Infant and Child Mortality levels (Burkina Faso, Tanzania, Zambia and Zimbabwe)
 - **Relative stagnation** of Infant and Child Mortality over time (Cameroon and Kenya)
- N.B. except for Tanzania, excess rural mortality is seen everywhere

Recent trends in Infant and Child Mortality (cont'd)

- - Another distinction (also three categories) in terms of how the differences between rural and urban areas evolved
 - **Group 1:** countries where the gap in infant and child mortality between rural and urban settings has widened, generally in favor of the latter (Cameroon, Burkina Faso, Ghana, Kenya, Niger, Tanzania and Togo)
 - **Group 2:** countries where the gap has diminished (Guinea, Mali, Nigeria, Zambia and Zimbabwe)
 - **Group 3:** countries where the rural-urban differences remained largely unchanged (Senegal and Uganda)

Determinants of Infant and Child Mortality

- - What factors may explain these rural-urban differences in I&C mortality in Sub-Saharan Africa?
- For this purpose, we use logistic regression (multivariate analysis) to examine the determinants of I&C mortality in 5 countries (Burkina Faso, Cameroon, Tanzania, Togo and Zimbabwe) which experienced different trends in their levels of infant and child mortality:
 - → an improvement (Togo)
 - → a deterioration (Burkina Faso, Tanzania and Zimbabwe)
 - → a relative stability (Cameroon)

4.1 Determinants of Infant mortality

- Three major determinants : place of residence, age of mother and medical coverage for pregnancy and delivery
- → *variable impact of urban-rural residence*
 - - a proxy variable for socioeconomic conditions (Burkina 1992 and Tanzania 1996);
 - - urban residence in and by itself appears to positively influence child survival (Burkina 1999 and Zimbabwe 1988);
 - - urban residence associated with a higher risk of infant mortality (Tanzania 1999);
 - - no significant urban-rural differences observed (Cameroon and Togo)

4.1 Determinants of Infant mortality (cont'd)

→ *Age or the preponderance of maternal experience*

- - contrary to the "U"-shaped relationship of mothers' age with the risk of infant death, the older the mother, the better the survival probability (Burkina Faso and Zimbabwe)
- - the "U" shaped relationship (Cameroon, 1991 and Tanzania, 1999)
- - It should be noted that this impact due to the mother's age is seen mainly in rural areas (Burkina Faso, 1999; Cameroon, 1991 and Zimbabwe, 1998); except in Tanzania where it's more perceptible in urban areas

4.1 Determinants of Infant mortality (cont'd)

- **→Medical coverage for pregnancy and delivery: another key determinant**
 - - generally good **medical coverage during pregnancy** – measured by early prenatal consultations (first four months and 4 to 6 months)
 - associated with low infant mortality (Burkina, 1999; Tanzania, 1999; Zimbabwe, 1998); and no antenatal consultation or late consultation with higher risk of infant death
 - - Though in Burkina Faso in 1992 and in urban areas in Zimbabwe (1998), this impact is not as expected: early prenatal consultation is associated with high mortality, compared to consultation between 4 and 6 months (*possible explanation*: those mothers who start their prenatal consultation early could be also those who have a "risky" pregnancy, or those whose previous pregnancies "had an unhappy ending")

4.1 Determinants of Infant mortality (cont'd)

- - as for pregnancy, the **nature of medical assistance** the mother receives during delivery does impact child mortality
- - however, mitigated effects:
 - In Burkina (1992) and Tanzania (1999), medical assistance by skilled medical personnel significantly lowers the risk of infant mortality (drop of 35% and 40% respectively);
 - In urban Cameroon (1998), Togo (1998) and rural Zimbabwe (1998), the opposite trend is observed: medical coverage for deliveries is associated with a high risk of infant mortality (*possible explanation: the selection effect ie the exclusive use of skilled medical personnel linked to cases with complications; difficult deliveries in fact referred to skilled medical personnel*)

4.1 Determinants of Infant mortality (end)

- Other determinants (religion, education and mother's work status): the impact they have on infant mortality is generally less intense than the impact of the first factors.

4.2 Determinants of Child mortality

- Six major determinants: place of residence, mother's education, mother's age, immediate environment, mother's work status, mother's religion.
- → *place of residence*: as in the case of infant mortality, the impact of urban-rural settings varies in the different countries
 - Acting as a *proxy* for socio-economic conditions (Burkina 1992 and 1999, Cameroon 1991 and 1998, Tanzania 1996 and Togo 1988)
 - One of the principal factors in explaining mortality between 1 and 5 years (Zimbabwe 1988 and Togo 1998): the urban residence of mother lowers the likelihood that her child will die during childhood

4.2 Determinants of Child mortality (cont'd)

- → *mother's education*: turned out to be one of the main determinants of the child mortality
- The higher the educational level of the mother, the less her child runs the risk of juvenile death; this was the case for all countries under study (Burkina, Cameroon, Tanzania, Togo and Zimbabwe) (p. 9)
- → *mother's age or mother's experience*: a significant impact on child mortality: the ability of the mother to act promptly in response to her child's illness turns out to be crucial for the survival of the children from 1 to 5 years of age (p.10).

4.2 Determinants of Child mortality (cont'd)

- → *immediate environment*:
 - - Unhealthy environment is generally associated with high child mortality (Cameroon 1991; Togo 1988 and 1998; and Zimbabwe 1988) (p. 10)
- → *mother's work status* (or the preponderance of time spent on taking care of children): its impact is significant in Tanzania (1999), Togo (1988) and in rural areas in Cameroon (1998) (p.10)
- → *the mother's religion*: generally christianity and/or Islam are associated with low mortality, while traditional religion and no religion are associated with high mortality: its impact is significant in Cameroon (1998), Togo (1988) and Zimbabwe (1988) ==→ specific case of Cameroon p. 11

Conclusion

- Changing impact of urban residence
- Preponderance of factors related to reproductive health in explaining the under one mortality
- Mother's age or accumulated experience in child care
- Confirmation of the considerable impact of mother's education on child mortality
- Immediate environment

- Thank you very much for your attention