Emergence of a peak in early infant mortality due to HIV/AIDS in South Africa

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Abstract

Objectives: South Africa has among the highest levels of HIV prevalence in the world. Our objectives are to describe the distribution of South African infant and child mortality by age at fine resolution, to identify any trends over recent time and to examine these trends for HIV-associated and non HIV-associated causes of mortality.

Methods: A retrospective review of vital registration data was conducted. All registered postneonatal deaths under 1 year of age in South Africa for the period 1997-2002 were analysed by age in months using a generalized linear model with a log link and Poisson family.

Results: Postneonatal mortality increased each year over the period 1997-2002. A peak in HIV-related deaths was observed, centred at 2-3 months of age, rising monotonically over time.

Conclusion: We interpret the peak in mortality at 2-3 months as an indicator for paediatric AIDS in a South African population with high HIV prevalence and where other causes of death are not sufficiently high to mask HIV effects. Intrauterine and intrapartum infection may contribute to this peak. It is potentially a useful surveillance tool, not requiring an exact cause of death. The findings also illustrate the need for early treatment of mother and child in settings with very high HIV prevalence.