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## Inconsistencies in age profiles of HIV prevalence A dynamic model applied to Zambia

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### Abstract

A two-sex compartmental model of the dynamics of HIV infection was developed and applied to the case of Zambia. Parameters include age specific rates of fertility, mortality, entry into sexual life, number of partners and age of partners. They were all derived from empirical data from Demographic and Health Surveys, and applied by single year of age. The model was unable to fit age and sex patterns of infection observed in 2001. Current knowledge of HIV transmission does not allow fitting the dynamics of HIV epidemics. Further research is needed to understand the dynamics of HIV heterosexual epidemics in Africa.

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