Does HIV/AIDS disproportionately affect the poor?

Cross-country evidence

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Long abstract

The link between income levels and prevalence of HIV/AIDS in Sub-Saharan Africa is complex and poorly understood. On the one hand, there is evidence that the poor are disproportionately affected by HIV/AIDS. Poor are less educated and might be less informed about protection strategies for HIV/AIDS. In addition, poverty might force individuals to work in professions that put them at a higher risk of HIV infection. On the other hand, the incidence of HIV/AIDS can push a household into poverty by stripping it of assets and income-earners. HIV/AIDS creates a loss of income not only because the ill household members cease to work at full capacity, but also because other members have to divert time and effort away from income-generating activities. On the expenditure side, medical expenses become an increased proportion of total spending; and, if household income falls below a threshold, savings need to be used up and assets sold.

In addition to concerns about health equity, an important implication of the association between socioeconomic status and HIV/AIDS is the design of policies and programs that reach those most at risk, by increasing their coverage to ensure including the poor and rural populations, or targeting programs towards them. Therefore, beyond the widely acknowledged notion that poor nations and households are generally those at highest risk for HIV/AIDS, the specific details of socioeconomic patterns are important for policy and program design.

This paper analyzes patterns in average levels and inequalities in HIV/AIDS prevalence using household survey data from six countries in sub-Saharan Africa: Kenya, Tanzania, Ghana, Burkina Faso, Cameroon and Malawi. These surveys have been chosen because they collected biomarkers for HIV that can be linked to information on a series of household assets (i.e. electricity, radio, television, refrigerator, bicycle, motorcycle, car, main construction materials of the walls, roof, and floor of the house, source of drinking water, and type of toilet facility). The information on household assets allows for the construction of an index of economic status based on the DIHOPIT model (a dichotomous version of the hierarchical ordered probit model), which generates a series of cut-points on a latent variable (economic status) above which respondents are more likely to own that particular asset than not. Combined, the answers to these asset

questions give an estimate of a household's economic status, allowing us to examine HIV/AIDS prevalence across income quintiles. The estimation of economic status is done concurrently for all countries in the analysis, leading to an index that is on the same scale for all countries. This enables us to provide a detailed analysis of similarities and differences of socioeconomic gradients of HIV/AIDS prevalence both within and between countries and regions. This is an important step in considering how wealth or income may interact with other factors, from geography to policy, to affect HIV/AIDS outcomes.