A new method to correct mortality rate biases in HIV treatment programs

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HIV treatment programs in sub-Saharan Africa should routinely report mortality rates among patients who remain in the programs and those patients lost to follow-up, according to a study by Matthias Egger and colleagues from the International Epidemiologic Databases to Evaluate AIDS in East Africa, Western Africa, and Southern Africa that is published in this week's *PLoS Medicine*.

As a substantial proportion of patients in HIV treatment programs are lost to follow-up, mortality estimates for patients in these programs can be severely underestimated, so this bias needs to be taken into account when comparing the effectiveness of different programs.

The authors arrived at these conclusions by developing a nomogram (calculator) that corrects mortality estimates for loss to follow-up, based on the fact that mortality of all patients starting antiretroviral therapy in an HIV treatment program is a weighted average of mortality among patients lost to follow-up and patients remaining in care.

In an accompanying Perspective, Gregory Bisson from the University of Pennsylvania School of Medicine (not involved in the research) comments that "currently we know little about the biology and behaviors that underlie loss to follow-up, but with 5.2 million people on [antiretroviral therapy], and more starting soon as a result of the 2010 WHO guidelines recommending HIV treatment earlier during disease progression, a greater understanding of loss to follow-up in its various forms is needed in order to keep the HIV treatment effort on track." He

adds, "by addressing the effects of loss to follow-up on programmatic mortality estimates, and by providing monitoring efforts with a useful new tool, Egger and colleagues have helped address this need."

More information: Egger M, Spycher BD, Sidle J, Weigel R, Geng EH, et al. (2011) Correcting Mortality for Loss to Follow-Up: A Nomogram Applied to Antiretroviral Treatment Programmes in Sub-Saharan Africa. PLoS Med 8(1): e1000390. doi:10.1371/journal.pmed.1000390