

Trends in HIV testing and risk behavior in sub-Saharan Africa

サブサハラアフリカにおける HIV テスト及びリスク行動の傾向

Abstract

Objective: To estimate trends in HIV prevalence, HIV testing rates, and risk behavior in sub-Saharan Africa, and to investigate their associated risk factors.

Methods: Demographic and Health Survey (DHS) data from 36 countries in sub-Saharan Africa between 2000 and 2011 were used to describe the trends and predictors for HIV prevalence, HIV testing, and risk behavior. Spatio-temporal regression modeling was used to estimate the trends in prevalence, testing and condom use. A multilevel logistic regression model was used to analyze predictors of testing and condom use behavior. I obtained information about year of adoption of provider-initiated HIV testing and counseling (PITC) from published literature and developed a model for the period between 2004 and 2008 to estimate the effect of PITC policy on testing rates.

Results: In most countries in sub-Saharan Africa, HIV prevalence has been stable or slightly decreasing. HIV testing rates have been increasing rapidly, with subjects in 2011 having 9.87 (95% CI: 9.21-10.58) times higher odds of testing than those in 2000. However, risk behavior showed little reduction over the decade. Sex, place of residence, wealth, and marital status were

associated with HIV testing and risk behavior. The PITC policy had a large impact on HIV testing rates (OR: 1.42 [95% CI: 1.32-1.52]).

Conclusion: This study shows increasing trends in HIV testing rates but little improvement in risk behavior in sub-Saharan Africa. National policies can affect testing behavior, but testing rates are still below the levels required to eliminate HIV. If HIV elimination is to be achieved in sub-Saharan Africa, current efforts to promote test-and-treat strategies need to be strengthened.

Keywords: HIV, testing, risk behavior, provider-initiated HIV testing and counseling (PITC), sub-Saharan Africa