

Association between Antiretroviral Therapy Related Knowledge and Beliefs  
and Herpes simplex virus type 2 Seroprevalence in Kisumu, Kenya

**Henry Njenga Njuguna**

**A thesis submitted in partial fulfillment for the Degree of Master of  
Science in Public Health in the Jomo Kenyatta University of Agriculture  
and Technology**

**2011**

## ABSTRACT

Improvements in health and life expectancy of HIV-infected patients on antiretroviral therapy (ART) and the use of ART in prevention of mother-to-child transmission and post exposure prophylaxis may lead to a belief that HIV is no longer a serious and deadly disease. With the scale up of ART in developing countries, little is known on the association of large-scale ART use and sexual behavior. The objective of this thesis is to determine the association between ART related Knowledge and beliefs and sexual behavior. Herpes simplex virus type 2 (HSV-2) infection has been used as a surrogate marker for sexual behavior. Secondary data analysis was performed on cross-sectional data collected in Kisumu municipality among 1655 people aged 15-49 years randomly selected from the general population. It evaluated sociodemographic risk factors for HSV-2 infection, determined the prevalence of HSV-2 and assessed ART related knowledge and beliefs and evaluated their association with HSV-2 infection. The overall prevalence of HSV-2 was 53% with females (65%) having a higher prevalence than males (38%,  $P < 0.01$ ). Prevalence rates gradually increased with increasing age. Males and females without secondary education ( $P=0.01$  and  $P<0.001$ ), with history of abusing drugs ( $P=0.01$  and  $P=0.04$ ) and ever being married ( $P<0.001$  and  $P<0.001$ ) were associated with increased likelihood of having HSV-2 infection. Over 80% gave correct answers to 9 out of the 15 knowledge questions on HIV and ART. However, 17% of the participants thought that ART cured HIV/AIDS and were more likely to have HSV-2 infection (AOR: 2.02, 95% CI: 1.19-3.43) and (AOR: 2.14, 95% CI: 1.34-3.40) for males and females respectively. Targeted informative messages to those at risk may aid in reducing the incidence of HSV-2. In this era of increased availability of HIV care and

ART treatment, programs should consider educating the general population about true nature of ART treatment. This will effectively reduce ART related misperceptions and thus reduce the associated risk of HSV-2 infection and other STIs including HIV.