

1. **Julius Oyugi**, Fredrick Oyugi, Christine Otieno, Walter Jaoko, Job Bwayo, Omu Anzala. Use of serologic testing algorithm for recent HIV seroconversion(STARHS) to estimate HIV-1 incidence among adults visiting a Kenyan tertiary health institution. East African Medical Journal volume 86, no. 5; 2009.

## **Abstract**

### ***OBJECTIVE:***

To determine HIV high risk groups among adults visiting Kenyatta National Hospital Voluntary Counselling and Testing Centre by use of Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS).

### ***DESIGN:***

A cross-sectional study of adults.

### ***SETTING:***

Kenyatta National Hospital Voluntary and Counselling Centre.

### ***RESULTS:***

Of the 6,415 adults screened for antibodies to HIV at Kenyatta National Hospital VCT Centre between July 2002 and February 2003, 728 tested positive in the two HIV screening tests used at the center, indicating a prevalence of 11%. Of these seropositive cases, 355 consented to participate in the study. Using STARHS, 34 (9.6%) of the plasma samples were classified as being from individuals with recent infection (within 170 days), giving an annual estimated HIV-1 incidence in this population of 1.3 infections per 100 person-years with a 95% CI of 0.872-1.728%. Young adults had a higher rate of new infection than older adults. Young females were infected much earlier in life, with a peak age of new infections of 26 years, versus 31 years for young males.

### ***CONCLUSION:***

This study confirms our hypothesis that STARHS or Detuned assay can be used to determine HIV incidence in this population. The HIV high risk groups as identified by this study are young women between ages 16 to 26 years old and men between ages 45 to 55 years of age.