

Prevalence and Risk factors of Hepatitis B and C among Men who have Sex with Men in the Anza Mapema Study in Kisumu, Kenya

Fredrick O. Otieno¹, Dancun O. Okal¹, Eve Obondi¹, George Ngety¹, Susan Graham³, Robert C. Bailey² & Supriya Mehta²

¹Nyanza Reproductive Health Society, Kisumu, Kenya ²School of Public Health, University of Illinois at Chicago, Chicago, USA ³University of Washington, Seattle, USA



Contact: Fredrick Otieno (FOtieno@nrhskenya.org)

Background

Men who have Sex with Men (MSM) are at higher risk for co-infection with hepatitis B virus (HBV) and hepatitis C virus (HCV) than the general population. The Kenya AIDS Indicator Survey (KAIS) estimates general HIV negative population HBV prevalence at 2.1% with undocumented HCV prevalence. HBV is 50 to 100 times more infectious than HIV. These co-infections accelerate HIV disease progression reciprocally with co-infected persons having increased rate of liver disease, higher HBV and HIV viral loads, and poor response to ART.

Methods

Anza Mapema is a longitudinal cohort of 700 HIV negative and positive MSM with the aim of find, test and link HIV positive MSM to HIV Treatment and HIV negative to Prevention services including PrEP. As part of screening, plasma samples were screened for HBsAg, HBsAb and HCsAb. Participants testing negative for HBV were offered Hepatitis B vaccination as per Kenya national guidelines. Aim of this analysis was to determine prevalence of HBV and HCV and identify correlates to these infections at enrolment in HIV positive and negative MSM. Data were collected using ACASI (behavioural) and CAPI (Medical) and analysed using STATA version 13.1.

Figure 1: Screening, Eligibility and Enrolment

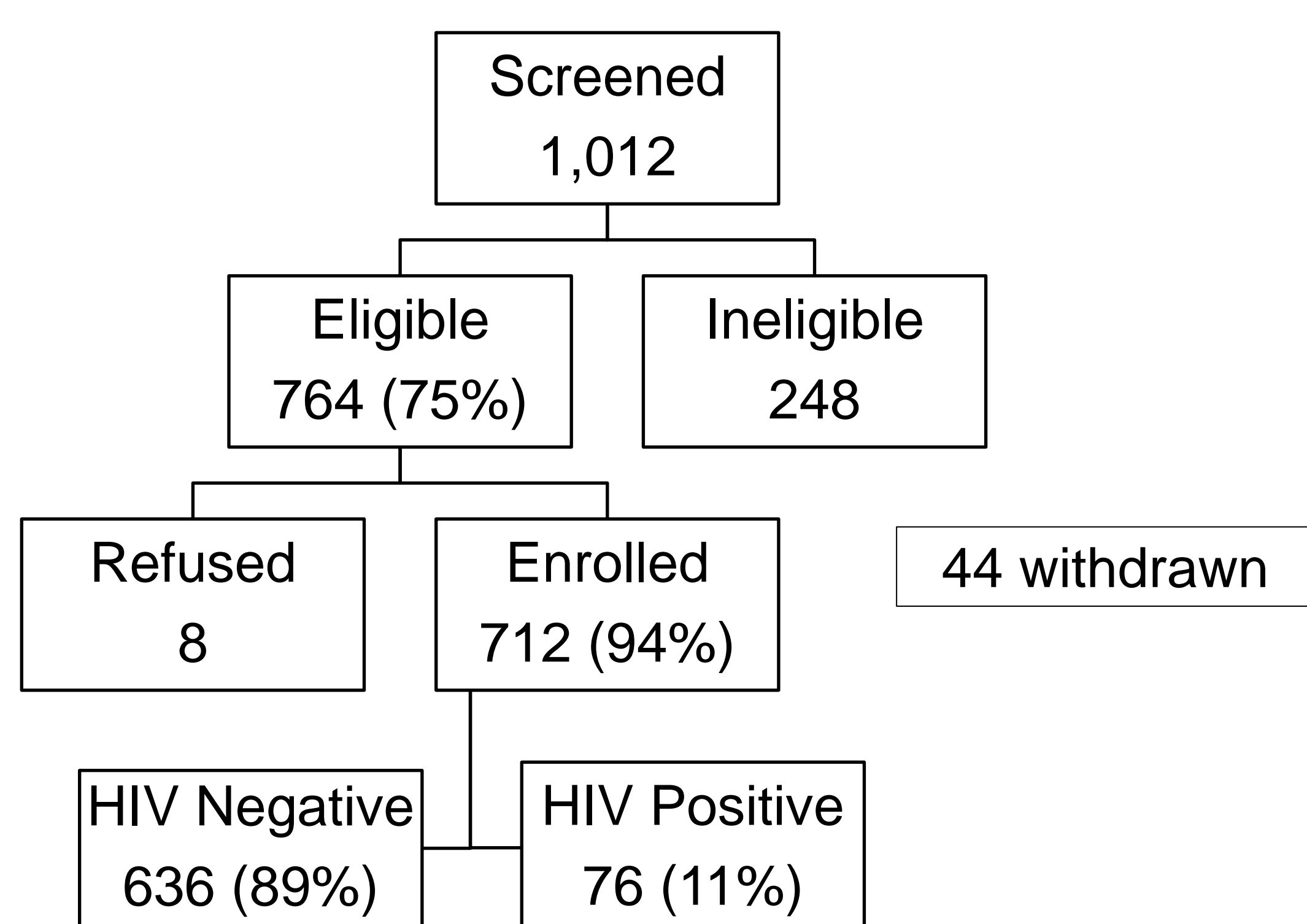
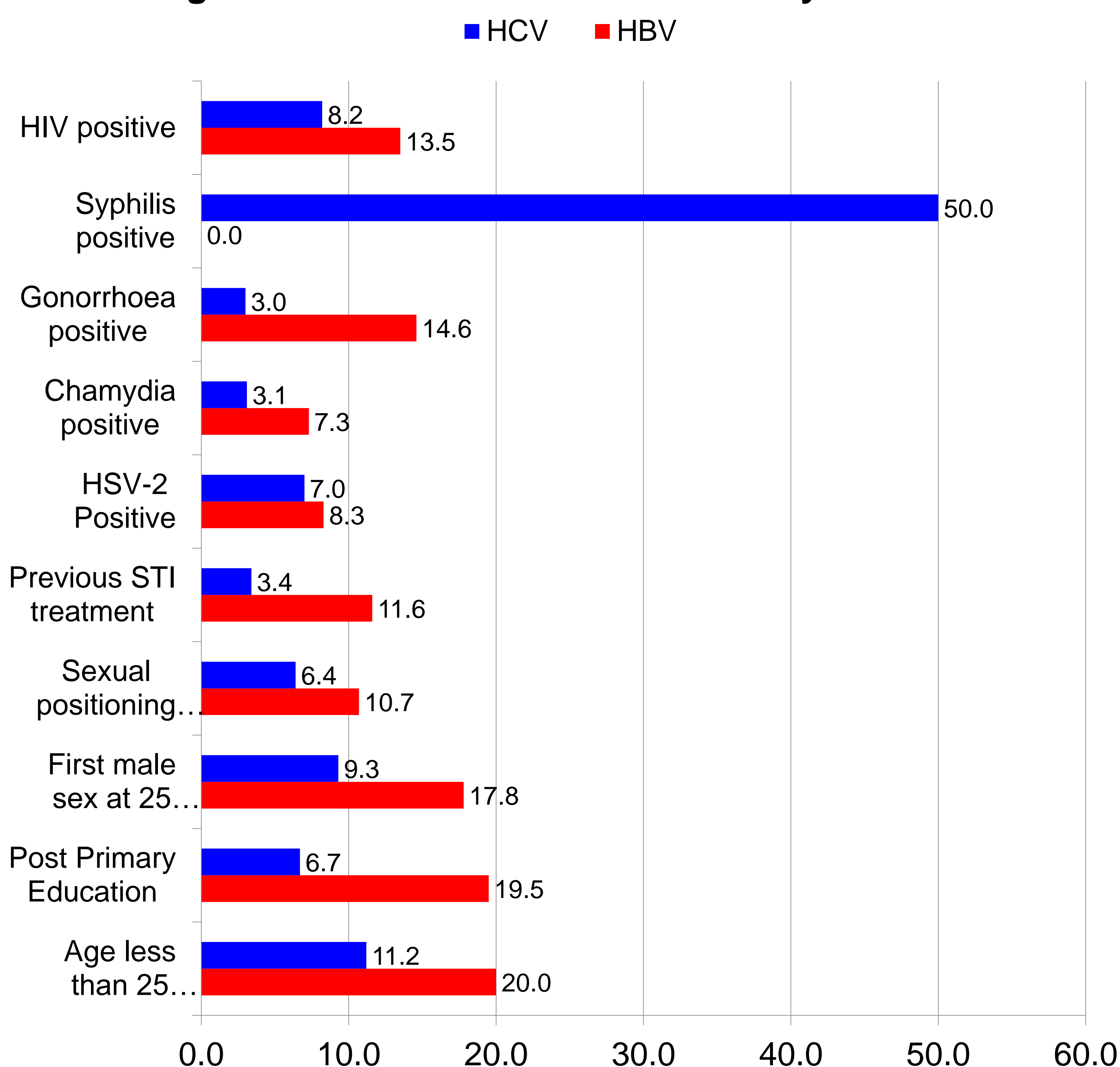


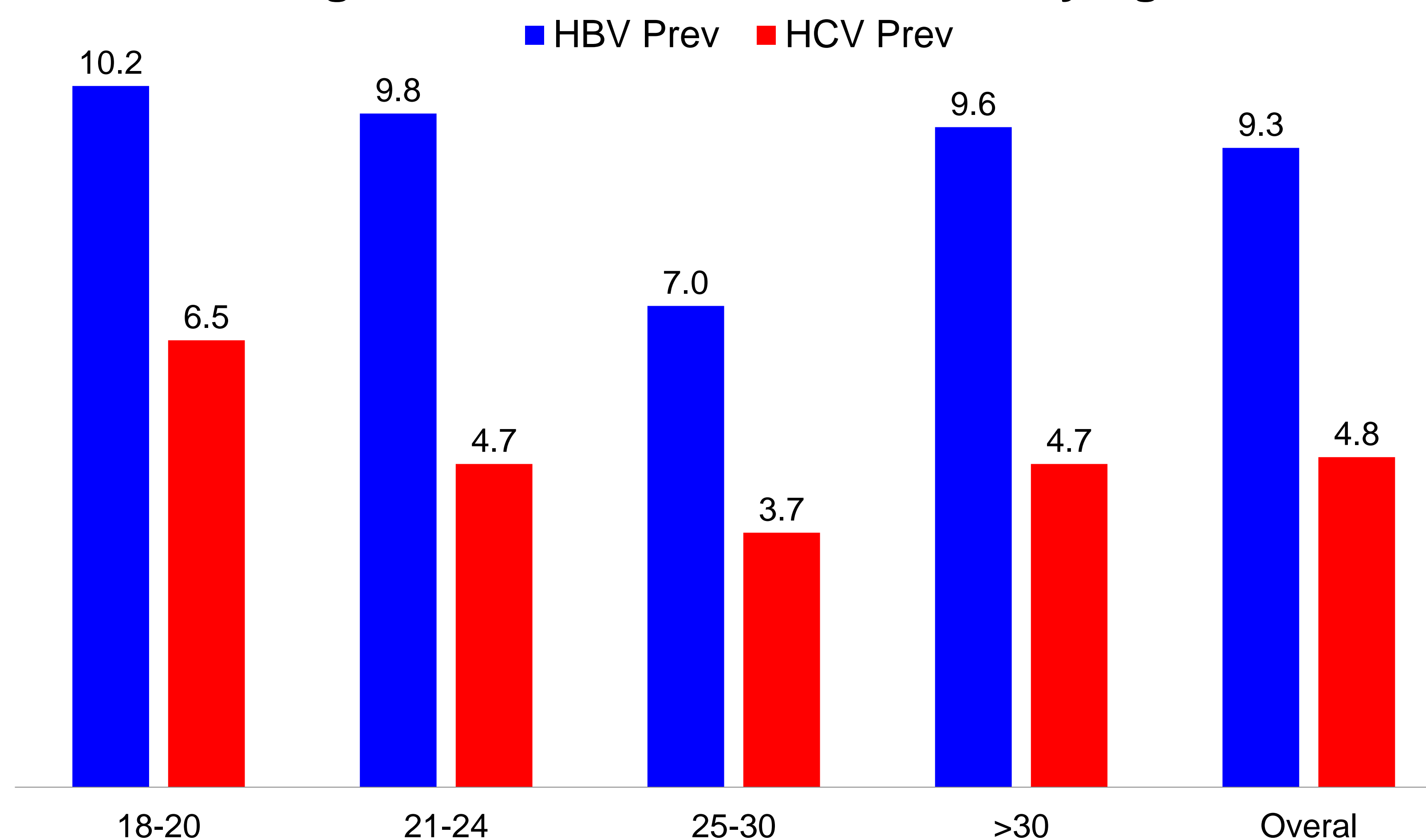
Figure 2: Prevalence of HBV & HCV by Predictor



Results

Of the 1,012 participants screened, 713 MSM were enrolled. Median age was 24 (21-28), with 79% having more than primary education and 36% currently living with a male sex partner. Bisexuals were 28% while homosexuals were 71%. Those reporting transactional sex were 65% and 39% always used condoms during anal intercourse (AI). 12% reported ever being treated for an STI while 83% had ever been tested for HIV before this study and none tested for HBV. 23% reported being forced to have sex by another man. Half of the participants reported hazardous/harmful alcohol consumption with 6% reporting injecting drugs and 4% reporting sharing needles. The mean number of lifetime sex partners was 3 (2-6). Prevalence of Chronic and Acute HBV and HCV were 28.4%, 9.3% and 4.8% respectively. Among HIV positive MSM, prevalence of Chronic and Acute HBV and HCV were 37.0%, 13.5% and 8.8% respectively. The association of HBV infection with HIV positivity remained even while controlling for age (aPRR = 1.33). There was low uptake of vaccination with 51% receiving the first dose, and of those 71%, 73% and 56% receiving the second, third and final booster doses of the vaccination respectively. Reasons for not being vaccinated included reporting prior vaccination without documentation, refusal to be vaccinated despite information and missing study visits

Figure 3: HBV & HCV Prevalence by Age



Conclusion

The Anza Mapema cohort is the largest ongoing MSM cohort in Kenya. Vaccination uptake has been low in the cohort despite availability of HBV testing and vaccination education and counselling. High rates of HBV infection in this cohort calls for better tailored campaigns for HBV vaccination

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