

# *Abstract*

## **Background**

HIV epidemiology and intervention uptake among female sex workers (FSW) in sub-Saharan Africa remain poorly understood. Data from outreach programmes are a neglected resource.

## **Methods**

Analysis of data from FSW consultations with Zimbabwe's National Sex Work programme, 2009-14. At each visit, data were collected on socio-demographic characteristics, HIV testing history, HIV tests conducted by the programme and antiretroviral (ARV) history. Characteristics at first visit and longitudinal data on programme engagement, repeat HIV testing and HIV sero-conversion were analysed using a cohort approach.

## **Results**

Data were available for 13360 women, 31389 visits, 14579 reported HIV tests, 2750 tests undertaken by the programme and 2387 reported ARV treatment initiations. At first visit, 72% of FSW had tested for HIV; 50% of these reported being HIV-positive. Among HIV-positive women, 41% reported being on ARV. 56% of FSW attended the programme only once. FSW who had not previously had an HIV positive test had been tested within the last 6 months 27% of the time during follow up. After testing HIV-positive, women started on ARV at a rate of 23 / 100 person years of follow-up. Among those with two or more HIV tests, the HIV sero-conversion rate was 9.8 / 100 person years of follow-up (95% confidence interval 7.1-15.9).

## **Conclusions**

Individual-level outreach programme data can be used to estimate HIV incidence and intervention uptake among FSW in Zimbabwe. Current data suggest very high HIV prevalence and incidence among this group and help identify areas for programme improvement. Further methodological validation is required.