

# Possible Links in HIV Infection between Female Sex Workers (FSW) and People Who Inject Drugs (PWID): Findings from a Respondent Driven Sampling Survey in Dar-es-Salaam, Tanzania

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## **Background:**

Findings from studies done by McCurdy et al. have indicated that HIV prevalence may be as high as 42% among PWID in Dar es Salaam. Studies of PWID have also suggested overlaps between FSW and PWID populations. We investigated a Dar es Salaam FSW population to better understand possible linkages between these populations.

## **Method:**

We conducted a cross-sectional study of FSW in 2010 using respondent-driven sampling (RDS). Participants completed questionnaires on socio-demographic variables, sexual and other risk behaviors; and had HIV testing. We used descriptive weighted statistics and logistic regression analysis to explore associations with HIV.

## **Results:**

Among 537 FSW enrolled, 518 were tested for HIV giving 31.4% (95% CI: 25.6, 38.5) prevalence overall. In bivariate analysis, HIV prevalence was higher among FSW who suspected that partners injected drugs, 46.9% (95% CI: 31.5, 64.1) as compared to FSW who did not suspected that partners injected drugs 23.2% (95% CI: 16.5, 29.4).

FSW rarely reported using drugs themselves 1.3% (95% CI: 0.3, 2.7), but often suspected their partners were PWID (49.1%; 95% CI: 43.8, 55.5). In a multivariate model, adjusting for demographic and behavioral characteristics, the adjusted odds ratio (AOR) of HIV infection among women who suspected that their partners injected drugs was 2.41 95% CI: 1.22, 4.80; (1.4 times greater) and was 0.08 times higher per additional year of sex work (AOR 1.08 95% CI: 1.03, 1.1).

## **Conclusion:**

These findings provide supportive evidence of the connection between FSW and PWID populations in Dar es Salaam. Considering these apparent connections between PWID and FSW, we encourage programs working with these two key populations to work together to achieve enhanced prevention outcomes.