



Bridging the epidemic: HIV in clients and sex partners (PSW)

of female sex workers in Kampala, Uganda

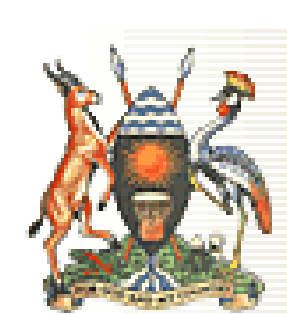
W. Hladik¹, J. Barker¹, Tom Tenywa², David Serwadda³, Alex Opio², John Ssenkusu¹, Jordan Tappero¹

Centers for Disease Control and Prevention (CDC), Entebbe, Uganda¹; Ministry of Health, Uganda²; Makerere University, Kampala, Uganda³

Abstract

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Abstract

Background: Paying and non-paying sex partners (PSW) of female sex workers (FSW) are a recognized bridge population in Uganda's HIV epidemic but have not been surveyed to date.

Methods: From June 2008 to April 2009, 935 FSW (sampled through respondent driven sampling), recruited 573 male PSW to the survey. Eligible PSW had to have sex with their recruiter in the last 6 months, were 18 years or older, and resided in Kampala. Audio computer-assisted self-administered interviews covered demographics and HIV-related risk behaviors. Biomarker testing included HIV and other sexually transmitted diseases (STDs). Data presented are unweighted estimates.

Results: 461 (84%) were paying (median age: 27 years) and 90 (16%) were non-paying partners (median age: 27 years). HIV prevalence was 18.1% (paying: 17.9%, non-paying: 21.1%). HIV prevalence increased with age (18-24 years: 5.9%, 25+ years: 26.0%, odds ratio [OR] 5.65, 95% confidence interval [CI] 3.08-10.42). Factors associated with HIV infection included frequent alcohol use (OR 2.20, 95% CI 1.19-4.09), reporting STD symptoms (OR 2.28, 95% CI 1.41-3.67), testing positive for an STD (1.77, 95% CI 1.05-3.00); recruits using recreational drugs were less likely to be HIV-infected than recruits who did not use recreational drugs (OR 0.27, 95% CI 0.09-0.78). Not associated with HIV infection was a history of paying for sex (OR 0.81, 95% CI, 0.46-1.42) or selling sex (OR 1.09, 95% CI 0.69-1.73), ever using condoms (OR 1.00, 95% CI 0.59-1.73), an increasing number of sex partners (p=0.84), having anal sex with another man (OR 1.15, 95% CI 0.51-2.57), anal sex with men or women (OR 0.60, 95% CI 0.33-1.07), or agreeing that AIDS treatment availability makes safe sex less important (OR 0.97, 95% CI 0.62-1.50).

Conclusion: Male sex partners of FSW – both paying clients and non-paying partners - are at substantially higher high risk for HIV infection than adult men in the general population. STDs and alcohol may be contributing factors in the epidemic among PSW.

Background

□ Uganda: generalized HIV epidemic. Estimated adult HIV prevalence: 6.4% (AIDS Indicator Survey 2004/5).

□ Anecdotal evidence suggests frequent transactional and commercial sex throughout the country.

□ No data exist to characterize paying and non-paying partners of female sex workers.

Survey methods

Sampling design: Cross-sectional. "Indirect" Respondent Driven

Sampling (RDS): RDS was used to sample female sex workers. These sex workers were given coupons to refer their own sex partners (paying or non-paying) to the survey (PSW).

Sampling period: June 2008 – April 2009

Sampling location: Greater Kampala, Uganda

Eligibility: male, had sex with referring sex worker, age 18+ years, residing in Kampala

Biomarkers: HIV testing, urethral *N. gonorrhoea* and *C. trachomatis* (and rectal if having receptive anal sex or anal STD symptoms); syphilis.

Data collection: Audio-computer assisted self-interview (ACASI): demographics, risk behaviors, perceptions

Data analysis: RDSAT and SAS softwares. Data are unweighted except for HIV prevalence

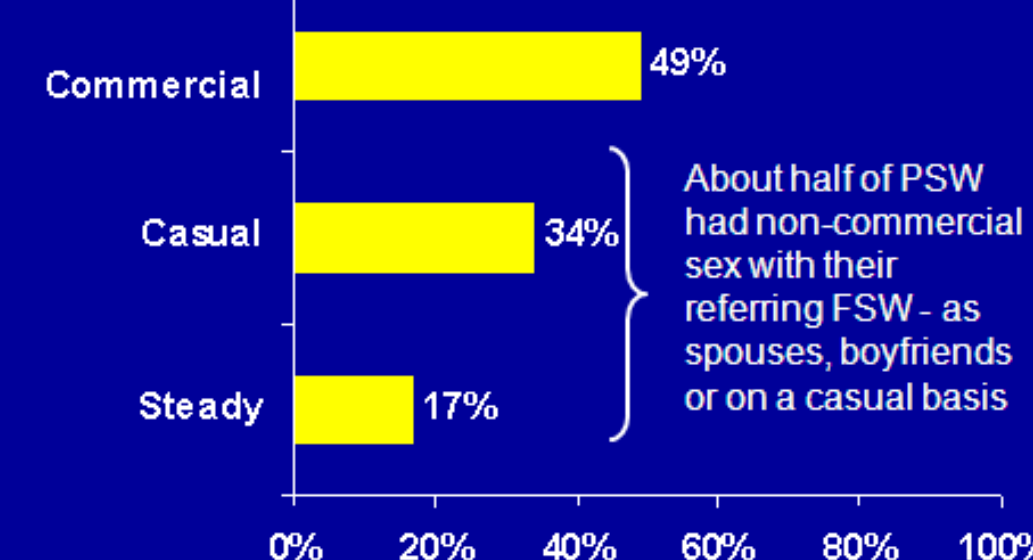


Results

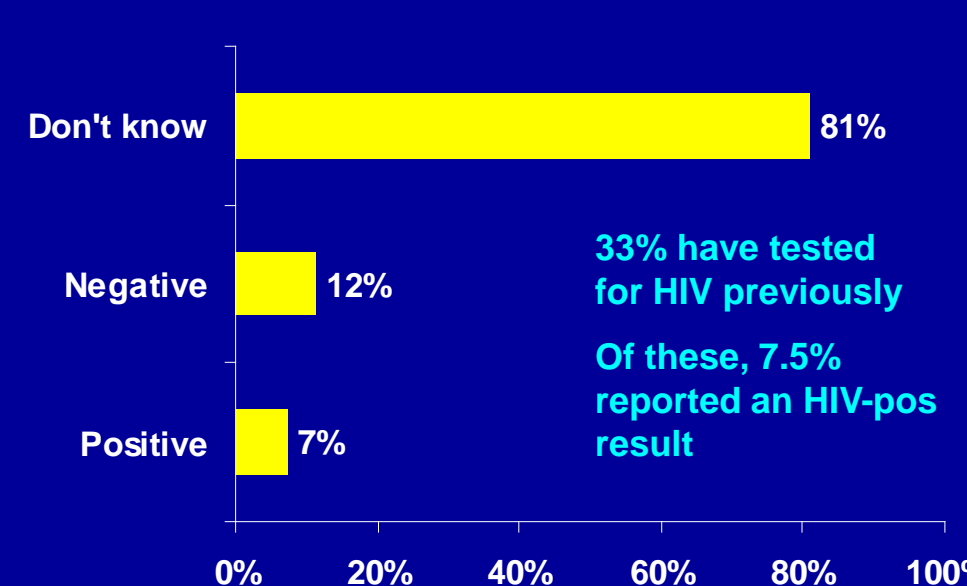
Baseline characteristics

- Median age: 27 years
– Interquartile range (IQR): 23-34 yrs
- Education: 7 years schooling (median; IQR: 4-11)
- Currently married: 49%

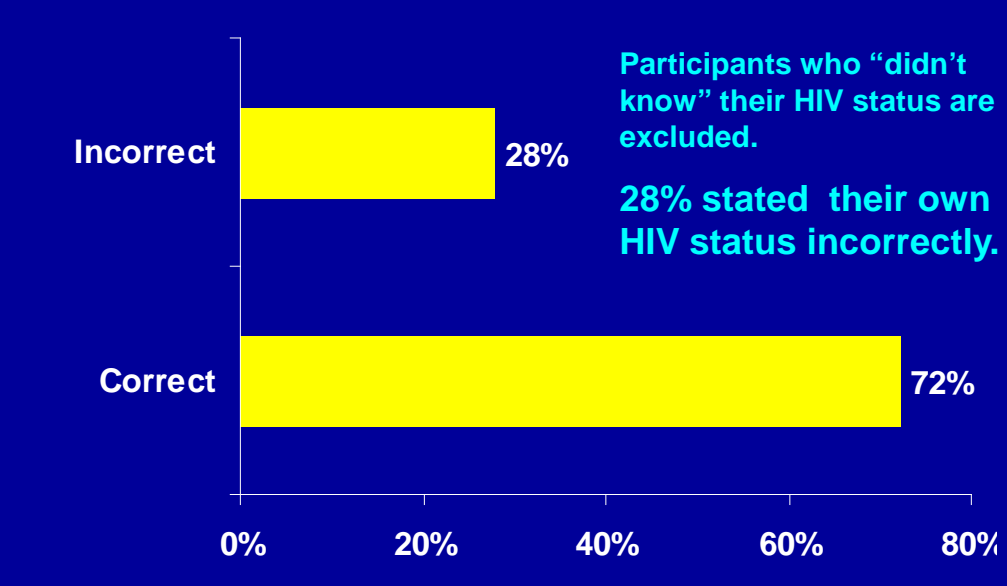
Type of sexual relationship between PSW and sex workers



What do you think is your HIV status?

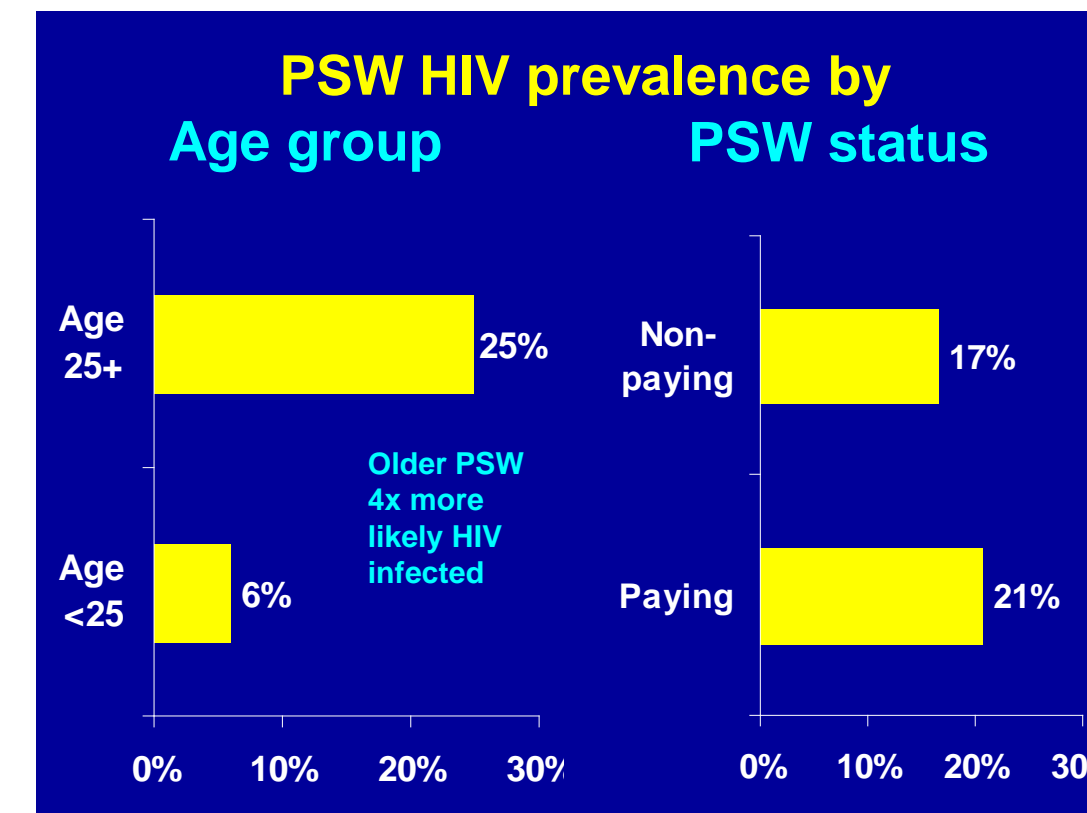
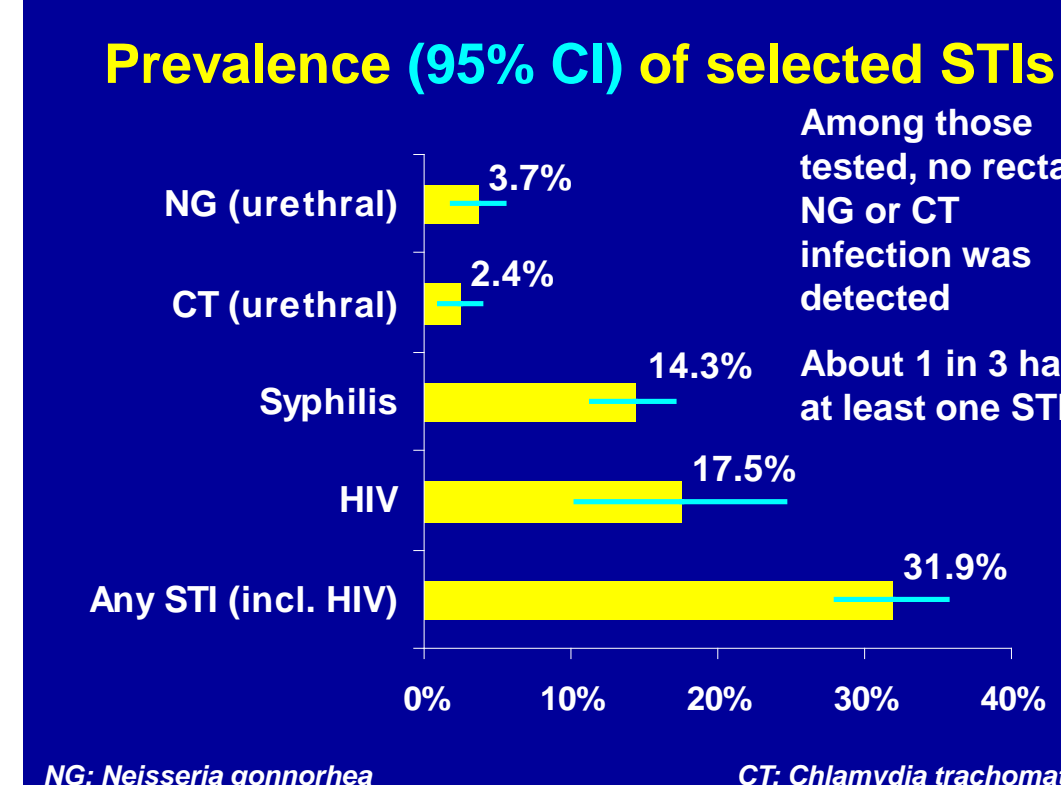


Proportion who state their HIV status correctly / incorrectly



Results – HIV and factors associated with HIV infection

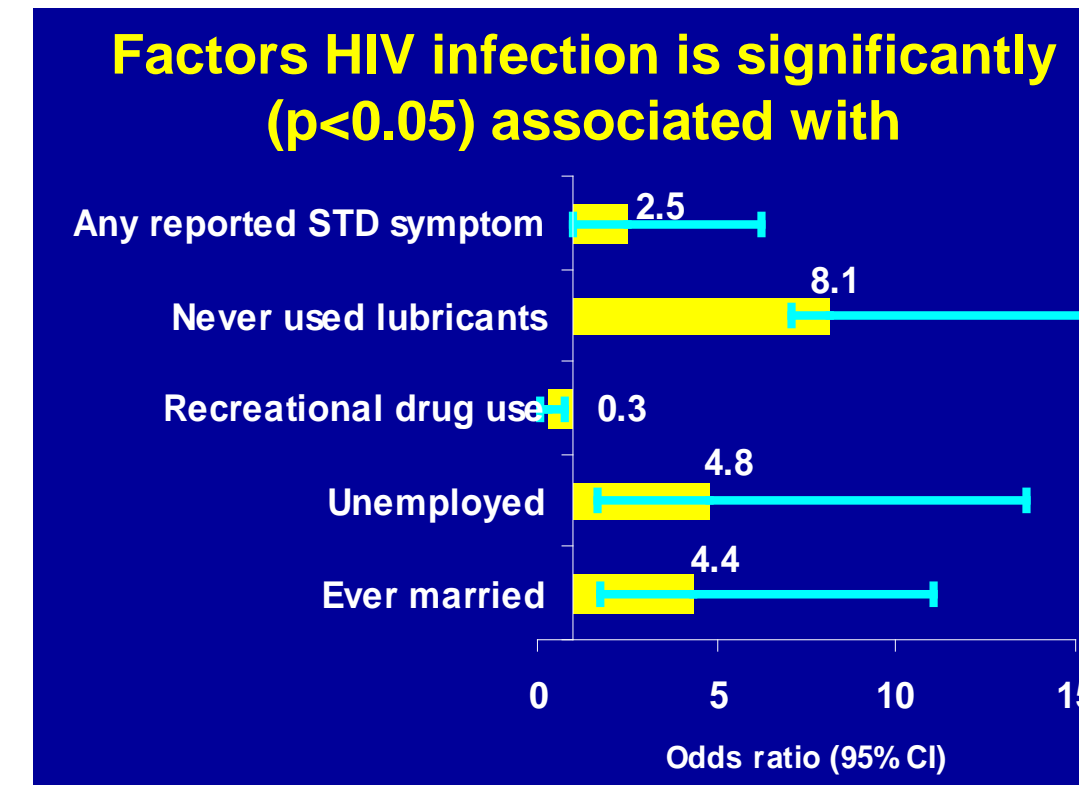
HIV prevalence among PSW (17.5%) substantially higher than among men in general population:
AIDS Indicator Survey 2004/5 Kampala: 4.5%



No substantial difference in HIV prevalence by PSW status:

Clients of sex workers have similar HIV prevalence as non-paying boyfriends and spouses of sex workers

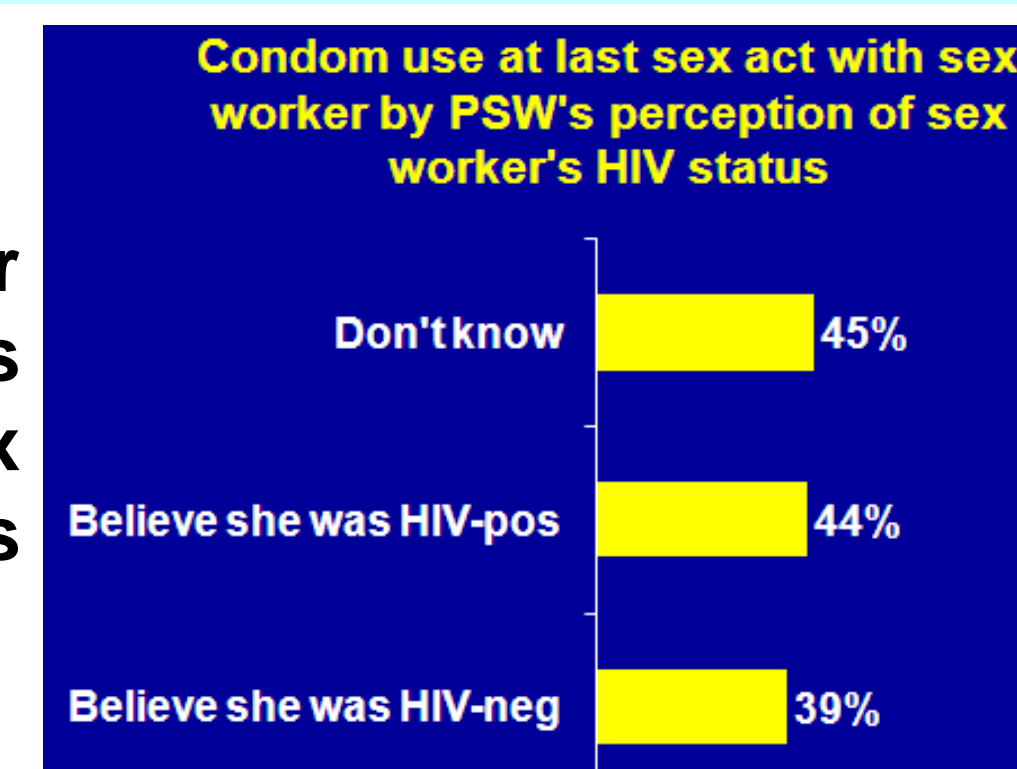
Recreational drug use (oral or injecting) was associated with lower odds of being HIV infected. The reasons for this association are unclear.



Factors not associated with HIV infection

- Education
- Alcohol use
- Circumcision status
- Never tested for HIV
- No. lifetime partners
- History of rape
- Sex with women
- Condom use
- Sex partner type

Condom use does not differ substantially by the PSW's perception of the sex worker's HIV status



PSW's perceived vs. actual HIV status

Actual	Perceived		
	Neg	Pos	D/K
Neg	10%	4%	64%
Pos	1%	4%	17%

D/K: Don't know

About half of all PSW who believe they are HIV infected test HIV-negative

Discussion and conclusions

- This survey confirms that men who have sex with female sex workers (paying or not) are at high risk of HIV infection
- HIV prevalence approx. ~4x that in general male population
- Many PSW are not just clients, but boyfriends and spouses of sex workers
- Findings call for targeted programming and interventions for this likely large group of men

Acknowledgements

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Survey staff