

HIV prevalence and risk factors in a community-based sample of female sex workers in Kigali, Rwanda

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Study participants

Projet Ubuzima study team

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Objectives: Kigali HIV Incidence Study

- To estimate HIV-1/2, HSV-2, and pregnancy prevalence among high-risk women in Kigali, Rwanda
- To identify demographic and behavioral factors associated with prevalent HIV infection

Methods

- Cross-sectional survey of 800 female sex workers ≥ 18 years
 - Women eligible if:
 - High risk for HIV (transactional sex in last month and/or sexually active with multiple partners)
 - HIV serostatus unknown or last HIV test was negative
 - Willing and able to provide informed consent
 - Tested for HIV-1/2, HSV-2, and pregnancy
 - Face-to-face interview re: sexual and other risk behaviors
- Women provided counselling, condoms, family planning, treatment for active HSV-2 as needed, and referral for HIV services and prenatal care as appropriate.

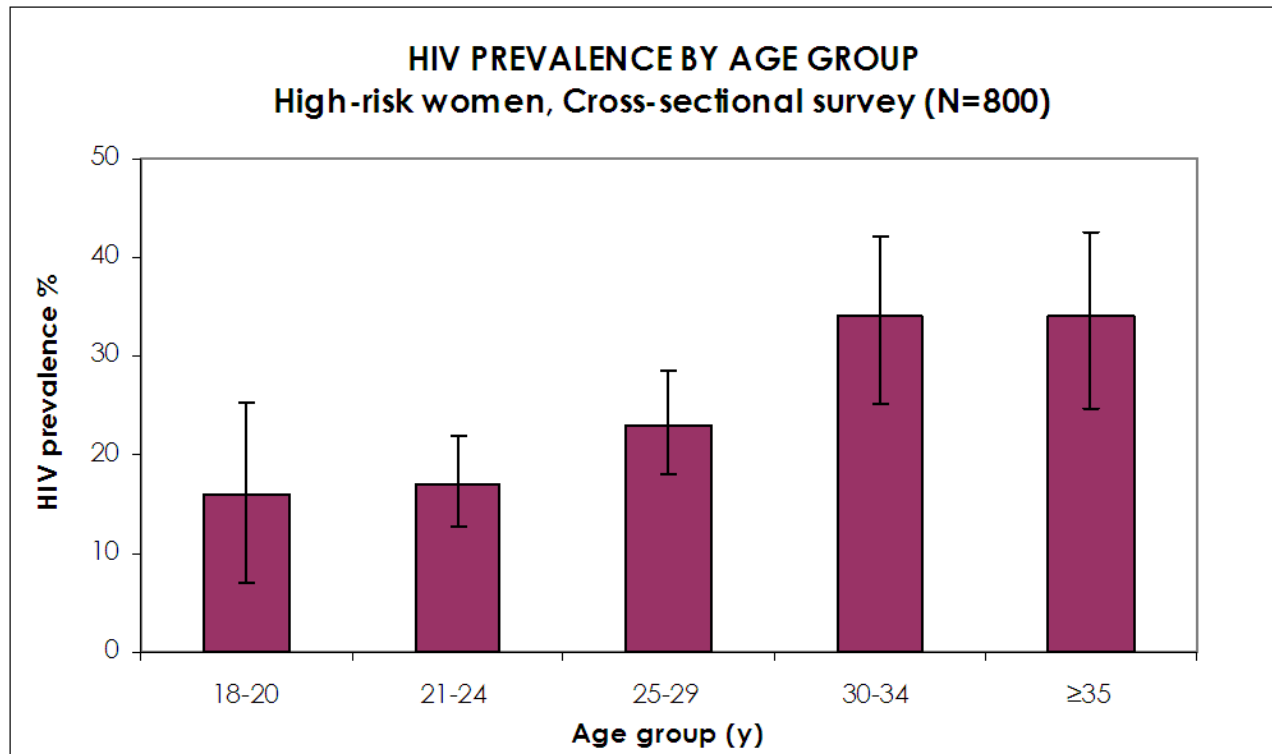
Results (1): Demographics & behaviors

- Median age: 25 years (range: 18-49)
- 21% of women had no formal schooling; 41% some primary school
- Median number lifetime pregnancies: 2 (range: 0-8)
- 92% using contraceptive method; 80% male condoms
 - 79% inconsistently or never use condoms with clients/casual partners
- At last sex:
 - 93% of women received money/gifts from partner
 - 74% of partners used male condom
- 35% of women never HIV tested
- 9% had sex partner known to be HIV+
- 22% had ≥ 1 genital symptom in last month
- 11% sought STI treatment in last 3 months
- 40% had history of imprisonment

Results (2):

HIV, HSV-2, pregnancy prevalence

	% (N)	95% CI
HIV-1	23.8 (190)	20.8, 26.7
HIV-2	0.75 (6)	0.2, 1.4
HSV-2	59.8 (478)	56.4, 63.2
Pregnancy	7.6 (61)	5.8, 9.5



Results (3): Risk factors for HIV prevalence

Risk factor	No. at risk	No. HIV+	Adjusted Odds ratio ¹ (95% CI)
Widowed	93	37	1.8 (1.1, 3.1)
Cleansed vagina before last sex	351	98	1.4 (1.0, 2.0)
History of forced sex	202	71	2.2 (1.5, 3.1)
≥1 AIDS-like symptom in past 6 months	120	38	1.6 (1.1, 2.6)
≥1 Genital symptom in last month	173	50	1.5 (1.0, 2.2)
Sought STI treatment in last 3 months	91	34	2.2 (1.4, 3.6)
Regular alcohol consumption	436	120	1.5 (1.1, 2.1)
History of imprisonment	317	87	1.6 (1.1, 2.3)
HSV-2 infection	478	165	7.7 (4.4, 13.6)
Currently breastfeeding	344	40	0.3 (0.2, 0.5)
Years working as sex worker (2 vs. ≤1)	135	16	0.5 (0.2, 0.9)
Lifetime HIV tests (≥6 vs. none)	20	2	0.2 (0.1, 0.9)

¹Adjusted for age and district of residence

Discussion & Conclusions

- High HIV prevalence among FSW in Kigali with unknown or suspected negative HIV serostatus
 - Prevalence increases with age
 - Prevalence among these FSW is 3x prevalence among general female population in Kigali (*2005 Rwanda DHS+*)
- Pregnancy prevalence high, and substantial proportion of women currently breastfeeding
 - Contraceptive use, including male condoms, low
- Sexual behaviors, clinical factors, and factors indicating social vulnerability associated with increased risk for prevalent HIV infection

Future perspectives

- HIV prevention programs and systematic HIV surveillance among FSW in Kigali should be scaled up
- Improve access to family planning
 - Integration with HIV services potentially beneficial
- Interventions for FSW could include:
 - STI screening and treatment for women and their partners
 - Expanded HIV prevention and care services for widows
 - Investigation into interaction between alcohol use and sexual activity
 - Programs providing viable alternatives to women interested in leaving sex work
 - Social and legal advocacy related to gender-based violence