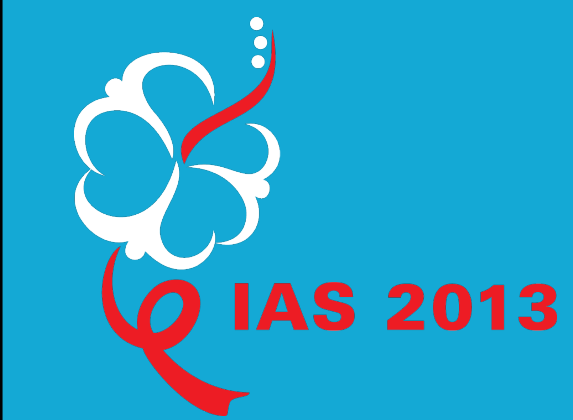


Relationship status and ART use are predictors of unprotected sex among a sample of harder-to-reach women living with HIV in British Columbia, Canada

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Background

- Sexual behaviour of HIV-positive individuals, women in particular, has become a source for public health, social and political dialogue.
- We sought to investigate the prevalence and correlates of vaginal sex without a condom among a sample of non-pregnant sexually active women living with HIV.

Methods

- The Longitudinal Investigation into Supportive and Ancillary health services (LISA) cohort is a prospective study of treatment and care experiences of harder-to-reach people living with HIV over the age of 19 in British Columbia who are accessing antiretroviral therapy (ART).
- The LISA sample is not representative of all HIV-positive individuals accessing ART in British Columbia as we over sampled women, injection drug users and those of Aboriginal ancestry.
- Interviewer-administered surveys collected information on socio-demographic, behavioural, healthcare utilization, and social factors.
- Relevant clinical variables were obtained through linkages with the Drug Treatment Program at the BC Centre for Excellence in HIV/AIDS.
- The outcome variable of interest was defined as vaginal sex without a condom (unprotected sex) within the past 6 months.
- Logistic regression was used to generate adjusted estimates of associations between unprotected sex and covariates of interest.

Results

- Of the 255 participants in LISA who identified as female, 135 (52.9%) were sexually active within the six months leading up to baseline interview.
- Of the 135 women included in the sample, 71 (53.6%) reported engaging in unprotected vaginal sex within the past six months.

Table 1: Bivariable table comparing women who have had unprotected sex in the previous 6 months and those who have not

Characteristics		n (%) or Median (IQR)	Total
Age		40 (34-44)	135
Aboriginal ethnicity	No Yes	73 (54.1%) 62 (45.9%)	135
Currently in a Relationship	No Yes	91 (67.4%) 44 (32.6%)	135
Income < \$15,000 annually	No Yes	42 (31.3%) 92 (68.7%)	135
Injection drug use, current	No Yes	98 (73.7%) 35 (26.3%)	133
History of sexually transmitted infection	No Yes	80 (59.3%) 55 (40.7%)	135
Always disclose my HIV status to new sexual partners	No Yes	36 (34.0%) 70 (66.0%)	106
Currently on oral contraceptives	No Yes	125 (92.6%) 10 (7.4%)	135
Currently using intra-uterine device (IUD)	No Yes	133 (98.5%) 2 (1.5%)	135
On therapy, at interview	No Yes	41 (30.4%) 94 (69.6%)	135
Viral Suppression (defined as <50 copies)	No Yes	56 (46.3%) 65 (53.7%)	121

Table 2: Bivariable table comparing women who have had unprotected sex in the previous six months and those who have not

Variable		Protected sex n=64 (47.4%)	Unprotected sex n=71 (52.6%)	p-value
Age (median, IQR)		40 (34-44)	39 (34-45)	0.921
Aboriginal ethnicity	No Yes	32 (50%) 32 (50%)	41 (57.7%) 30 (42.3%)	0.392
Currently in a Relationship	No Yes	49 (76.6%) 15 (23.4%)	42 (59.2%) 29 (40.8%)	0.043
Income <\$15,000 annually	No Yes	21 (33.3%) 42 (66.7%)	21 (29.6%) 50 (70.4%)	0.710
Fear emotional reaction to disclosure	No Yes	44 (80.0%) 11 (20.0%)	46 (95.8%) 2 (4.2%)	0.018
Fear being dumped after disclosing	No Yes	47 (85.5%) 8 (14.5%)	47 (97.9%) 1 (2.1%)	0.035
# male partners in past 6 months (median, IQR)		1 (1-4)	1 (1-2)	0.094
Report being less likely to use a condom with an HIV-positive partner	No Yes	51 (79.7%) 12 (20.3%)	40 (57.1%) 30 (42.9%)	0.006
Currently on oral contraceptives	No Yes	61 (95.3%) 3 (4.7%)	64 (90.1%) 7 (9.9%)	0.332
History of sex work	No Yes	8 (25.0%) 24 (75.0%)	25 (51.0%) 24 (49.0%)	0.023
Viral suppression (defined as <50 copies)	No Yes	27 (46.6%) 46 (53.4%)	29 (46.0%) 34 (54.9%)	0.999
CD4, at interview (median, IQR)		340 (185-525)	325 (255-555)	0.655

Table 3: Multivariable logistic regression of unprotected vaginal sex in the previous six months

Variable	Adjusted Odds Ratio (95% Confidence Interval)	p-value
Currently in a relationship	2.73 (1.20-6.22)	0.016
High school education or greater	0.48 (0.22-1.04)	0.063
Report being less likely to use a condom with an HIV-positive partner	3.42 (1.50-7.78)	0.003
Currently on oral contraceptives	3.66 (0.84-15.95)	0.084
On therapy at time of interview	2.39 (1.02-5.59)	0.045
Fear emotional reaction to disclosure	0.15 (0.03-0.85)	0.032
Fear being dumped after disclosing	0.05 (0.0-0.85)	0.018
Fear hostile reaction after disclosing	5.25 (1.24-23.15)	0.025

Discussion

- Patterns of unprotected vaginal sex are greatly influenced by ART use, relationship status and perceived barriers to disclosing one's HIV-status.
- Social and structural factors influencing condom use must be included in discussions of disclosure.

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