

Gender Differences in Meeting Legal Obligations to Disclose HIV Status Within a Cohort of HIV-Positive Injection Drug Users in Vancouver

S. Patterson^{1,2}, A. Kaida¹, P. Nguyen², G. Ogilvie³, J.S. Montaner^{2,4}, R.S. Hogg^{1,2}, M-J. Milloy^{2,4}

¹Simon Fraser University, Faculty of Health Sciences, Burnaby; ²British Columbia Centre for Excellence in HIV/

AIDS, Vancouver; ³University of British Columbia, Faculty of Medicine, Vancouver;

⁴University of British Columbia, Division of AIDS, Vancouver



TUPEC592

Background

- On October 5 2012, the Supreme Court of Canada (SCC) ruled in *R v. Mabior* and *R v. DC* that people living with HIV must disclose their HIV status to sexual partners prior to vaginal intercourse unless they:
 - use a condom **and**
 - have a "low" viral load, defined by the court as HIV RNA plasma <1500 c/ml.
- The Canadian legal position on HIV non-disclosure is among the most strict internationally.
- HIV-positive people who use injection drugs (PWID) face unique barriers to safely disclosing their serostatus in the criminalized environment in which they live, navigate sexual relationships, and seek care.
- We sought to estimate the proportion of PWID who would be legally obligated to disclose their HIV status to sexual partners based on the SCC's legal test.

Methods

- We used cross-sectional data from the AIDS Care Cohort to evaluate Exposure to Survival Services (ACCESS), an ongoing prospective cohort of people living with HIV who have used illicit drugs in Vancouver, Canada
- ACCESS eligibility:
 - HIV-positive individuals aged ≥ 18 years who had used illicit drugs other than cannabis at least once in the 30 days prior to the baseline interview
- Viral load measurements obtained through a linkage with the Drug Treatment Program at the BC Centre for Excellence in HIV/AIDS.
- Included ACCESS participants:
 - With a history of injection drug use
 - With at least one VL and one CD4 measurement within 180 days of their baseline visit
 - With non-missing condom use data
 - Who had completed an interview since October 5, 2012
 - Who were sexually active (self-reporting penile-vaginal intercourse with commercial/non-commercial sex partners within 6 months before interview).
- Outcome variable:
 - failure to meet the SCC's legal test for HIV non-disclosure (i.e. demonstrating <100% condom use in the 6 months prior to interview or viral load ≥1500 c/ml within six months before interview.
- Multivariable logistic regression identified independent predictors of facing a legal obligation to disclose.
- The ACCESS survey does not collect data on HIV serostatus disclosure practices. As such, these analyses do not present data on behaviours that could be interpreted as legal offences under HIV non-disclosure case law.

Results

- Of 176 ACCESS participants included in our analysis, 44% failed to satisfy the legal test, including
 - 6% who demonstrated a viral load >1500 c/mL
 - 40% who self-reported inconsistent condom use
- When evaluating the results dichotomised by gender, 35% of male participants compared to 55% of female participants failed to satisfy the legal test (p=0.014).

Table 1. Characteristics of 176 HIV-positive PWID stratified by satisfaction of legal test for HIV non-disclosure.

Characteristic	All participants (n=176)	Satisfy legal test (n=99)	Do not satisfy (n=77)	P-value
Age in years (median, IQR)	45 (40, 51)	46 (41, 52)	44 (39, 50)	0.07
Caucasian ethnicity	93 (53)	49 (49)	44 (57)	0.362
Male	99 (56)	64 (65)	35 (45)	0.014
Homeless	21 (12)	9 (9)	12 (26)	0.242
Employed*	44 (25)	25 (25)	19 (25)	1
≥ High school education (n=172)	78 (45)	45 (46)	33 (45)	0.878
Incarcerated*	10 (6)	4 (4)	6 (8)	0.337
Illicit drug use* ¹	162 (92)	95 (94)	69 (90)	0.401
Injection drug use*	117 (66)	66 (67)	51 (66)	1
Sex work*	29 (16)	19 (19)	10 (13)	0.311
Stable relationship	74 (42)	31 (31)	43 (56)	0.001
1 sexual partner*	114 (69)	54 (59)	60 (81)	0.002
Years since ART initiation (median, IQR)	8 (4, 13)	8 (5, 14)	8 (3, 12)	0.293
≥1 day recent ART dispensation*	168 (95)	98 (99)	70 (91)	0.022

*in the 6 month period before the interview; ¹ other than cannabis use

Table 2. Patterns of condom use stratified by plasma HIV-1 RNA viral load (< 1500 vs. ≥ 1500 copies/mL) among 176 male and female PWID.

Characteristic	VL <1500 c/ml N (%)	VL ≥ 1500 c/ml N (%)	All Participants N (%)
All Participants			
Condom use	(n=166)	(n=10)	(n=176)
100%	99 (60)	7 (70)	106 (60)
< 100%	67 (40)	3 (30)	40 (40)
Male participants			
Condom use	(n=97)	(n=2)	(n=99)
100%	64 (66)	2 (100)	66 (67)
< 100%	33 (34)	0 (0)	33 (33)
Female participants			
Condom use	(n=69)	(n=8)	(n=77)
100%	35 (51)	5 (62)	40 (52)
< 100%	34 (49)	3 (38)	37 (48)

Table 3. Bivariable and multivariable logistic regression analyses of factors associated with facing a legal obligation to disclose positive HIV serostatus to sexual partners among 176 HIV-positive PWID[§]

Characteristic	Unadjusted odds ratio (95% CI)	Adjusted odds ratio (95% CI)
Age (per year older)	0.96 (0.93, 1.00)	-
Gender (female vs. male)	2.19 (1.19, 4.04)	2.30 (1.15, 4.63)
Homeless (yes vs. no)	1.85 (0.74, 4.64)	-
Illicit drug use* † (yes vs. no)	0.56 (0.19, 1.68)	-
Injection drug use* (yes vs. no)	0.98 (0.52, 1.84)	-
Number of sexual partners* (1 vs. >1)	3.02 (1.48, 6.16)	2.88 (1.30, 6.39)
Stable relationship (yes vs. no)	2.77 (1.49, 5.15)	2.51 (1.25, 5.07)
Sex work* (yes vs. no)	0.63 (0.27, 1.44)	-
Incarcerated* (yes vs. no)	2.01 (0.55, 7.38)	4.71 (0.01, 21.9)
Years since ART initiation (per yr increase)	0.97 (0.92, 1.03)	-

[§]10 participants with missing data relating to number of recent sexual partners were excluded from the model; *within the 6 months before interview; † excluding cannabis use; ART: antiretroviral therapy.

Conclusion

- Almost half of participants (44%) fail to satisfy the SCC's legal test for HIV non-disclosure, driven largely by inconsistent condom use.
- In a multivariable analysis, women were among those more likely to face a legal obligation to disclose.
- Public health advocates argue that either condom use or a low viral load should be sufficient to remove the legal obligation to disclose to sexual partners.
- Almost all participants in this analysis (98%) either always used condoms or achieved a consistently low VL, and thus took reasonable precautions to reduce the risk of HIV transmission to sexual partners
- Our findings suggest that HIV non-disclosure case law may accentuate existing gender-specific inequalities in clinical and behavioural outcomes.
- This study reinforces the critical need for public health initiatives to address barriers to HIV/AIDS treatment and care and to support safe HIV serostatus disclosure within marginalized communities.

Limitations

- Sexual partner serostatus is not captured in the ACCESS survey, therefore the impact of this important variable on study findings could not be evaluated.
- Condom use was self-reported, therefore subject to recall bias and social desirability reporting bias, which would result in underestimation of the proportion of participants failing to satisfy the legal test

Acknowledgements

The authors thank the study participants for their contribution to the research, as well as current and past researchers and staff. The ACCESS study is supported by the United States National Institutes of Health (R01-DA021525). Dr. Patterson is supported by a Study Abroad Studentship from the Leverhulme Trust.

For more information, please contact: sophie_patterson@sfu.ca