

HIV Status Disclosure During Sex: A Longitudinal Event-Level Analysis of Gay, Bisexual and other Men who have Sex with Men (GBM)

Leo Rutherford¹, Terry Howard^{2,3}, Everett D. Blackwell², Lu Wang⁴, Nicanor Bacani⁴, Heather L. Armstrong^{4,5}, Gbolahan Olarewaju⁴, Eric A. Roth¹, Robert S. Hogg^{4,6}, David M. Moore^{4,5}, Nathan J. Lachowsky^{1,4}

1. University of Victoria, Victoria, BC, 2. Momentum Health Study Community Advisory Board, Vancouver, BC, 3. GlassHouse Consultants, Vancouver, BC 4. British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC, 5. University of British Columbia, Vancouver, BC, 6. Simon Fraser University, Burnaby, BC

Background

HIV continues to disproportionally affect gay, bisexual and other men who have sex with men. Undetectable=Untransmittable (U=U) and pre-exposure prophylaxis (PrEP) campaigns may have changed discussions of HIV status and behaviors related to risk management.

Our **research question** included seeking to examine temporal trends and factors associated with not having discussed HIV status with sexual partners

Methods

Data were collected from 09/2014-02/2017 from sexually-active Metro Vancouver GBM

Momentum is a **prospective cohort study** in which participants are recruited via Respondent Driven Sampling (RDS)

Eligibility:

Gender: identify as a man (inclusive of trans men)

Age: be 16 years of age or older

Sexual Behaviour: report sex with another man in the previous six months

Location: live in Metro Vancouver

Language: English

AND...

be purposively **invited as a “seed”** or redeem an RDS voucher from a prior study participant

Questionnaire consisted of a **Computer-assisted self-interview** (CASI), with questions about:

- Demographics
- Social and Community
- Sexual Behaviour
- Attitudes & Beliefs
- Substance Use & Mental health

Data Analysis

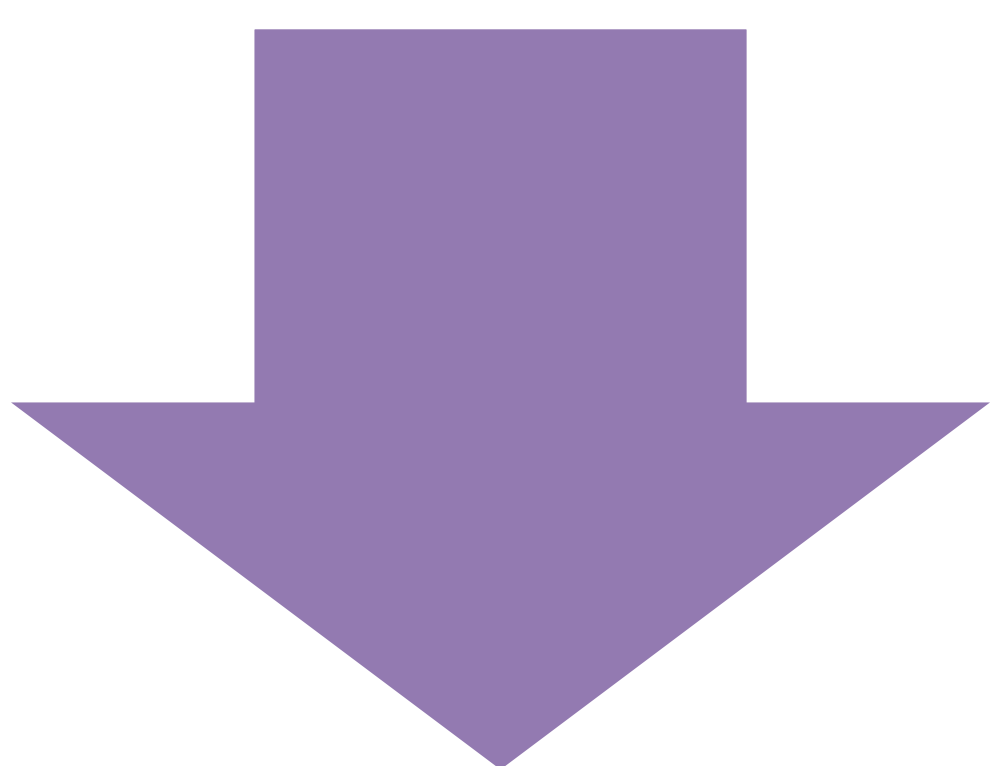
Stratified by HIV status, we used **four-level mixed effects models**

- RDS recruitment chain
- participant
- visit
- event

in order to **evaluate temporal trends** (6-month periods) and **factors** associated with awareness of sexual partner’s HIV status (i.e. unknown HIV status versus seroconcordant).

Results

481 participants completed 1303 visits reporting on 3786 sexual event



The proportion of sexual events with unknown HIV status partners decreased over time
(31% to 22%; OR=0.90, 95%CI:0.82-0.99).

This trend was driven by HIV-negative participants
(42% to 19%; OR=0.78, 95%CI:0.70-0.88)



HIV-positive participants reported a significant increase in sexual events with an unknown HIV status partner
(11% to 27%; OR=1.21, 95%CI:1.01-1.44)

HIV-positive participants who reported an unknown HIV status partner were **more likely to:**

- Be <30 years (OR=5.43, 95%CI:1.29-22.82)
- prefer to bottom (versus top, OR=3.19, 95%CI:1.36-7.50)

HIV-negative participants reporting an unknown HIV status partner were more likely to:

- Self assess high HIV acquisition risk (OR=1.91, 95%CI:1.13-3.22)

And

Less likely to report:

- PrEP use (OR=0.49, 95%CI:0.26-0.91),
- condomless receptive (OR=0.36, 95%CI:0.25-0.53)
- condomless insertive (OR=0.36, 95%CI:0.26-0.51) anal sex.

Conclusions

Increases in HIV positive individuals’ reporting unknown status partners may be related to increased knowledge or awareness of U=U. HIV negative respondents may be using behavioral or other precautions during sex and additionally may not feel the need to ask about status. Public health interventions should consider combination education, stigma reduction, and sexual communication interventions in a PrEP and U=U era.