



HIV risk and prevention practices of bisexual men in a Treatment as Prevention environment

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Context of HIV in British Columbia, Canada

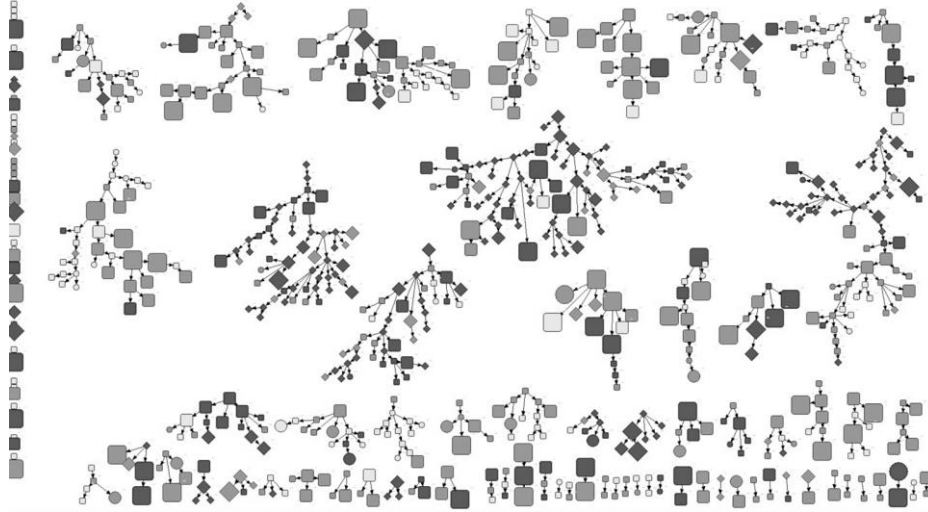
- Men who have sex with men are the most affected HIV-risk group in Canada
- In BC, they account for 58% of new HIV diagnoses (BCCDC, 2015)
- BC offers free HIV Treatment as Prevention for all PLWH and has actively promoted this as policy since 2010





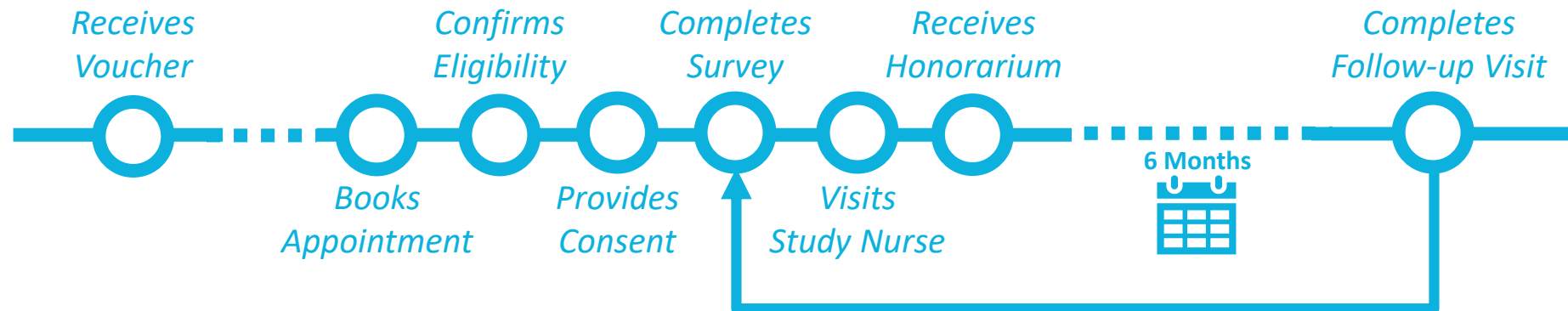
Methods – Data Collection

RDS Chain Structure (134 Seeds; 640 Recruits)



Eligibility Criteria

1. Received an invitation to participate.
2. 16 years of age or older.
3. Self-identified as a man (including trans men).
4. Reported sex with ≥ 1 man in past 6 months.
5. Provided informed consent.
6. Was able to complete a computer administered questionnaire in English.





Prevalence of Bisexuality (n=774)

Self-report identity:

- 80.4% gay
- **14.7% bisexual**
- 4.9% other (e.g., queer)

Attraction to:

- Men only: 66.6%
- **Men and Women: 33.4%**

Sexual partners past 2 years:

- 77.3% men only
- **22.7% men and women**

RDS-adjusted population point estimates



Demographics – Identity

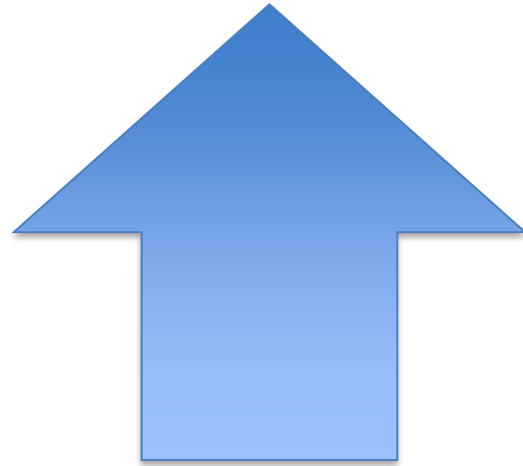
Variable	Gay Men	Bisexual Men	P-value
Age (mean)	34	39	0.09
White Ethnicity	70.1%	66.2%	<.01
Income <\$30,000 CAD	66.6%	89.9%	<0.001
Post-secondary Education	74.2%	46.2%	<.01

*\$30,000 CAD → £18,000

Roth et al., 2018

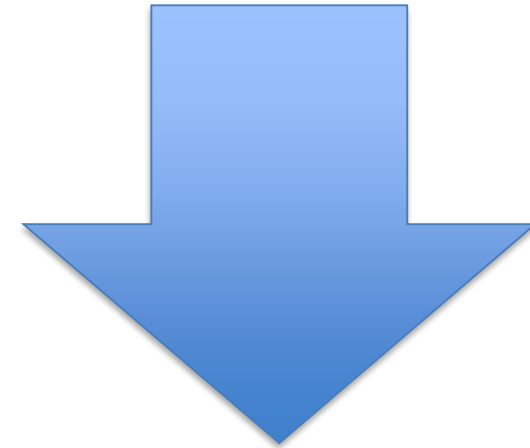


Mental and Physical Health – Bisexual Men



- Higher levels of **anxiety** and **depression**
(Rich et al., 2019)

- Worse perceived current health
(Roth et al., 2018)





Unique and Elevated Substance Use Patterns

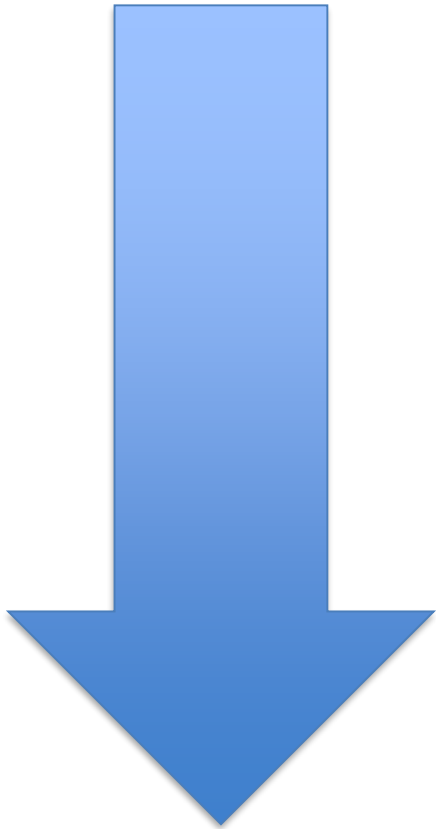
- **Higher levels of substance use**, including ↑ alcohol dependency
- More likely to be daily smokers (62.4% vs. 26.6%, $p < .0001$)
- Greater use of non-Rx stimulants (**crystal meth, cocaine**) and **heroin**
- But **LESS** use of erectile dysfunction drugs and poppers





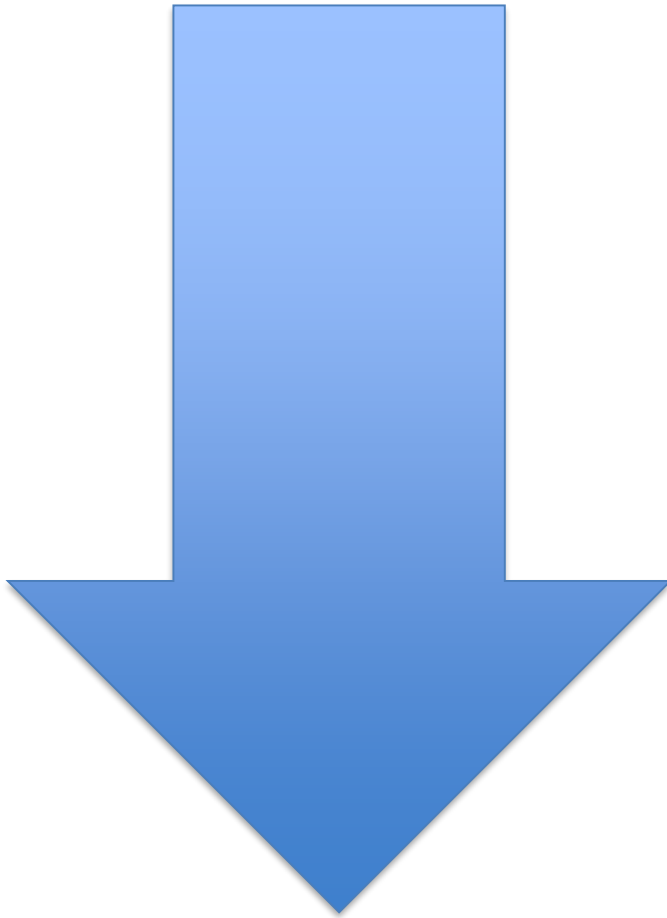
HIV Prevention Awareness

- **Less likely test for HIV** (aOR:9.65; 95%CI:3.02, 30.85)
(Armstrong et al., 2019).
- Less aware of :
 - **PreP (pre-exposure prophylaxis)**
 - HIV-neg: aOR: 0.58; 95% CI: 0.34, 0.98 (Moser et al., 2018)
 - **PEP (post-exposure prophylaxis)**
 - HIV-neg: aOR 0.43; 95% CI 0.23–0.81 (Lin et al., 2016)
 - **TasP (Treatment as Prevention)**
 - HIV-neg: aOR: 0.45, 95%CI: 0.24, 0.85
 - HIV-poz: aOR: 0.15; 95%CI: 0.05, 0.47 (Carter et al., 2015),
 - **Less likely to consider it effective** (aOR:0.12; 95%CI:0.03, 0.43)
(Card et al., 2017a)





HIV Risk Behaviours



- Fewer sex partners in general
 - (aOR:0.55, 95%CI:0.44, 0.69) (Armstrong et al., 2018b)
- HIV-negative bisexual men reported fewer anal sex partners
 - (aOR:0.26, 95%CI:0.10, 0.66) (Card et al., 2016a)
- Less likely to be the receptive anal sex partner
 - (aOR: 0.49, 95% CI: 0.25, 0.93) (Rich et al., 2015)

HIV Risk Behaviours

- Bisexual men were **no more likely** to engage in condomless anal sex with a serodiscordant or unknown HIV-status partner
- Bisexual men were **less likely to** use serosorting, viral load sorting, and anal sex avoidance as HIV prevention strategies

HIV Status

- Bisexual and other non-gay identified men were **no more likely to be HIV-positive**
 - (p=.88; Card et al., 2017d)
- Among those living with HIV, **no differences in rates of viral load suppression**
 - (Moore et al., 2016)



Limitations

- Sample collected in Vancouver, Canada – may be different than UK environment
 - UK has higher higher rates of viral suppression (~81% vs. 97%)
 - Both have active chem sex scenes
- Participants were required to be sexually active with another man in the past 6 months at baseline
 - Sample not representative of all bisexual men
 - Bisexual men in this study may be more highly connected to the Vancouver gay community



Conclusions

- Despite **fewer anal sex partners** and **less receptive anal sex**, **bisexual men experience HIV prevalence similar to gay men**
 - **Less awareness of biomedical prevention and less testing**
- We need to **challenge our assumptions** that all men who have sex with men are the same, both in our empirical **research** and in our **treatment and prevention efforts**



Implications for HIV Prevention

- HIV prevention and education campaigns should **recognize** the **unique sexual health needs** of bisexual men
 - Need to be patient-centre
 - Need to be relevant and appropriate for bisexual men
- **Other syndemic factors (beyond behavioural risk) may be driving elevated HIV prevalence rates**
 - **Substance use and other mental health concerns**
 - **Low use/access to health and prevention services**
 - **Low awareness of HIV prevention strategies**
 - **Lower SES**



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