An Event-Level Analysis of Condom Use During Anal Intercourse among Self-Reported HIV-Negative Gay and Bisexual Men in a Treatment as Prevention[®] Environment

What are some of the factors associated with using condoms during anal intercourse among Vancouver's gay and bisexual men?

What is the importance of this study?

- Across Canada, gay, bisexual and other men who have sex with men (GBM) accounted for over half of the new cases of HIV in 2014.
- New medical innovations may unintentionally lead to less condom use.
- There are gaps in knowledge of how condom use may have changed recently for HIV-negative GBM.

FACT BOX

Condoms were used in more than half of the anal sex experiences reported, but use declined over the study period.

Treatment as Prevention® (TasP®): a made-in-BC strategy implemented in British Columbia, with support of the provincial government, to reduce HIV transmission through expanded access to earlier testing and universal access to antiretroviral treatment upon diagnosis. On sustained and consistent HIV treatment, an individual can achieve an undetectable viral load. This improves their health and longevity, while reducing their chances of transmitting HIV to negligible.

How was this study conducted?

- This study only included participants who self-identified as HIV-negative.
- Participants completed computer questionnaires on their last sexual encounters with up to five of their most recent sexual partners within the past six months.
- Condom use was recorded for all anal sexual positions during each sexual encounter (i.e., receptive, insertive or both).
- Participants were also asked if they were aware of TasP[®] and whether or not they participated in TasP[®]-related risk reduction, such as knowing a partner's HIV status and viral load sorting (only having condomless sex with partners on treatment with suppressed viral loads).

What are the key study findings?

- There were a total of 1,866 sexual encounters reported, with most participants reporting *at least one* anal intercourse event. Of these, condom use was reported in only 36.7% of all anal intercourse events.
- Condom use was reported for 55.5% of the unique 1,196 anal sex events, and the proportion declined over the two-year study period.
- Condoms were used in 56.0% of HIV-negative GBM's recent sexual encounters. Interestingly, the likelihood of condom use decreased over the study period (between 2012 and 2014).
- Crystal methamphetamine was shown to reduce condom use to one out of every five sexual encounters.



While viral load sorting was associated with condom use, Tasp® awareness and related attitudes were not. Greater optimism about HIV treatments was also associated with not using condoms.

What do these findings mean?

- Awareness of TasP® was not a significant factor associated with whether or not participants reported using condoms during anal sex.
- Findings suggest growing uptake and confidence in HIV treatment may coincide with sexual risk compensation in the form of less condom use amongst HIV-negative GBM.
- Future health promotion programs and interventions should focus particularly on appropriate and consistent use of condoms.
- Future research is needed on how to promote sexual health within the context of crystal meth use.

What is the BC-CfE Momentum Health Study?

Evidence from British Columbia and elsewhere has demonstrated the expansion of access to antiretroviral HIV treatment (ART) can result in population-level reductions in HIV incidence. This is the concept behind the made-in-BC Treatment as Prevention[®] strategy, or TasP[®], which aims to expand early HIV testing and treatment to improve patients' health and curb the spread of HIV. Gay, bisexual and other men who have sex with men (GBM) represent the most affected HIV risk group, both in BC and Canada. The BC-CfE Momentum Health Study is designed to measure changes in HIV risk behaviour, attitudes toward TasP® and the proportion of HIV-positive GBM with unsuppressed viral load over time in the Vancouver region. The study uses respondent-driven sampling (RDS) to obtain a more representative sample reflecting the diversity of the GBM population in Vancouver.

Full study available online: https://www.ncbi.nlm.nih.gov/pubmed/27832026

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