

# Increasing HIV Treatment Optimism but No Changes in HIV Risk Behaviour among Men who have Sex with Men in Vancouver, Canada

Has increased optimism in the effectiveness of HIV treatment resulted in increased risky sex among men who have sex with men in Metro Vancouver?

## What is the importance of this study?

- Antiretroviral therapy (ART) has been shown to improve outcomes for individuals living with HIV and reduce onward transmission.
- Since 2013, the made-in-BC Treatment as Prevention® (TasP®) strategy has been implemented in BC, with support from the provincial government. Therefore, gbMSM in Vancouver have likely received information about the concept for some time.
- British Columbia provides immediate, universal access to ART upon a diagnosis with HIV. TasP® is based on the concept that on sustained, consistent treatment, an individual living with HIV can achieve an undetectable viral load. At that point, their chance of transmitting the virus to others drops to zero.
- There are concerns that changes in risky sexual behaviour, which may increase the risk of acquiring or transmitting HIV, could undermine TasP® effectiveness.

### FACT BOX

Studies suggest that positive attitudes towards the effectiveness HIV treatment are associated with risky sexual behaviour, particularly among men who have sex with men.

## How was this study conducted?

- Participants in the Momentum Health Study were asked about their sexual risk and drug use behaviours at six-month intervals from February 2012 to August 2015.
- The survey also included the HIV Treatment Optimism-Skepticism Scale (HOSS), a validated 12-item screening test used to measure attitudes towards HIV and ART. Higher HOSS scores indicate higher levels of agreement with the benefits of ART.
- The study examined trends in HOSS scores, proportions of participants reporting risky sex, and proportions agreeing or strongly agreeing with what is known as the TasP® statement: “a person with an undetectable viral load cannot pass on the virus”. These were assessed during a time when TasP® policy was actively implemented in the province of British Columbia.

## What are the key study findings?

- Among participants living with HIV median HOSS scores increased over time, but the proportion of participants that agreed with the TasP® statement was largely unchanged.



- Among HIV-negative or unknown participants HOSS scores also increased, as did agreement with the TasP<sup>®</sup> statement.
- However, proportions who reported risky sex behaviour remained unchanged for both men living with HIV and HIV-negative men.
- After adjusting for confounding variables, HOSS scores were associated with risky sex for both gbMSM living with HIV and those HIV-negative/unknown.
- After adjusting for confounding variables, TasP<sup>®</sup> statement agreement was not associated with risky sex for either gbMSM living with HIV or participants who were HIV-negative.

#### What do these findings mean?

- We observed some increases in awareness of TasP<sup>®</sup> and related concepts over time. These changes were not associated with increases in the proportion of risky sex among either HIV-negative gbMSM or those living with HIV.
- This suggests that TasP<sup>®</sup> promotion is not undermining other HIV prevention measures.

#### 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<sup>®</sup> strategy, or TasP<sup>®</sup>, 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 (gbMSM) 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<sup>®</sup> and the proportion of HIV-positive gbMSM 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 gbMSM population in Vancouver.

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