# Seroadaptive Strategies of Vancouver Gay and Bisexual Men in a Treatment as Prevention<sup>®</sup> Environment

HIV risk reduction strategies are evolving with important implications for HIV research to be further investigated.

### 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 madein-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

### FACT BOX

Since 2013, the province of British Columbia has expanded HIV testing and offered universal and immediate access to HIV antiretroviral treatment to individuals diagnosed with HIV. On sustained and consistent treatment, an individual living with HIV will achieve an undetectable viral load—at which point the chance of transmitting the virus to others drops to zero. This is the concept behind the proven effective Treatment as Prevention<sup>®</sup> (TasP<sup>®</sup>) strategy.

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 community in Vancouver.

## What are the key study findings?

- TasP<sup>®</sup> reduces viral load—the amount of HIV in blood, semen, vaginal fluid and rectal fluid—to levels undetectable by standard blood tests. In turn, this reduces the risk of HIV transmission to others to zero.
- Based on the proven effective concept of TasP<sup>®</sup>, viral load sorting is a relatively new strategy for condomless anal sex with men who are on antiretroviral treatment and report an undetectable viral load.
- Seroadaptive strategies are behaviours thought to reduce the risk of HIV transmission, including condom use, strategic positioning, withdrawal, having oral sex or masturbation in place of anal sex, disclosure of HIV status and seeking partners with the same HIV status.
- Over one quarter of men reported having condomless anal intercourse in the past six months and 38.5% reported having high-risk sex. The latter was defined by the BC-CfE Momentum Study as having condomless anal intercourse with a partner of opposite or unknown HIV-status.



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- gbMSM consider seroadaptive strategies, HIV status, treatment usage and HIV viral load in sexual decision-making.
- Over time and throughout the study visits, viral load sorting was increasingly reported by both individuals living with HIV and HIV-negative men, as well as unknown status men.

## What do these findings mean?

- There is no way to determine if study participants actually used the reported strategies. There may be biases when sampling hidden or hard-to-reach populations (which can include gbMSM), as well as differences between individuals recruited online and those recruited offline.
- Data is from Vancouver, where the TasP<sup>®</sup> strategy has been implemented since 2013. Therefore, this particular study may not be representative of trends in HIV prevention methods in communities where universal and immediate access to HIV treatment is not available.
- Results support the theory that viral load sorting is becoming more widely utilized amongst the gbMSM population within the BC-CfE Momentum Health Study.

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