

# Estimating the Size of the gbMSM Population in Metro Vancouver, Canada, Using Multiple Methods and Diverse Data Sources

## 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 community in Vancouver.

## FACT BOX

The limited reliability of gbMSM population size estimates is a challenge to implementing effective health care services. It limits our understanding of the HIV epidemic.

## What is the importance of this study?

- gbMSM are disproportionately affected by HIV globally, nationally in Canada, and locally in Vancouver, British Columbia.
- Lack of reliable population size estimates of gbMSM impedes effective implementation of health care services and limits our understanding of the HIV epidemic.
- Estimating the size of the population of gbMSM is challenging for a number of reasons, such as: inconsistent sexual orientation measurement, lack of collection of sexual orientation in census data or routine health surveillance, social stigma affecting research participation and relatively small sample size. To add to this, gbMSM are a non-visible minority and, thus, comprise a 'hidden' or hard-to-reach population

## How was this study conducted?

- Estimates of Vancouver's gbMSM population were made using diverse data sources: the Canadian Community Health Survey (CCHS), a cross-sectional nationally representative population health survey; the BC-CfE Momentum Health Study, a bio-behavioural survey of Vancouver gbMSM; HIV testing services data from STI (sexually transmitted infection) clinics serving Vancouver gbMSM; and publicly available data from the online social networking site, Facebook.



- Estimates were calculated using multiple methods: direct estimates from the CCHS; 'wisdom of the crowds', using Momentum study participants' estimates of the size of the Vancouver gbMSM community; and multiplier method using data from Momentum, HIV testing records and Facebook.

### What are the key study findings?

- Overall, estimates ranged from 10,000 to 42,000. This study calculated based on the median of all estimates as the most reliable, resulting in an estimated 27,000 gbMSM in Metro Vancouver, or about 3% of the adult male population.
- This estimate is similar to gbMSM population estimates available in the United States.
- However, due to stigma or fear of discrimination, 10–40% of gbMSM may be unwilling to disclose sexual identity or same-sex sexual behaviour in surveys or government research. If this sensitivity was applied, gbMSM may represent as many as 4–6% of the adult male Metro Vancouver population.
- The study estimates the number of HIV-positive gbMSM in Metro Vancouver, at 6,400. However, this estimate should be considered with caution as it is based on HIV prevalence in the BC-CfE Momentum Health Study and could be an overestimate.

### What do these findings mean?

- Results will support improved understanding of the HIV burden among gbMSM in Vancouver and corresponding public health and health services planning for this key population.

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**Full paper available at:** <https://www.ncbi.nlm.nih.gov/pubmed/28631060>



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