What is the prevalence of hepatitis C among HIV-positive gay, bi, two-spirit and other men who have sex with men?

By Logan Broeckaert

Hepatitis C is a virus that attacks the liver. In Canada, hepatitis C is most commonly transmitted through the sharing of injection drug use equipment. However, there has been a recent increase in the sexual transmission of hepatitis C among gay, bi and other men who have sex with men (MSM) in high-income countries, particularly among HIV-positive men.  

This article summarizes the results from a systematic review and meta-analysis which aimed to estimate how high the prevalence (the total number of people who are living with a condition at a point in time in a defined population) of chronic hepatitis C is among MSM.

How was prevalence estimated?

In total, 42 studies were included in the final analysis to estimate the prevalence of hepatitis C among HIV-positive MSM. All studies were from middle- or high-income countries, including two from Canada. In total, 38,986 HIV-positive MSM were included in these studies.

What is the prevalence of hepatitis C among HIV-positive MSM?

Prevalence of a current or past hepatitis C infection

When all prevalence estimates were combined from the 42 articles, the hepatitis C antibody prevalence (the estimated rate of any HIV-positive MSM who have or ever had hepatitis C) was 8.2% overall. This means that an estimated 8.2% had evidence of a current or past hepatitis C infection. The hepatitis C antibody-positive prevalence was estimated to be:

- 40% among HIV-positive MSM who had ever used injection drugs
- 6.7% among HIV-positive MSM who had never used injection drugs

Prevalence of chronic hepatitis C infection

Estimates of chronic hepatitis C infection were lower because they removed the people who had cleared the virus on their own. Overall, the prevalence of chronic hepatitis C among all HIV-positive MSM ranged from 5.3% to 7.3%. The estimated range of chronic hepatitis C infections was higher among MSM who had ever used injection drugs compared to those who had never used:

- 26% to 35.4% among HIV-positive MSM who had ever used injection drugs
• 4.9% to 5.9% among HIV-positive MSM who had *never* used injection drug

**How has the prevalence of hepatitis C among MSM changed over time?**

The estimated prevalence of chronic hepatitis C increased from 2.9% in 1988 to 15.7% in 2011. This increase was statistically significant. When the numbers are broken down, a statistically significant year on year *increase* in hepatitis C prevalence was found among HIV-positive MSM who had never used injection drugs (0.37%/year). However, there was a statistically significant year on year *decrease* in hepatitis C prevalence among HIV-positive MSM who had ever used injection drugs (minus 1.4%/year).

These numbers suggest that increases in new hepatitis C infections among HIV-positive MSM may increasingly be related to sexual transmission rather than injection drug use.

**What does this mean for Canadian service providers?**

This systematic review found that between 1988 and 2011, the estimated prevalence of hepatitis C among HIV-positive gay men increased significantly and that this cannot be solely related to use of injection drug. The rates remain low, however, which gives us an opportunity to reduce the impact of hepatitis C among HIV-positive MSM.

To support HIV-positive MSM to reduce their risk of acquiring or transmitting hepatitis C, service providers can counsel all MSM on the following:

- **Known hepatitis C risk factors.** Hepatitis C infections have been associated with specific behaviours, including anal sex with multiple partners, sex when drugs are being consumed, and sex where blood may be present. There is limited evidence to suggest that HIV-positive men co-infected with hepatitis C have hepatitis C in their semen.\(^6\) As a result, hepatitis C may be transmissible through semen.\(^6\)

- **Hepatitis C prevention:** Condoms and lube should be used consistently and correctly for the duration of every sex act and new condoms should be used with every new partner.

- **Drug use harm-reduction strategies.** New inhalation and/or injection equipment should be used when using drugs, and used equipment should never be lent, borrowed or bought.

- **Testing for hepatitis C and other sexually transmitted infections (STIs) regularly.** Regular testing is the only way to know if hepatitis C or STI transmission has occurred.

- **Hepatitis C treatment.** New hepatitis C treatments are more effective and easier to tolerate than before and hepatitis C can be cured in as few as eight weeks.

**What is a systematic review?**

Systematic reviews are important tools for informing evidence-based programming. A systematic review is a critical summary of the available evidence on a specific topic. It uses a rigorous process to identify all the studies related to a specific research question. Relevant studies can then be assessed for quality and their results summarized to identify and present key findings and limitations. If studies within a systematic review contain numerical data, this data can be combined in strategic ways to calculate pooled estimates. Combining data to produce pooled estimates can provide a better overall picture of the topic being studied.

**Resources**


About the author(s)

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Disclaimer

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Production of this content has been made possible through a financial contribution from the Public Health Agency of Canada.

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