



### The questions we asked:

- How often do people living with HIV test for the sexually transmitted infections chlamydia and gonorrhea?
- Do different populations of people living with HIV test more often or less often than others?
- Have there been any noticeable changes in testing rates over time?
- Are different populations of people living with HIV more or less likely to be diagnosed with chlamydia or gonorrhea?

### The answers we found using OCS data

Thirty-nine percent of OCS participants took a chlamydia and gonorrhea test at least once during the study period (2008-2011). Of participants who tested, most tested about once a year. As opposed to OCS participants who did not test for sexually transmitted infections, participants who tested were likely to be younger, attend a primary care clinic, live in Toronto, and identify as a gay, bisexual or other man who has sex with men. Participants who tested were more likely to do so soon after an HIV diagnosis or when they entered care, rather than in later years.

There was a significant increase in testing at least once a year from 2008 (when 15% of participants were tested for chlamydia and gonorrhea) to 2011 (when 27% of participants were tested). However, testing rates were still lower than expected given Canadian and US guidelines.

Over the study period, a total of 86 cases of chlamydia and 64 cases of gonorrhea were diagnosed. The majority of both chlamydia and gonorrhea cases—93% and 97% respectively—were in men who have sex with men, corresponding to a prevalence of about 1% for both chlamydia and gonorrhea in this population. Compared to the general male population in Ontario, men who have sex with men in this study had a six-times higher rate of being diagnosed with chlamydia and a 27-times higher rate of being diagnosed with gonorrhea. Diagnosis was also more common among younger men who have sex with men.

# CHLAMYDIA AND GONORRHEA TESTING

## Why is this issue important?

Since HIV is a disease of the immune system, having another STI can affect how the body manages HIV or the STI, and symptoms may be worse than if a person was not co-infected. Also, people living with HIV who have another STI, such as chlamydia or gonorrhea, may transmit HIV more easily (i.e., they may be more infectious).

In Canada and the US, chlamydia and gonorrhea testing is recommended annually for sexually active men who have sex with men, regardless of HIV status. In the US and the UK, people living with HIV are recommended to test for sexually transmitted infections annually. These guidelines are in place to improve health outcomes for people living with HIV and to reduce STI transmission.

## What else did we learn?

Women and heterosexual men were also diagnosed with chlamydia (in 2011: 0.64% prevalence among women, 0.32% among heterosexual men), but there were no cases of gonorrhea found in either of these two populations. These rates are consistent with those of the general population in Ontario.

We also learned that the majority of chlamydia and gonorrhea tests (87%) were done with urine-based samples and that only 13% of the tests were done on samples taken from the rectal or oral tract. Other research has shown that testing oral and rectal samples for chlamydia and gonorrhea can improve case finding. Testing done from samples that are not urine-based can also identify specific strains of gonorrhea that do not respond well to treatment (“antibiotic-resistant gonorrhea”).

## How was the study conducted?

We were able to obtain HIV viral load, chlamydia and gonorrhea test results from the Public Health Ontario Laboratories. Seven of the 10 OCS clinic sites confirmed that they send all of their samples to the Public Health Ontario Laboratories for testing. These results were linked to participants’ data from the OCS and we were able to analyze all of the data together to see the different patterns and trends in chlamydia and gonorrhea testing.

## What’s next?

We recommend exploring strategies to encourage regular chlamydia and gonorrhea testing among men at risk of infection. Consideration should also be given to making systematic changes to healthcare and laboratory practice to maximise screening uptake in this population and to improve testing for rectal and oral infection and antibiotic-resistant gonorrhea.

## Want to know more?

This study was published by [the Journal of] Sexually Transmitted Infections. The full text version is available at: <http://sti.bmj.com/content/early/2014/09/01/sextrans-2014-051647.full>

### Full title

*Modest rise in chlamydia and gonorrhea testing did not increase case detection in a clinical HIV cohort in Ontario, Canada*

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