

The epidemiology of HIV in females

This fact sheet provides a snapshot of the HIV epidemic among females in Canada. It is one of a series of fact sheets on the epidemiology of HIV and hepatitis C.

All epidemiological information is approximate, based on the best available data. Most of the data in this fact sheet come from a population-specific surveillance system (I-Track), *HIV in Canada: Surveillance Report 2018* and the *Summary: Estimates of HIV incidence, prevalence and Canada's Progress on Meeting the 90-90-90 HIV target, 2016* published by the Public Health Agency of Canada (PHAC). More information can be found in the section "Where do these numbers come from?" at the end of the fact sheet.

Females represent just over 50% of the Canadian population.¹

According to Statistics Canada, there were 18,064,702 females in Canada in 2016. This represents just over 50% of the Canadian population.

Males are 3.3 times more likely to get HIV compared to females in Canada in 2016 (incidence).²

According to 2016 national HIV estimates:

- The HIV incidence rate was 2.8 per 100,000 females.
- The HIV incidence rate was 9.2 per 100,000 males.
- Males are over three times more likely to get HIV than females.

The number of new HIV infections may have increased in females since 2014 (incidence).²

According to 2016 national HIV estimates, 507 new HIV infections (23.4% of all new HIV infections) occurred in females compared to an estimated 436 new infections (22.2%) in 2014.

FACT SHEET

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New HIV infections in females are mainly attributable to heterosexual sex and injection drug use.³

According to 2016 national HIV estimates:

- 78% of new HIV infections among females were attributed to heterosexual sex .
- 22% of new HIV infections among females were attributed to injection drug use.

Females aged 30 to 39 had the highest number of new HIV diagnoses.³

According to 2018 national surveillance data, females aged 30 to 39 had the highest proportion of new HIV diagnoses (34%), followed by females aged 40 to 49 (23%), females aged 50 and over (22%), females aged 20 to 29 (17%), females aged 15 to 19 (2%), and finally girls under the age of 15 (2%).

Almost one-quarter of all people with HIV in Canada are females (prevalence).^{1,2}

According to 2016 national estimates:

- There were 14,520 females with HIV.
- 23% of all people with HIV were female.

Federally incarcerated Indigenous females have the highest rates of HIV.⁴

According to data released by Correctional Service Canada:

- The prevalence of HIV was 1.76% among federal inmates between 2005 and 2012.
- The prevalence of HIV in males was 1.65% and in females was 3.35%.
- The prevalence of HIV in Indigenous females was 6.03% compared to non-Indigenous females at 2.16%.

Approximately 10% of females who inject drugs have HIV and 59% have evidence of a current or past hepatitis C infection.⁵

According to the I-Track surveillance system (2010–2012):

- 10% of females who injected drugs in the previous six months were HIV positive (compared to 12% of males).
- 68% of females who injected drugs in the previous six months had evidence of a current or past hepatitis C infection (compared to 68% of males).
- 96% of females who self-report they are HIV positive are under the care of a doctor for their HIV (compared to 94% of males).
- 56% of females who self-report they are HIV positive are currently taking prescribed HIV drugs (compared to 75% of males).
- 46% of females who self-report they are hepatitis C positive are under the care of a doctor for their hepatitis C (compared to 49% of males).
- 7% of females who self-report they are hepatitis C positive are currently taking prescribed hepatitis C drugs (compared to 11% of males)

1% of babies born to HIV-positive mothers in Canada have HIV.²

According to the Canadian Perinatal HIV Surveillance Program:

- 259 infants were born to mothers with HIV in 2018. Only five of these infants were confirmed HIV positive.
- 97% of HIV-positive pregnant females received HIV treatment in 2018, which significantly reduces the risk of HIV transmission from mother to child.

Key definitions

HIV prevalence—the number of people with HIV at a point in time. Prevalence tells us how many people have HIV.

HIV incidence—the number of new HIV infections in a defined period of time (usually one year). Incidence tells us how many people are getting HIV.

Where do these numbers come from?

Most of the data in this fact sheet come from a population-specific surveillance system (I-Track), *HIV in Canada: Surveillance Report 2018 and the Summary: Estimates of HIV incidence, prevalence and Canada's Progress on Meeting the 90-90-90 HIV target, 2016* published by the Public Health Agency of Canada (PHAC).

Routine HIV reporting

Healthcare providers are required to report HIV diagnoses to their local public health authorities. Each province/territory then compiles this information and provides it to PHAC. Sometimes additional information is also collected and sent to PHAC, such as information about a person's age, gender, ethnicity, exposure category (the way the person may have acquired HIV) and laboratory data such as the date of the HIV test.

These statistics are compiled by PHAC and published annually. The most recent data is available up to December 31, 2018.

Limitations—These data represent the number of cases reported to PHAC by each province/territory. Reported cases do not truly represent the prevalence or incidence of HIV because these statistics do not include HIV-positive individuals who have not been tested for HIV. Other limitations include reporting delays (the time between the diagnosis of HIV or AIDS and when it is reported to PHAC) and under-reporting (no report is made to the local public health authority by the healthcare provider). Caution should be used in interpreting race/ethnicity data due several factors including underreporting and challenges in determining race/ethnicity.

National estimates of HIV prevalence and incidence

National HIV estimates are produced by PHAC and published every three years. Estimates of HIV prevalence and incidence are produced by PHAC using statistical methods which take into account some of the limitations of surveillance data (number of HIV diagnoses reported to PHAC) and also account for the number of people with HIV who do not yet know they have it. Statistical modelling, using surveillance data and additional sources of information, allows PHAC to produce HIV estimates among those diagnosed and undiagnosed. The most recent estimates available are for 2016.

Population-specific surveillance

As part of the Federal Initiative to Address HIV/AIDS in Canada, PHAC monitors trends in HIV prevalence and associated risk behaviour indicators among key vulnerable populations identified in Canada through population-specific surveillance systems. These surveillance systems, also known as the "Track" systems, are comprised of periodic cross-sectional surveys conducted at selected sites within Canada.

I-Track is the national surveillance system of people who inject drugs. Through this surveillance system, information is collected directly from people who inject drugs, using a questionnaire and a biological specimen sample for HIV and hepatitis C testing. The statistics provided in this fact sheet are for the years 2010 to 2012 from participating I-Track sites. Because the system only recruits voluntary participants from selected urban sites, the results do not represent all people who inject drugs across Canada.

Correctional Services Canada

Enhanced surveillance data was collected through the Web-enabled Infectious Disease Surveillance System by Correctional Services Canada. Data from 2005 to 2012 were extracted in 2016.

Canadian Perinatal HIV Surveillance Program

The Canadian Perinatal HIV Surveillance Program collects information on infants born to females with HIV in Canada.

References

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5. Public Health Agency of Canada. *Summary of Key Findings from I-Track Phase 3 (2010–2012)*. Surveillance and Epidemiology Division, Professional Guidelines and Public Health Practice Division, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2012. Available from: <https://www.canada.ca/en/public-health/services/hiv-aids/publications/summary-key-findings-i-track-phase-3-2010-2012.html>.

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Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

CATIE provides information resources to help people living with HIV and/or hepatitis C who wish to manage their own health care in partnership with their care providers. Information accessed through or published or provided by CATIE, however, is not to be considered medical advice. We do not recommend or advocate particular treatments and we urge users to consult as broad a range of sources as possible. We strongly urge users to consult with a qualified medical practitioner prior to undertaking any decision, use or action of a medical nature.

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