

The Epidemiology of HIV in Canada

This fact sheet provides a snapshot of the HIV epidemic in Canada. All epidemiological information is approximate, based on the best available data. Most of the data contained in this fact sheet come from the latest estimates from the Public Health Agency of Canada, which are for the year 2022. More information can be found in the section “Where do these numbers come from?” at the end of the fact sheet.

What is HIV?

HIV stands for human immunodeficiency virus. HIV is a virus that can weaken the immune system, the body’s built-in defence against disease and illness. With proper treatment and care, people with HIV can live long and healthy lives and avoid passing HIV to others. There is no vaccine to prevent HIV but there are ways to avoid passing or getting HIV.

Why are certain populations disproportionately impacted by HIV in Canada?

HIV can affect anyone, no matter their age, sex, gender, sexual orientation, race or ethnic origin. However, certain populations carry a disproportionate burden of HIV in Canada. In Canada, the HIV epidemic is concentrated in marginalized communities, notably sexual minorities and racialized communities, because of structural and social factors that create health inequities.

While these populations have higher rates of HIV and carry a disproportionate burden of HIV compared with the broader population, this does not mean that being a member of one of these populations is itself a risk factor for HIV. Rather, the intersections of many factors and experiences over an individual’s lifetime can lead to increased risk among people within these populations. It is also important to recognize the strengths and protective factors that exist within each of these communities and to work to build on those strengths to support and enhance health and wellness.

FACT SHEET

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What statistics are available in Canada to inform programming?

There are two main types of numbers available, HIV estimates and HIV surveillance data (reported HIV diagnoses).

HIV estimates are developed by the Public Health Agency of Canada through statistical modelling, using a variety of data sources. There are two main types of estimates:

- *Prevalence* estimates tell us how many people are living with HIV at a given point in time. They include estimates for the number of people who are undiagnosed and take into account the number of people with HIV who have died.
- *Incidence* estimates tell us how many people got HIV in a given year, including those who had not yet been diagnosed.

HIV surveillance data are published by the Public Health Agency of Canada and tell us how many people were diagnosed with HIV in a given year. This information does not tell us when they got HIV, just when the diagnosis was made. People may have had HIV for many years before diagnosis.

How many people are living with HIV in Canada (prevalence)?

According to national HIV estimates, there were 65,270 Canadians living with HIV at the end of 2022. This means that for every 100,000 Canadians, 170 people were living with HIV (prevalence rate).

How many people are living with HIV but don't know it (undiagnosed) in Canada?

According to national HIV estimates, 7,050 people were living with HIV but didn't know it (undiagnosed) at the end of 2022. This represents 11% of the estimated number of people with HIV.

How many new HIV infections are there in Canada (incidence)?

According to national HIV estimates, there were 1,848 new HIV infections in Canada in 2022. This means that for every 100,000 Canadians, five people became HIV positive in 2022 (incidence rate).

There was a 15% increase in the number of estimated new HIV infections in 2022 compared with 2020, when there were 1,610 new HIV infections.

Among the 1,848 new HIV infections in Canada in 2022, 38.4% were among gay, bisexual and other men who have sex with men (gbMSM), 3.7% were among gbMSM who also injected drugs, 24.5% were among people who injected drugs and 33.4% were among heterosexual people.

How many new HIV infections are there in the provinces and territories?

According to national estimates, the provinces with the highest number of new HIV infections were Quebec, Ontario and Saskatchewan in 2022. There was significant provincial variation in the populations impacted by new HIV infections:

- There were an estimated 99 new HIV infections in British Columbia in 2022: 57.6% were among gbMSM, 4.0% were among gbMSM who also injected drugs, 15.2% were among people who injected drugs and 23.2% were among heterosexual people.
- There were an estimated 160 new HIV infections in Alberta in 2022: 28.8% were among gbMSM, 5.6% were among gbMSM who also injected drugs, 21.3% were among people who injected drugs and 44.4% were among heterosexual people.
- There were an estimated 283 new HIV infections in Saskatchewan in 2022: 4.2% were among gbMSM, 1.4% were among gbMSM who also injected drugs, 49.8% were among people who injected drugs and 44.5% were among heterosexual people.

- There were an estimated 267 new HIV infections in Manitoba in 2022: 6.0% were among gbMSM, 4.9% were among gbMSM who also injected drugs, 69.3% were among people who injected drugs and 19.9% were among heterosexual people.
- There were an estimated 475 new HIV infections in Ontario in 2022: 54.7% were among gbMSM, 4.2% were among gbMSM who also injected drugs, 9.3% were among people who injected drugs and 31.8% were among heterosexual people.
- There were an estimated 522 new HIV infections in Quebec in 2022: 56.1% were among gbMSM, 3.3% were among gbMSM who also injected drugs, 4.6% were among people who injected drugs and 36.0% were among heterosexual people.
- There were an estimated 40 new HIV infections in the Atlantic provinces in 2022: 60.0% were among gbMSM, 2.5% were among gbMSM who also injected drugs, 25.0% were among people who injected drugs and 12.5% were among heterosexual people.
- There were an estimated 2 new HIV infections in the Territories in 2022. No breakdown by mode of transmission is available.

Is Canada reaching the global HIV targets?

The Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) have established a global health sector strategy on HIV to help eliminate AIDS as a public health threat by 2030. Canada has endorsed this strategy. The strategy consists of the following targets for the year 2025:

- 95% of people with HIV have been diagnosed with HIV (2025)
- 95% of people diagnosed with HIV are on HIV treatment (2025)
- 95% of people on HIV treatment have achieved viral suppression (2025)

As of 2022, Canada's estimated progress toward achieving the 95-95-95 targets was as follows:

- 89% of people with HIV had been diagnosed with HIV (58,220 people)
- 85% of people diagnosed with HIV were on HIV treatment (45,330 people)
- 95% of people on treatment had achieved viral suppression (43,240 people)

Canada's progress has stalled since 2020 when an estimated 89% of people with HIV had been diagnosed, 87% of people diagnosed were on HIV treatment and 95% of people on treatment had achieved viral suppression. Overall, an estimated 22,030 Canadians living with HIV in Canada (33.8%) do not have a suppressed viral load, including 7,050 people who are undiagnosed, 12,890 people who have been diagnosed but are not on treatment and 2,090 people who are on treatment but not virally suppressed. We need to better reach the undiagnosed through testing, ensure better engagement and retention in care for those who test positive and support people on treatment to attain a suppressed viral load.

Are the provinces reaching the global HIV targets?

No province or territory has met all of the 95-95-95 targets - two have met the diagnosis target, one has met the treatment target and five have met the viral suppression target. Complete data are not available for all provinces and territories and some have been combined due to small numbers.

In British Columbia an estimated:

- 95% of people with HIV were diagnosed with HIV
- 94% of people diagnosed with HIV were on treatment
- 96% of people on treatment had achieved viral suppression

In Alberta an estimated:

- 92% of people with HIV were diagnosed with HIV

In Saskatchewan an estimated:

- 76% of people with HIV were diagnosed with HIV
- 73% of people diagnosed with HIV were on treatment
- 84% of people on treatment had achieved viral suppression

In Manitoba an estimated:

- 81% of people with HIV were diagnosed with HIV
- 83% of people diagnosed with HIV were on treatment
- 78% of people on treatment had achieved viral suppression

In Ontario an estimated:

- 90% of people with HIV were diagnosed with HIV
- 86% of people diagnosed with HIV were on treatment
- 98% of people on treatment had achieved viral suppression

In Quebec an estimated:

- 89% of people with HIV were diagnosed with HIV
- 82% of people diagnosed with HIV were on treatment
- 96% of people on treatment had achieved viral suppression

In New Brunswick and Prince Edward Island an estimated:

- 88% of people with HIV were diagnosed with HIV
- 99% of people diagnosed with HIV were on treatment
- 97% of people on treatment had achieved viral suppression

In Nova Scotia an estimated:

- 87% of people with HIV were diagnosed with HIV
- 88% of people diagnosed with HIV were on treatment
- 93% of people on treatment had achieved viral suppression

In Newfoundland and Labrador an estimated:

- 95% of people with HIV were diagnosed with HIV
- 88% of people diagnosed with HIV were on treatment
- 98% of people on treatment had achieved viral suppression

In the Territories an estimated:

- 92% of people with HIV were diagnosed with HIV

HIV among gbMSM

How many gay, bisexual and other men who have sex with men (gbMSM) are living with HIV in Canada (prevalence)?

According to national HIV estimates, 35,026 gbMSM were living with HIV in Canada in 2022. This represents 53.6% of all people with HIV in Canada. The estimate included 33,183 men who had sex with men and 1,843 men who both had injected drugs and had sex with men.

How many new HIV infections (incidence) are there in gbMSM in Canada?

According to national HIV estimates, 777 new HIV infections in Canada were in gbMSM in 2022 (42.0% of all new infections). This estimate included 709 new HIV infections in men who had sex with men and 68 new infections in men who both had injected drugs and had sex with men. The number of new HIV infections in gbMSM is higher than the estimated 726 new infections in 2020.

GbMSM are over-represented in new HIV infections in Canada. There were an estimated 187 new infections per 100,000 sexually active gbMSM in Canada in 2022 compared with an estimated five new infections for every 100,000 Canadians in 2022.

How is Canada doing at reaching the global HIV targets for gbMSM?

According to a study conducted with gbMSM in Canada from 2017–19, Canada is reaching the global targets of 90-90-90 for gbMSM and is close to reaching the global targets of 95-95-95:

- 98% of gbMSM with HIV had been diagnosed with HIV
- 96% of gbMSM diagnosed with HIV were on HIV treatment
- 94% of gbMSM on HIV treatment had achieved viral suppression

HIV among PWID

How many people who inject drugs (PWID) are living with HIV in Canada (prevalence)?

According to national HIV estimates, 10,416 people who had injected drugs (PWID) were living with HIV in Canada in 2022. This represents 15.9% of all people with HIV in Canada. The estimate included 8,573 people who had injected drugs and 1,843 men who both had injected drugs and had sex with men.

How many new HIV infections (incidence) are there in PWID in Canada?

According to national HIV estimates, 521 new HIV infections in Canada were in PWID in 2022 (28.2% of all new HIV infections). This estimate included 453 new HIV infections in people who had injected drugs and 68 new infections in men who both had injected drugs and had sex with men. The number of new HIV infections in PWID is higher than the estimated 406 new infections in 2020.

People who use drugs are over-represented in new HIV infections in Canada. There were an estimated 494 new infections per 100,000 people who had injected drugs in the past six to 12 months in Canada in 2022. This is significantly higher than the estimated five new infections for every 100,000 Canadians in 2022.

How is Canada doing at reaching the global HIV targets for PWID?

According to a surveillance study conducted with PWID in Canada between 2017 and 2019, Canada is not reaching the global HIV targets for PWID:

- 83% of PWID with HIV had been diagnosed with HIV
- 88% of PWID diagnosed with HIV were on HIV treatment
- 63% of PWID on HIV treatment had achieved viral suppression

HIV among people who acquire HIV through heterosexual sex

How many people living with HIV in Canada acquired HIV through heterosexual sex?

According to national HIV estimates, 21,095 people living with HIV in Canada acquired HIV through heterosexual sex in 2022. This represents 32.3% of all people with HIV in Canada.

How many new HIV infections (incidence) are acquired through heterosexual sex in Canada?

According to national HIV estimates, 618 new HIV infections in Canada were acquired through heterosexual sex in 2022 (33.4% of all new HIV infections). The number of new HIV infections acquired through heterosexual sex is higher than the estimated 527 new HIV infections in 2020.

HIV among African, Caribbean and Black (ACB) people

How many ACB people are living with HIV in Canada? How many new infections are there?

There are currently no national estimates on the number of ACB people living with HIV or the number of new infections in ACB people.

How is Canada doing at reaching the global HIV targets for African, Caribbean and Black (ACB) communities?

National-level estimates do not exist for ACB people in Canada. According to 2018 estimates from the Ontario HIV Epidemiology and Surveillance Initiative, Ontario is not reaching the global targets for ACB communities:

- No estimate is available for the percentage of ACB people with HIV who were diagnosed
- 83%–85% of ACB people diagnosed with HIV were on HIV treatment
- 96%–97% of ACB people on HIV treatment had achieved viral suppression

HIV among Indigenous people

How many Indigenous people are living with HIV in Canada? How many new infections are there?

There are currently no national estimates on the number of Indigenous people living with HIV or the number of new infections in Indigenous people.

How is Canada doing at reaching the global HIV targets for Indigenous people?

National-level estimates do not exist for Indigenous people in Canada. There are two sources of data that provide some information on how Canada is doing at reaching the global targets for Indigenous people.

According to data from First Nations communities in Saskatchewan from 2022, global targets are not being reached:

- No estimate is available for the percentage of Indigenous people with HIV who were diagnosed
- 88% of Indigenous people diagnosed with HIV were on treatment
- 69% of Indigenous people on HIV treatment had achieved viral suppression

According to a surveillance study conducted with Indigenous people who inject drugs (PWID) in Alberta and Saskatchewan between 2018 and 2020, the global targets are not being reached:

- 64% of Indigenous PWID with HIV were diagnosed with HIV
- 81% of Indigenous PWID diagnosed with HIV were on HIV treatment
- 54% of Indigenous PWID on HIV treatment had achieved viral suppression

HIV among females

How many females are living with HIV in Canada (prevalence)?

According to national HIV estimates, 16,544 females were living with HIV in Canada in 2022. This represents 25.3% of all people with HIV in Canada.

How many new HIV infections (incidence) are there in females in Canada?

According to national HIV estimates, 656 new HIV infections in Canada were in females in 2022 (35.5% of all new infections). The number of new HIV infections in females is higher than the estimated 553 new HIV infections in 2020.

How is Canada doing at reaching the global HIV targets for females?

According to national estimates, Canada is not reaching all the global targets for females. Of the 16,544 females living with HIV, an estimated:

- 86% were diagnosed with HIV
- 84% of females diagnosed with HIV were on HIV treatment
- 92% of females on HIV treatment had achieved viral suppression

The percentage of females in Canada reaching each target was lower than for males (90%, 86% and 96%).

HIV among people in federal correctional facilities

What percentage of people in federal correctional facilities are living with HIV?

According to national estimates 0.9% of people in federal correctional facilities were living with HIV in 2022.

How is Canada doing at reaching the global HIV targets for people in federal correctional facilities?

According to national estimates, Canada is not reaching the global targets for people in federal correctional facilities:

- 80% of people living with HIV in federal correctional facilities had been diagnosed with HIV
- 98% of people in federal correctional facilities diagnosed with HIV were on HIV treatment
- 84% of people in federal correctional facilities on HIV treatment had achieved viral suppression

HIV diagnoses in Canada (surveillance data)

How many people are newly diagnosed with HIV in Canada?

There were 2,434 new HIV diagnoses in Canada in 2023. This represents a 35.2% increase compared with 2022.

The national rate of new HIV diagnoses in 2023 was 6.1 for every 100,000 Canadians. The national rate for males was 8.1 for every 100,000 males in Canada. The national rate for females was 3.9 for every 100,000 females in Canada.

How many people test positive during the immigration process to Canada each year?

A total of 2,119 people tested positive during the immigration process to Canada (1,032 tested in Canada and 1,087 tested outside of Canada) in 2022. This is an increase from 865 in 2021. Data suggests that this increase may be due to larger immigration volumes.

How many babies are born to HIV-positive females in Canada?

There were 247 babies born to people living with HIV in 2023. Five of these infants were confirmed to be HIV positive. Three were born to people who did not receive any HIV treatment and two were born to people who received only some treatment.

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.

HIV diagnoses—The number of new HIV diagnoses in a defined period of time (usually one year). HIV diagnoses tell us how many people have been diagnosed within a certain time frame.

Where do these numbers come from?

Most of the data contained in this fact sheet come from *Canada's Progress Towards Ending the HIV Epidemic, 2022*, the *HIV in Canada, Surveillance Report to December 31, 2022* and *HIV in Canada: 2023 Surveillance Highlights*.

Canada's Progress Towards Ending the HIV Epidemic, 2022

National HIV estimates are produced by the Public Health Agency of Canada using statistical modelling that takes into account some of the limitations of surveillance data (the number of HIV diagnoses reported to the Public Health Agency of Canada) and also accounts for the number of people with HIV who do not yet know they have it and the number of people with HIV who have died.

This report also compiles information from various sources to provide 90-90-90 estimates for specific populations.

HIV in Canada, Surveillance Report to December 31, 2022

Healthcare providers are required to report HIV diagnoses to their local public health authorities, including diagnoses resulting from anonymous tests. Each province and territory then compiles this information and provides it to the Public Health Agency of Canada. This information does not contain names or personal identifiers. Sometimes additional information is also collected and sent to the Public Health Agency of Canada, 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.

This report also compiles data from the Canadian Perinatal HIV Surveillance Program maintained by the Canadian Pediatric and Perinatal HIV and AIDS Research Group. It also compiles numbers on immigration medical screening maintained by Immigration, Refugees and Citizenship Canada (IRCC).

HIV in Canada: 2023 Surveillance Highlights

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This infographic also compiles data from the Canadian Perinatal HIV Surveillance Program maintained by the Canadian Pediatric and Perinatal HIV and AIDS Research Group.

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