HIV diagnoses in Ontario, 2020

About OHESI

The Ontario HIV Epidemiology and Surveillance Initiative (OHESI) is a collaboration involving the AIDS and HepC Programs of the Ontario Ministry of Health (MOH), Public Health Ontario (PHO), the Public Health Agency of Canada (PHAC), and the Ontario HIV Treatment Network (OHTN) Applied Epidemiology Unit (AEU). The objectives of OHESI are to analyze, monitor and disseminate knowledge products on the epidemiology of HIV in Ontario. OHESI is a vital partnership that supports Ontario's ongoing ability to assess the impact of policy directions and HIV related program initiatives.

The success of the partnership would not be possible without the strategic, technical and resource contributions of all the partners. OHESI also receives ongoing advice from a community advisory committee: people working in the community-based HIV service sector and HIV clinics whose input helps ensure that OHESI reports and other products support collective efforts and impact in neighborhoods, communities and organizations across the province.

Background

In 2013-2014, the OHTN set up the Applied Epidemiology Unit (AEU), under a funding agreement with the MOH, to support ongoing production of epidemiological information to support Ontario's response to HIV.

In 2014-2015, the OHTN initiated the Ontario HIV Epidemiology and Surveillance Initiative (OHESI) and continues to provide administrative and technical support for the partnership.

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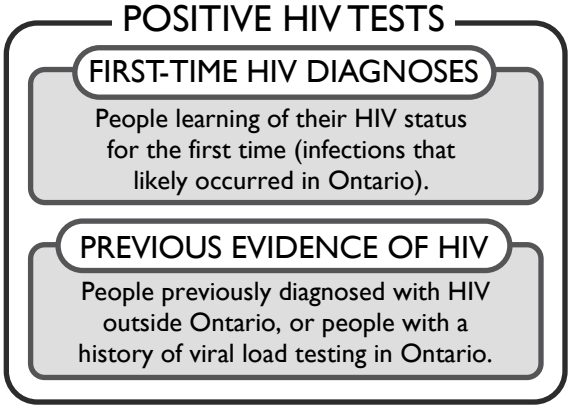
Key Trends and Findings

Throughout the HIV epidemic, Ontario has analyzed surveillance data to ensure timely and targeted delivery of services and deployment of resources. These data inform our progress on targets and help us understand which populations are experiencing a disproportionate burden of HIV risk and infection. Over time, it's important to understand trends in both: 1) first-time HIV diagnoses (people learning of their status for the first time, representing infections that likely occurred in Ontario) to guide prevention activities for people at risk of HIV: and 2) all people entering care each year in Ontario, which includes first-time HIV diagnoses plus people with previous evidence of HIV newly entering care in Ontario (people who had a positive diagnostic HIV test who already knew their HIV status and whose infection likely occurred outside the province), to inform planning for care services.



Starting in 2020, the COVID-19 pandemic disrupted health services for all people living in Ontario, including HIV testing services. The numbers of HIV tests done as well as the number of both first-time HIV diagnoses and people with previous evidence of HIV decreased in 2020 compared to 2019. The impact of COVID-19 on HIV testing, diagnoses, and surveillance data obscures trends and makes it difficult to interpret the current state of Ontario's HIV epidemic.

Number and rate of diagnoses in 2020 lowest since 1985

Of the 661 positive HIV tests in Ontario in 2020, 515 were first-time HIV diagnoses[1] and 146 had previous evidence of HIV. The number of first-time HIV diagnoses was down 24.6% in 2020 from 683 in 2019, and the number of diagnoses with previous evidence of HIV was down 38.9% from 239 in 2019.

The 515 first-time HIV diagnoses reported in 2020 was the lowest since 1985, when Ontario first started testing for HIV. This decrease was a continuation of a declining trend that started in 2019.

> To determine if a positive HIV test is a first-time HIV diagnosis, we must have a complete test history. When test history is not reported (which is the case for 41% of positive HIV tests in 2020), some positive HIV tests may be inaccurately categorized as first-time diagnoses[1].

The rate of first-time HIV diagnoses per 100,000 people in 2020 was also down 25.6% compared to 2019 and at its lowest point since 1985: 3.5 per 100,000 people. Compared to 2019, the rate of first-time HIV diagnoses per 100,000 people decreased by 24.5% among males to 5.5, and by 38.0% among females to 1.4. Both reached their lowest points since the 1980s. The decrease among males follows years of gradual decline, while the rate among females has been more stable over time.

Decrease in first-time HIV diagnoses likely driven by three factors

1. **Reduced HIV testing.** The number of HIV tests was down 26.1% in 2020. Some people may have not been diagnosed because they did not access testing, when they would have under normal (i.e. non-COVID) circumstances.
2. **A real decrease in HIV transmissions**. Ontario saw a drop in first-time diagnoses in 2019, likely due to more people living with HIV being virally suppressed and more high-risk HIV-negative people on pre-exposure prophylaxis (PrEP). Part of the decrease in 2020 may be due to less local

[1] We estimate between 6.9% and 8.1% of first-time HIV diagnoses to have an uncaptured previous HIV diagnosis; therefore, reported overall counts of first-time HIV diagnoses overall are likely an overcount by this amount.

transmission related to the COVID-19 pandemic, especially among some groups of gay, bisexual and other men who have sex with men (GBMSM).

3. **A decrease in migration**. Each year, some people with previous evidence of HIV are misclassified as first-time diagnoses because of missing information on their test history. With decreased migration in 2020, there were likely a smaller number of these misclassified first-time HIV diagnoses, resulting in a lower number of first-time HIV diagnoses overall.

How much each factor has contributed to the decrease in first-time HIV diagnoses cannot be estimated at this time.

People with previous evidence of HIV made up a growing share of positive HIV tests

The number of people with previous evidence of HIV more than doubled from 113 in 2016 to 239 in 2019, accounting for nearly a quarter (25.9%) of all positive HIV tests in 2019. Although the number of people with previous evidence of HIV decreased to 146 in 2020, they still accounted for nearly a quarter (22.1%) of all positive HIV tests.

White males and Black females account for most of decrease in diagnoses

The decrease in first-time HIV diagnoses in 2020 relates in large part to decreases in white males and Black females. The number of diagnoses in white males had been generally decreasing since 2015, before a more substantial 40.6% reduction in 2020 compared to 2019 (175 to 104). The decrease in Black females was largely a single-year change: a 54.7% reduction in 2020 from 2019 (53 to 24). Counts of diagnoses in males and females of other races/ethnicities were more stable or saw less substantial reductions in 2020.

HIV is not a generalized epidemic in Ontario. It primarily affects a small number of populations that have higher prevalence of HIV than the general population, including; gay, bisexual and other men (including transgender men) who have sex with men (GBMSM), African, Caribbean and Black (ACB) people, people who use injection drugs (PWID), Indigenous Peoples, and women (including transgender women) whose partners are members of these populations and/or who face systematic barriers that put them at risk.

Not all GBMSM are benefiting from HIV PrEP

The decline in first-time HIV diagnoses among white males and not among racialized males is particularly apparent within GBMSM, who accounted for 62.7% of all first-time HIV diagnoses in 2020 and 75.7% of diagnoses among males. Toronto is the region with the most substantial decrease in 2020 in diagnoses among GBMSM: from 202 in 2019 to 143 in 2020 (59 fewer diagnoses or a 29.2% reduction). The use of HIV PrEP has increased among GBMSM in recent years. In addition to the impact of the COVID-19 pandemic, PrEP uptake may be contributing to the drop in HIV diagnoses among GBMSM (as has been seen in other jurisdictions internationally)[1].

1 in 5 diagnoses in GBMSM in those aged 45+

While the majority of first-time HIV diagnoses in GBMSM in 2020 were in those under age 35, a fifth (20.5%) were in those aged 45 or older, reinforcing the importance of regular testing for all GBMSM, regardless of age.

[1] More information regarding HIV pre-exposure prophylaxis (PrEP) uptake and provision in Ontario can be found in the OHTN report HIV pre-exposure prophylaxis (PrEP) in Ontario, 2020

More diagnoses in ACB males than ACB females

Nearly half (45.4%) of all positive HIV tests in ACB people in 2019 and 4 in 10 (41.4%) in 2020 were in people with previous evidence of HIV – or more than double the ~20% seen prior to 2016.

Almost one quarter (24.6%) of first-time HIV diagnoses in 2020 were among ACB people. While the number of first-time diagnoses in ACB males was down 18.6% compared to 2019, the number in ACB females dropped 56.9%.

There continued to be more first-time HIV diagnoses among ACB males (57) than ACB females (25) in 2020, a trend that has been consistent for as long as the surveillance data has been able to define ACB people (since 2009). Nearly two thirds (64.8%) of ACB males diagnosed with HIV for the first time reported male-to-male sexual contact as their HIV exposure category, while 100% of ACB females reported heterosexual contact.

Approximately 1 in 10 diagnoses were in PWID, majority of whom were male

People who inject drugs (PWID) accounted for 11.0% of first-time HIV diagnoses in 2020: 24 diagnoses in males, 15 in females. While PWID made up about the same proportion of first-time diagnoses as in 2019, the number was down by 38.1% from 63 in 2019 to 39 in 2020. The South West Region recorded the most remarkable steady decline in first-time diagnoses in this population, with the number of dropping from 37 in 2016 to 5 in 2020 (86.5% decline). Between 2011 and 2020, the majority of first-time HIV diagnoses among PWID (61.5%-78.9%) were in males.

Most diagnoses in Indigenous Peoples were outside the Northern region

Indigenous Peoples accounted for 5.2% of first-time HIV diagnoses (10 diagnoses in males, 7 in females) in 2020. Although the number of first-time diagnoses was lower in 2020 (17) than in 2019 (26), it was comparable to 2016 and 2017. In recent years, just over half (51.1%) of Indigenous males diagnosed with HIV reported male-to-male sexual contact without injection drug use (IDU) as an HIV exposure, whereas 9 in 10 (91.3%) Indigenous females diagnosed reported IDU. While the Northern Region accounted for more first-time diagnoses in Indigenous Peoples than any other single region (42) over the five-year period 2016-2020, the majority of Indigenous Peoples (50, or 54.3%) were diagnosed outside the north, principally in South West, Toronto, and Central West regions.

Looking forward

The surveillance data on first-time HIV diagnoses presented in this report reinforce the importance of ensuring all populations disproportionately affected by HIV – especially those who experience multiple behavioural and systemic risk factors – have the same opportunity to benefit from HIV prevention and testing programs and services. If Ontario is to meet the goals of its HIV strategy, particular attention must be paid to reaching racialized peoples and to understanding and mitigating the factors that increase risk.

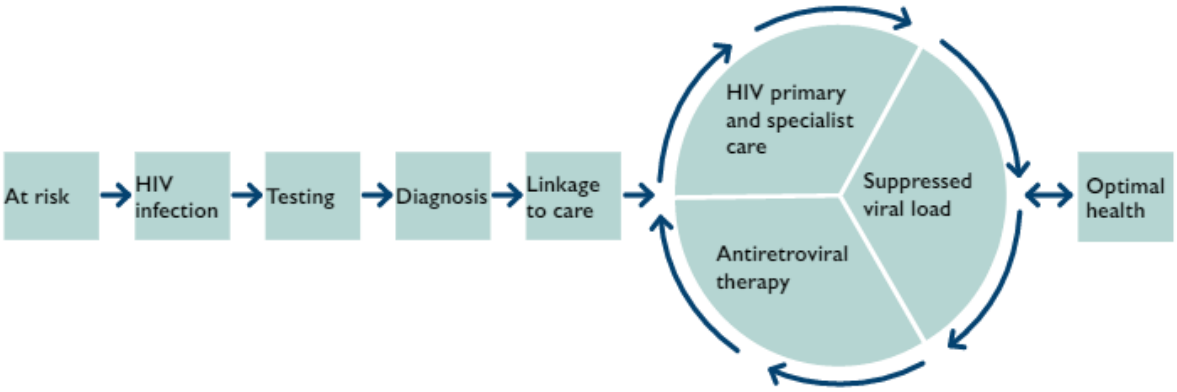
Table of Contents

Introduction

Why look at patterns in HIV diagnoses?

HIV diagnosis is an early step in the HIV prevention, engagement and care cascade (Figure i) and is critical for people living with HIV to be linked to care. The HIV treatment cascade outlines the steps of care that people living with HIV go from at risk to HIV infection to testing to diagnosis to linkage to care, then the cycle of HIV primary and specialist care, antiretroviral therapy, and suppressed viral load, leading to the outcome of optimal health.

Figure i. The HIV prevention, engagement, and care cascade



Ontario needs timely, accurate data on HIV diagnoses to guide both HIV prevention and treatment programs. Ontario is different from other jurisdictions in that it relies on public health laboratory testing data (i.e. HIV diagnostic tests, HIV viral load tests) – as opposed to HIV case reports – to monitor new diagnoses. The Public Health Ontario (PHO) Laboratory conducts all HIV diagnostic testing requested by health care providers in Ontario.

Data sources

The data used to understand diagnostic trends are collected from the following sources:

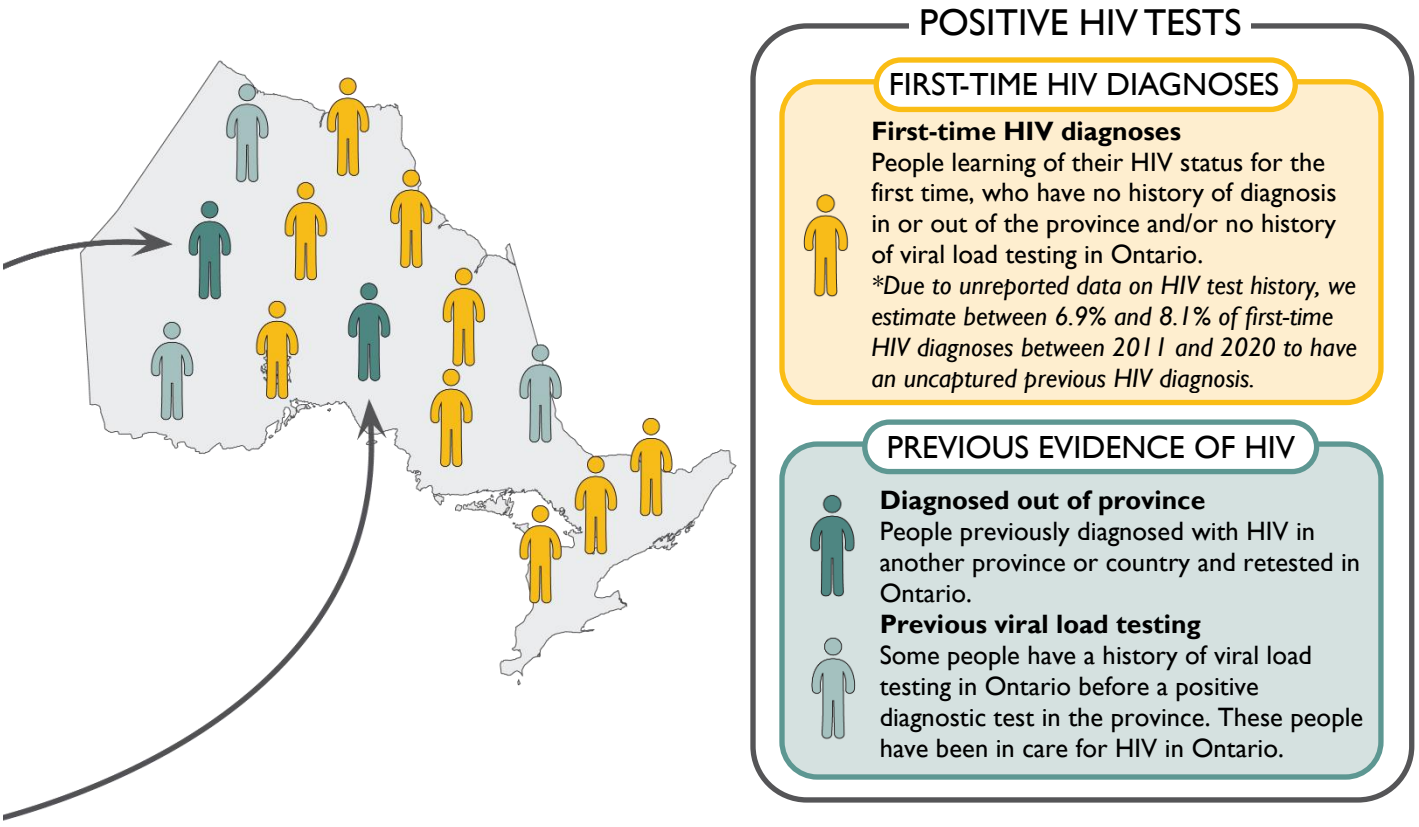
- **Information on the HIV test requisition form**. When someone gets an HIV test in Ontario, the ordering health care provider (e.g. a physician or HIV counselor) fills out a form that is sent to PHO. This form, known as an HIV test requisition, collects information on the individual being tested, including their sex, age, HIV risk factors and – since 2018[1] – race/ethnicity, country of birth, test history and transgender identity.
- **Information gathered through the Laboratory Enhancement Program**. If the person tests positive, the Laboratory Enhancement Program (LEP) sends a second form to the provider who ordered the test to collect information that may have been missed on the test requisition form. Since 2009, the LEP form has collected information on race/ethnicity, country of birth, and test history (data not historically collected on the HIV test requisition).
- **Viral load testing**. People in HIV care in Ontario receive regular viral load testing. If a person has a history of viral load testing data in Ontario and had a linked positive HIV test in Ontario

[1] A new HIV test requisition form was introduced in February 2018, which included additional information including race/ethnicity, country of birth, test history and transgender identity. In 2019, approximately 33% of test requisitions used the new form. If the new test requisition was used, information about race/ethnicity and country of birth were used to help assign race/ethnicity and priority populations (along with the LEP). If the old test requisition form was used, information about race/ethnicity and country of birth would have only been available from the LEP.

after a history of viral load testing, that information is used to determine that the person had previous evidence of HIV and is not a first-time diagnosis.

Positive HIV tests: First-time HIV diagnoses + people with previous evidence of HIV (PEH)

Figure ii. Positive HIV tests represent unique individuals and include first-time HIV diagnoses and people with previous evidence of HIV. Previous evidence of HIV includes having been diagnosed with HIV previously outside Ontario, or having linked previous HIV viral load testing.



The overall section as well as each priority population section begins by distinguishing between:

- **First-time HIV diagnoses** – People (unique individuals) newly diagnosed with HIV, who likely reflect local transmissions (i.e. HIV infections that occurred in Ontario). First-time HIV diagnoses are our best estimate of the number of people learning their status for the first time. Where HIV test history information is not reported, positive HIV tests are categorized as first-time HIV diagnoses. These are sometimes simply termed "diagnoses" in this report for ease of description.
- **People with previous evidence of HIV** – People (unique individuals) who already knew their HIV status at the time of their first positive nominal (as opposed to anonymous testing) diagnostic test in Ontario. This previous evidence of HIV includes:
    - People new to care in Ontario but who were previously diagnosed elsewhere (i.e. another province or country) and retested in Ontario.

- People who have been in HIV care in Ontario[1] (i.e. have a history of viral load tests) but with no previous linkable HIV diagnostic test. These individuals may have originally been tested anonymously and then retested (sometimes many years later) – perhaps when they changed health care providers. People who have evidence of a history of viral load testing before their first reported HIV positive test are counted as a positive HIV test in the first year where there is evidence of an HIV diagnosis (i.e. the year of their first viral load test).

Looking separately at first-time HIV diagnoses and people with previous evidence of HIV allows us to:

- Monitor and understand local transmissions (i.e. the current spread of the virus). It is important to understand trends in first-time HIV diagnoses to help prevention programs focus on populations in the province at greatest risk of HIV who would benefit most from prevention activities.
- Identify the care needs of all individuals who test positive each year. It is important to know the total number of people changing or entering care as well as their gender, age, race/ethnicity and region – regardless of whether they already knew their status – to plan patient-centred, culturally relevant services for all people living with HIV in the province.

It is important to note that, despite the efforts of both the new test requisition and LEP forms to collect information on previous test history for positive HIV tests, this information is still missing for a significant proportion of people. Approximately 47% of first-time HIV diagnoses in 2020 are missing data on test history either because the LEP form is not returned or it is missing data when returned. For the purposes of this analysis, any positive HIV test that did not have documentation of a previous positive on the test history section of the form was assumed to be a first-time HIV diagnosis, even though this likely overstates the number of first-time HIV diagnoses and understates the number of positive HIV tests with a previous HIV diagnosis. Using race-stratified modelling, OHESI estimates between 6.9% and 8.1% of first-time HIV diagnoses (between 5.0% and 5.9% among males and between 15.0% and 17.4% among females) have an uncaptured previous HIV diagnosis.

Although the HIV test requisition form captures data on gender minorities, recorded counts were too low to be included in this report.

Note: **A first-time HIV diagnosis is not the same as a new HIV infection**. Many people living with HIV are not diagnosed in the same year they become infected. Trends in first-time HIV diagnoses can be influenced by factors other than infections, such as frequency of HIV testing and migration patterns, and it is difficult to disentangle these different effects.

[1] Evidence of being in care includes anyone with a history of viral load testing in Ontario of 1) more than 30 days before a first diagnostic positive test or 2) within 30 days (including same day) with a viral load <200 copies/ml before a first diagnostic positive test.

Analytic approach: strengths & limitations

What are some of the strengths of these data and our analytical approach?

- Trends in positive HIV tests and first-time HIV diagnoses are presented as numbers and rates per 100,000 people, where possible. While numbers of diagnoses are influenced by the size of the underlying population, rates take this into account and remove population size as a possible explanation for any observed differences.
- In most figures, diagnoses are shown yearly, over a 10 or 5-year period (2011 to 2020 or 2016 to 2020), to describe trends by sex, age, HIV exposure category, race/ethnicity and health regions. This is done to show year-to-year changes over time. However, when sample sizes are too small (<5 diagnoses in each year within a sub-category), diagnoses are combined over 2-year periods (2015 to 2016, 2017 to 2018 and 2019 to 2020), 4-year periods (2013 to 2016 and 2017 to 2020) or 5-year periods (2011 to 2015 and 2016 to 2020) to reduce the effects of year-to-year variation (which can be particularly influential in populations with a small number of diagnoses) and more clearly present trends over time. Years were combined for first-time HIV diagnoses among PWID, Indigenous Peoples, and ACB females by health region.

What are some of the limitations of this report?

- Unreported data on the test requisition or LEP forms means some positive HIV tests and first-time HIV diagnoses cannot be assigned in terms of sex, age, HIV exposure category, race/ethnicity and/or a priority population. It is unknown whether some categories or populations may be more likely to be unreported information, which could potentially bias the proportions in this report.
- Collection and documentation of information on the requisition/LEP forms may vary from provider to provider. For example, some providers may ask the person getting tested about their HIV risk factors and race/ethnicity, while other providers may gather this information from a previous medical chart or use clinical intuition.

Data and Figures

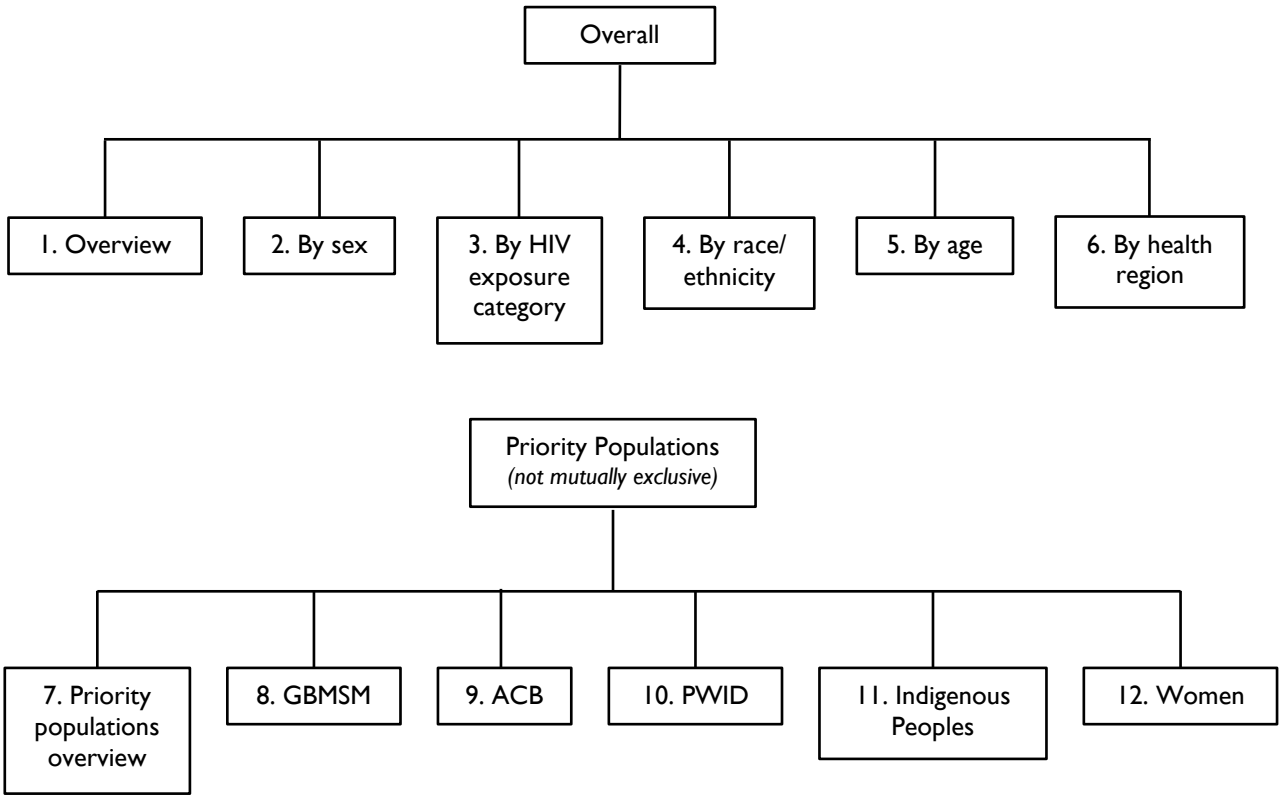
The figures in the following sections show trends in first-time HIV diagnoses and positive HIV tests over the past decade (2011 to 2020), with a focus on 2020 findings. The broad structure of the report is illustrated in **Figure iii**.

The first "**Overall**" section describes findings specific to 2020 and trends over time overall (overview) and broken down by sex. Findings are also broken down by the following factors overall and additionally by sex: HIV exposure category; race/ethnicity; age; and health region.

The second "**Priority Populations**" section describes findings across Ontario's five overlapping priority populations, and the five subsections within it provide an overview and breakdowns (by sex, HIV exposure category, race/ethnicity, age, and health region, where logical) within each of the respective five priority populations. Descriptions of how each priority population relate to the larger overall numbers of first-time HIV diagnoses (for example, first-time HIV diagnoses attributed to GBMSM accounted for 62.7% of all first-time HIV diagnoses in 2020), as well as breakdowns of first-time HIV diagnoses *within* the specified priority population (for example, 4.2% of the 215 first-time HIV diagnoses among GBMSM were attributed to male-to-male sexual contact + IDU in 2020) are reported.

See the Appendices for more information on the data source and how these numbers were defined and calculated, and the Tables supplement for the numbers underlying the figures.

Figure iii. Schematic of the broad structure of this report. Data and figures in this report are reported in two major sections: Overall and Priority Populations. Further breakdowns within each priority population are reported where logical.



Notes: GBMSM = Gay, bisexual, and other men who have sex with men. ACB = African, Caribbean, and Black people. PWID = People who use injection drugs.

List of Figures

Overall

1. Overview

2. Overall by sex

3. Overall by HIV exposure category

3.i. Males by HIV exposure category

3.ii. Females by HIV exposure category

4. Overall by race/ethnicity

4.i. Males by race/ethnicity

4.ii. Females by race/ethnicity

5. Overall by age

6. Overall by health region

Priority Populations

7. Priority populations overview

8. Gay, bisexual, and other men who have sex with men (GBMSM)

8.a. GBMSM overview

8.b. GBMSM by HIV exposure category

8.c. GBMSM by race/ethnicity

10. People who use injection drugs (PWID)

10.a. PWID overview

10.b. PWID by sex

10.c. PWID by HIV exposure category

10.d. PWID by race/ethnicity

10.e. PWID by age

10.f. PWID by health region

11. Indigenous Peoples

11.a. Indigenous overview

11.b. Indigenous by sex

11.c. Indigenous by HIV exposure category

11.d. Indigenous by age

11.e. Indigenous by health region

12. Women

12.a. Women overview

12.b. Women by HIV exposure category

12.c. Women by race/ethnicity

12.d. Women by age

12.e. Women by health region

Overall

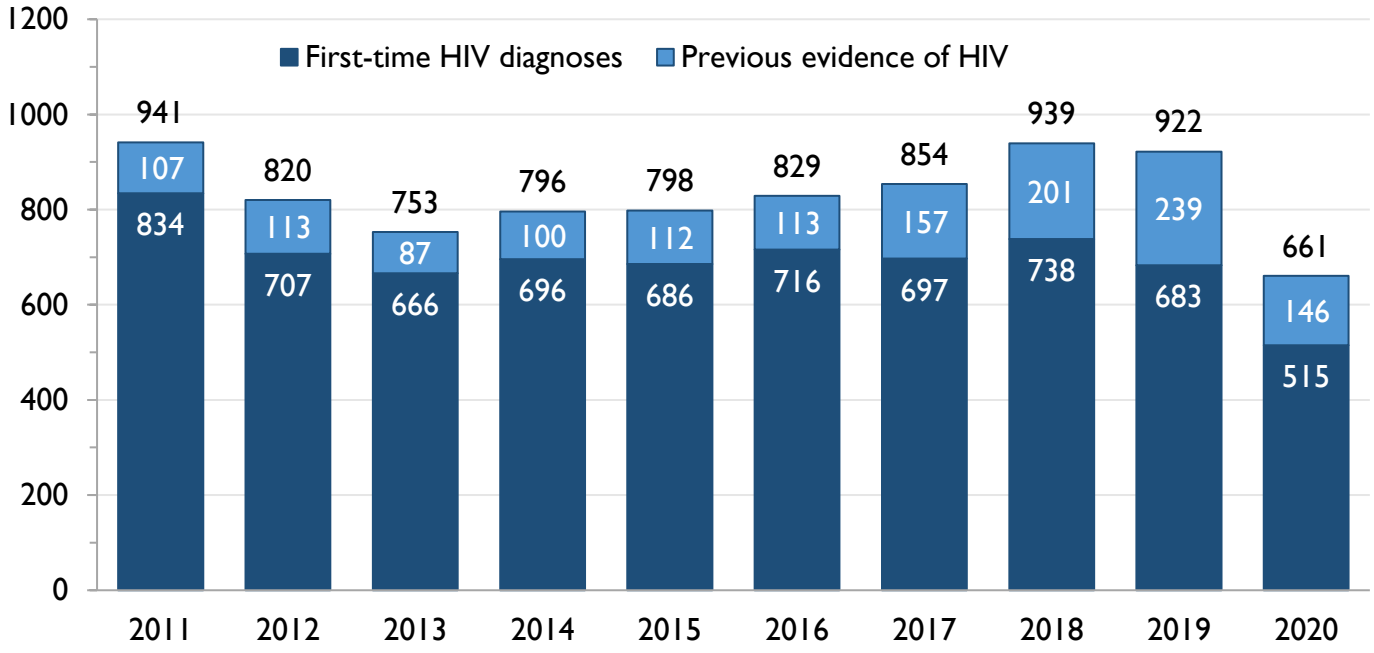
1. Overview

In 2020, of the 661 positive HIV tests (rate of 4.5 per 100,000 people) in Ontario, 515 were first-time HIV diagnoses (rate of 3.5 per 100,000 people) and 146 had previous evidence of HIV. In 2020, both the number of first-time HIV diagnoses and rate per 100,000 people decreased by ~25% from 2019 levels, reaching their lowest points since 1985. Previously, between 2013 and 2018, the rate of first-time HIV diagnoses per 100,000 people had remained relatively consistent (average 5.1) but it began to decrease in 2019 and this continued in 2020. The proportion of positive HIV tests with previous evidence of HIV – 22.1% in 2020 – has increased over time between 2011 and 2020.

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Note: *Information on previous testing history is only reported in about 59% of positive HIV tests in 2020 (53% in 2011 to 2020). Due to missing data on HIV test history, we estimate between 6.9% and 8.1% of first-time HIV diagnoses overall to have an uncaptured previous HIV diagnosis.*

Figure 1.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, Ontario, 2011 to 2020



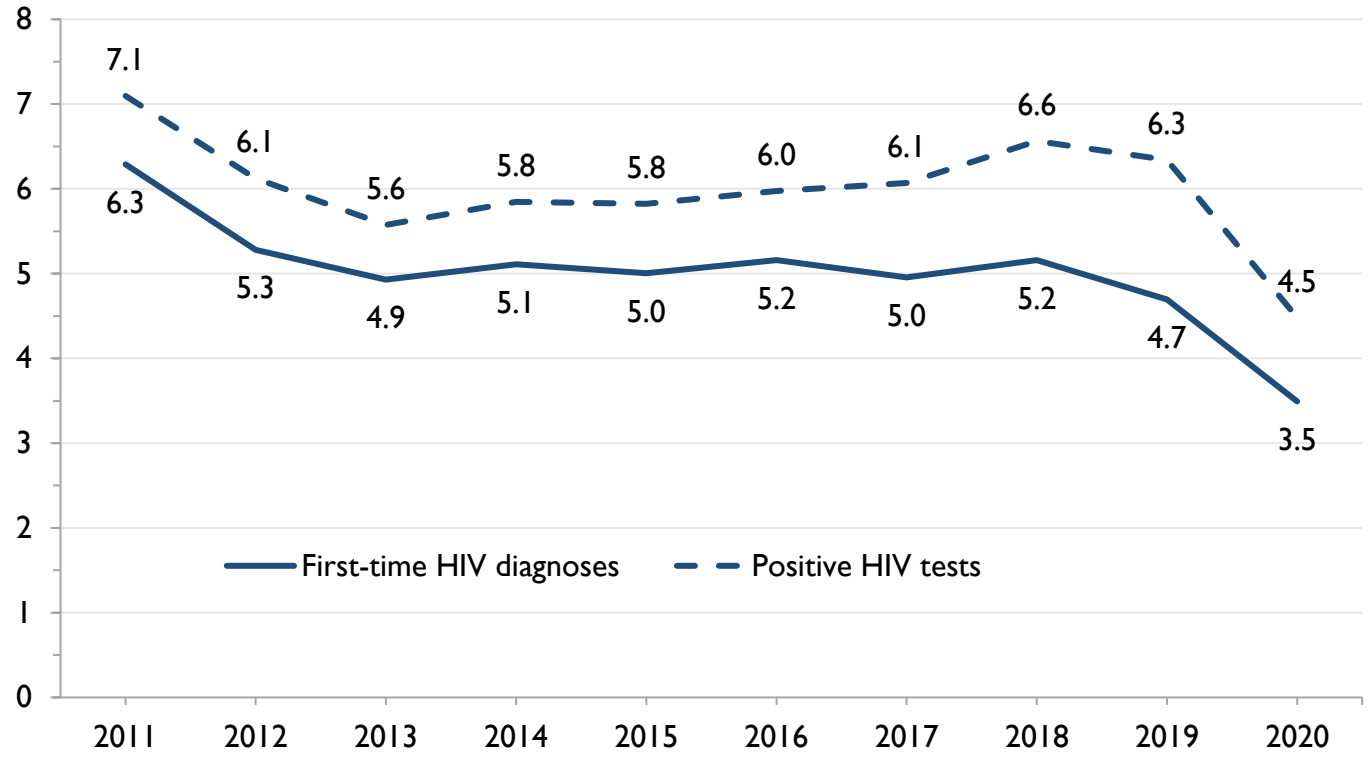
Snapshot

In 2020, of the 661 positive HIV tests in Ontario, 515 were first-time HIV diagnoses and 146 had previous evidence of HIV. Between 2019 and 2020, the number of first-time HIV diagnoses decreased by 24.6% from 683 to 515 – the lowest since 1985, and the number of people with previous evidence of HIV decreased by 38.9% from 239 to 146. Between 2011 and 2020, the proportion of positive HIV tests that had previous evidence of HIV increased from 11.4% to 22.1%, with most of this increase occurring after 2016 due to increased numbers of people with previous evidence of HIV.

Note: *Due to missing data on test history, first-time HIV diagnoses may include some people with an uncaptured previous HIV diagnosis. OHESI estimates this to be between 6.9% and 8.1% of first-time HIV diagnoses.*

Notes: Data provided by Public Health Ontario Laboratory. See Appendices for more information. See Tables Supplement for underlying data.

Figure 1.2 Rates of first-time HIV diagnoses and positive HIV tests per 100,000 people, Ontario, 2011 to 2020



Snapshot

Between 2019 and 2020, the rate of first-time HIV diagnoses per 100,000 people decreased by 25.6% from 4.7 to 3.5 and the rate of positive HIV tests per 100,000 people decreased by 29.3% from 6.3 to 4.5. Both reached their lowest points in 2020 since 1985.

Previously, the rate of first-time HIV diagnoses per 100,000 people had been fairly stable between 2013 and 2018 (average 5.1), before decreasing in 2019 and 2020. The rate of positive HIV tests however increased between 2013 and 2018 (from 5.6 to 6.6), before similarly starting to decrease in 2019.

Notes: Data provided by Public Health Ontario Laboratory. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices for more information. See Tables Supplement for underlying data.

2. Overall by sex

In 2020, of the 511 positive HIV tests among males, 404 were first-time HIV diagnoses and 107 (20.9%) had previous evidence of HIV. Of the 143 positive HIV tests among females, 105 were first-time HIV diagnoses and 38 (26.6%) had previous evidence of HIV.

The number of first-time HIV diagnoses among males decreased from a fairly consistent average of 563 between 2012 and 2018 to 515 in 2019 and 404 in 2020 (21.4% decline between 2019 and 2020). Among females, between 2011 and 2019 this number ranged from 106 to 167, before a 37.1% decline in 2020 to 105.

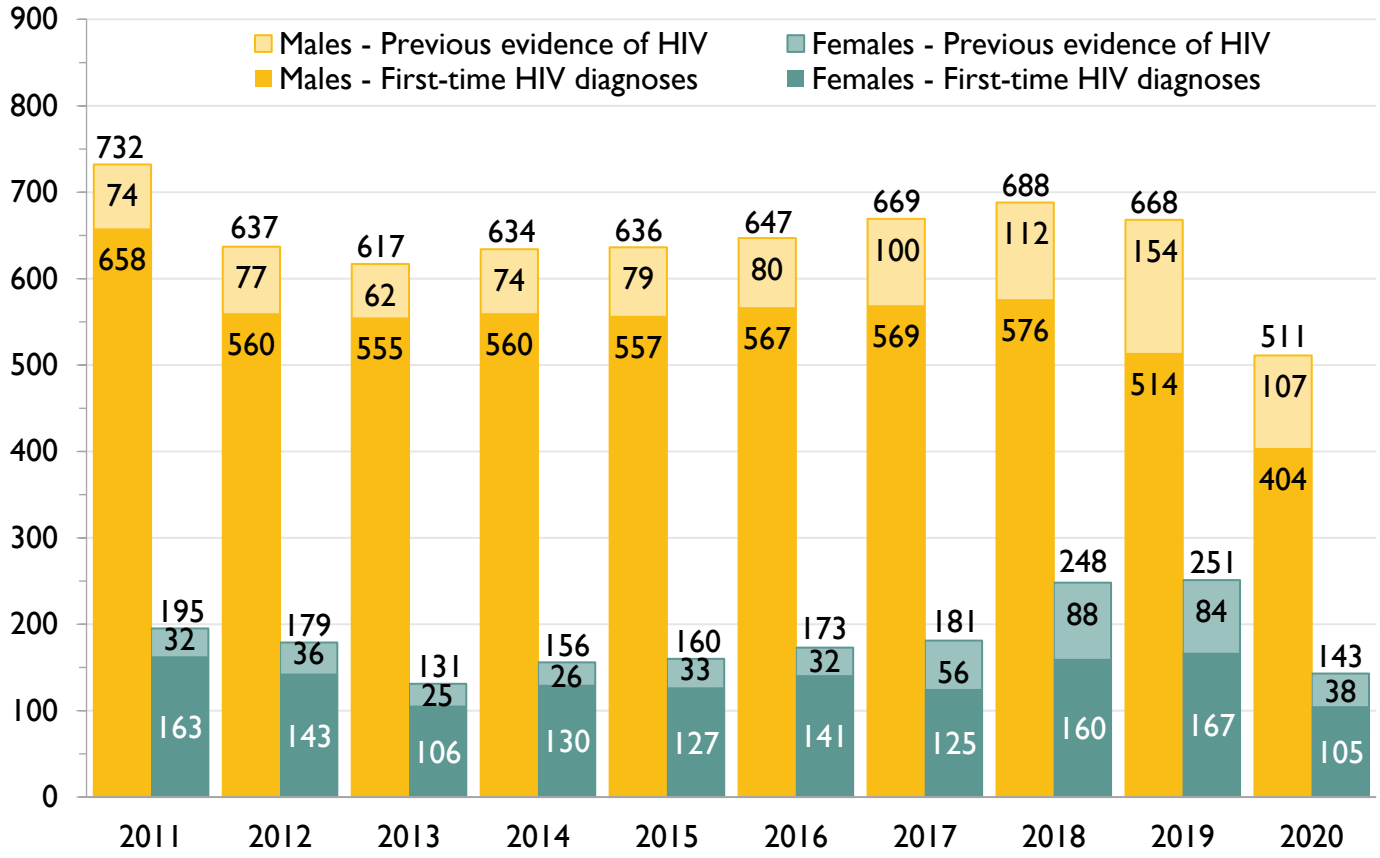
In 2020, the rate of first-time HIV diagnoses was 5.5 per 100,000 among males and 1.4 per 100,000 among females – both reaching their lowest points since the 1980s. Between 2019 and 2020, the rate of first-time HIV diagnoses declined by 24.5% among males, and by 38.0% among females.

In 2020, males accounted for 79.4% of first-time HIV diagnoses and females accounted for 20.6%. This is very consistent with prior years.

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Note: *Information on previous testing history is only reported in about 59% of positive HIV tests in 2020 (53% in 2011 to 2020). Due to missing data on HIV test history, we estimate between 5.0% and 5.9% of first-time HIV diagnoses among males and between 15.0% and 17.4% among females to have an uncaptured previous HIV diagnosis.*

Figure 2.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, males and females, Ontario, 2011 to 2020



Snapshot

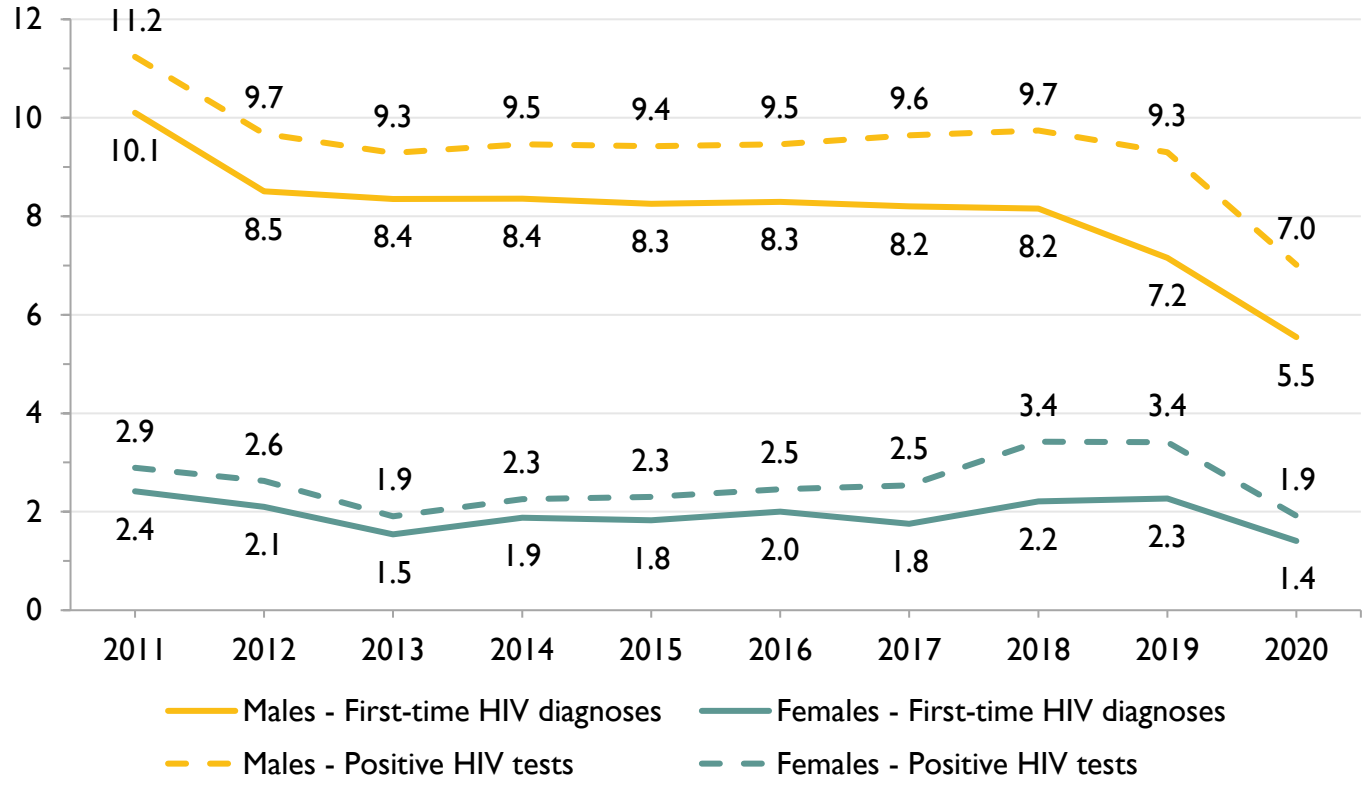
In 2020, of the 511 positive HIV tests among males, 404 were first-time HIV diagnoses and 107 (20.9%) had previous evidence of HIV. The number of first-time HIV diagnoses among males decreased by 21.4% between 2019 and 2020, from 514 to 404 – the lowest since 1985, and the number of males with previous evidence of HIV decreased by 30.5% from 154 to 107. Previously, the number of first-time HIV diagnoses among males had been relatively stable between 2012 and 2018, averaging 563, before decreasing in 2019. The proportion of positive HIV tests among males with previous evidence of HIV increased from 10.1% in 2011 to 20.9% in 2020 with most of that increase occurring in the latter four years.

Of the 143 positive HIV tests among females, 105 were first-time HIV diagnoses and 38 (26.6%) had previous evidence of HIV. The number of first-time HIV diagnoses among females decreased by 37.1% between 2019 and 2020, from 167 to 105 – the lowest since 1988, and the number of females with previous evidence of HIV decreased by 54.8% from 84 to 38. Previously, between 2011 and 2020, the number of first-time HIV diagnoses among females has been somewhat stable, averaging 137, with increases in 2018 (160) and 2019 (169) and decreases in 2013 (106) and 2020 (105). The proportion of positive HIV tests among females with previous evidence of HIV increased from 16.4% in 2011 to 26.6% in 2020, peaking at 35.5% in 2018. Most of this increase occurred in the latter four years.

Note: *Due to missing data on test history, first-time HIV diagnoses may include some people with an uncaptured previous HIV diagnosis. OHESI estimates this to be between 5.0% and 5.9% of first-time HIV diagnoses among males and between 15.0% and 17.4% of first-time HIV diagnoses among females.*

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses with unreported sex excluded (less than 1% of diagnoses). See Appendices for more information. See Tables Supplement for underlying data.

Figure 2.2 Rate of first-time HIV diagnoses and positive HIV tests per 100,000 people by sex, Ontario, 2011 to 2020



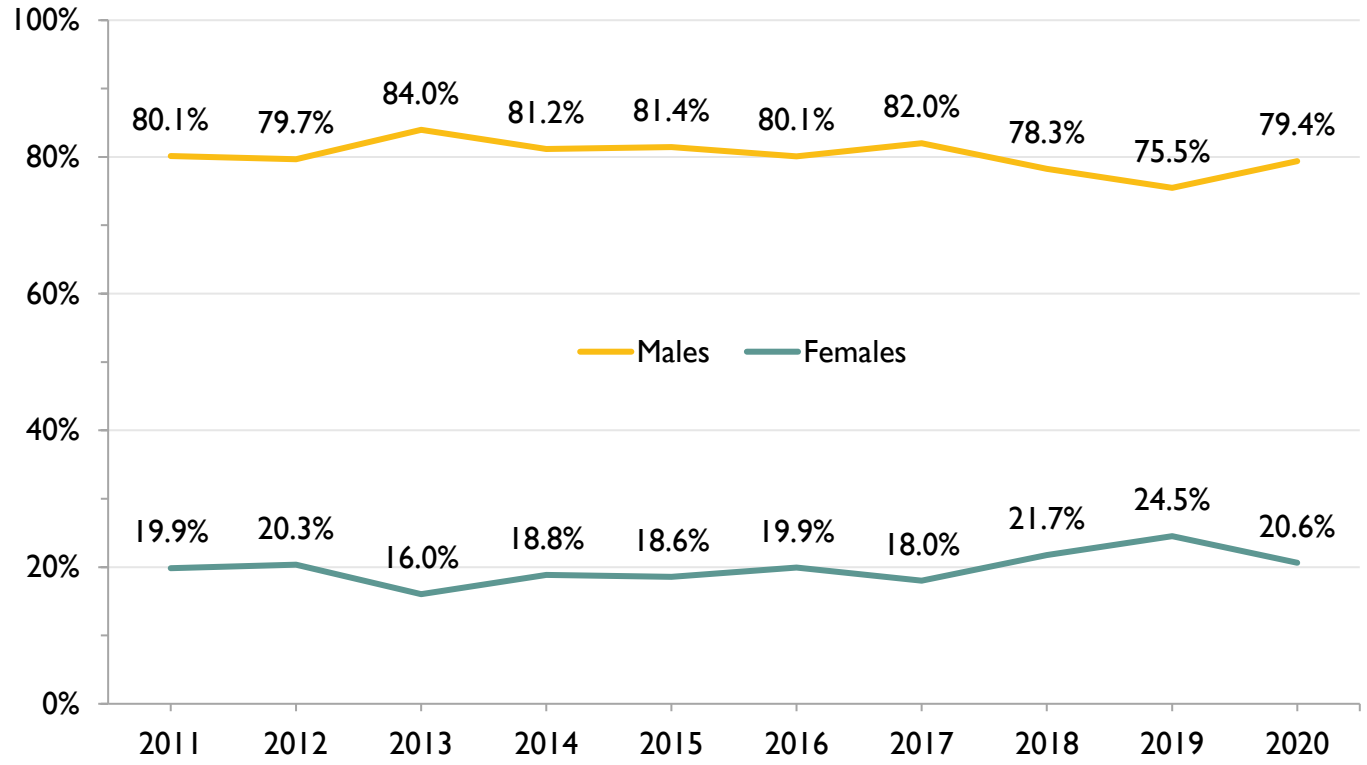
Snapshot

Among males, the rate of first-time HIV diagnoses per 100,000 males decreased by 22.5% between 2019 and 2020, from 7.2 to 5.5, and the rate of positive HIV tests per 100,000 males decreased by 24.5% from 9.3 to 7.0 – both reaching their lowest points since 1985. Previously, the rate of first-time HIV diagnoses per 100,000 males very gradually decreased among males from 8.5 in 2012 to 8.2 in 2018, before this decrease accelerated in 2019. The rate of positive HIV tests per 100,000 people gradually increased between 2013 and 2018 (from 9.3 to 9.7), before beginning to decrease in 2019.

Among females, the rate of first-time HIV diagnoses per 100,000 females decreased by 38.0% between 2019 and 2020, from 2.3 to 1.4 – its lowest point since 1987, and the rate of positive HIV tests per 100,000 females decreased by 43.8% from 3.4 to 1.9 – its lowest point since 2013, and 1988 before that. Previously, the rate of first-time HIV diagnoses per 100,000 females was fairly stable, averaging 2.0 between 2011 and 2019, and the rate of positive HIV tests gradually increased from 1.9 in 2013 to 3.4 in 2018 and 2019.

Notes: Data provided by Public Health Ontario Laboratory. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Diagnoses with unreported sex excluded (less than 1% of diagnoses). See Appendices for more information. See Tables Supplement for underlying data.

Figure 2.3 Percent of first-time HIV diagnoses by sex, Ontario, 2011 to 2020



Snapshot

Between 2011 and 2020, males accounted for approximately 80% of first-time HIV diagnoses while females accounted for approximately 20%. In 2020, males accounted for 79.4% of first-time HIV diagnoses and females accounted for 20.6%.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported excluded (less than 1% of diagnoses). Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices for more information. See Tables Supplement for underlying data.

3. Overall by HIV exposure category

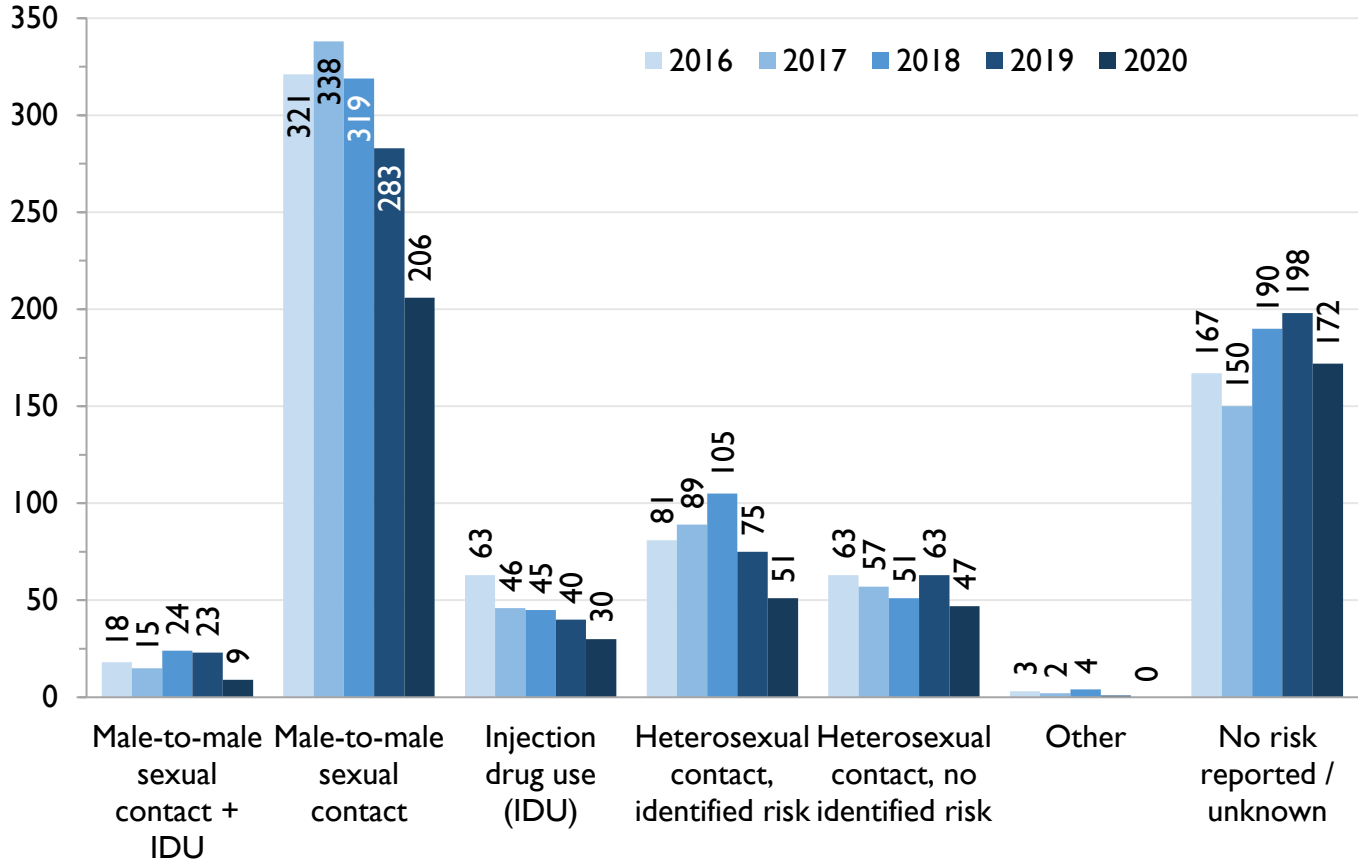
When a person tests for HIV, they are asked to identify their possible risks or exposures based on a standardized list of known routes of HIV transmission. If a person identifies multiple exposures, the most likely route of exposure is assigned in a hierarchical fashion based on known transmission rates. See HIV exposure categories for more information.

In Ontario, though the numbers of first-time HIV diagnoses decreased in all HIV exposure categories in 2020, the proportional breakdown across the categories remained very similar. Male-to-male sexual contact continued to be the primary mode of HIV transmission in 2020, accounting for 60.1% of first-time HIV diagnoses where HIV exposure category was reported. The next most common HIV exposure categories were heterosexual contact with an identified risk (14.9%) and heterosexual contact with no identified risk (13.7%). Between 2016 and 2020, there was a consistent decrease in the number of first-time HIV diagnoses that reported injection drug use as the HIV exposure category (from 63 to 30). However, over that five-year period, there was also an increase in the proportion of first-time HIV diagnoses with the HIV exposure category either not reported or unknown (from 23% in 2016 to 33% in 2020), which makes it difficult to draw conclusions regarding trends.

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Note: *The "Heterosexual contact, identified risk" category includes diagnoses where sex with a person of the opposite sex/gender is reported and either the individual's country of birth is reported as an HIV-endemic country, or the individual's sex partner is reported to be at least one of: HIV-positive; user of injection drugs; born in an HIV-endemic country; a bisexual male. See HIV exposure categories for more information.*

Figure 3.1 Number of first-time HIV diagnoses by HIV exposure category, Ontario, 2016 to 2020



Snapshot

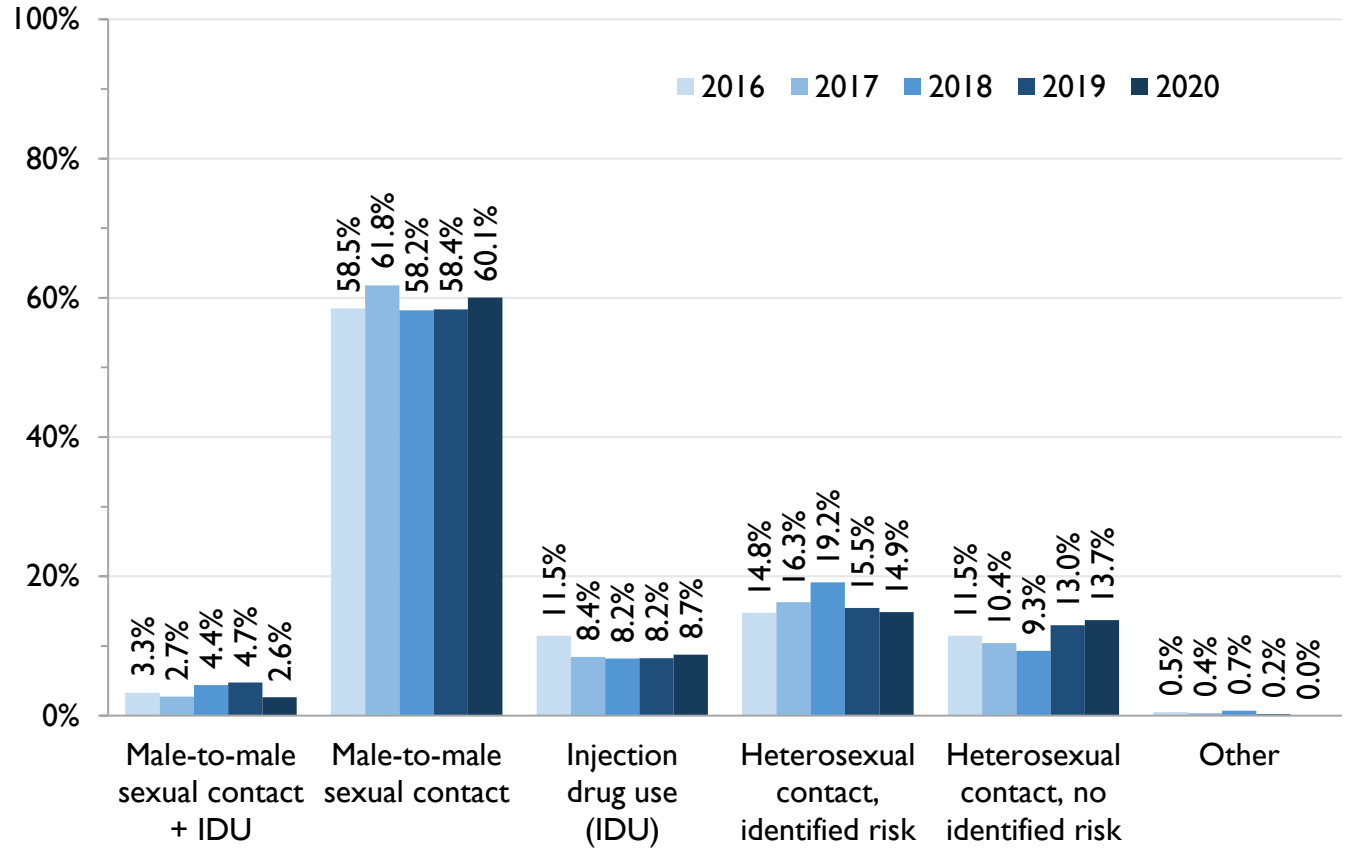
In 2020, 343 of the 515 first-time HIV diagnoses (66.6%) reported an HIV exposure category and 172 (33.4%) did not (i.e. no risk reported, unknown).

Among the 343 first-time HIV diagnoses with a reported HIV exposure category in 2020, the most frequently reported HIV exposure category was male-to-male sexual contact (206), followed by heterosexual contact with identified risk (51) and heterosexual contact with no identified risk (47). This pattern is consistent with the previous four years. The number of first-time HIV diagnoses decreased in all HIV exposure categories between 2019 and 2020, with the greatest relative decreases seen in male-to-male sexual contact + IDU (60.9%), and heterosexual contact with identified risk (32.0%).

The decrease of first-time HIV diagnoses reported as IDU in 2020 continued a consistent decline from 63 in 2016 to 30 in 2020.

Notes: Data provided by Public Health Ontario Laboratory. IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 3.2 Percent of first-time HIV diagnoses by HIV exposure category (where reported), Ontario, 2016 to 2020

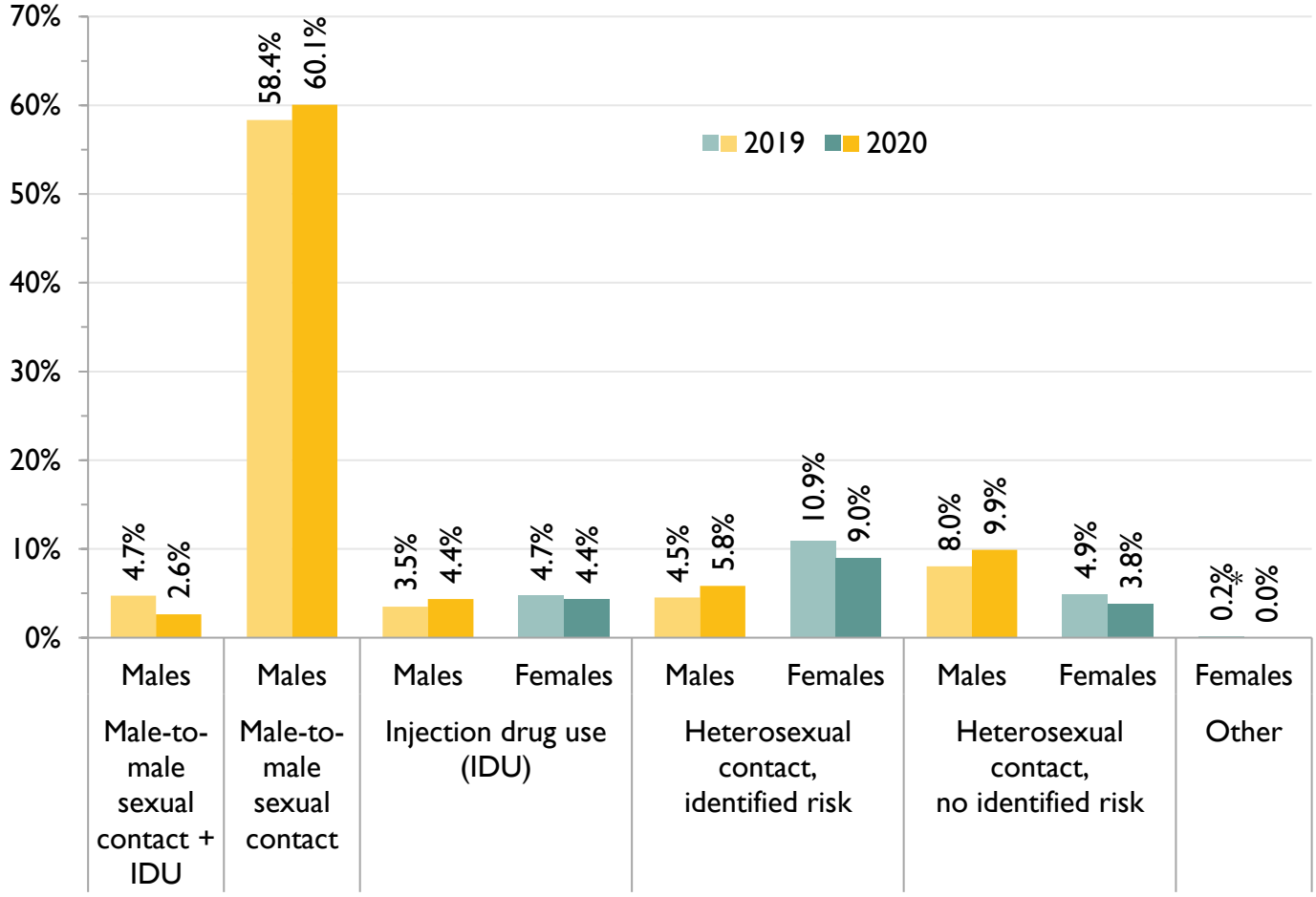


Snapshot

In 2020, among the 343 first-time HIV diagnoses with a reported HIV exposure category, the male-to-male sexual contact exposure category accounted for the largest proportion (60.1%), followed by heterosexual contact with identified risk (14.9%) and heterosexual contact with no identified risk (13.7%). This pattern was fairly consistent between 2016 and 2020.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where HIV exposure category was not reported were excluded (average of 26.6%). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 3.3 Percent of first-time HIV diagnoses by exposure category (where reported) and sex, Ontario, 2019 to 2020



Snapshot

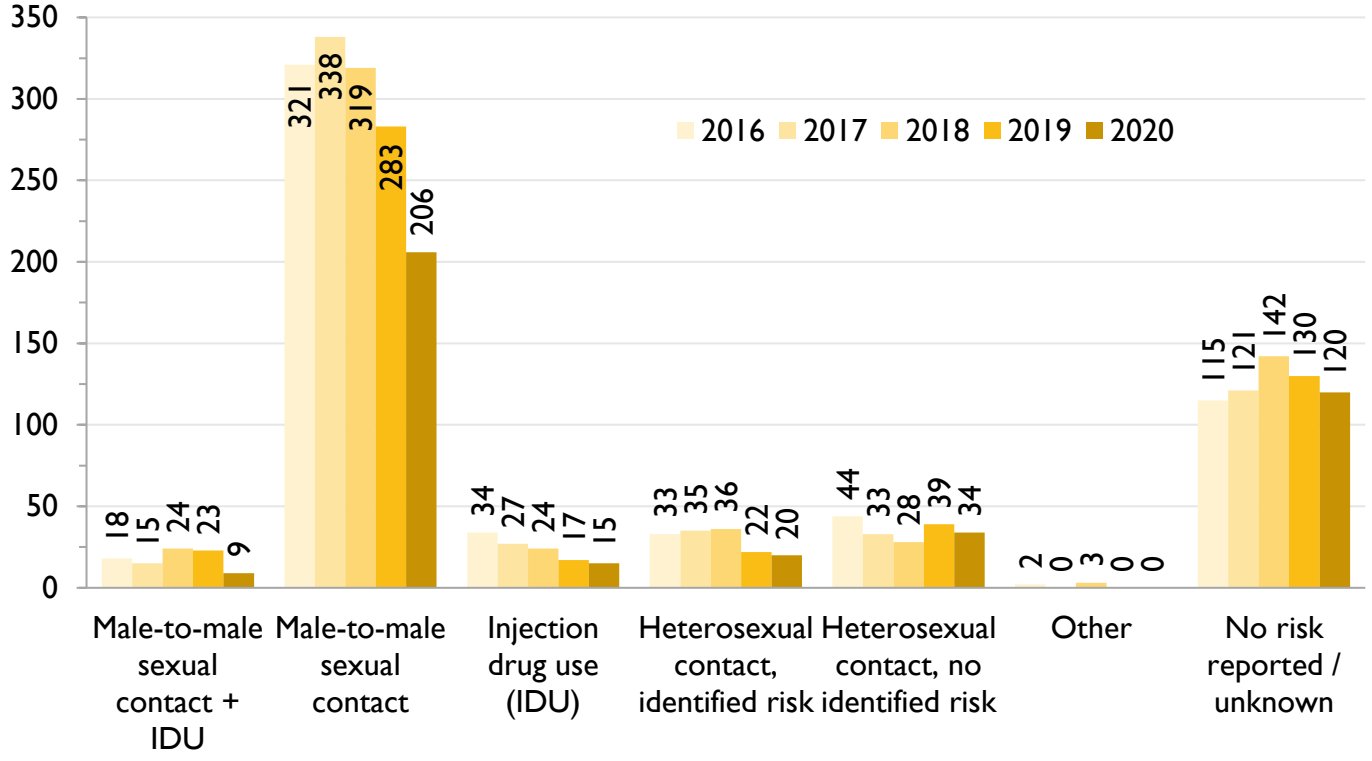
In 2020, males who reported male-to-male sexual contact accounted for the largest proportion of first-time HIV diagnoses (60.1%), followed by females who reported heterosexual contact with identified risk (9.0%), and males who reported heterosexual contact with no identified risk (9.9%). The remaining HIV exposure categories – males who reported male-to-male sexual contact and IDU, males who reported IDU (but not male-to-male sexual contact), females who reported IDU, males who reported heterosexual contact with identified risk, females who reported heterosexual contact with no identified risk, and females categorized into one of the "other" categories – each accounted for less than 5% of first-time HIV diagnoses. This breakdown across HIV exposure categories and sex in 2020 was very consistent with that seen in 2019.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where HIV exposure category was not reported were excluded (29.0% of diagnoses in 2019 and 33.4% in 2020). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

3.i. Males by HIV exposure category

Between 2016 and 2020, among males, male-to-male sexual contact accounted for the largest proportions of first-time HIV diagnoses (72.5% in 2020) and this was stable over time. Other HIV exposure categories accounted for between 3.2% and 12.0% of first-time HIV diagnoses among males in 2020. The number of first-time HIV diagnoses reported as IDU in 2020 continued a consistent decline from 34 in 2016 to 15 in 2020. Otherwise, though the numbers of first-time HIV diagnoses among males decreased in all HIV exposure categories in 2020, the proportional breakdown across the categories remained similar. Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 3.4 Number of first-time HIV diagnoses by HIV exposure category, males, Ontario, 2016 to 2020



Snapshot

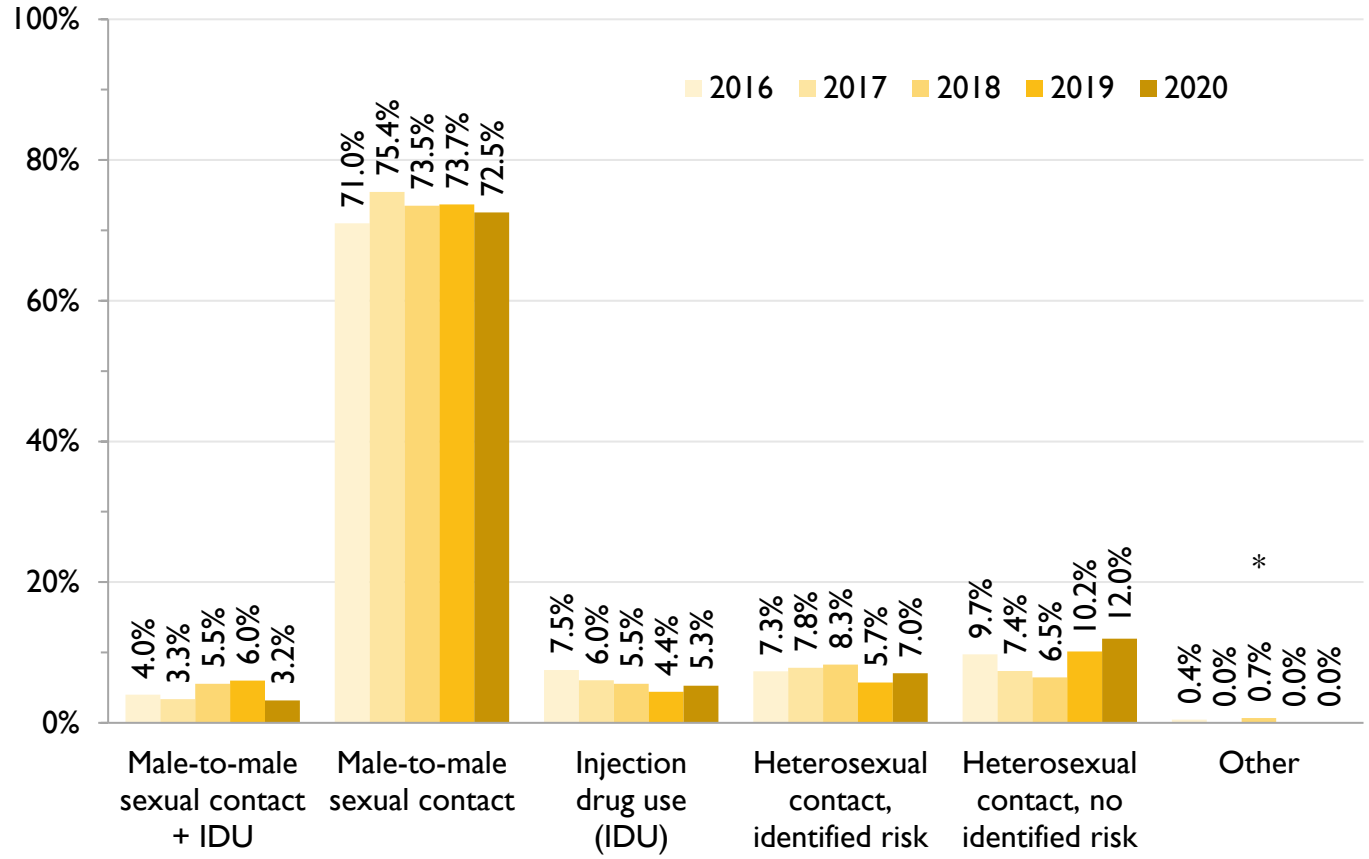
In 2020, 284 of the 404 first-time HIV diagnoses among males (70.3%) reported an HIV exposure category and 120 (29.7%) did not (i.e. no risk reported, unknown).

Among the 284 first-time HIV diagnoses in males with a reported HIV exposure category in 2020, the most frequently reported HIV exposure category was male-to-male sexual contact (206), followed by heterosexual contact with no identified risk (34) and heterosexual contact with identified risk (20). The number of first-time HIV diagnoses decreased in all HIV exposure categories between 2019 and 2020, with the greatest relative decreases seen in male-to-male sexual contact + IDU (60.9%), and male-to-male sexual contact (27.2%).

The decrease of first-time HIV diagnoses reported as IDU in 2020 continued a consistent decline from 34 in 2016 to 15 in 2020.

Notes: Data provided by Public Health Ontario Laboratory. IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 3.5 Percent of first-time HIV diagnoses by HIV exposure category (where reported), males, Ontario, 2016 to 2020



Snapshot

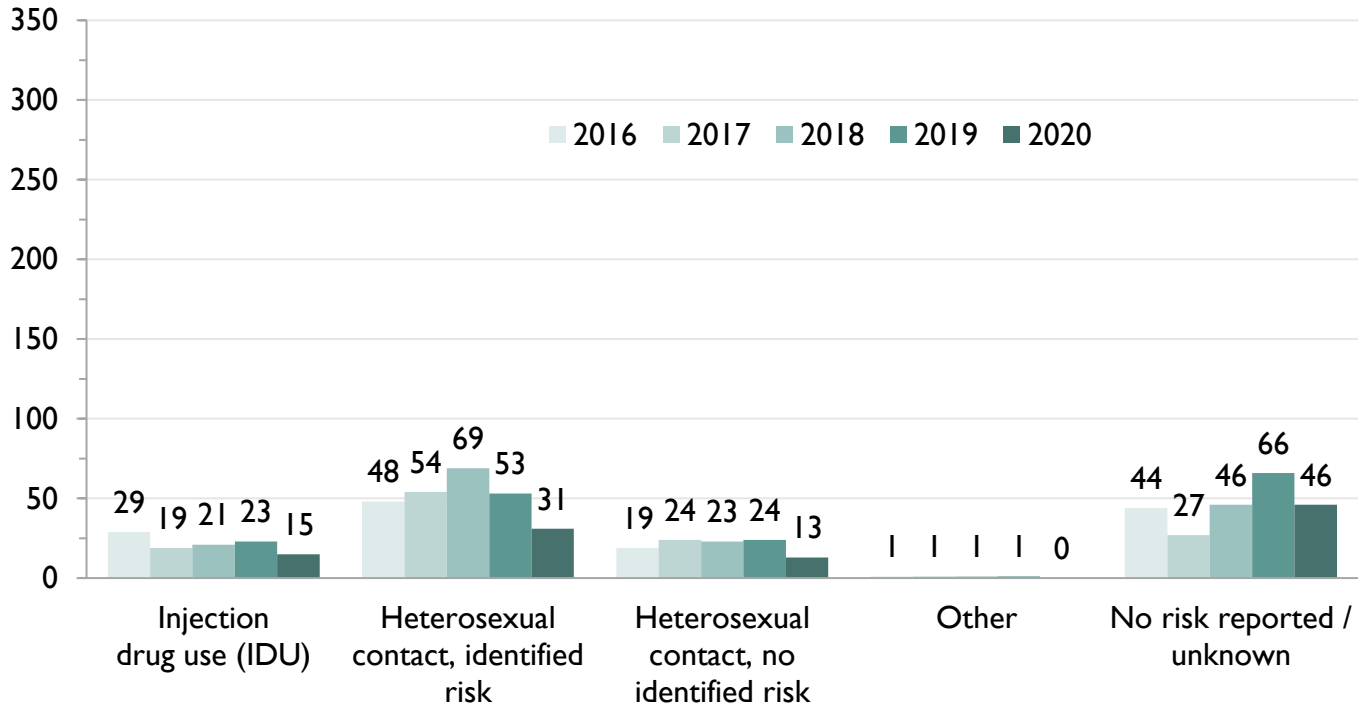
In 2020, among the 284 first-time HIV diagnoses in males with a reported HIV exposure category, the male-to-male sexual contact HIV exposure category accounted for the largest proportion (72.5%), followed by heterosexual contact with no identified risk (12.0%) and heterosexual contact with identified risk (7.0%). This pattern was fairly consistent between 2016 and 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where HIV exposure category was not reported were excluded (average of 24.2% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

3.ii. Females by HIV exposure category

Between 2016 and 2020, among females, heterosexual contact with identified risk accounted for the largest proportions of first-time HIV diagnoses (52.5% in 2020), followed by IDU (25.4% in 2020) and heterosexual contact with no identified risk (22.0% in 2020). Though the numbers of first-time HIV diagnoses among females decreased in all HIV exposure categories in 2020, the proportional breakdown across the categories remained similar. Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 3.6 Number of first-time HIV diagnoses by HIV exposure category, females, Ontario, 2016 to 2020



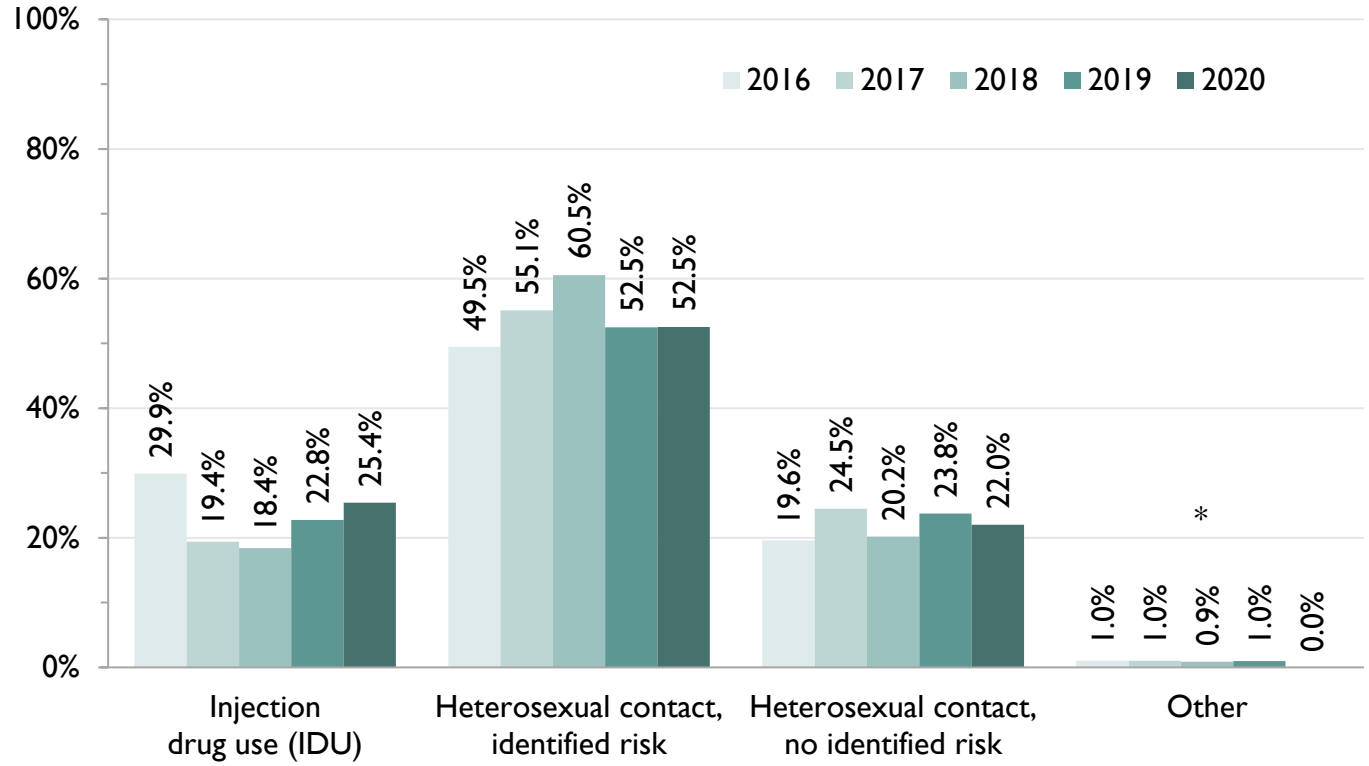
Snapshot

In 2020, 59 of the 105 first-time HIV diagnoses among females (56.2%) reported an HIV exposure category and 46 (43.8%) did not (i.e. no risk reported, unknown).

Among the 59 first-time HIV diagnoses in females with a reported HIV exposure category in 2020, the most frequently reported HIV exposure category was heterosexual contact with identified risk (31), followed by IDU (15) and heterosexual contact with no identified risk (13). The number of first-time HIV diagnoses decreased in all HIV exposure categories between 2019 and 2020, with the greatest relative decreases seen in heterosexual contact with no identified risk (45.8%), and heterosexual contact with identified risk (41.5%).

Notes: Data provided by Public Health Ontario Laboratory. IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 3.7 Percent of first-time HIV diagnoses by HIV exposure category (where reported), females, Ontario, 2016 to 2020



Snapshot

In 2019, among the 59 first-time HIV diagnoses in females with a reported HIV exposure category, the heterosexual contact with identified risk HIV exposure category accounted for the largest proportion (52.5%), followed by IDU (25.4%) and heterosexual contact with no identified risk (22.0%). This pattern was fairly consistent between 2016 and 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where HIV exposure category was not reported were excluded (average of 33.0% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

4. Overall by race/ethnicity

Information about the race/ethnicity of both first-time HIV diagnoses and positive HIV tests is important data for HIV prevention programs to inform and ensure that HIV care services meet the needs of ethnically diverse people.

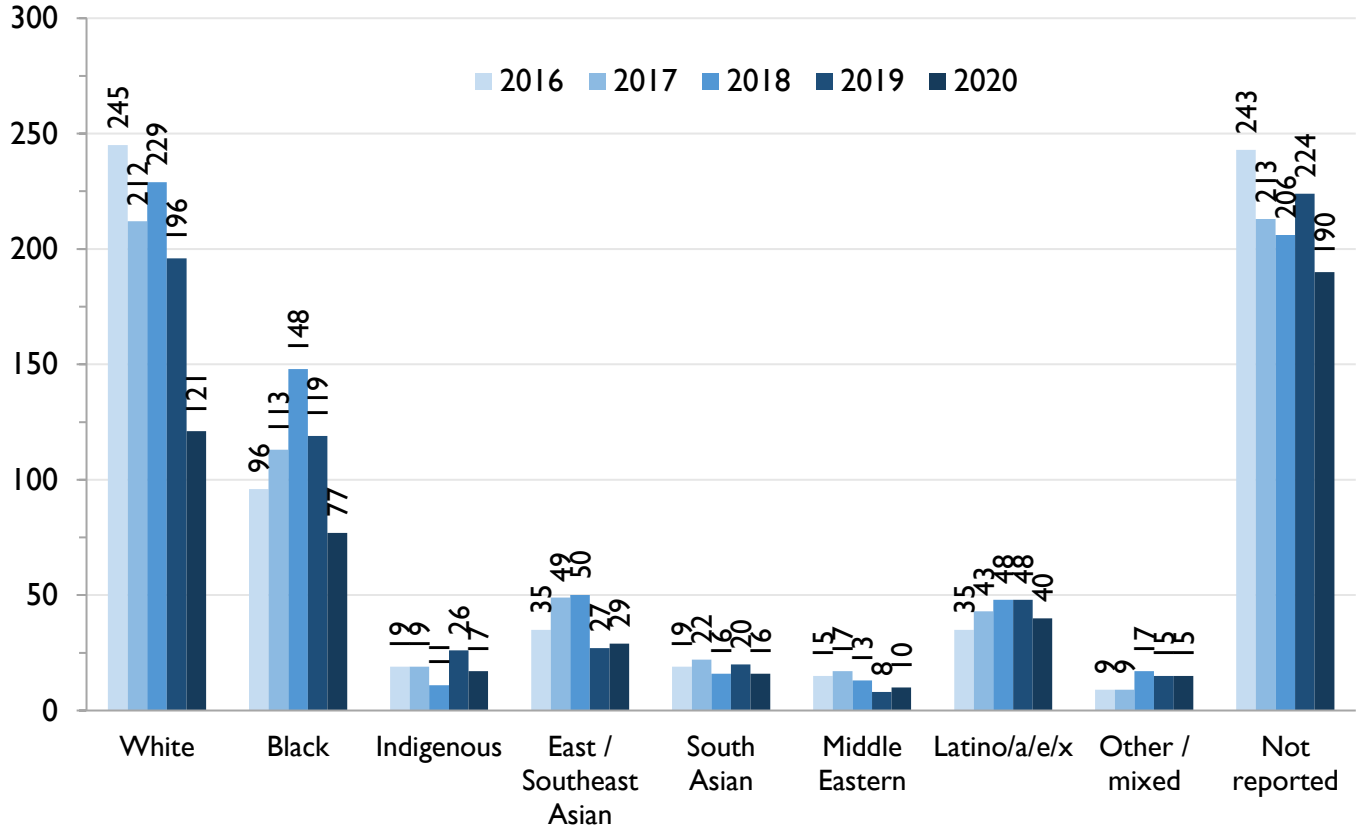
Of the 515 first-time HIV diagnoses in 2020, 325 (63.1%) reported information on race/ethnicity and 190 (36.9%) did not. Between 2011 and 2020, race/ethnicity was not reported for about 33% of first-time HIV diagnoses; however, with the introduction of the new HIV test requisition form in 2018, we expect completeness of these data to improve over time.

Between 2016 and 2020, white people accounted for the largest number and proportion of first-time HIV diagnoses followed by Black people, Latino/a/e/x people and East/Southeast Asians. Over these years, the proportion of first-time HIV diagnoses attributed to white people decreased from 51.8% to 37.2% while the proportion attributed to Black people increased from 20.3% to 23.7%, and the proportion attributed to Latino/a/e/x people increased from 7.4% to 12.3%. These shifts stem from the decrease in number of first-time HIV diagnoses attributed to white people.

When the data are broken down by race/ethnicity and sex, in 2020 white males account for 32.0% of first-time HIV diagnoses, Black males for 16.3%, Latino/a/e/x males for 12.0%, and Black females for 7.4%. When we include positive HIV tests with previous evidence of HIV, the racial/ethnic breakdown shifts somewhat: white males account for 26.7% of positive HIV tests, Black males for 19.7%, Latino/e/x males for 11.9%, and Black females for 10.1%. Compared to 2019, white males and Black females each made up smaller proportions of both positive HIV tests and first-time HIV diagnoses in 2020, and Black males, East/Southeast Asian males, and Latino/e/x males each made up larger proportions.

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 4.1 Number of first-time HIV diagnoses by race/ethnicity, Ontario, 2016 to 2020



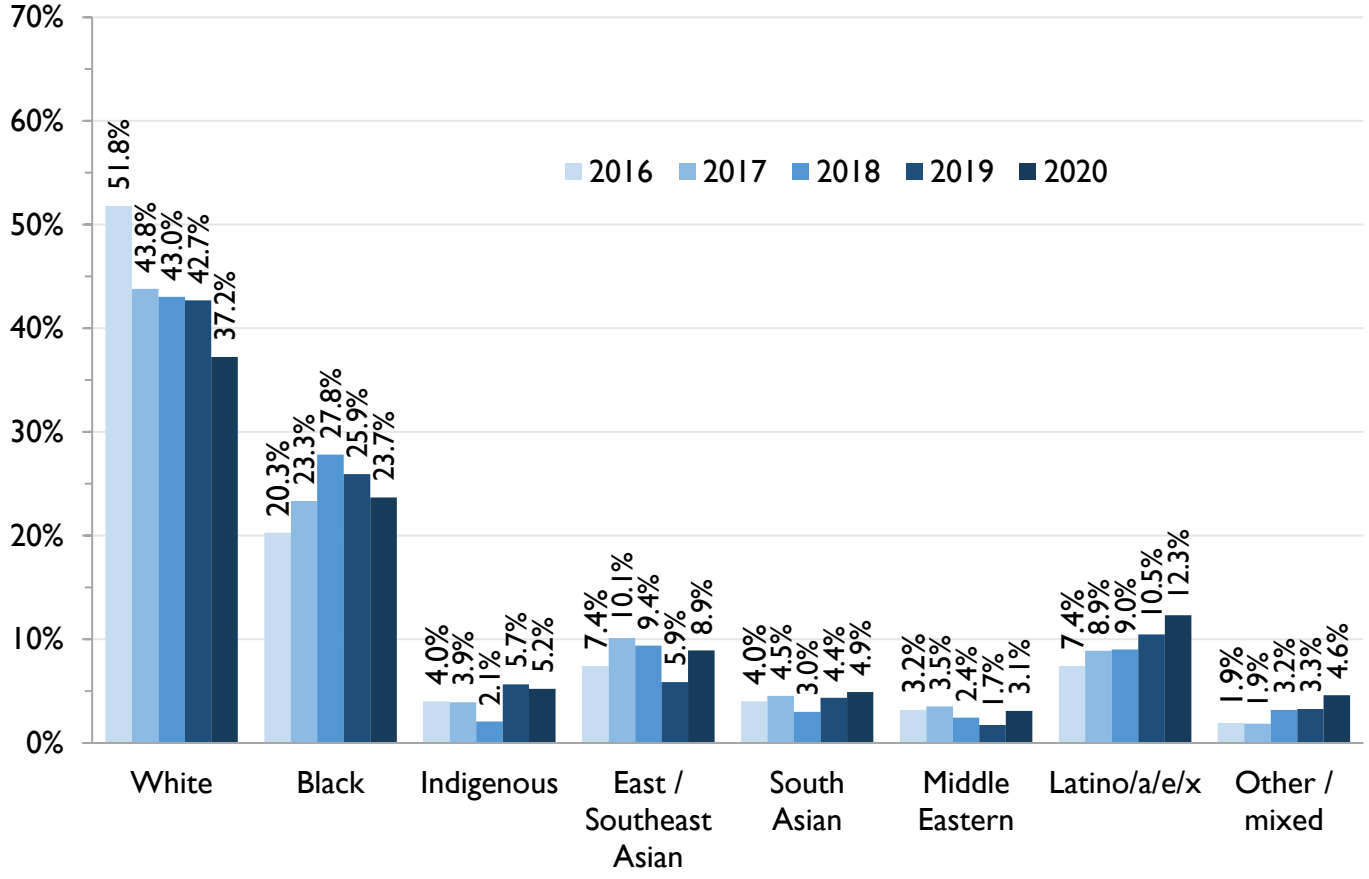
Snapshot

In 2020, among the 325 first-time HIV diagnoses with a reported race/ethnicity, 121 were in white people, 77 in Black people, 40 in Latino/a/e/x people, 29 in East/Southeast Asian people, 17 in Indigenous people, 16 in South Asian people, 15 in Other/Mixed people and 10 in Middle Eastern people. Compared to 2019, the number of first-time HIV diagnoses decreased in most race/ethnicities in 2020, with the greatest relative decreases seen in white people (38.3%), Black people (35.3%) and Indigenous people (34.6%).

Between 2016 and 2020, white people accounted for the largest number of first-time HIV diagnoses.

Notes: Data provided by Public Health Ontario Laboratory. See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.2 Percent of first-time HIV diagnoses by race/ethnicity (where reported), Ontario, 2016 to 2020



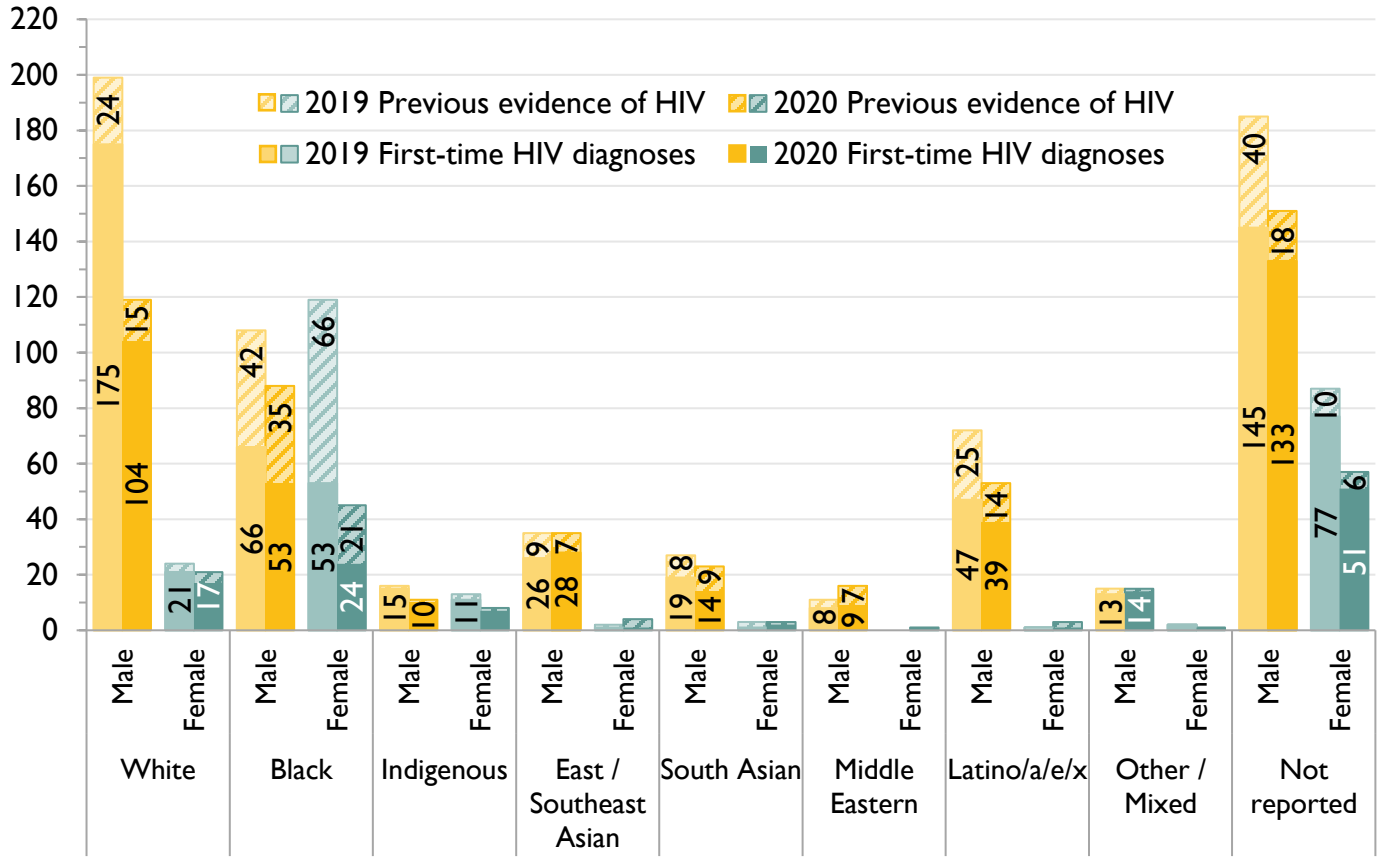
Snapshot

In 2020, among the 325 first-time HIV diagnoses with a reported race/ethnicity, white people accounted for the largest proportion (37.2%), followed by Black (23.7%), Latino/a/e/x (12.3%), East/Southeast Asian (8.9%) and Indigenous people (5.2%). South Asian, Middle Eastern and Other/mixed people each accounted for less than 5% of first-time HIV diagnoses in 2020.

Between 2016 and 2020, white people, followed by Black people, accounted for the largest proportions of first-time HIV diagnoses. Corresponding with decreased numbers of diagnoses, white people accounted for a shrinking proportion of first-time HIV diagnoses over these years, from 51.8% in 2016 to 42.7% in 2019, decreasing further to 37.2% in 2020. Conversely, numbers of first-time HIV diagnoses in other race/ethnicities have been more stable, and so they have accounted for larger proportions over time (i.e. Latino/a/e/x people increased from 7.4% in 2016 to 12.3% in 2020).

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 32.4% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.3 Number of first-time HIV diagnoses and positive HIV tests with previous evidence of HIV by race/ethnicity and sex, Ontario, 2019 to 2020



Snapshot

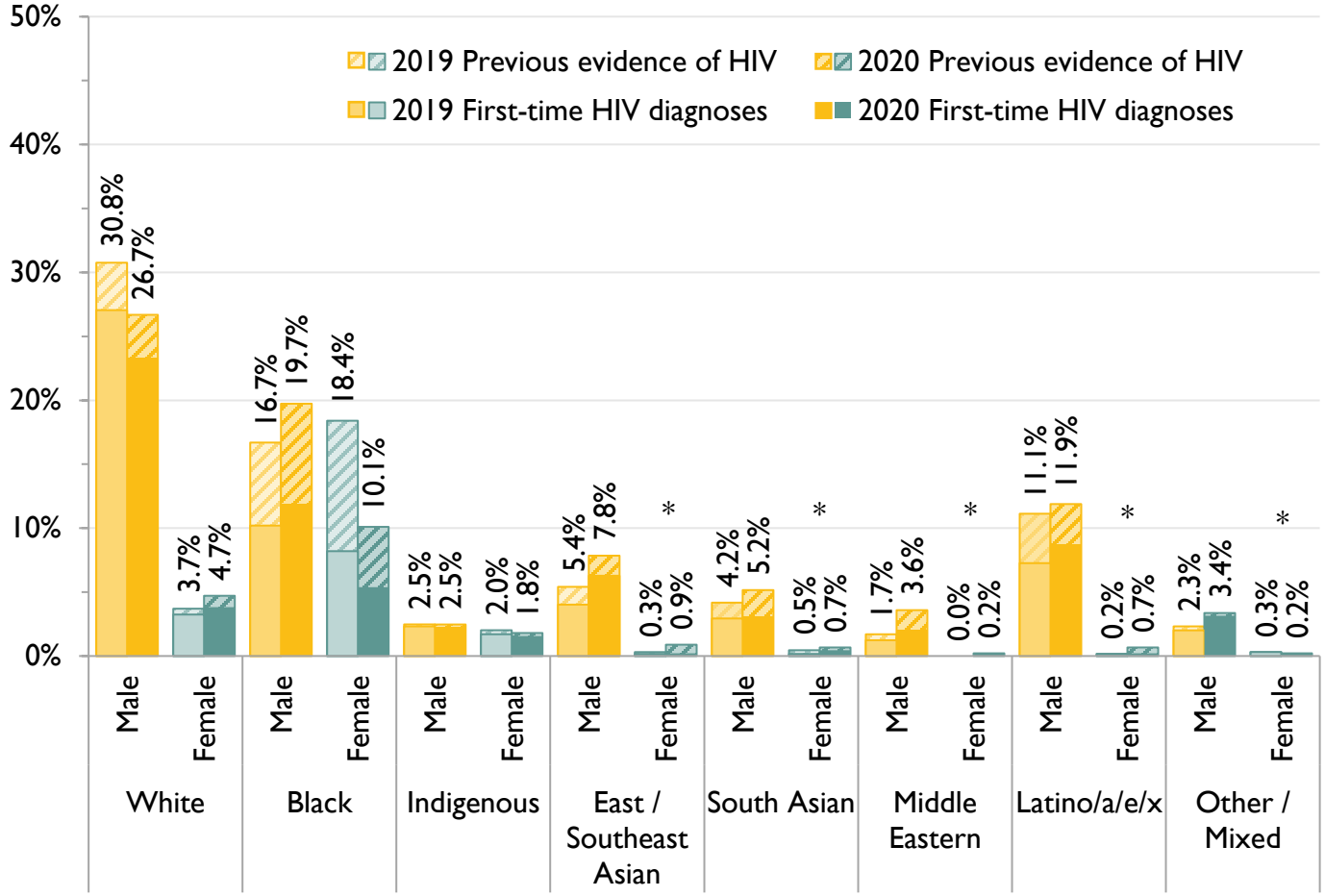
In 2020, among the 325 first-time HIV diagnoses with a reported race/ethnicity, 104 were in white males, 53 in Black males, 39 in Latino/e/x males, 28 in East/Southeast Asian males, 24 in Black females, 17 in white females, 14 in South Asian males, 14 in males of other/mixed races/ethnicities, 10 in Indigenous males, 9 in Middle Eastern males, and 7 in Indigenous females. There were fewer than 5 first-time HIV diagnoses in each of all other categories. Between 2019 and 2020, the number of first-time HIV diagnoses decreased for most categories; Black females had the most substantial relative decrease (54.7%), followed by white males (40.6%).

In 2020, among the 121 positive HIV tests with previous evidence of HIV and a reported race/ethnicity, 35 were in Black males, 21 in Black females, 15 in white males, 14 in Latino/e/x males, 9 in South Asian males, and 7 in East/Southeast Asian males. There were fewer than 5 positive HIV tests with previous evidence of HIV in each of all other categories. Between 2019 and 2020, the number of positive HIV tests with previous evidence of HIV decreased for most categories; Black females had the most substantial relative decrease (68.2%), followed by white males (37.5%).

The proportion of positive HIV tests made up of those with previous evidence of HIV differ by racial/ethnic-sex category. Although most categories have some proportion with previous evidence of HIV, the greatest numbers and proportions in 2020 were among Black females (21, 46.7% of positive tests), followed by Black males (35, 39.8% of positive tests), and Latino/e/x males (14, 26.4% of positive tests).

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.4 Percent of positive HIV tests by race/ethnicity (where reported) and sex, Ontario, 2019 to 2020



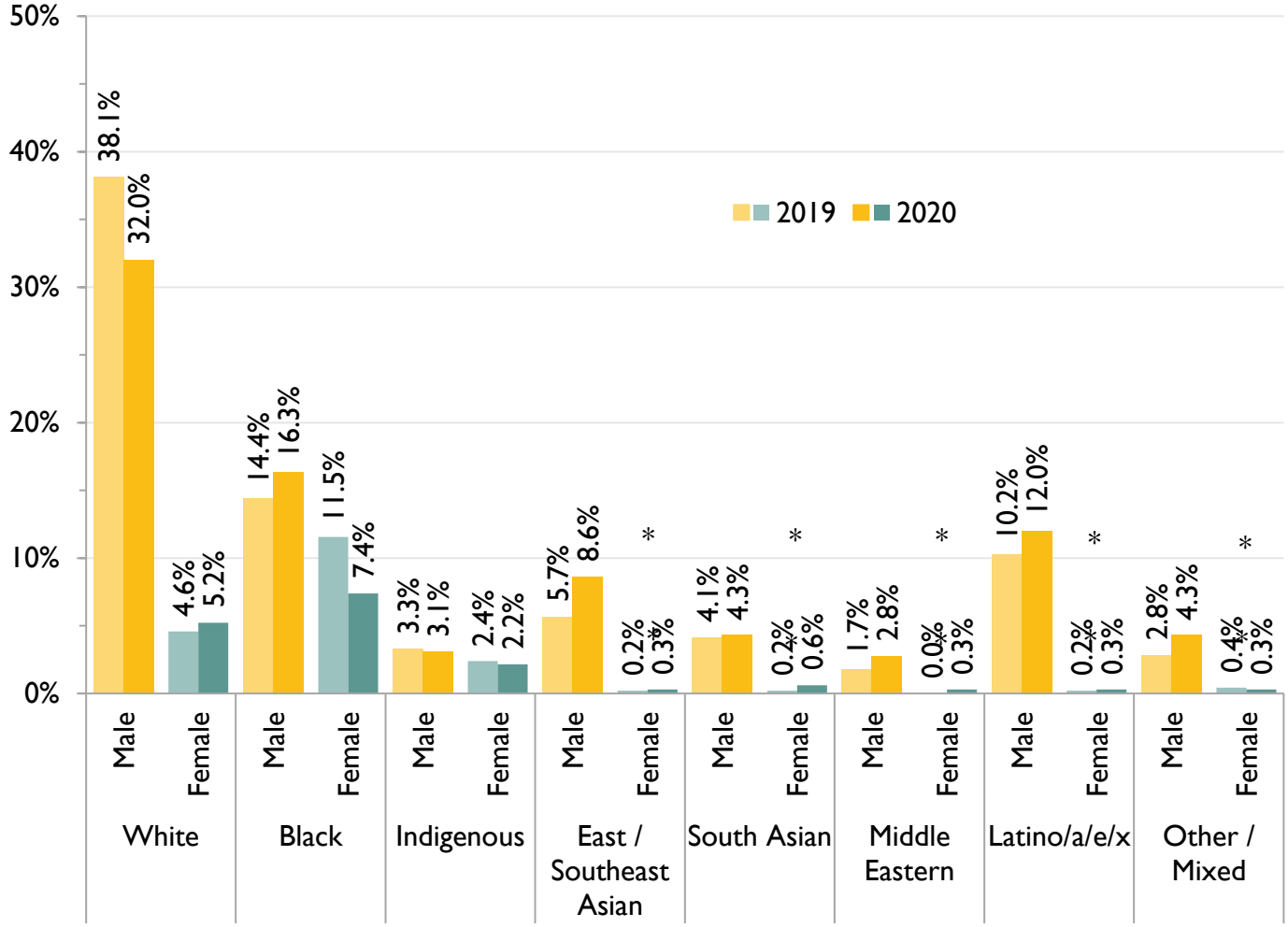
Snapshot

Among the 446 (out of 661) positive HIV tests with previous evidence of HIV that had a reported race/ethnicity and sex in 2020, white males accounted for the largest proportion (26.7%), followed by Black males (19.7%), Latino/e/x males (11.9%), Black females (10.1%), East/Southeast Asian males (7.8%), and South Asian males (5.2%). All other categories accounted for less than 5% of positive HIV tests in 2020. Compared to 2019, white males and Black females each made up smaller proportions of positive HIV tests in 2020, and Black males and East/Southeast Asian males each made up larger proportions.

In 2020, white males made up a smaller proportion of positive HIV tests than they did first-time HIV diagnoses (Figure 4.5), whereas Black males and Black females each made up a larger proportion of positive HIV tests than they did first-time HIV diagnoses.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Positive HIV tests where race/ethnicity was not reported were excluded (29.6% of tests in 2019, 31.8% in 2020). See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.5 Percent of first-time HIV diagnoses by race/ethnicity (where reported) and sex, Ontario, 2019 to 2020



Snapshot

Among the 325 (out of 515) first-time HIV diagnoses with a reported race/ethnicity and sex in 2020, white males accounted for the largest proportion (32.0%), followed by Black males (16.3%), Latino/e/x males (12.0%), East/Southeast Asian males (8.6%), and Black females (7.4%). All other categories each accounted for less than 5% of first-time HIV diagnoses. Compared to 2019, white males and Black females each made up smaller proportions of first-time HIV diagnoses in 2020, and Black males, East/Southeast Asian males, and Latino/e/x males each made up larger proportions.

In 2020, white males made up a larger proportion of first-time HIV diagnoses than they did positive HIV tests (Figure 4.4), whereas Black males and Black females each made up a smaller proportion of first-time HIV diagnoses than they did positive HIV tests.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where race/ethnicity was not reported were excluded (32.6% of diagnoses in 2019, 36.1% in 2020). See Appendices for more information. See Tables Supplement for underlying data.

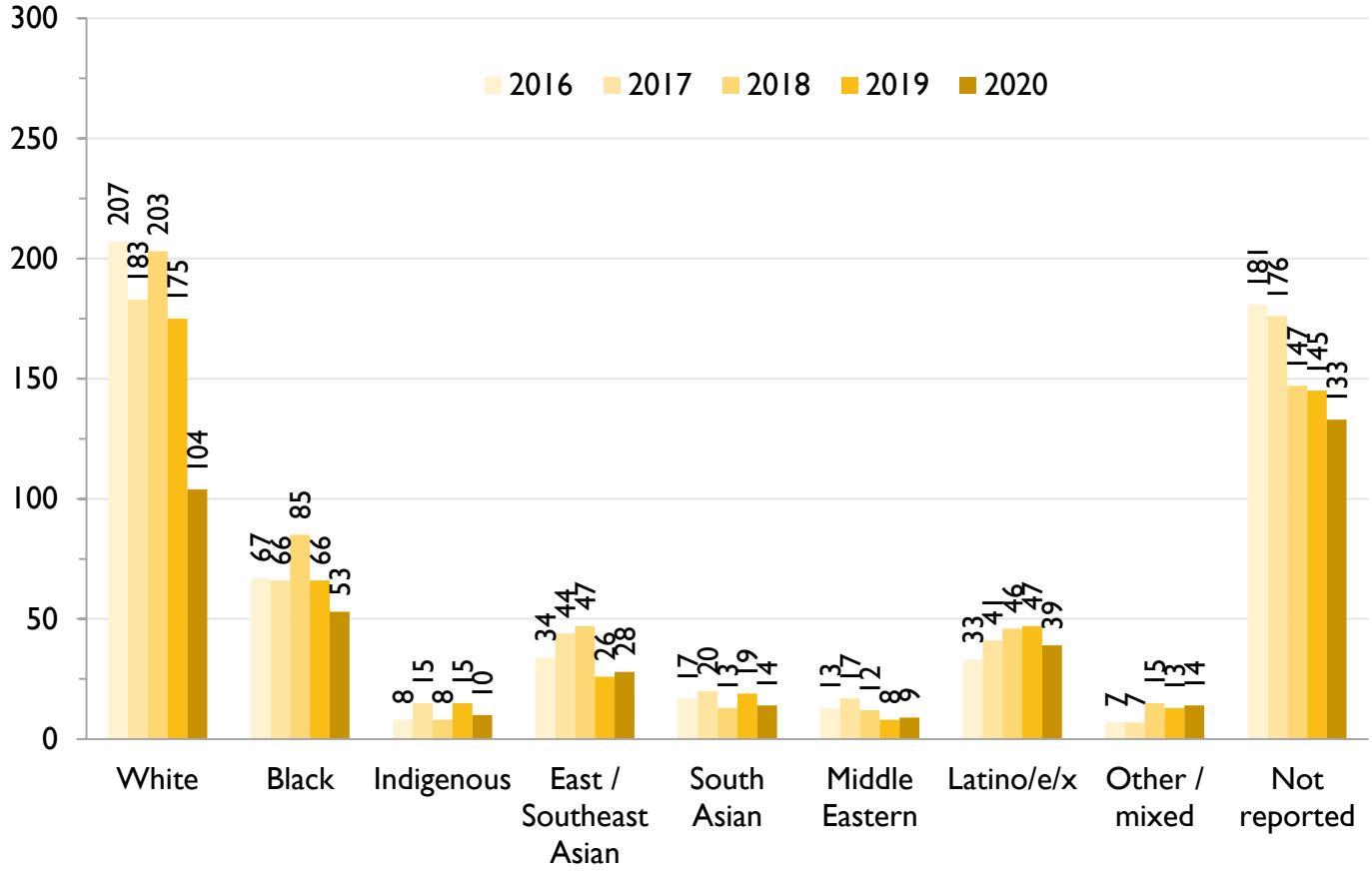
4.i. Males by race/ethnicity

White males have historically accounted for the majority of first-time HIV diagnoses in males in Ontario. Of the 404 first-time HIV diagnoses among males in 2020, 271 (67.1%) reported information on race/ethnicity and 133 (32.9%) did not. Of those with a reported race/ethnicity, the largest proportion (38.4%) were attributed to white males followed by Black males (19.6%) and Latino/e/x males (14.4%).

Between 2016 and 2020, there was a decrease in the number of first-time HIV diagnoses attributed to white males, a trend not seen in males of other races/ethnicities. There was an increase in the number and proportion of first-time HIV diagnoses attributed to Latino/e/x males.

Contributors to the decrease in first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 4.6 Number of first-time HIV diagnoses by race/ethnicity, males, Ontario, 2016 to 2020



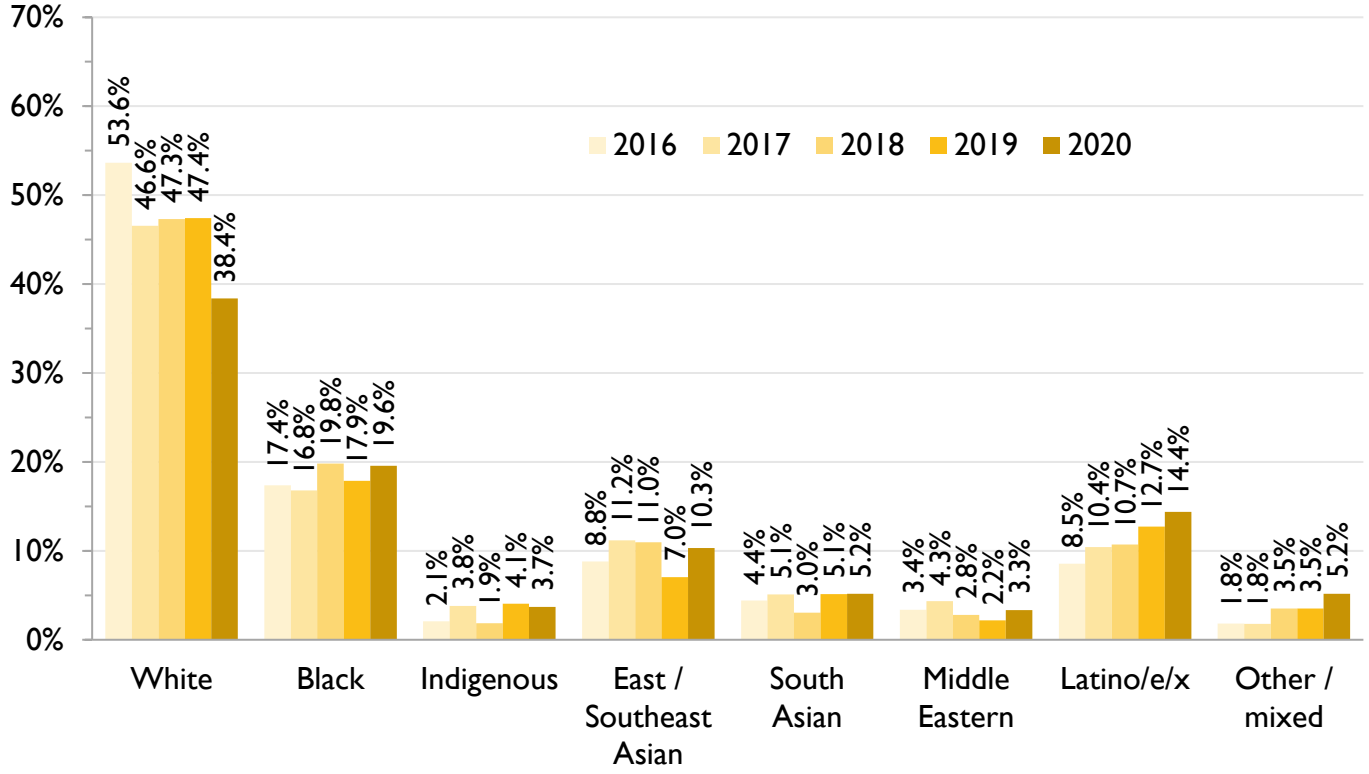
Snapshot

In 2020, among the 271 first-time HIV diagnoses in males with a reported race/ethnicity, 104 were in white males, 53 in Black males, 39 in Latino/e/x males, 28 in East/Southeast Asian males, 14 in South Asian males, 14 in Other/Mixed males, 10 in Indigenous males, and 9 in Middle Eastern males. The number of first-time HIV diagnoses decreased in most race/ethnicities between 2019 and 2020, with the greatest relative decreases seen in white males (40.6%), Indigenous males (33.3%) and South Asian males (26.3%).

Between 2016 and 2020, white males accounted for the largest number of first-time HIV diagnoses among males, however this number decreased, a trend not seen in males of other races/ethnicities.

Notes: Data provided by Public Health Ontario Laboratory. See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.7 Percent of first-time HIV diagnoses by race/ethnicity (where reported), males, Ontario, 2016 to 2020



Snapshot

In 2020, among the 271 first-time HIV diagnoses with a reported race/ethnicity, white males accounted for the largest proportion (38.4%), followed by Black (19.6%), Latino/e/x (14.4%) and East/Southeast Asian males (10.3%). Indigenous, South Asian, Middle Eastern and Other/mixed males each accounted for less than 5% of first-time HIV diagnoses among males.

Between 2016 and 2020, white males, followed by Black males, accounted for the largest proportions of first-time HIV diagnoses among males. Corresponding with decreased numbers of diagnoses, white males accounted for 38.4% of first-time HIV diagnoses in 2020, down from 53.6% in 2016. Conversely, numbers of first-time HIV diagnoses in males of other race/ethnicities have been more stable. The proportion of first-time HIV diagnoses among males that was attributed to Latino/e/x males increased year over year from 8.5% in 2016 to 14.4% in 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where race/ethnicity was not reported were excluded (average of 29.9% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

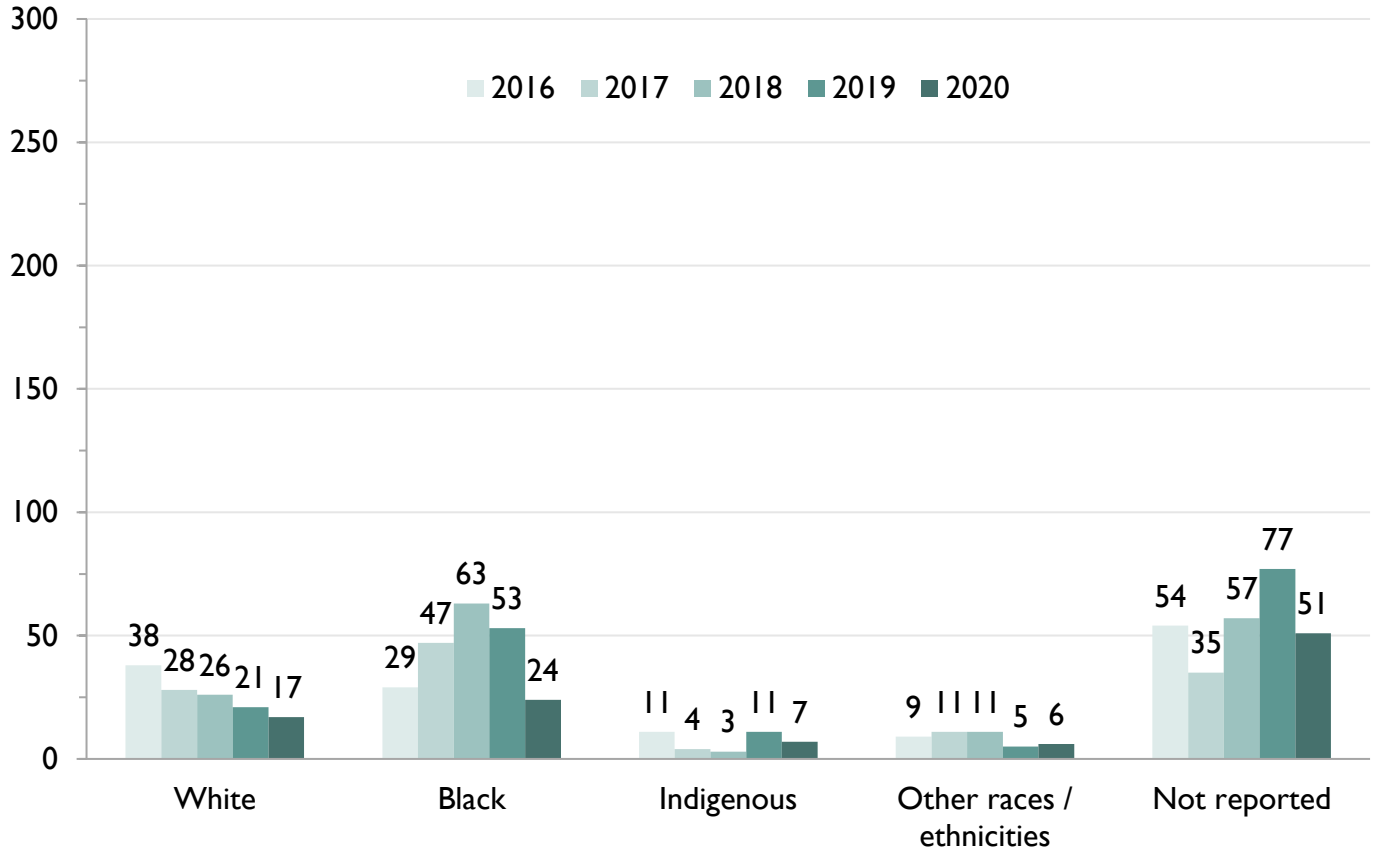
4.ii. Females by race/ethnicity

Of the 105 first-time HIV diagnoses among females in 2020, 54 (51.4%) reported information on race/ethnicity and 51 (48.6%) did not.

Of the 54 that did report race/ethnicity, the largest proportion was attributed to Black females (44.4%), followed by white (31.5%), and Indigenous (13.0%) females.

Contributors to the decrease in first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 4.8 Number of first-time HIV diagnoses by race/ethnicity, females, Ontario, 2016 to 2020



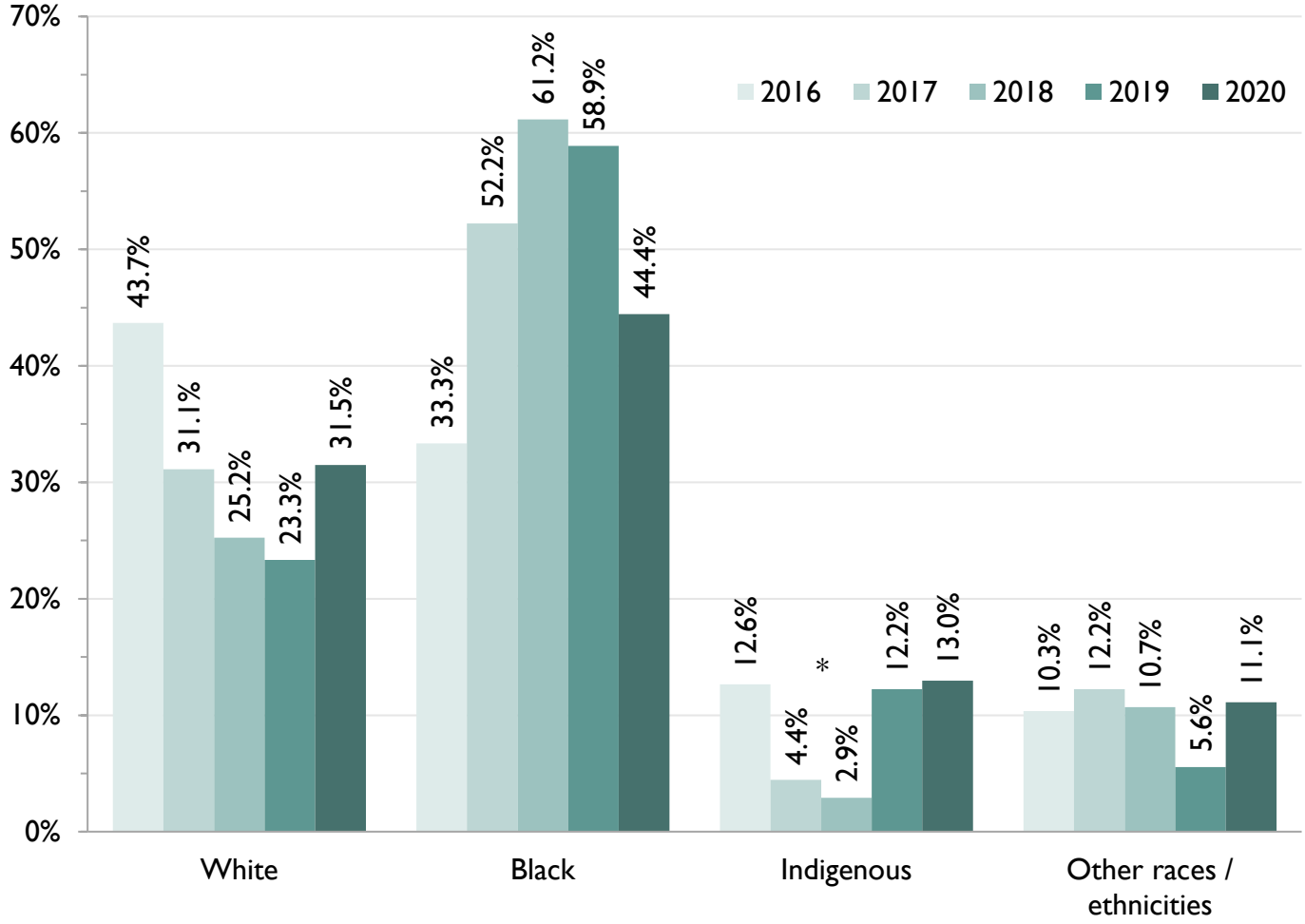
Snapshot

Among the 54 first-time HIV diagnoses among females with a reported race/ethnicity, 24 were in Black females, 17 in white females, 7 in Indigenous females, and 6 in females of other races/ethnicities. The number of first-time HIV diagnoses decreased in each of white, Black, and Indigenous females between 2019 and 2020, with the greatest relative decrease seen in Black females (54.7%), followed by Indigenous females (36.4%) and white females (19.0%).

Every year between 2017 and 2020, Black females accounted for the largest number of first-time HIV diagnoses among females; white females accounted for the largest number in 2016. The number of first-time HIV diagnoses in white females has decreased year-over-year from 38 in 2016 to 17 in 2020.

Notes: Data provided by Public Health Ontario Laboratory. See Appendices for more information. See Tables Supplement for underlying data.

Figure 4.9 Percent of first-time HIV diagnoses by race/ethnicity (where reported), females, Ontario, 2016 to 2020



Snapshot

In 2020, among the 54 first-time HIV diagnoses in females with a reported race/ethnicity, Black females accounted for the largest proportion (44.4%), followed by white (31.5%), Indigenous (13.0%) and females of other races/ethnicities (11.1%).

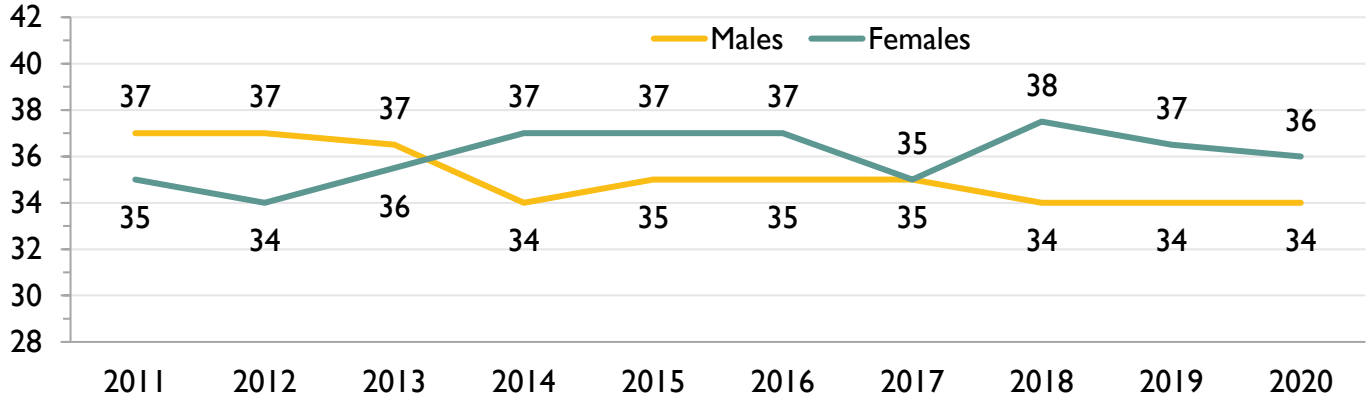
In every year between 2017 and 2020, Black females accounted for the largest proportions of first-time HIV diagnoses among females, followed by white females.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where race/ethnicity was not reported were excluded (average of 39.3% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

5. Overall by age

Between 2011 and 2020, among males, the median age of first-time HIV diagnoses ranged from 34 to 37 years and was 34 years in 2020; among females, the median age of first-time HIV diagnoses ranged from 34 to 38 years and was 36 years in 2020. In 2020, among males, those aged 30-34 years had the highest rate and accounted for the largest proportion of first-time HIV diagnoses. Among females, those aged 25-29 and 30-34 years had the highest rates and accounted for the largest proportions of first-time HIV diagnoses. For both males and females, the distribution of first-time HIV diagnoses across age categories changed little in 2020 compared to 2019, though rates per 100,000 people decreased in nearly all categories. Contributors to the decrease in first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed in the Key Trends and Findings.

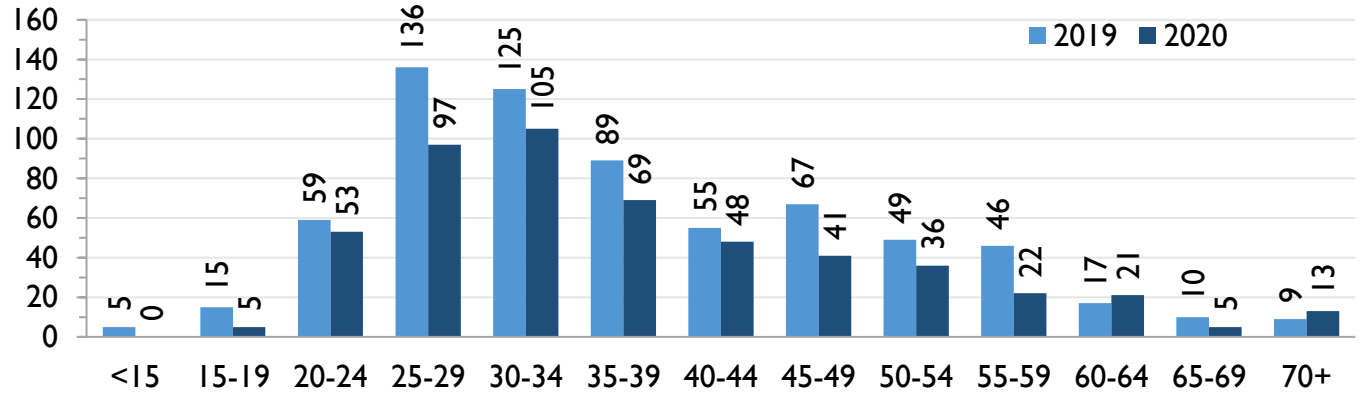
Figure 5.1 Median age of first-time HIV diagnoses by sex, Ontario, 2011 to 2020



Snapshot

In 2020, the median age of first-time HIV diagnoses was 34 years among males and 36 years among females. Between 2011 and 2020, among males, the median age of first-time HIV diagnoses ranged from 37 to 34 years. Among females, the median age at first-time HIV diagnosis ranged from 34 to 38 years.

Figure 5.2 Number of first-time HIV diagnoses by age, Ontario, 2019 to 2020

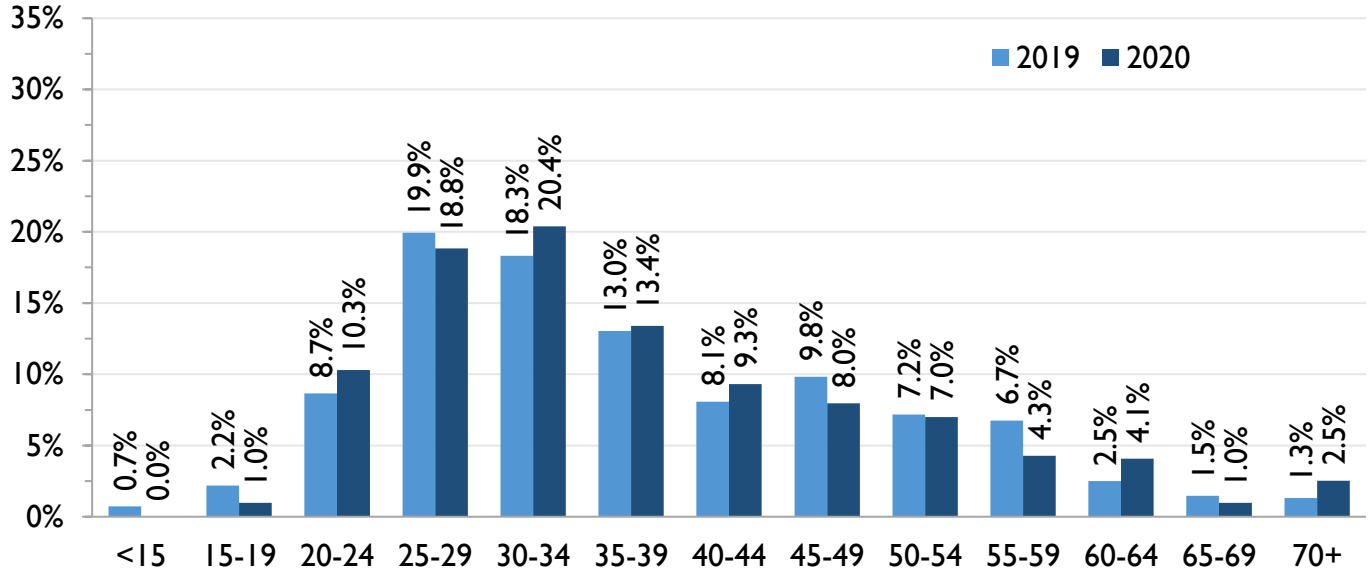


Snapshot

In 2020, those aged 30-34 years accounted for the largest number of first-time HIV diagnoses (105), followed by those aged 25-29 years (97) and those aged 35-39 years (69). Compared to 2019, the number of first-time HIV diagnoses decreased in almost all age categories in 2020, with those aged 15-19 years having the largest relative decrease (66.7%), followed by 55-59 (52.2%) and 65-69 years (50.0%).

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses with sex and age not reported were excluded (less than 1%). See Appendices for more information. See Tables Supplement for underlying data.

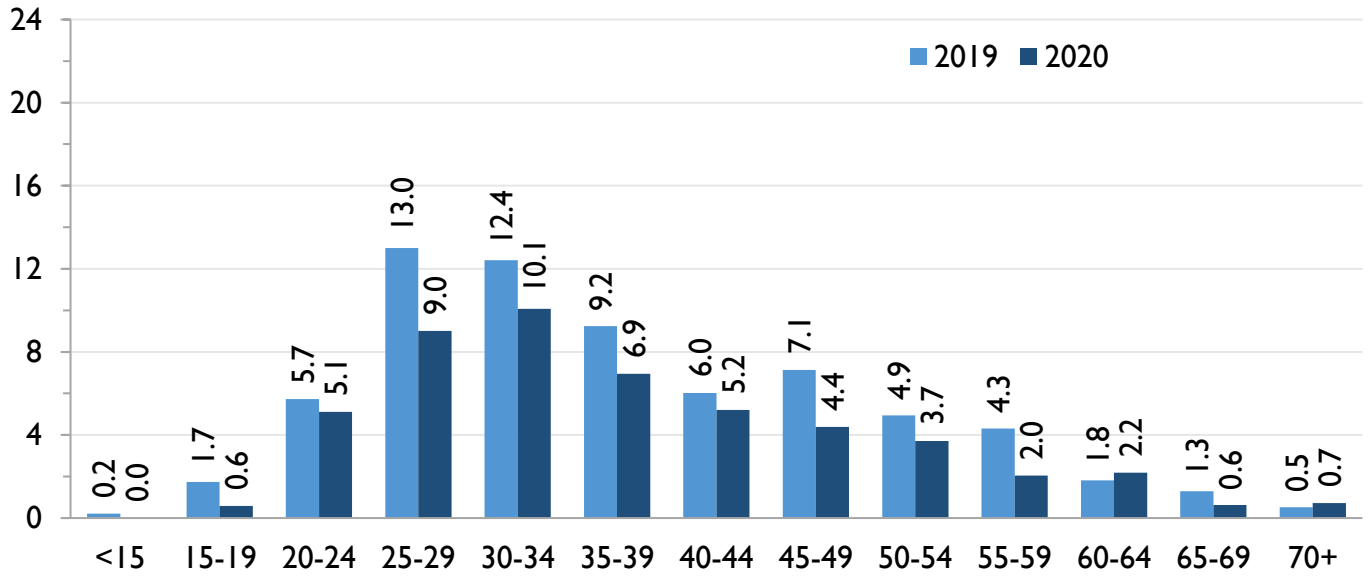
Figure 5.3 Percent of first-time HIV diagnoses by age, Ontario, 2019 to 2020



Snapshot

In 2020, nearly 4 in 10 (39.2%) first-time HIV diagnoses were among those aged 25-34 years and the 30-34 age category accounted for the largest proportion (20.4%). There was little change in the distribution of first-time HIV diagnoses across age categories between 2019 and 2020.

Figure 5.4 Rate of first-time HIV diagnoses per 100,000 people by age, Ontario, 2019 to 2020

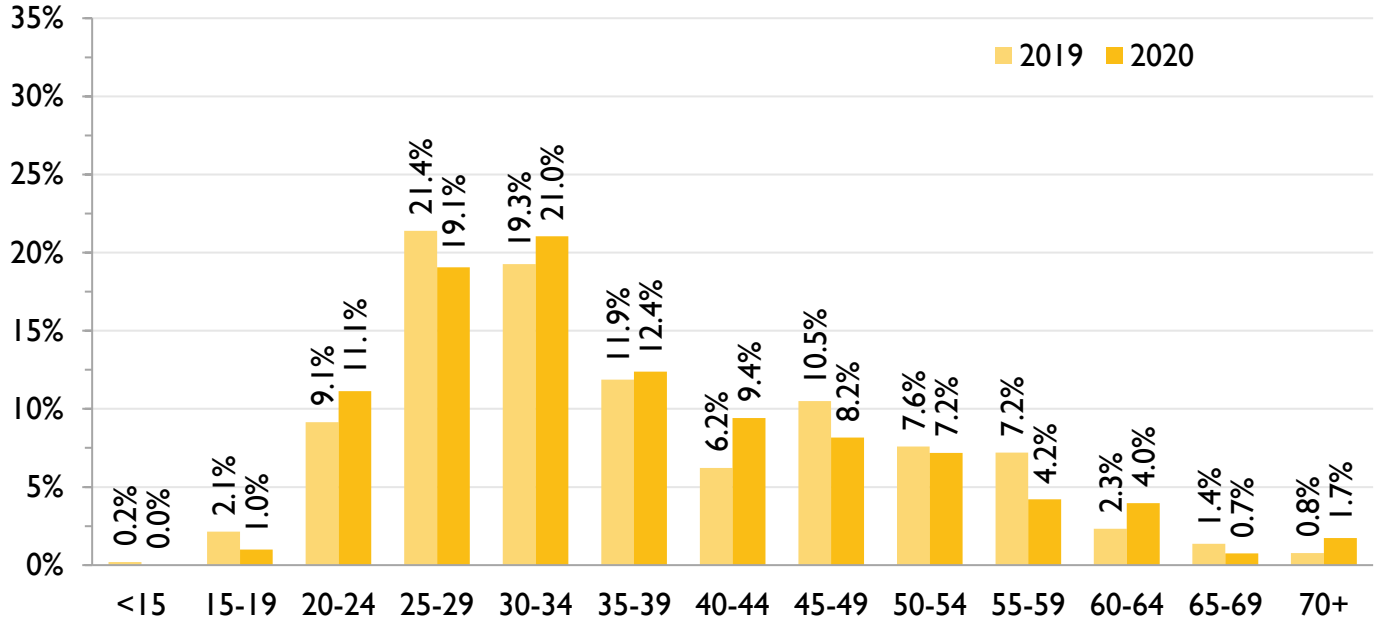


Snapshot

In 2020, the rate of first-time HIV diagnoses per 100,000 people was highest among those aged 30-34 years (10.1 per 100,000 people) followed by those aged 25-29 years (9.0 per 100,000 people). Compared to 2019, the rate of first-time HIV diagnoses per 100,000 people decreased in almost all age categories in 2020, with those aged 15-19 years having the largest relative decrease (66.4%), followed by 55-59 (52.4%) and 65-69 years (51.6%).

Notes: Data provided by Public Health Ontario Laboratory. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Diagnoses with age not reported were excluded (less than 1%). See Appendices for more information. See Tables Supplement for underlying data.

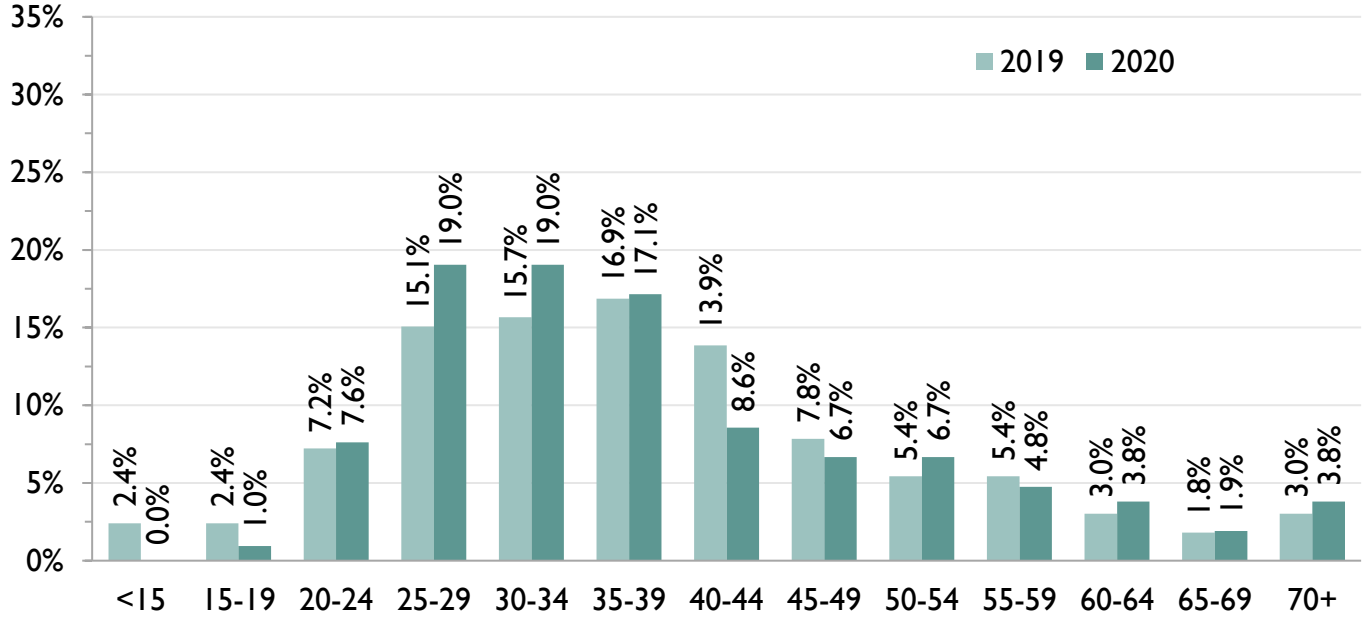
Figure 5.5 Percent of first-time HIV diagnoses by age, males, Ontario, 2019 to 2020



Snapshot

In 2020, the largest proportion of first-time HIV diagnoses among males was in those aged 30-34 years (21.0%). There was little change in the distribution of first-time HIV diagnoses among males across age categories between 2019 and 2020.

Figure 5.6 Percent of first-time HIV diagnoses by age, females, Ontario, 2019 to 2020

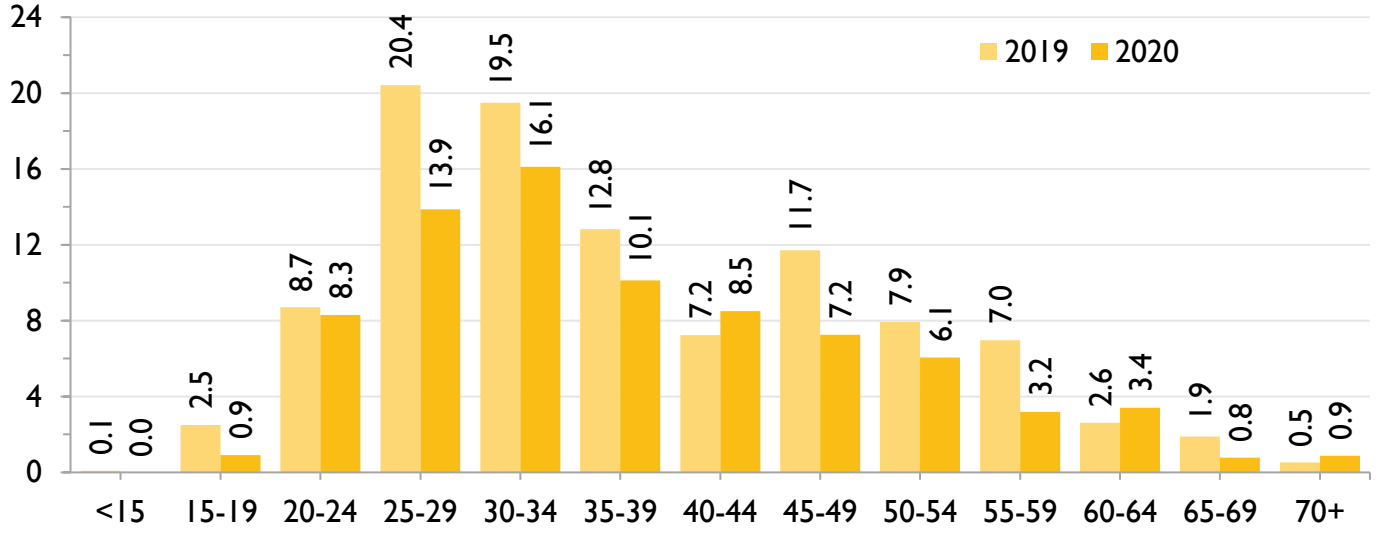


Snapshot

In 2020, the largest proportions of first-time HIV diagnoses among females were in those aged 25-29 years (19.0%) and 30-34 years (19.0%). There was little change in the distribution of first-time HIV diagnoses among females across age categories between 2019 and 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses with sex and age not reported were excluded (less than 1%). See Appendices for more information. See Tables Supplement for underlying data.

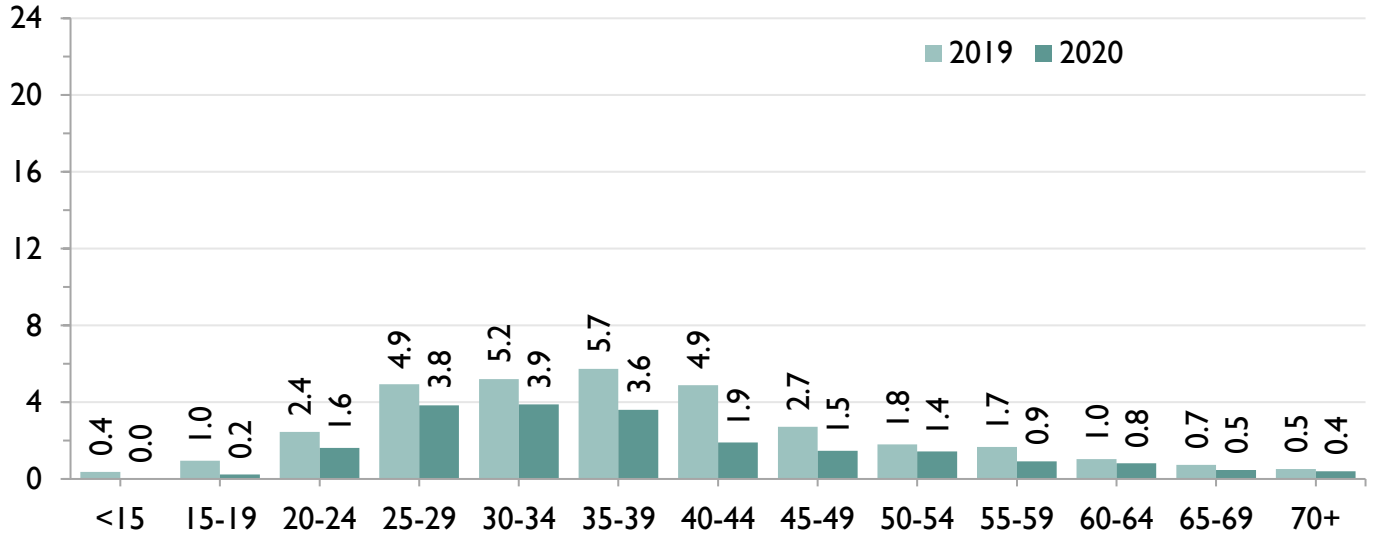
Figure 5.7 Rate of first-time HIV diagnoses per 100,000 people by age, males, Ontario, 2019 to 2020



Snapshot

In 2020, the highest rate of first-time HIV diagnoses among males was in those aged 30-34 years (16.1 per 100,000 males), whereas those aged 25-29 years had the highest rate in 2019 (20.4 per 100,000 males). Compared to 2019, the rate of first-time HIV diagnoses among males decreased in almost all age categories in 2020, with those aged 15-19 years having the largest relative decrease (63.3%), followed by 65-69 (58.5%), and 55-59 years (54.3%).

Figure 5.8 Rate of first-time HIV diagnoses per 100,000 people by age, females, Ontario, 2019 to 2020



Snapshot

In 2020, the highest rate of first-time HIV diagnoses among females was in those aged 30-34 years (3.9 per 100,000 females), whereas those aged 35-39 years had the highest rate in 2019 (5.7 per 100,000 females). Compared to 2019, the rate of first-time HIV diagnoses among females decreased in all age categories in 2020, with those aged 15-19 years having the largest relative decrease (74.9%), followed by 40-44 (61.2%), and 45-49 years (46.0%).

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Diagnoses with sex and age not reported were excluded (less than 1%). See Appendices for more information. See Tables Supplement for underlying data.

6. Overall by health region

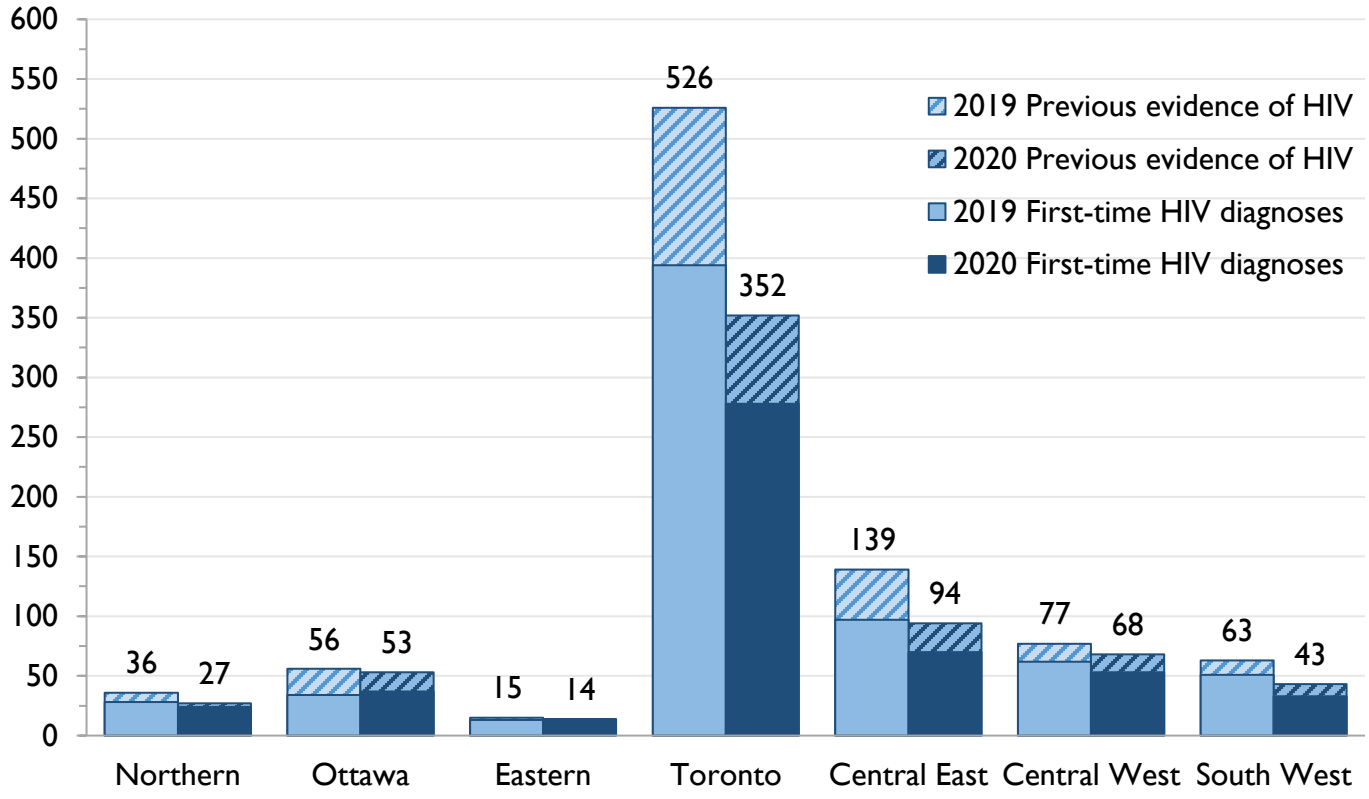
Historically, HIV has been highly concentrated in cities in Ontario – particularly Toronto.

In 2020, Toronto region had the largest number and highest rate per 100,000 people of both positive HIV tests and first-time HIV diagnoses, overall and among males. Among females, Toronto region had the largest numbers of both positive HIV tests and first-time HIV diagnoses, however Ottawa region had the highest rate per 100,000 of positive HIV tests and Northern region had the highest rate of first-time HIV diagnoses. Ottawa region had the largest proportion of positive HIV tests with previous evidence of HIV (30.2%).

Compared to 2019, rates of first-time HIV diagnoses per 100,000 people in 2020 decreased in all regions except Ottawa and Eastern among males. Relative decreases were larger among females (67.0% in Eastern region and 49.8% in Toronto region) than among males (35.7% in South West region and 27.3% in Central East region).

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Figure 6.1 Number of positive HIV tests by health region by first-time HIV diagnoses and previous evidence of HIV, Ontario, 2019 to 2020



Snapshot

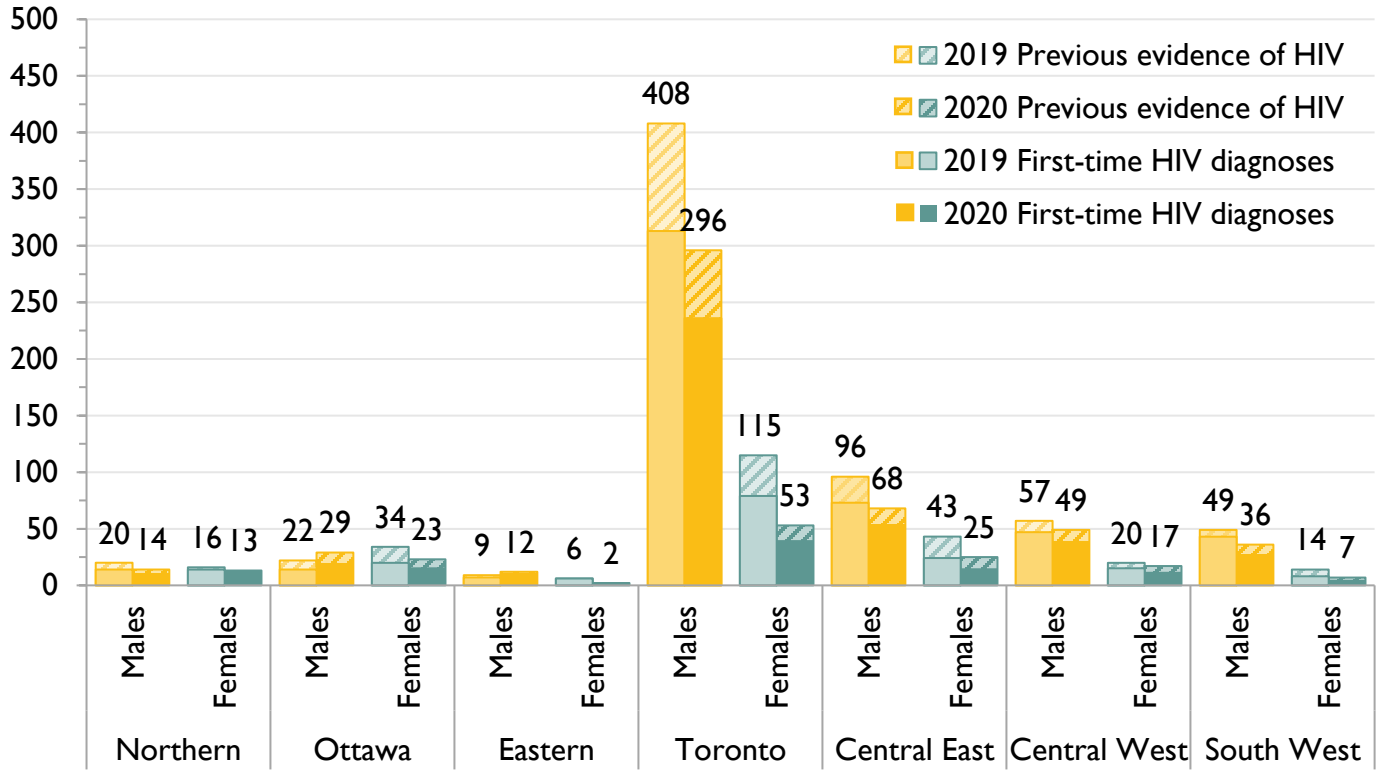
In 2020, Toronto region had the largest number (352) of positive HIV tests, followed by Central East (94), Central West (68), Ottawa (53), South West (43), Northern (27) and Eastern (14) regions. Ottawa region had the largest proportion of positive HIV tests with previous evidence of HIV (30.2%), followed by Central East (25.5%), South West (23.3%), Central West (22.1%), Toronto (21.0%), Northern (11.1%), and Eastern (7.1%) regions.

Compared to 2019, the number of positive HIV tests decreased in all regions in 2020, with Toronto region having the largest relative decrease (33.1%), followed by Central East (32.4%) and South West (31.7%).

See **Table 6.1** below for breakdown of numbers of positive HIV tests for all regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.2 Number of positive HIV tests by health region by first-time HIV diagnoses and previous evidence of HIV, males and females, Ontario, 2019 to 2020



Snapshot

In 2020, among males, Toronto region had the largest number (296) of positive HIV tests, followed by Central East (68), Central West (49), South West (36), Ottawa (29), Northern (14) and Eastern (12) regions. Ottawa region had the largest proportion of positive HIV tests among males with previous evidence of HIV (31.0%), followed by South West (22.2%), Northern (21.4%), Central East (20.6%), Central West (20.4%), Toronto (20.3%), and Eastern (8.3%) regions. Compared to 2019, the number of positive HIV tests among males decreased in all regions except Ottawa and Eastern in 2020, with Northern region having the largest relative decrease (30.0%), followed by Central East (29.2%) and Toronto (27.5%) regions.

In 2020, among females, Toronto region had the largest number (53) of positive HIV tests, followed by Central East (25), Ottawa (23), Central West (17), Northern (13), South West (7) and Eastern (2) regions. Central East region that had the largest proportion of its positive HIV tests among females with previous evidence of HIV (40.0%), followed by Ottawa (30.4%), Central West (29.4%), South West (28.6%), Toronto (24.5%), Eastern (0.0%), and Northern (0.0%) regions. Compared to 2019, the number of positive HIV tests among females decreased in all regions in 2020, with Eastern region having the largest relative decrease (66.7%), followed by Toronto (53.9%) and South West (50.0%) regions.

See **Table 6.1** below for breakdown of numbers of positive HIV tests for all regions.

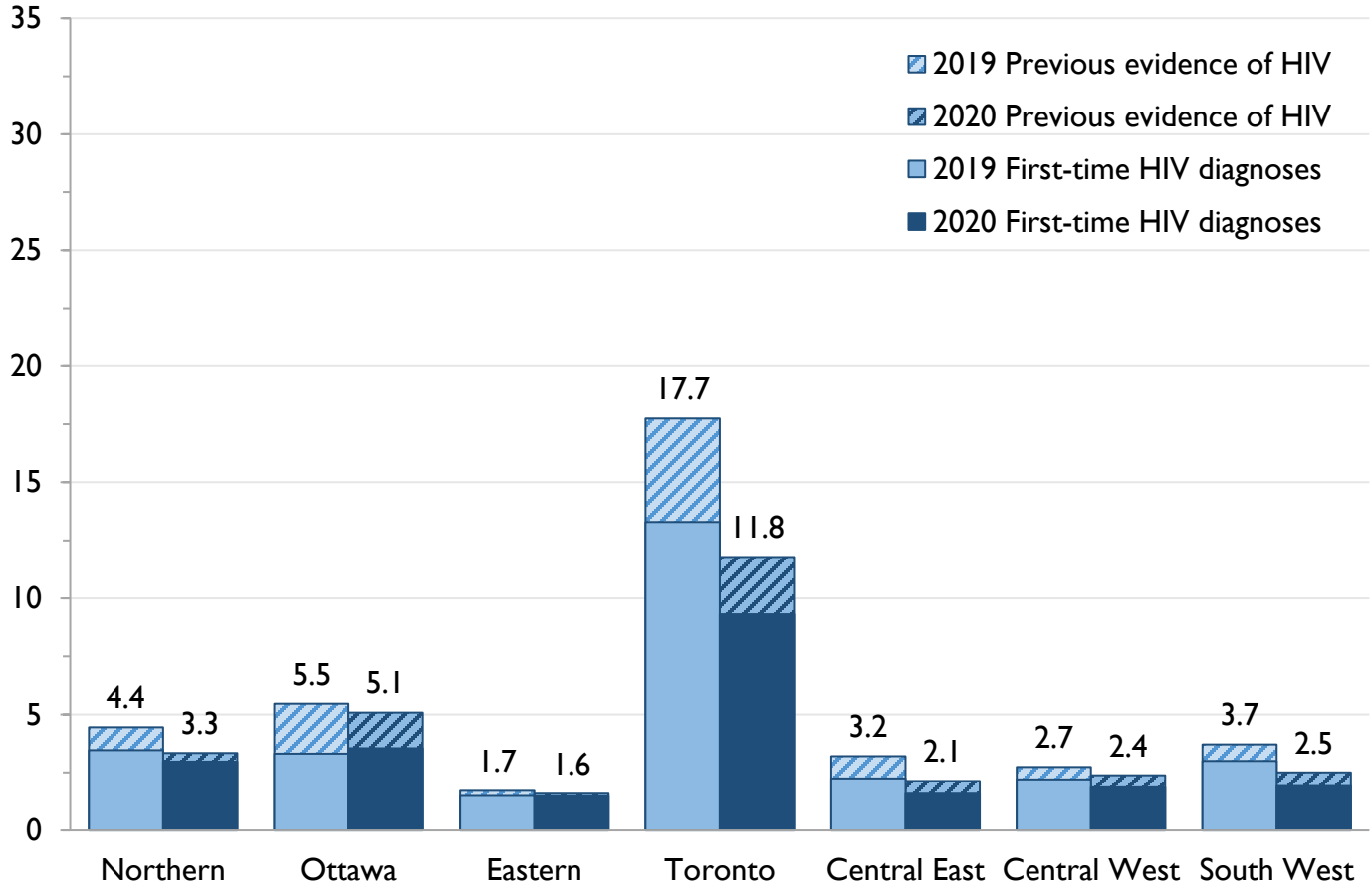
Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Table 6.1 Number of positive HIV tests by health region by first-time HIV diagnoses and previous evidence of HIV, overall, males and females, Ontario, 2020

		Northern	Ottawa	Eastern	Toronto	Central East	Central West	South West
Overall	First-time HIV diagnoses	24	37	13	278	70	53	33
	Previous evidence of HIV	3	16	1	74	24	15	10
	Total positive HIV tests	27	53	14	352	94	68	43
Males	First-time HIV diagnoses	11	20	11	236	54	39	28
	Previous evidence of HIV	3	9	1	60	14	10	8
	Total positive HIV tests	14	29	12	296	68	49	36
Females	First-time HIV diagnoses	13	16	2	40	15	12	5
	Previous evidence of HIV	0	7	0	13	10	5	2
	Total positive HIV tests	13	23	2	53	25	17	7

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.3 Rate of positive HIV tests per 100,000 people by health region, Ontario, 2019 to 2020

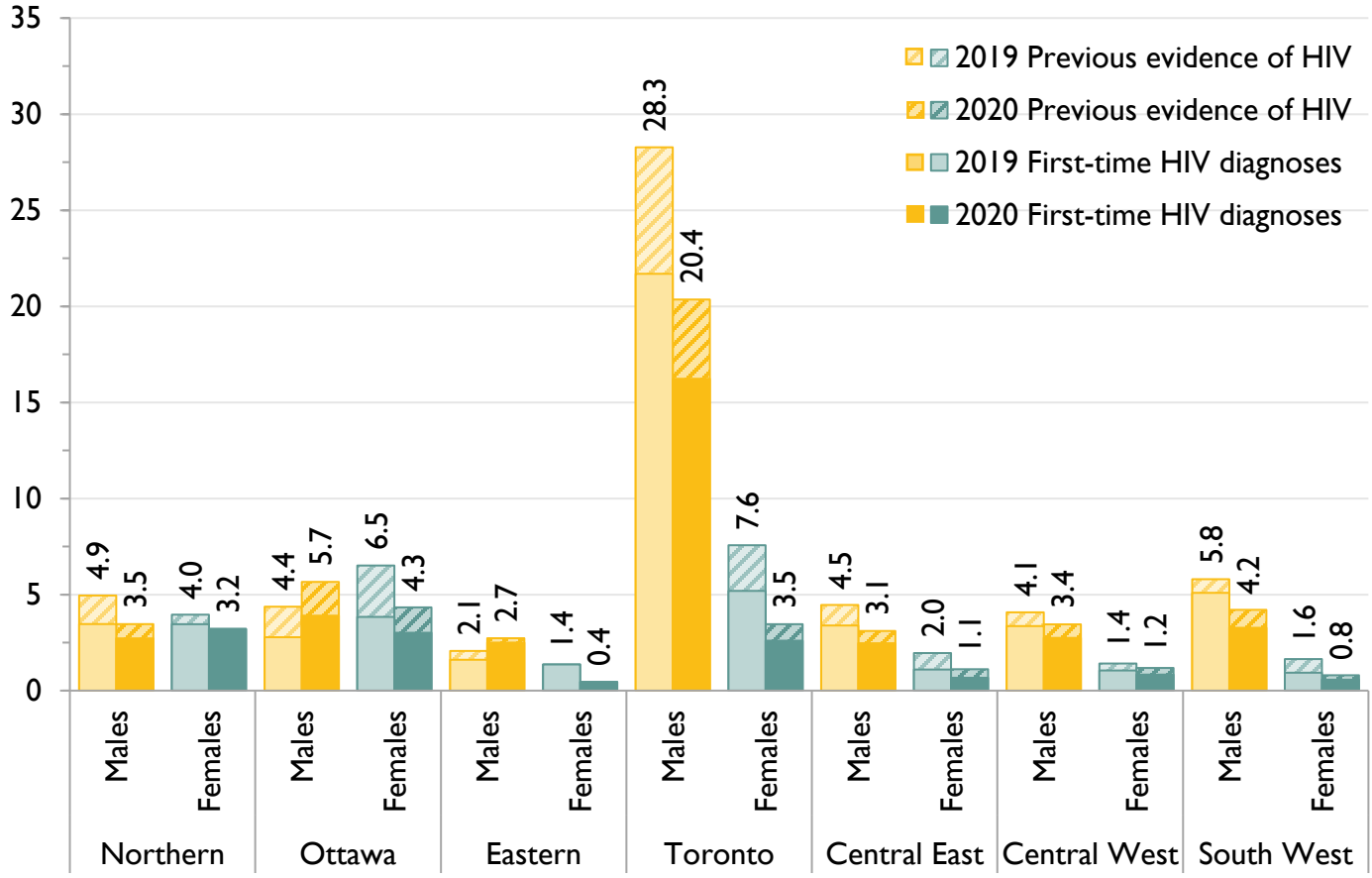


Snapshot

Positive HIV tests include first-time HIV diagnoses as well as positive tests with previous evidence of HIV. In 2020, Toronto region had the highest rate of positive HIV tests per 100,000 people (11.8), followed by Ottawa (5.1) and Northern (3.3). Compared to 2019, the rate of positive HIV tests per 100,000 people decreased in all regions in 2020, with the largest relative decrease in Toronto region (33.6%), followed by Central East (33.5%) and South West region (32.6%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Dotted bars uniquely used to depict rates of positive HIV tests. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.4 Rate of positive HIV tests per 100,000 people by health region, Ontario, 2019 to 2020



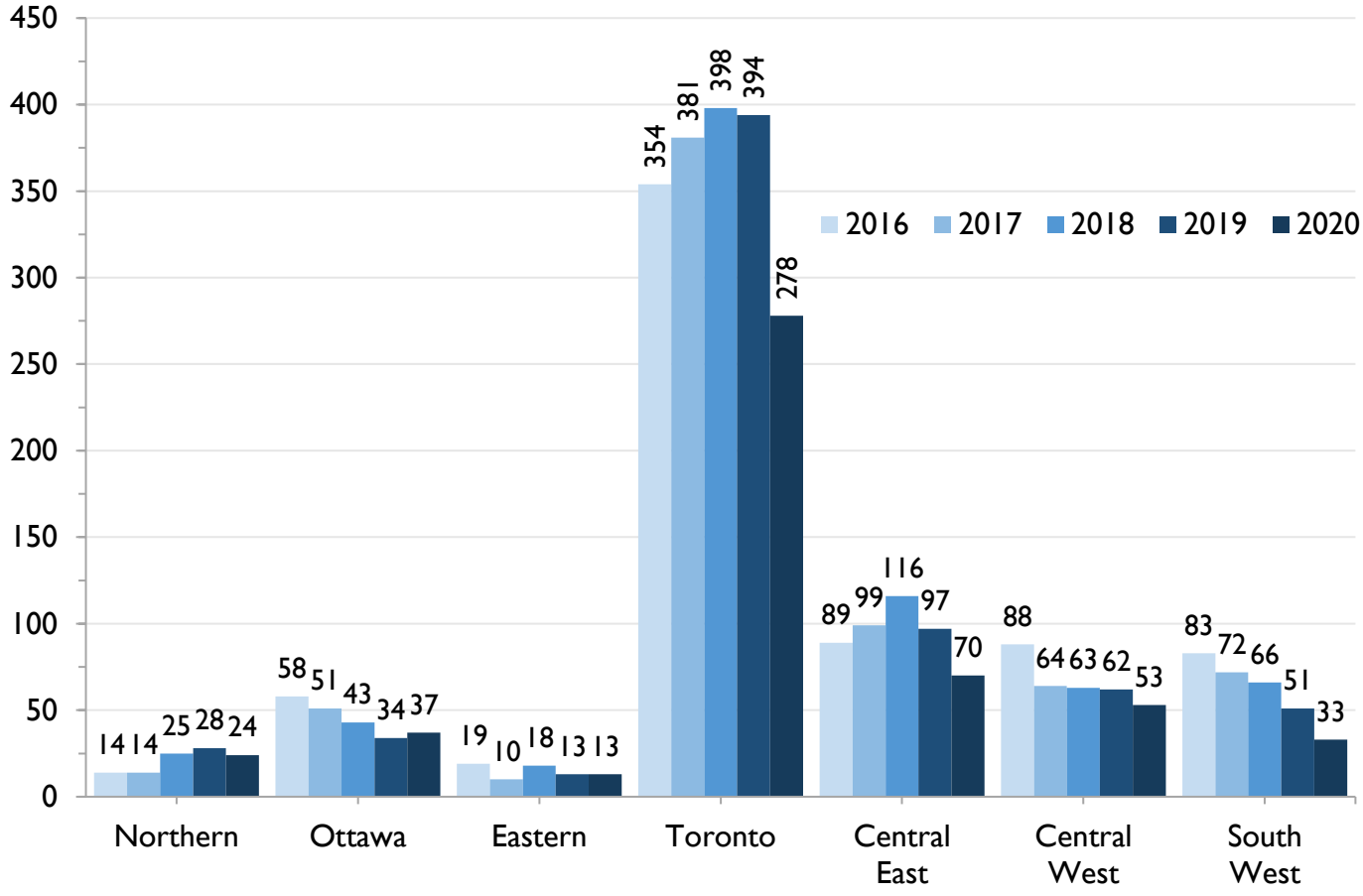
Snapshot

Positive HIV tests include first-time HIV diagnoses as well as positive tests with previous evidence of HIV. In 2020, among males, Toronto region had the highest rate of positive HIV tests per 100,000 males (20.4), followed by Ottawa (5.7) and South West (4.2) regions. Compared to 2019, the rate of positive HIV tests per 100,000 males decreased in all regions except Ottawa and Eastern in 2020, with the largest relative decrease in Central East region (30.4%), followed by Northern (30.1%) and Toronto region (28.0%).

Among females in 2020, Ottawa region had the highest rate of positive HIV tests per 100,000 females (4.3), followed by Toronto (3.5) and Northern (3.2) regions. Compared to 2019, the rate of positive HIV tests per 100,000 females decreased in all regions in 2020, with the largest relative decrease in Eastern region (67.0%), followed by Toronto (54.3%) and South West region (50.6%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Dotted bars uniquely used to depict rates of positive HIV tests. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.5 Number of first-time HIV diagnoses by health region, Ontario, 2016 to 2020

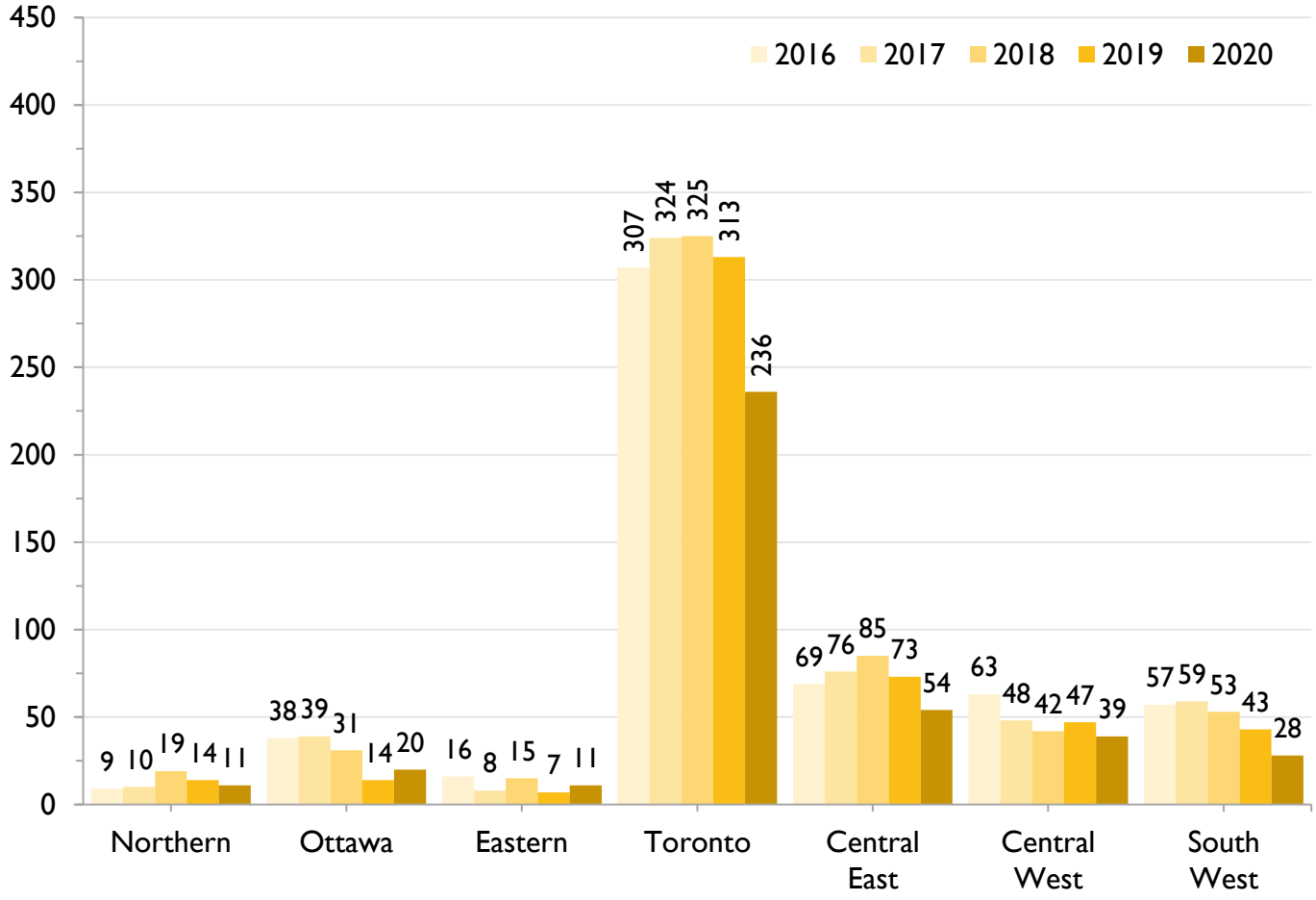


Snapshot

Between 2016 and 2020, Toronto region consistently had the largest numbers of first-time HIV diagnoses, followed by Central East region. Compared to 2019, the number of first-time HIV diagnoses decreased in all regions except Ottawa and Eastern regions, with the largest relative decrease in South West region (35.3%), followed by Toronto (29.4%) and Central East regions (27.8%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.6 Number of first-time HIV diagnoses by health region, males, Ontario, 2016 to 2020

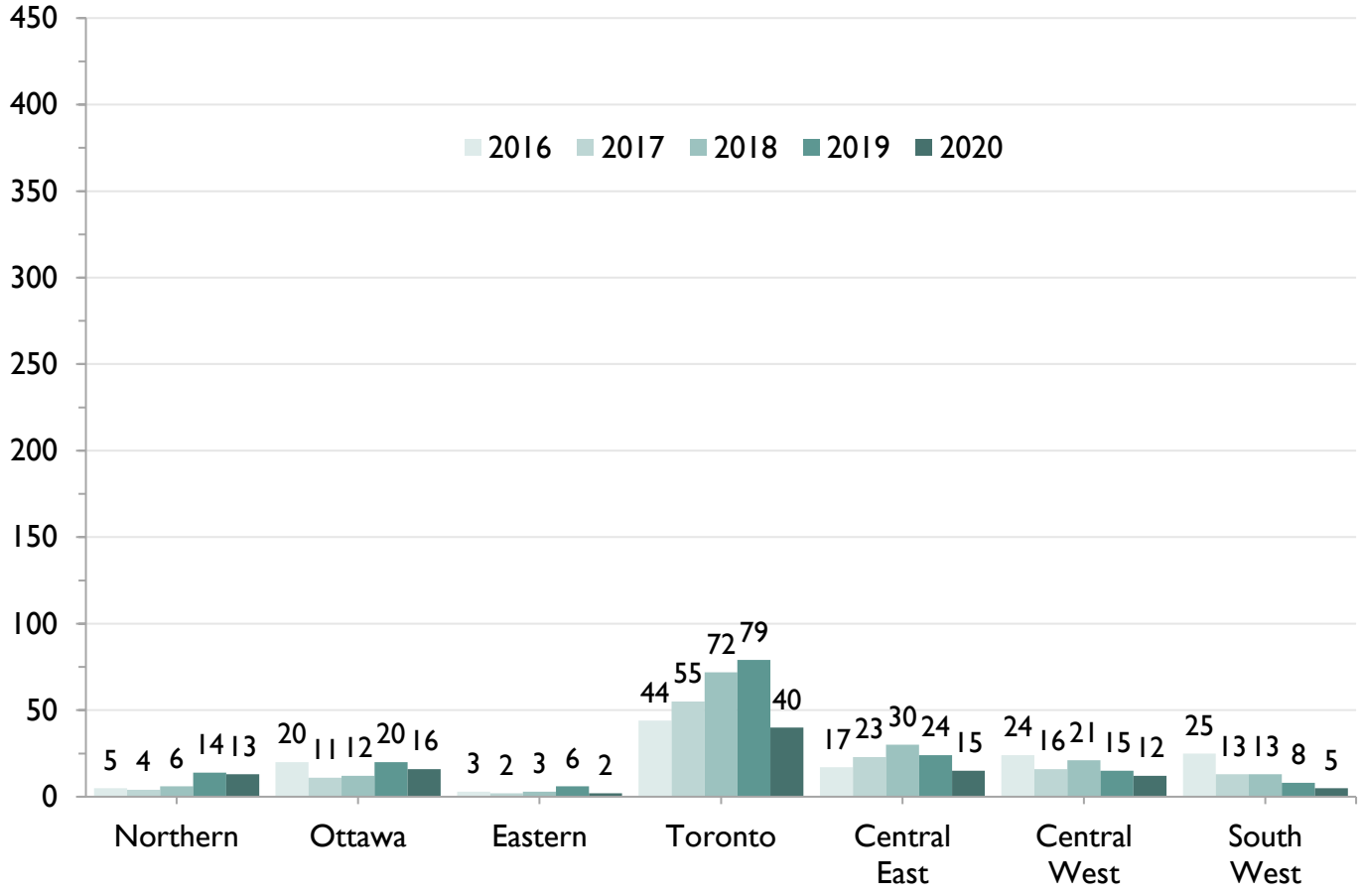


Snapshot

Between 2016 and 2020, Toronto region consistently had the largest numbers of first-time HIV diagnoses among males, followed by Central East region. Compared to 2019, the number of first-time HIV diagnoses decreased in all regions except Ottawa and Eastern regions, with the largest relative decrease in South West region (34.9%), followed by Central East (26.0%) and Toronto (24.6%) regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.7 Number of first-time HIV diagnoses by health region, females, Ontario, 2016 to 2020

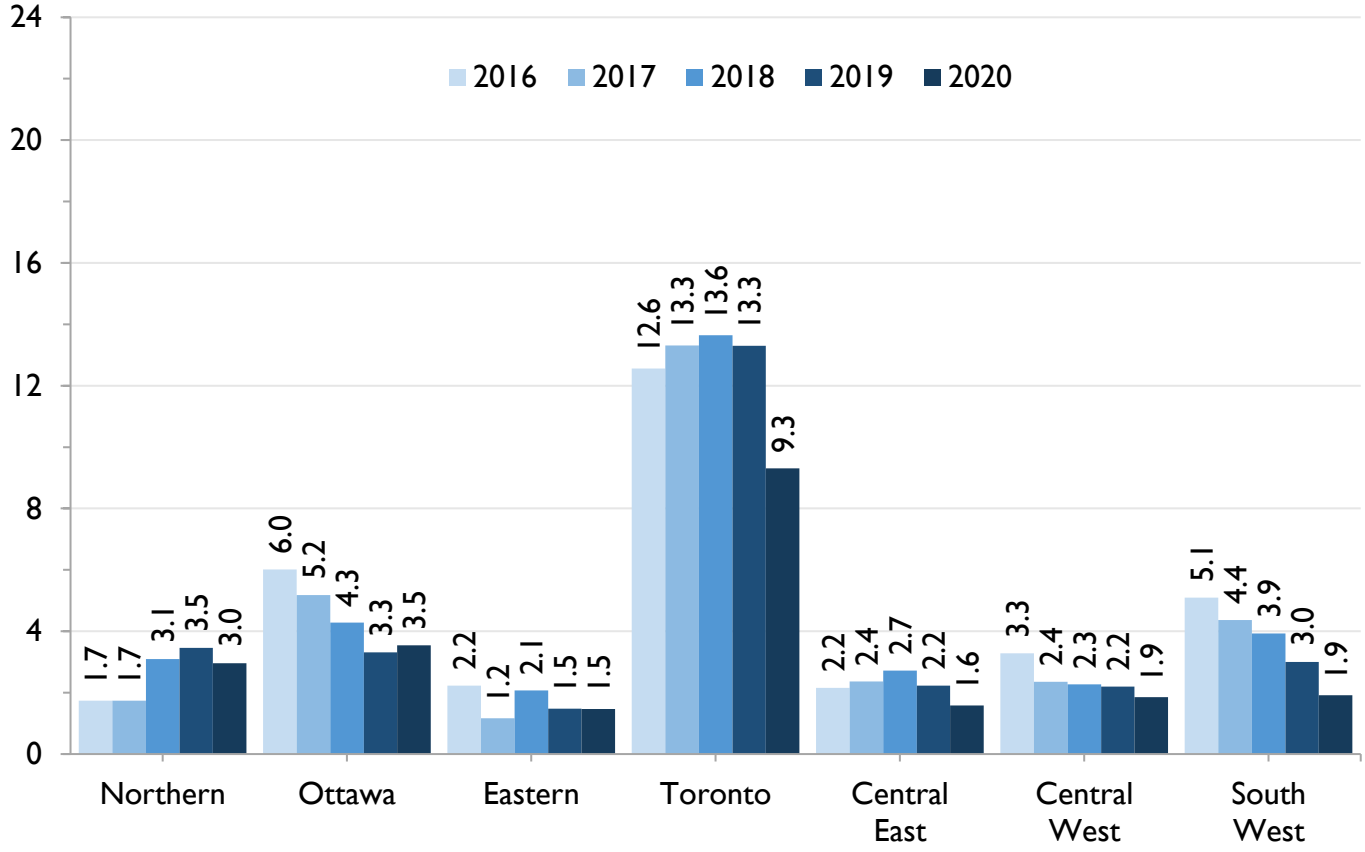


Snapshot

Between 2016 and 2020, Toronto region consistently had the largest numbers of first-time HIV diagnoses among females, followed by Central East region, except in 2016 when South West region had the second largest number. Compared to 2019, the number of first-time HIV diagnoses decreased in all regions, with the largest relative decrease in Eastern region (66.7%, though based on small counts), followed by Toronto (49.4%) and Central East regions (37.5%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.8 Rate of first-time HIV diagnoses per 100,000 people by health region, Ontario, 2016 to 2020

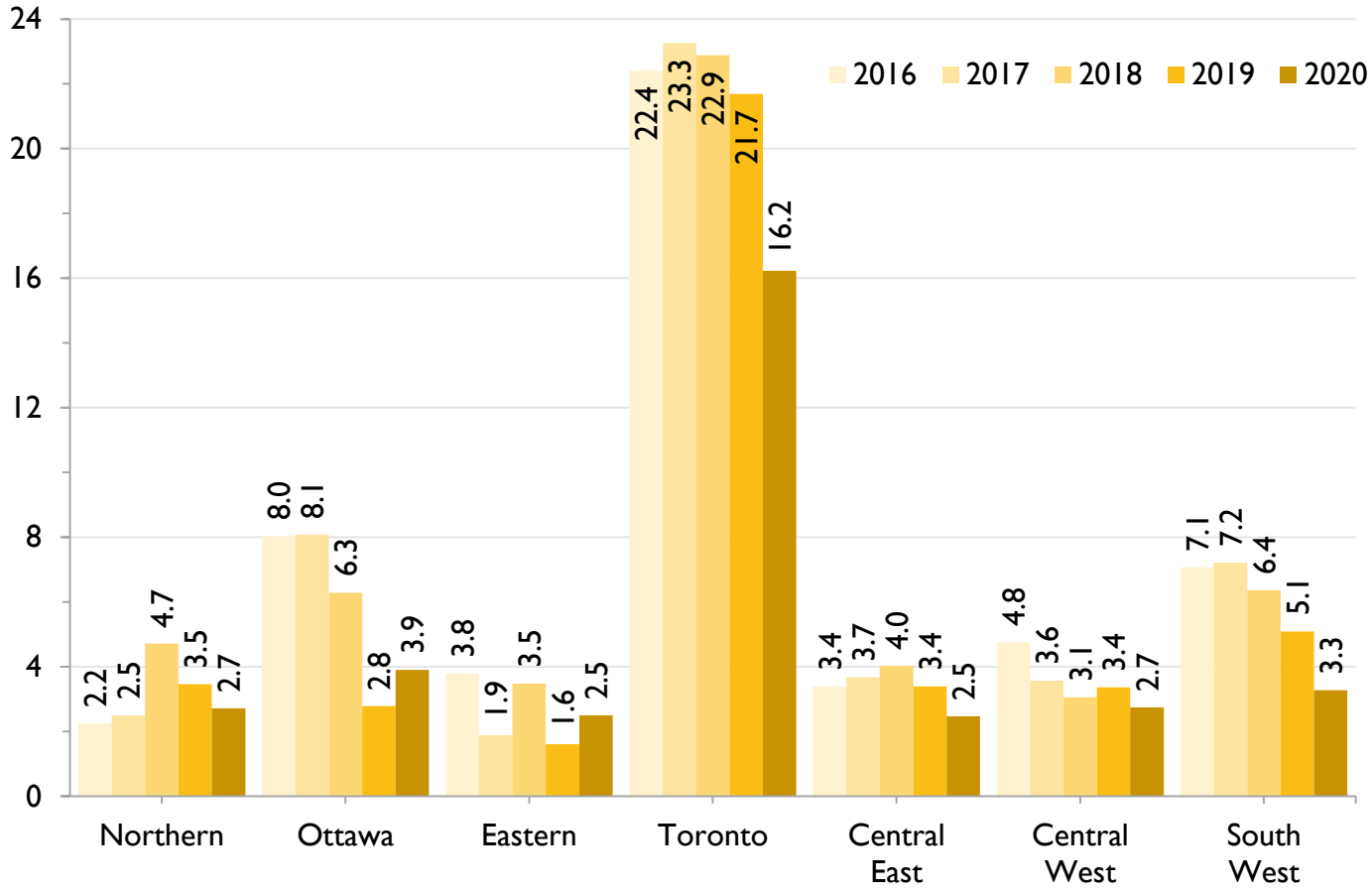


Snapshot

Between 2016 and 2020, the rate of first-time HIV diagnoses per 100,000 people has consistently been highest in Toronto region. Ottawa region had the second highest rate in all years except 2019, when the Northern region had the second highest rate. Compared to 2019, the rate of first-time HIV diagnoses decreased in all regions except Ottawa and Eastern regions, with the largest relative decrease in South West region (36.1%), followed by Toronto (30.0%) and Central East regions (29.0%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.9 Rate of first-time HIV diagnoses per 100,000 people by health region, males, Ontario, 2016 to 2020

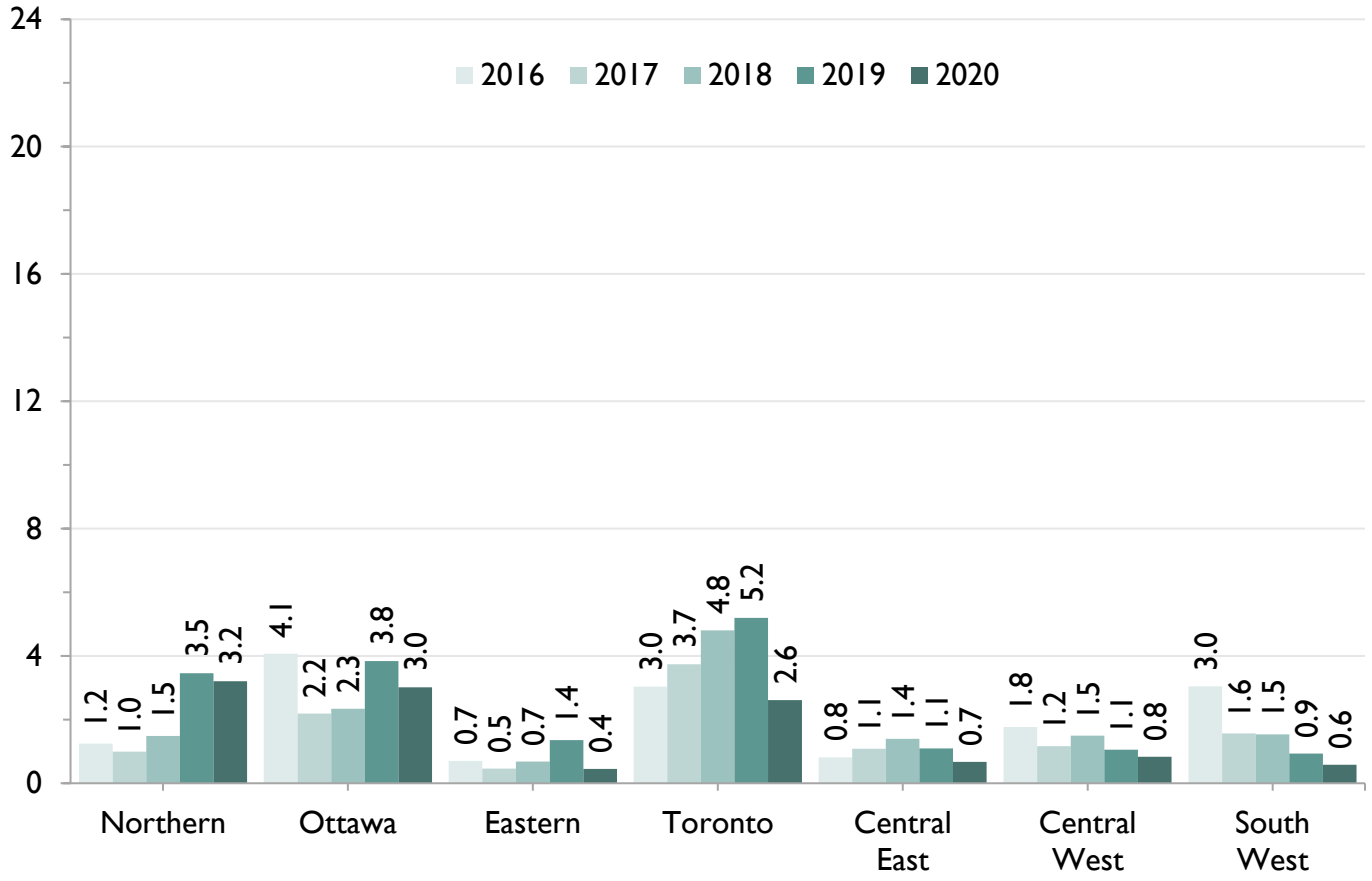


Snapshot

Between 2016 and 2020, the rate of first-time HIV diagnoses per 100,000 people among males has consistently been highest in Toronto region, followed by Ottawa region except in 2018 and 2019 when South West region had the second highest rate. Compared to 2019, the rate of first-time HIV diagnoses decreased in all regions except Ottawa and Eastern regions, with the largest relative decrease in South West region (35.7%), followed by Central East (27.3%) and Toronto regions (25.2%). The rate of first-time HIV diagnoses per 100,000 people increased in Ottawa in 2020, after consistently decreasing since 2017.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 6.10 Rate of first-time HIV diagnoses per 100,000 people by health region, females, Ontario, 2016 to 2020



Snapshot

In 2020, Northern region had the highest rate of first-time HIV diagnoses per 100,000 people among females, whereas Toronto had the highest rate between 2017 and 2019 and Ottawa had the highest rate in 2016. Compared to 2019, the number of first-time HIV diagnoses decreased in all regions, with the largest relative decrease in Eastern region (67.0%, based on small numbers), followed by Toronto (49.8%) and Central East regions (38.5%). The decrease in the rate in Toronto region in 2020 follows year-over-year increases between 2016 and 2019.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Priority Populations

The Ontario Priority Populations for HIV include gay, bisexual and other men who have sex with men (GBMSM), people who are African, Caribbean or Black (ACB), people who use injection drugs (PWID), Indigenous Peoples, and Women* (women who are a part of a priority population or face systemic risks of HIV). Each population is uniquely defined by indicators of HIV risk factors, race/ethnicity, country of birth, and/or sex on the HIV test requisition and LEP forms. Positive HIV tests that have the defining indicators reported are assigned to a priority population, where applicable. As indicators of systemic risk of HIV are not available in the HIV surveillance data, the priority population Women* cannot be defined. Instead, we use "Women", which is defined as those diagnoses that report 'Female' or 'Trans female' sex.

The priority population categories are not mutually exclusive: a person can be a member of multiple priority populations.

In 2020, among the first-time HIV diagnoses where the status (yes or no) of each priority population was reported, the largest number of first-time HIV diagnoses were attributed to GBMSM (215, **Figure 7.1** below), followed by Women (105), ACB (82), PWID (39), and Indigenous Peoples (17). These numbers each declined from 2019, with similar relative decreases (ranging from 29.7% in GBMSM to 38.1% in PWID). Therefore, the proportions of first-time HIV diagnoses attributed to each priority population remained similar in 2020, with nearly two thirds (62.7%, **Figure 7.2** below) attributed to GBMSM, 24.6% to ACB, 20.6% to Women, 11.0% to PWID, and 5.2% to Indigenous Peoples.

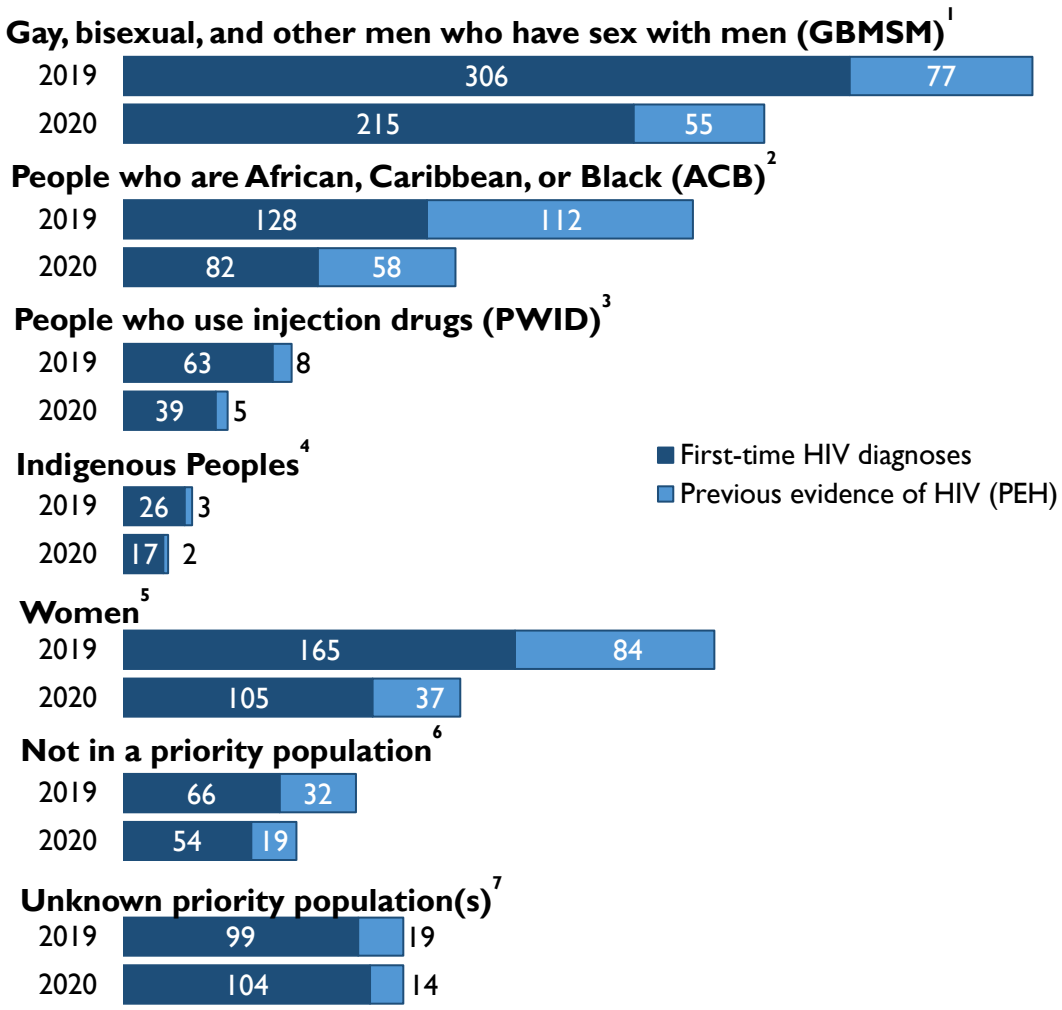
Of the 515 first-time HIV diagnoses in 2020, 99 had inadequate information to be attributed to any priority population and 54 were reported as not being part of any priority population (i.e. males who are reported as not ACB or Indigenous and have a reported HIV risk factor other than sexual contact with men or injection drug use [IDU]).

Contributors to the decrease in positive HIV tests and first-time HIV diagnoses in 2020 (COVID-related decreases in testing, transmission, and migration) are discussed above in the Key Trends and Findings.

Priority populations are discussed individually, with breakdowns within each, in sections 8 to 12.

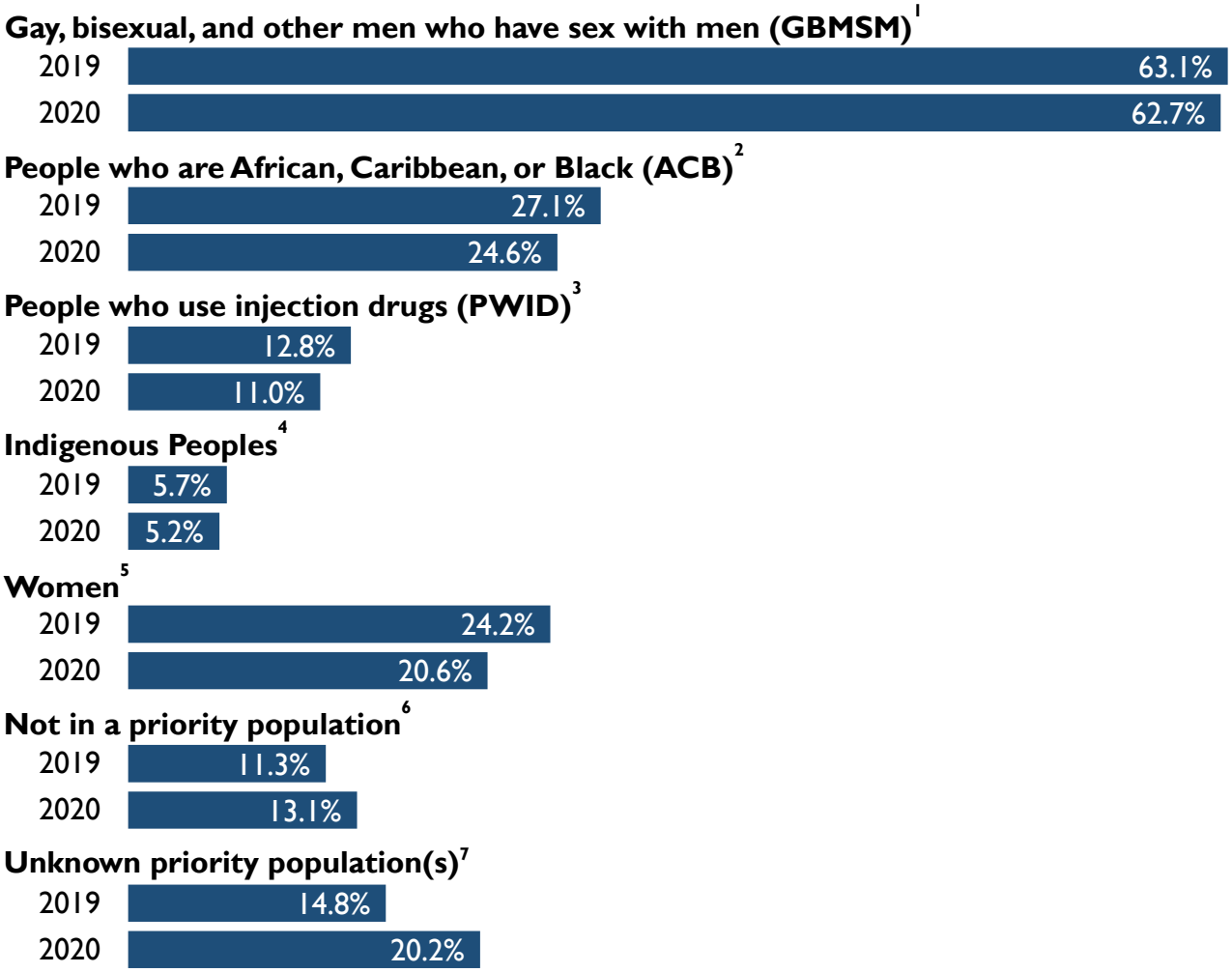
7. Priority populations overview

Figure 7.1 Number of positive HIV tests by first-time HIV diagnoses and previous evidence of HIV, within each priority population (where each priority population status was reported; *not mutually exclusive*), Ontario, 2019 to 2020



Notes: Data provided by Public Health Ontario Laboratory. Priority populations are not mutually exclusive and therefore proportions do not sum to 100%. 1. Where HIV exposure category was reported (not reported for 26.4% of positive HIV tests in 2019 and 29.7% in 2020, 28.4% of first-time HIV diagnoses in 2019 and 32.4% in 2020). 2. Where ACB status was reported (not reported for 27.7% of positive HIV tests in 2019 and 30.9% in 2020, 30.9% of first-time HIV diagnoses in 2019 and 35.3% in 2020). 3. Where PWID status was reported (not reported for 26.8% of positive HIV tests in 2019 and 29.7% in 2020, 27.8% of first-time HIV diagnoses in 2019 and 31.3% in 2020). 4. Where race/ethnicity was reported (not reported for 29.8% of positive HIV tests in 2019 and 32.5% in 2020, 32.8% of first-time HIV diagnoses in 2019 and 36.9% in 2020). Where sex was reported (not reported for less than 1% of positive HIV tests and first-time HIV diagnoses, in 2019 and 2020). 6. Where status of at least one priority population was reported (not reported for 17.7% of positive HIV tests in 2019 and 21.9% in 2020, 14.8% of first-time HIV diagnoses in 2019 and 20.2% in 2020). 7. Among all positive HIV tests. See Appendices and specifically Priority populations for more information. See Tables Supplement for underlying data.

Figure 7.2 Percent of first-time HIV diagnoses by priority population (where each priority population status was reported; *not mutually exclusive*), Ontario, 2019 to 2020



Notes: Data provided by Public Health Ontario Laboratory. Priority populations are not mutually exclusive and therefore proportions do not sum to 100%. 1. Where HIV exposure category was reported (not reported 28.4% of first-time HIV diagnoses in 2019 and 32.4% in 2020). 2. Where ACB status was reported (not reported for 30.9% of first-time HIV diagnoses in 2019 and 35.3% in 2020). 3. Where PWID status was reported (not reported for 27.8% of first-time HIV diagnoses in 2019 and 31.3% in 2020). 4. Where race/ethnicity was reported (not reported for 32.8% of first-time HIV diagnoses in 2019 and 36.9% in 2020). Where sex was reported (not reported for less than 1% of first-time HIV diagnoses in 2019 and 2020). 6. Where status of at least one priority population was reported (not reported for 14.8% of first-time HIV diagnoses in 2019 and 20.2% in 2020). 7. Among all first-time HIV diagnoses. See Appendices and specifically Priority populations for more information. See Tables Supplement for underlying data.

8. Gay, bisexual, and other men who have sex with men (GBMSM)

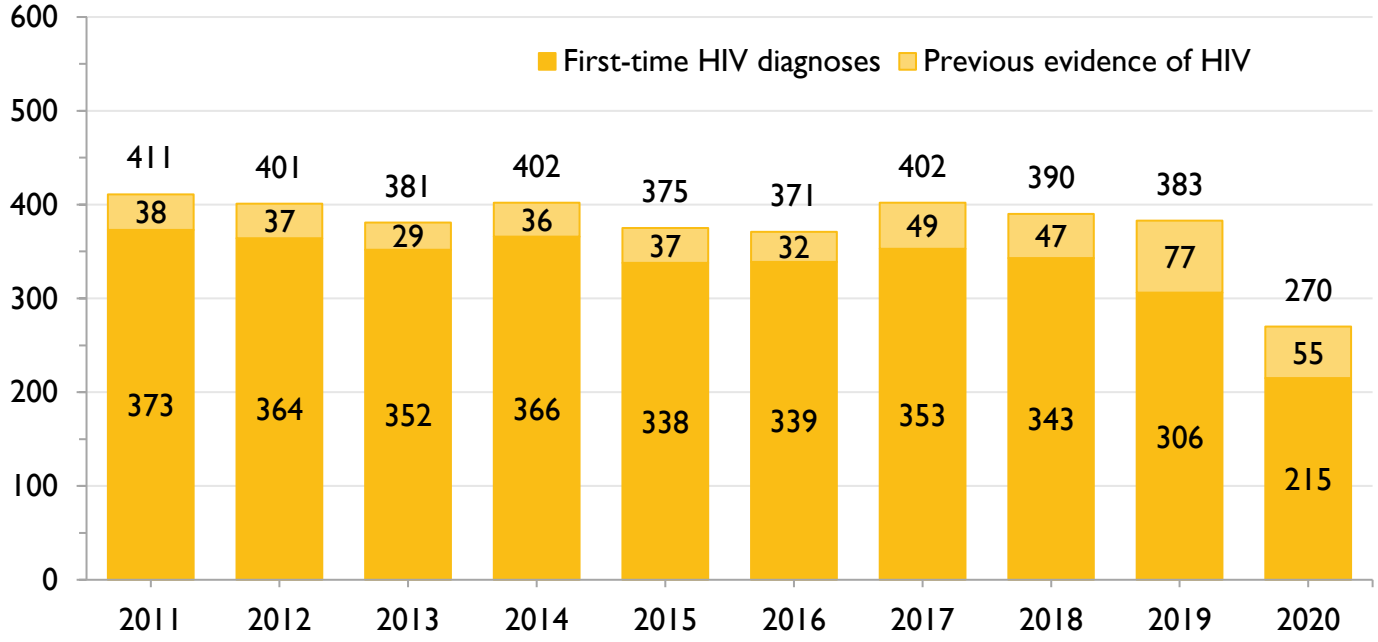
8.a. GBMSM overview

Diagnoses attributed to GBMSM are defined by having reported male or transgender male sex, and sexual contact with men as an HIV risk factor (Note that this includes males who reported both male-to-male sexual contact and injection drug use). In 2020, of the 270 positive HIV tests attributed to GBMSM in Ontario, 215 were first-time HIV diagnoses and 55 had previous evidence of HIV. The proportion of positive HIV tests with previous evidence of HIV – 20.4% in 2019 – has increased since 2016.

In 2020, GBMSM accounted for 62.7% of first-time HIV diagnoses, and 75.7% of first-time HIV diagnoses among males, with little change since 2011.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among GBMSM may be underestimated, as between 2011 and 2020, the information required to assign GBMSM status was not reported for an average of 15.9% of positive HIV tests, and we estimate between 5.0% and 5.9% of first-time HIV diagnoses among males to have an uncaptured previous HIV diagnosis. Data shown are where GBMSM status was reported.*

Figure 8.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, GBMSM, Ontario, 2011 to 2020



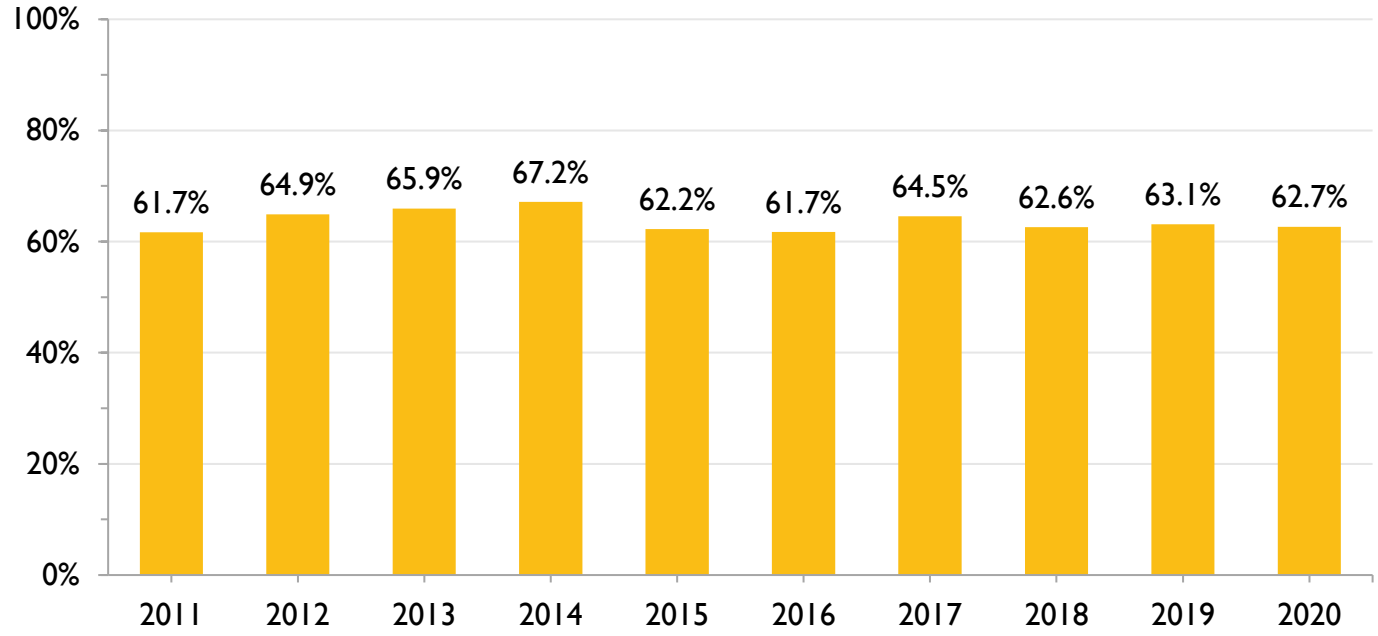
Snapshot

The number of first-time HIV diagnoses attributed to GBMSM was fairly stable between 2011 and 2018, averaging 354, then decreased to 306 in 2019 and 215 in 2020. The proportion of positive HIV tests among GBMSM with previous evidence of HIV was fairly stable between 2010 and 2016 (average: 9%), then increased to 12% in 2017 and 2018 and 20% in 2019 and 2020. This is due to increased numbers of GBMSM with previous evidence of HIV.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among GBMSM may be underestimated, as between 2011 and 2020, the information required to assign GBMSM status was not reported for an average of 15.9% of positive HIV tests, and we estimate between 5.0% and 5.9% of first-time HIV diagnoses among males to have an uncaptured previous HIV diagnosis.*

Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where GBMSM status was not reported were excluded (average of 15.9% of tests per year). See Appendices for more information. See Tables Supplement for underlying data.

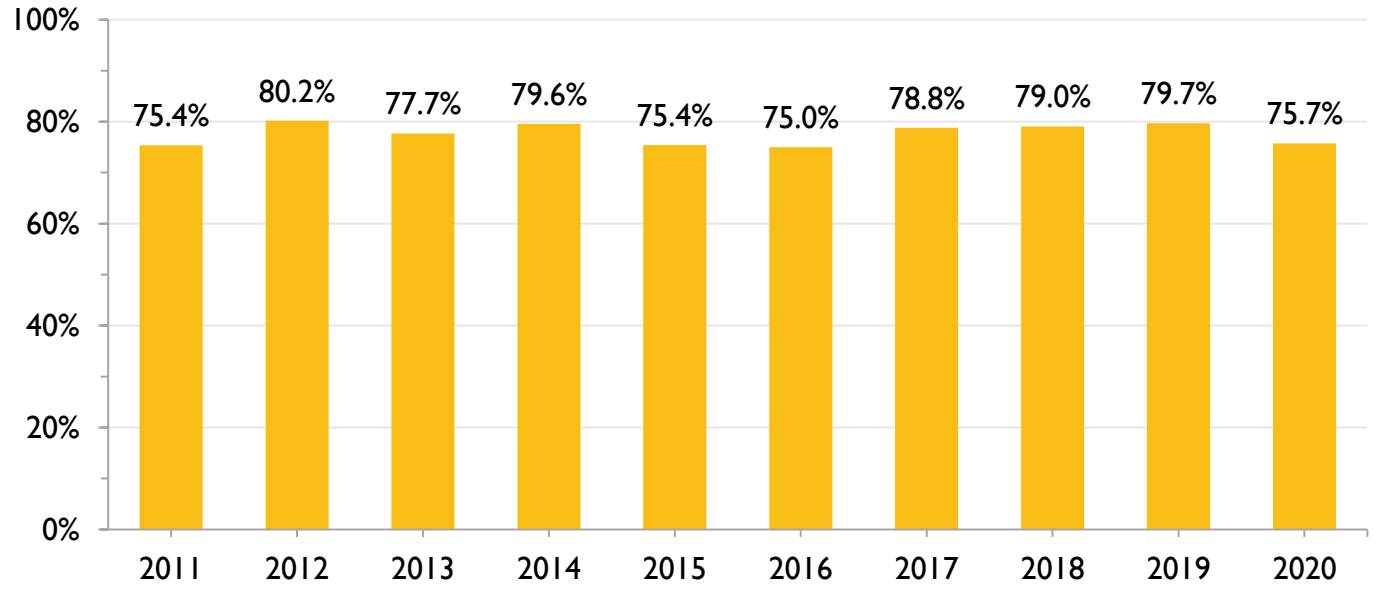
Figure 8.2 Percent of all first-time HIV diagnoses attributed to GBMSM (where HIV exposure category reported), Ontario, 2011 to 2020



Snapshot

Between 2011 and 2020, the proportion of first-time HIV diagnoses attributed to GBMSM was fairly stable, averaging 63.7%, and was 62.7% in 2020.

Figure 8.3 Percent of first-time HIV diagnoses among males attributed to GBMSM (where HIV exposure category reported), Ontario, 2011 to 2020



Snapshot

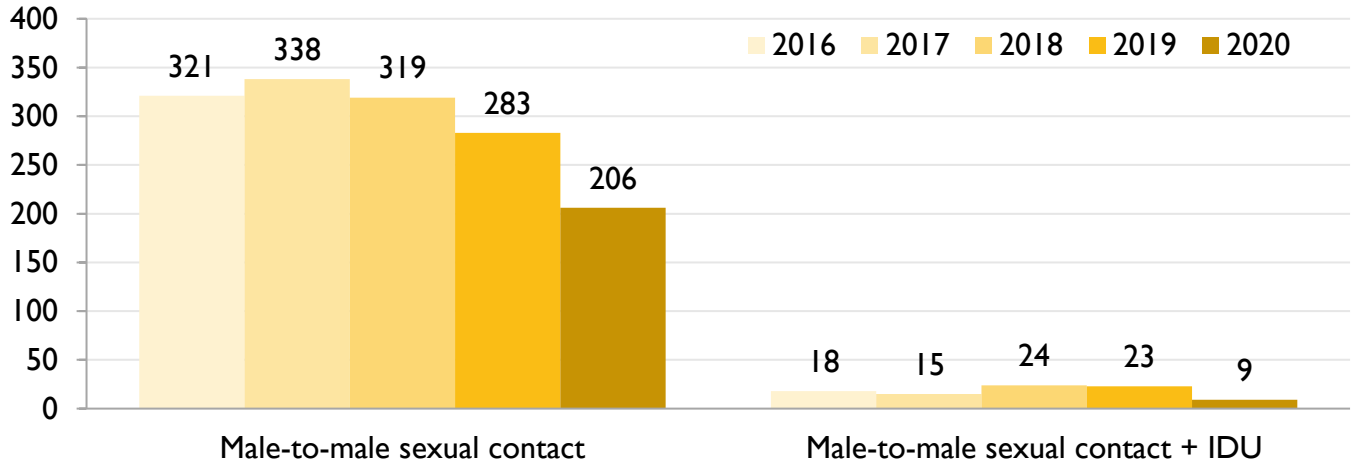
Between 2011 and 2020, the proportion of first-time HIV diagnoses among males attributed to GBMSM was fairly stable, averaging 77.6%, and was 75.7% in 2020.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where HIV exposure category was not reported were excluded (yearly average of 23.5% of diagnoses overall and 21.4% of diagnoses among males). See Appendices for more information. See Tables Supplement for underlying data.

8.b. GBMSM by HIV exposure category

GBMSM include two HIV exposure categories: male-to-male sexual contact, and male-to-male sexual contact + IDU.

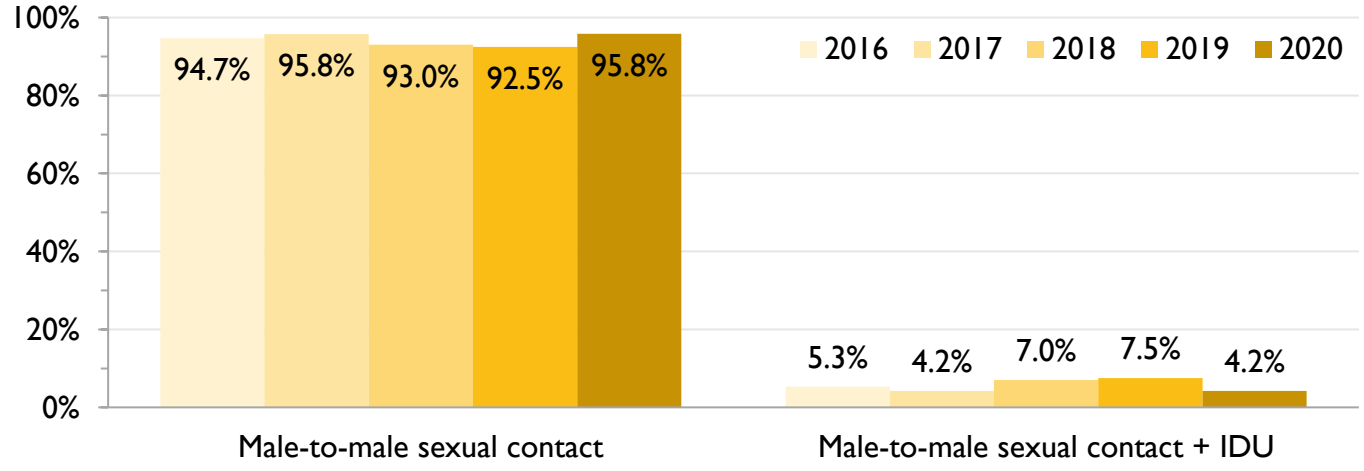
Figure 8.4 Number of first-time HIV diagnoses among GBMSM by HIV exposure category, Ontario, 2016 to 2020



Snapshot

Between 2016 and 2020, male-to-male sexual contact accounted for the largest number of first-time HIV diagnoses among GBMSM. In 2020, male-to-male sexual contact was reported for 206 first-time HIV diagnoses among GBMSM and 9 reported male-to-male sexual contact + IDU.

Figure 8.5 Percent of first-time HIV diagnoses among GBMSM by HIV exposure category (where reported), Ontario, 2016 to 2020



Snapshot

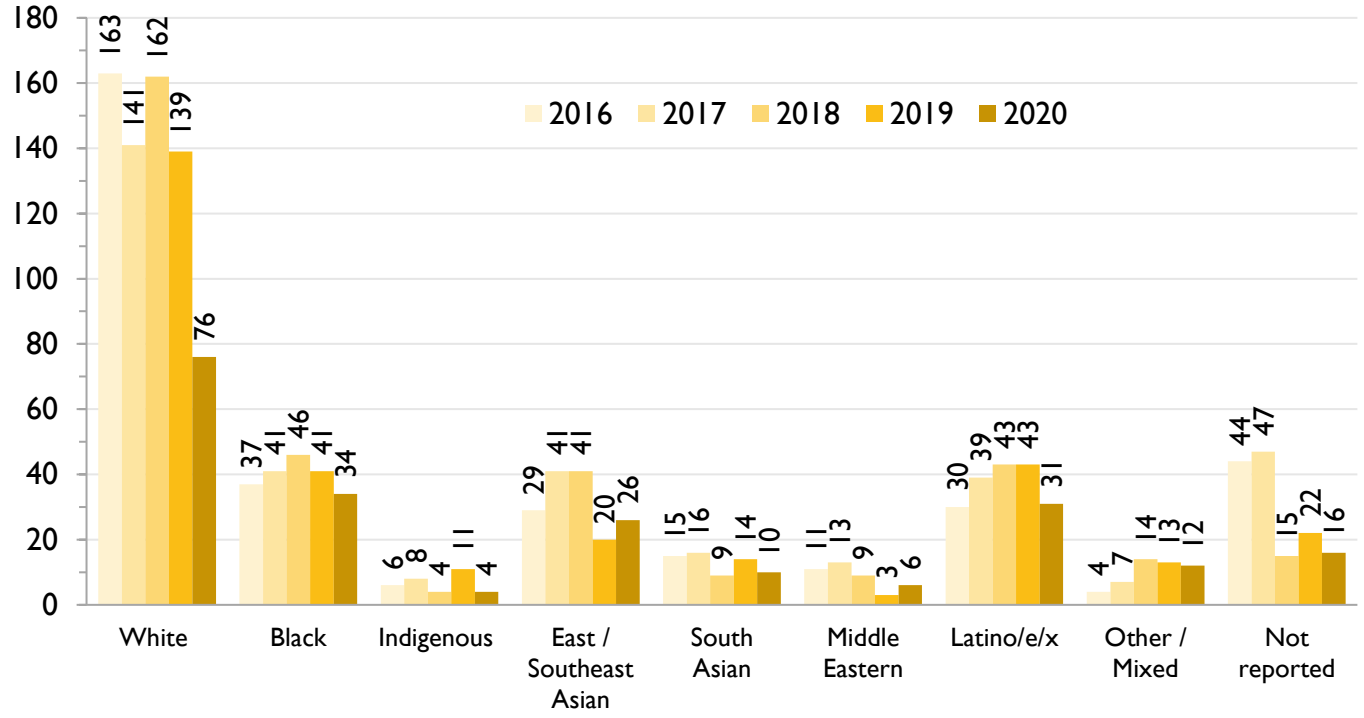
Between 2016 and 2020, the most frequently reported exposure category among first-time HIV diagnoses in GBMSM was male-to-male sexual contact (95.8% in 2020) and this trend was stable over time. Over this same time period, between 4.2% and 7.5% of first-time HIV diagnoses in GBMSM reported their HIV exposure category as male-to-male sexual contact + IDU.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Table 5.3 for underlying data.

8.c. GBMSM by race/ethnicity

In 2020, the largest proportion of first-time HIV diagnoses among GBMSM was in white GBMSM (38.2%), followed by Black (17.1%) and Latino/e/x GBMSM (15.6%). The number of first-time HIV diagnoses in white GBMSM decreased from 163 in 2016 to 76 in 2020, while the number of GBMSM in other races/ethnicities did not see a similar decrease.

Figure 8.6 Number of first-time HIV diagnoses by race/ethnicity, GBMSM, Ontario, 2016 to 2020



Snapshot

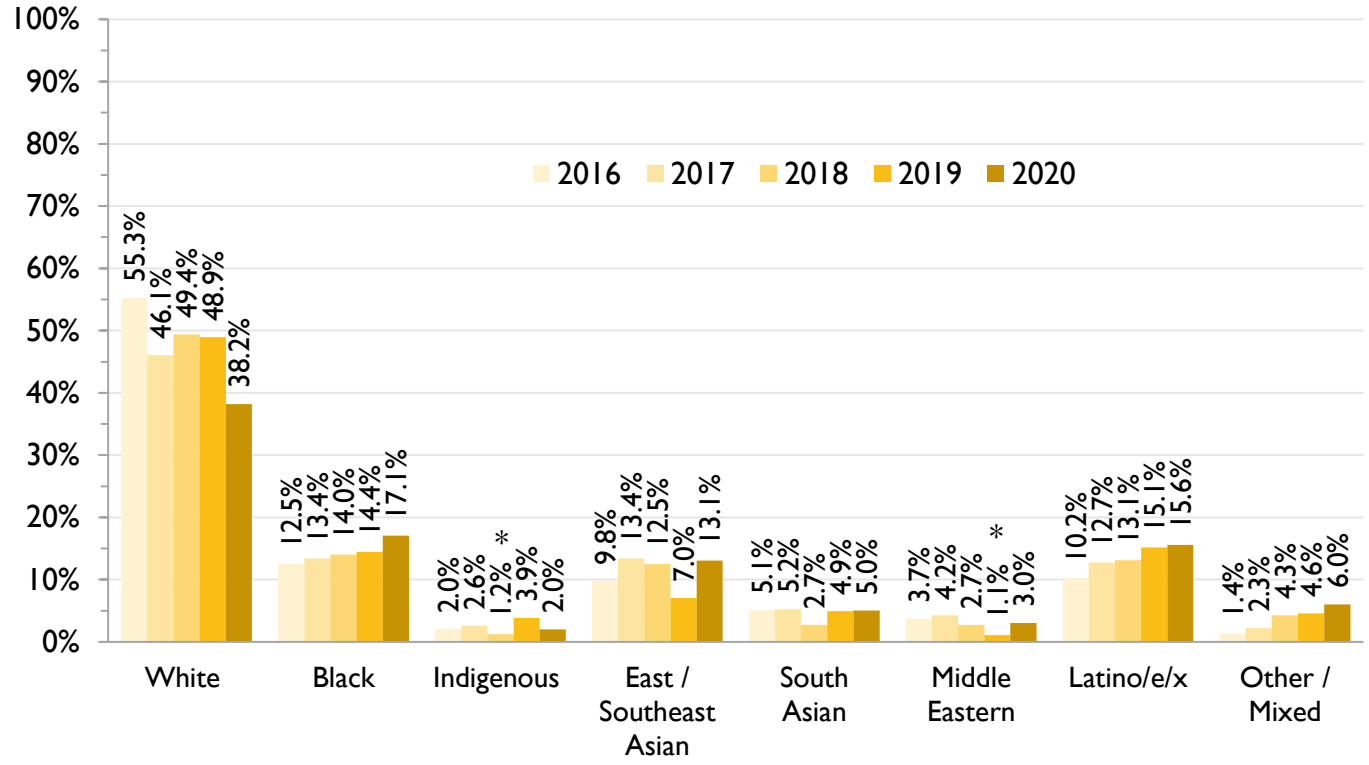
In 2020, 16 (out of 215) first-time HIV diagnoses in GBMSM had no reported race/ethnicity.

Among the 199 first-time HIV diagnoses in GBMSM with a reported race/ethnicity, 76 were in white GBMSM, 34 in Black GBMSM, 31 in Latino/e/x GBMSM, 26 in East/Southeast Asian GBMSM, 12 in GBMSM of other/mixed races/ethnicities, 10 in South Asian GBMSM, 6 in Middle Eastern GBMSM, and 4 in Indigenous GBMSM.

Between 2016 and 2020, white GBMSM accounted for the largest number of first-time HIV diagnoses among GBMSM. However, the number of first-time HIV diagnoses in white GBMSM decreased by 45.3% in 2020 from 2019, a larger decline than the 17.1% decrease in Black GBMSM and 27.9% decrease in Latino/e/x GBMSM.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

Figure 8.7 Percent of first-time HIV diagnoses by race/ethnicity (where reported), GBMSM, Ontario, 2016 to 2020



Snapshot

In 2020, among the 199 first-time HIV diagnoses in GBMSM with a reported race/ethnicity, white GBMSM accounted for the largest proportion (38.2%), followed by Black (17.1%), Latino/e/x (15.6%), East/Southeast Asian GBMSM (13.1%), GBMSM of other/mixed races/ethnicities (6.0%), and South Asian GBMSM (5.0%). Indigenous and Middle Eastern GBMSM each accounted for less than 5% of first-time HIV diagnoses among GBMSM.

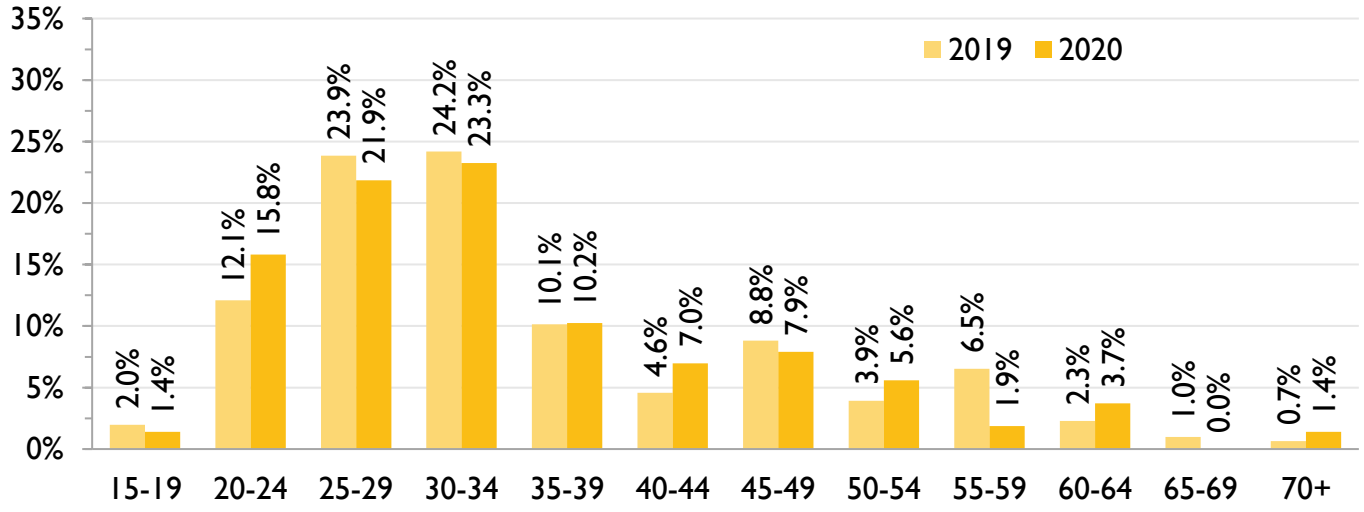
Between 2016 and 2020, white GBMSM accounted for the largest proportion of first-time HIV diagnoses among GBMSM. However, corresponding with decreased numbers of diagnoses, white GBMSM accounted for a shrinking proportion of first-time HIV diagnoses among GBMSM over these years, from 55.3% in 2016 to 48.9% in 2019, decreasing further to 38.2% in 2020. Conversely, numbers of first-time HIV diagnoses in GBMSM of other race/ethnicities have been more stable. The proportion of first-time HIV diagnoses among GBMSM that was attributed to Black GBMSM increased year over year from 12.5% in 2016 to 17.1% in 2020, and the proportion attributed to Latino/e/x GBMSM also increased year over year, from 10.2% in 2016 to 15.6% in 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). Diagnoses where GBMSM status was reported but race/ethnicity was not reported were excluded (average of 9.1% of diagnoses per year, where GBMSM status reported). See Appendices for more information. See Tables Supplement for underlying data.

8.d. GBMSM by age

In 2020, nearly half (45.1%) of first-time HIV diagnoses among GBMSM were among those aged 25-34.

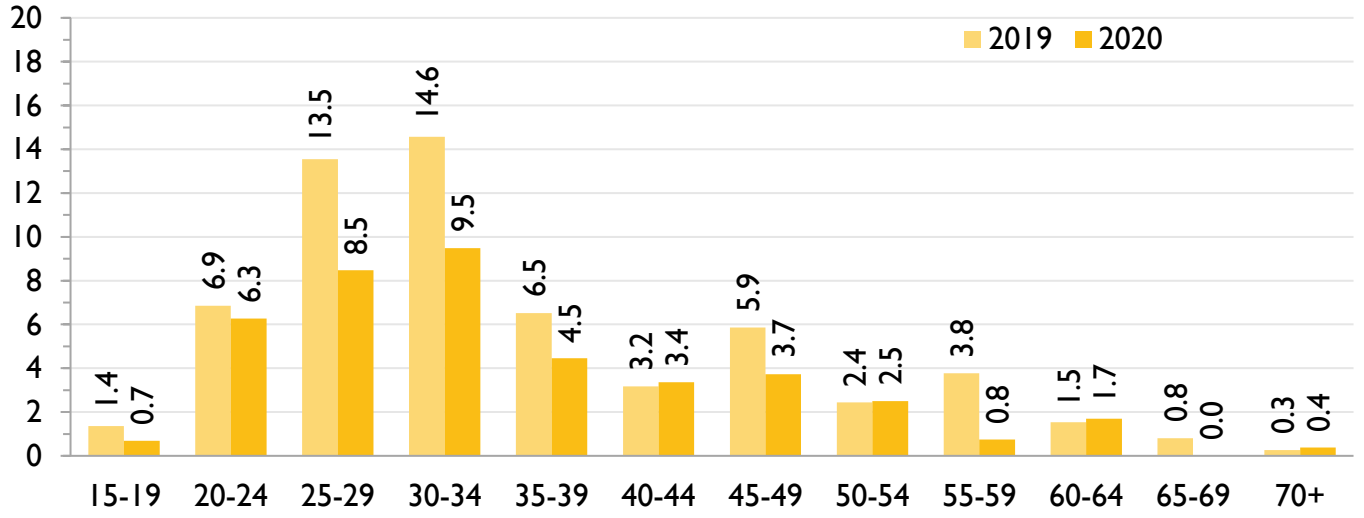
Figure 8.8 Percent of first-time HIV diagnoses by age, GBMSM, Ontario, 2019 to 2020



Snapshot

In 2020, GBMSM aged 30-34 years accounted for the largest proportion of first-time HIV diagnoses among GBMSM (23.3%), followed by GBMSM aged 25-29 (21.9%). There was little change in the distribution of first-time HIV diagnoses across age categories between 2019 and 2020 among GBMSM.

Figure 8.9 Rate of first-time HIV diagnoses per 100,000 males by age, GBMSM, Ontario, 2019 to 2020



Snapshot

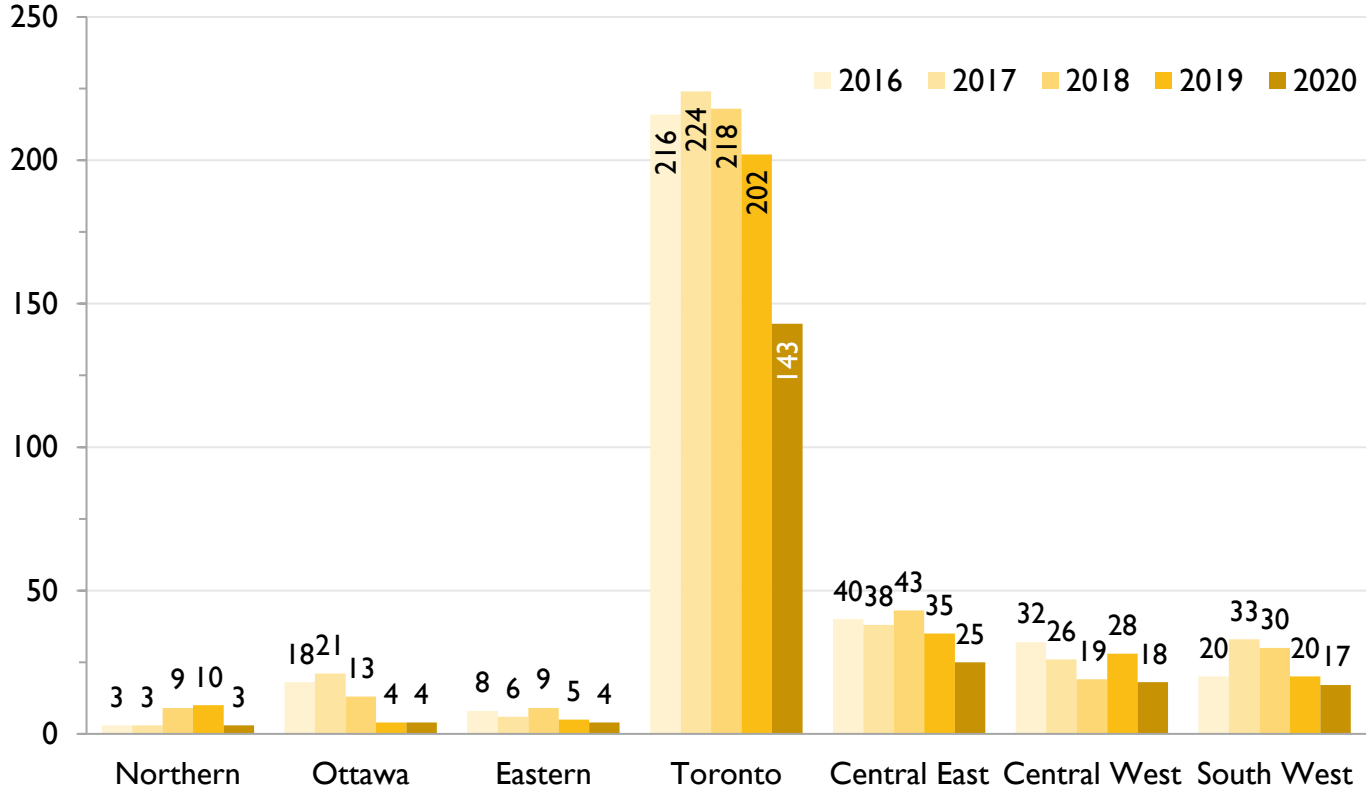
In 2020, the rate of first-time HIV diagnoses per 100,000 males among GBMSM was highest among those aged 30-34 years (9.5) followed by those aged 25-29 years (8.5). Compared to 2019, the rate of first-time HIV diagnoses per 100,000 males decreased in almost all age categories among GBMSM in 2020, with those aged 65-69 years having the largest relative decrease (100%), followed by 55-59 (80.1%) and 15-19 years (49.5%).

Notes: Data provided by Public Health Ontario Laboratory. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Diagnoses with age not reported were excluded (less than 1%). Diagnoses where GBMSM status was not reported were excluded (17.6% of diagnoses in 2019, 22.5% in 2020). See Appendices for more information. See Tables Supplement for underlying data.

8.e. GBMSM by health region

In 2020, two thirds (66.8%) of first-time HIV diagnoses among GBMSM were in Toronto region, followed by Central East (11.7%), and Central West (8.4%) regions. Toronto region also had the largest proportion of its first-time HIV diagnoses among males attributed to GBMSM (81.7%), followed by South West (81.0%), Central East (67.6%), Central West (60.0%) regions. Compared to 2019, the number of first-time HIV diagnoses among GBMSM in 2020 decreased in all regions except Ottawa.

Figure 8.10 Number of first-time HIV diagnoses by health region, GBMSM, Ontario, 2016 to 2020



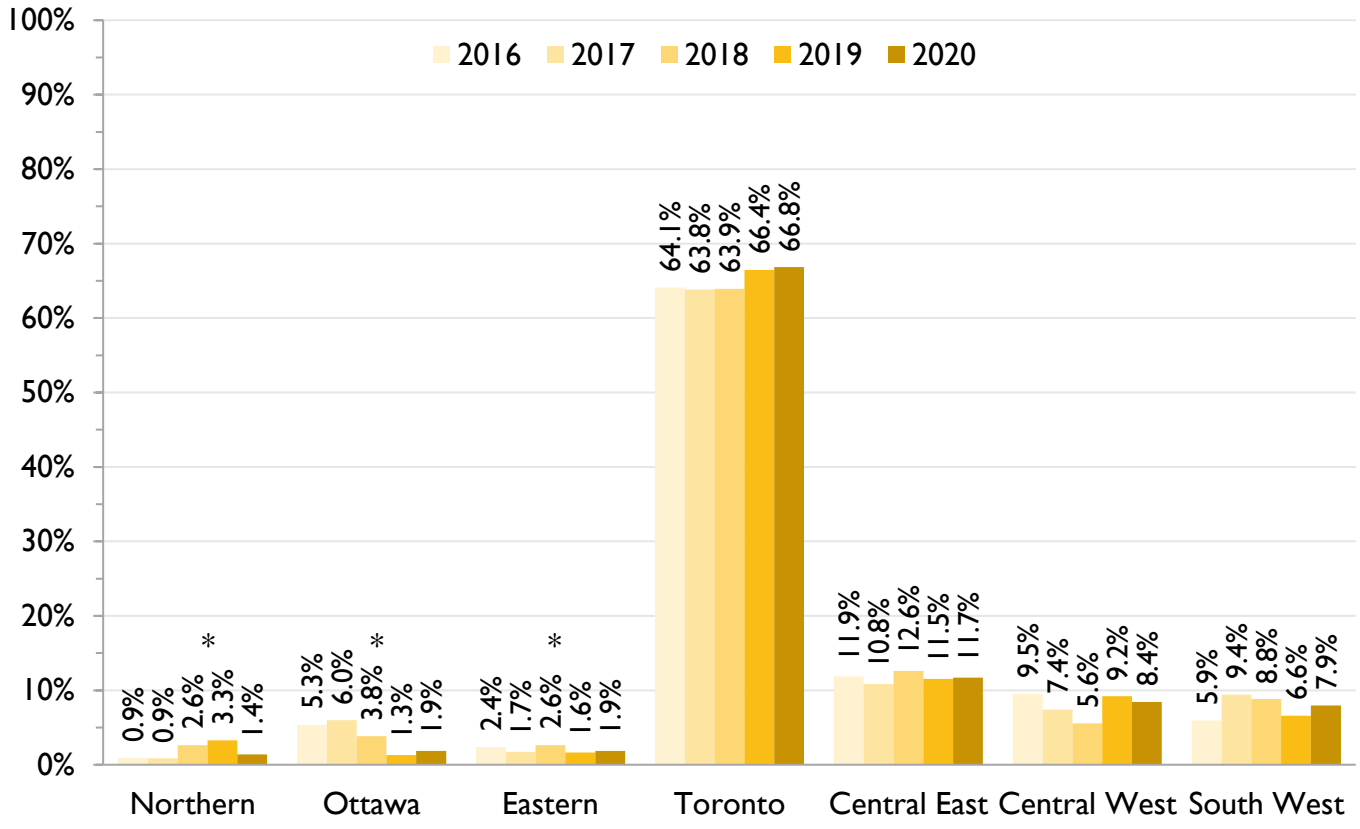
Snapshot

In 2020, Toronto region had the largest number of first-time HIV diagnoses among GBMSM (143), followed by Central East (25), Central West (18), South West (17), Ottawa (4), Eastern (4), and Northern (3) regions.

Between 2016 and 2020, Toronto region consistently had the largest numbers of first-time HIV diagnoses among GBMSM, followed by Central East region. Compared to 2019, the number of first-time HIV diagnoses decreased in all regions except Ottawa region in 2020, with the largest relative decrease in Northern region (70.0%), followed by Central West (35.7%) and Toronto (29.2%) regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 8.11 Percent of first-time HIV diagnoses across health regions, GBMSM, Ontario, 2016 to 2020



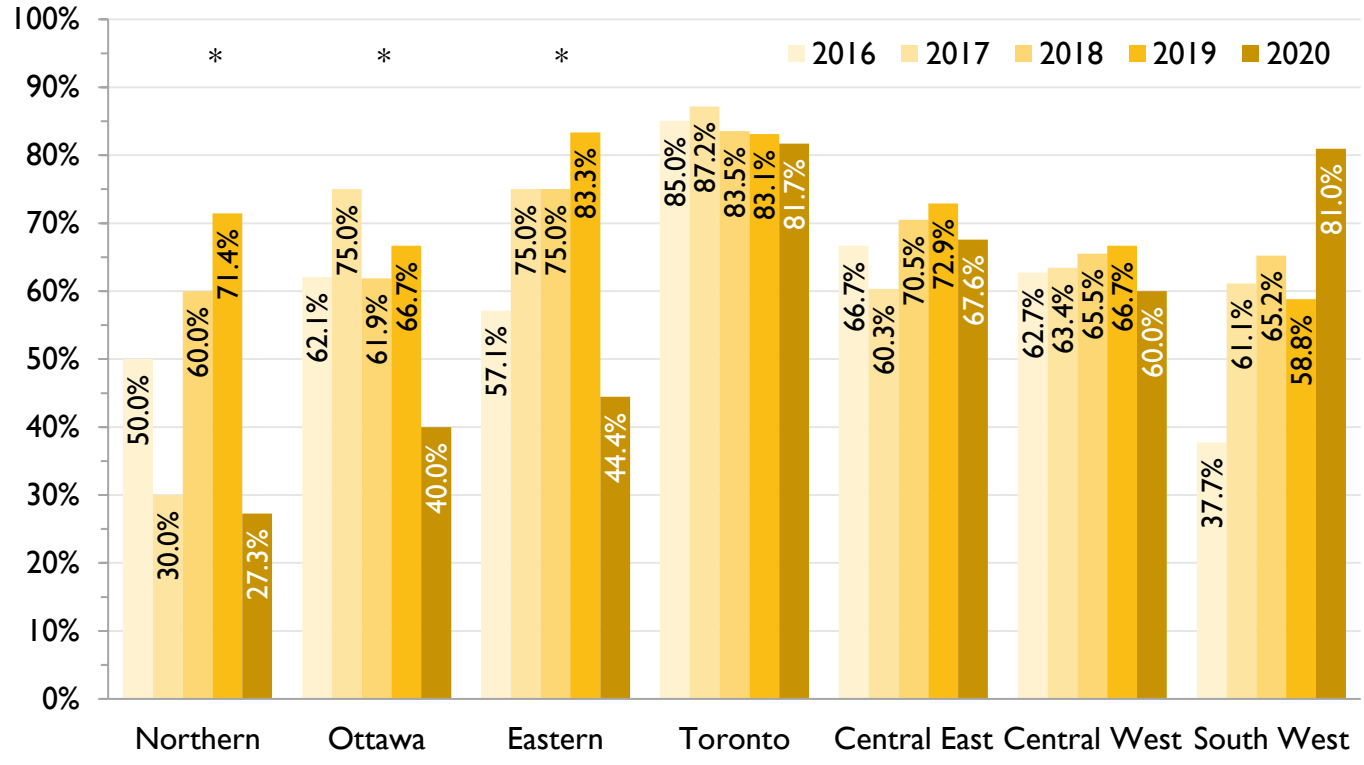
Snapshot

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among GBMSM (66.8%), followed by Central East (11.7%), Central West (8.4%), and South West (7.9%) regions. Northern, Eastern, and Ottawa regions each had less than 5% of first-time HIV diagnoses among GBMSM.

Between 2016 and 2020, Toronto region had the largest proportion of first-time HIV diagnoses among GBMSM. There was little change in the distribution of first-time HIV diagnoses across regions between 2019 and 2020 among GBMSM.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 8.12 Percent of first-time HIV diagnoses among males within each region attributed to GBMSM (where GBMSM status reported), Ontario, 2016 to 2020



Snapshot

In 2020, looking within each region, Toronto region attributed a larger proportion of its first-time HIV diagnoses among males to GBMSM than any other region (81.7%), followed by South West (81.0%), Central East (67.6%), Central West (60.0%), Eastern (44.4%) Ottawa (40.0%), and Northern (27.3%) regions.

Between 2016 and 2020, Toronto region attributed a larger proportion of its first-time HIV diagnoses among males to GBMSM than any other region in all years except 2019. Compared to 2019, the proportion of first-time HIV diagnoses attributed to GBMSM in Northern, Ottawa, and Eastern region decreased substantially in 2020, however these are based on relatively low counts.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where GBMSM status was not reported were excluded (average of 17.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

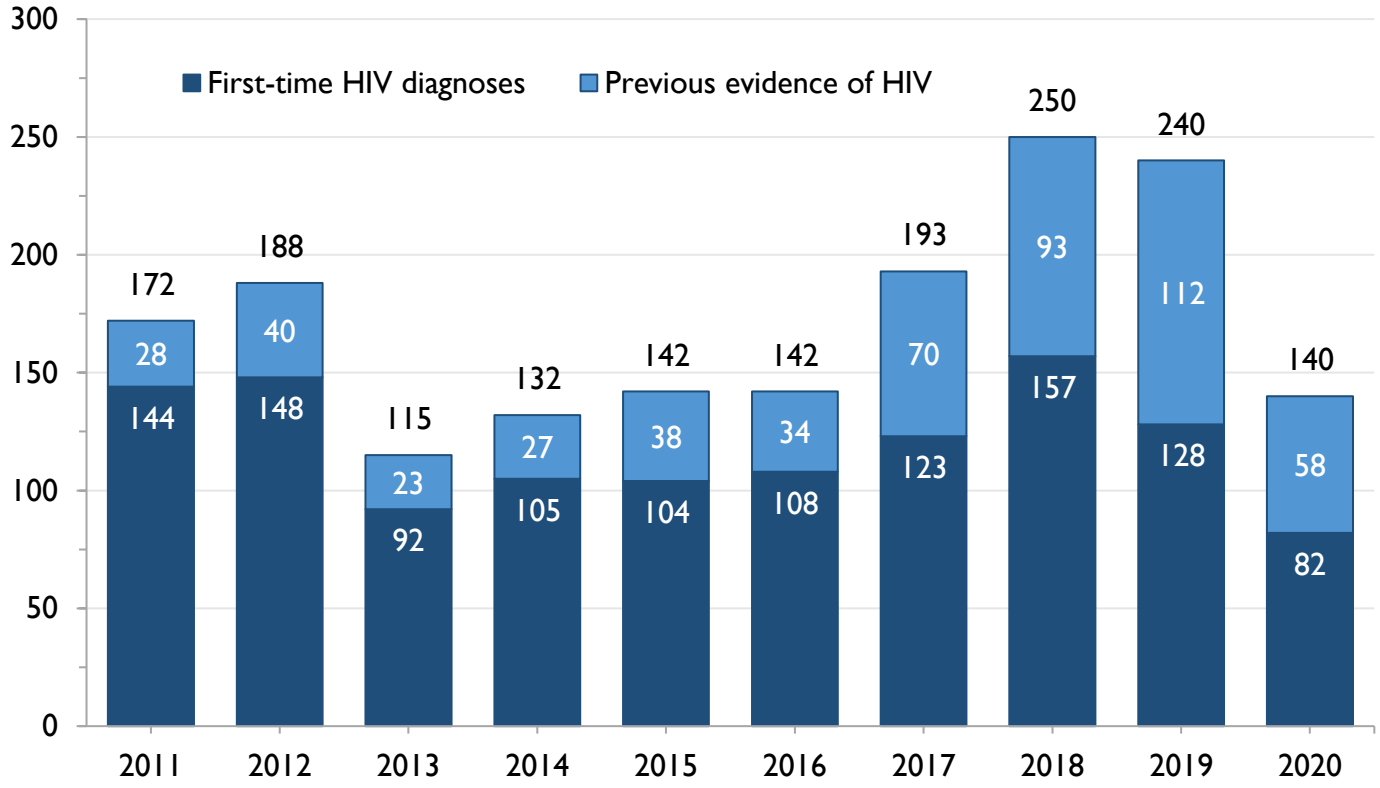
9. People who are African, Caribbean or Black (ACB)

9.a. ACB overview

Diagnoses attributed to ACB are defined by having indication of being born in an African or Caribbean country and/or Black race/ethnicity. In 2020, of the 140 positive HIV tests among ACB in Ontario: 82 were first-time HIV diagnoses and 58 had previous evidence of HIV. Between 2011 and 2020, the proportion of positive HIV tests with previous evidence of HIV increased from 16.3% to 41.4%.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among ACB may be underestimated, as between 2011 and 2020, the information required to assign ACB status was not reported for an average of 28.8% of positive HIV tests, and we estimate between 8.5% and 11.3% of first-time HIV diagnoses among Black people to have an uncaptured previous HIV diagnosis. Data shown are where ACB status was reported.*

Figure 9.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, ACB, Ontario, 2011 to 2020



Snapshot

Between 2011 and 2019, the number of first-time HIV diagnoses attributed to ACB ranged from 92 to 157, before decreasing to 82 in 2020. The number of positive HIV tests, which indicates the total number of ACB people entering care in Ontario each year, ranged from a low of 115 in 2013 to a high of 250 in 2018, and was 140 in 2020. The proportion of positive HIV tests that had previous evidence of HIV increased between 2016 (23.9%) and 2020 (41.4%), peaking in 2019 (46.7%).

Note: *Counts of positive HIV tests and first-time HIV diagnoses among ACB may be underestimated, as between 2011 and 2020, the information required to assign ACB status was not reported for an average of 28.8% of positive HIV tests, and we estimate between 8.5% and 11.3% of first-time HIV diagnoses among Black people to have an uncaptured previous HIV diagnosis.*

Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where ACB status was not reported were excluded (average of 28.8% of tests per year). See Appendices for more information. See Tables Supplement for underlying data.

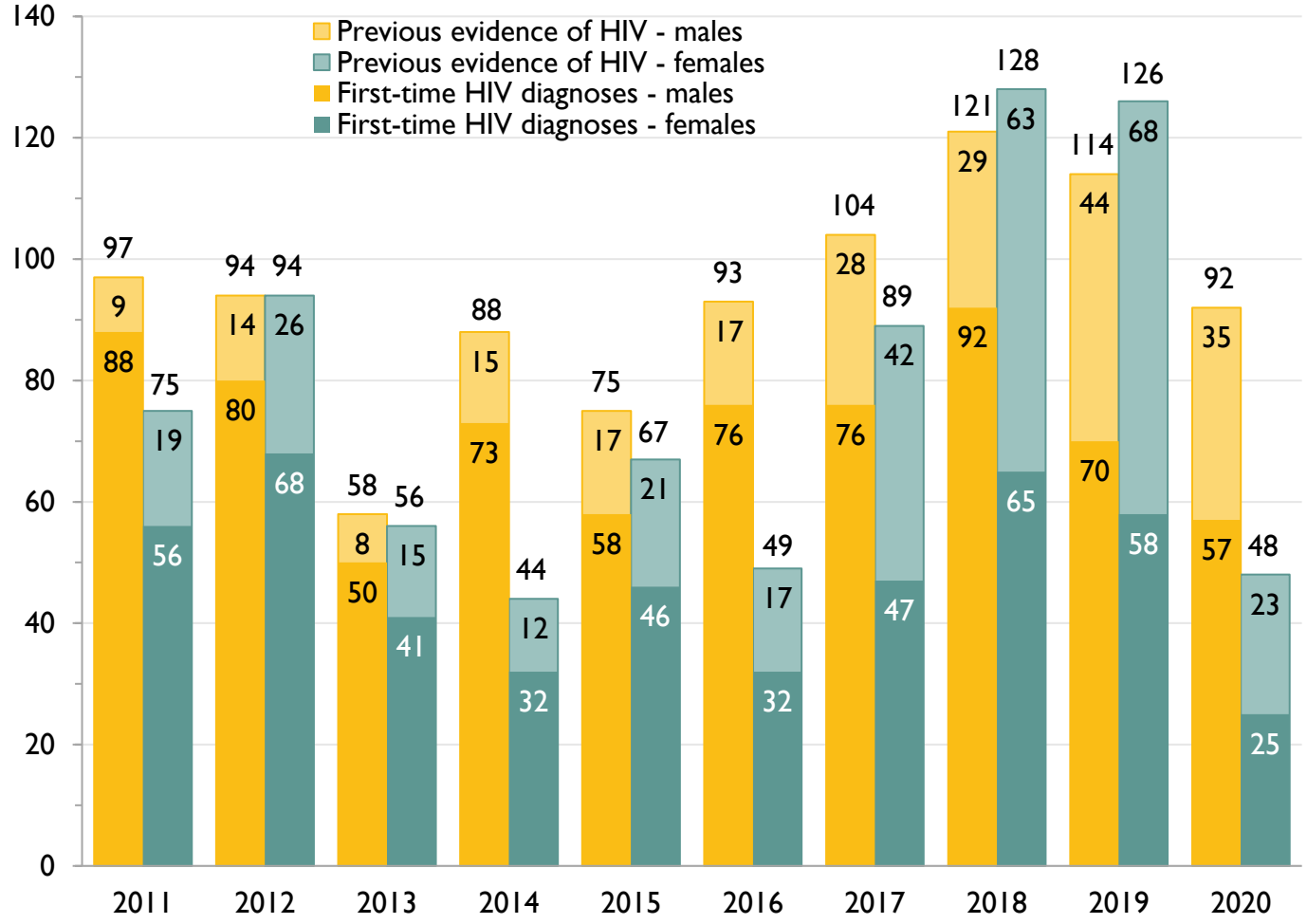
9.b. ACB by sex

In 2020, of the 92 positive HIV tests among ACB males: 57 were first-time HIV diagnoses and 35 had previous evidence of HIV. Of the 48 positive HIV tests among ACB females: 25 were first-time HIV diagnoses and 23 had previous evidence of HIV.

In 2020, 24.6% of first-time HIV diagnoses were attributed to the ACB priority population, with ACB males accounting for 17.1% of first-time HIV diagnoses (20.5% of first-time HIV diagnoses among males), and ACB females accounting for 7.5% of first-time HIV diagnoses (45.5% of first-time HIV diagnoses among females). Within the ACB population, males consistently accounted for the majority of first-time HIV diagnoses among ACB between 2011 and 2020, while females accounted for an average of 39.0% (30.5% in 2020).

Note: *Counts of positive HIV tests and first-time HIV diagnoses among ACB may be underestimated, as between 2011 and 2020, the information required to assign ACB status was not reported for an average of 27.4% of positive HIV tests among males and 32.1% among females, and we estimate between 6.0% and 7.9% of first-time HIV diagnoses among Black males and between 12.3% and 16.5% of first-time HIV diagnoses among Black females to have an uncaptured previous HIV diagnosis. Data shown are where ACB status was reported.*

Figure 9.2 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, males and females, ACB, Ontario, 2011 to 2020



Snapshot

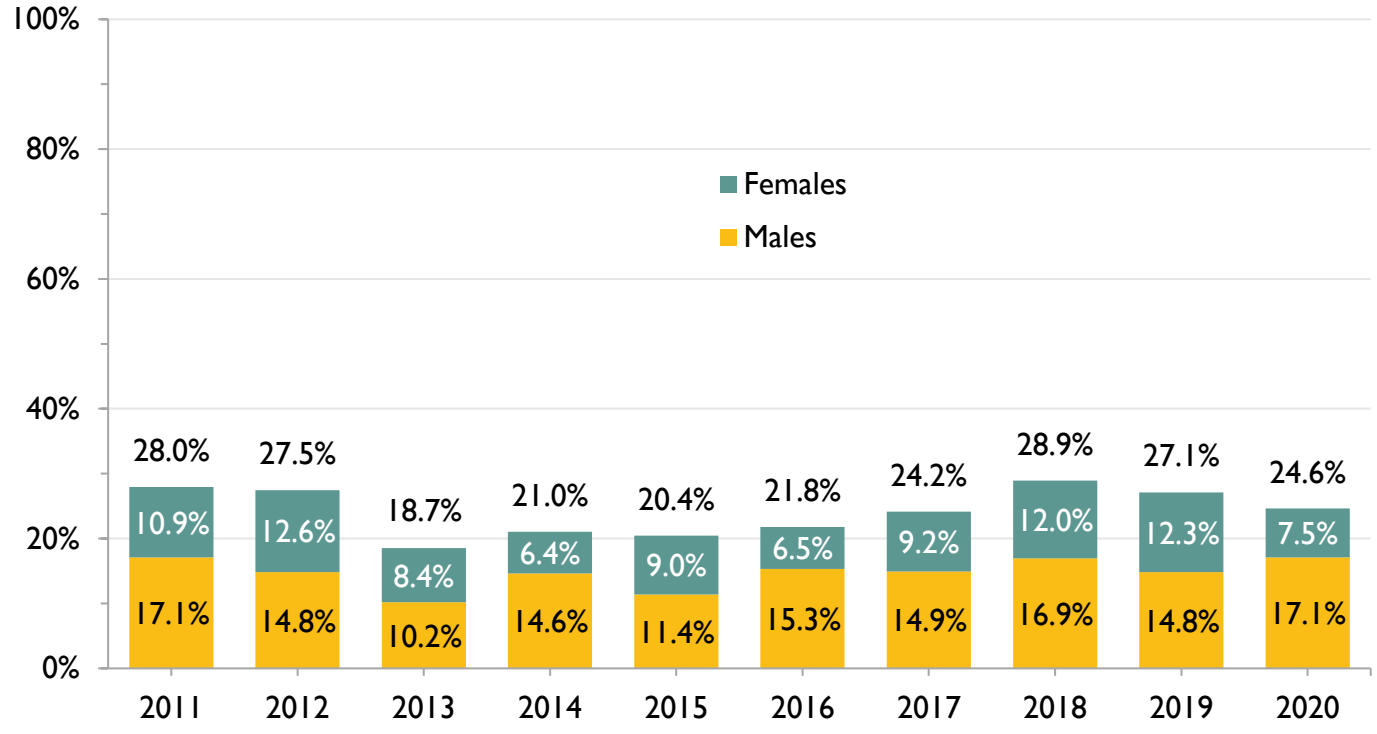
Between 2011 and 2020, the number of first-time HIV diagnoses among ACB males ranged between 50 and 92, and was 57 in 2020 (18.6% relative decrease from 40 in 2019). The number of ACB males with previous evidence of HIV was fairly stable between 2011 and 2016 (average of 13, 16.0% of positive HIV tests among ACB males), before increasing to 44 by 2019 (38.6% of positive HIV tests among ACB males) and 35 in 2020 (38.0% of positive HIV tests among ACB males).

Between 2011 and 2019, the number of first-time HIV diagnoses among ACB females ranged from 32 to 68, before decreasing to 25 in 2020 (56.9% relative decrease from 58 in 2019). The number of ACB females with previous evidence of HIV was fairly stable between 2011 and 2016 (average of 18, 28.8% of positive HIV tests among ACB females), before increasing to 68 by 2019 (54.0% of positive HIV tests among ACB females). This number decreased to 23 in 2020, but still accounted for nearly half (47.9%) of positive HIV tests among ACB females in this year.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among ACB may be underestimated, as between 2011 and 2020, the information required to assign ACB status was not reported for an average of 27.4% of positive HIV tests among males and 32.1% among females, and we estimate between 6.0% and 7.9% of first-time HIV diagnoses among Black males and between 12.3% and 16.5% of first-time HIV diagnoses among Black females to have an uncaptured previous HIV diagnosis. Data shown are where ACB status was reported.*

Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where ACB status was not reported were excluded (average of 27.4% of tests per year among males, 32.1% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 9.3 Percent of first-time HIV diagnoses attributed to ACB (where ACB status reported) by sex, Ontario, 2011 to 2020



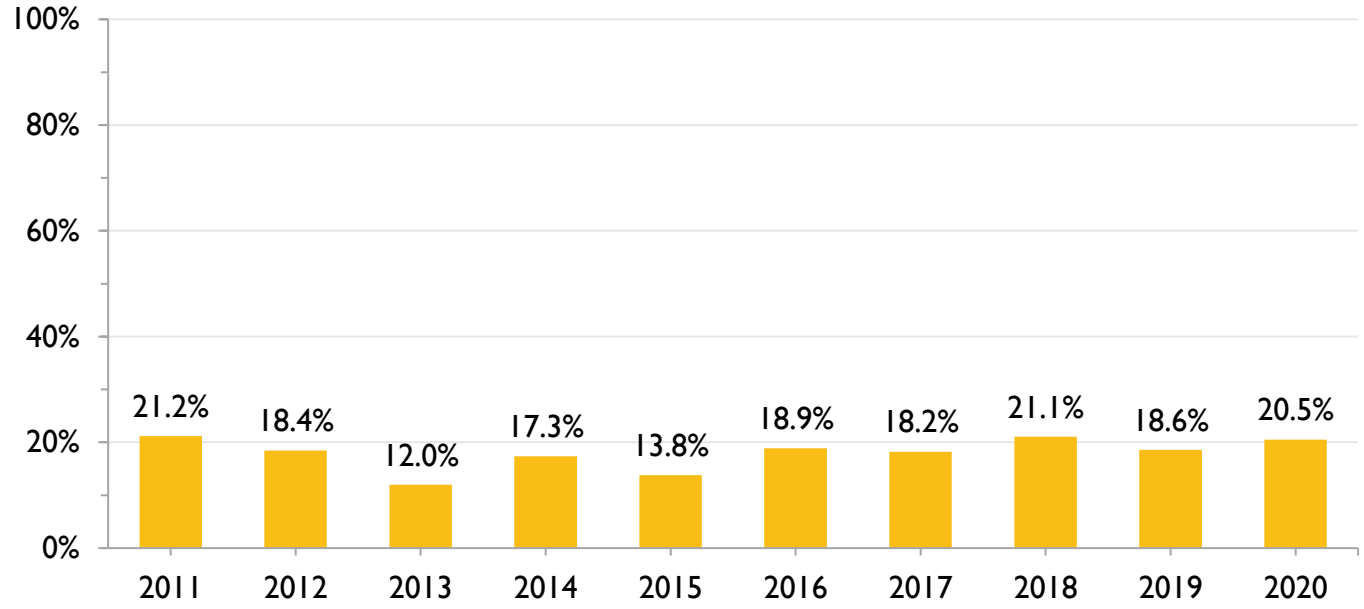
Snapshot

In 2020, ACB males accounted for 17.1% and ACB females 7.5% of all first-time HIV diagnoses, for a total of 24.6% of first-time HIV diagnoses being attributed to ACB people. This is consistent with prior years.

Between 2011 and 2020, ACB people accounted for between 18.7% and 28.9% of first-time HIV diagnoses, with ACB males accounting for between 10.2% and 17.1%, and ACB females for between 6.5% and 12.6%.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where ACB status was not reported were excluded (average of 27.1% of diagnoses per year among males, 35.6% among females). See Appendices for more information. See Tables Supplement for underlying data.

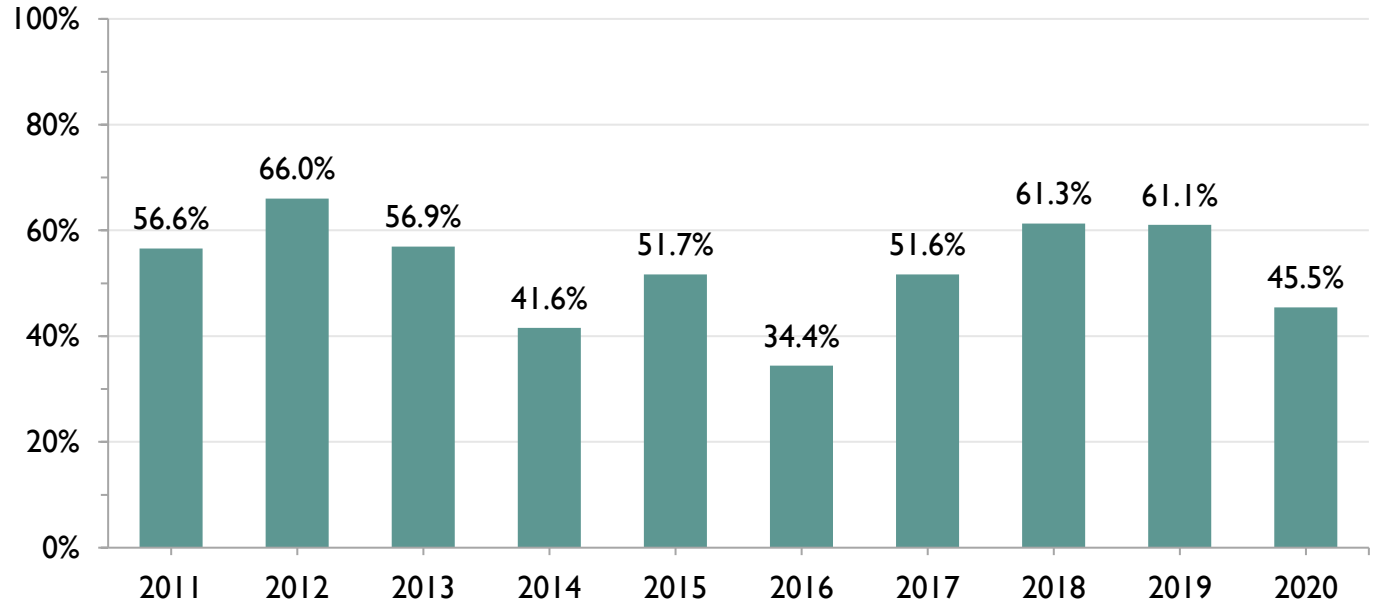
Figure 9.4 Percent of first-time HIV diagnoses among males attributed to ACB (where ACB status reported), Ontario, 2011 to 2020



Snapshot

In 2020, ACB males accounted for 20.5% of first-time HIV diagnoses among males. This is consistent with prior years. Between 2011 and 2020, ACB males accounted for between 12.0% and 21.2% of first-time HIV diagnoses among males.

Figure 9.5 Percent of first-time HIV diagnoses among females attributed to ACB (where ACB status reported), Ontario, 2011 to 2020

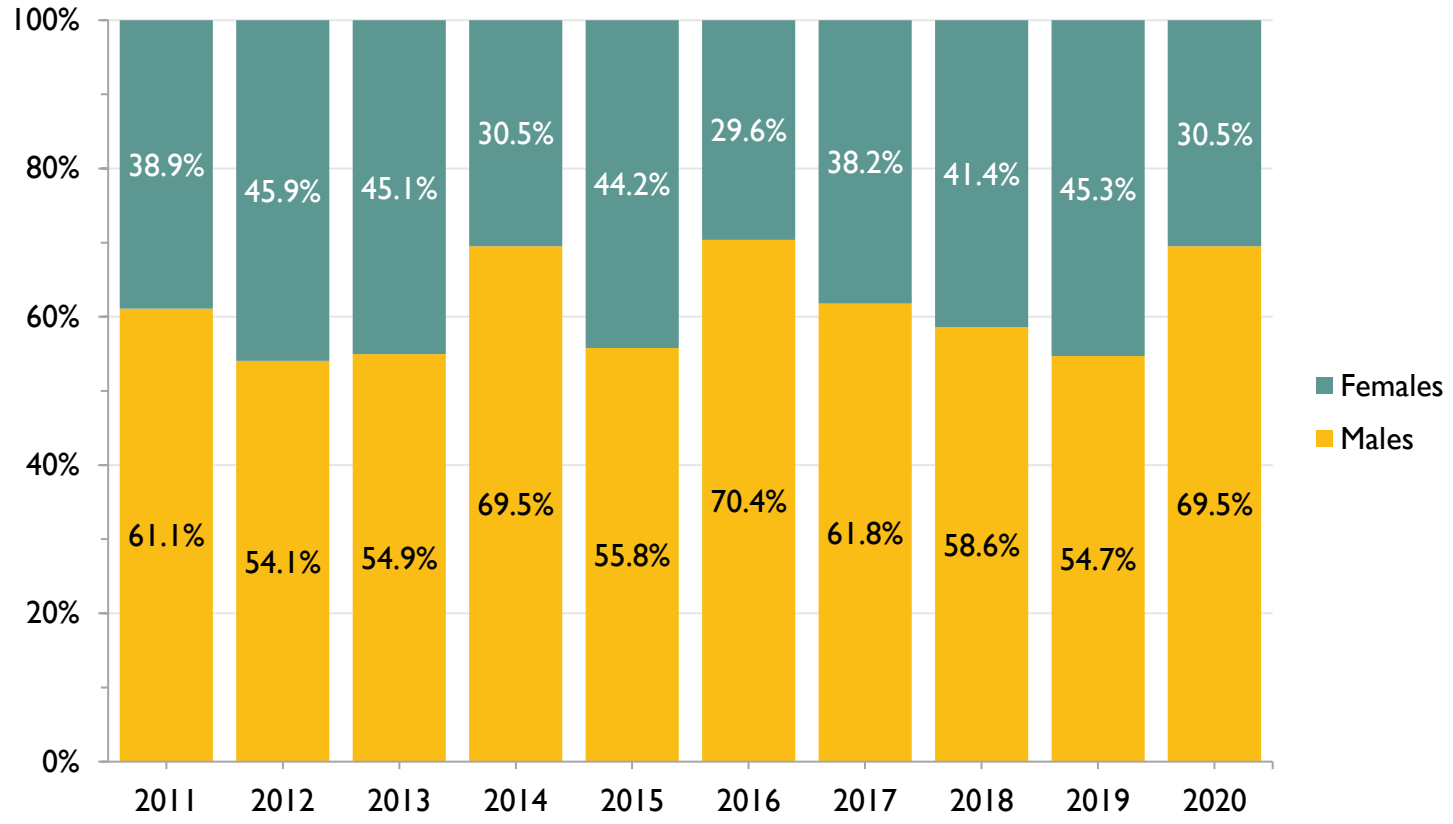


Snapshot

In 2020, ACB females accounted for 45.5% of first-time HIV diagnoses among females. Between 2011 and 2020, ACB females accounted for between 34.4% and 66.0% of first-time HIV diagnoses among females.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where ACB status was not reported were excluded (average of 27.1% of diagnoses per year among males, 35.6% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 9.6 Percent of first-time HIV diagnoses by sex, ACB, Ontario, 2011 to 2020



Snapshot

In 2020, females accounted for 30.5% of first-time HIV diagnoses among ACB. Between 2011 and 2020, males accounted for between 54.1% and 70.4% of first-time HIV diagnoses among ACB, while conversely females accounted for between 29.6% and 45.9%.

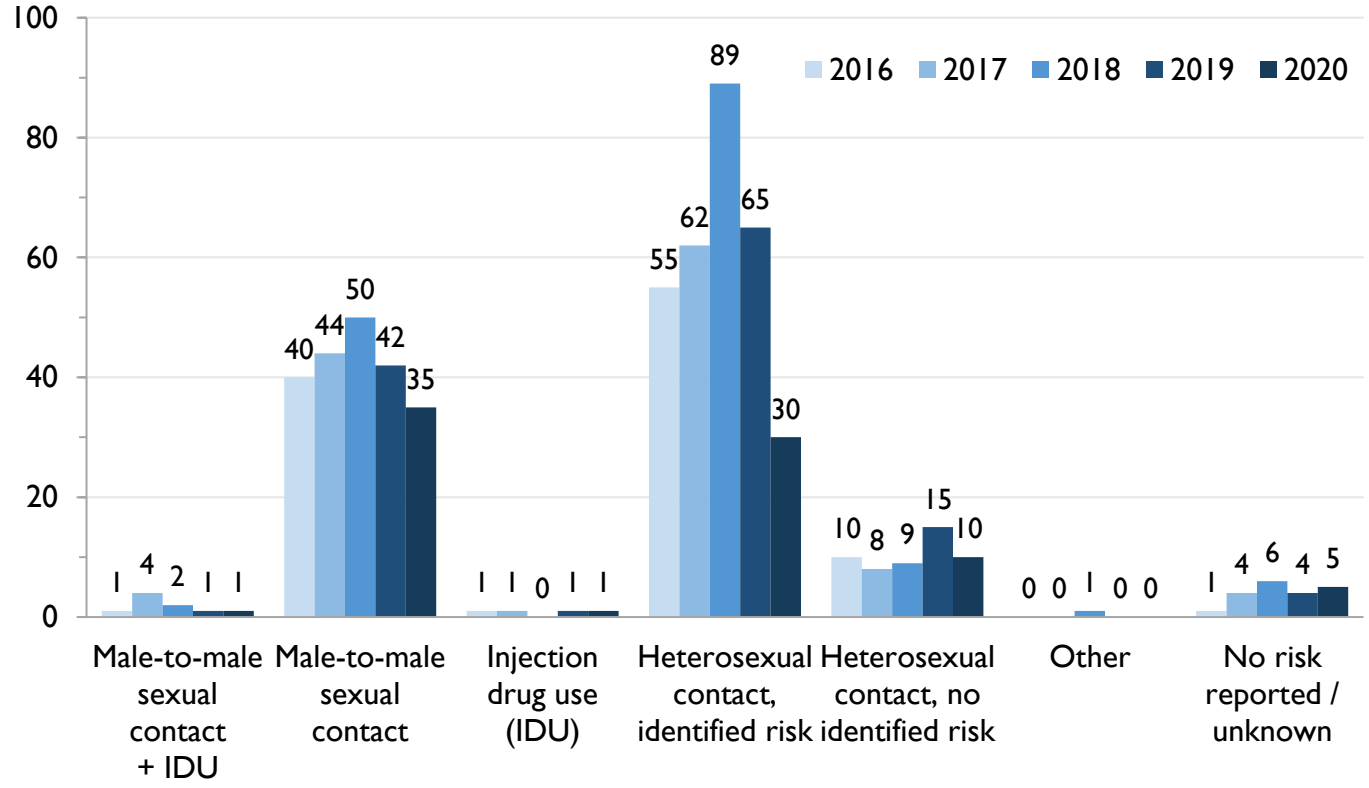
Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where ACB status was not reported were excluded (average of 27.1% of diagnoses per year among males, 35.6% among females). See Appendices for more information. See Tables Supplement for underlying data.

9.c. ACB by HIV exposure category

In 2020, in terms of HIV exposure category, the largest proportion of first-time HIV diagnoses among ACB people were reported as male-to-male sexual contact: 45.5% among all ACB people and 64.8% among ACB males. This differs from prior years, when the largest proportion of first-time HIV diagnoses among ACB people reported heterosexual contact with identified risk.

Note: *The "Heterosexual contact, identified risk" category includes diagnoses where sex with a person of the opposite sex/gender is reported and either the individual's country of birth is reported as an HIV-endemic country, or the individual's sex partner is reported to be at least one of: HIV-positive; user of injection drugs; born in an HIV-endemic country; a bisexual male. See HIV exposure categories for more information.*

Figure 9.7 Number of first-time HIV diagnoses by HIV exposure category, ACB, Ontario, 2016 to 2020



Snapshot

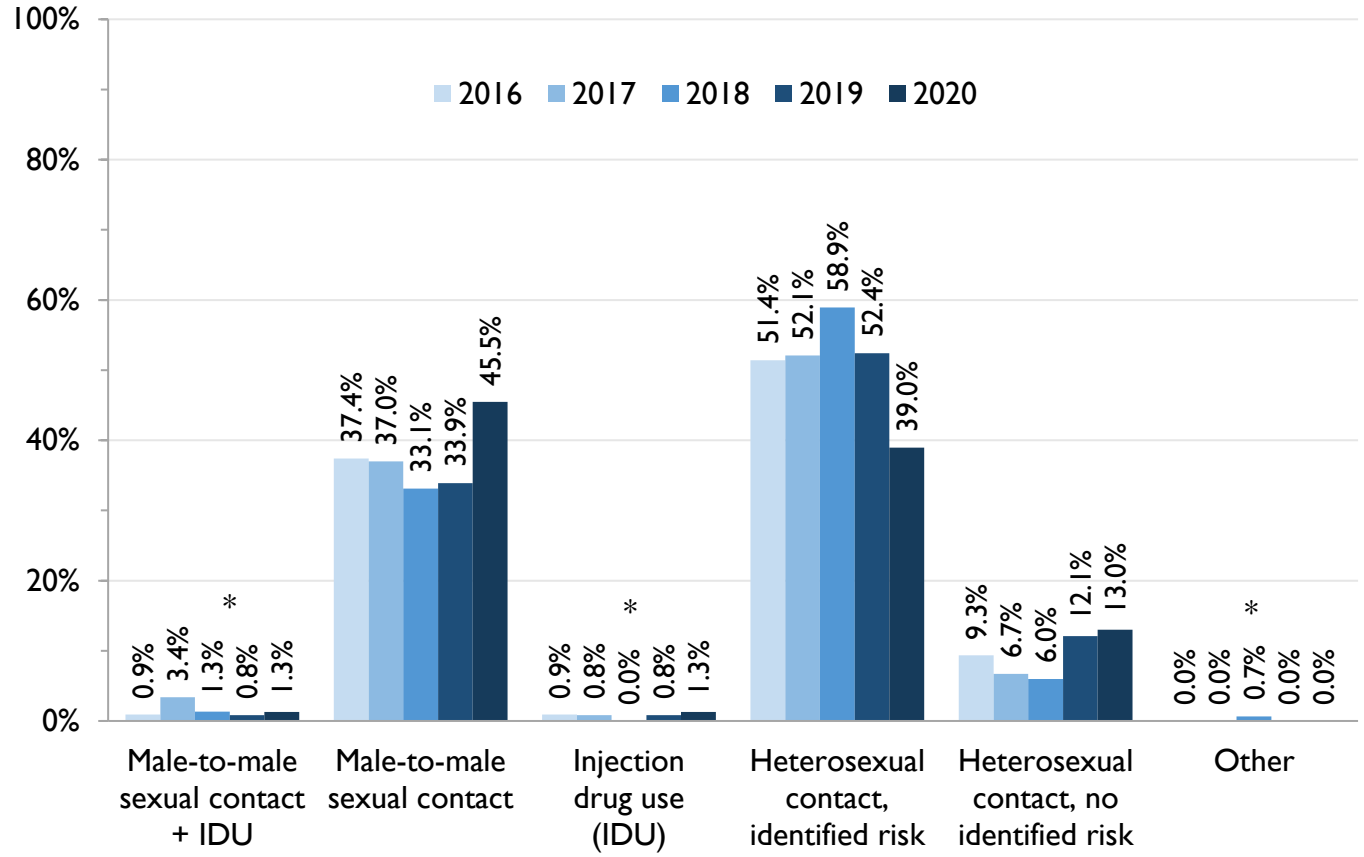
In 2020, 5 of the 82 first-time HIV diagnoses in ACB people did not report an HIV exposure category.

Among the 77 first-time HIV diagnoses with a reported HIV exposure category in 2020, 35 were reported as male-to-male sexual contact, 30 as heterosexual contact with identified risk, and 10 as heterosexual contact with no identified risk.

Between 2016 and 2019, heterosexual contact with identified risk accounted for the largest numbers of first-time HIV diagnoses among ACB, followed by male-to-male sexual contact. These were reversed in 2020. The number of first-time HIV diagnoses among ACB decreased in all HIV exposure categories between 2019 and 2020, with the greatest relative decreases seen in heterosexual contact with identified risk (53.8%), and heterosexual contact with no identified risk (33.3%). Relatively few first-time HIV diagnoses among ACB people had injection drug use reported.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where ACB status was not reported were excluded (average of 30.1% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 9.8 Percent of first-time HIV diagnoses by HIV exposure category (where reported), ACB, Ontario, 2016 to 2020



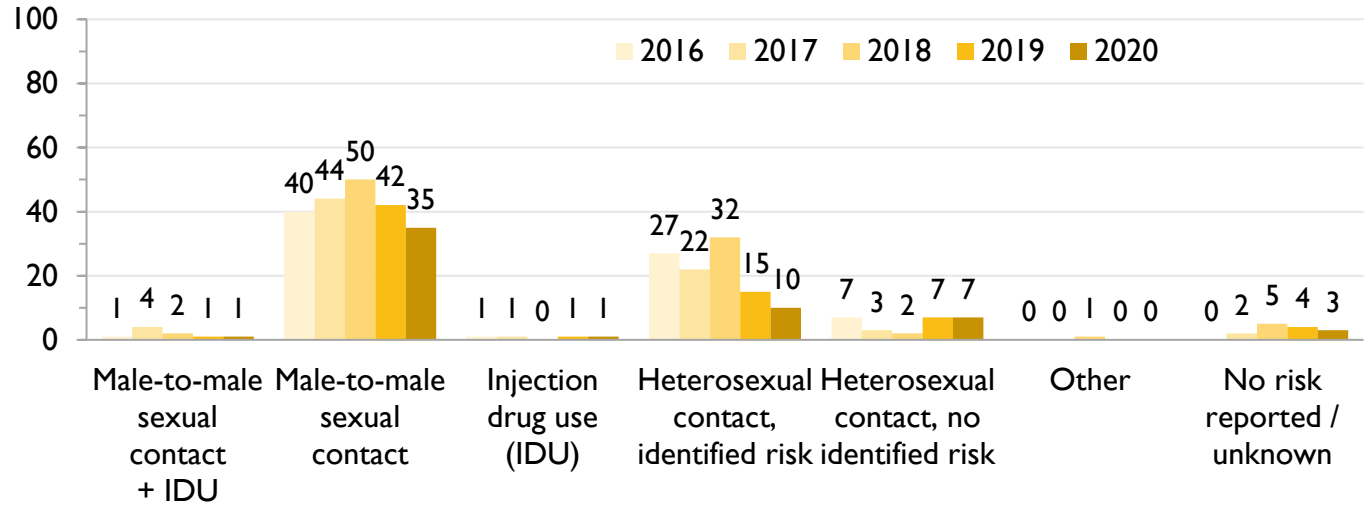
Snapshot

In 2020, among the 77 first-time HIV diagnoses with a reported HIV exposure category, 45.5% were reported as male-to-male sexual contact, 39.0% as heterosexual contact with identified risk, and 13.0% as heterosexual contact with no identified risk.

Between 2016 and 2019, heterosexual contact with identified risk, followed by male-to-male sexual contact, accounted for the largest proportions of first-time HIV diagnoses among ACB. These were reversed in 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where ACB status was not reported were excluded (average of 30.1% of diagnoses per year). Diagnoses where ACB status was reported but HIV exposure category was not reported were excluded (average of 3.4% of diagnoses per year where ACB status was reported). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

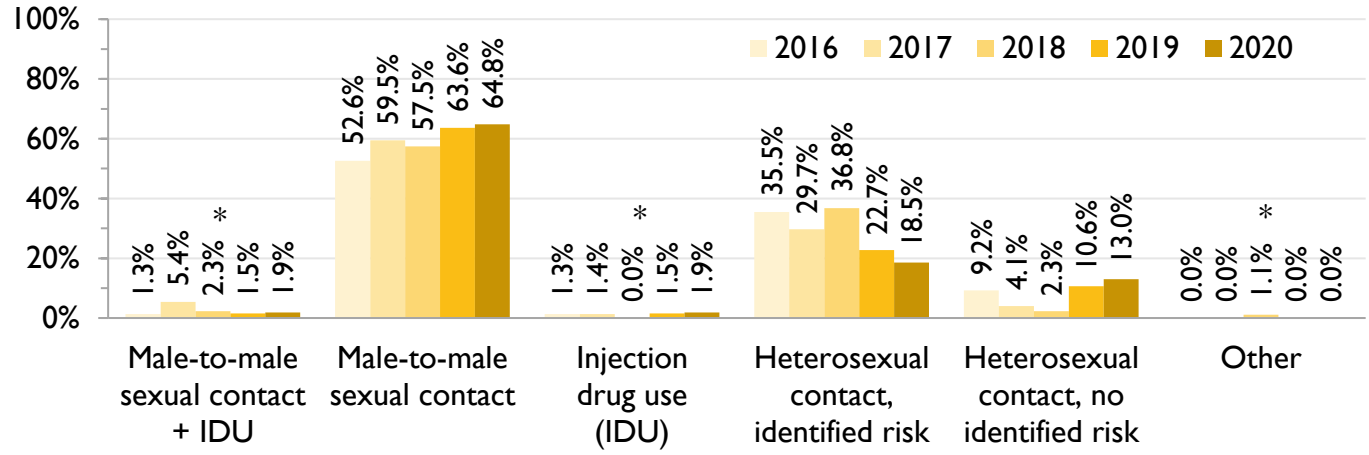
Figure 9.9 Number of first-time HIV diagnoses by HIV exposure category, ACB males, Ontario, 2016 to 2020



Snapshot

Among the 54 first-time HIV diagnoses in ACB males with a reported HIV exposure category in 2020, 35 were reported as male-to-male sexual contact, 10 as heterosexual contact with identified risk, and 7 as heterosexual contact with no identified risk. Between 2016 and 2020, male-to-male sexual contact accounted for the largest numbers of first-time HIV diagnoses among ACB males.

Figure 9.10 Percent of first-time HIV diagnoses by HIV exposure category (where reported), ACB males, Ontario, 2016 to 2020

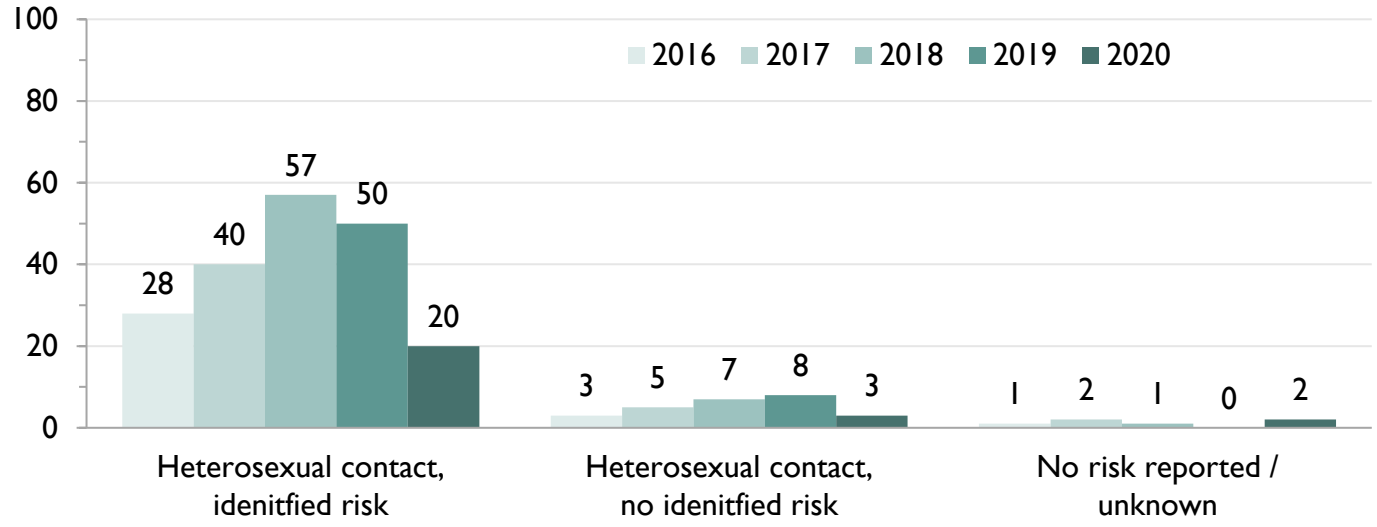


Snapshot

In 2020, among the 54 first-time HIV diagnoses in ACB males with a reported HIV exposure category, 64.8% were reported as male-to-male sexual contact, 18.5% as heterosexual contact with identified risk and 13.0% as heterosexual contact with no identified risk. Between 2016 and 2020, male-to-male sexual contact was consistently the most frequently reported HIV exposure category for first-time HIV diagnoses among ACB males.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where ACB status was not reported were excluded (average of 27.5% of diagnoses per year). Diagnoses where ACB status was reported but HIV exposure category was not reported were excluded from Figure 9.10 (average of 3.8% of diagnoses per year where ACB status reported). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

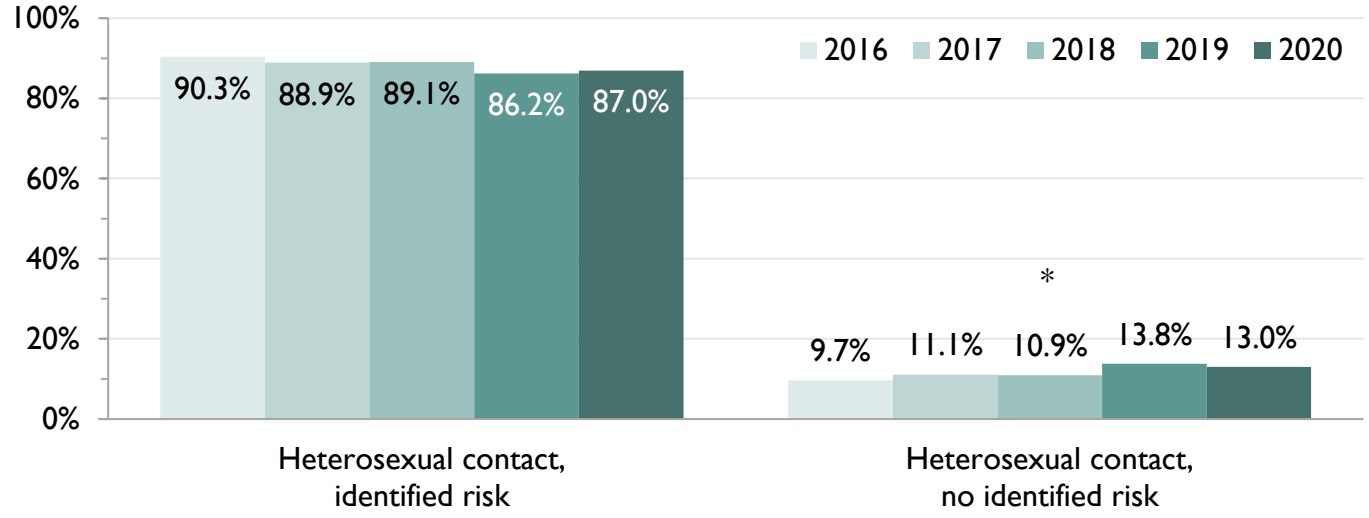
Figure 9.11 Number of first-time HIV diagnoses by HIV exposure category, ACB females, Ontario, 2016 to 2020



Snapshot

Among the 23 first-time HIV diagnoses in ACB males with a reported HIV exposure category in 2020, 20 were reported as heterosexual contact with identified risk and 3 as heterosexual contact with no identified risk. Between 2016 and 2020, the majority of first-time HIV diagnoses among ACB females were reported as heterosexual contact with identified risk and none were reported as IDU.

Figure 9.12 Percent of first-time HIV diagnoses by HIV exposure category (where reported), ACB females, Ontario, 2016 to 2020



Snapshot

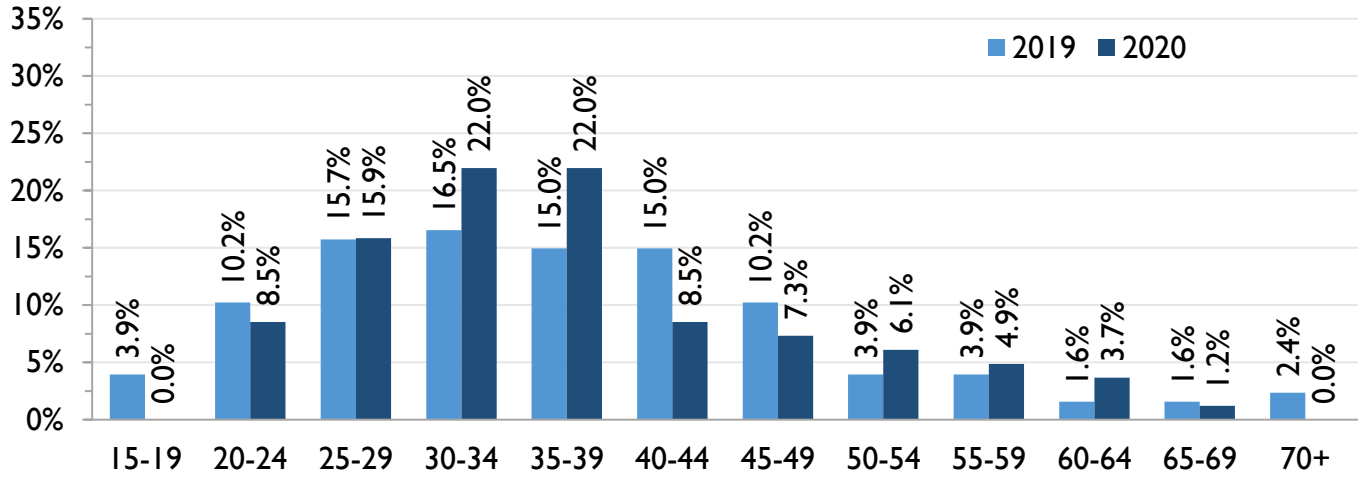
In 2020, among the 23 first-time HIV diagnoses in ACB females with a reported HIV exposure category 87.0% were reported as heterosexual contact with identified risk and 13.0% as heterosexual contact with no identified risk. This was consistent over time.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where ACB status was not reported were excluded (average of 37.1% of diagnoses per year). Diagnoses where ACB status was reported but HIV exposure category was not reported were excluded from Figure 9.12 (average of 3.4% of diagnoses per year where ACB status was reported). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

9.d. ACB by age

In 2020, the largest proportions of first-time HIV diagnoses among ACB people were in those aged 30-34 and 35-39 years (both 22.0%). Over the two-year period 2019-2020, among ACB males, the largest proportion were in those aged 30-34 (18.9%), while among females, it was in those aged 35-39 (19.5%).

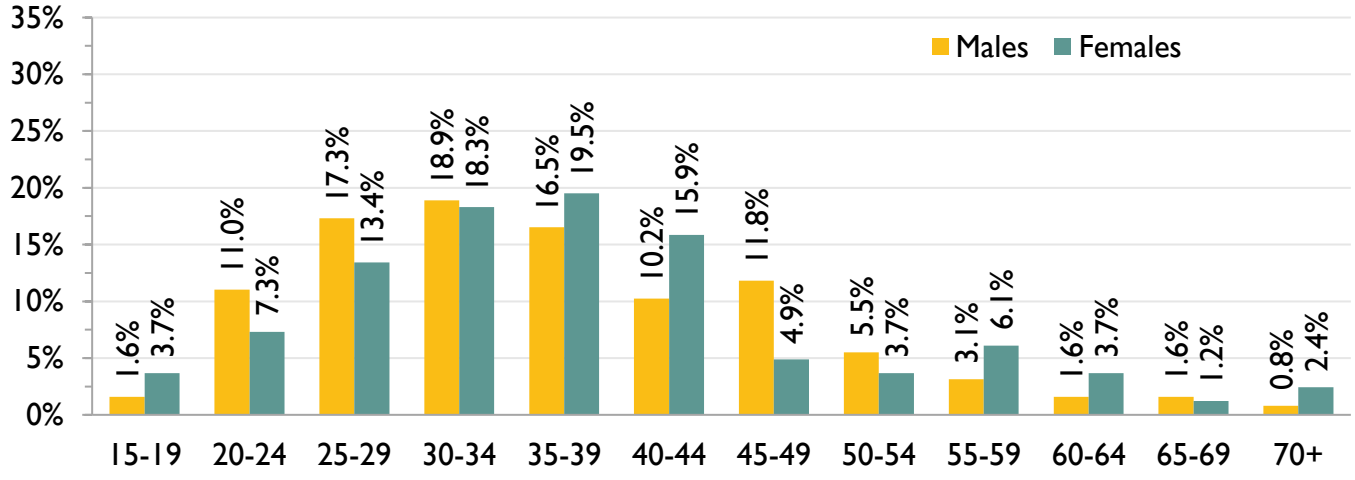
Figure 9.13 Percent of first-time HIV diagnoses by age, ACB, Ontario, 2019 to 2020



Snapshot

In 2020, 6 in 10 (59.8%) of first-time HIV diagnoses among ACB were among those aged 25-39 years. The 30-34 and 35-39 age categories accounted for the largest proportions in 2020 (both 22.0%), an increase from their proportions of first-time HIV diagnoses in 2019 (16.5% and 15.0%, respectively).

Figure 9.14 Percent of first-time HIV diagnoses by age, ACB males and ACB females, Ontario, 2019-2020



Snapshot

Over the two-year period 2019-2020, the largest proportion of first-time HIV diagnoses among ACB males was in those aged 30-34 (18.9%) and among ACB females was in those aged 35-39 years (19.5%). These findings are complicated by small numbers, and possible misattribution of females with an uncaptured previous HIV diagnosis.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses with age not reported were excluded (less than 1%). Diagnoses where ACB status was not reported were excluded (30.9% of diagnoses overall in 2019, 35.3% in 2020; 28.6% among males over the 2-year period 2019-2020 and 44.9% among females). See Appendices for more information. See Tables Supplement for underlying data.

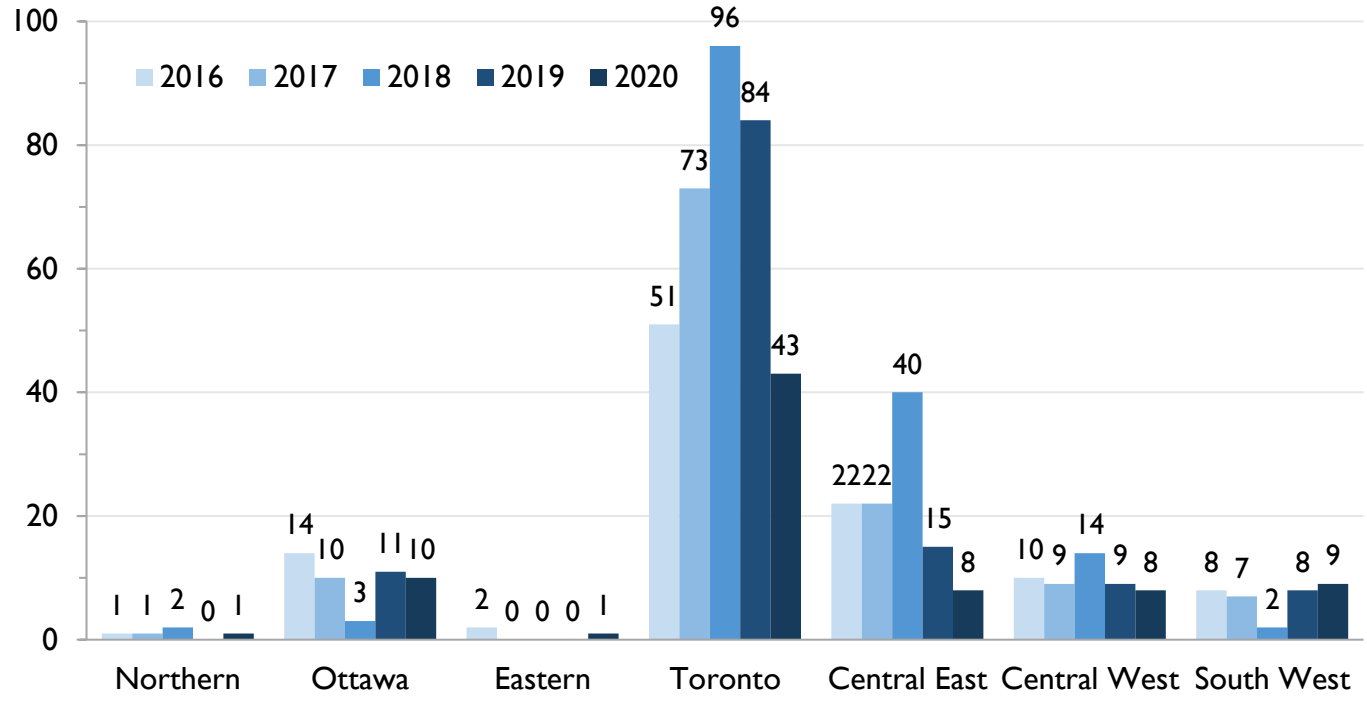
9.e. ACB by health region

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB overall (53.8%), and among ACB males (59.6%). Toronto region also had the largest proportion among ACB females in 2019-2020 (56.3%). Between 2016 and 2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB.

Compared to 2019, the number of first-time HIV diagnoses among ACB in 2020 decreased in all regions except Northern, Eastern, and South West regions, with the largest relative decrease in Toronto region (48.8%), followed by Central East (46.7%) and Central West regions (11.1%).

Looking within each health region in 2020, Ottawa region attributed a larger proportion of its first-time HIV diagnoses to ACB than any other region (50.0%, though this is based on small numbers), followed by South West (34.6%), Toronto (23.9%), Central West (22.2%), Central East (18.6%) regions.

Figure 9.15 Number of first-time HIV diagnoses by health region, ACB, Ontario, 2016 to 2020



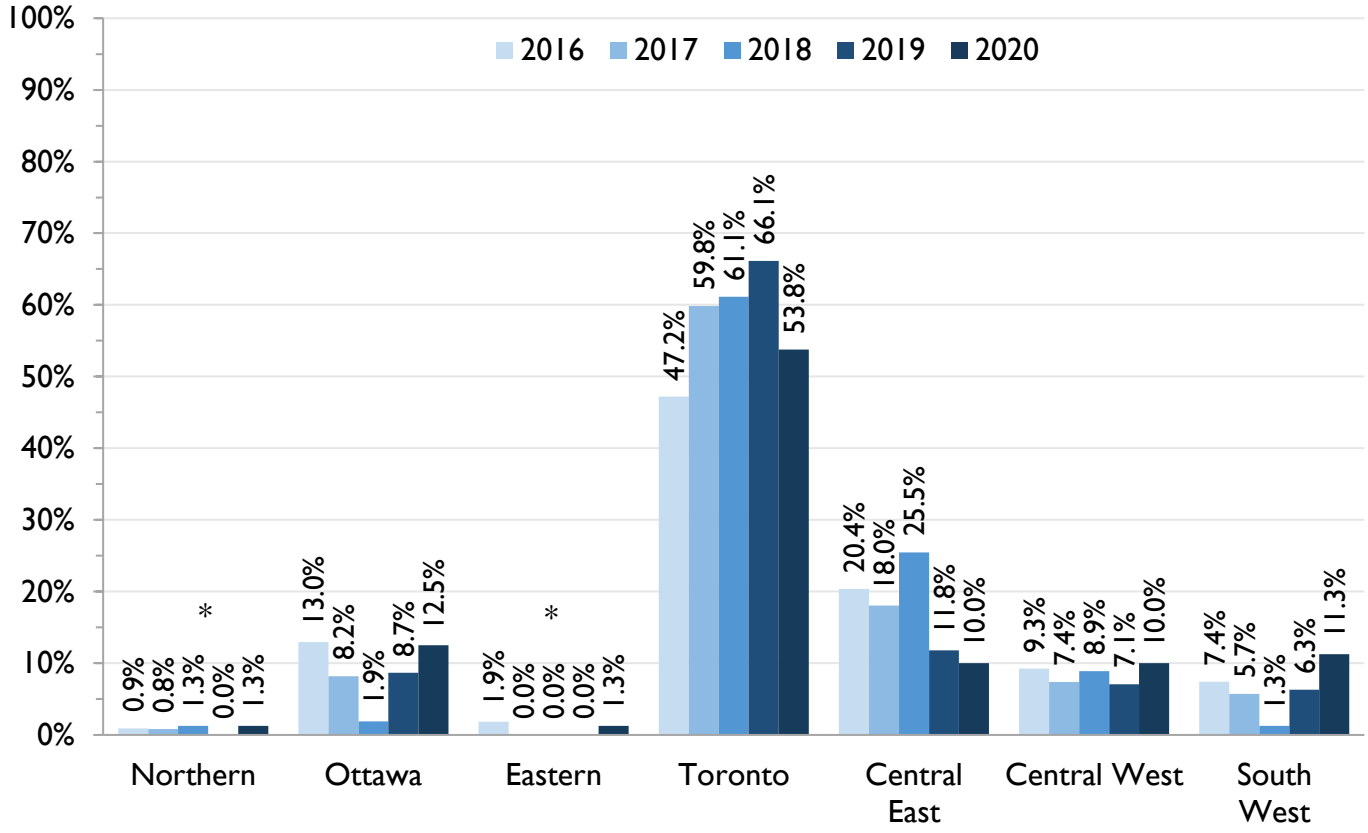
Snapshot

In 2020, comparing across health regions, Toronto region had the largest number of first-time HIV diagnoses among ACB (43), followed by Ottawa (10), South West (9), Central East (8), Central West (8), Northern (1) and Eastern (1) regions.

Compared to 2019, the number of first-time HIV diagnoses among ACB in 2020 decreased in all regions except Northern, Eastern, and South West regions, with the largest relative decrease in Toronto region (48.8%), followed by Central East (46.7%) and Central West regions (11.1%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 30.1% of diagnoses per year). See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 9.16 Percent of first-time HIV diagnoses across health regions, ACB, Ontario, 2016 to 2020



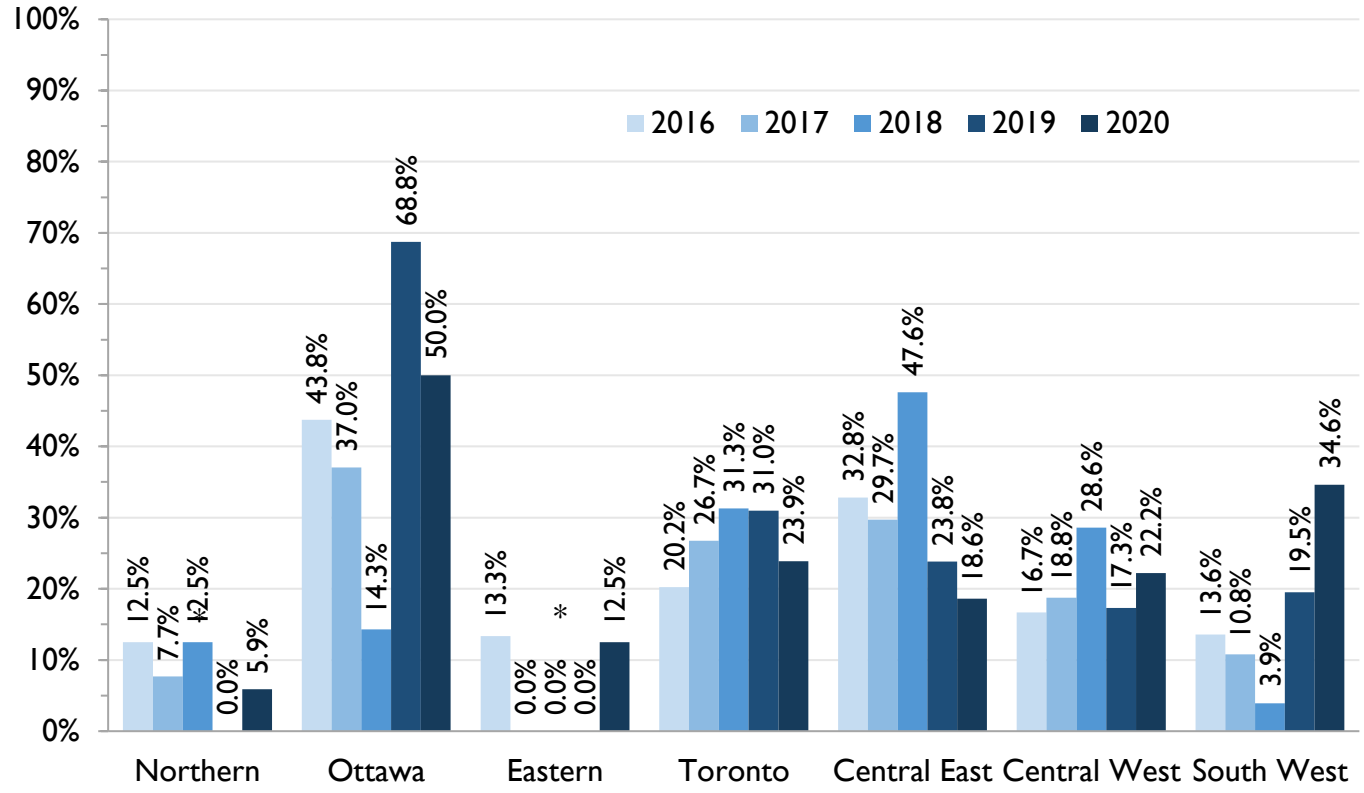
Snapshot

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB (53.8%), followed by Ottawa (12.5%), South West (8.9%), Central East (10.0%), and Central West (10.0%) regions. Northern and Eastern regions made up less than 5% of first-time HIV diagnoses attributed to ACB in 2020.

Between 2016 and 2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 30.1% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.17 Percent of first-time HIV diagnoses within each health region attributed to ACB (where ACB status reported), Ontario, 2016 to 2020



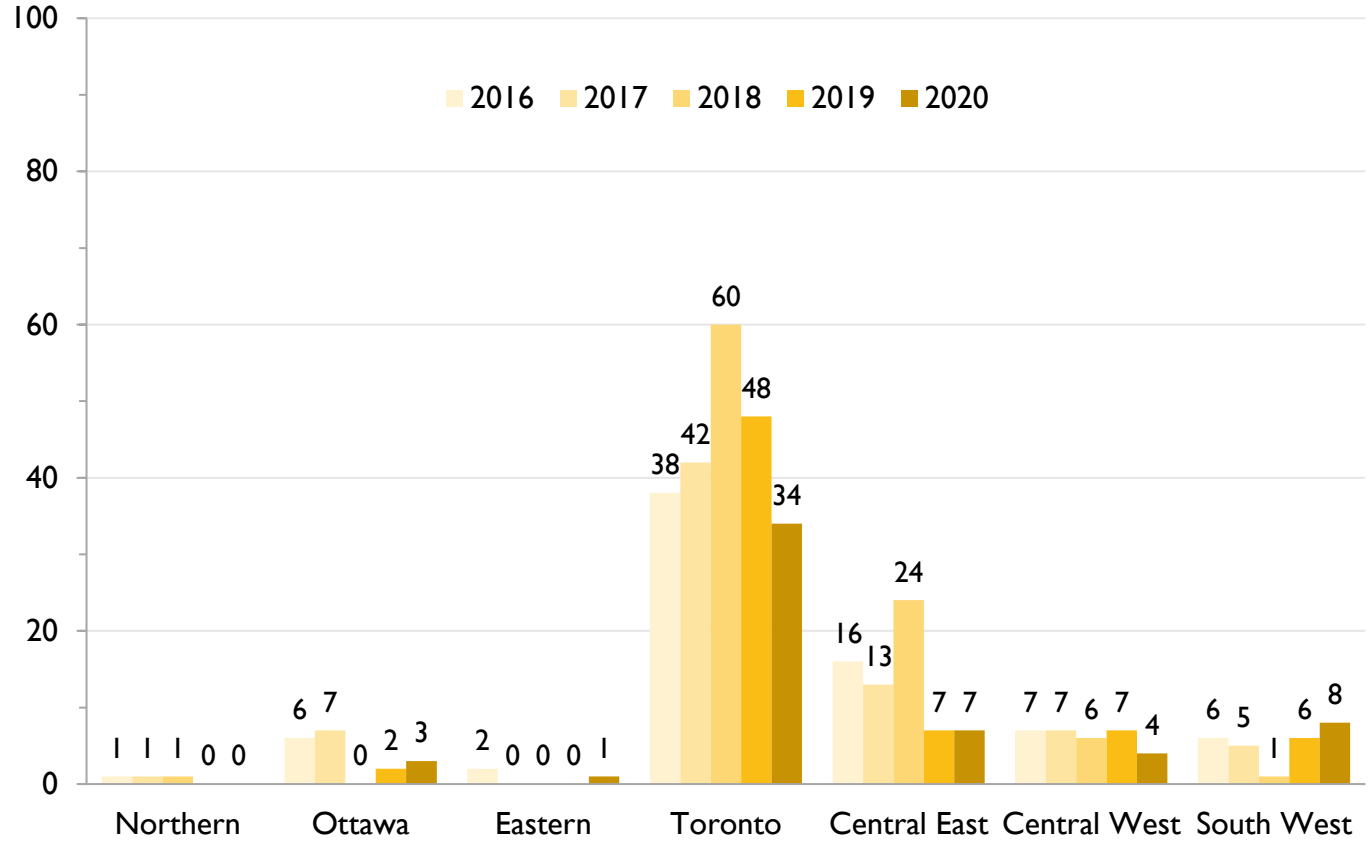
Snapshot

In 2020, looking within each health region, Ottawa region attributed a larger proportion of its first-time HIV diagnoses to ACB than any other region (50.0%, although that it had only 10 diagnoses attributed to ACB), followed by South West (34.6%), Toronto (23.9%), Central West (22.2%), Central East (18.6%) regions.

Between 2016 and 2020, Ottawa region attributed a larger proportion of its first-time HIV diagnoses to ACB than any other region in all years except 2018, when Central East region attributed the largest proportion.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 30.1% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.18 Number of first-time HIV diagnoses by health region, ACB males, Ontario, 2016 to 2020



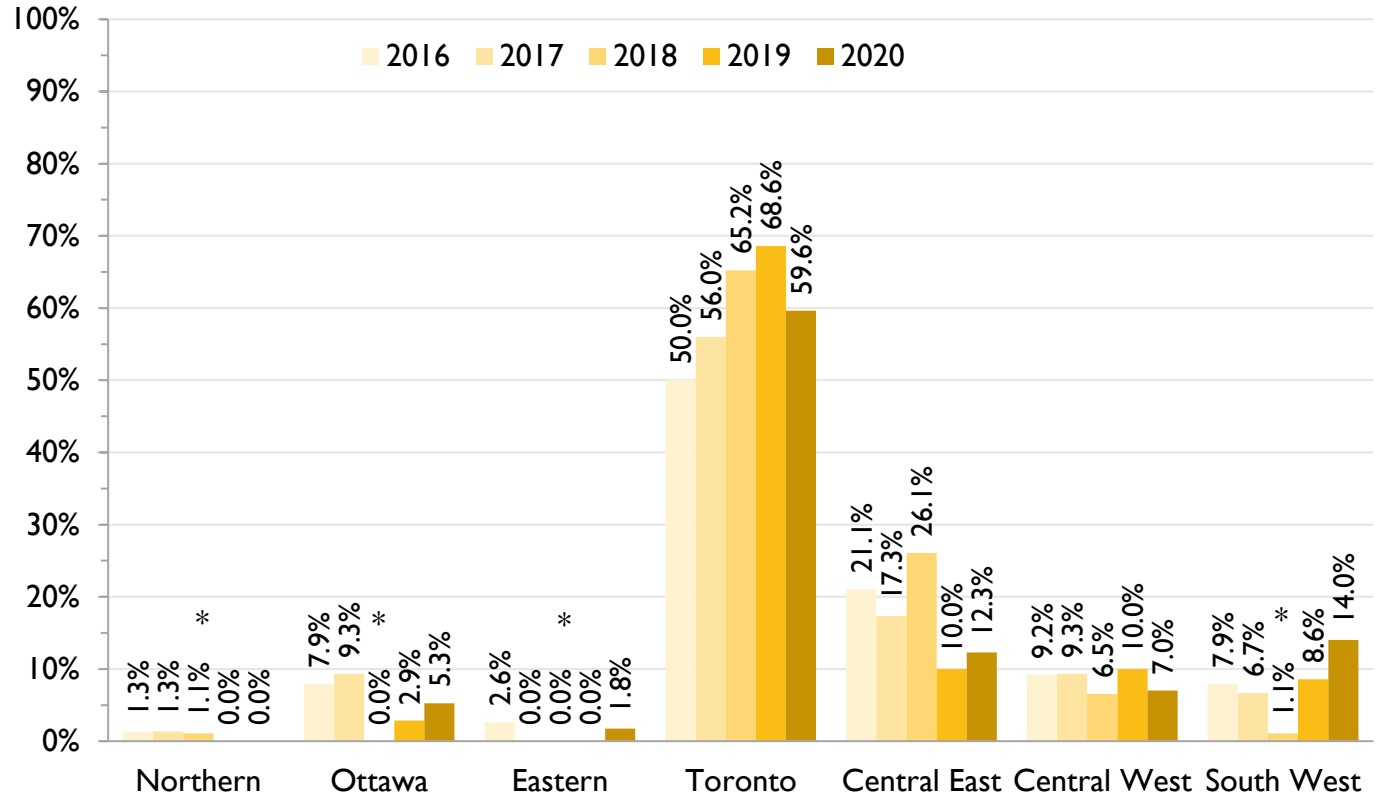
Snapshot

In 2020, Toronto region had the largest number of first-time HIV diagnoses among ACB males (34), followed by South West (8), Central East (7) and Central West (7) regions.

Between 2016 and 2020, Toronto region had the largest number of first-time HIV diagnoses among ACB males.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 27.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.19 Percent of first-time HIV diagnoses across health regions, ACB males, Ontario, 2016 to 2020

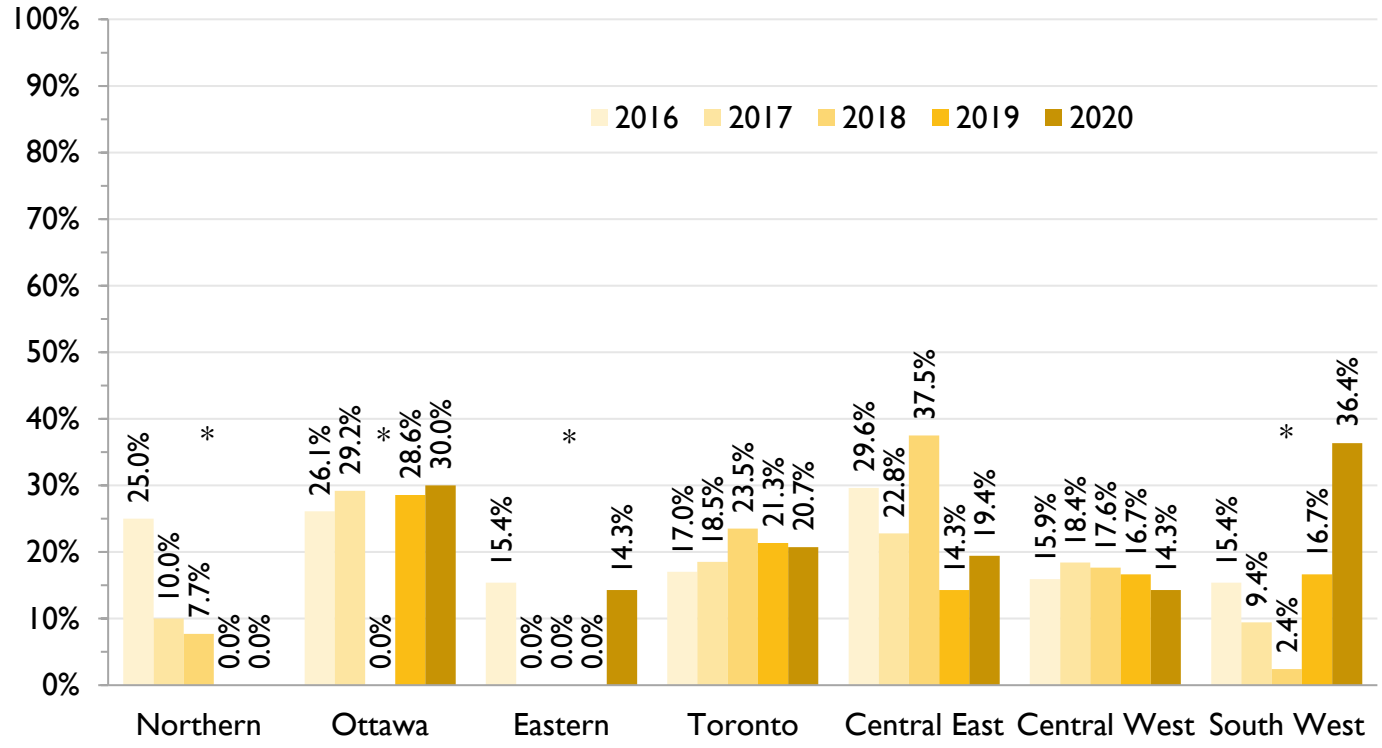


Snapshot

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB males (59.6%), followed by South West (14.0%), Central East (12.3%), Central West (7.0%), and Ottawa (5.3%) regions. Between 2016 and 2020, Toronto region accounted for between 50.0% and 68.6% of first-time HIV diagnoses among ACB males.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 27.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.20 Percent of first-time HIV diagnoses among males within each health region attributed to ACB (where ACB status reported), Ontario, 2016 to 2020



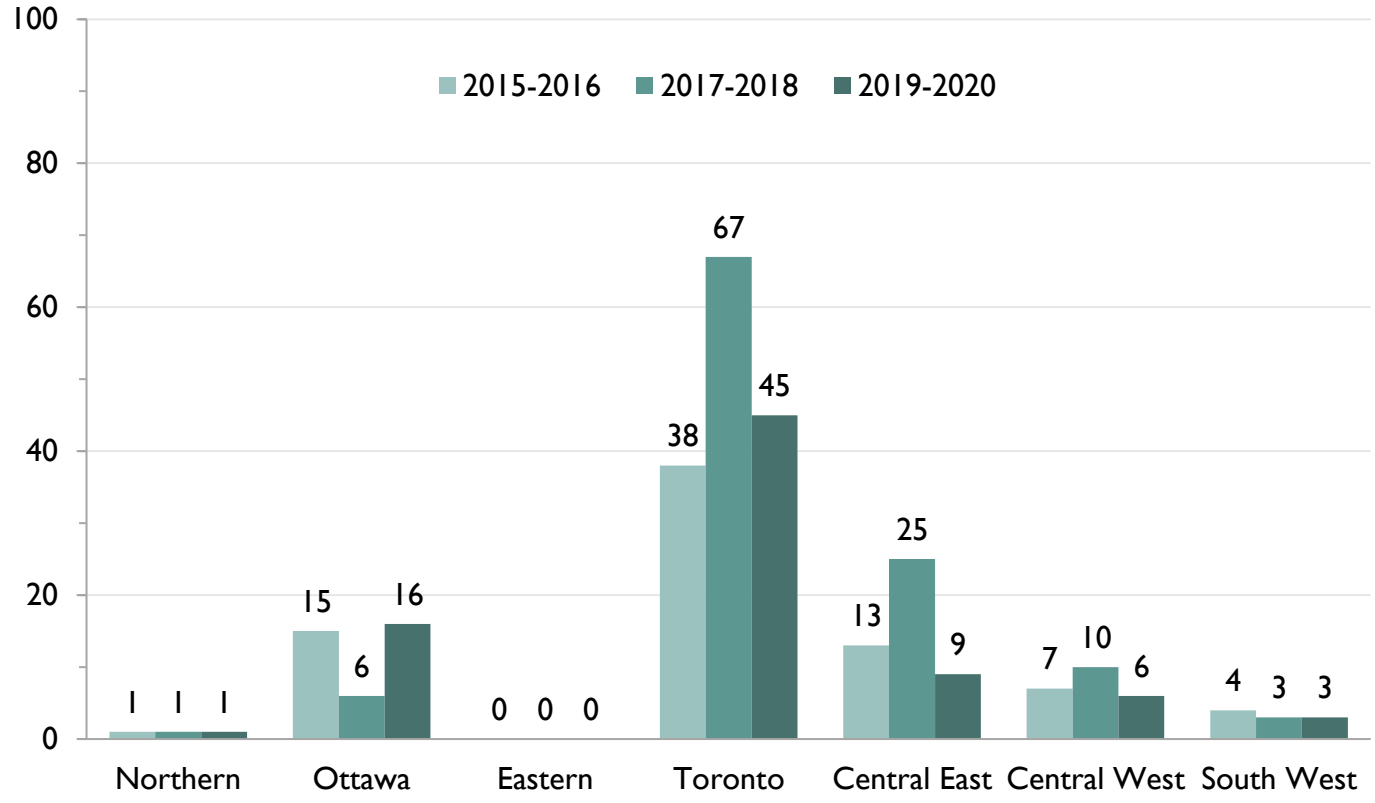
Snapshot

In 2020, looking within each region, South West region attributed a larger proportion of its first-time HIV diagnoses among males to ACB than any other region (36.4%), followed by Ottawa (30.0%), Toronto (20.7%), Central East (19.4%), Eastern (14.3%), and Central West (14.3%) regions.

Between 2016 and 2020, between 17.0% and 23.5% of first-time HIV diagnoses among males in Toronto region were attributed to ACB males. Proportions of first-time HIV diagnoses in other regions are more variable as they are based on relatively small numbers.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 27.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.21 Number of first-time HIV diagnoses by health region, ACB females, Ontario, 2015-2016 to 2019-2020



Snapshot

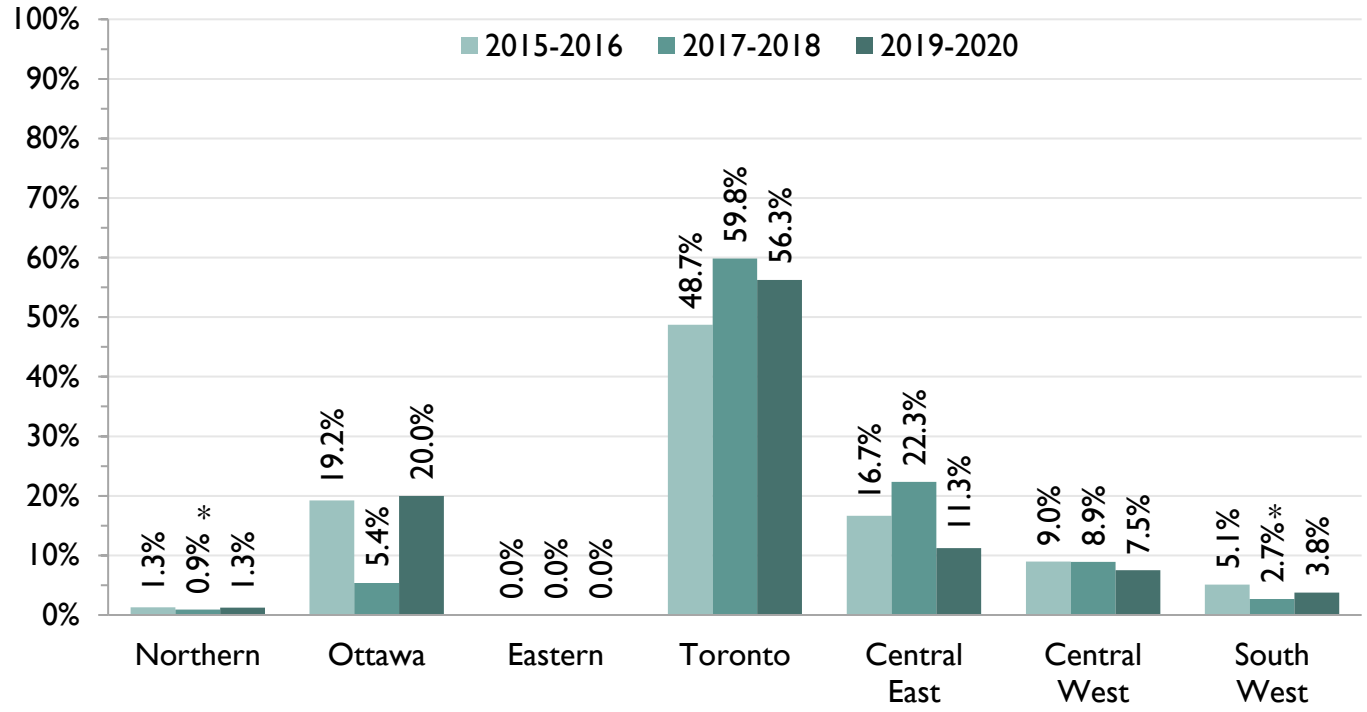
Over the two-year period 2019-2020, Toronto region had the largest number of first-time HIV diagnoses among ACB females (45), followed by Ottawa (16), Central East (9), Central West (6), South West (3) and Northern (1) regions. Eastern region had 0 diagnoses among ACB females.

Between the two-year periods 2015-2016 and 2019-2020, Toronto region had the largest number of first-time HIV diagnoses among ACB females, ranging from 38 to 67.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 35.9% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.22 Percent of first-time HIV diagnoses across health regions, ACB females, Ontario, 2015-2016 to 2019-2020



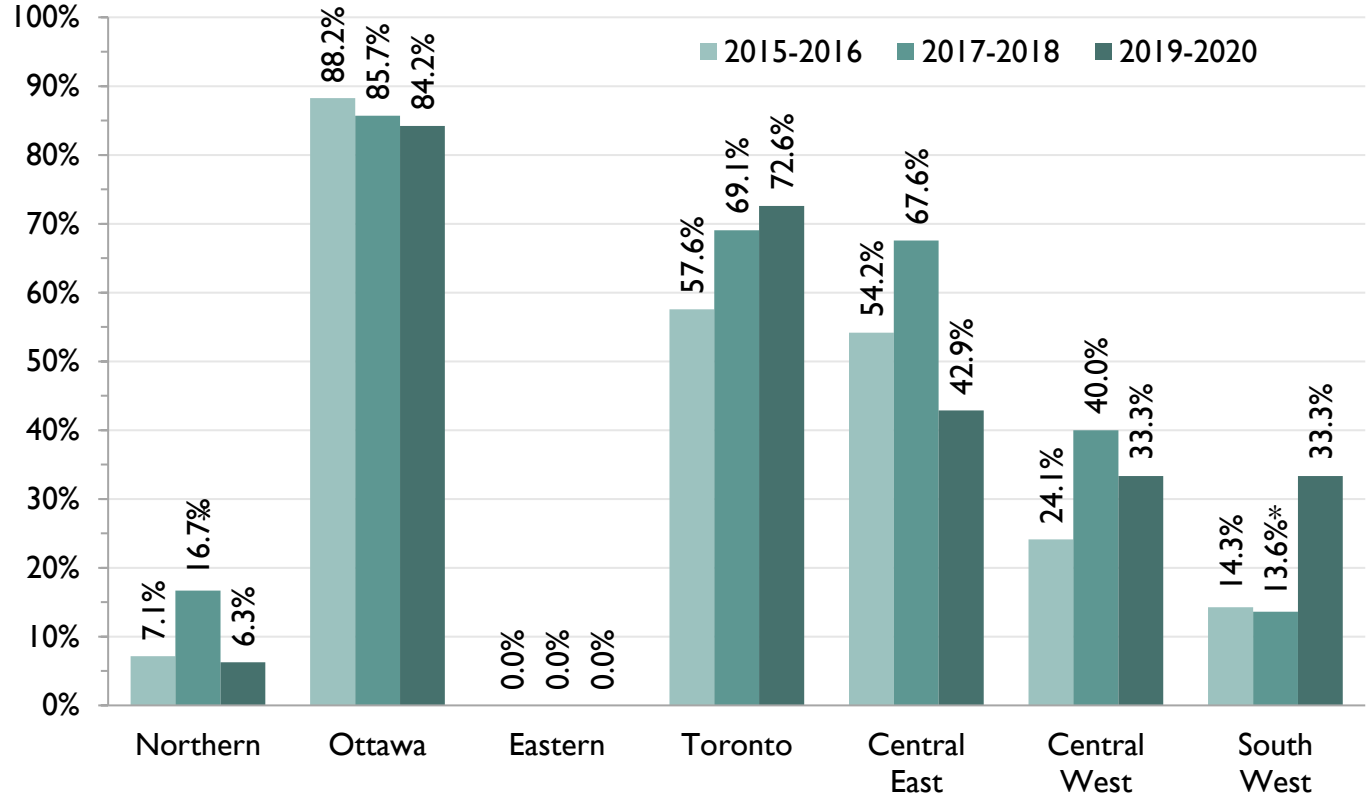
Snapshot

Over the two-year period 2019-2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB females (56.3%), followed by Ottawa (20.0%), Central East (11.3%), and Central West (7.5%) regions. This trend has been consistent over time: between the two-year periods 2015-2016 and 2019-2020, Toronto region had the largest proportion of first-time HIV diagnoses among ACB females.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 35.9% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 9.23 Percent of first-time HIV diagnoses among females within each health region attributed to ACB (where ACB status reported), Ontario, 2015-2016 to 2019-2020



Snapshot

Over the two-year period 2019-2020, looking within each region, Ottawa region attributed a larger proportion of its first-time HIV diagnoses among females to ACB than any other region (84.2%), followed by Toronto (72.6%), Central East (42.9%), Central West (33.3%), South West (33.3%) and Northern (6.3%) regions. These trends have been fairly consistent over time.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where ACB status was not reported were excluded (average of 35.9% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

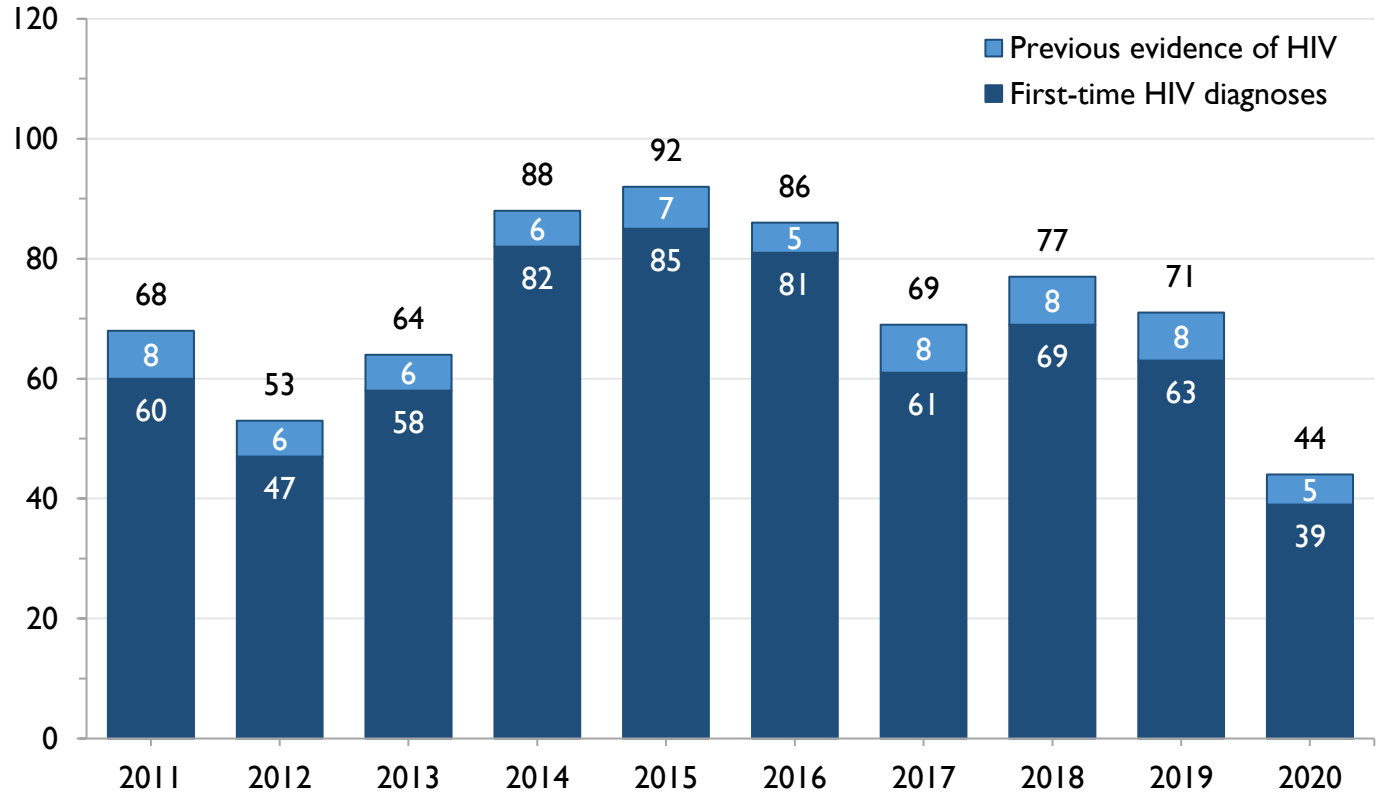
10. People who use injection drugs (PWID)

10.a. PWID overview

Diagnoses attributed to PWID are defined by having reported injection drug use as an HIV risk factor. In 2020, 39 of the 44 positive HIV tests attributed to PWID in Ontario were first-time HIV diagnoses and 5 had previous evidence of HIV.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among PWID may be underestimated, as between 2011 and 2020, the information required to assign PWID status was not reported for an average of 21.9% of positive HIV tests, and we estimate between 6.9% and 8.1% of first-time HIV diagnoses overall to have an uncaptured previous HIV diagnosis. Data shown are where PWID status was reported.*

Figure 10.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, PWID, Ontario, 2011 to 2020



Snapshot

In 2020, 39 of the 44 positive HIV tests attributed to PWID in Ontario were first-time HIV diagnoses and 5 had previous evidence of HIV. Between 2011 and 2019, the number of first-time HIV diagnoses attributed to PWID ranged from 47 to 85, before decreasing to 39 in 2020.

Between 2011 and 2019, the number of positive HIV tests attributed to PWID ranged from 53 to 92, before decreasing to 44 in 2020. The proportion of positive HIV tests that have previous evidence of HIV ranged from 5.8% to 11.8%, and was 11.4% in 2020.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among PWID may be underestimated, as between 2011 and 2020, the information required to assign PWID status was not reported for an average of 21.9% of positive HIV tests, and we estimate between 6.9% and 8.1% of first-time HIV diagnoses overall to have an uncaptured previous HIV diagnosis.*

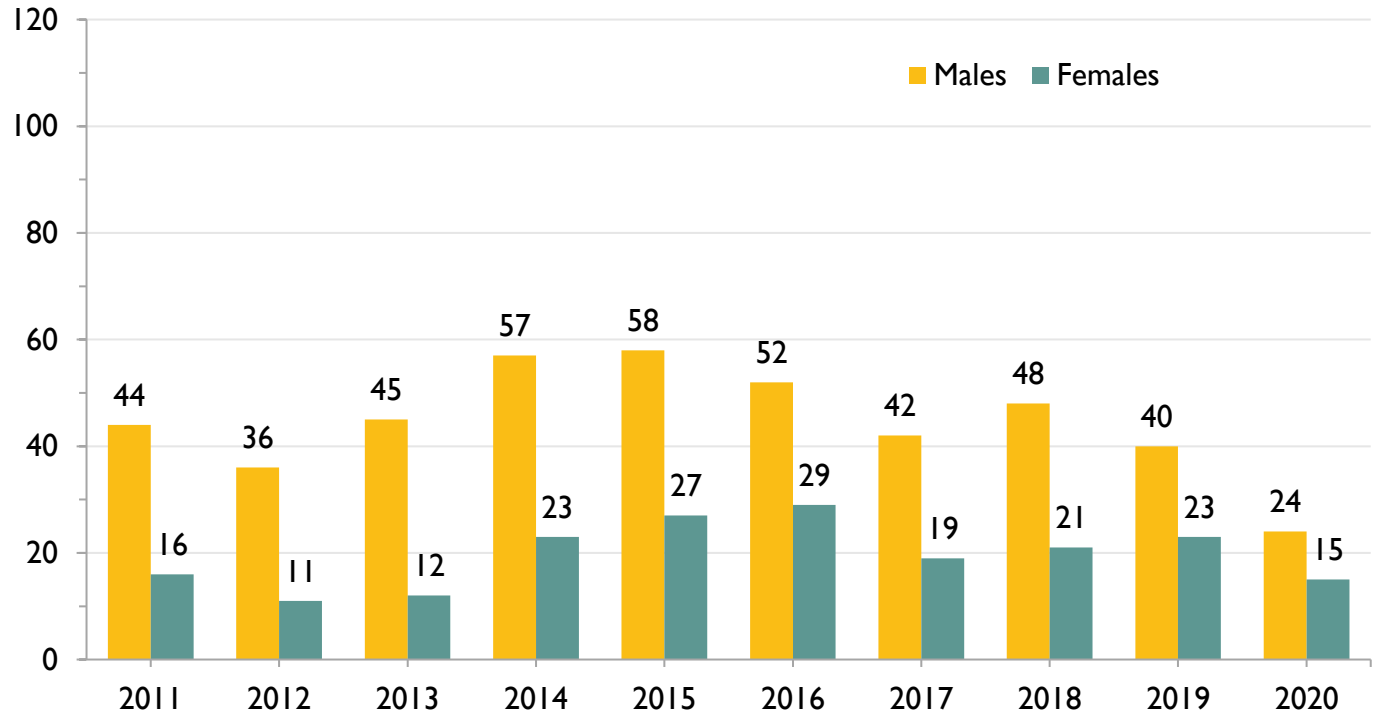
Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where PWID status was not reported were excluded (average of 21.9% of tests per year). See Appendices for more information. See Tables Supplement for underlying data.

10.b. PWID by sex

In 2020, there were 24 first-time HIV diagnoses among male PWID and 15 first-time HIV diagnoses among female PWID. PWID accounted for 11.0% of first-time HIV diagnoses with males accounting for 6.8% and females 4.2% of first-time HIV diagnoses. Male PWID accounted for 8.2% of first-time HIV diagnoses among all males, while female PWID accounted for 25.4% of first-time HIV diagnoses among females. Females accounted for 38.5% of first-time HIV diagnoses among PWID in 2020; this ranged from 21.1% to 38.5% between 2011 and 2020.

Note: *Counts of first-time HIV diagnoses among PWID may be underestimated, as 2011 and 2020, the information required to assign PWID status was not reported for an average of 18.9% of first-time HIV diagnoses among males and 28.9% among females, and we estimate between 5.0% and 5.9% among males and between 15.0% and 17.4% among females to have an uncaptured previous HIV diagnosis. Data shown are where PWID status was reported.*

Figure 10.2 Number of first-time HIV diagnoses by sex, PWID, Ontario, 2011 to 2020

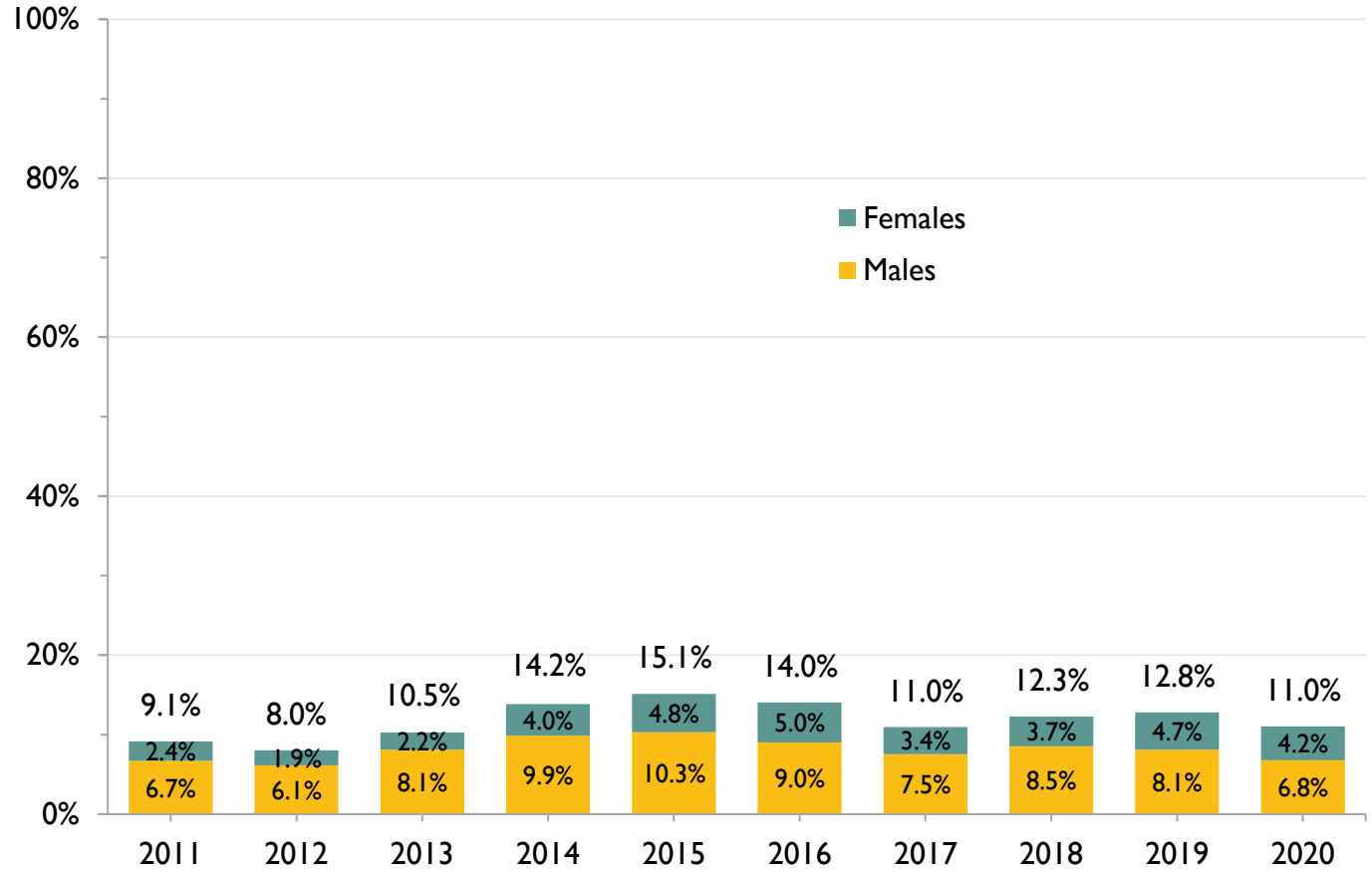


Snapshot

In 2020, there were 24 first-time HIV diagnoses among male PWID and 15 among female PWID. Between 2011 and 2020, the number of first-time HIV diagnoses among male PWID ranged from a low of 24 in 2020 to a high of 58 in 2015, and the number of first-time HIV diagnoses among female PWID ranged from a low of 11 in 2012 to a high of 29 in 2016.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 18.9% of diagnoses per year among males, 28.9% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.3 Percent of first-time HIV diagnoses attributed to PWID (where PWID status reported) by sex, Ontario, 2011 to 2020



Snapshot

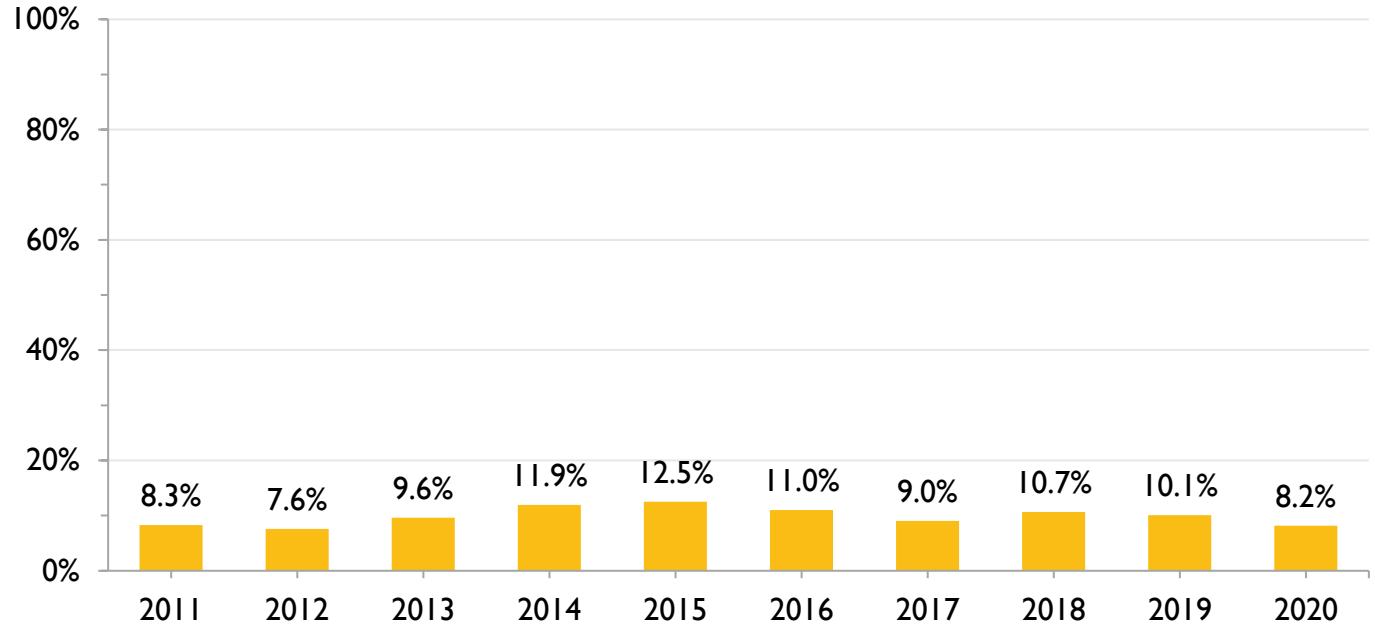
In 2020, male PWID accounted for 6.8% and female PWID accounted for 4.2% of all first-time HIV diagnoses, for a total of 11.0% of first-time HIV diagnoses being attributed to PWID.

Between 2011 and 2020, PWID accounted for between 8.0% and 15.1% of all first-time HIV diagnoses, while male PWID accounted for between 6.1% and 10.3%, and female PWID between 1.9% and 5.0%.

Note: *Counts of first-time HIV diagnoses among PWID may be underestimated, as 2011 and 2020, the information required to assign PWID status was not reported for an average of 18.9% of first-time HIV diagnoses among males and 28.9% among females, and we estimate between 5.0% and 5.9% among males and between 15.0% and 17.4% among females to have an uncaptured previous HIV diagnosis.*

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 18.9% of diagnoses per year among males, 28.9% among females). See Appendices for more information. See Tables Supplement for underlying data.

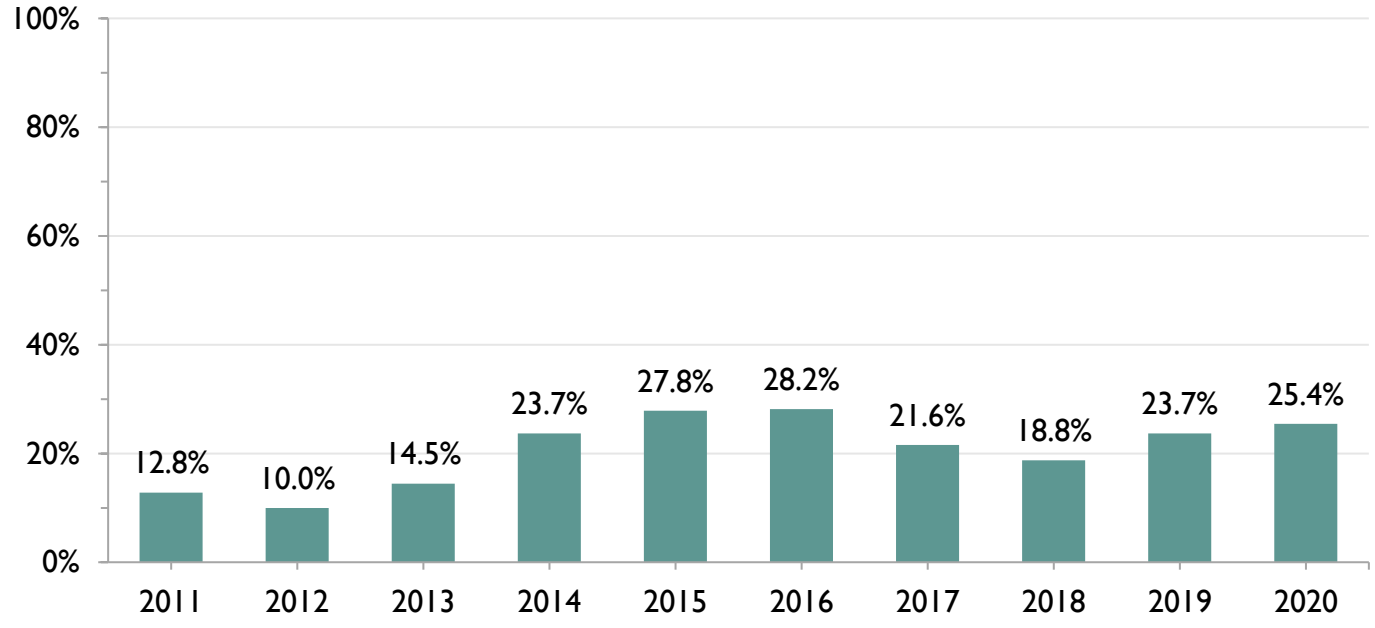
Figure 10.4 Percent of first-time HIV diagnoses among males attributed to PWID (where PWID status reported), Ontario, 2011 to 2020



Snapshot

In 2020, male PWID accounted for 8.2% of first-time HIV diagnoses among males. Between 2011 and 2020, male PWID accounted for between 7.6% and 12.5% of first-time HIV diagnoses among males.

Figure 10.5 Percent of first-time HIV diagnoses among females attributed to PWID (where PWID status reported), Ontario, 2011 to 2020

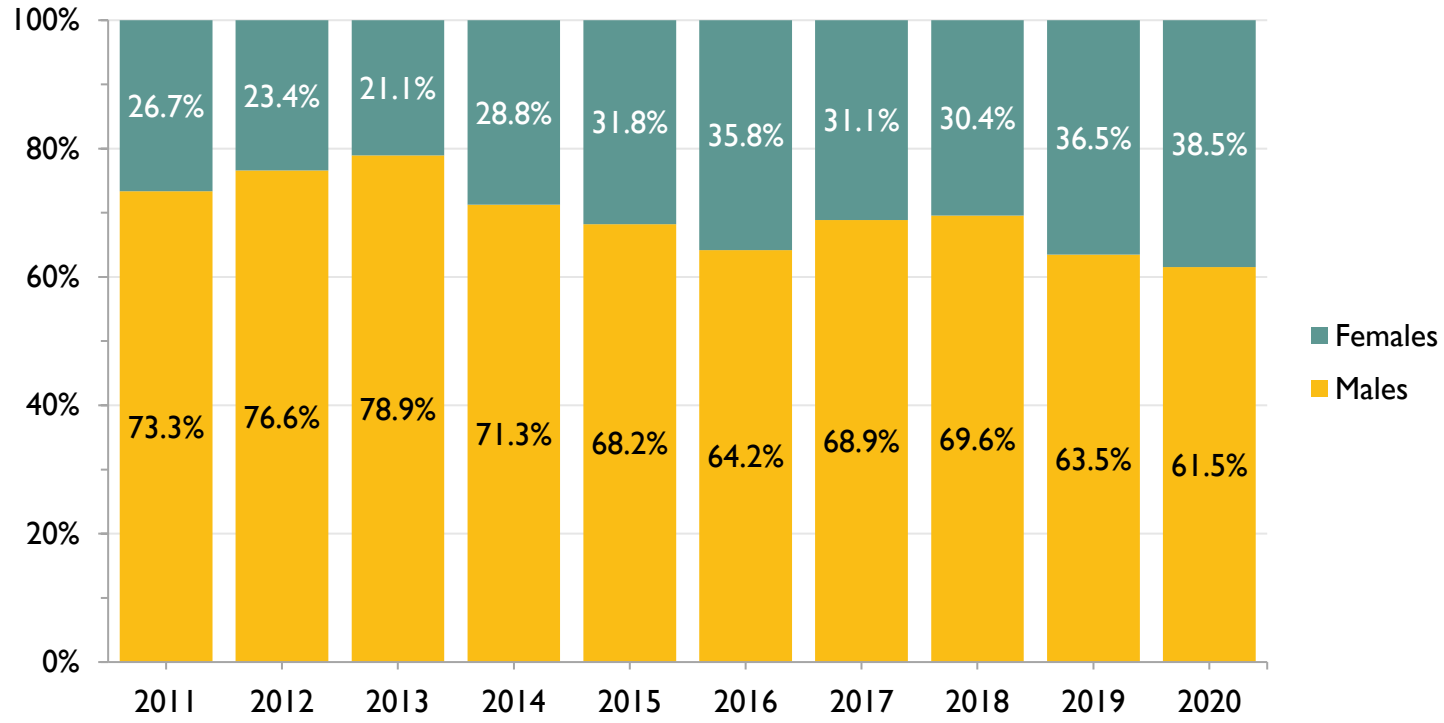


Snapshot

In 2020, female PWID accounted for 25.4% of first-time HIV diagnoses among females. Between 2011 and 2020, female PWID accounted for between 10.0% and 28.2% of first-time HIV diagnoses among females.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 18.9% of diagnoses per year among males, 28.9% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.6 Percent of first-time HIV diagnoses by sex, PWID, Ontario, 2011 to 2020



Snapshot

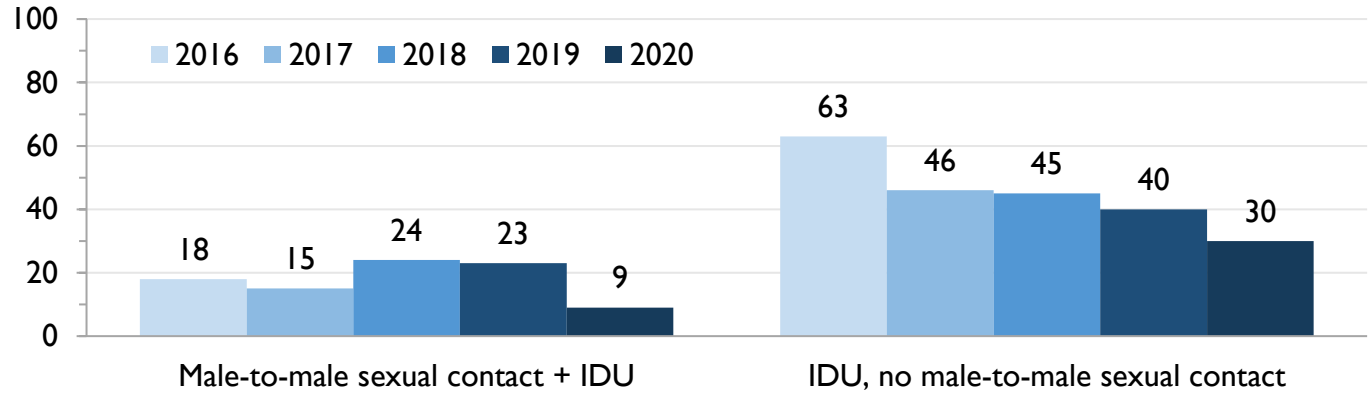
Between 2011 and 2020, males accounted for the majority of first-time HIV diagnoses in PWID. In 2020, females accounted for 38.5% of first-time HIV diagnoses among PWID, and they accounted for between 21.1% and 38.5% between 2011 and 2020.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 18.9% of diagnoses per year among males, 28.9% among females). See Appendices for more information. See Tables Supplement for underlying data.

10.c. PWID by HIV exposure category

PWID include two exposure categories: male-to-male sexual contact + IDU (males only), and IDU (no male-to-male sexual contact; includes both males and females). As only males can be in both categories, a within-gender breakdown is only provided for males. Between 2016 and 2020, the majority of first-time HIV diagnoses among PWID were reported as IDU (no male-to-male sexual contact). Among male PWID between 2016 and 2020, at least 50% of first-time HIV diagnoses were reported as IDU (no male-to-male sexual contact) in all years except 2019.

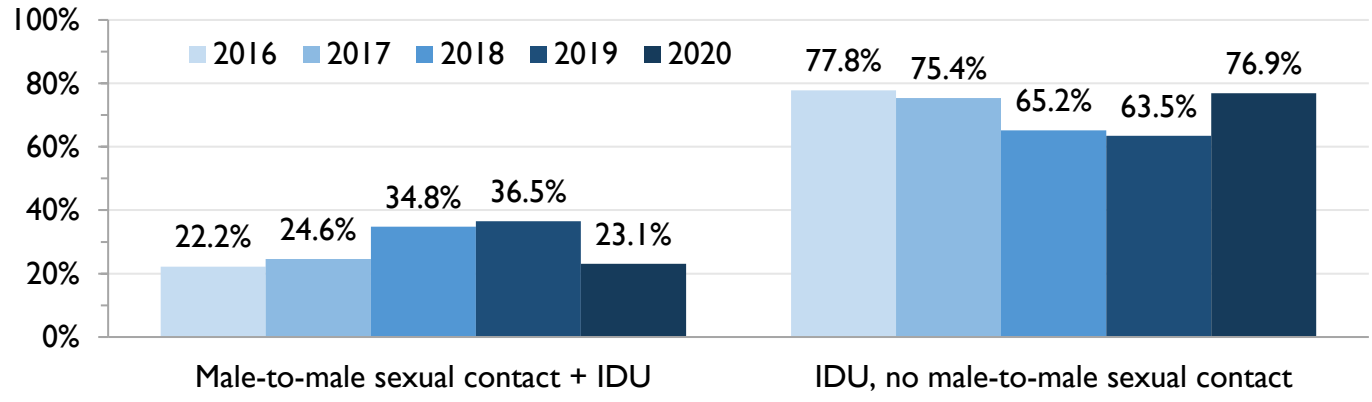
Figure 10.7 Number of first-time HIV diagnoses among PWID by HIV exposure category, Ontario, 2016 to 2020



Snapshot

In 2020, 30 of the 39 first-time HIV diagnoses among PWID were reported as IDU (no male-to-male sexual contact) and 9 were reported as male-to-male sexual contact + IDU. Between 2016 and 2020, diagnoses reported as IDU (no male-to-male sexual contact) accounted for the largest number of first-time HIV diagnoses among PWID; this number decreased from 63 in 2016 to 30 in 2020.

Figure 10.8 Percent of first-time HIV diagnoses among PWID by HIV exposure category (where reported), Ontario, 2016 to 2020

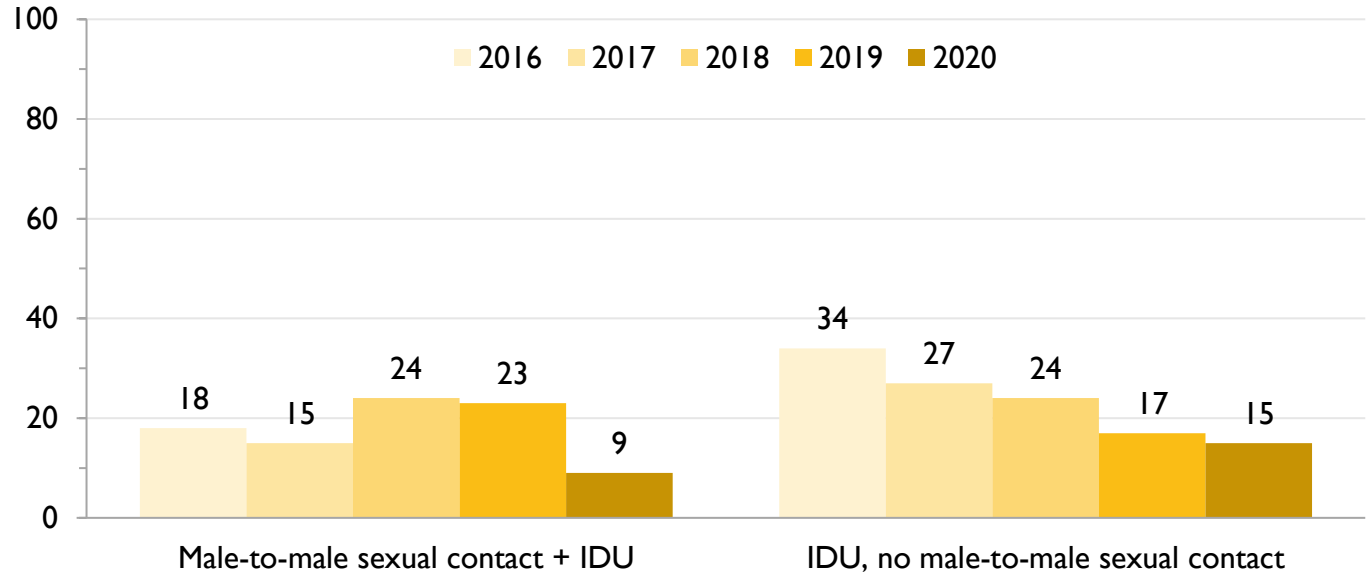


Snapshot

In 2020, 76.9% of first-time HIV diagnoses among PWID were reported as IDU (no male-to-male sexual contact) and 23.1% were reported as male-to-male sexual contact + IDU. Between 2016 and 2020, the proportion attributed to IDU (no male-to-male sexual contact) ranged from 63.5% to 77.8%, and the proportion attributed to male-to-male sexual contact + IDU ranged from 22.2% to 36.5%.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

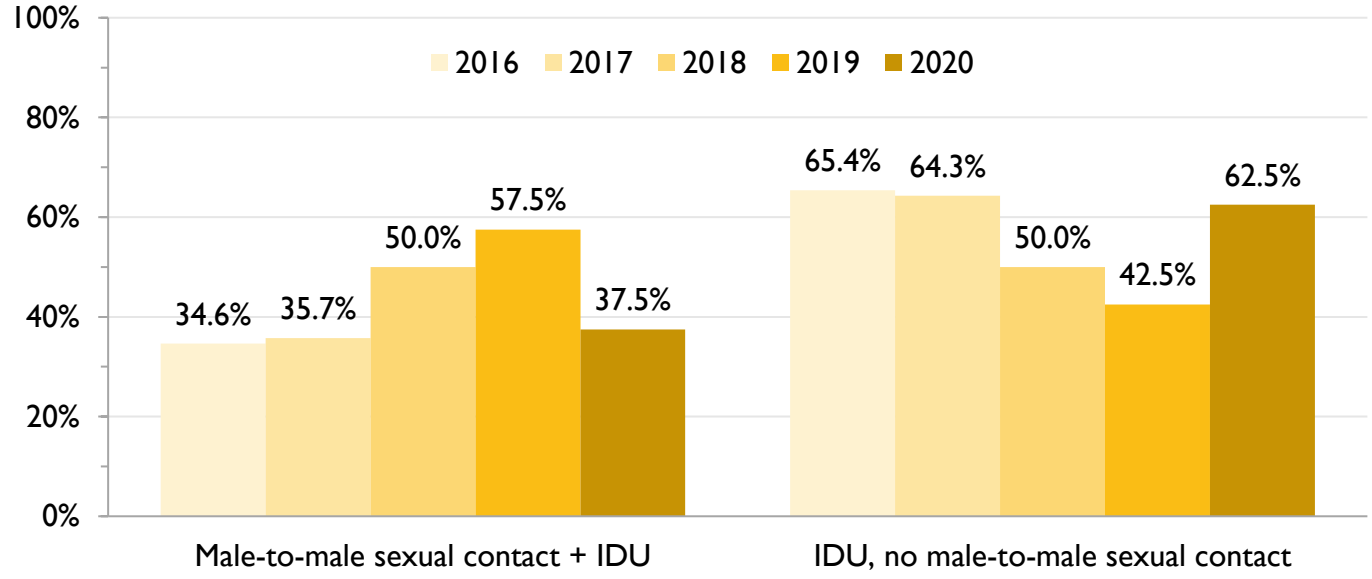
Figure 10.9 Number of first-time HIV diagnoses among male PWID by HIV exposure category, Ontario, 2016 to 2020



Snapshot

In 2020, 9 of the 24 first-time HIV diagnoses among male PWID were reported as male-to-male sexual contact + IDU and 15 as IDU (no male-to-male sexual contact). The number of first-time HIV diagnoses reported as IDU (no male-to-male sexual contact) decreased from 34 in 2016 to 15 in 2020.

Figure 10.10 Percent of first-time HIV diagnoses among male PWID by HIV exposure category (where reported), Ontario, 2016 to 2020



Snapshot

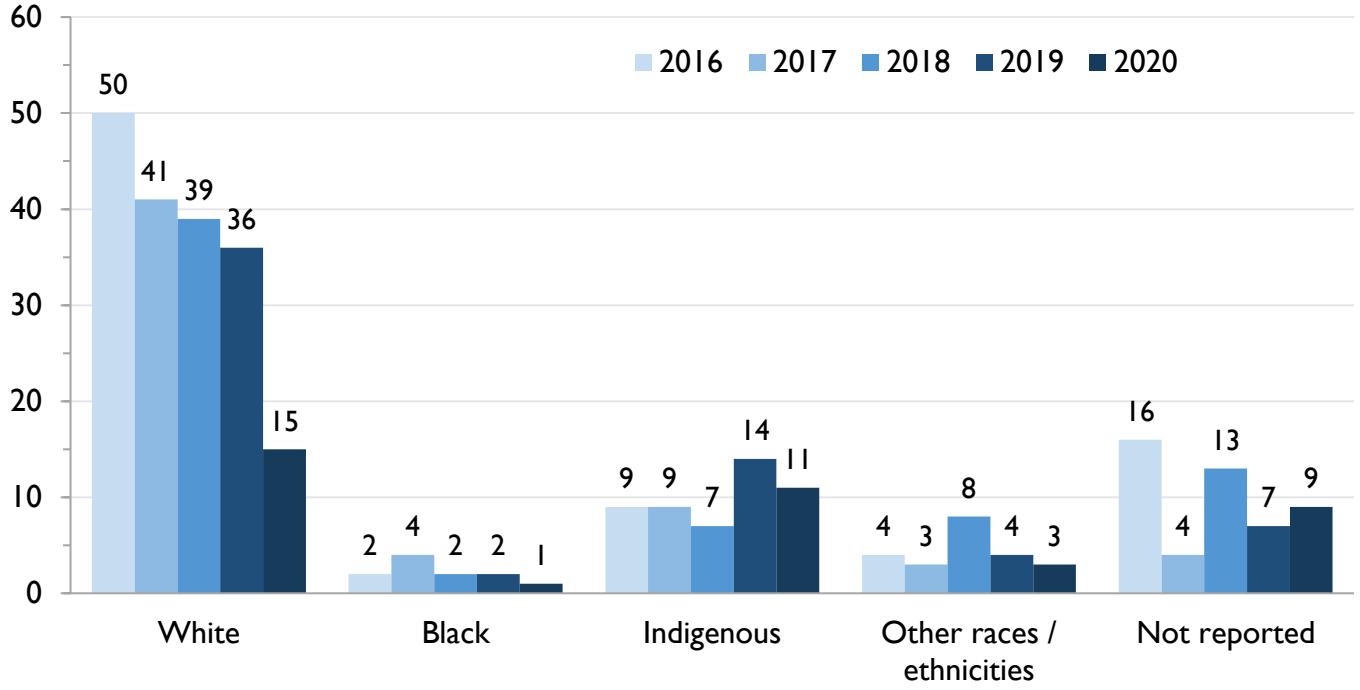
In 2020, 37.5% of first-time HIV diagnoses among male PWID were reported as male-to-male sexual contact + IDU and 62.5% were reported as IDU (no male-to-male sexual contact). Between 2016 and 2020, the proportion reported as IDU (no male-to-male sexual contact) ranged from 42.5% to 65.4%.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 21.5% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

10.d. PWID by race/ethnicity

In 2020, 50.0% of first-time HIV diagnoses among PWID were in white PWID and 36.7% were in Indigenous PWID. Over the two-year period 2019-2020, white PWID accounted for 66.7% of first-time HIV diagnoses among male PWID and 44.8% among female PWID; while Indigenous PWID accounted for 17.5% among male PWID and 51.7% among female PWID. The number of first-time HIV diagnoses in white PWID decreased among PWID overall between 2016 and 2020 and among both male and female PWID between the two-year periods 2015-2016 and 2019-2020.

Figure 10.11 Number of first-time HIV diagnoses by race/ethnicity, PWID, Ontario, 2016 to 2020



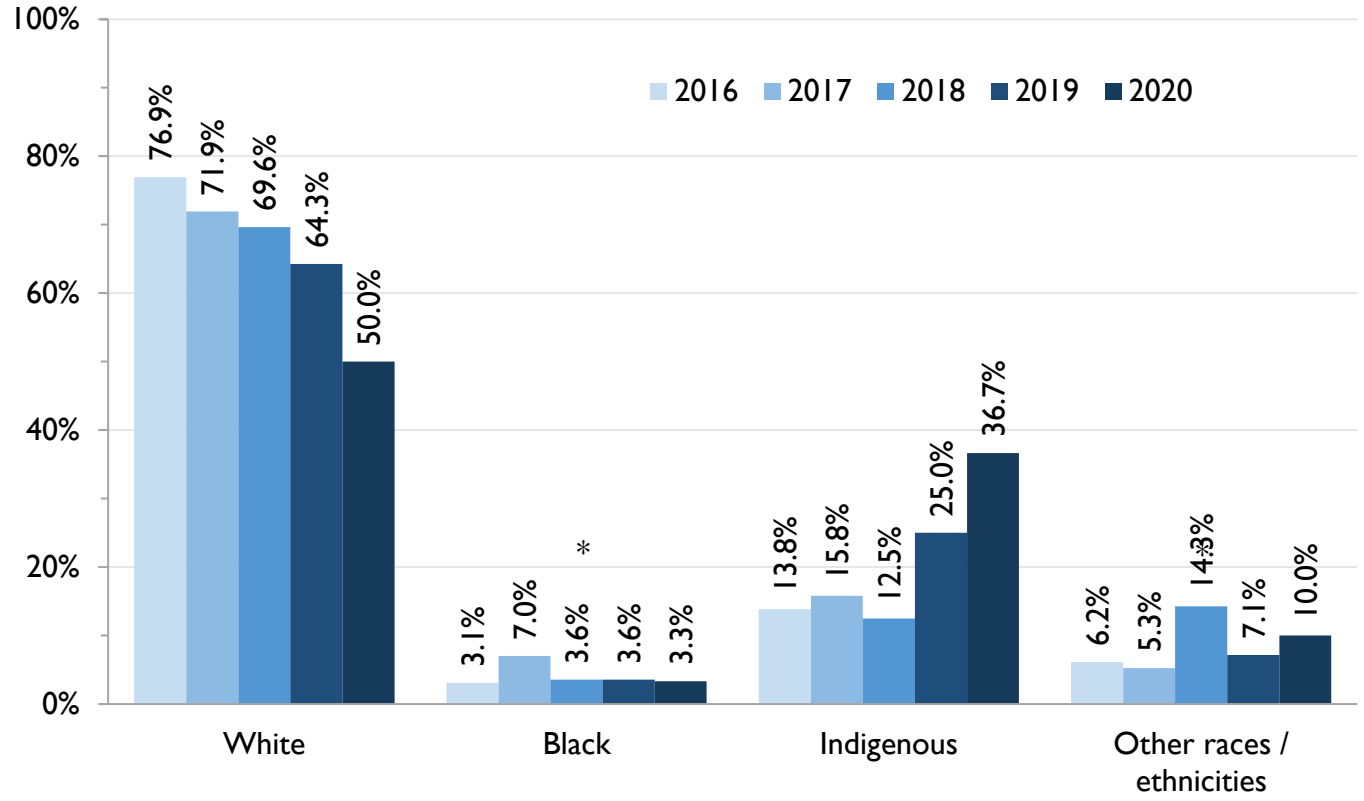
Snapshot

In 2020, 9 of the 39 first-time HIV diagnoses attributed to PWID had no reported race/ethnicity. Among the 30 first-time HIV diagnoses attributed to PWID with a reported race/ethnicity in 2020, 15 were in white PWID, 11 in Indigenous PWID, 3 in PWID of other races/ethnicities, and 1 in Black PWID.

Between 2016 and 2020, white PWID accounted for the largest number of first-time HIV diagnoses among PWID, although this number decreased from 50 in 2016 to 15 in 2020. The number of first-time HIV diagnoses in white PWID decreased by 58.3% in 2020 from 2019, a larger decline than the 21.4% decrease in Indigenous PWID and 25.0% decrease in PWID of other races/ethnicities.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.12 Percent of first-time HIV diagnoses by race/ethnicity (where reported), PWID, Ontario, 2016 to 2020



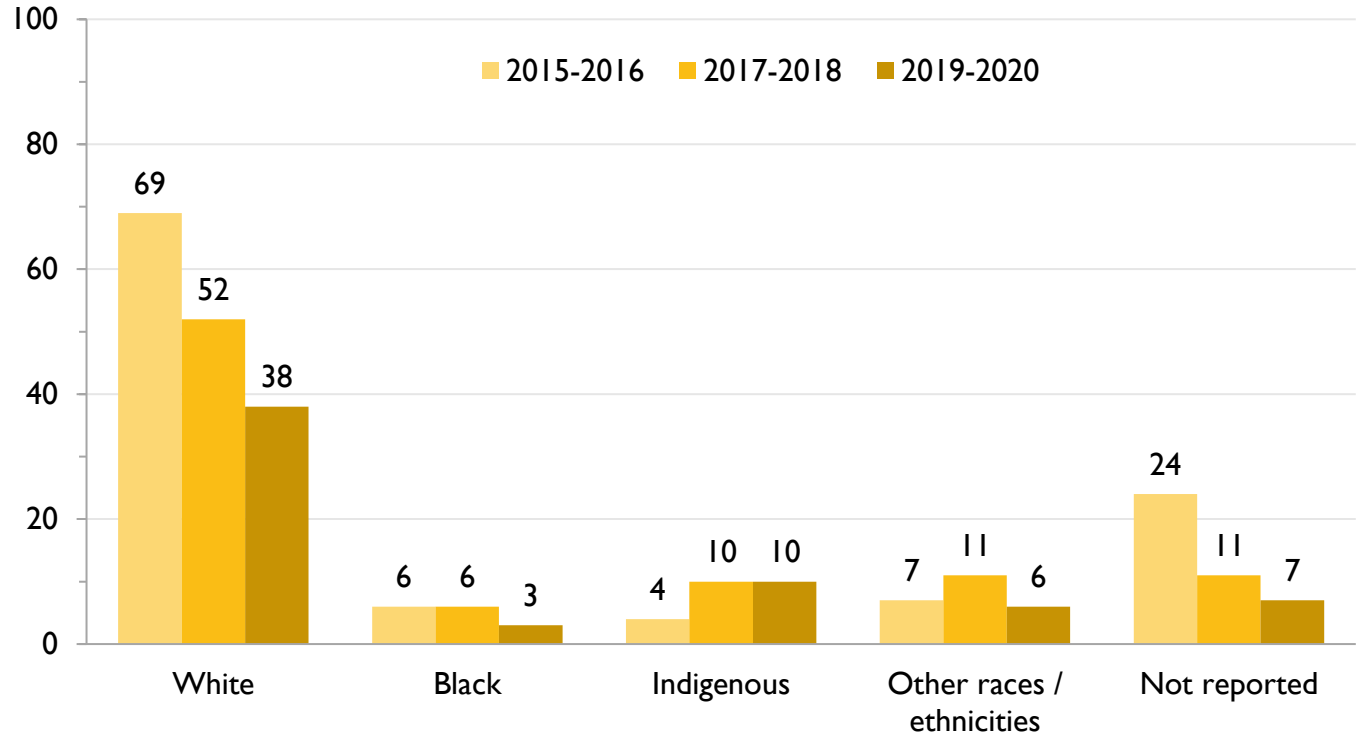
Snapshot

In 2020, among the 30 first-time HIV diagnoses attributed to PWID with a reported race/ethnicity, white PWID accounted for the largest proportion (50.0%), followed by Indigenous (36.7%) PWID, PWID of other/mixed races/ethnicities (10.0%) and Black PWID (3.3%).

Between 2016 and 2020, white PWID accounted for the largest proportion of first-time HIV diagnoses among PWID; however, this proportion decreased from 76.9% in 2016 to 50.0% in 2020 while the proportion attributed to Indigenous PWID increased from 13.8% to 36.7%.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). Diagnoses where PWID status was reported but race/ethnicity was not reported were excluded (average of 15.9% of diagnoses per year, where PWID status was reported). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.13 Number of first-time HIV diagnoses by race/ethnicity, male PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

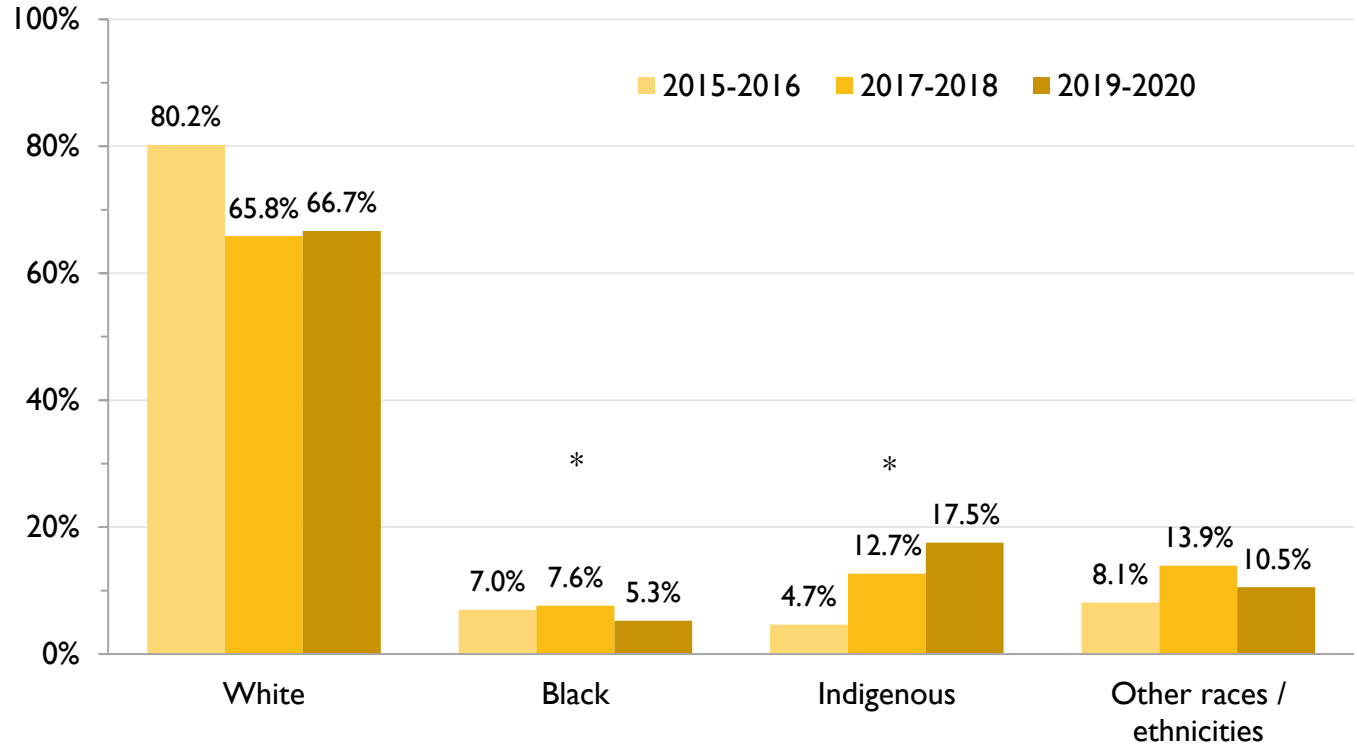
Over the two-year period 2019-2020, 7 out of 64 first-time HIV diagnoses attributed to male PWID did not report race/ethnicity. Among the 57 first-time HIV diagnoses attributed to PWID males with a reported race/ethnicity, 38 were in white males, 10 in Indigenous males, 6 in males of other races/ethnicities, and 3 in Black males.

Between the two-year periods 2015-2016 to 2019-2020, white PWID accounted for the largest number of first-time HIV diagnoses among male PWID; however, the number of first-time HIV diagnoses in white male PWID decreased from 69 in 2015-2016 to 38 in 2019-2020 while the number attributed to other races/ethnicities remained relatively stable.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 20.6% of diagnoses per 2-year period). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.14 Percent of first-time HIV diagnoses by race/ethnicity (where reported), male PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

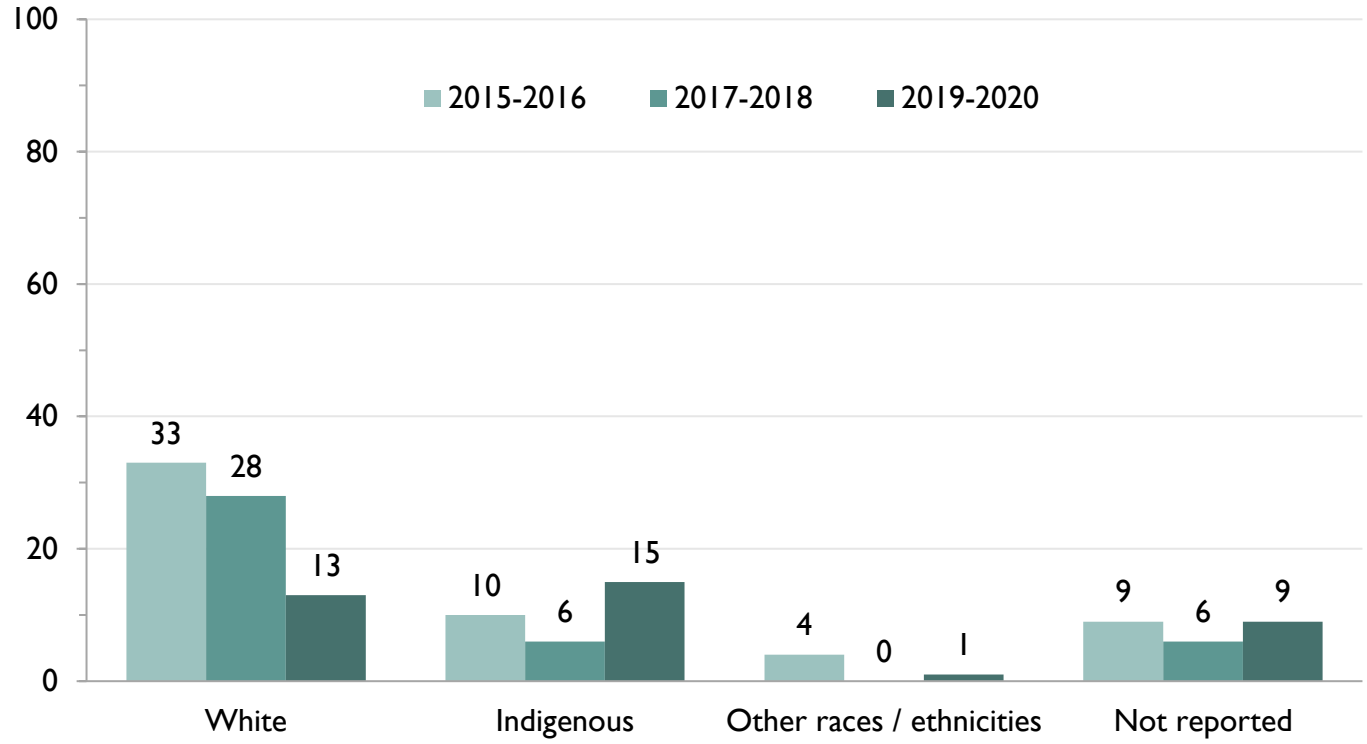
Over the two-year period 2019-2020, among the 57 first-time HIV diagnoses attributed to PWID males with a reported race/ethnicity, white males accounted for the largest proportion (66.7%), followed by Indigenous males (17.5%), males of other/mixed races/ethnicities (10.5%), and Black males (5.3%).

Between the two-year periods 2015-2016 and 2019-2020, white PWID accounted for the largest proportion of first-time HIV diagnoses among male PWID, ranging from 65.8% to 80.2%.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where PWID status was not reported were excluded (average of 20.6% of diagnoses per 2-year period). Diagnoses where PWID status was reported but race/ethnicity was not reported were excluded (average of 15.0% of diagnoses per 2-year period, where PWID status was reported). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.15 Number of first-time HIV diagnoses by race/ethnicity, female PWID, Ontario, 2015-2016 to 2019-2020



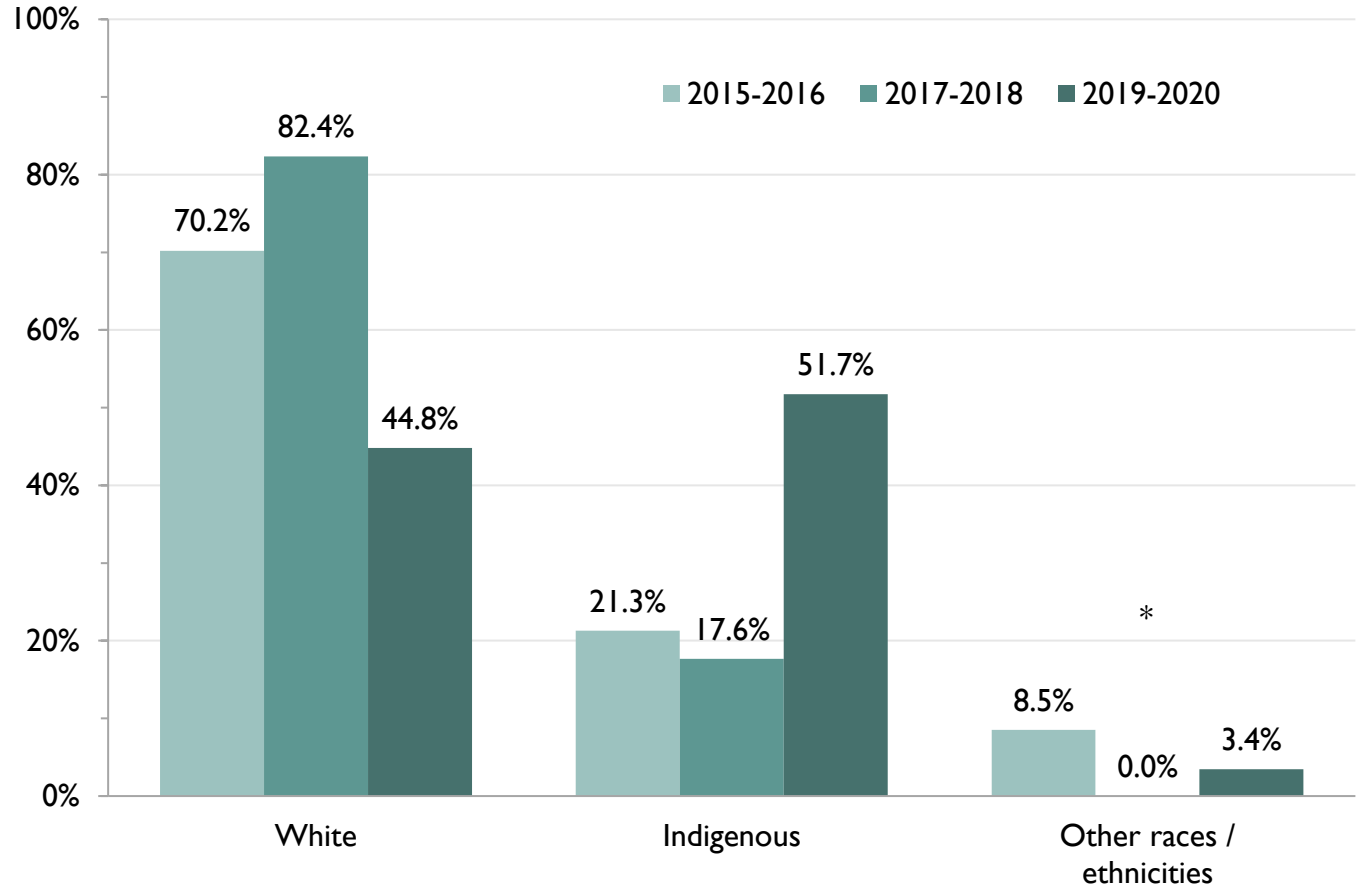
Snapshot

Over the two-year period 2019-2020, 9 of 38 first-time HIV diagnoses in female PWID had no reported race/ethnicity. Among the 29 first-time HIV diagnoses attributed to female PWID with a reported race/ethnicity, 15 were in Indigenous females, 13 in white females, and 1 was in a female of other race/ethnicity. This is in contrast with the preceding two-year periods (2015-2016 and 2017-2018), when white females accounted for the largest numbers of first-time HIV diagnoses among female PWID.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where PWID status was not reported were excluded (average of 32.6% of diagnoses per 2-year period). See Appendices for more information. See Tables Supplement for underlying data.

Figure 10.16 Percent of first-time HIV diagnoses by race/ethnicity (where reported), female PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

Over the two-year period 2019-2020, among the 29 first-time HIV diagnoses attributed to female PWID with a reported race/ethnicity, Indigenous females accounted for the largest proportion (51.7%), followed by white females (44.8%), and females of other races/ethnicities (3.4%). This is in contrast with the preceding two-year periods (2015-2016 and 2017-2018), when white females accounted for the largest proportions of first-time HIV diagnoses among female PWID.

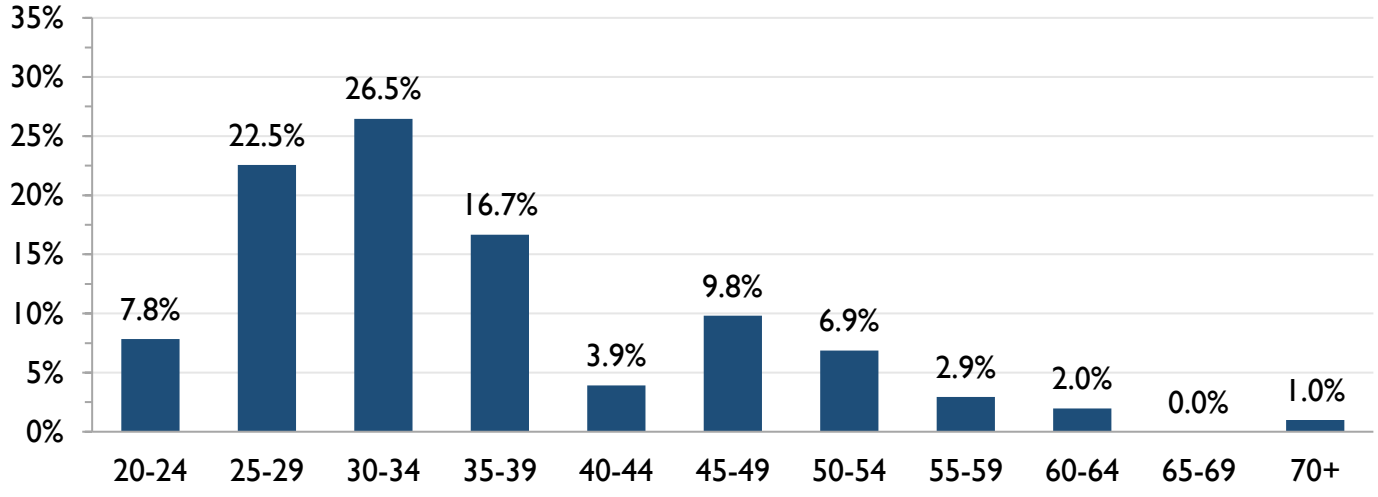
Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where PWID status was not reported were excluded (average of 32.6% of diagnoses per 2-year period). Diagnoses where PWID status was reported but race/ethnicity was not reported were excluded (average of 18.3% of diagnoses per 2-year period, where PWID status was reported). See Appendices for more information. See Tables Supplement for underlying data.

10.e. PWID by age

Over the two-year period 2019-2020, the largest proportions of first-time HIV diagnoses among PWID (26.5%) was in those aged 30-34. Over the three-year period 2018-2020, those aged 30-34 accounted for the largest proportion of first-time HIV diagnoses among PWID males (23.2%) while those aged 25-29 accounted for the largest proportion among females (28.8%).

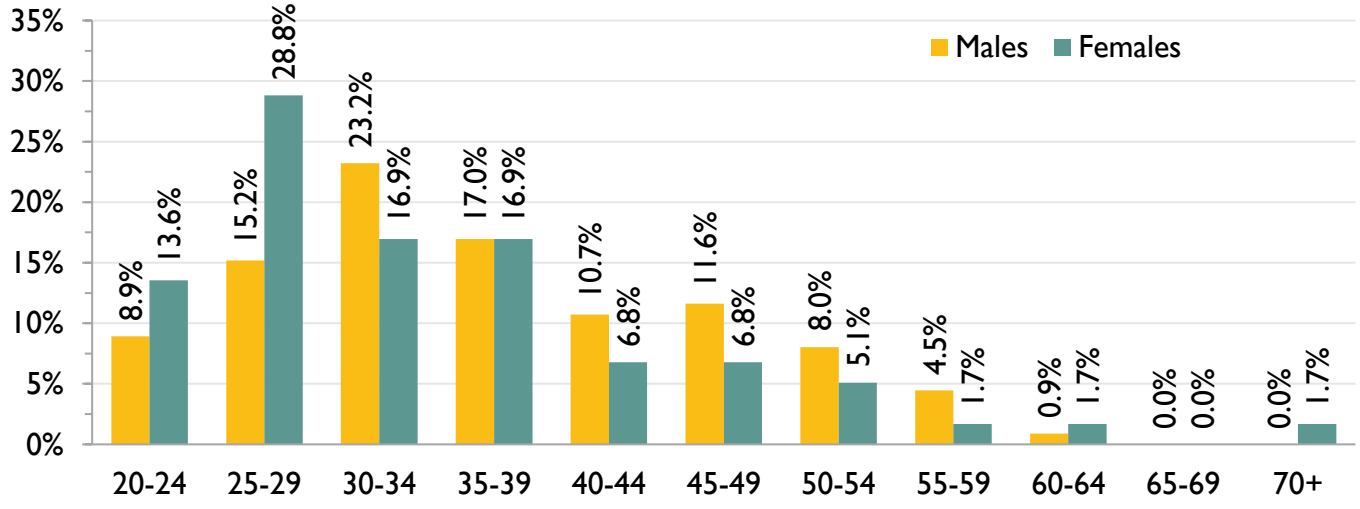
Figure 10.17 Percent of first-time HIV diagnoses by age, PWID, Ontario, 2019-2020



Snapshot

Over the two-year period 2019-2020, nearly two thirds (65.7%) of first-time HIV diagnoses among PWID were among those aged 25-39 years with those aged 30-34 accounting for the largest proportion (26.5%).

Figure 10.18 Percent of first-time HIV diagnoses by age, male PWID and female PWID, Ontario, 2018-2020



Snapshot

Over the three-year period 2018-2020, males aged 30-34 years accounted for the largest proportion of first-time HIV diagnoses among male PWID (23.2%) and females aged 25-29 accounted for the largest proportion of first-time HIV diagnoses among female PWID (28.8%).

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses with age not reported were excluded (less than 1%). Diagnoses where PWID status was not reported were excluded (29.3% of diagnoses overall, 23.8% among males over the 3-year period 2018-2020 and 38.0% among females). See Appendices for more information. See Tables Supplement for underlying data.

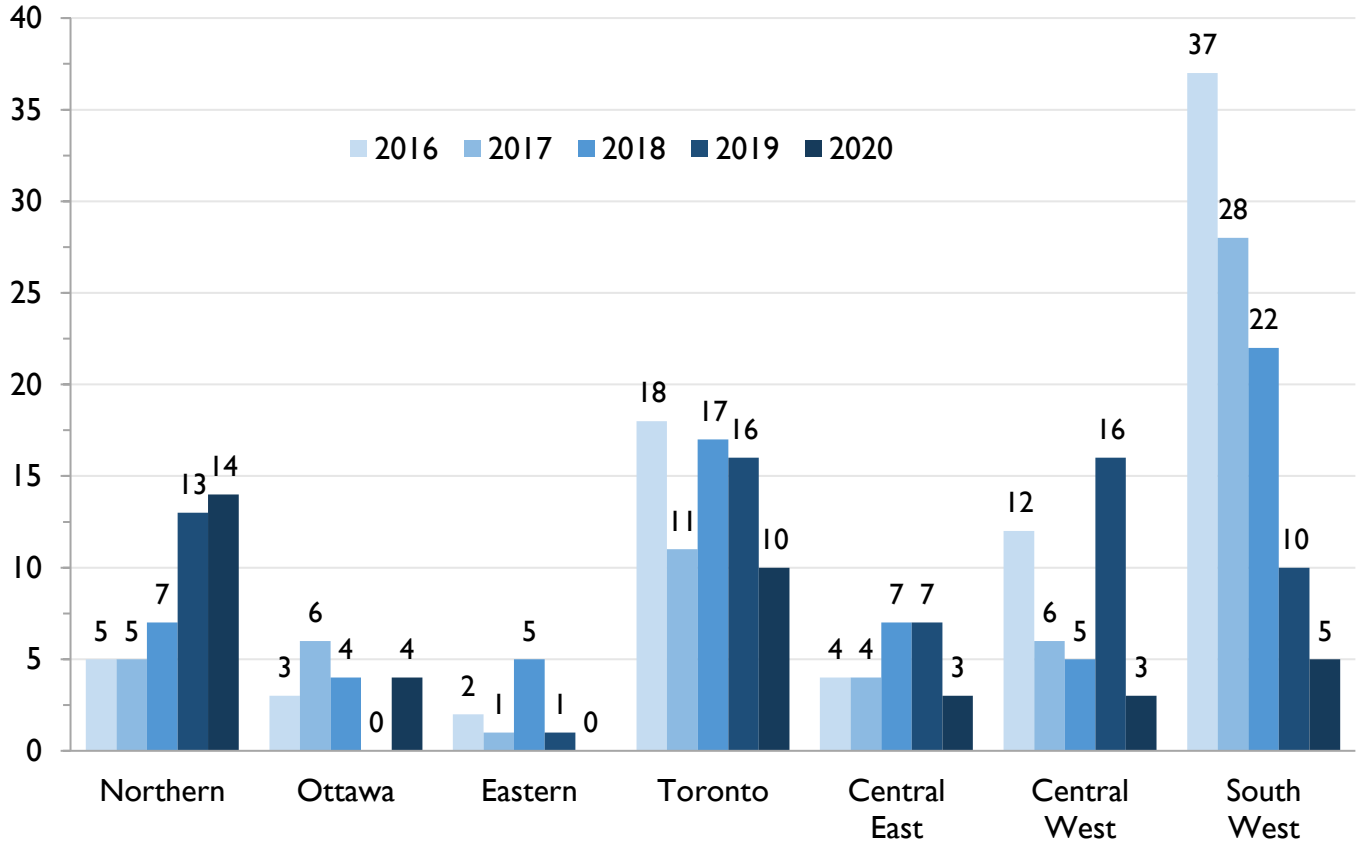
10.f. PWID by health region

In 2020, Northern, Toronto, and South West regions together had nearly three quarters (74.4%) of first-time HIV diagnoses among PWID.

Looking within each region, Northern region had the largest proportion of its first-time HIV diagnoses overall in 2020 that was attributed to PWID (66.7%).

The number of first-time HIV diagnoses attributed to PWID in South West region decreased from 37 in 2016 to 5 in 2020.

Figure 10.19 Number of first-time HIV diagnoses by health region, PWID, Ontario, 2016 to 2020



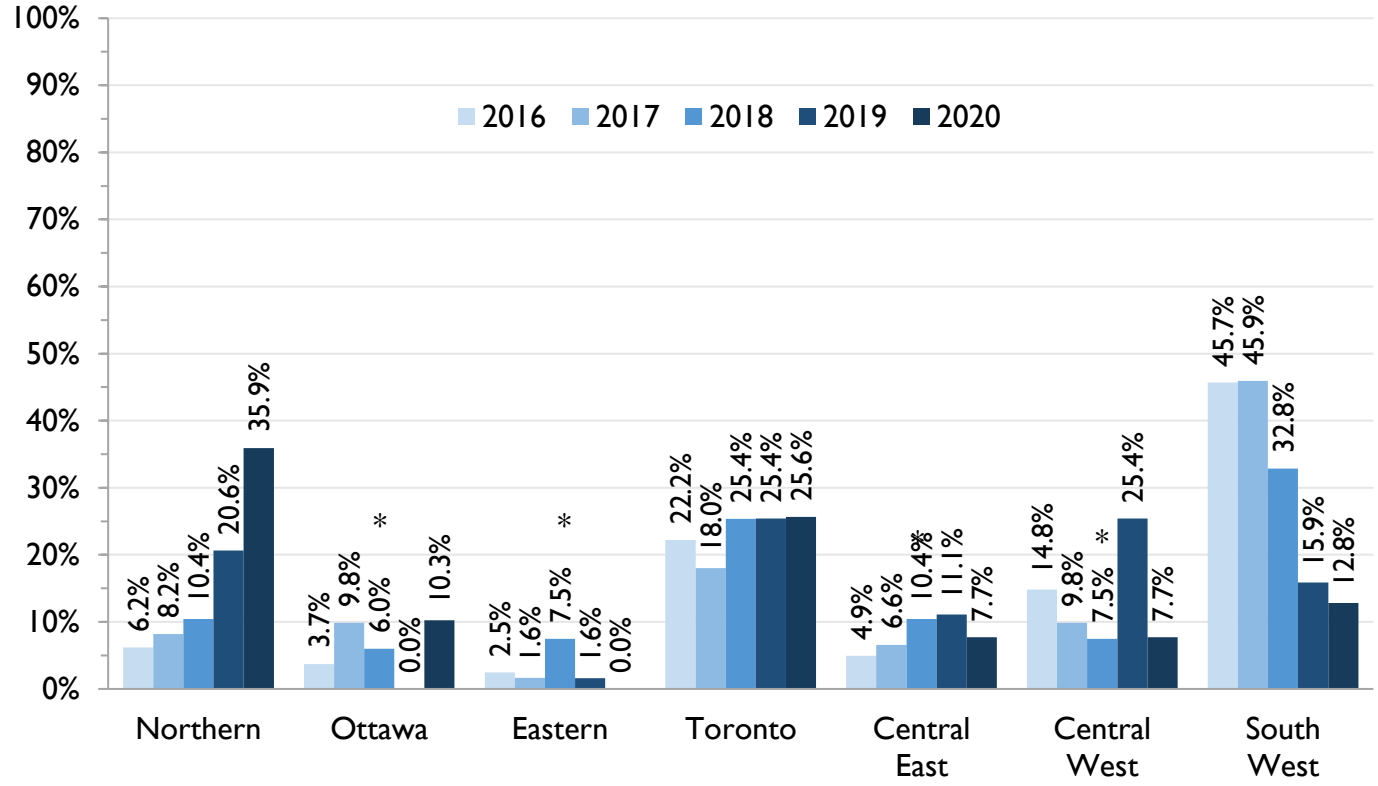
Snapshot

In 2020, Northern region had the largest number of first-time HIV diagnoses among PWID (14), followed by Toronto (10), South West (5), Ottawa (4), Central West (3), and Central East (3) regions. Eastern region had 0 first-time HIV diagnoses among PWID in 2020.

Between 2016 and 2020, the number of first-time HIV diagnoses consistently decreased in South West region from 37 in 2016 to 5 in 2020, while this number increased in Northern region from 5 in 2016 to 14 in 2020.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.20 Percent of first-time HIV diagnoses across health regions, PWID, Ontario, 2016 to 2020



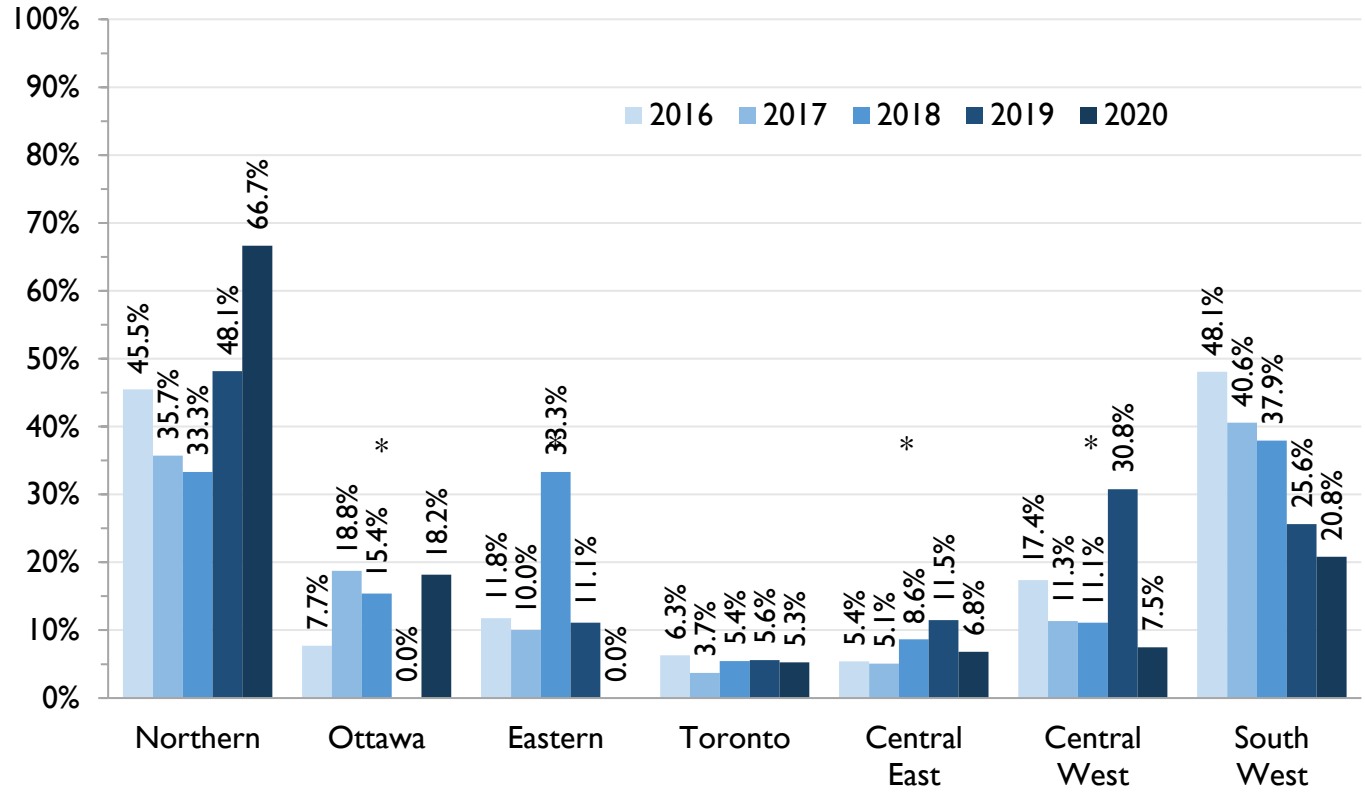
Snapshot

In 2020, the Northern region had the largest proportion of first-time HIV diagnoses among PWID (35.9%), followed by Toronto (25.6%), South West (12.8%), Ottawa (10.3%), Central East (7.7%), and Central West (7.7%) regions. Eastern region had 0 first-time HIV diagnoses among PWID in 2020.

South West region had the largest proportion of first-time HIV diagnoses among PWID between 2016 and 2018, while Toronto region had the largest proportion in 2019 and Northern region in 2020. Northern region accounted for a growing proportion of first-time HIV diagnoses among PWID between 2016 and 2020 (from 6.2% to 35.9%), while conversely South West region accounted for a decreasing proportion (from 45.7% to 12.8%).

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.21 Percent of first-time HIV diagnoses within each health region attributed to PWID (where PWID status reported), Ontario, 2016 to 2020



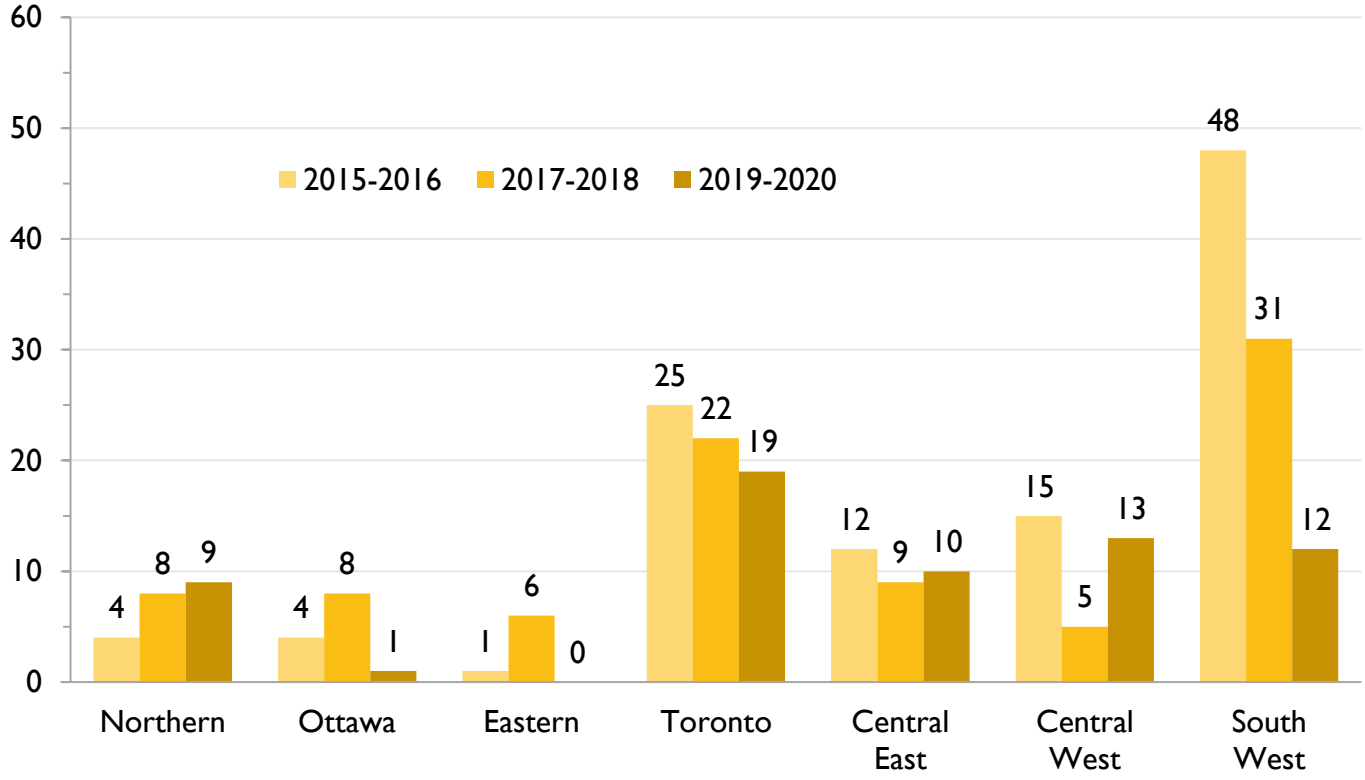
Snapshot

In 2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses to PWID than any other region (66.7%), followed by South West (20.8%), Ottawa (18.2%), Central West (7.5%), Central East (6.8%), and Toronto (5.3%) regions. Eastern region had 0 first-time HIV diagnoses attributed to PWID in 2020.

South West region attributed a larger proportion of its first-time HIV diagnoses to PWID than any other region in 2016, 2017, and 2018, while Northern region attributed the largest proportion in 2019 and 2020. The proportion of first-time HIV diagnoses in South West region attributed to PWID decreased year over year from 48.1% in 2016 to 20.8% in 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 24.5% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.22 Number of first-time HIV diagnoses by health region, male PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

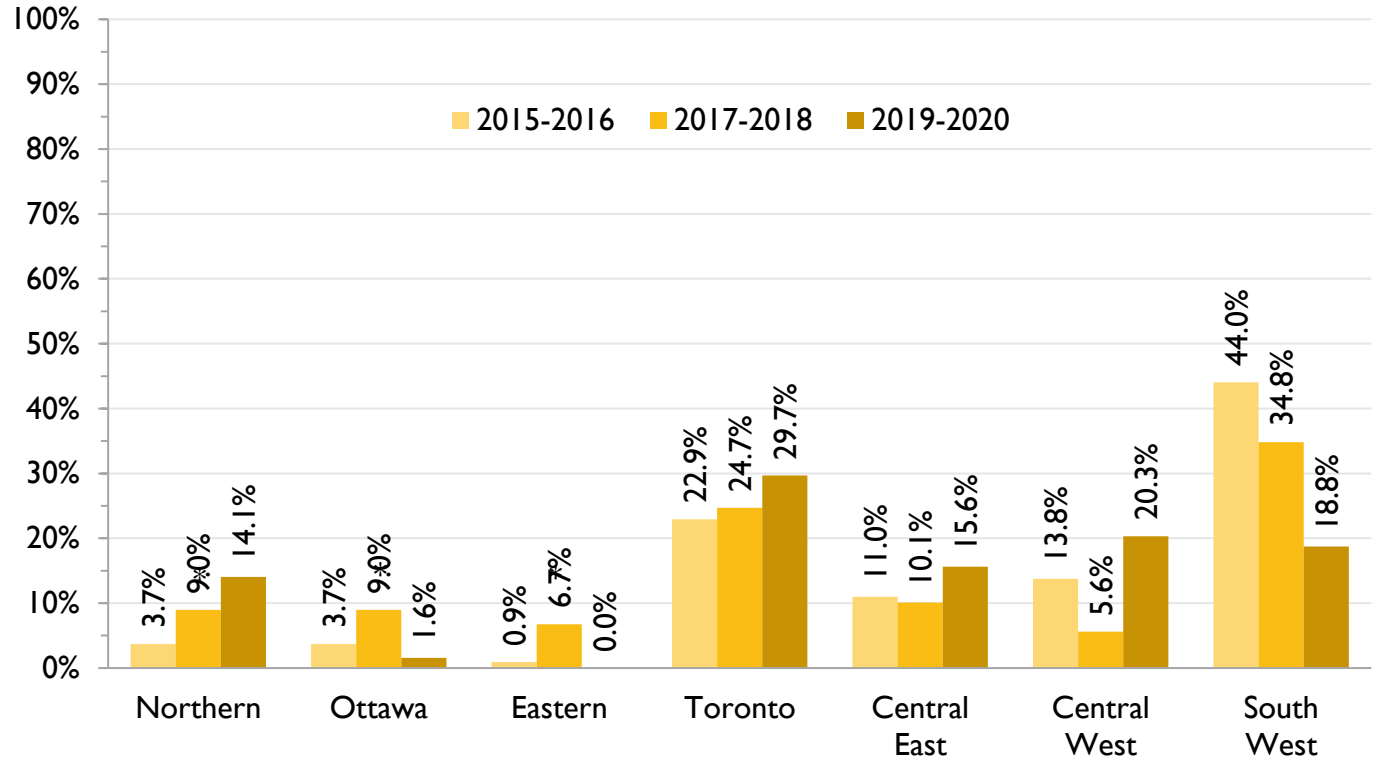
Over the two-year period 2019-2020, Toronto region had the largest number of first-time HIV diagnoses among male PWID (19), followed by Central West (13), South West (12), Central East (10), Northern (9), and Ottawa (1) regions. Eastern region had 0 first-time HIV diagnoses among male PWID in 2019-2020.

South West region had the largest number of first-time HIV diagnoses among male PWID over the two-year periods 2015-2016 and 2017-2018; while Toronto region had the largest number in 2019-2020. The number of first-time HIV diagnoses among male PWID in South West region decreased from 48 in 2015-2016 to 12 in 2019-2020.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 20.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.23 Percent of first-time HIV diagnoses across health regions, male PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

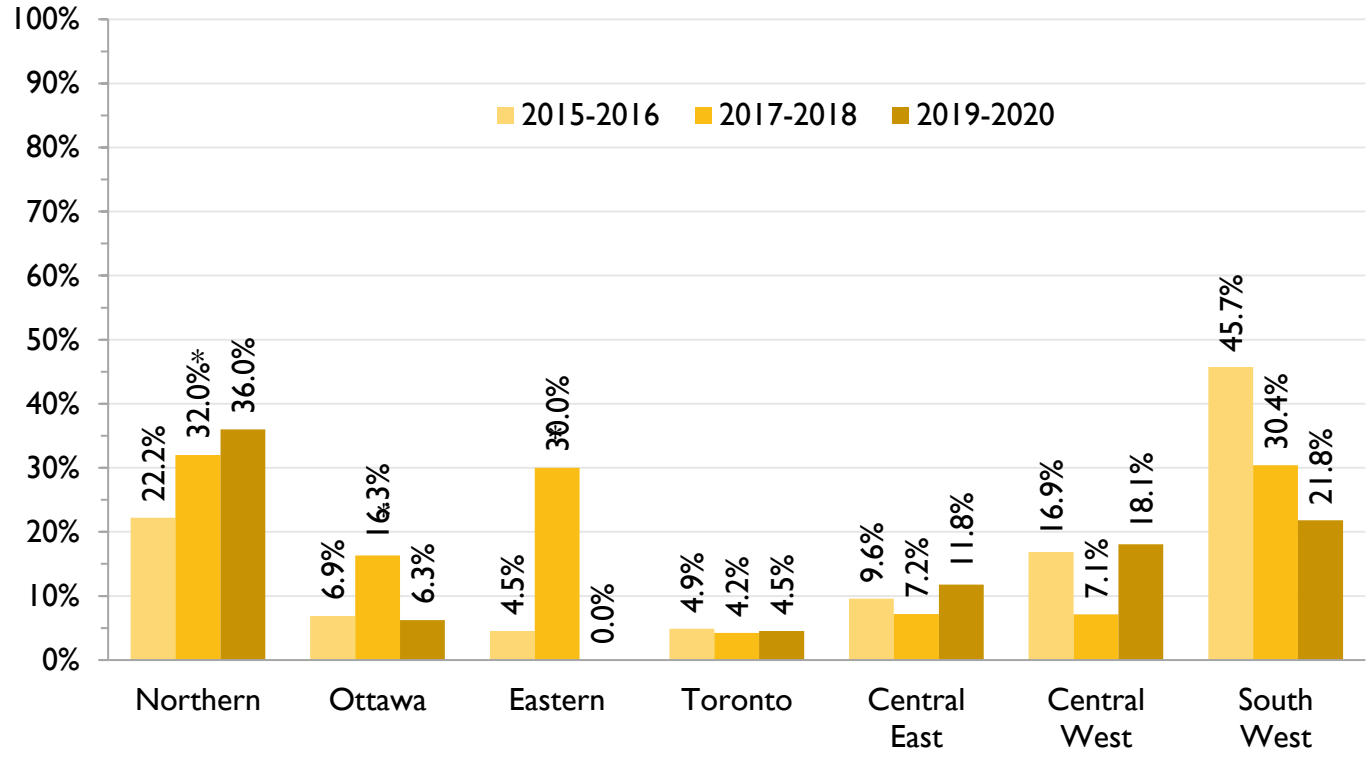
Over the two-year period 2019-2020, Toronto region had the largest proportion of first-time HIV diagnoses among male PWID (29.7%), followed by South West (18.8%), Central West (20.3%), Central East (15.6%), Northern (14.1%), and Ottawa (1.6%) regions. Eastern region had 0 first-time HIV diagnoses among PWID males in 2019-2020.

South West region had the largest proportion of first-time HIV diagnoses among male PWID over the two-year periods 2015-2016 and 2017-2018; while Toronto region had the largest proportion in 2019-2020. Northern region accounted for a growing proportion of first-time HIV diagnoses among male PWID between 2016 and 2020 (from 3.7% to 14.1%), while conversely South West region accounted for a decreasing proportion (from 44.0% to 18.8%).

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 20.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.24 Percent of first-time HIV diagnoses among males within each health region attributed to PWID (where PWID status reported), Ontario, 2015-2016 to 2019-2020



Snapshot

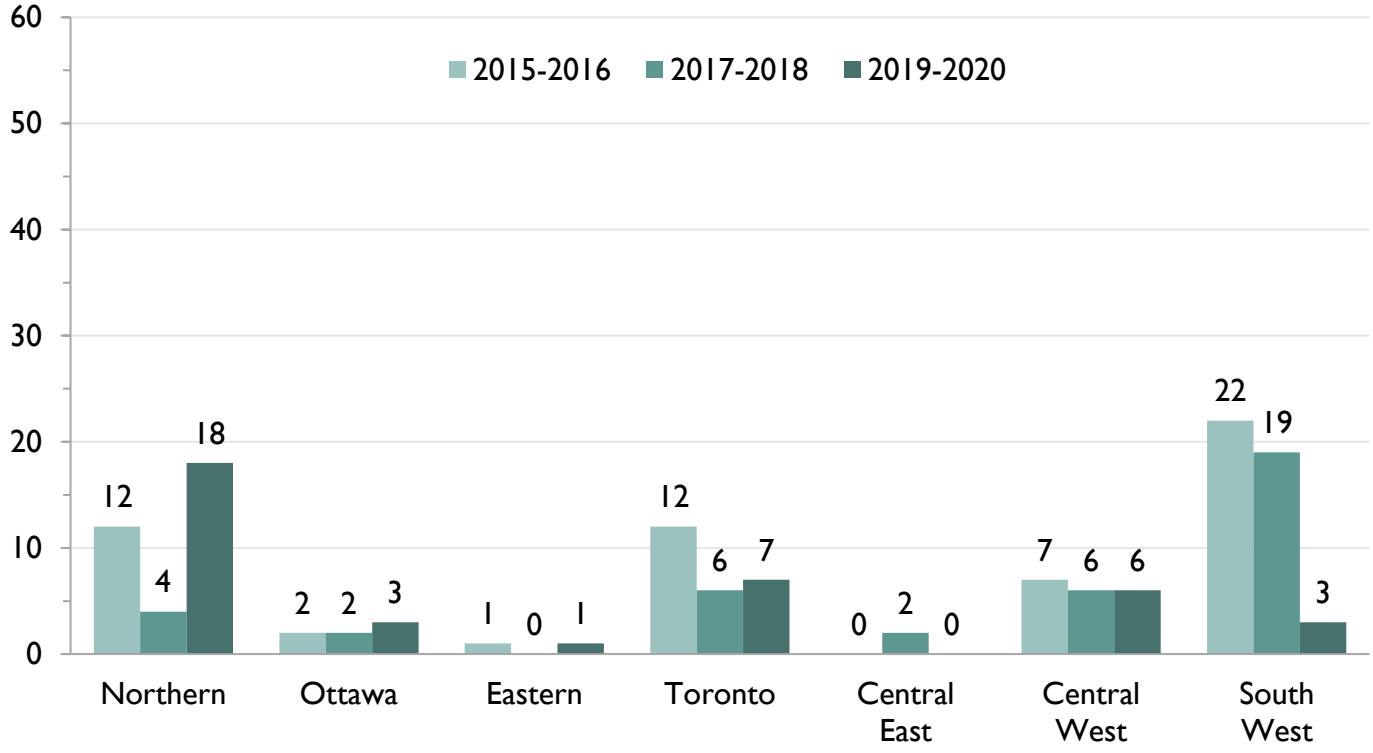
Over the two-year period 2019-2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses among males to PWID than any other region (36.0%), followed by South West (21.8%), Central West (18.1%), Central East (11.8%), Ottawa (6.3%) and Toronto (4.5%) regions.

South West region attributed a larger proportion of its first-time HIV diagnoses among males PWID than any other region over the two-year period 2015-2016; this was true of Northern region in 2017-2018 and 2019-2020. Between 2015-2016 and 2019-2020, the proportion of first-time HIV diagnoses among males attributed to PWID decreased in South West region from 45.7% to 21.8% and increased in Northern region from 22.2% to 36.0%.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 20.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.25 Number of first-time HIV diagnoses by health region, female PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

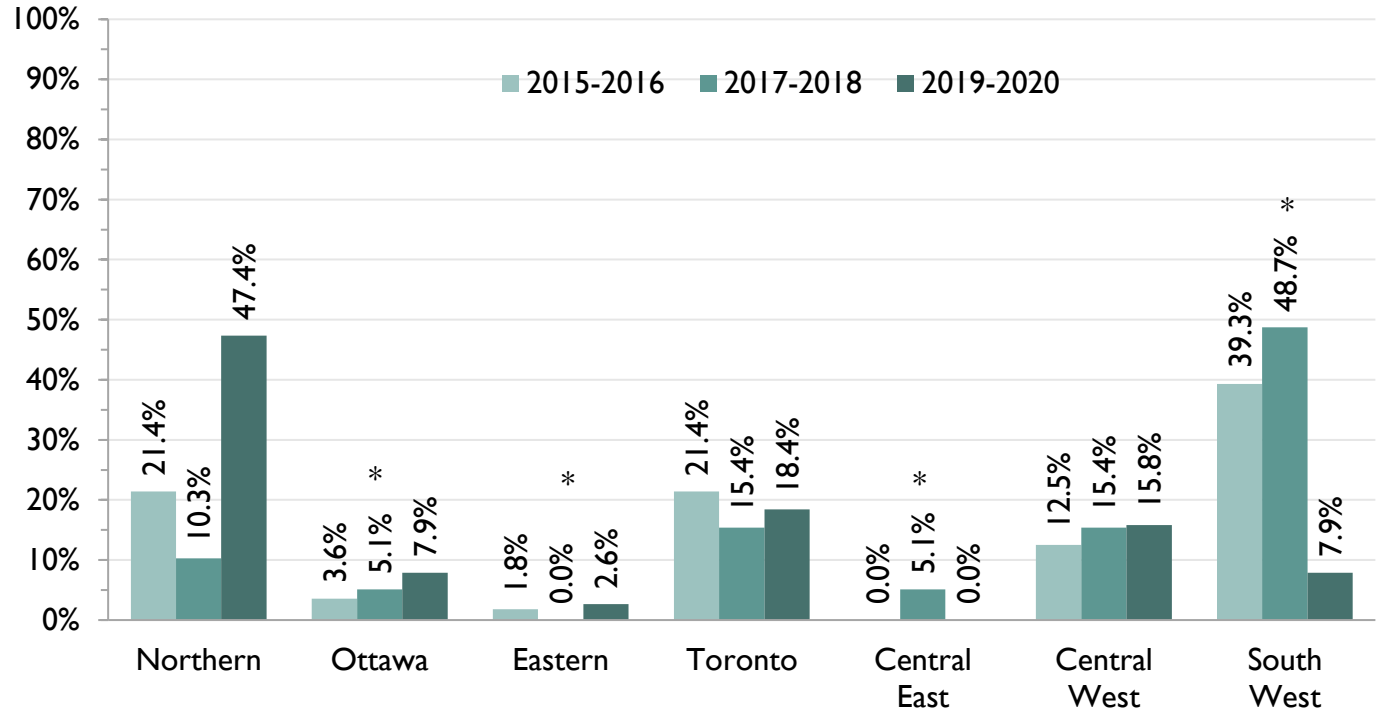
Over the two-year period 2019-2020, Northern region had the largest number of first-time HIV diagnoses among female PWID (18), followed by Toronto (7), Central West (6), Ottawa (3), South West (3), and Eastern (1) regions. Central East region had 0 first-time HIV diagnoses among female PWID in 2019-2020.

South West region had the largest number of first-time HIV diagnoses among female PWID over the two-year periods 2015-2016 and 2017-2018; Northern region had the largest number in 2019-2020.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 32.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.26 Percent of first-time HIV diagnoses across health regions, female PWID, Ontario, 2015-2016 to 2019-2020



Snapshot

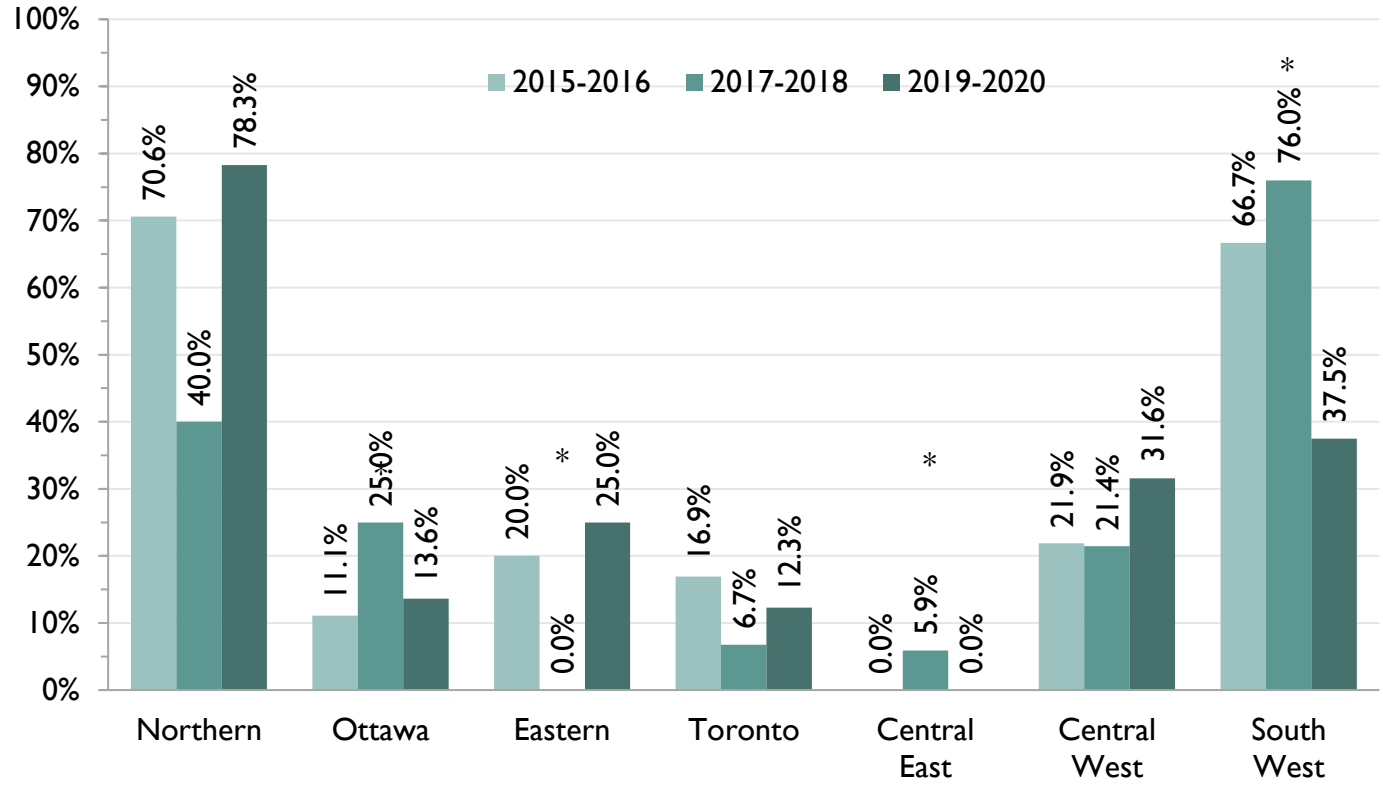
Over the two-year period 2019-2020, the Northern region had the largest proportion of first-time HIV diagnoses among female PWID (47.4%), followed by Toronto (18.4%), Central West (15.8%), Ottawa (7.9%), South West (7.9%), and Eastern (2.6%) regions. Central East region had 0 first-time HIV diagnoses among female PWID in 2019-2020.

South West region had the largest proportion of first-time HIV diagnoses among female PWID over the two-year periods 2015-2016 and 2017-2018 while Northern region had the largest proportion in 2019-2020.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 32.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 10.27 Percent of first-time HIV diagnoses among females within each health region attributed to PWID (where PWID status reported), Ontario, 2015-2016 to 2019-2020



Snapshot

Over the two-year period 2019-2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses among females to PWID than any other region (78.3%), followed by South West (37.5%), Central West (31.6%), Eastern (25.0%), Ottawa (13.6%), and Toronto (12.3%) regions. Central East region had 0 first-time HIV diagnoses among female PWID in 2019-2020.

Over the two-year period 2015-2016 and 2019-2020, Northern region attributed a larger proportion of its first-time HIV diagnoses among females to PWID than any other region; this was true of South West region in 2017-2018.

Note: *In these figures, data is combined in two-year groupings (2015-2016, 2017-2018, and 2019-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where PWID status was not reported were excluded (average of 32.6% of diagnoses per 2-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

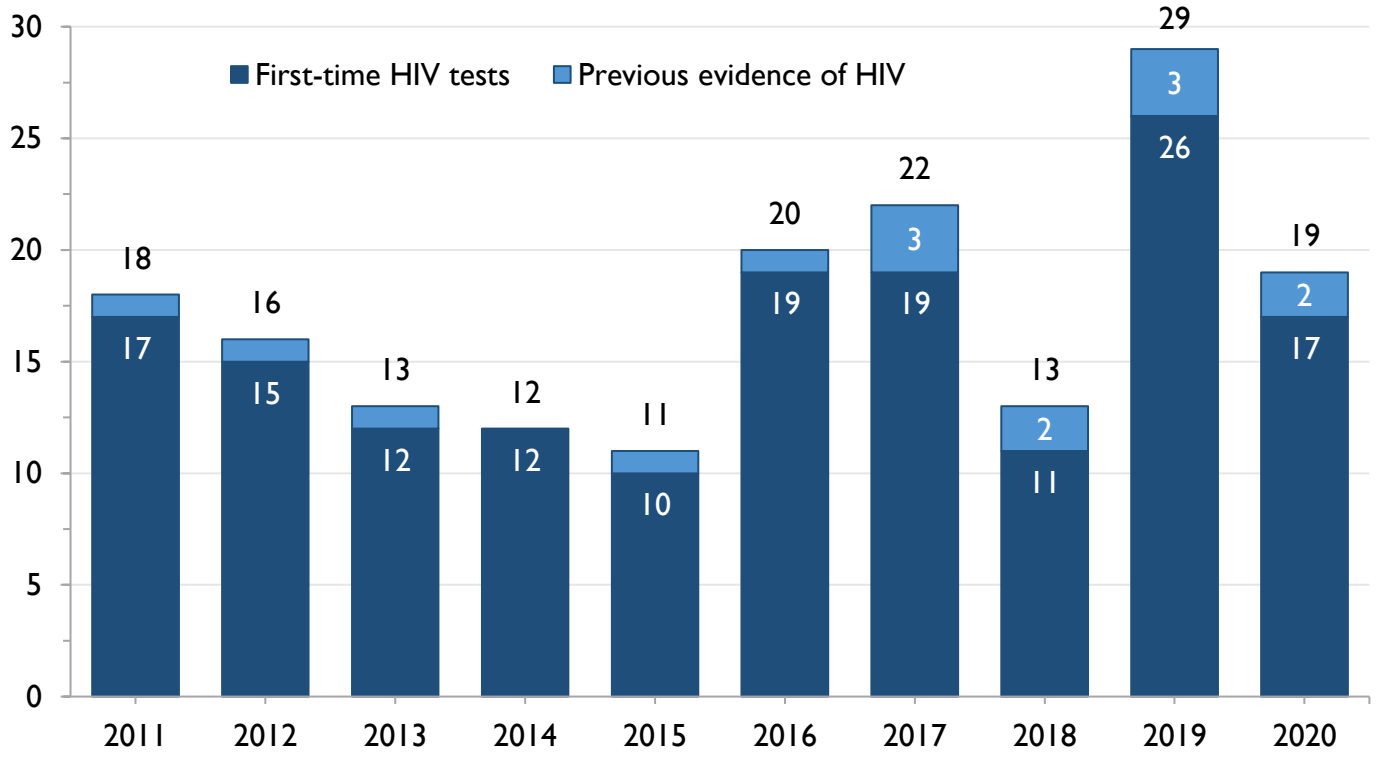
11. Indigenous Peoples

11.a. Indigenous overview

Diagnoses attributed to Indigenous Peoples are defined as reporting 'First Nations', 'Inuit', and/or 'Métis' race/ethnicity. In 2020, 17 of the 19 positive HIV tests attributed to Indigenous Peoples in Ontario were first-time HIV diagnoses.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among Indigenous may be underestimated, as between 2011 and 2020, race/ethnicity was not reported for an average of 32.2% of positive HIV tests, and we estimate between 2.2% and 3.3% of first-time HIV diagnoses among Indigenous Peoples to have an uncaptured previous HIV diagnosis. Data shown are where race/ethnicity was reported.*

Figure 11.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, Indigenous Peoples, Ontario, 2011 to 2020



Snapshot

In 2020, 17 of the 19 positive HIV tests attributed to Indigenous Peoples in Ontario were first-time HIV diagnoses, and 2 had previous evidence of HIV.

Between 2011 and 2020, the number of first-time HIV diagnoses in Indigenous Peoples ranged from 10 to 26. The number of positive HIV tests ranged from 11 to 29. The proportion of positive HIV tests that had previous evidence of HIV ranged from a low of 0% to 15.4%.

Note: *Counts of positive HIV tests and first-time HIV diagnoses among Indigenous may be underestimated, as between 2011 and 2020, race/ethnicity was not reported for an average of 32.2% of positive HIV tests, and we estimate between 2.2% and 3.3% of first-time HIV diagnoses among Indigenous Peoples to have an uncaptured previous HIV diagnosis.*

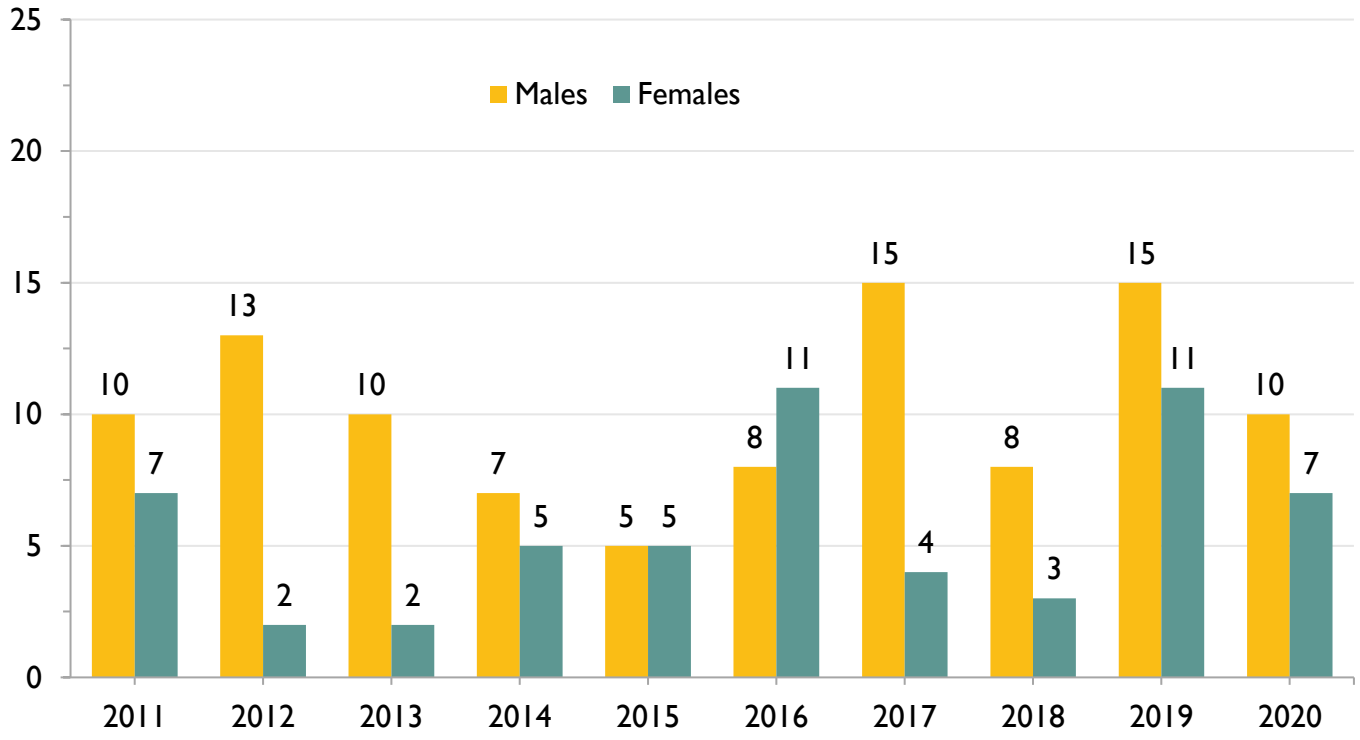
Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where race/ethnicity was not reported were excluded (average of 32.2% of tests per year). See Appendices for more information. See Tables Supplement for underlying data.

11.b. Indigenous by sex

In 2020, there were 17 first-time HIV diagnoses among Indigenous Peoples: 10 among Indigenous males and 7 among Indigenous females. Indigenous Peoples accounted for 5.2% of all first-time HIV diagnoses in Ontario with Indigenous males accounting for 3.1% and females for 2.2%. Indigenous males accounted for 3.7% of first-time HIV diagnoses among males and Indigenous females accounted for 13.0% of first-time HIV diagnoses among females. Females accounted for 41.2% of first-time HIV diagnoses among Indigenous Peoples in 2020; this ranged from 13.3% to 57.9% between 2011 and 2020.

Note: *Counts of first-time HIV diagnoses among Indigenous may be underestimated, as 2011 and 2020, race/ethnicity was not reported for an average of 30.3% of first-time HIV diagnoses among males and 39.2% among females, and we estimate between 1.7% and 2.6% among Indigenous males and between 2.7% and 4.2% among Indigenous females to have an uncaptured previous HIV diagnosis. Data shown are where race/ethnicity was reported.*

Figure 11.2 Number of first-time HIV diagnoses by sex, Indigenous Peoples, Ontario, 2011 to 2020

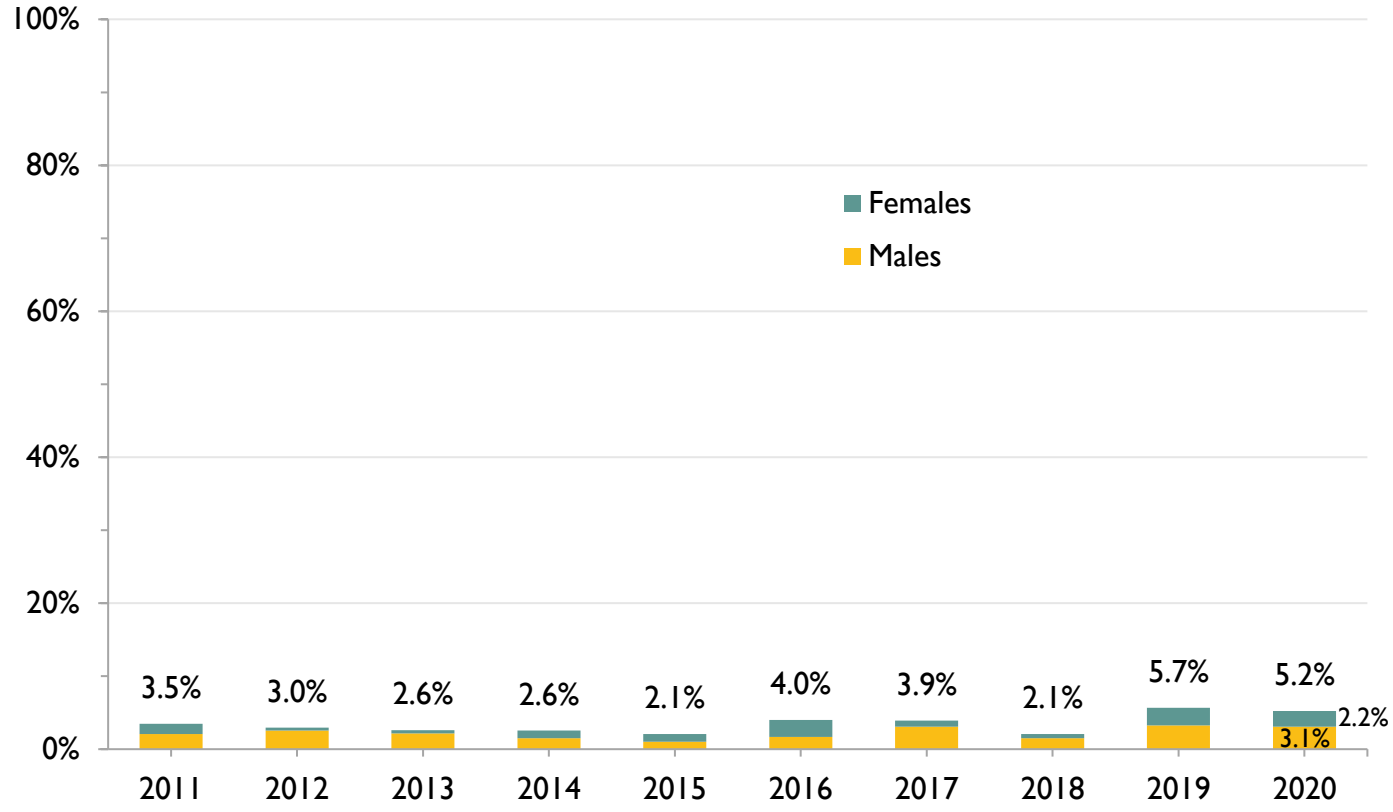


Snapshot

In 2020, there were 10 first-time HIV diagnoses among Indigenous males and 7 among Indigenous females. Between 2011 and 2020, the number of first-time HIV diagnoses among Indigenous males ranged from 5 to 15, and the number among Indigenous females ranged from 2 to 11.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 30.3% of diagnoses per year among males, 39.2% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 11.3 Percent of first-time HIV diagnoses attributed to Indigenous Peoples (where race/ethnicity reported), Ontario, 2011 to 2020



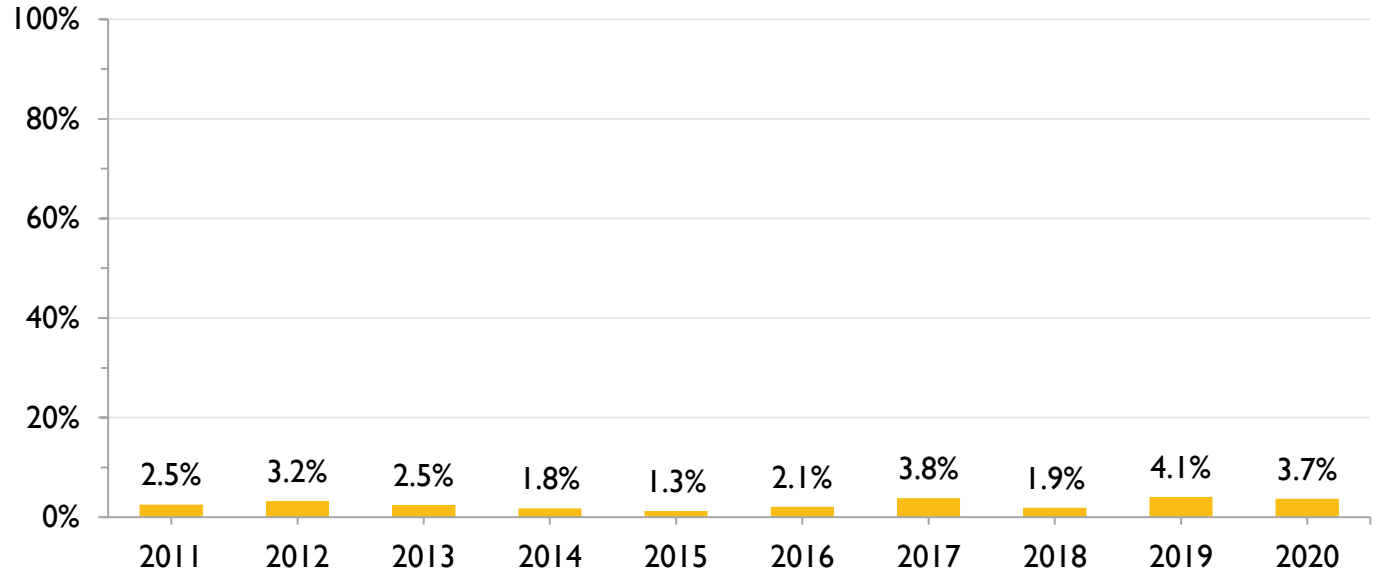
Snapshot

In 2020, Indigenous males accounted for 3.1% and Indigenous females for 2.2% of all first-time HIV diagnoses, for a total of 5.2% of first-time HIV diagnoses attributed to Indigenous Peoples.

Between 2011 and 2020, Indigenous Peoples accounted for between 2.1% and 5.7% of first-time HIV diagnoses, while Indigenous males accounted for between 1.0% and 3.3% and Indigenous females between 0.4% and 2.4%.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 30.3% of diagnoses per year among males, 39.2% among females). See Appendices for more information. See Tables Supplement for underlying data.

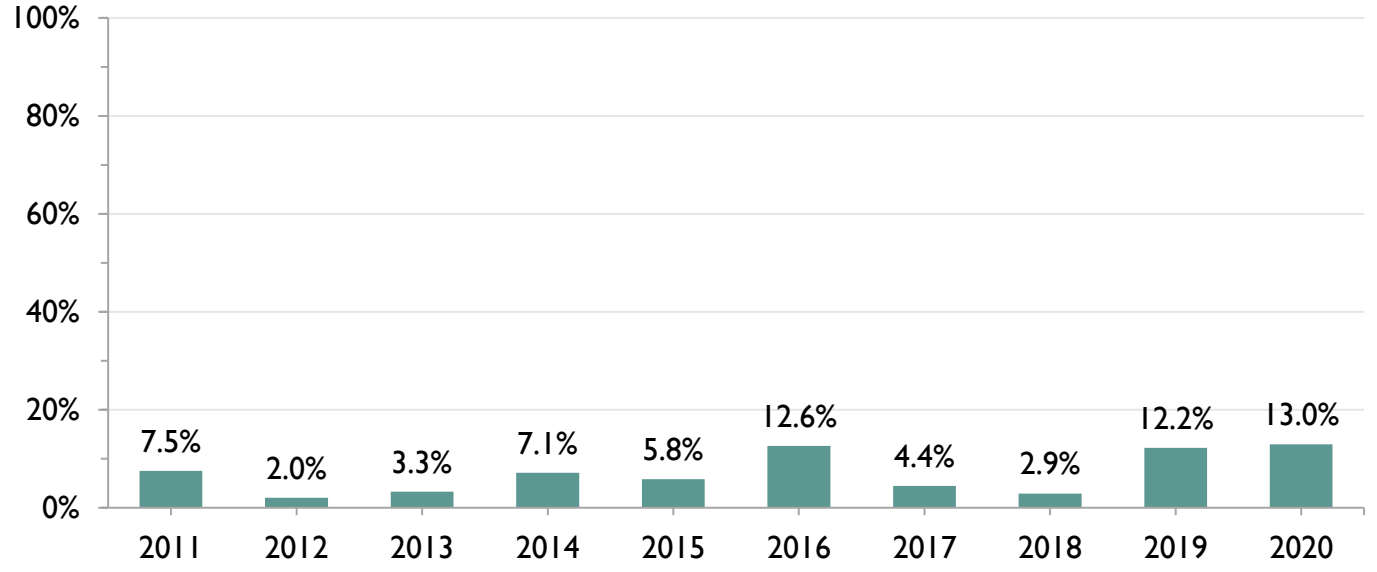
Figure 11.4 Percent of first-time HIV diagnoses among males attributed to Indigenous Peoples (where race/ethnicity reported), Ontario, 2011 to 2020



Snapshot

In 2020, Indigenous males accounted for 3.7% of first-time HIV diagnoses among males. Between 2011 and 2020, Indigenous males accounted for between 1.3% and 4.1% of first-time HIV diagnoses among males.

Figure 11.5 Percent of first-time HIV diagnoses among females attributed to Indigenous Peoples (where race/ethnicity reported), Ontario, 2011 to 2020

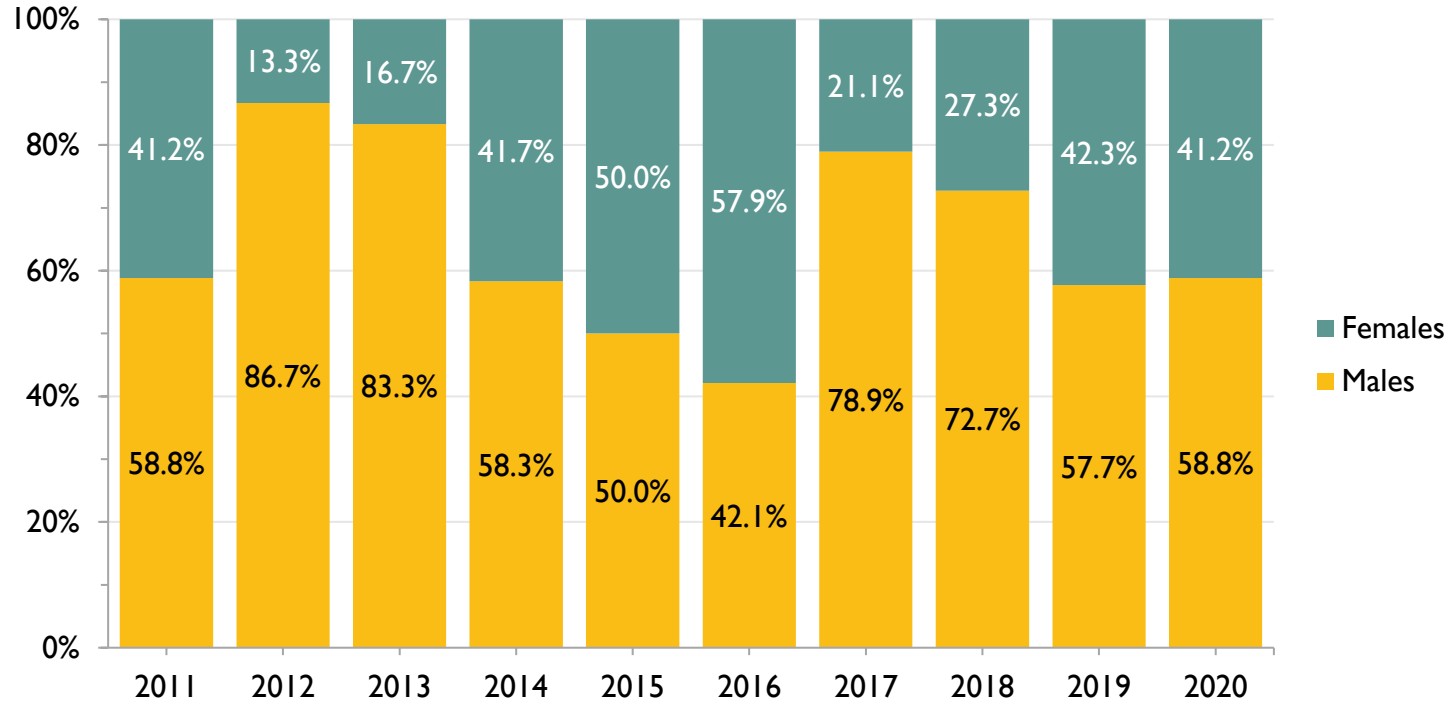


Snapshot

In 2020, Indigenous females accounted for 13.0% of first-time HIV diagnoses among females. Between 2011 and 2020, Indigenous females accounted for between 2.0% and 13.0% of first-time HIV diagnoses among females.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 30.3% of diagnoses per year among males, 39.2% among females). See Appendices for more information. See Tables Supplement for underlying data.

Figure 11.6 Percent of first-time HIV diagnoses among Indigenous Peoples by sex, Ontario, 2011 to 2020



Snapshot

In 2020, females accounted for 41.2% of first-time HIV diagnoses among Indigenous Peoples. Between 2011 and 2020, females accounted for between 13.3% and 57.9% of first-time HIV diagnoses among Indigenous Peoples.

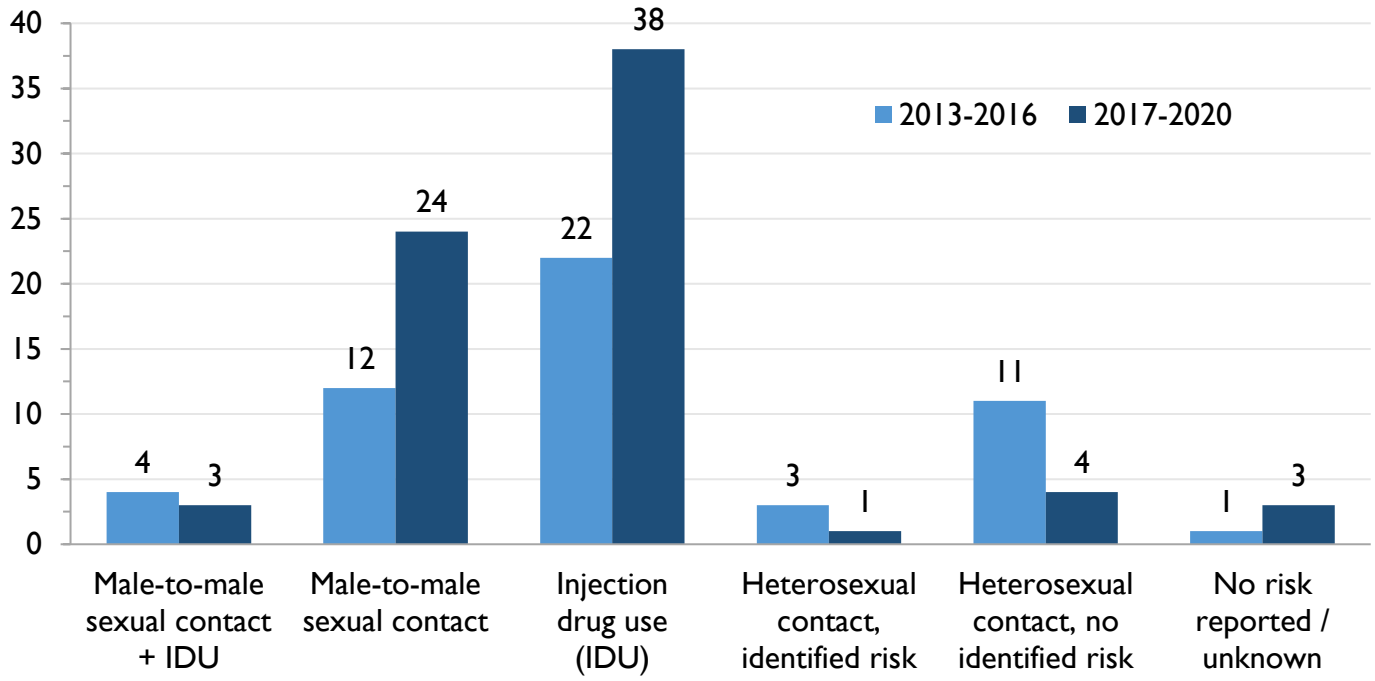
Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 30.3% of diagnoses per year among males, 39.2% among females). See Appendices for more information. See Tables Supplement for underlying data.

11.c. Indigenous by HIV exposure category

Over the four-year period 2017-2020, the largest proportion of first-time HIV diagnoses among Indigenous Peoples (54.3%) was reported as IDU, followed by male-to-male sexual contact (34.3%). Over this same period, 51.1% of first-time HIV diagnoses in Indigenous males were reported as male-to-male sexual contact and between the four-year periods 2013-2016 and 2017-2020, the number of first-time HIV diagnoses among Indigenous males reported as male-to-male sexual contact increased from 12 to 24 and those reported as IDU increased from 6 to 17. 91.3% of first-time HIV diagnoses in Indigenous females were reported as IDU over the four-year period 2017-2020.

Notes: *In these figures, data is combined in four-year groupings (2013-2016 and 2017-2020). This was done systematically to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*
The "Heterosexual contact, identified risk" category includes diagnoses where sex with a person of the opposite sex/gender is reported and either the individual's country of birth is reported as an HIV-endemic country, or the individual's sex partner is reported to be at least one of: HIV-positive; user of injection drugs; born in an HIV-endemic country; a bisexual male. See HIV exposure categories for more information.

Figure 11.7 Number of first-time HIV diagnoses by HIV exposure category, Indigenous Peoples, Ontario, 2013-2016 and 2017-2020



Snapshot

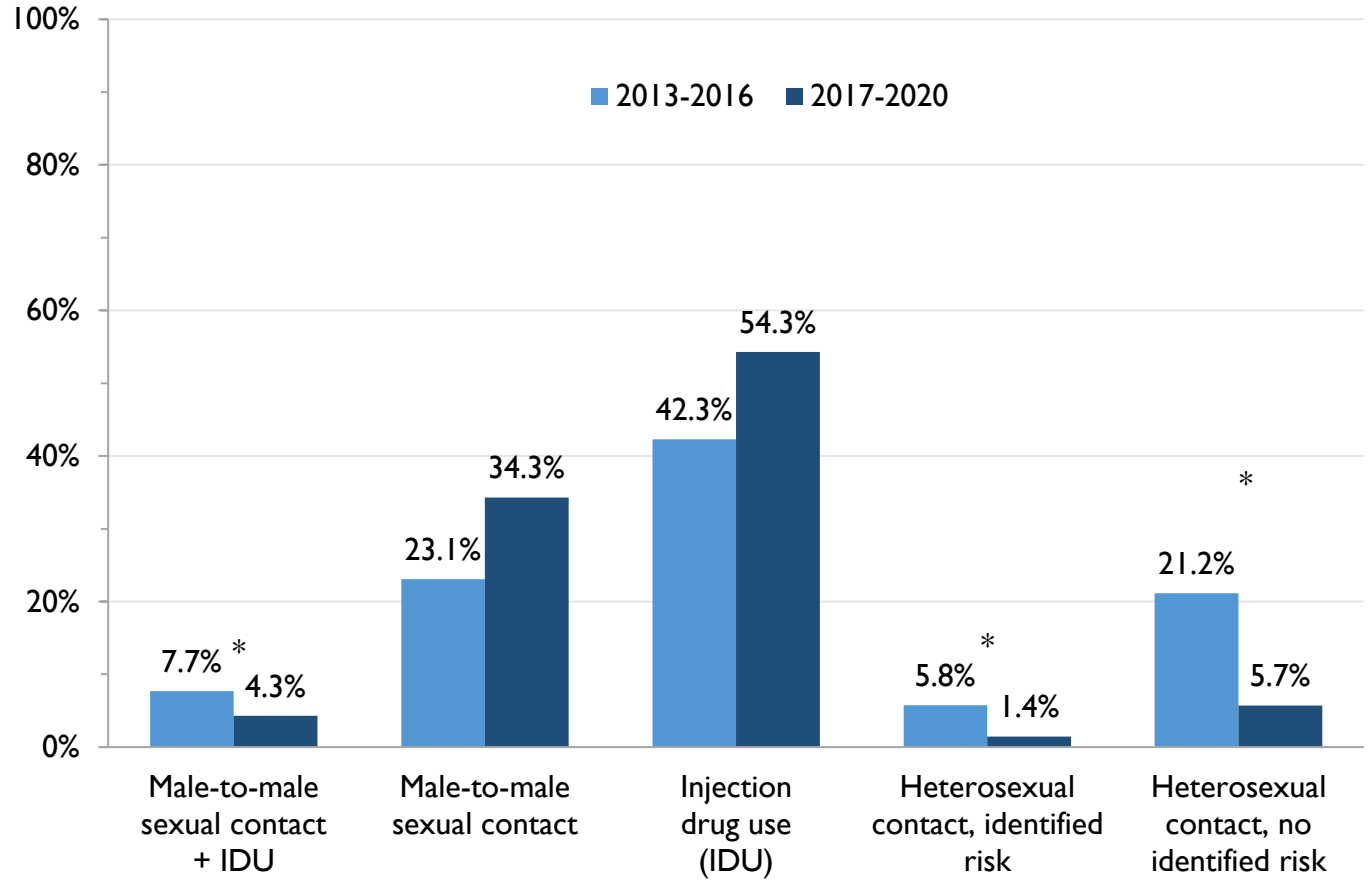
Over the four-year period 2017-2020, 3 of the 33 first-time HIV diagnoses in Indigenous Peoples did not report an HIV exposure category.

Among the 70 first-time HIV diagnoses with a reported HIV exposure category in 2017-2020, 38 were reported as IDU and 24 as male-to-male sexual contact.

Between the four-year periods 2013-2016 and 2017-2020, the largest numbers of first-time HIV diagnoses were reported as IDU followed by male-to-male sexual contact. Between 2013-2016 and 2017-2020, the number of first-time HIV diagnoses reported as IDU increased from 22 to 38, while the number of first-reported as male-to-male sexual contact increased from 12 to 24.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 31.7% of diagnoses per 4-year period). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 11.8 Percent of first-time HIV diagnoses by HIV exposure category (where reported), Indigenous Peoples, Ontario, 2013-2016 and 2017-2020



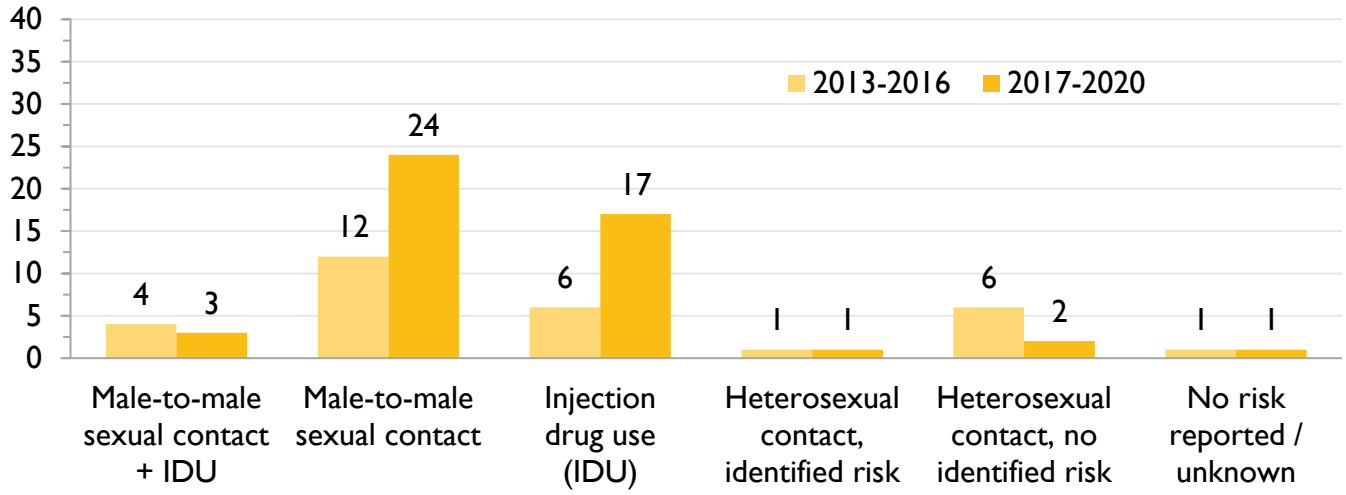
Snapshot

Over the four-year period 2017-2020, among the 70 first-time HIV diagnoses in Indigenous Peoples with a reported HIV exposure category, 54.3% were reported as IDU, 34.3% to male-to-male sexual contact, and 5.7% to heterosexual contact with no identified risk.

Between the four-year periods 2013-2016 and 2017-2020, IDU, followed by male-to-male sexual contact, accounted for the largest proportions of first-time HIV diagnoses. The proportions reported as male-to-male sexual contact and IDU increased, while the proportions representing all other categories, especially heterosexual contact with no identified risk, decreased.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where race/ethnicity was not reported were excluded (average of 31.7% of diagnoses per 4-year period). Diagnoses where race/ethnicity was reported but HIV exposure category was not reported were excluded (average of 3.0% of diagnoses per 4-year period where race/ethnicity was reported). IDU = injeciton drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

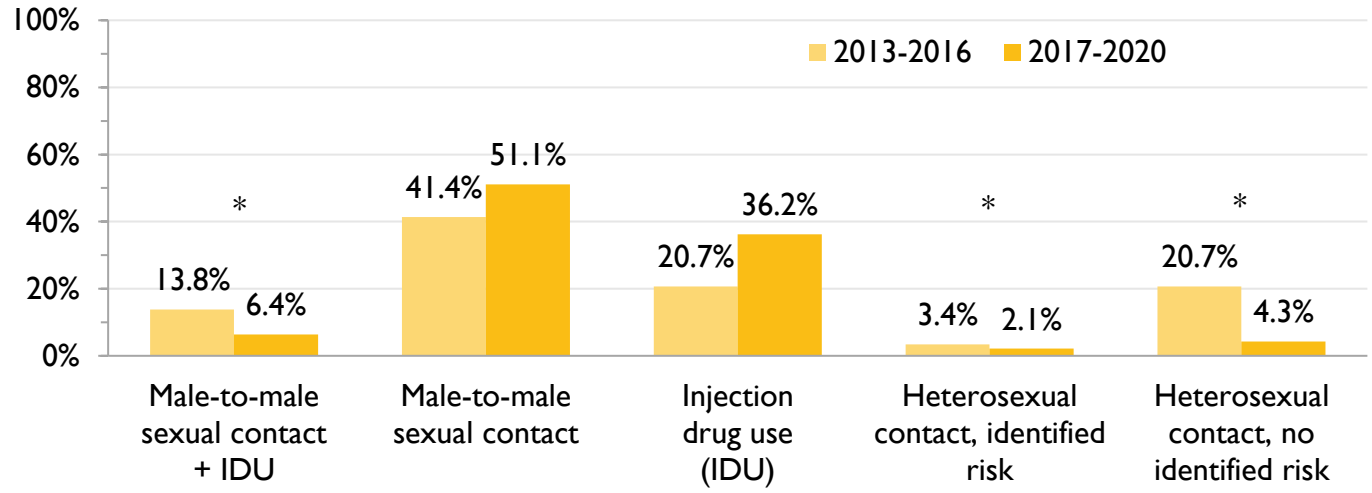
Figure 11.9 Number of first-time HIV diagnoses by HIV exposure category, Indigenous males, Ontario, 2013-2016 and 2017-2020



Snapshot

Over the four-year period 2017-2020, 1 of the 48 first-time HIV diagnoses in Indigenous males did not report an HIV exposure category. Among the 47 first-time HIV diagnoses with a reported HIV exposure category, the largest number of first-time HIV diagnoses was reported as male-to-male sexual contact (24), followed by IDU (17), and male-to-male sexual contact + IDU (3). Over the four-year period 2013-2016, 12 of the 30 first-time HIV diagnoses in Indigenous males were reported as IDU.

Figure 11.10 Percent of first-time HIV diagnoses by HIV exposure category (where reported), Indigenous males, Ontario, 2013-2016 and 2017-2020

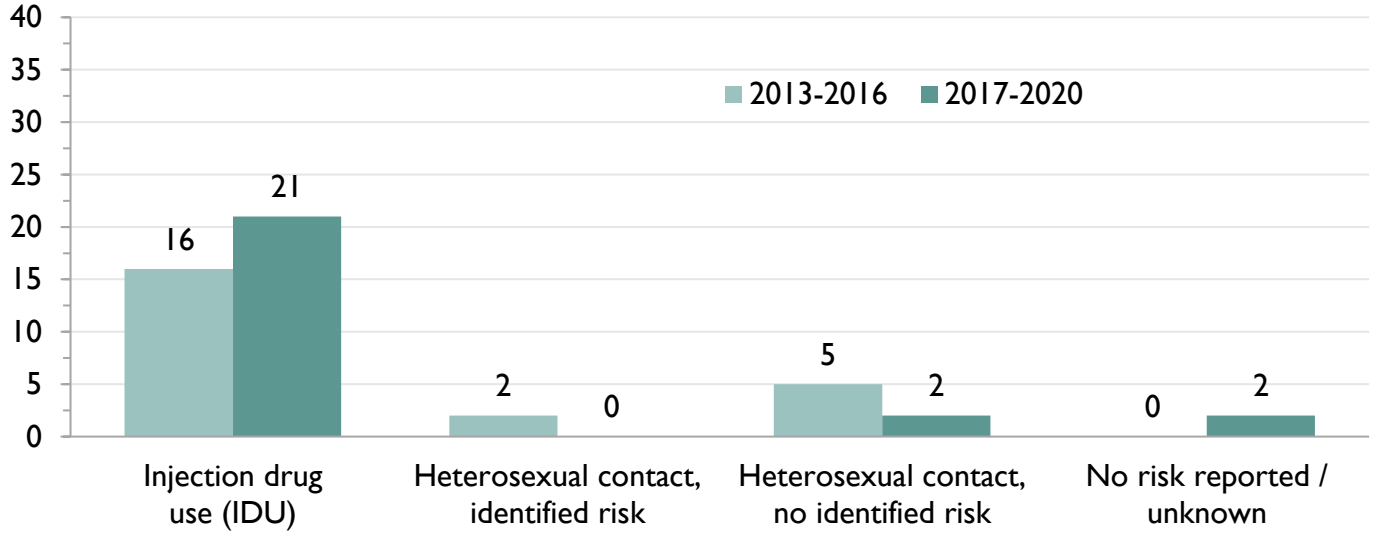


Snapshot

Over the four-year period 2017-2020, among the 47 first-time HIV diagnoses in Indigenous males with a reported HIV exposure category, 51.1% were reported as male-to-male sexual contact, 36.2% as IDU and 20.7% as male-to-male sexual contact + IDU. Over the four-year period 2013-2016, 41.4% of first-time HIV diagnoses among Indigenous males were reported as male-to-male sexual contact.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where race/ethnicity was not reported were excluded (average of 29.3% of diagnoses per 4-year period). Diagnoses where race/ethnicity was reported but HIV exposure category was not reported were excluded in Figure 11.10 (average of 2.7% of diagnoses per 4-year period where race/ethnicity was reported). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

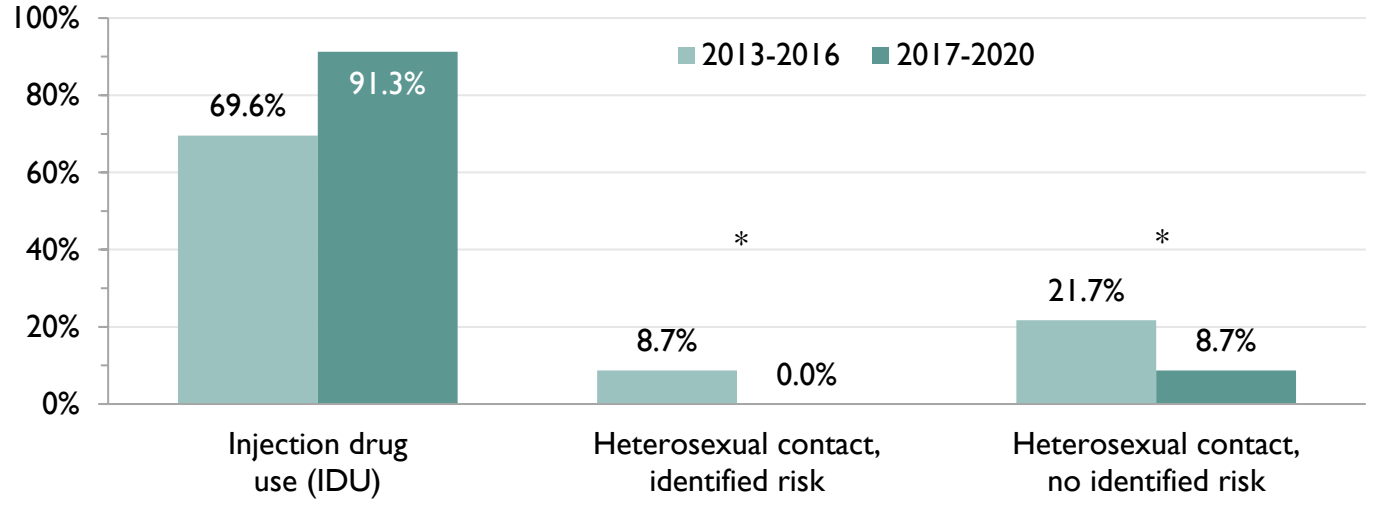
Figure 11.11 Number of first-time HIV diagnoses by HIV exposure category, Indigenous females, Ontario, 2013-2016 and 2017-2020



Snapshot

Over the four-year period 2017-2020, 2 of the 25 first-time HIV diagnoses in Indigenous females did not report an HIV exposure category. Among the 23 first-time HIV diagnoses with a reported HIV exposure category in 2017-2020, almost all (21) were reported as IDU.

Figure 11.12 Percent of first-time HIV diagnoses by HIV exposure category (where reported), Indigenous females, Ontario, 2013-2016 and 2017-2020



Snapshot

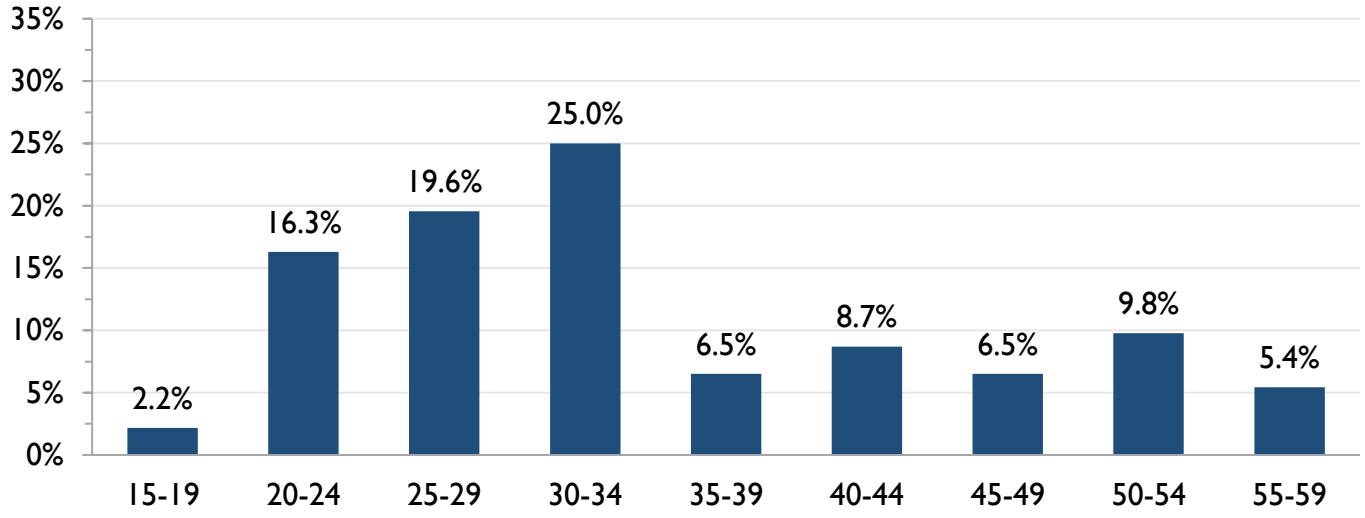
Over the four-year period 2017-2020, among the 23 first-time HIV diagnoses in Indigenous females with a reported HIV exposure category, 91.3% were reported as IDU and 8.7% as heterosexual contact with no identified risk. Over the four-year period 2013-2016, 69.6% of first-time HIV diagnoses in Indigenous females were reported as IDU.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Diagnoses where race/ethnicity was not reported were excluded (average of 39.6% of diagnoses per 4-year period). Diagnoses where race/ethnicity was reported but HIV exposure category was not reported were excluded from Figure 11.12 (average of 5.2% of diagnoses per 4-year period where race/ethnicity was reported). IDU = injeciton drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

11.d. Indigenous by age

Over the five-year period 2016-2020, those aged 30-34 years accounted for the largest proportion of first-time HIV diagnoses among Indigenous Peoples overall (25.0%), as well as among both Indigenous males (25.0%) and Indigenous females (25.0%).

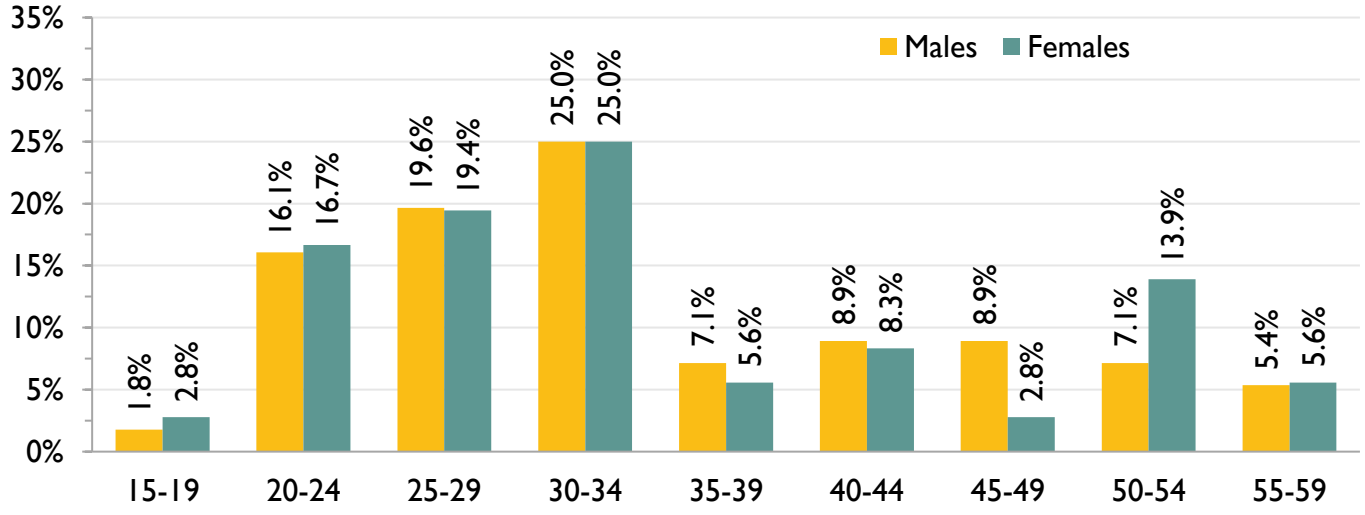
Figure 11.13 Percent of first-time HIV diagnoses by age, Indigenous Peoples, Ontario, 2016-2020



Snapshot

Over the five-year period 2016-2020, 6 in 10 (60.9%) of first-time HIV diagnoses among Indigenous Peoples were among those aged 20-34 years with the 30-34 age category accounting for the largest proportion (25.0%).

Figure 11.14 Percent of first-time HIV diagnoses by age, Indigenous males and Indigenous females, Ontario, 2016-2020



Snapshot

Over the five-year period 2016-2020, those aged 30-34 years accounted for the largest proportion of first-time HIV diagnoses among both Indigenous males (25.0%) and Indigenous females (25.0%).

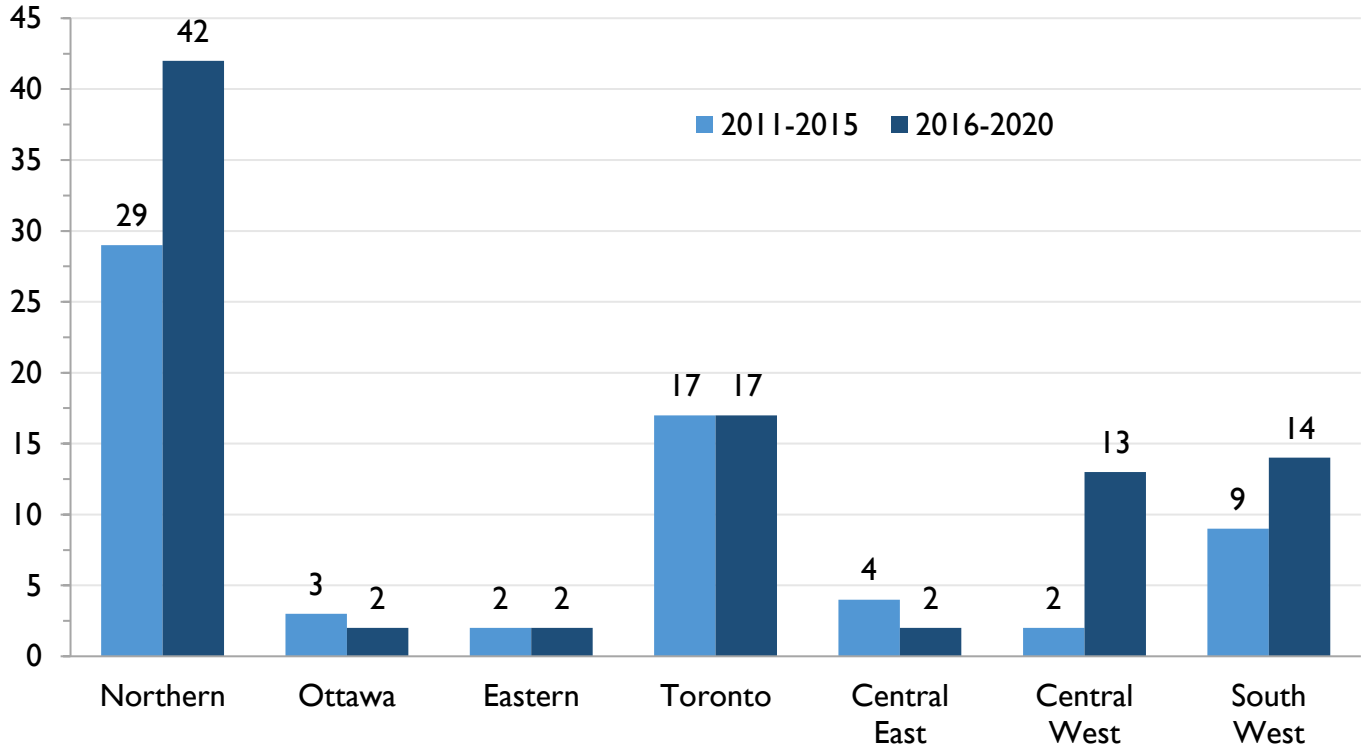
Notes: Data provided by Public Health Ontario Laboratory. Diagnoses with age not reported were excluded (less than 1%). Diagnoses where race/ethnicity was not reported were excluded (32.1% of diagnoses, 29.7% among males, 39.3% among females). See Appendices for more information. See Tables Supplement for underlying data.

11.e. Indigenous by health region

Over the five-year period 2016-2020, Northern region had the largest proportion of Indigenous first-time HIV diagnoses (45.7%); however, the majority of first-time HIV diagnoses were spread throughout the rest of the province, with Toronto (18.5%), Southwest (15.2%), and Central West (14.1%) accounting for larger shares. Within regions, Indigenous Peoples accounted for a larger proportion of first-time HIV diagnoses in the Northern region (56.0%) than any other region. Very small proportions of first-time HIV diagnoses in Ottawa (1.9%), Toronto (1.4%), and Central East (0.6%) regions were attributed to Indigenous Peoples.

Note: *In these figures, data is combined in five-year groupings (2011-2015 and 2016-2020). This was done systematically, where possible, to ensure at least 50% of cell counts were ≥5 in order to reduce the effects of year-to-year variation.*

Figure 11.15 Number of first-time HIV diagnoses by health region, Indigenous Peoples, Ontario, 2011-2015 and 2016-2020



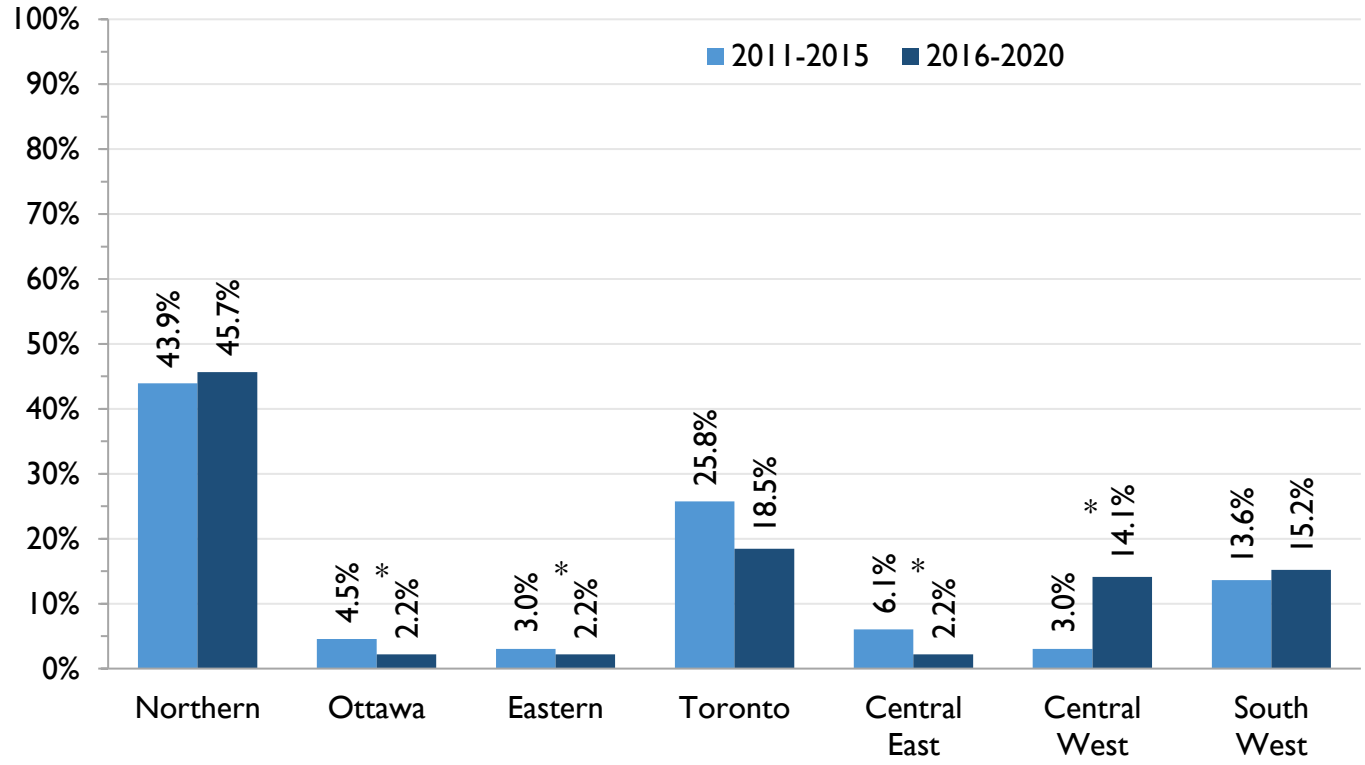
Snapshot

Over the five-year period 2016-2020, Northern region had the largest number of first-time HIV diagnoses among Indigenous Peoples (42), followed by Toronto (17), South West (14), Central West (13), Ottawa (2), Eastern (2), and Central East (2) regions.

Northern region also had the largest number of first-time HIV diagnoses among Indigenous Peoples (29) over the five-year period 2011-2015, also followed by Toronto (17) and South West (9) regions. The number of first-time HIV diagnoses among Indigenous Peoples increased in Northern, Central West, and South West regions between 2011-2015 and 2016-2020.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 32.6% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.16 Percent of first-time HIV diagnoses across health regions, Indigenous Peoples, Ontario, 2011-2015 and 2016-2020



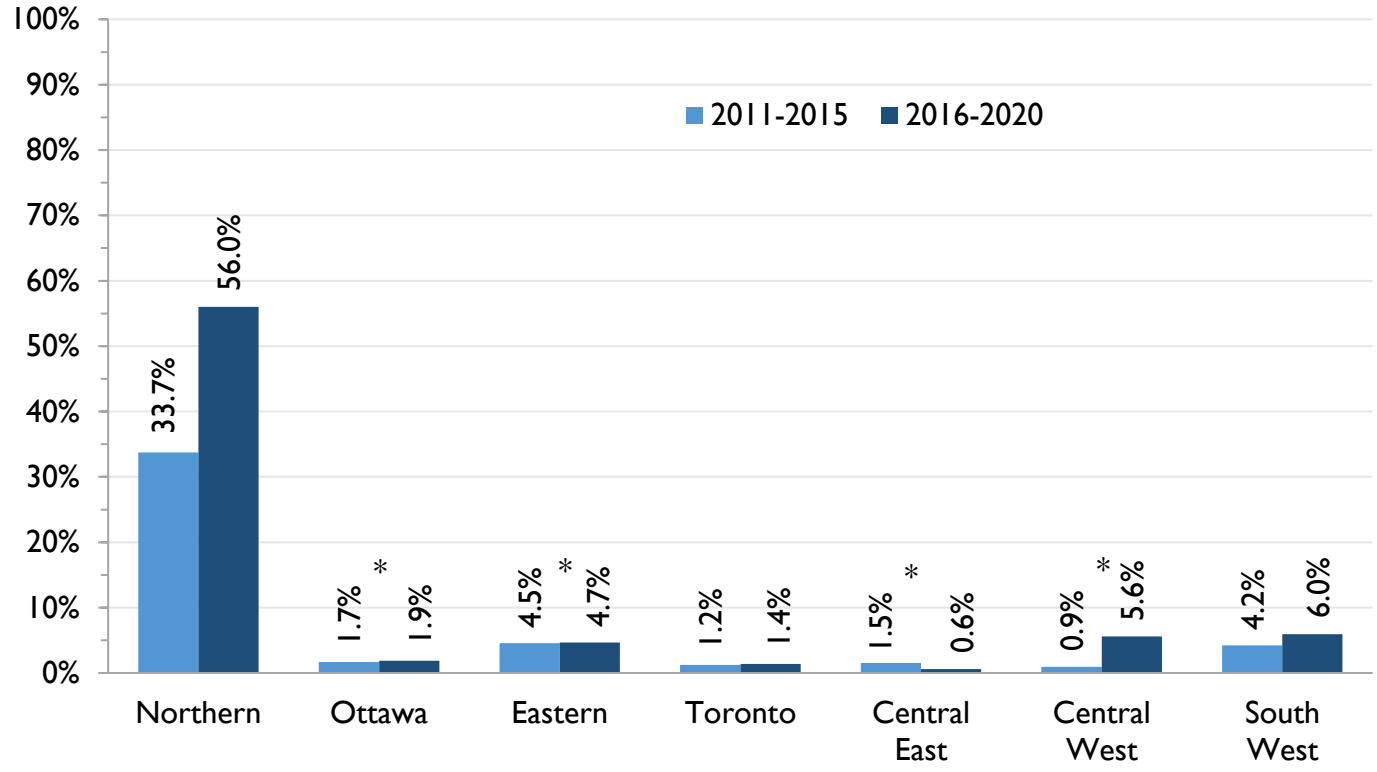
Snapshot

Over the five-year period 2016-2020, Northern region had the largest proportion of first-time HIV diagnoses among Indigenous Peoples (45.7%), followed by Toronto (18.5%), South West (15.2%), and Central West (14.1%) regions. Ottawa, Eastern, and Central East regions each had less than 5% of first-time HIV diagnoses among Indigenous Peoples over the same period.

Northern region also had the largest proportion of first-time HIV diagnoses among Indigenous Peoples (43.9%) over the five-year period 2011-2015, also followed by Toronto (25.8%) and South West (13.6%) regions.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 32.6% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.17 Percent of first-time HIV diagnoses within each health region attributed to Indigenous Peoples (where race/ethnicity reported), Ontario, 2011-2015 and 2016-2020



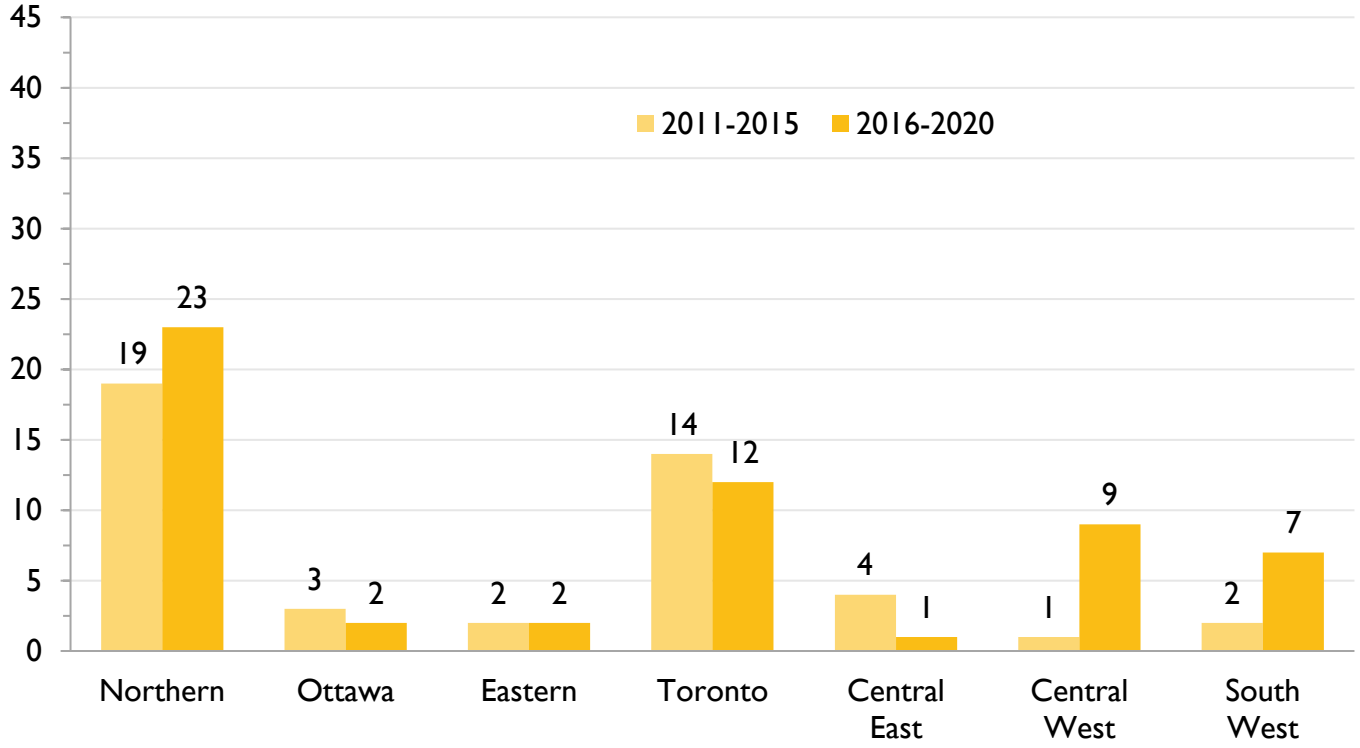
Snapshot

Over the five-year period 2016-2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses to Indigenous Peoples than any other region (56.0%), followed by South West (6.0%), and Central West (both 5.6%) regions. Ottawa, Eastern, Toronto, and Central East regions each attributed less than 2% of their first-time HIV diagnoses to Indigenous Peoples.

Also over the five-year period 2011-2015, compared to other regions, Northern region attributed a larger proportion of its first-time HIV diagnoses to Indigenous Peoples (33.7%) than any other region, followed by Eastern (4.5%) region.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if not reported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 32.6% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.18 Number of first-time HIV diagnoses by health region, Indigenous males, Ontario, 2011-2015 and 2016-2020



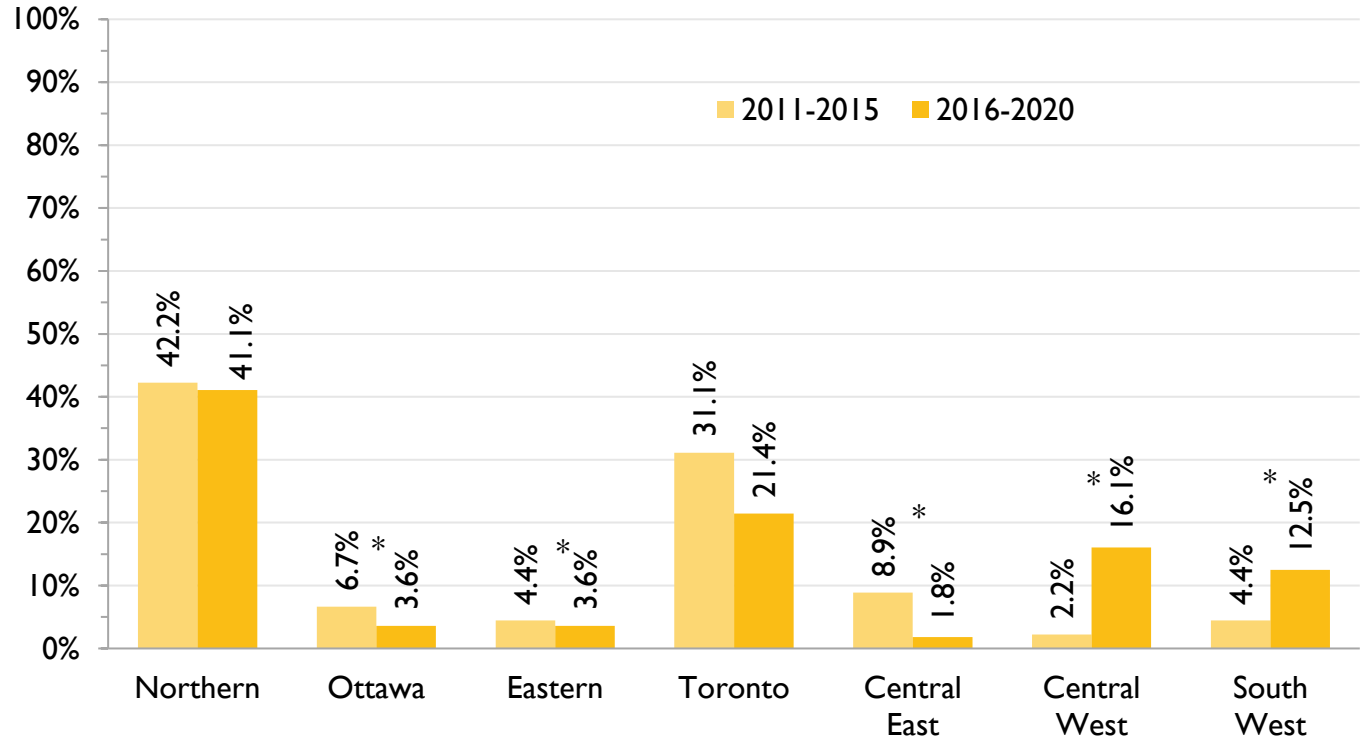
Snapshot

Over the five-year period 2016-2020, Northern region had the largest number of first-time HIV diagnoses among Indigenous males (23), followed by Toronto (12), Central West (9), South West (7), Ottawa and Eastern (both 2) and Central East (1) regions.

Northern region also had the largest number of first-time HIV diagnoses among Indigenous males (19) over the five-year period 2011-2015, followed by Toronto (14) and Central East (4) regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 30.4% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.19 Percent of first-time HIV diagnoses across health regions, Indigenous males, Ontario, 2011-2015 and 2016-2020



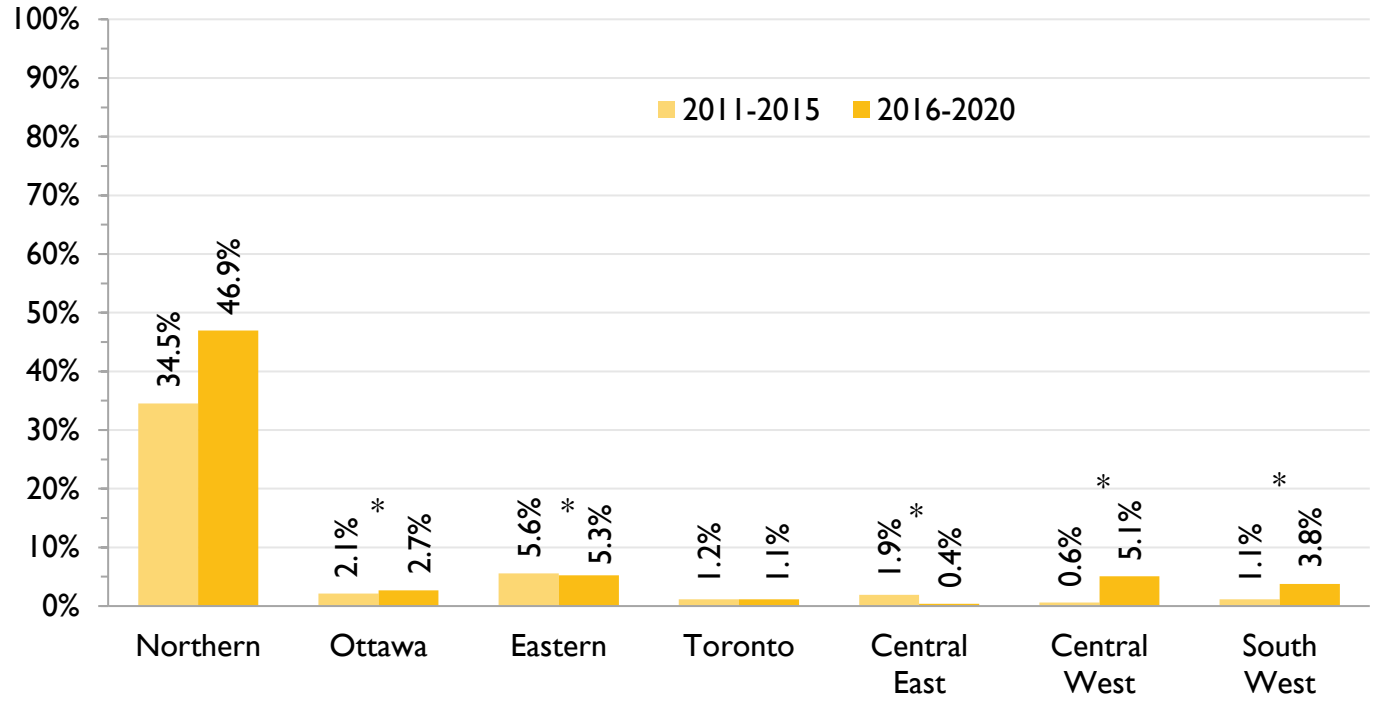
Snapshot

Over the five-year period 2016-2020, Northern region had the largest proportion of first-time HIV diagnoses among Indigenous males (41.1%), followed by Toronto (21.4%), Central West (16.1%), and South West (12.5%) regions. Ottawa, Eastern, and Central East regions each had less than 5% of first-time HIV diagnoses among Indigenous males.

Northern region also had the largest proportion of first-time HIV diagnoses among Indigenous males (42.2%) over the five-year period 2011-2015, followed by Toronto (31.1%) and Central East (8.9%) regions.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 30.4% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.20 Percent of first-time HIV diagnoses among males within each health region attributed to Indigenous males (where race/ethnicity reported), Ontario, 2011-2015 and 2016-2020



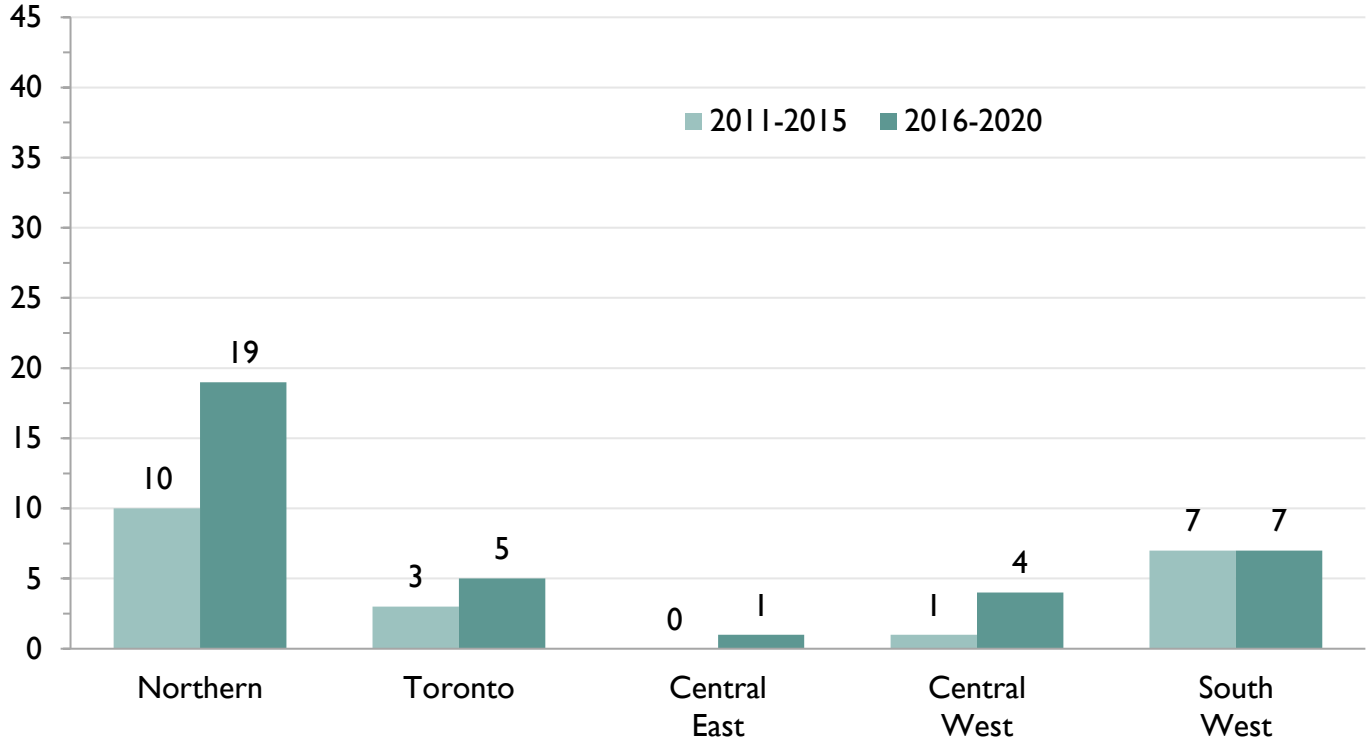
Snapshot

Over the five-year period 2016-2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses among males to Indigenous Peoples than any other region (46.9%), followed by Eastern (5.3%), Central West (5.1%) and South West (3.8%) regions. Ottawa, Toronto, and Central East regions each attributed less than 3% of their first-time HIV diagnoses among males to Indigenous Peoples.

Northern region also attributed a larger proportion of its first-time HIV diagnoses to Indigenous Peoples (34.5%) than any other region over the five-year period 2011-2015, also followed by Eastern region (5.6%).

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 30.4% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.21 Number of first-time HIV diagnoses by health region, Indigenous females, Ontario, 2011-2015 and 2016-2020



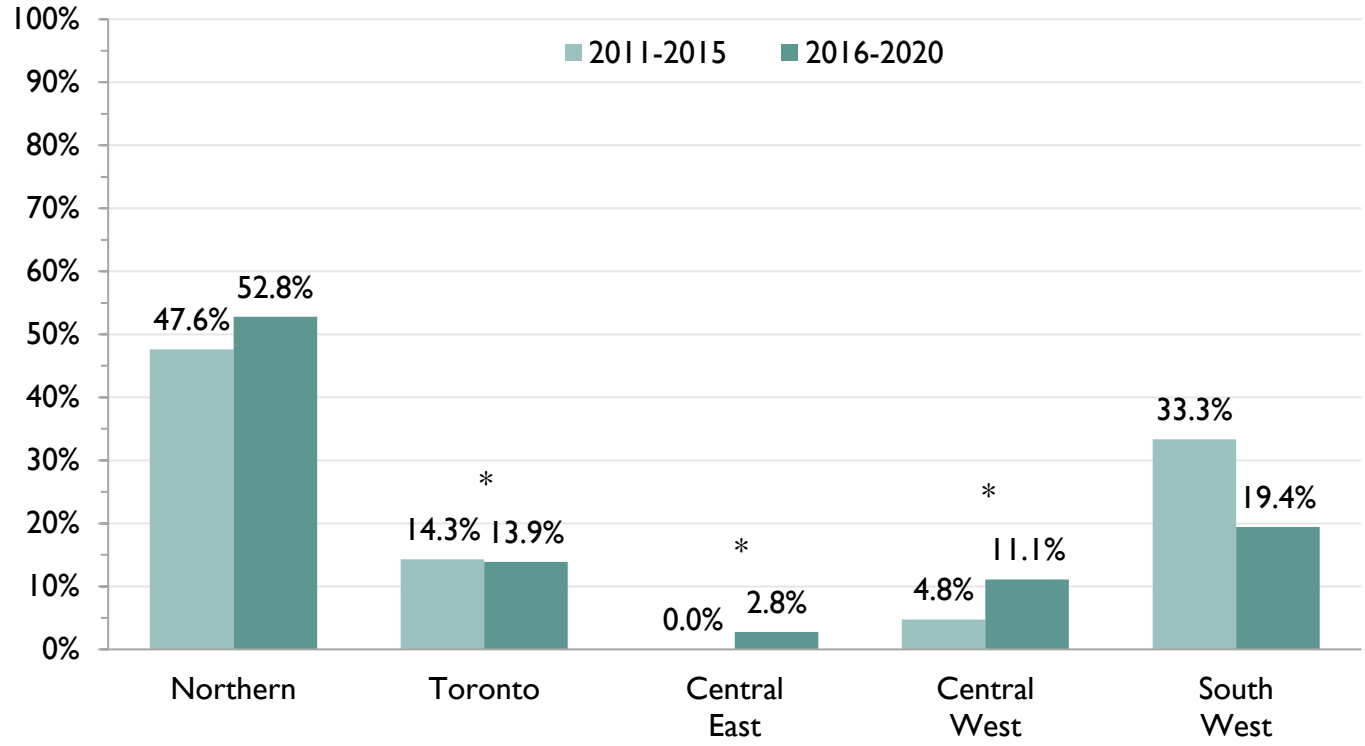
Snapshot

Over the five-year period 2016-2020, Northern region had the largest number of first-time HIV diagnoses among Indigenous females (19), followed by South West (9), Toronto (5), Central West (4), and Central East (1) regions. Ottawa and Eastern regions had 0 first-time HIV diagnoses among Indigenous females in 2016-2020.

Northern region also had the largest number of first-time HIV diagnoses among Indigenous females (10) over the five-year period 2011-2015, also followed by South West (7) and Toronto (3) regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 39.1% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.22 Percent of first-time HIV diagnoses across health regions, Indigenous females, Ontario, 2011-2015 and 2016-2020



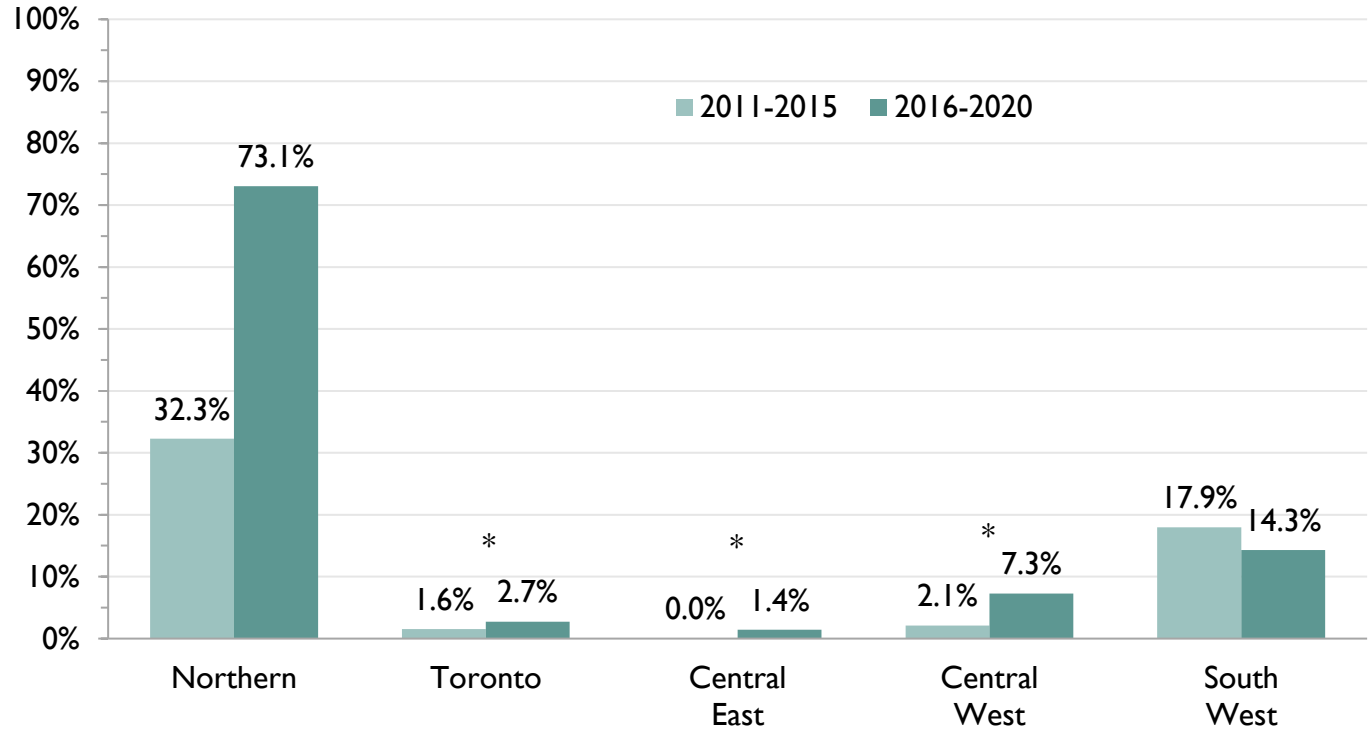
Snapshot

Over the five-year period 2016-2020, Northern region had the largest proportion of first-time HIV diagnoses among Indigenous females (52.8%), followed by South West (19.4%), Toronto (13.9%), and Central West (11.1%) regions. Central East region had less than 5% of first-time HIV diagnoses among Indigenous females, and Ottawa and Eastern regions had 0%.

Northern region also had the largest proportion of first-time HIV diagnoses among Indigenous females (47.6%) over the five-year period 2011-2015, also followed by South West (33.3%) and Toronto (14.3%) regions.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 39.1% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 11.23 Percent of first-time HIV diagnoses among females within each health region attributed to Indigenous females (where race/ethnicity reported), Ontario, 2011-2015 and 2016-2020



Snapshot

Over the five-year period 2016-2020, Northern region attributed a larger proportion of its first-time HIV diagnoses among females to Indigenous Peoples than any other region (73.1%), followed by South West (14.3%), and Central West (7.3%) regions. Toronto and Central East regions each attributed fewer than 2% of their first-time HIV diagnoses among females to Indigenous females, and Ottawa and Eastern regions attributed 0%.

Northern region also attributed a larger proportion of its first-time HIV diagnoses among females to Indigenous Peoples (32.3%) than any other region over the five-year period 2011-2015, also followed by South West (17.9%) and Central West (2.1%) regions.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if unreported, the address of the ordering provider. Diagnoses where race/ethnicity was not reported were excluded (average of 39.1% of diagnoses per 5-year period). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

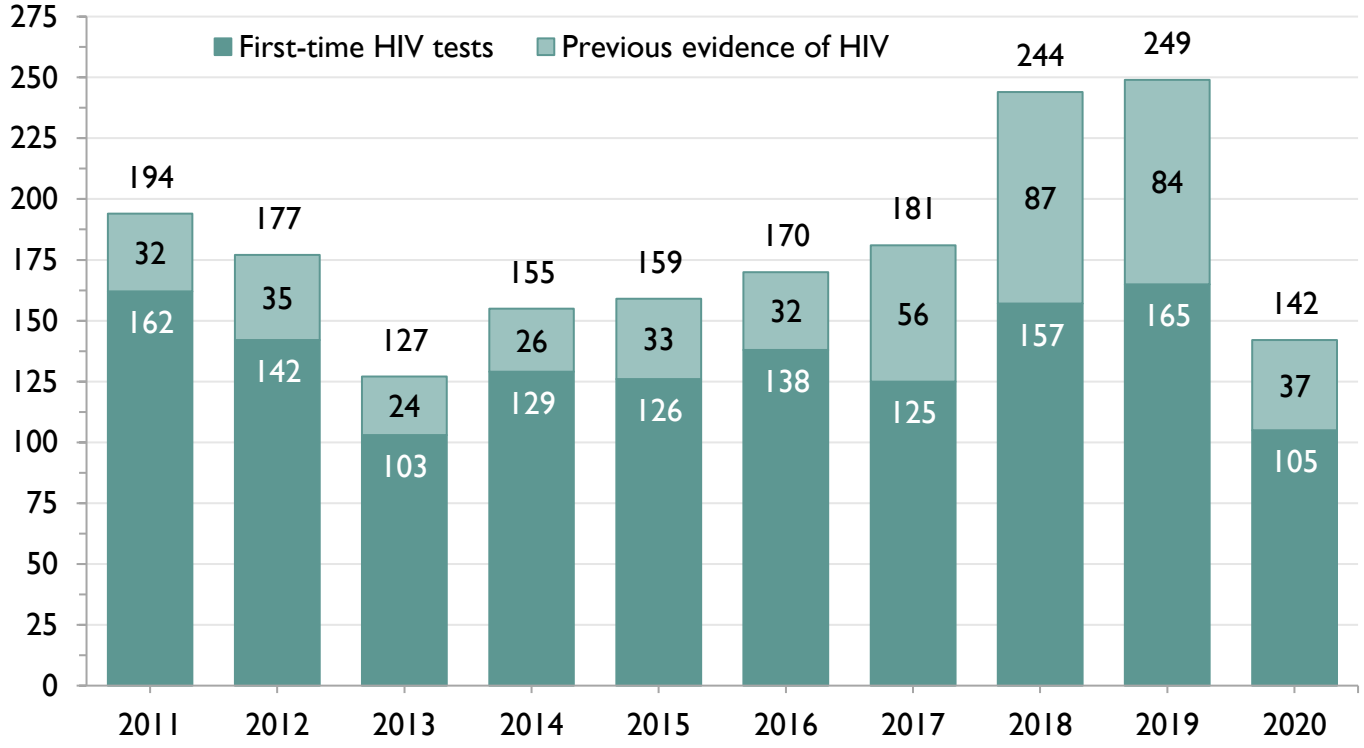
12. Women

12.a. Women overview

Diagnoses attributed to Women are defined by having 'Female' or 'Trans female' sex reported. In 2020, of the 142 positive HIV tests attributed to Women in Ontario, 105 were first-time HIV diagnoses and 37 had previous evidence of HIV. The proportion of positive HIV tests that have previous evidence of HIV increased from 16.5% in 2011 to 26.1% in 2020, peaking at 35.7% in 2018; most of that increase occurred in the latter four years. As test history information can be missing, we estimate that overall first-time HIV diagnosis counts among females are an overestimate by between 15.0 and 17.4 percent. In 2020, Women accounted for 20.6% of all first-time HIV diagnoses.

Note: *Due to missing data on test history, first-time HIV diagnoses may include some people with an uncaptured previous HIV diagnosis. OHESI estimates this to be between 15.0% and 17.4% of first-time HIV diagnoses among females.*

Figure 12.1 Number of positive HIV tests, by first-time HIV diagnoses and previous evidence of HIV, Women, Ontario, 2011 to 2020



Snapshot

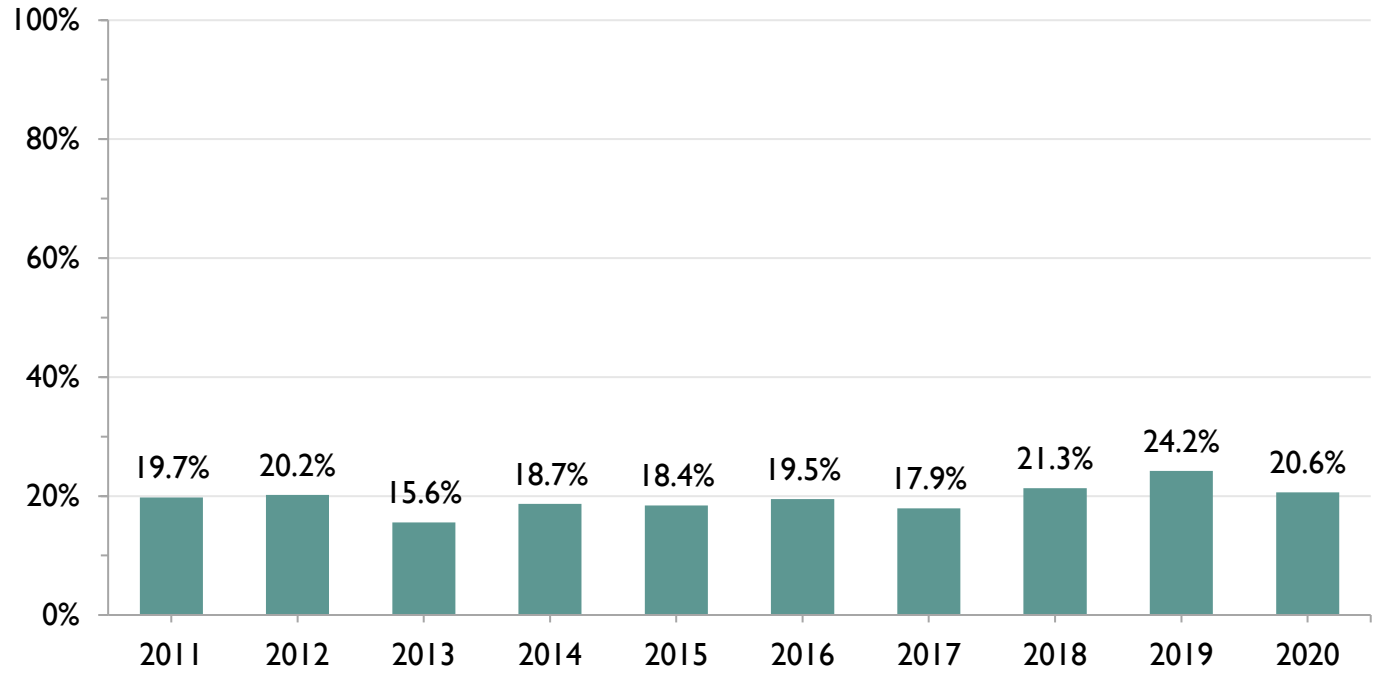
Between 2011 and 2020, the number of first-time HIV diagnoses among Women was fairly consistent (average 135), with increases in 2018 (157) and 2019 (165) and decreases in 2013 (103) and 2020 (105).

The proportion of positive HIV tests among Women with previous evidence of HIV increased from 16.5% in 2011 to 26.1% in 2020, peaking at 35.7% in 2018; most of this increase occurred in the latter four years.

Note: *Due to missing data on test history, first-time HIV diagnoses may include some people with an uncaptured previous HIV diagnosis. OHESI estimates this to be between 15.0% and 17.4% of first-time HIV diagnoses among females.*

Notes: Data provided by Public Health Ontario Laboratory. Positive HIV tests where sex was not reported were excluded (average of less than 1% of tests per year). See Appendices for more information. See Tables Supplement for underlying data.

Figure 12.2 Percent of first-time HIV diagnoses attributed to Women, Ontario, 2011 to 2020



Snapshot

In 2020, Women accounted for 20.6% of all first-time HIV diagnoses. Between 2011 and 2020, Women accounted for between 15.6% and 24.2% of all first-time HIV diagnoses.

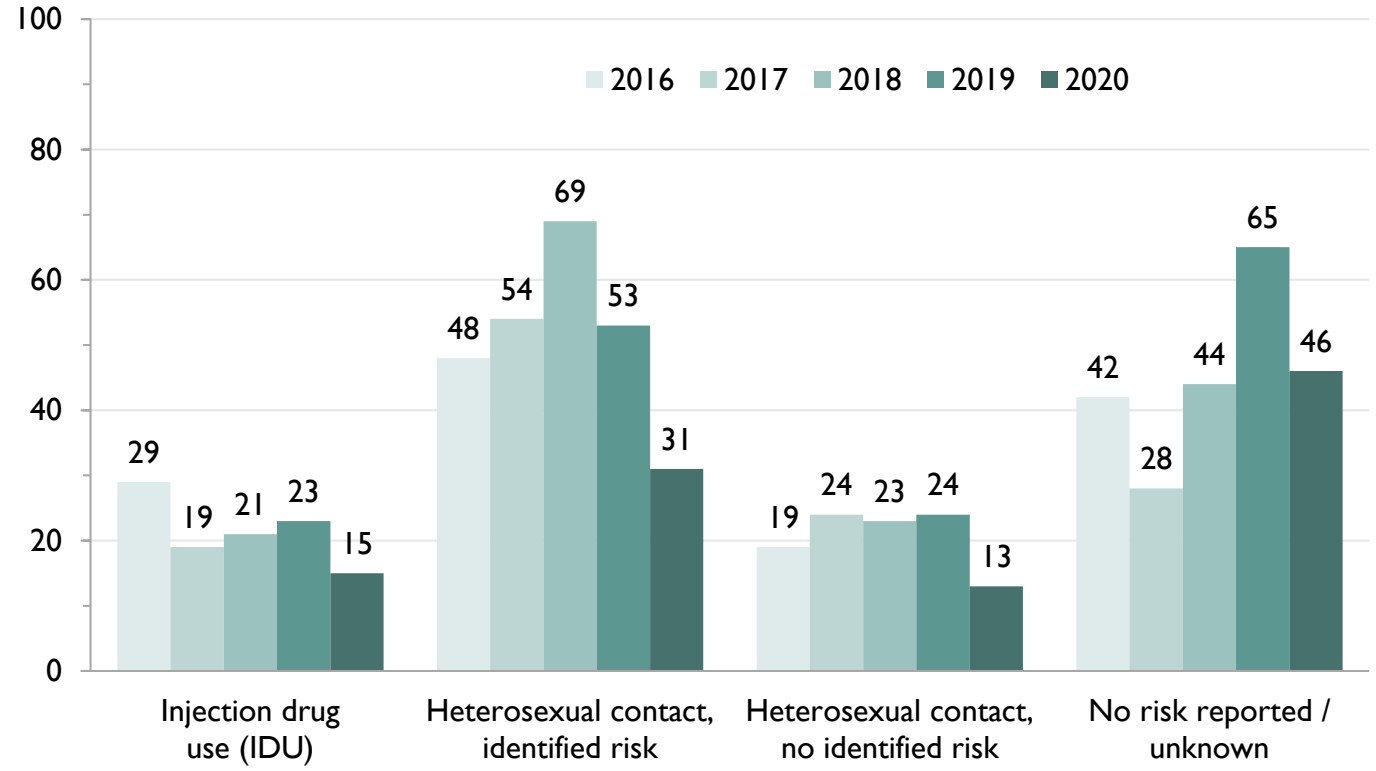
Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

12.b. Women by HIV exposure category

Despite decreased numbers, patterns of HIV exposure categories have remained fairly stable over time in first-time HIV diagnoses among Women. Between 2016 and 2020, the most frequently reported HIV exposure category among first-time HIV diagnoses in Women was heterosexual contact with identified risk (52.5% in 2020). Between 18.6% and 30.2% of first-time HIV diagnoses among Women reported HIV the IDU HIV exposure category and between 19.8% and 24.7% reported heterosexual contact with no identified risk.

Note: *The "Heterosexual contact, identified risk" category includes diagnoses where sex with a person of the opposite sex/gender is reported and either the individual's country of birth is reported as an HIV-endemic country, or the individual's sex partner is reported to be at least one of: HIV-positive; user of injection drugs; born in an HIV-endemic country; a bisexual male. See HIV exposure categories for more information.*

Figure 12.3 Number of first-time HIV diagnoses by HIV exposure category, Women, Ontario, 2016 to 2020



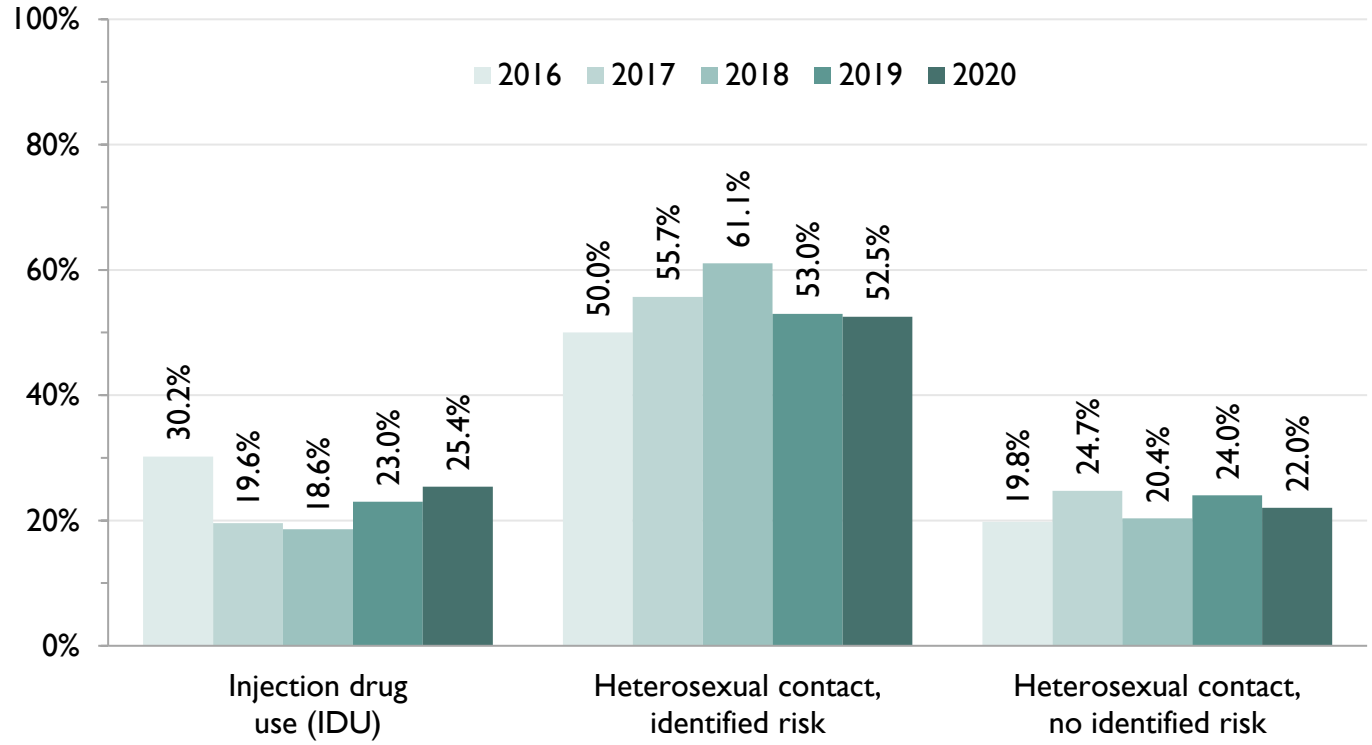
Snapshot

In 2020, 59 of the 105 first-time HIV diagnoses among Women (56.2%) reported an HIV exposure category and 46 (43.8%) did not (i.e. no risk reported, unknown).

Among the 59 first-time HIV diagnoses with a reported HIV exposure category in 2020, the most frequently reported HIV exposure category was heterosexual contact with identified risk (31) followed by IDU (15), and heterosexual contact with no identified risk (13). The number of first-time HIV diagnoses decreased in all HIV exposure categories between 2019 and 2020, with the greatest relative decreases seen in heterosexual contact with no identified risk (45.8%), followed by heterosexual contact with identified risk (41.5%), and IDU (34.8%).

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

Figure 12.4 Percent of first-time HIV diagnoses by HIV exposure category (where reported), Women, Ontario, 2016 to 2020



Snapshot

In 2020, among the 59 first-time HIV diagnoses in Women with a reported HIV exposure category, the heterosexual contact with identified risk HIV exposure category accounted for the largest proportion (52.5%), followed by IDU (25.4%), and heterosexual contact with no identified risk (22.0%). This pattern is consistent between 2016 and 2020.

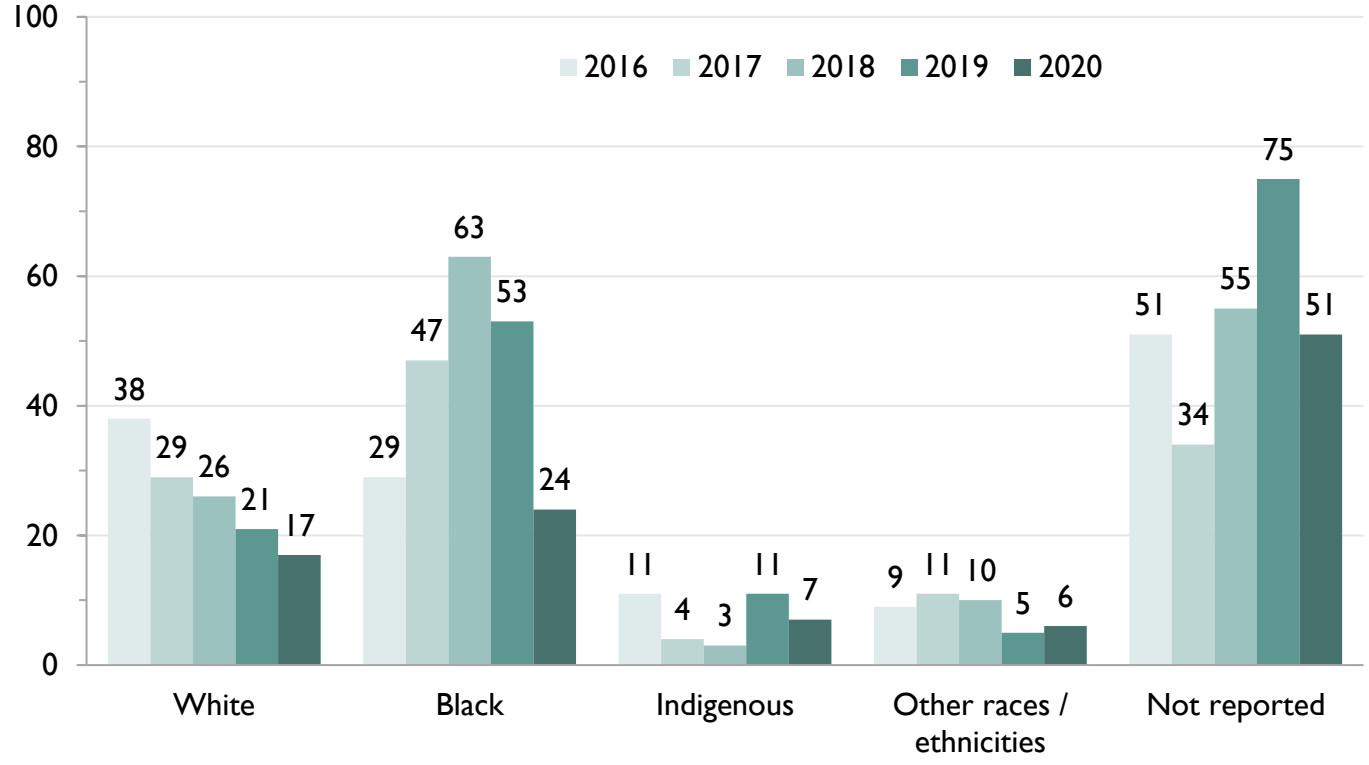
Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). Diagnoses where sex was reported but HIV exposure category was not reported were excluded (average of 32.8% of diagnoses per year where sex was reported). IDU = injection drug use. See Appendices and specifically HIV exposure categories for more information. See Tables Supplement for underlying data.

12.c. Women by race/ethnicity

Of the 105 first-time HIV diagnoses among Women in 2020, 54 (51.4%) reported information on race/ethnicity and 51 (48.6%) did not.

Of the 54 that did report race/ethnicity in 2020, the largest proportion was attributed to Black women (44.4%), followed by white (31.5%), and Indigenous (13.0%) women.

Figure 12.5 Number of first-time HIV diagnoses by race/ethnicity, Women, Ontario, 2016 to 2020



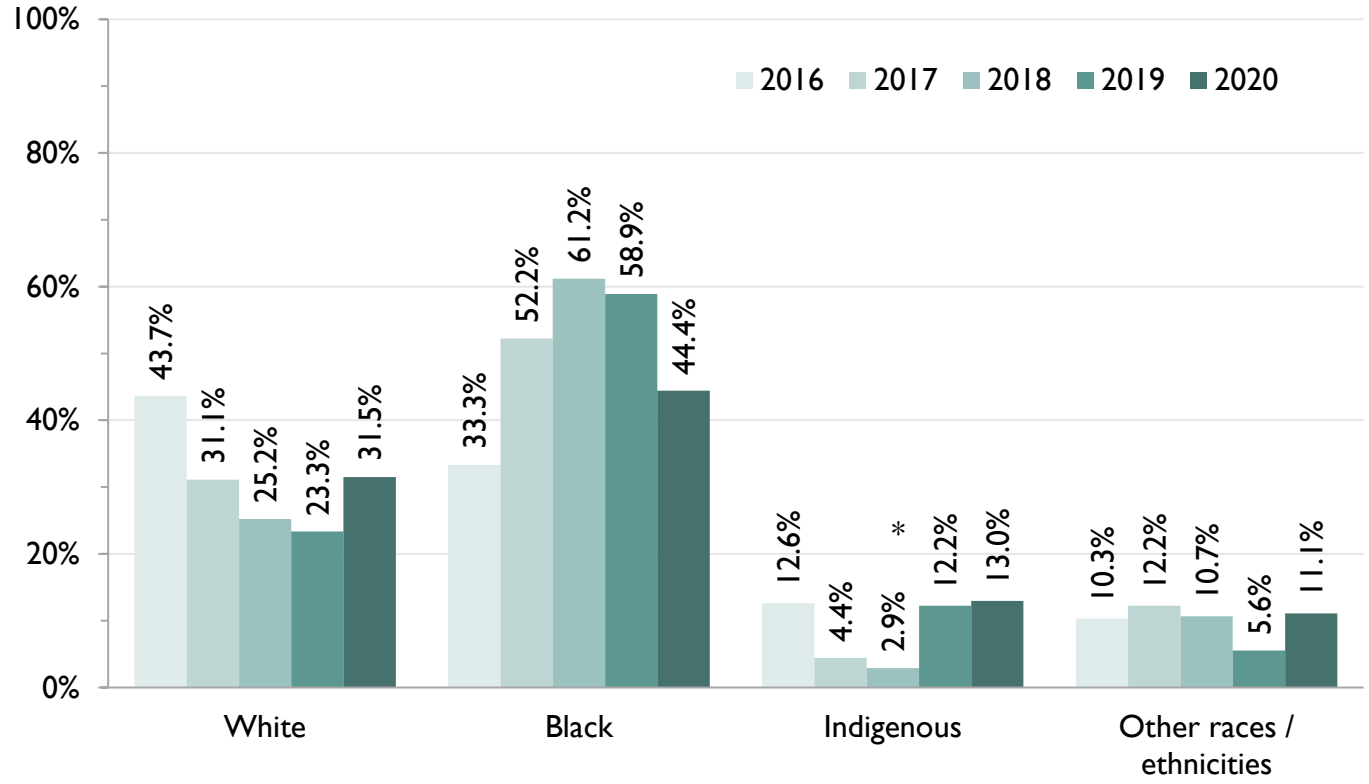
Snapshot

In 2020, among the 54 first-time HIV diagnoses among Women with a reported race/ethnicity, 24 were in Black women, 17 in white women, 7 in Indigenous women, and 6 in women of other races/ethnicities.

Between 2017 and 2020, Black women accounted for the largest number of first-time HIV diagnoses among Women; white women accounted for the largest number in 2016. Compared to 2019, the number of first-time HIV diagnoses among Women decreased in most race/ethnicities in 2020, with the greatest relative decrease seen in Black women (54.7%), followed by Indigenous women (36.4%), women of other races/ethnicities (20.0%), and white women (19.0%).

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). See Appendices for more information. See Tables Supplement for underlying data.

Figure 12.6 Percent of first-time HIV diagnoses by race/ethnicity (where reported), Women, Ontario, 2016 to 2020



Snapshot

In 2020, among the 54 first-time HIV diagnoses in Women with a reported race/ethnicity, Black women accounted for the largest proportion (44.4%), followed by white (31.5%), Indigenous (13.0%) and women of other races/ethnicities (11.1%). This pattern is consistent between 2016 and 2020.

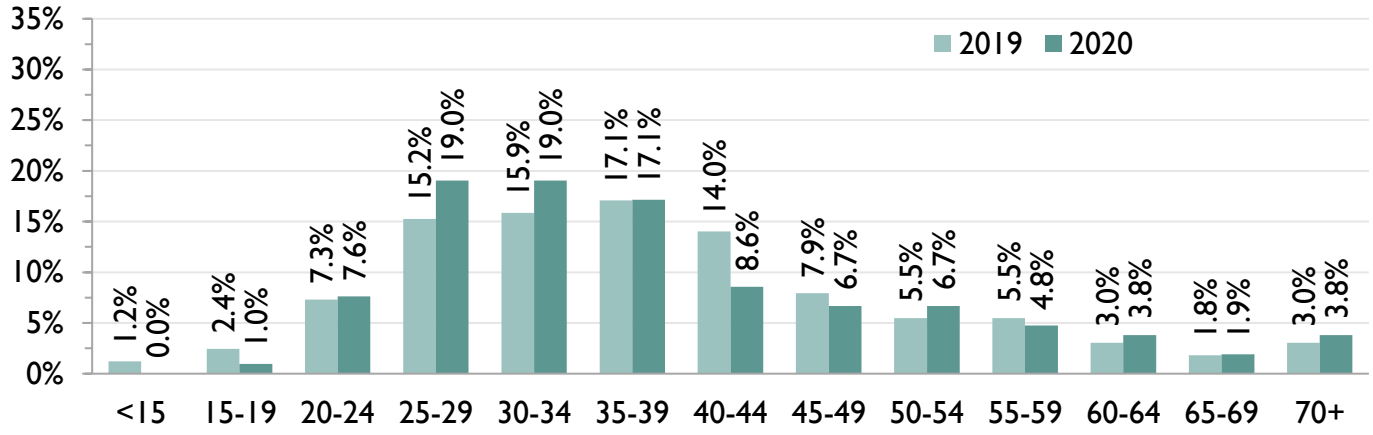
Between 2017 and 2020, Black women accounted for the largest proportion of first-time HIV diagnoses among Women; white women accounted for the largest proportion in 2016.

Notes: Data provided by Public Health Ontario Laboratory. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). Diagnoses where sex was reported but race/ethnicity was not reported were excluded (average of 38.6% of diagnoses per year where sex was reported). See Appendices for more information. See Tables Supplement for underlying data.

12.d. Women by age

In 2020, those aged 25-29 and 30-34 years accounted for the largest proportions of first-time HIV diagnoses among Women (both 19.0%), and those aged 30-34 years had the highest rate of first-time HIV diagnoses per 100,000 females (3.9).

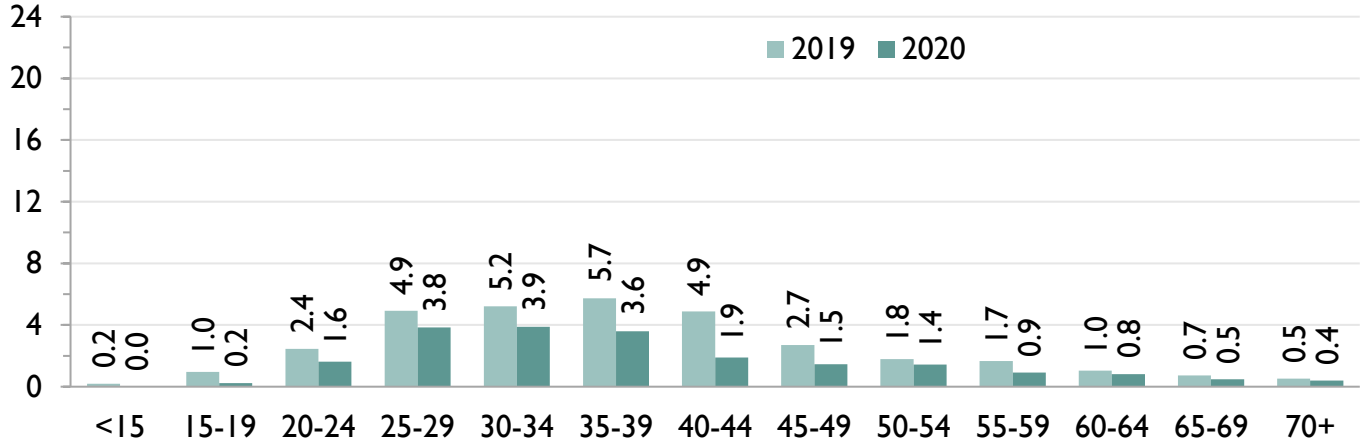
Figure 12.7 Percent of first-time HIV diagnoses by age, Women, Ontario, 2019 to 2020



Snapshot

In 2020, more than 6 in 10 (63.8%) of first-time HIV diagnoses among Women were among those aged 25-44 years and the 25-29 and 30-34 age categories accounted for the largest proportions (19.0% each). There was little change in the distribution of first-time HIV diagnoses across age categories among Women between 2019 and 2020.

Figure 12.8 Rate of first-time HIV diagnoses per 100,000 females by age, Women, Ontario, 2019 to 2020



Snapshot

In 2020, the rate of first-time HIV diagnoses among Women was highest among those aged 30-34 years (3.9 per 100,000 females) followed by those aged 25-29 years (3.8 per 100,000 females). In 2019, those aged 35-39 had the highest rate (5.7 per 100,000 females). Compared to 2019, the number of first-time HIV diagnoses decreased in all age categories in 2020.

Notes: Data provided by Public Health Ontario Laboratory. * denotes a proportion based on at least one count of <5, therefore proportions may be unstable and trends should be interpreted with caution. Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). Diagnoses where age was not reported were excluded (less than 1%). See Appendices for more information. See Tables Supplement for underlying data.

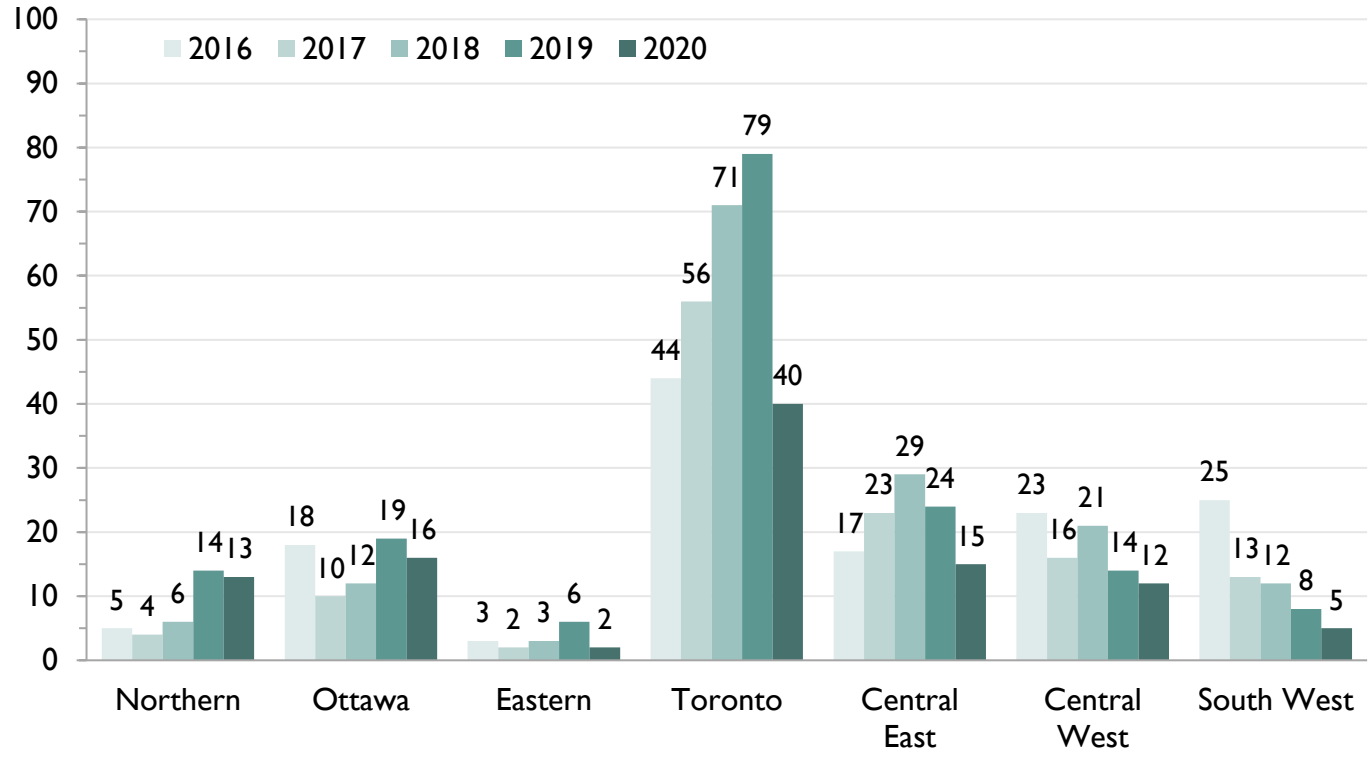
12.e. Women by health region

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among Women (38.8%), though Northern region had the highest rate per 100,000 females (3.2), followed by Ottawa (3.0), and Toronto (2.6) regions.

The number of first-time HIV diagnoses among Women increased in Toronto region from 44 in 2016 to 79 in 2019, before decreasing to 40 in 2020.

In 2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses to Women than any other region (54.2%), followed by Ottawa (44.4%) and Central West (23.5%) regions.

Figure 12.9 Number of first-time HIV diagnoses among Women by health region, Ontario, 2016 to 2020



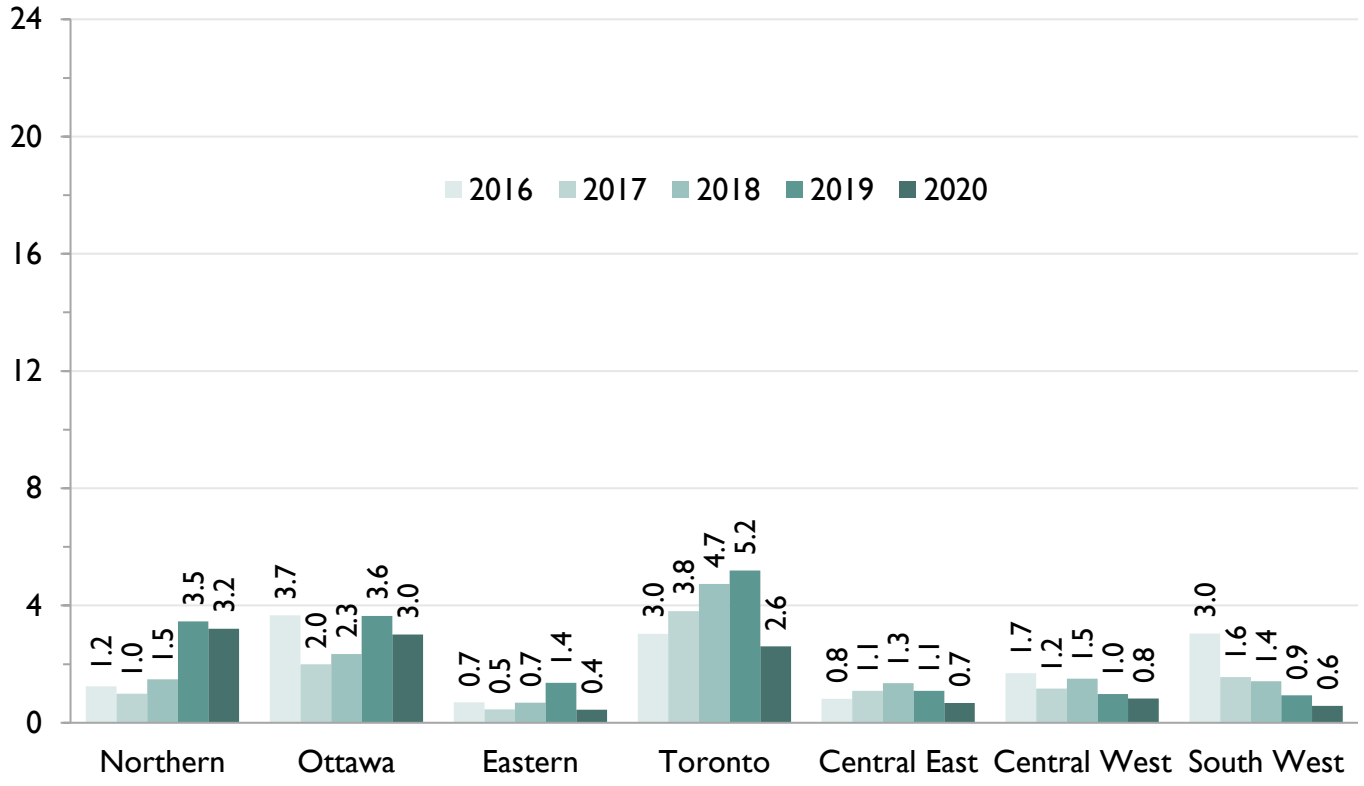
Snapshot

In 2020, Toronto region had the largest number of first-time HIV diagnoses among Women (40), followed by Ottawa (16), Central East (15), Northern (13), Central West (12), South West (5), and Eastern (2) regions.

Between 2016 and 2020, Toronto region had the largest number of first-time HIV diagnoses among Women. The number of first-time HIV diagnoses attributed to Women in Toronto region increased from 44 in 2016 to 79 in 2019, before decreasing to 40 in 2020. Compared to 2019, the number of first-time HIV diagnoses among Women decreased in all regions in 2020, with the largest relative decrease in Eastern region (66.7%, though based on small numbers), followed by Toronto (49.4%), and Central East and South West regions (both 37.5%).

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if not reported, the address of the ordering provider. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 12.10 Rate of first-time HIV diagnoses per 100,000 females by health region, Women, Ontario, 2016 to 2020

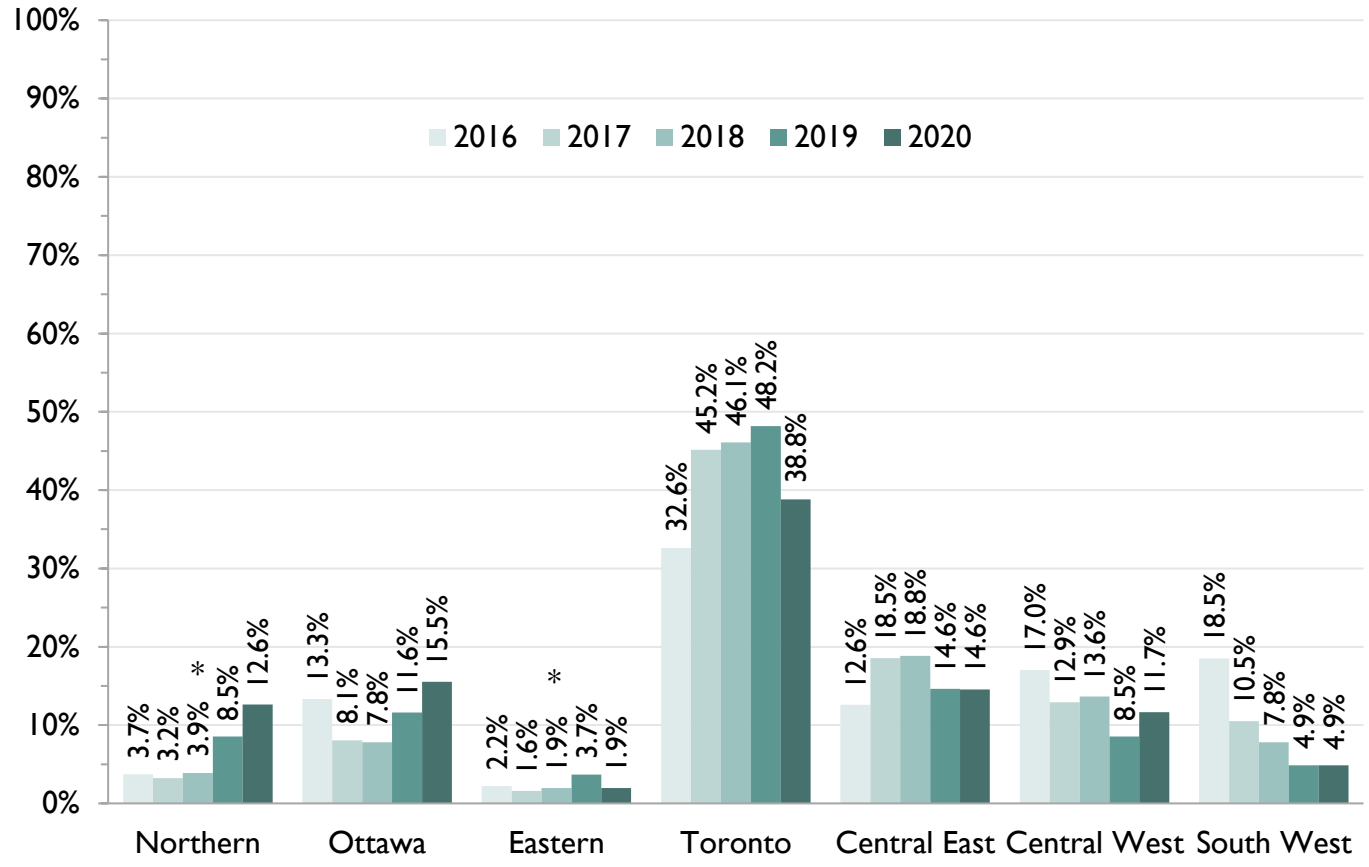


Snapshot

In 2020, Northern region had the highest rate of first-time HIV diagnoses among Women (3.2 per 100,000 females), whereas Toronto had the highest rate between 2017 and 2019 and Ottawa had the highest rate in 2016. Compared to 2019, the rate of first-time HIV diagnoses decreased in all regions, with the largest relative decrease in Eastern region (67.0%), followed by Toronto (49.8%) and Central East regions (38.5%). The decrease in the rate in Toronto region in 2020 follows year-over-year increases between 2016 and 2019.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if not reported, the address of the ordering provider. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). Rates calculated using Statistics Canada population estimates for all ages, accessed 11/05/2021. See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 12.11 Percent of first-time HIV diagnoses across health regions, Women, Ontario, 2016 to 2020

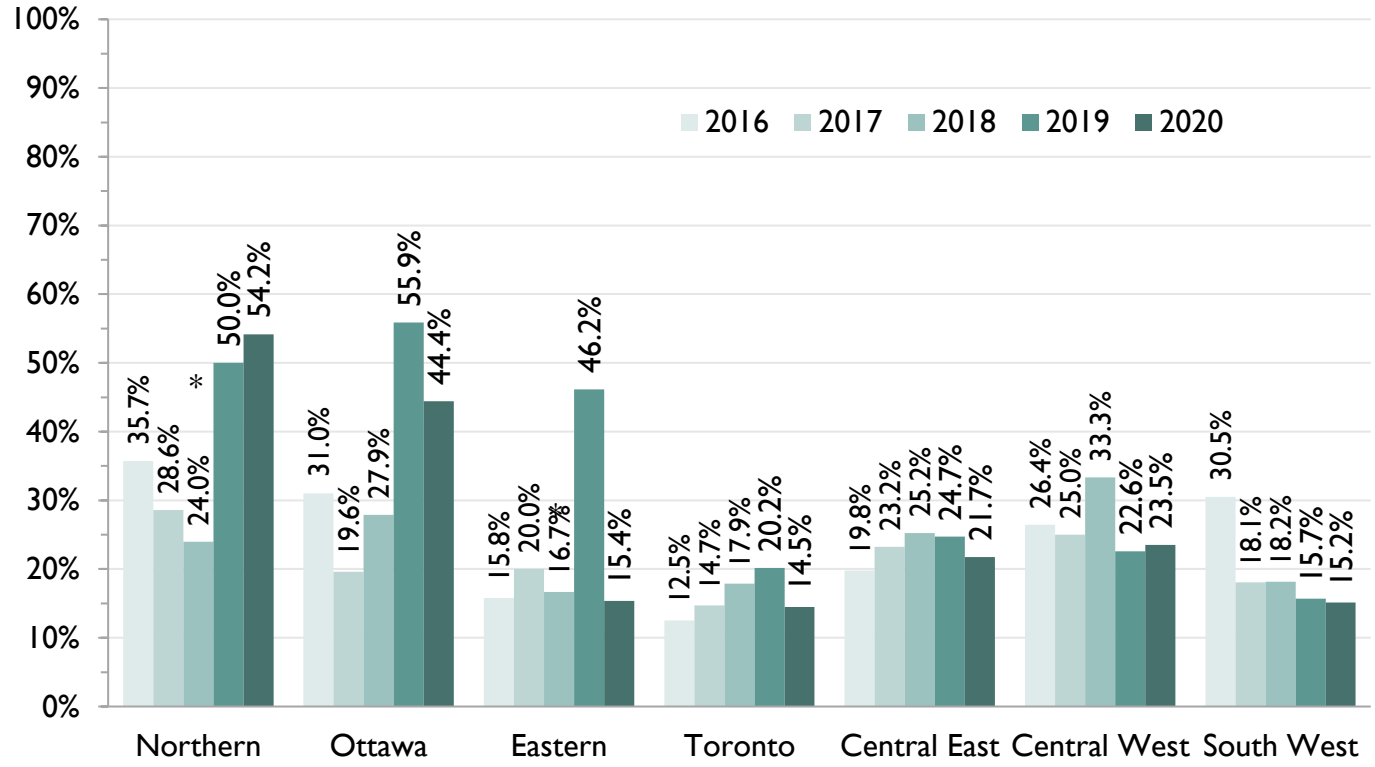


Snapshot

In 2020, Toronto region had the largest proportion of first-time HIV diagnoses among Women (38.8%), followed by Ottawa (15.5%), Central East (14.6%), Northern (12.6%), Central West (11.7%), South West (4.9%), and Eastern (1.9%) regions. This trend has been consistent over time: between 2016 and 2020, Toronto region accounted for the largest proportion of first-time HIV diagnoses among Women.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if not reported, the address of the ordering provider. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Figure 12.12 Percent of first-time HIV diagnoses within each region attributed to Women (where sex reported), Ontario, 2016 to 2020



Snapshot

In 2020, looking within each region, Northern region attributed a larger proportion of its first-time HIV diagnoses to Women than any other region (54.2%), followed by Ottawa (44.4%), Central West (23.5%), Central East (21.7%), Eastern (15.4%), South West (15.2%), and Toronto (14.5%) regions.

Notes: Data provided by Public Health Ontario Laboratory. Health regions are groupings of Public Health Units. Diagnoses were assigned to a health region based on their address of residence or, if not reported, the address of the ordering provider. Diagnoses where sex was not reported were excluded (average of less than 1% of diagnoses per year). See Appendices and specifically Health regions for more information. See Tables Supplement for underlying data.

Appendices

1. Definitions

African, Caribbean or Black (ACB) people

One of Ontario's priority populations. Diagnoses attributed to ACB are defined by having indication of being born in an African or Caribbean country and/or Black race/ethnicity. If an individual reports 'Black' race/ethnicity in addition to at least one other race/ethnicity category, they are categorized as "Other/mixed" in the race/ethnicity breakdowns, but are considered part of the ACB priority population. See Priority populations for more information.

Anonymous HIV testing

A type of non-nominal HIV diagnostic testing where no identifying information on the individual being tested is collected on the test requisition form. The lack of identifying information means that it is not possible to link anonymous HIV-positive diagnostic tests to viral load tests within the HIV Datamart.

Coded HIV testing

A type of non-nominal HIV diagnostic testing where a code, instead of the name of the individual being tested, is collected on the test requisition form. The lack of identifying information means that it is not possible to link coded HIV-positive diagnostic tests to viral load tests within the HIV Datamart.

Gay, bisexual, and other men who have sex with men (GBMSM)

One of Ontario's priority populations. Diagnoses attributed to GBMSM are defined by having reported 'Male' or 'Transgender male' sex, and sexual contact with men as an HIV risk factor. See Priority populations for more information.

First-time HIV diagnoses

First-time HIV diagnoses are positive HIV tests with no previous evidence of HIV. We look at this number to better understand which diagnoses are likely due to local transmission in Ontario and, therefore, what populations might be at most risk and benefit most from prevention activities. We report on first-time HIV diagnoses separately to better understand local transmission.

First-time HIV diagnoses exclude anyone with a previous positive diagnostic test as indicated on the LEP form (or the test requisition form since 2018), regardless of the location of the previous positive test (inside of outside of Ontario). It also uses linked viral load testing history in Ontario as evidence of being in care for HIV so excludes 1) anyone with a history of viral load testing in Ontario of more than 30 days before to their first nominal confirmatory diagnostic test in Ontario, or 2) anyone with a history of viral load testing in Ontario within 30 days (including same day) of their first nominal confirmatory diagnostic test with a viral load of <200 copies/mL indicating prior treatment. People who have evidence of a history of viral load testing before their first reported HIV positive test are counted as a positive HIV test in the first year which there is evidence of an HIV diagnoses (i.e. the year of their first viral load test).

Where HIV test history information is not reported, positive HIV tests are categorized as first-time HIV diagnoses.

Health regions

Groupings of public health units that have historically been used in HIV epidemiology and surveillance reports. There are seven health regions: Northern, Ottawa, Eastern, Toronto, Central East, Central West and Southwest. See Health regions for more information on these groupings and boundaries.

HIV Datamart

All data in this report is stored in the HIV Datamart, an integrated data platform composed of Public Health Ontario Laboratory's diagnostic and viral load testing databases. Within the Datamart, diagnostic and viral load test records are linked together for the same person (however, linkage is not possible for anonymous and coded HIV-positive diagnostic tests).

HIV exposure category

A category meant to represent an individual's most likely means of HIV acquisition. An individual getting tested is assigned to an exposure category based on reported "HIV risk factors" (defined below) collected on the test requisition form. Exposure categories are mutually exclusive, which means an individual can only be assigned to one category. When more than one exposure category is applicable for a single individual, a hierarchy is used to assign them to a single category. This hierarchy is based on the level of HIV risk associated with different exposure categories. See HIV exposure categories for more information.

HIV risk factor

A factor reported on the HIV test requisition form and/or the LEP form that relates to an individual's potential route(s) of HIV acquisition. HIV risk factors are used to define both HIV exposure categories and HIV priority populations. They are not mutually exclusive (as many as are applicable can be selected) and include: sexual contact with women; sexual contact with men; injection drug use; having been born in an HIV-endemic country (includes countries in sub-Saharan Africa and the Caribbean); being a child of HIV-positive mother; sex with a person who was known to be HIV-positive; sex with a person who was known to be using injection drugs; sex with a person who was known to be born in an HIV-endemic country (includes countries in sub-Saharan Africa and the Caribbean); and sex with a person who was known to be a bisexual male (for female individuals).

HIV-positive diagnostic test

Defined as a blood sample that has initially tested reactive on a screening test (either at the laboratory or on a point-of-care / rapid test), and has been confirmed as HIV-positive by a separate test (Western Blot, p24 antigen confirmatory test, or polymerase chain reaction for children <18 months). HIV-positive diagnostic tests in the HIV Datamart includes all people who were diagnosed with HIV. That is, people who test HIV-positive for the first time in Ontario (never tested HIV-positive out-of-province), as well as people who were diagnosed HIV-positive elsewhere and moved to Ontario and tested again ('out-of-province' diagnoses).

Indigenous Peoples

One of Ontario's priority populations. Diagnoses attributed to Indigenous Peoples are defined by having the 'First Nations', 'Inuit', and/or 'Métis' race/ethnicity reported. See Priority populations for more information.

Integrated Public Health Information System (iPHIS)

iPHIS is an electronic, web-based system used by public health units (PHUs) for case-management and reporting to the Ontario Ministry of Health on diseases of public health significance, including HIV. It is the main source of data used by PHUs and Public Health Ontario to produce reportable disease surveillance reports. iPHIS includes information elicited during public health follow up of HIV cases. iPHIS data are not used in this report.

Laboratory Enhancement Program (LEP)

When a person receives a new HIV diagnosis in Ontario, a Laboratory Enhancement Program (LEP) form is sent to the health care provider who ordered the test in order to collect further information on the person who tested HIV-positive. This includes information collected on the original test requisition (e.g. risk factors), as well as additional information. Since 2009, the LEP form has collected information on race/ethnicity and country of birth.

Nominal HIV testing

A type of HIV diagnostic testing where the test requisition form contains the name of the individual being tested. Nominal HIV tests can be linked to viral load tests in the HIV Datamart using patient identifiers.

Non-nominal HIV testing

A type of HIV diagnostic testing where the test requisition form does not contain the name of the individual being tested. There are two types of non-nominal testing in Ontario: anonymous and coded. The lack of identifying information means that it is not possible to link non-nominal HIV-positive diagnostic tests to previous diagnostic tests and viral load tests within the HIV Datamart.

People who use injection drugs (PWID)

One of Ontario's priority populations. Diagnoses attributed to PWID are defined by having reported injection drug use as an HIV risk factor. See Priority populations for more information.

Positive HIV tests

Positive HIV tests includes all unique individuals (i.e. only one test for each individual) receiving a confirmed HIV-positive diagnosis in Ontario. This includes individuals who have previously tested positive for HIV outside of Ontario, but does not include individuals who have previously tested positive for HIV in Ontario. It also includes individuals who have a history of viral load testing in Ontario without a recorded and linked prior confirmatory diagnostic test in Ontario. Only the first positive test in Ontario is included toward the positive HIV tests counts.

A reactive rapid/point-of-care test result (i.e. suggestive of an HIV-positive result) must be confirmed through laboratory testing to be counted as a Positive HIV Test. Individuals with a previous record of an HIV-positive test *within* Ontario are excluded to prevent double-counting. The LEP is used to remove tests which cannot be linked by identifying information on the requisition form, but are indicated as a repeat test. This will remove many additional duplicates, but if repeat test information is missing or not reported, or a patient tests HIV-positive more than once through non-nominal testing, duplicate tests will still remain.

Individuals with a positive HIV test include: 1) first-time HIV diagnoses and 2) people who have previous evidence of HIV. Individuals with previous evidence of HIV either 1) had an HIV-positive diagnoses

outside of Ontario and later retested in Ontario (as recorded on the test history section of the laboratory enhancement program (LEP) case report or the test requisition form), or 2) had a history of viral load testing in Ontario more than 30 days prior to their first nominal confirmatory diagnostic test in Ontario, or 3) had a history of viral load testing in Ontario within 30 days (including same day) of their first nominal confirmatory diagnostic test with a viral load of <200 copies/mL indicating prior treatment. People who have evidence of a history of viral load testing before their first reported HIV positive test are counted as a positive HIV test in the first year which there is evidence of an HIV diagnoses (i.e. the year of their first viral load test).

Previous evidence of HIV (PEH)

Positive HIV tests with previous evidence of HIV represent unique individuals (i.e. only one test for each individual) include both 1) people who may be new to the province who already knew their HIV-positive status and have a confirmatory HIV test in Ontario ('out-of-province' HIV diagnoses) and 2) people who may have been infected in Ontario and have been living and receiving care (viral load testing) in the province but have no prior linked confirmatory diagnostic test in Ontario. People who have evidence of a history of viral load testing before their first reported HIV positive test are counted as a positive HIV test in the first year which there is evidence of an HIV diagnoses (i.e. the year of their first viral load test).

Priority Population

Populations outlined as priorities for HIV programming in Ontario's response to HIV, including gay, bisexual and other men who have sex with men, including trans men (GBMSM); people who are African, Caribbean or Black (ACB); Indigenous Peoples; people who use injection drugs (PWID); and women. Information from the test requisition (both new and old test requisition forms) and LEP forms are used to assign an HIV diagnosis (i.e. HIV-positive test) to a priority population, where applicable. Unlike HIV exposure categories, these priority populations are not mutually exclusive. That means that an HIV diagnosis can be assigned to more than one priority population (if applicable) – an approach which better represents Ontario's HIV epidemic. To be assigned to any priority population, only information on that single priority population is required. For example, if race/ethnicity is missing but exposure category indicates male-to-male sexual contact, the individual could be assigned the GBMSM priority population. Assignment of priority population is excluded if data is not reported to define that priority population. See Priority populations for more information.

Test requisition form

A form filled out by a health care provider along with each HIV diagnostic test. The HIV diagnostic test requisition form collects information on the age, sex and HIV risk factors of the person getting tested. As of 2018, the HIV test requisition form also collects information on race/ethnicity, country of birth, transgender identity and PrEP status. Note, race/ethnicity and country of birth information has been collected on the Laboratory Enhancement Program (LEP) form since 2009.

Women* / Women

Women* is the official priority population as outlined in Ontario's Provincial HIV/AIDS Strategy; it includes ACB women, women who use injection drugs, Indigenous women, transgender women, other women who face systemic and social inequities, and women who are more likely to be exposed to HIV through a sexual or drug using partner. As indicators of systemic and social inequities of HIV are not available in the HIV surveillance data, the priority population Women* is unable to be defined. Instead, we

use "Women" in this report, which is defined by having 'Female' or 'Trans female' sex reported. See Priority populations for more information.

2. Abbreviations

ACB = African Caribbean and Black

GBMSM = Gay, bisexual and other men who have sex with men

LEP = Laboratory Enhancement Program

OHESI = Ontario HIV Epidemiology and Surveillance Initiative

PHO = Public Health Ontario

PWID = People who use injection drugs

3. Technical notes

When a person living with HIV retests and receives a second or mulitiple additional positive test results, measures are in place to prevent the second or multiple tests from being counted as a positive HIV test. The information on the HIV test requisition form is entered in the laboratory information system and is matched to previous tests in the PHO HIV Datamart using the name and health card number of the patient. When the name or OHIP number has changed, or a person tests anonymously or using a coded test, it is not possible to link that test to other test results. For example, an individual who initially tested HIV-positive through anonymous testing, and then later received a nominal HIV-positive test when entering care, would be inadvertently counted as two separate new diagnoses.

Since its introduction in 1999, the Laboratory Enhancement Program (LEP) has collected information to supplement what is collected on the HIV test requisition for individuals newly diagnosed with HIV, including HIV testing history. When test history is completed, it is not necessary to link the test back to previous results. A test indicating a previous HIV-positive diagnosis in Ontario can be directly removed as a duplicate test. For the analyses in this report (both positive HIV tests and first-time HIV diagnoses), these duplicates with reported test history in Ontario have been removed.

The definition of an 'HIV diagnosis' has been updated to gain a more accurate picture of people diagnosed or entering care for HIV in Ontario and people who are learning their HIV diagnoses for the first time. The positive HIV tests definition includes 1) first-time HIV diagnoses and 2) people who have previous evidence of HIV (had been diagnosed previously). People who have previous evidence of HIV may be newly entering care in Ontario. Only the first positive test in Ontario is included toward the positive HIV tests counts.

Using the LEP and the PHO viral load testing data, it is possible to examine first-time HIV diagnoses. First-time HIV diagnoses are individuals who have no previous evidence of HIV. That is, they are learning of their HIV diagnosis for the first time. First-time HIV diagnoses exclude anyone with a previous positive diagnostic test in another province or country and who retested in Ontario, as indicated on the HIV test requisition (since 2018) or the LEP form. It also uses linked viral load testing history in Ontario as evidence of being in care for HIV and so excludes 1) anyone with a history of viral load testing in Ontario of more than 30 days before a first diagnostic positive test and 2) anyone with viral load testing in Ontario within 30 days (including same day) with a viral load <200 copies/mL. People who have evidence of a history of viral load testing before their first reported HIV positive test are counted as a positive HIV test in the first year which there is evidence of an HIV diagnoses (i.e. the year of their first viral load test). Viral load history is only available from 1996 on, as this is when viral load testing became widely available in Ontario. Therefore, categorizing diagnoses as having previous evidence of HIV is only available after this date. A validation study was carried out to assess case history information from the integrated Public Health Information System (iPHIS). Overall, for the cases that could be linked, iPHIS concurred with the exclusions applied by the viral load criteria of previous evidence of HIV.

We report on positive HIV tests in Ontario to inform policy and planning services that can be tailored to all people living with HIV. We look at first-time HIV diagnoses to better understand which diagnoses are likely due to local transmission in Ontario, and therefore, what populations might be at most risk and benefit most from prevention activities.

Approximately one in four positive HIV tests (22.1% in 2020) had previous evidence of HIV. The ascertainment of repeated testing within Ontario (duplicates) and positive HIV tests with previous

evidence of HIV due to a diagnosis out of province are both likely to be underestimated because it is only possible when test history is complete or repeated tests can be linked. Reasons for unlinked data include an individual having one (or more) anonymous or coded HIV tests prior to their nominal test. Another reason could be because either 1) the LEP questionnaire is missing, or 2) the HIV testing history section of the questionnaire or HIV test requisition form is incomplete. Between 2011 and 2020, approximately 53.2% of positive HIV tests in Ontario had both the LEP forms returned and the test history section complete (58.7% in 2020). The ascertainment of previous evidence of HIV due to a history of viral load testing could overestimate the number of positive HIV tests (but would give a more accurate number of first-time HIV diagnoses). When an individual has a history of viral load testing, they may have already received a diagnostic test in Ontario that could not be linked to their viral load tests. That first diagnostic test could have been anonymous, coded, or unable to be linked for some other reason. When this person is included because they've received a new diagnostic test, they may be counted twice in the data: at the time of their first unlinked diagnosis and at the time of their first viral load test. As it is not possible to know if they've already had a positive diagnostic test in Ontario, these individuals are counted as a positive HIV test, and as a first-time HIV diagnosis.

The continued refinement of surviellance data means that historical numbers will be updated in OHESI reports. Therefore, previous releases of surveillance numbers no longer represent the most accurate representation, and the most recent report should always be cited.

Limitations to HIV testing and new HIV diagnoses

Information about risk factors and demographics are only available when test forms are filled out completely and correctly. HIV test requisitions are not filled out completely for all new HIV diagnoses. Furthermore, approximately 36% of LEP forms are not returned by 3 months and in total, approximately 39% of LEP forms in 2020 were not returned. After combining information from both forms (HIV test requisition and LEP), exposure category information is missing for approximately 30% of positive HIV tests in 2020. Due to race/ethnicity historically (prior to 2018) only been collected on the LEP and not the HIV test requisition, and low uptake of the new test requisition form that does collect information on race/ethnicity since 2018, there is a high rate of race/ethnicity information that is missing; approximately 33% of positive HIV tests in 2020. The missing information means that some positive HIV tests and first-time HIV diagnoses cannot be assigned to priority populations. It is unknown whether some categories or populations may be more likely to be missing information, which could potentially bias the proportions. There may also be bias due to varied practices among providers for filling out the requisition and LEP forms. For example, some providers may ask about ethnicity or risk factors, while others may not ask or make assumptions. The time it takes for LEP forms to be returned can result in reporting delays.

Data on transgender individuals has not been collected in a consistent manner over time. For this reason, transgender individuals are not included in any of the HIV diagnosis counts or rates when stratified by sex. Transgender females are counted when reporting on Women and transgender males are counted as GBMSM if sex with a man is reported. As data collection becomes more consistent with capturing transgender identity, future reports will incorportate this information.

4. HIV exposure categories

An attempt is made to assign each HIV test to an exposure category based on what reported HIV risk factor information is collected on the requisition form. The exposure category is meant to represent an individual's most likely means of HIV acquisition. The exposure categories are mutually exclusive. When more than one risk factor is reported for a single individual, a hierarchy is used to assign an HIV test to a single exposure category. This hierarchy is as follows:

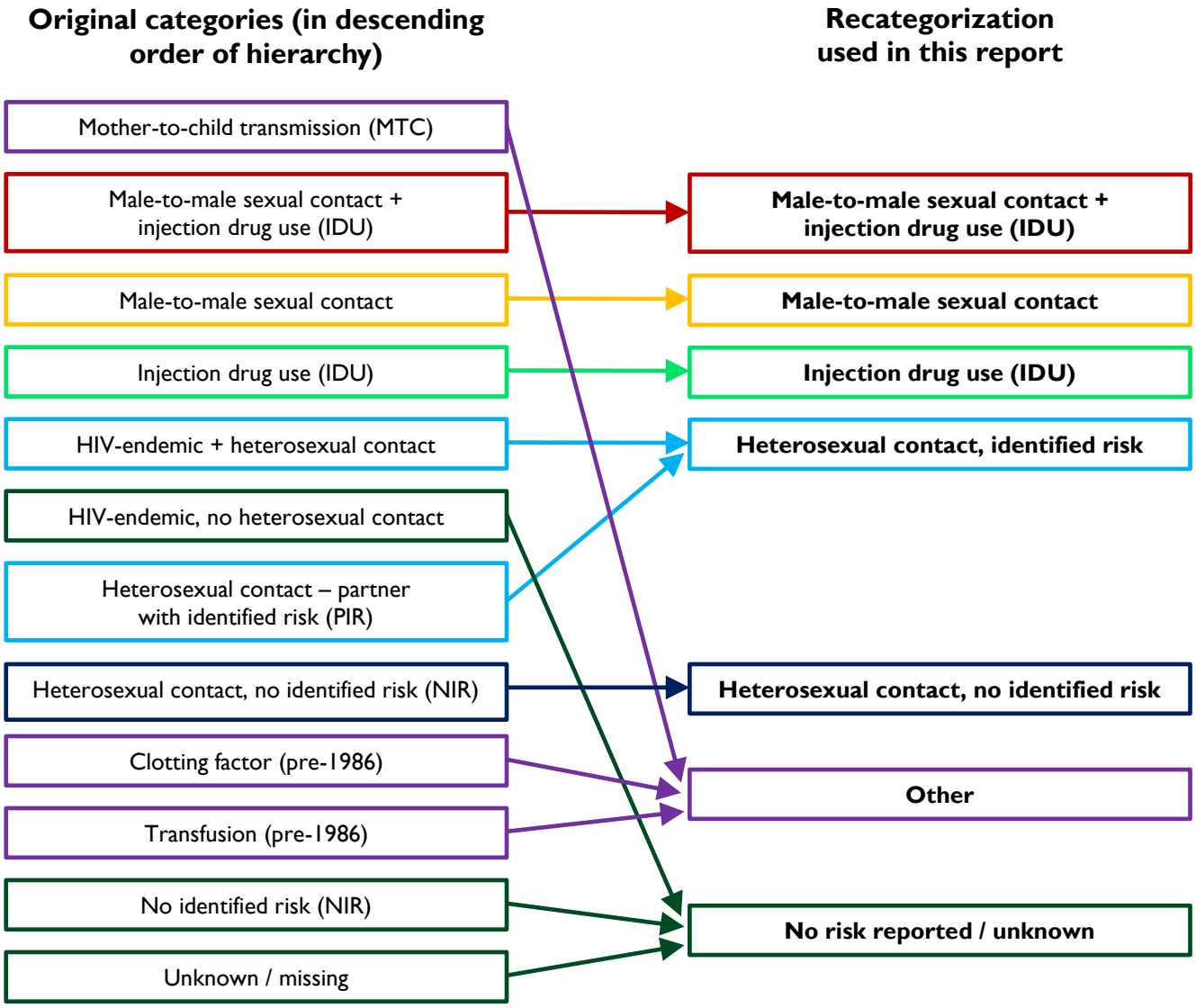
1. Mother-to-child transmission (MTC): Being a child of an HIV-positive mother or aged less than 18 months
2. Male-to-male sexual contact + injection drug use (IDU): Being male and indicating sex with men and injection drug use
3. Male-to-male sexual contact: Being male and indicating sex with men
4. Injection drug use (IDU): Indicating injection drug use
5. HIV-endemic
    a. HIV-endemic + heterosexual contact: (Country of birth is HIV-endemic or "Born in an HIV-endemic country" indicated as HIV risk factor) + indication of heterosexual contact (defined as being male or female and indicating sex with a person of the opposite sex/gender)
    b. HIV-endemic, no heterosexual contact: (Country of birth is HIV-endemic or "Born in an HIV-endemic country" indicated as HIV risk factor) + no indication of heterosexual contact as in 5a
6. Heterosexual contact – partner with identified risk (PIR): Being male or female and indicating sex with a person of the opposite sex/gender who is either HIV-positive, uses injection drugs, born in an HIV-endemic country, or is a bisexual male.
7. Heterosexual contact, no identified risk: Being male or female and indicating sex with a person of the opposite sex/gender who has no identified risk.
8. Clotting factor (pre-1986): Indicating clotting factor pre-1986
9. Transfusion (pre-1986): Indicating a blood transfusion pre-1986
10. No identified risk (NIR): Indicating "none" or "other" or "needlestick injury" as a risk factor
11. Unknown/missing: No risk factors indicated (form not completed)

In this report, some of the above categories are combined to form broader categories (see **Figure iv** below):

- Heterosexual contact, identified risk: combines diagnoses assigned to "HIV-endemic + heterosexual contact" (category #5a above) and "Heterosexual contact – partner with identified risk (PIR)" (category #6)
- Other: combines diagnoses assigned to "Mother-to-child transmission (MTC)" (category #1), "Clotting factor (pre-1986)" (category #8), and transfusion categories (category #9).
- No risk reported/unknown: combines diagnoses assigned to "HIV-endemic, no heterosexual contact" (category #5b) and "No identified risk" (category #10), or where the form is not completed (category #11).

HIV-endemic areas (category #5) are classified by the Public Health Agency of Canada as countries where the prevalence of HIV among adults (15-49 years old) is 1.0% or greater and one of the following criteria is met: at least 50% are attributed to heterosexual transmission; a male to female ratio of 2:1 or less among prevalent infections; or HIV prevalence greater than or equal to 2% among women receiving prenatal care. A list of these countries can be found here.

Figure iv. Original hierarchical HIV exposure categories (in descending order) and how they were recategorized for this report.



HIV risk factor data used to determine an individual's exposure category is missing for about one quarter of first-time HIV diagnoses (average of 25.9% per year between 2016 and 2020). These diagnoses are included in figures of numbers of diagnoses and excluded from figures of proportions by HIV exposure category.

It is unknown whether individuals with certain HIV risk factors, and hence exposure categories, are more likely to be missing information, which could introduce bias into the exposure category breakdowns. Also, provider practices for filling out the requisition forms may vary, leading to further bias. For example, some providers may ask people getting tested about their risk factors, while others may make assumptions or not ask.

In 2018, a "country of birth" field was added to the HIV test requisition form which better informed attribution to the HIV-endemic exposure category and likely contributed to the larger proportion of HIV tests attributed to this category in this year and 2019 and 2020. As exposure category attribution follows

a hierarchy, increasing proportions in higher categories would decrease proportions attributed to subsequent categories. Any interpretation of changes between exposure category proportions of HIV tests in 2018, 2019, or 2020, and the years prior should remain mindful of this caveat.

5. Priority populations

Positive HIV tests and first-time HIV diagnoses are assigned (where applicable) to one or more of the priority populations outlined in Ontario's Provincial HIV/AIDS Strategy. These populations are not mutually exclusive, and individuals can be classified as belonging to more than one priority population. In 2020, approximately 71% of positive HIV tests belonged to at least one priority population (GBMSM, PWID, ACB, Indigenous or Women). Approximately 21% of positive HIV tests belonged to two or more priority populations at one time. Approximately 69% of first-time HIV diagnoses belonged to at least one priority population. Approximately 18% of first-time HIV diagnoses belonged to two or more priority populations at one time.

Each population is uniquely defined by indicators of HIV risk factors, race/ethnicity, country of birth, and/or sex on the HIV test requisition and LEP forms. Where the defining criteria of each priority population is reported, HIV diagnoses are assigned to a priority population, where applicable. Assignment to these populations is based on information from the HIV test requisition forms and LEP forms, as follows:

Gay, bisexual and other men who have sex with men (GBMSM)
- Sex is male or transgender male, and sexual contact with men reported as an HIV risk factor

People who are African, Caribbean, or Black (ACB)
- Country of birth is an African or Caribbean country and/or race/ethnicity is Black

People who use injection drugs (PWID)
- Injection drug use (IDU) reported as an HIV risk factor

Indigenous Peoples
- Race/ethnicity is First nations or Inuit or Métis

Women (instead of Women*, see below)
- Sex is female or transgender female

Women* is the official priority population as outlined in Ontario's Provincial HIV/AIDS Strategy; it includes ACB women, women who use injection drugs, Indigenous women, transgender women, other women who face systemic and social inequities, and women who are more likely to be exposed to HIV through a sexual or drug using partner. As indicators of systemic and social inequities of HIV are not available in the HIV surveillance data, the priority population Women* is unable to be defined. Instead, we use "Women" in this report, which is inclusive of all females and transgender women.

Information on HIV diagnoses by priority population is available for different years based on the priority population. Historically, the HIV test requisition form has obtained information on HIV risk factor and sex. Therefore, the GBMSM, PWID and Women priority populations are able to be assigned (if appropriate) from 1985 onward. Information on race/ethnicity and country of birth were added to the LEP form in 2009. Therefore, the ACB and Indigenous priority populations are only able to be assigned from 2009 onwards. The HIV test requisition underwent revision in 2018 to collect information on race/ethnicity and country of birth, and improve the documentation of transgender men and transgender

women within HIV diagnosis data. Additional information on the revised HIV test requisition form is used to help assign priority populations (but not sex). These revisions will allow us to better characterize priority populations for both negative and positive tests. The high amount of missing information for positive HIV tests (approximately 32% on race/ethnicity and approximately 24% on exposure category between 2011 to 2020) means that information on priority population is missing for many diagnoses. Therefore, it may be more valid to focus on trends over time rather than the specific numbers or proportions.

To be assigned to any priority population, only information on that single priority population is required. For example, if race/ethnicity is missing but sex indicates male and HIV risk factors indicate sexual contact with men, the individual could be assigned to the GBMSM priority population. Assignment of priority population is excluded if data that defines that priority population is not reported.

6. Statistical methods

Rates are a measure of how frequently an event occurs in a defined population over a specified period of time. Because rates take into account the size of the population (denominator) over a specific time period and place, rates are helpful for comparing disease frequency among different groups or across different locations. For example, if we were to only look at the numbers of positive HIV tests within, for example, a health region, one region may have the second largest *number* of positive HIV tests; while after taking into account the size of the health regions, a different health region could have the second highest *rate* of positive HIV tests when comparing health regions. The rates of positive HIV tests and first-time HIV diagnoses per 100,000 people were calcualted using population estimates from Statistics Canada.

Population estimates were accessed on 11/05/2021 and can be found from Statistics Canada: here and here.

In some figures, data is combined in two-, four-, or five-year groupings (2015-2016, 2017-2018, and 2019-2020, or 2013-2016 and 2017-2020, or 2011-2015 and 2016-2020). This was done systematically where possible to ensure at least 50% of cell counts were ≥5. The number of HIV diagnoses are combined over these time periods to reduce the effects of year-to-year variation (which can be particularly influential for populations with a small number of diagnoses [<5 per year]). Where possible, single year data are reported.

Percentages associated with priority populations are calculated based on each priority population separately and only where the defining information is reported. That is, the percentage calculation is based off the diagnoses known to be attributed to a single priority population (numerator) divided by the total number of diagnoses where the status of that priority population (yes or no) is known (denominator). When considering one priority population, no information on any other priority population (whether the individual belongs to another priority population or if there is missing or incomplete information on other data used to create other priority populations) is considered. The proportion of missingness is now reported (where appropriate) in the notes at the bottom of each page and Tables section of the report.

Counts of first-time HIV diagnoses and/or positive HIV tests have not historically been reported by priority population or race/ethnicity due to high proportions of missing data (both from the LEP not being returned an/or the LEP being returned but missing information), and therefore undercounts of the number of diagnoses by sub-group. As with the 2019 diagnoses report, we are reporting the raw

(reported) counts of first-time HIV diagnoses by priority population, exposure category, and race/ethnicity. The reported count is the number of reported first-time HIV diagnoses within each sub-group (e.g. within a priority population, exposure category or race/ethnicity). For example, there were 39 first-time HIV diagnoses that are reported to be PWID due to 'injection drug use' being marked on the risk factors section of the HIV test requisition form and/or the LEP form. There were 315 first-time HIV diagnoses that were reported not to be PWID. This gives a proportion of 11% (39/354) individuals classified as PWID in 2020. Each priority population has its own numbers of reported to be part of that priority population and reported not to be of that priority population. There are counts of HIV diagnoses where priority population is not reported. In this case, it is "unknown" as to whether the diagnoses are or are not part of that priority population and diagnoses are classified as such. The number of diagnoses reported "not to be in a priority population" (have information to classify diagnosis as not part of any priority population) is reported, along with the number of diagnoses with unknown priority population. We do not have any information on whether any one priority population would be more or less likely to be missing information, we only know that some diagnoses cannot be classified. Therefore, interpret counts with caution.

7. iPHIS vs. PHO data

For positive HIV tests, OHESI uses laboratory data on HIV-positive diagnostic tests from the Public Health Ontario (PHO) Laboratory along with information documented by ordering providers on test requisition forms and from the LEP.

OHESI **does not** use information from the integrated Public Health Information System (iPHIS). iPHIS is an electronic, web-based system used by PHUs for case-management and reporting to the Ontario Ministry of Health on diseases of public health significance, including HIV. It is the main source of data used by PHO to produce reportable disease surveillance reports. iPHIS includes information elicited during public health follow up of HIV cases.

The number of HIV diagnoses in iPHIS does not correspond to the number of positive HIV tests in PHO HIV surveillance. Potential sources of discrepancy include:

- Additional exclusion within iPHIS of repeated HIV-positive tests based on information elicited during PHU follow-up, whereas this may not be possible in PHO data due to lack of identifying information to link tests (e.g. when an HIV-positive individual initially tests anonymously and then nominally).
- Collection of risk factor and demographics differ between iPHIS and PHO data and may result in different characterization of the diagnosed population.
- iPHIS does not include HIV diagnoses that arise from testing non-Ontario residents (e.g., Quebec residents testing in Ontario are included in provincial totals in PHO HIV surveillance).
- iPHIS includes diagnoses who have moved to Ontario, been reported to the local PHU as an HIV case, but who have not received a HIV diagnostic lab test in Ontario.
- iPHIS may include more complete information on an individual's address (obtained during public health follow up) than lab data (which is solely based on what is documented on the test requisition form), and this may influence the PHU (and hence health regions) to which an HIV case is assigned.
- Data entry errors within iPHIS that result in cases being misclassified and not captured in final counts.

- Cases may be assigned to different dates in PHO and iPHIS data (e.g., date of confirmed diagnosis vs. date of report to PHU). Therefore, case counts based on calendar year may differ.

8. Health regions

Individuals who receive an HIV diagnostic test are assigned to a geographic region based on their residence or, if not reported, the address of the ordering provider. Approximately 28% of diagnoses are missing information on address of residence in 2019 and assigned based on provider address.

Ontario can be divided geographically by health region or public health units (PHU). These are defined below:

- Health regions – Groupings of PHUs that have historically been used in HIV epidemiology and surveillance reports. See the following page for health region breakdowns.
- Public health unit – A health agency that provides health promotion and disease prevention programs. There are currently (2022) 34 PHUs in Ontario and each has its own unique geographical boundary. This is different from previous years where there were 36 PHUs (2017 and before). The change reflects the Oxford PHU being combined with the Elgin-St. Thomas PHU to form the new 'Southwestern' PHU. It also reflects Huron and Perth being combined. The larger health regions did not change from previous reports.

Groupings of public health units for each health region

Toronto health region
- Toronto

Ottawa health region
- Ottawa

Northern health region
- Algoma
- North Bay Parry Sound
- Northwestern
- Porcupine
- Sudbury
- Thunder Bay
- Timiskaming

Eastern health region
- Eastern Ontario
- Hastings and Prince Edward Counties
- Kingston, Frontenac, Lennox & Addington
- Leeds, Grenville and Lanark
- Renfrew

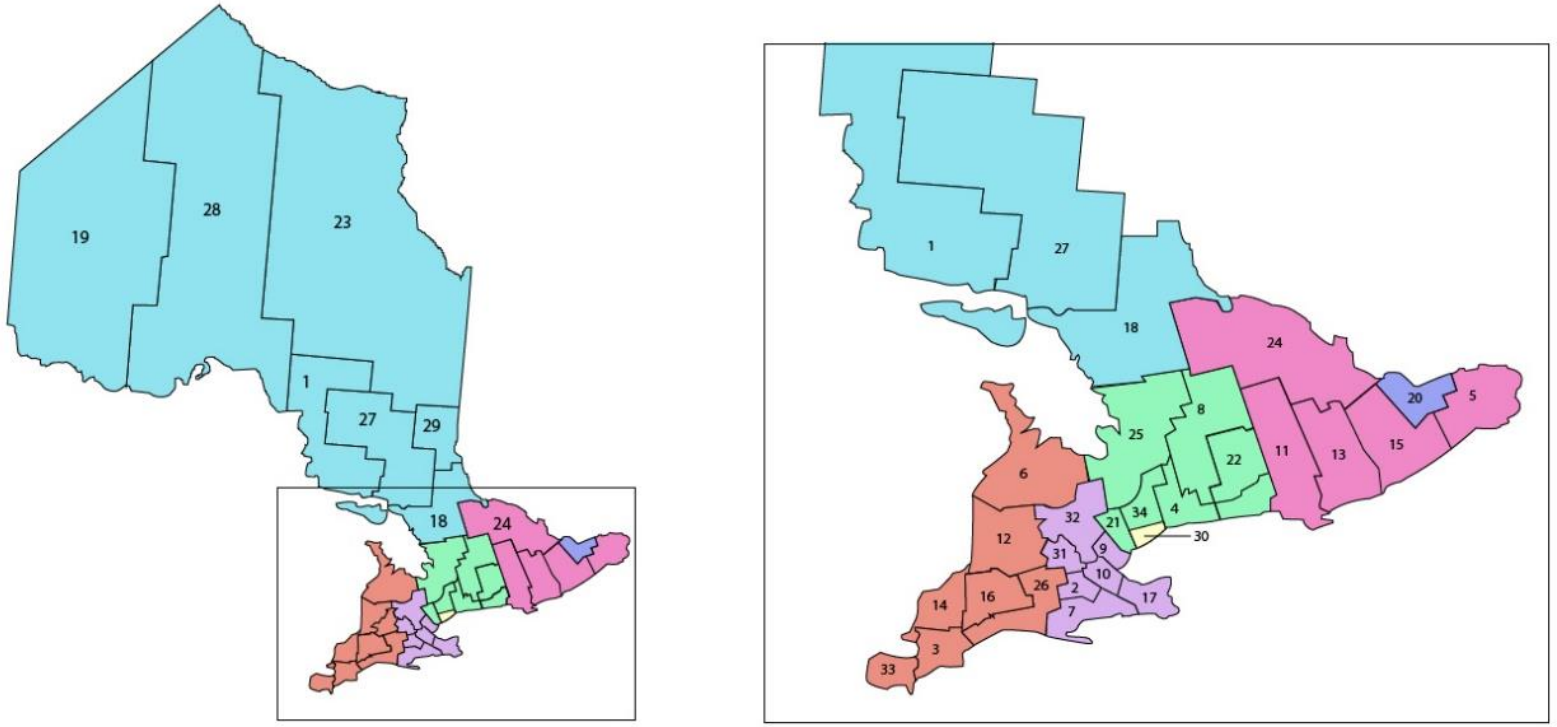
Central East health region
- Durham
- Haliburton, Kawartha, Pine Ridge
- Peel
- Peterborough
- Simcoe Muskoka
- York

Central West health region
- Brant
- Haldimand-Norfolk
- Halton
- Hamilton
- Niagara
- Waterloo
- Wellington-Dufferin-Guelph

South West health region
- Grey Bruce
- Huron / Perth
- Chatham-Kent
- Lambton
- Middlesex-London
- Southwestern (Oxford, Elgin and St. Thomas)
- Windsor-Essex

Health regions map

Figure v. Geographic map of health region and public health unit boundaries in 2020.



Public health units (map legend)

1. Algoma
2. Brant
3. Chatham-Kent
4. Durham
5. Eastern Ontario
6. Grey Bruce
7. Haldimand-Norfolk
8. Haliburton, Kawartha, Pine Ridge
9. Halton
10. Hamilton
11. Hastings and Prince Edward Counties
12. Huron / Perth
13. Kingston, Frontenac, Lennox & Addington
14. Lambton
15. Leeds, Grenville and Lanark
16. Middlesex-London
17. Niagara
18. North Bay Parry Sound
19. Northwestern
20. Ottawa
21. Peel
22. Peterborough
23. Porcupine
24. Renfrew
25. Simcoe Muskoka
26. Southwestern
27. Sudbury
28. Thunder Bay
29. Timiskaming
30. Toronto
31. Waterloo
32. Wellington-Dufferin-Guelph
33. Windsor-Essex
34. York

Note: Map created using Statistics Canada boundary files

Tables

Data tables are available in a separate supplement: HIV diagnoses in Ontario, 2020: Tables supplement.