

# 2017 ANNUAL STATISTICAL UPDATE: HIV IN MANITOBA



HEALTHY MANITOBANS THROUGH AN APPROPRIATE BALANCE OF PREVENTION AND CARE.

**MISSION**, MANITOBA HEALTH, SENIORS AND ACTIVE LIVING:

TO MEET THE HEALTH NEEDS OF INDIVIDUALS, FAMILIES AND THEIR  
COMMUNITIES BY LEADING A SUSTAINABLE, PUBLICLY ADMINISTERED  
HEALTH SYSTEM THAT PROMOTES WELL-BEING AND PROVIDES THE RIGHT  
CARE, IN THE RIGHT PLACE, AT THE RIGHT TIME.

***Epidemiology & Surveillance***

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## Acknowledgements

In the spirit of honour, respect, and reconciliation, Manitoba Health, Seniors and Active Living (MHSAL) would like to acknowledge these provincial lands. We are in Treaty territories One through Five on the homelands of the Anishinaabeg Oji-Cree and Ojibwe, the Cree, Dakota, and Dené peoples, and on the homeland of the Métis Nation.

Secondly, MHSAL would like to acknowledge the important efforts of public health professionals and health care providers across the province involved in the follow-up of new cases and reporting case-based surveillance information to the provincial surveillance system. Without these continued efforts, this report would not be possible.

Lastly, we also wish to acknowledge the people in Manitoba who are living with HIV/AIDS. It is always important to remind ourselves that each “case” represents an important and valued member of our communities.

## Highlights

### HOW DOES MANITOBA COMPARE?

THE MANITOBAN RATE WAS ROUGHLY EQUIVALENT TO THE NATIONAL RATE. IN MALES, THE RATE OF NEW INFECTIONS WAS BELOW THE NATIONAL MALE RATE, BUT IN FEMALES, THE MANITOBAN RATE OF NEW HIV CASES **EXCEEDED** THE NATIONAL FEMALE RATE.

- ⊕ Enhanced collaboration with the clinicians and clinical care staff allow the MHSAL to use a more specific case definition for new HIV infections in Manitoba
- ⊕ In 2017, there were 89 new cases of HIV in Manitoba
  - There were 64 new cases diagnosed in 2017
  - There were 25 new cases introduced into Manitoba from other provinces or countries
- ⊕ Two-thirds of cases occurred in males, a trend that has been consistent over the last five years
  - There were 60 new HIV infections in men and
  - 29 new HIV infections in women
- ⊕ Rate in Manitoba vs. Canada
  - The rate of new cases in Manitoban females (4.2/100,000 Manitoban females) was 31% greater than the rate in Canadian females (3.2/100,000 population)
  - The rate of new cases in Manitoban males (8.9/100,000 Manitoban males) was 10% lower than the rate in Canadian males (9.9/100,000 population)
- ⊕ New HIV cases occurred in women who were, on average, three years younger than their male counterparts (36 years and 39 years, respectively)
- ⊕ In 2017, there were new HIV infections reported in each Regional Health Authority (RHA)
- ⊕ Infections continue to occur primarily in Winnipeg (81%) with six or fewer infections arising in each of the other RHAs
  - Ninety-percent of female HIV cases occurred in Winnipeg
  - Nearly ¼ of male HIV cases occurred *outside* of Winnipeg

## A Few Notes to Readers

The 2017 Manitoba HIV Update takes on a new format this year as a result of several changes and modernizations to HIV surveillance and data management at MHSAL. Below are explanations of the changes.

### Database Management

Manitoba's surveillance systems for reportable illnesses such as HIV are transitioning to a new provincial electronic database. This will allow access to up-to-the-minute reporting and quicker response times to diseases and outbreaks. As such, surveillance data storage, management, and analyses are going through a transition period. This may result in some small fluctuations in new case count for HIV infections in the province in the short-term, but will ensure higher quality data in the long-term.

### HIV “New Case” Definition

As we increase our collaborative strategies to improve data quality, we have modified the case definition (addition below, in bold). A new case of HIV in Manitoba is defined as:

*A new case of HIV is counted when an individual has a positive HIV antibody or viral DNA sequence test that is reported to the Public Health Surveillance System, Epidemiology and Surveillance, MHSAL for the first time. Only individuals who reside in Manitoba at the time of his/her diagnosis are counted.*

***Subsequent clinical consultation will confirm new cases and will help to exclude cases that were diagnosed in the province in previous years but that the Surveillance Unit was unable to exclude through its own investigations.***

The **clinical confirmation** will be provided by medical staff at the Manitoba HIV Program, which supports treatment and care for all HIV-positive individuals living in and near Manitoba. They primarily work from Nine Circles Community Health Centre (Winnipeg), the Health Sciences Centre outpatient clinic (Winnipeg) and the 7<sup>th</sup> Street Access Clinic (Brandon), as well as supporting rural and northern health providers. This definition has been applied to 2017 onward.

As a result of this new definition, the number of new HIV infections reported annually may appear to decline as we now have a means to exclude previously diagnosed cases. Potentially, though, numbers may not fluctuate as the province and the regions push to provide better access to HIV testing, counselling and treatment.

## The 2017 Manitoba HIV Program Update

In consultation with the Manitoba HIV Program, we have confirmed that our surveillance data regarding ethnicity and risk of HIV acquisition are not as complete as the Manitoba HIV Program (with roughly 16% missing data and more incomplete reporting, as well), and so we have excluded these two factors and instead recommend the reader to review those data in the 2017 Manitoba HIV Program Update.<sup>1</sup> As mentioned, the Surveillance Unit has worked with the Manitoba HIV Program to ensure accurate HIV case counts, though the numbers presented by either organization may differ due to:

1. The use by Manitoba HIV Program of a case definition that requires presentation to clinic for HIV care, whereas the Surveillance Unit relies on a positive lab test. A patient may test HIV-positive in December 2016 and show up to care in January 2017; end of year infections will not always align time-wise.
2. For reasons of convenience, the Manitoba HIV Program also provides care to HIV-positive individuals who live near *and* outside the provincial border. These people will be counted in their overall numbers; however, in this report, we count only people residing within Manitoba's borders.

## Acquired Immunodeficiency Syndrome

Acquired immunodeficiency syndrome (AIDS) is a later stage of HIV infection characterized by hampered immunity, high viral loads, and/or opportunistic (or rare) infections. At present, AIDS is likely underreported in Manitoba, and AIDS case counts will be omitted from this publication.

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<sup>1</sup> <http://ninecircles.ca/about/manitoba-hiv-program/>

## Introduction

MHSAL is pleased to present the 2017 *Annual Statistical Update: HIV in Manitoba* report. This report is intended to provide surveillance information in Manitoba of new cases of Human Immunodeficiency Virus (HIV) reported to the Public Health Surveillance Unit at Manitoba Health, Seniors and Active Living (MHSAL) up to December 31, 2017.

The 2017 HIV data presented here includes an examination by:

- ⊕ age,
- ⊕ geographic region, and
- ⊕ sex.

Infections will be expressed as a **frequency** (total count of new cases) or **rate** (number of new cases for every 100,000 Manitobans). Proportion, or percentage data (%), are also presented in the Manitoba HIV Program 2017 HIV Update.

### Surveillance of HIV and AIDS in Manitoba

The majority of HIV diagnoses in the province arise from a test measuring anti-HIV antibodies. All confirmatory HIV antibody and DNA testing in Manitoba is carried out at Cadham Provincial Laboratory (CPL). As required by the *Reporting of Diseases and Conditions Regulations, Public Health Act*,<sup>2</sup> positive HIV test results are reported to the Public Health Surveillance Unit at MHSAL. Upon receipt of a positive HIV lab report, the Public Health Surveillance Unit refers the result to the client's Regional Health Authority of residence for public health follow-up. Within the Surveillance Unit, all positive HIV test results are considered new cases unless otherwise advised by the appropriate health care professional or through public health follow-up. A completed investigation form is submitted back to the Surveillance Unit once public health follow-up is completed by the Regional Health Authority. The Surveillance Unit also accepts positive lab results from contracted labs (such as those used by insurance companies) as an initial infection date, but this occurs only rarely.

Alterations to HIV antibody diagnostic procedures in the province occurred on January 1, 2007 with the introduction of nominal testing (results linked to the tested person's name) and November 1, 2007 with the introduction of anonymous testing (unlinked). This was in addition to the existing non-nominal testing (results linked to person via code) option. More information describing the management protocol of HIV/AIDS and these three testing options can be found in the Communicable Disease Management Protocol for HIV/AIDS.<sup>3</sup> The number of individuals opting for nominal testing has increased steadily since 2007. It is possible for individuals tested

<sup>2</sup> [http://web2.gov.mb.ca/laws/regs/current/\\_pdf-regs.php?reg=37/2009](http://web2.gov.mb.ca/laws/regs/current/_pdf-regs.php?reg=37/2009)

<sup>3</sup> <https://www.gov.mb.ca/health/publichealth/cdc/protocol/hiv.pdf>

using a non-nominal code to have had prior or subsequent positive HIV tests using a different non-nominal code, by anonymous testing, or by name. For this reason, the public health surveillance system has previously experienced challenges in identifying the clients who may have had repeat tests. As a result, duplicate cases may be counted as independent infections. This is why clinical confirmation will now be employed to reduce repeated reporting.

Provincial HIV case data are annually reported to the Centre for Communicable Disease and Infection Control, Public Health Agency of Canada (PHAC) for inclusion in the national surveillance reporting. Variations that might exist between provincial and national reports may be accounted for by delays in reporting as well as the continuous updating of information in the MHSAL surveillance databases.

### Notes and limitations

- ⊕ The number of new HIV cases reported is not necessarily a reflection of the number of new HIV infections each year (i.e. incidence) in the Manitoba population.
  - People who have tested positive **in another province or country at any time** before entering Manitoba are reported to the Public Health Surveillance System as **new cases**.
  - It is possible that an individual who tested HIV-positive nominally (lab result attached to name) in 2017 had **tested HIV-positive prior to 2017 with a non-nominal identifier** (coded result). In this case, linkage of present day results to previous coded diagnostic results can be a challenge; some individuals who were positive prior to 2017 may be recounted in 2017. As a result, one person’s infection may be counted twice.

TABLE 1. DEFINITIONS OF THE TWO TYPES OF NEW INFECTIONS IDENTIFIED IN THIS REPORT.

NEW CASE SOURCE	DEFINITION
<b>New Infections</b>	Brand new diagnoses that occurred in the province
<b>Introduced cases</b>	Cases that were new to the province, but had been previously diagnosed elsewhere

- ⊕ The number of new cases to Manitoba may not match other reports, as HIV case definitions may vary slightly from one organization to the next.
- ⊕ Changes in the number of HIV positive individuals as well as observed trends must be interpreted with caution. There are a number of factors that may contribute to these

fluctuations, for example, changes in testing practices or reporting patterns by care providers.

- ⊕ Crude rates should be interpreted with some degree of caution, especially when case counts are low, as provincial rates may be unstable.
- ⊕ In this report, the Winnipeg Regional Health Authority (WRHA) covers the populations and HIV counts of both Winnipeg and Churchill.
- ⊕ As an ongoing effort to continuously improve data quality and accuracy, previously reported final counts may vary slightly from year to year.

## Methods

### Calculation of crude rate and definition of statistical terms

The Manitoba population as of June 1, 2017 was used for rate calculations. It was extracted from the Manitoba Health Population Registry, provided by Information Management and Analytics, MHSAL.

Annual incidence (new case) rates were calculated using the MHSAL mid-year population count. All incidence rates are crude rates, calculated as:

$$\text{Crude rate} = \frac{\text{Number of cases}}{\text{Population of specified group in that time frame}} \times 100,000 \text{ people}$$

This generates the number of reported cases per 100,000 population. That is, the number of cases per 100,000 individuals in the population, including both people who may and may not have been exposed to HIV, in that year.

Below is a brief description of main statistics discussed in the report.

TABLE 2. DEFINITION OF STATISTICS DISCUSSED IN THIS REPORT.

TERM	DESCRIPTION
Number	Case count, also known as frequency
Proportion	Percent of total case count
Crude incidence rate	Case count of new HIV diagnoses divided by the population count and multiplied by 100,000 people
Crude rate or Crude rate of new cases	Specific to this report; new cases (incident cases added to cases that may not be new, but are introduced into the province in the same year) divided by the population count and multiplied by 100,000 people
Prevalence	Not calculated in this report, but counts of all new and existing cases, divided by population count, and multiplied by 100,000 people
Distribution	The shape and spread of cases/rates/proportions when they are plotted by subgroup categories such as time or age

## Surveillance Data

Below are summary figures for new and historical HIV cases in Manitoba for 2017, and for the preceding 5 and 10 years.

### New cases to Manitoba

**89 new cases in 2017:**  
 A decline in HIV case counts may be explained partially by the new HIV case definition for 2017.

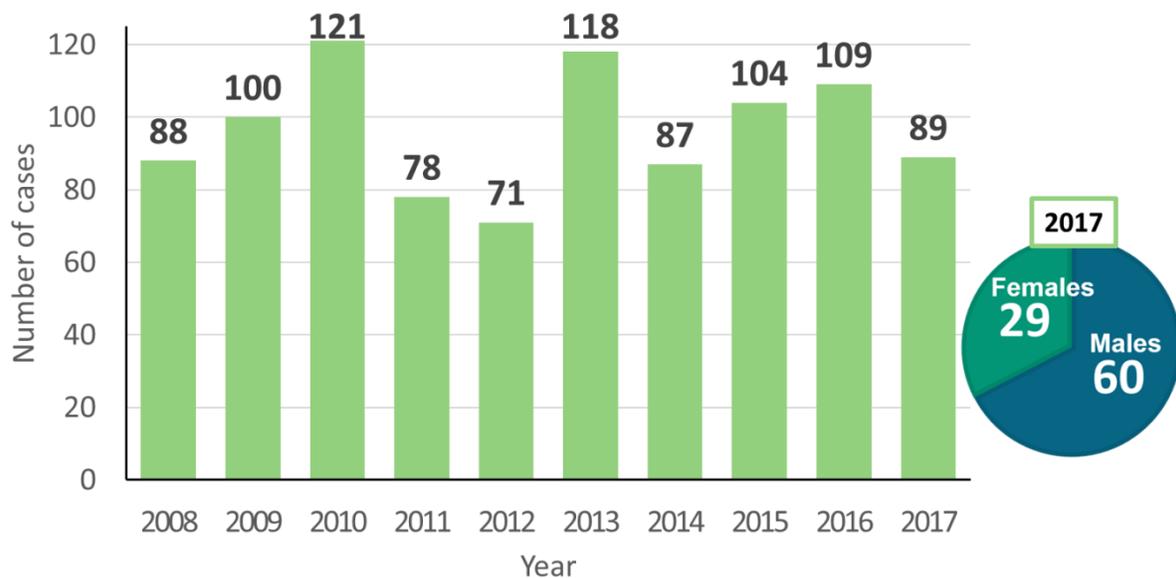


FIGURE 1. ANNUAL NUMBER OF NEW HIV CASES IN MANITOBA, 2008-2017.

*Note:* Diagnostic results of HIV cases that previously tested HIV-positive with a non-nominal identifier and re-tested nominally are both included in the analysis unless the non-nominal identifier is provided by the client or the health care provider, which indicates the test as a repeat.

In Manitoba, between January 1<sup>st</sup> and December 31<sup>st</sup>, 2017, a total of 89 new HIV cases were reported based on a laboratory-positive test (for HIV antibody or viral DNA) and clinical confirmation (Figure 1). Sixty new cases were in males (67%) and 29 new cases in females (33%). There was an 18% decline in the total number of cases from 2016. The 2017 count is

somewhat lower than the ten-year average (2008-2017; 96.5 cases). Notably, the new case definition enables the linkage of 2017 repeat tests to positive results prior to 2017, thereby reducing double-counting. Though in 2016 the number of new cases annually was increasing at an average by 2.5 cases/year, the lower case count in 2017 reduced the average annual increase in case number to 1.3 cases/year since 2008.

The average age of people who were new cases was 38 years old. The age range was 5 years old to 63 years old (data not shown). Two cases were reported in individuals at or under the age of 18, and three cases were reported in individuals at or over the age of 60 (see Figure 8 for age and sex case numbers).

### Types of new HIV cases

Most cases reported in 2017 were new infections (never diagnosed elsewhere).

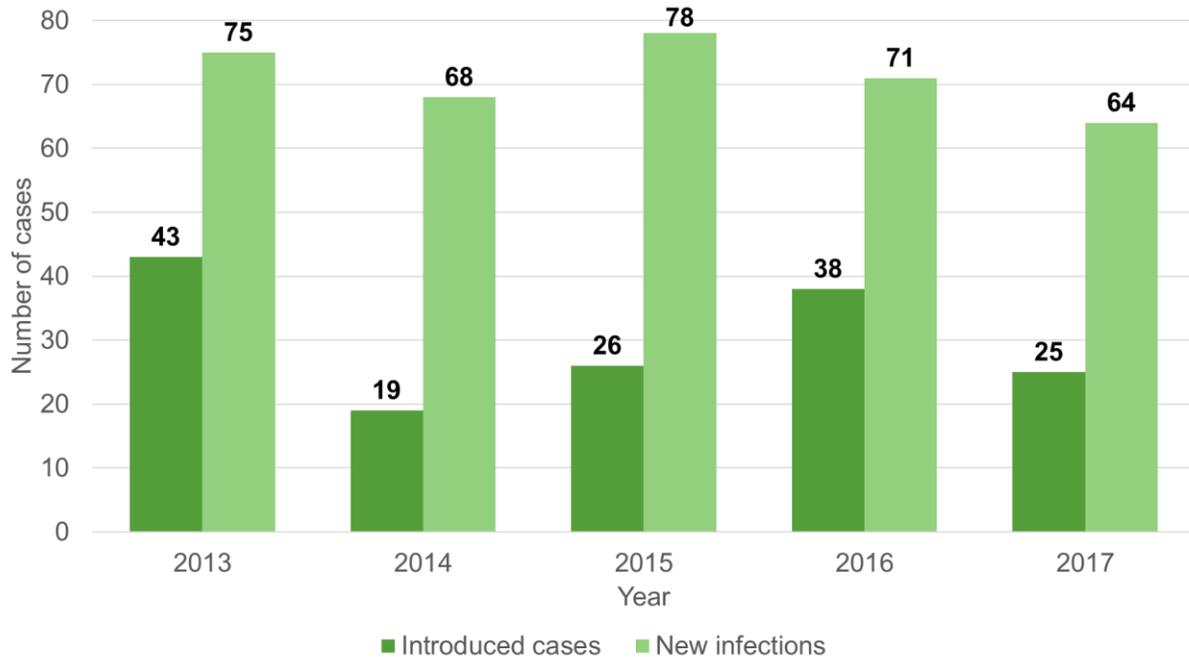


FIGURE 2. NUMBER OF NEW HIV CASES IN MANITOBA BY HIV HISTORY AND YEAR, 2013-2017.

In Manitoba in 2017, 64 of 89 new HIV cases were newly identified (Figure 2). This means that the person being tested was learning of their HIV infection for the first time and may provide insight into the scope of opportunities for prevention. While the absolute number of new diagnoses has dropped since 2016 from 71 to 64, the ratio of new infections has increased from 1.9 new infections for every introduced case in 2016 to 2.6 new infections per introduced case in 2017 (a 37% increase in the relative amount of new infections).

### HIV infections in Manitoba’s Regional Health Authorities

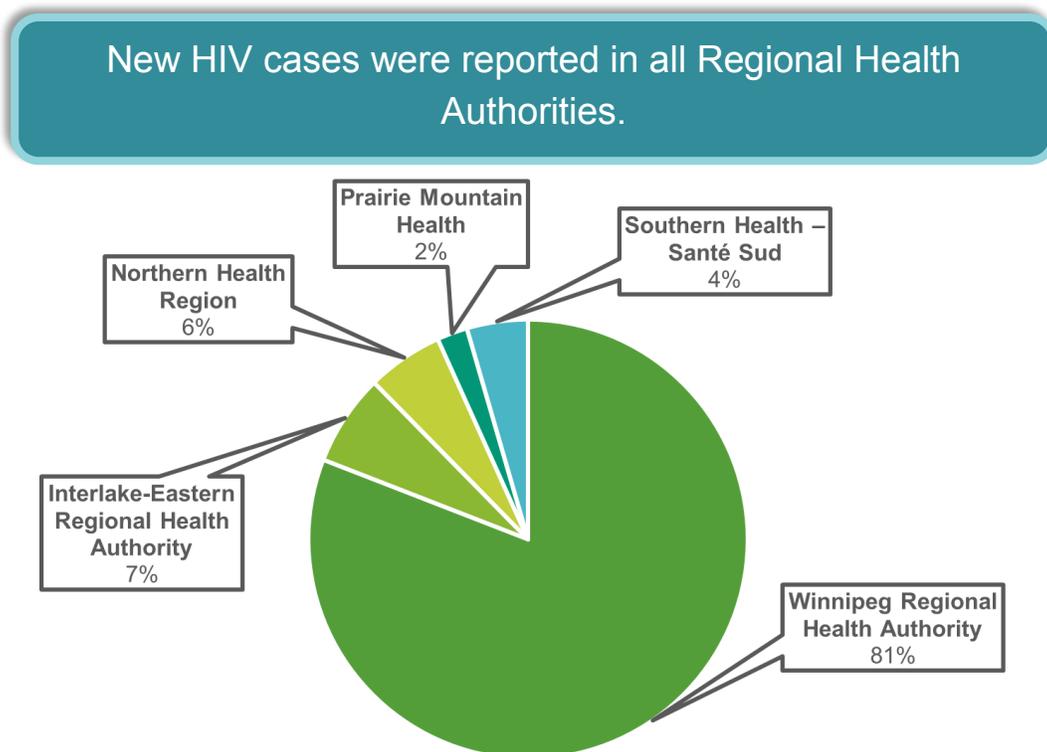


FIGURE 3. PROPORTION (%) OF NEW HIV CASES IN MANITOBA BY REGIONAL HEALTH AUTHORITY, 2017.

The majority of new HIV cases in 2017 occurred in the Winnipeg Regional Health Authority (72 cases, Figure 3). The other regions, Interlake-Eastern Regional Health Authority (6 cases), the Northern Health Region (5 cases), Prairie Mountain Health (2 cases), and Southern Health – Santé Sud (4 cases), all also saw at least one new HIV case in 2017.

### National comparisons

In 2017, the crude rate of new HIV cases in Manitoba was similar to the national rate.

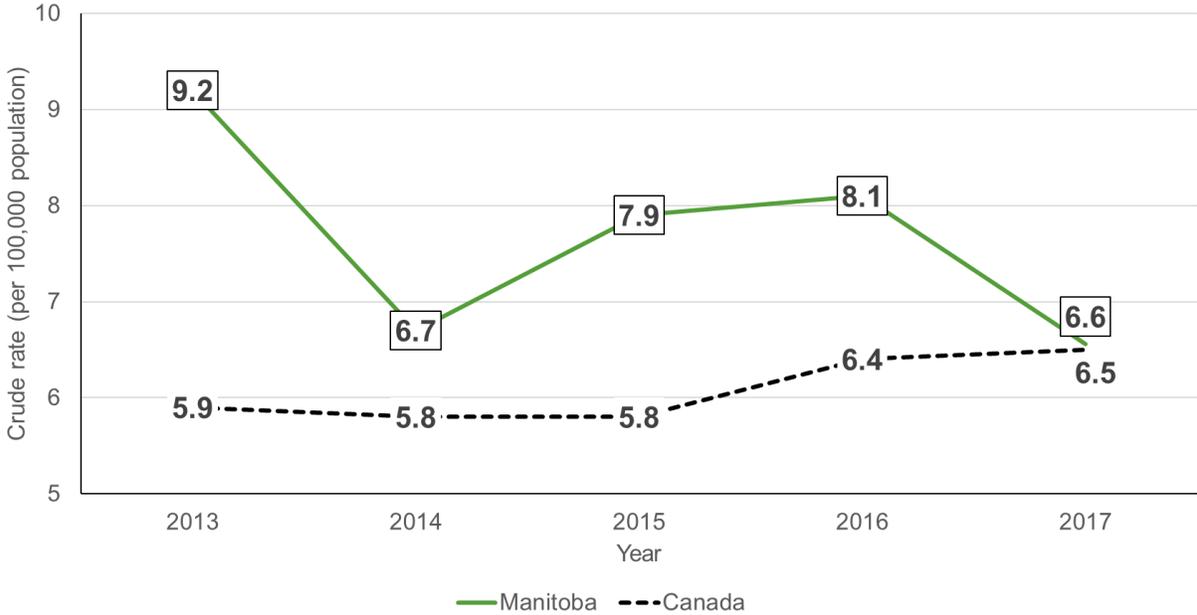


FIGURE 4. CRUDE RATES OF HIV CASES IN MANITOBA AND CANADA BY YEAR, 2013-2017.

Over the past 5 years, the rate of HIV infection in the Manitoban population has been consistently higher than the rate for all of Canada. However, in 2017, the rate of new infections in Manitoba nearly matched the Canadian rate (6.6 new cases/100,000 and 6.5 new cases/100,000, respectively; Figure 4).<sup>4</sup>

Keeping in mind the amended definition of a new HIV case, the crude rate in Manitoba prior to 2017 may have been inflated due to doubly-counted cases, and the Manitoban rate decline of nearly 20% from 2016 to 2017 should be interpreted with caution.

<sup>4</sup> National data generated by PHAC’s 2017 HIV Surveillance Report (release date Dec 6, 2018): <https://www.canada.ca/en/public-health/services/diseases/hiv-aids/surveillance-hiv-aids.html>.



By Sex

The crude rate of new HIV cases continued to be higher in men than in women.

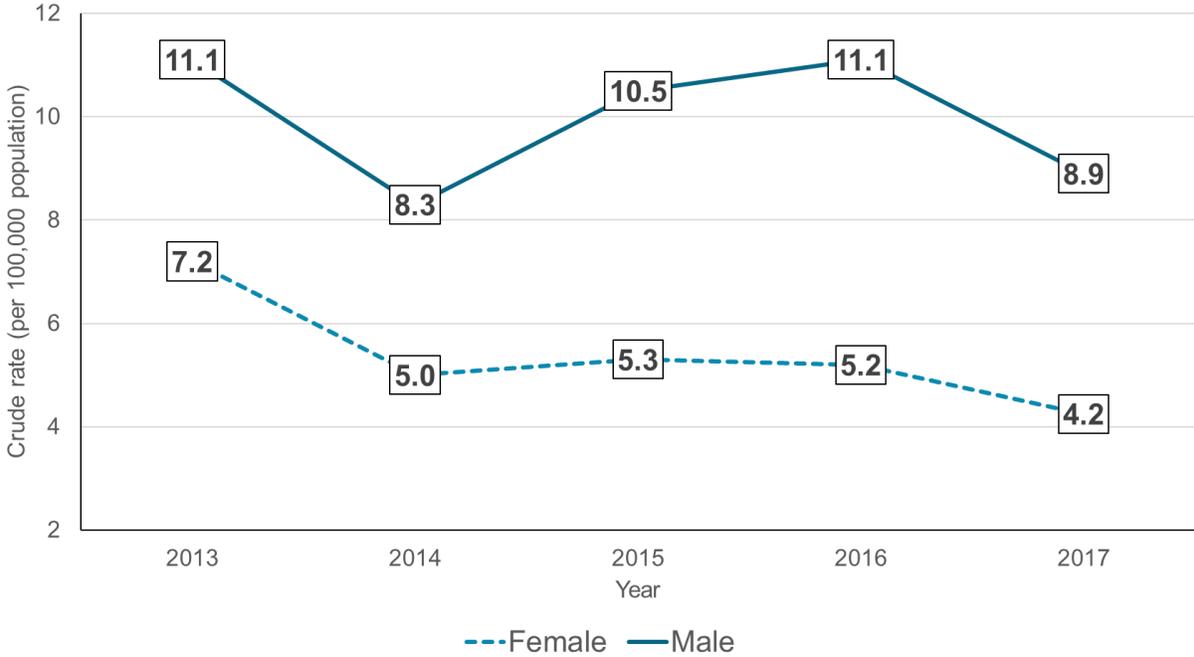


FIGURE 5. CRUDE RATES OF HIV CASES IN MANITOBA PER 100,000 MANITOBANS BY YEAR AND SEX, 2013-2017.

In 2017, the crude rate of new HIV infections in males (8.9 cases/100,000 population) was higher than in females (4.2 cases/100,000 population, Figure 5). This overrepresentation of HIV infections in males has been consistent in Manitoba since the province began HIV surveillance in 1985 (data not shown). Fluctuations in the relative rates between males and females are not uncommon.

Type of new HIV case by sex

Sex differences existed in the type of new HIV case.

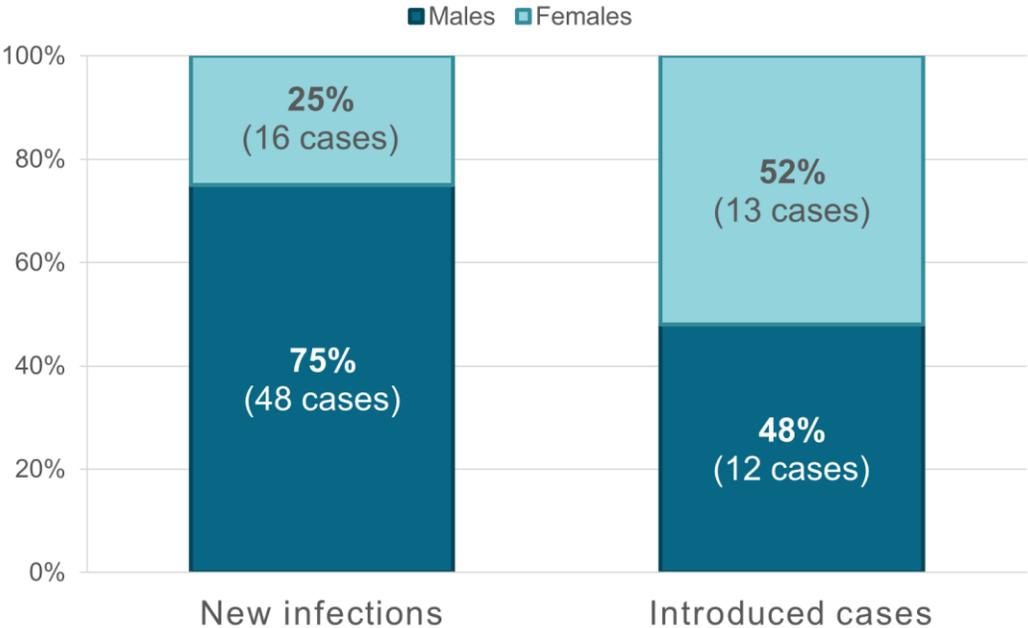


FIGURE 6. PROPORTION (%) OF NEW HIV CASES IN MANITOBA BY HIV HISTORY AND SEX, 2017.

Figure 6 shows the breakdown of infection types by sex for 2017. Three-quarters of all new infections in the province were in males (48 cases). Conversely, roughly half of all introduced cases in the province were in females (13 cases). These data indicate that sex-based tailoring of prevention and care efforts may benefit Manitobans at risk of, or infected with, HIV.

On average, males were three years older than females when their HIV infection was reported.

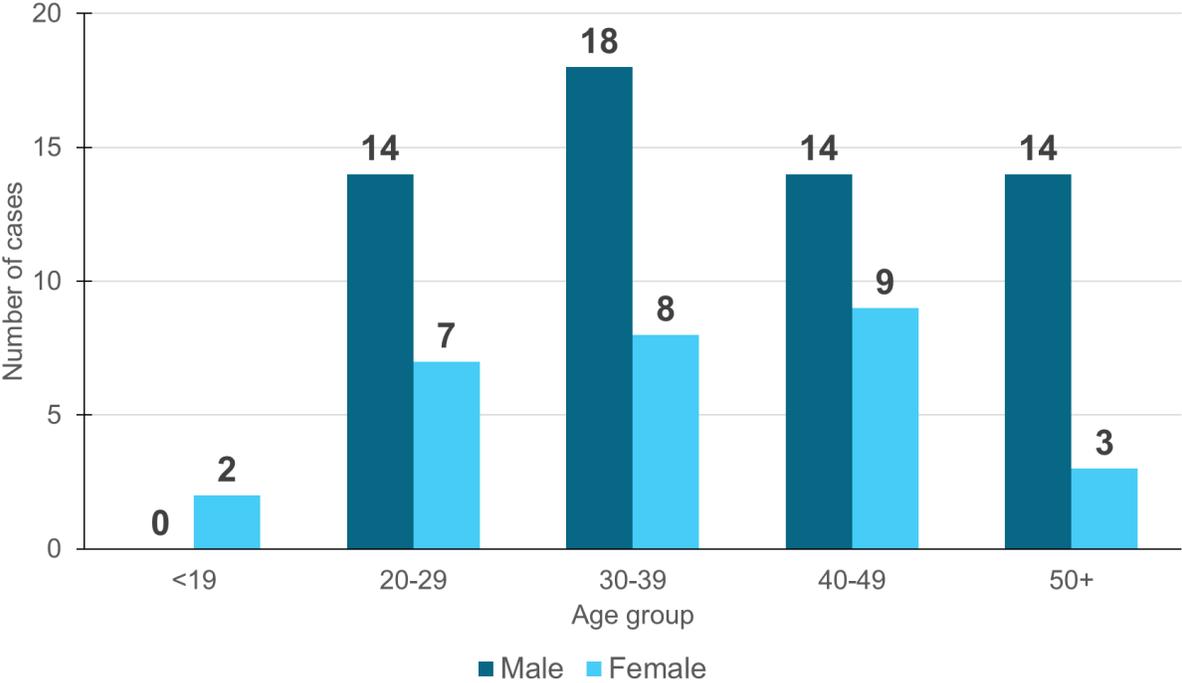


FIGURE 7. NUMBER OF NEW HIV CASES IN MANITOBA BY AGE AND SEX, 2017.

This distribution of new HIV case counts by age was striking in the description of two new cases in females less than 19 years old (Figure 7) and the more than quadrupling of the number of infections in males of 50 years and older compared to females.

The average age of new cases was 36 years old among females and 39 years old among males, indicating that males tend to become HIV-positive later in life.

### HIV infections in males and females by Regional Health Authority

New HIV cases in females were less widely geographically distributed than in males.

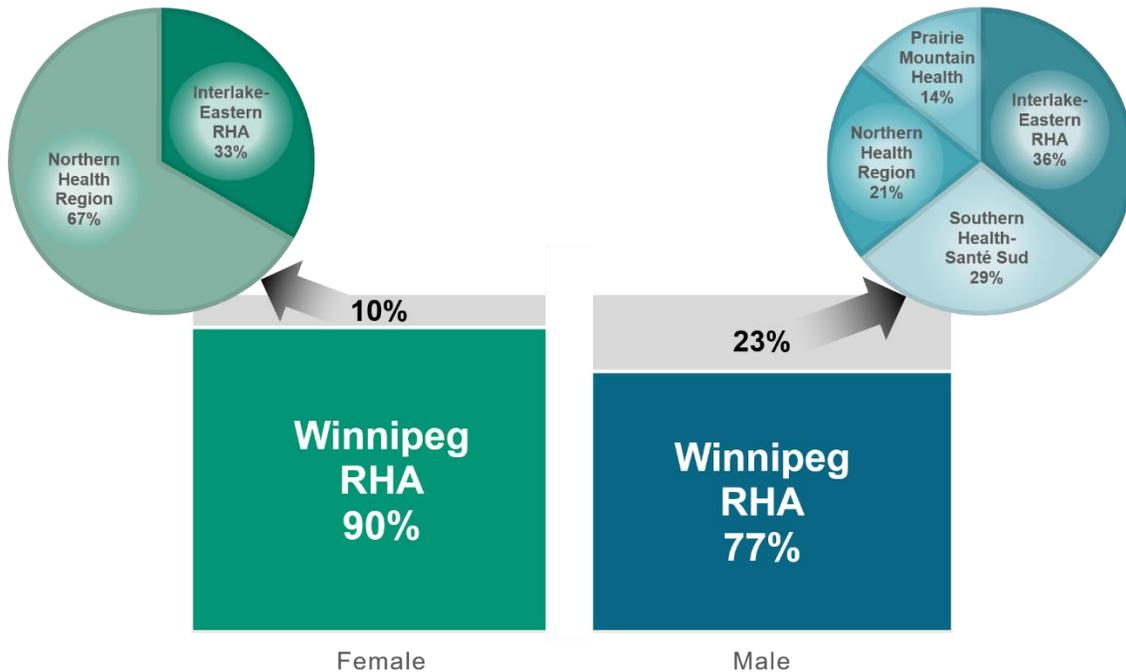


FIGURE 8. GEOGRAPHIC DISTRIBUTION OF NEW HIV CASES BY SEX, 2017.

On the left hand side of Figure 8, the limited nature of the geographic settings of new HIV infections in females is clear. Ninety percent of all cases in women were linked to the Winnipeg Regional Health Authority (RHA). Only 10% of cases were distributed among only two other RHAs: the Northern Health Region and the Interlake-Eastern RHA.

New HIV cases in males (right side) occurred in each of the 5 RHAs. This difference from female cases is interesting and may reflect the type of infections in males and females and the preferred destination of resettlement for many newcomers to Manitoba. New infections were most common in males, while introduced cases were most common in females (Figure 6). Nineteen of 25 HIV-positive people who arrived in Manitoba in 2017 were from an HIV-endemic country, and 95% of them settled in Winnipeg (data not shown).

### National comparisons by sex

The crude rate for new HIV infections in males residing in Manitoba (8.9 cases/100,000) was **10% lower** than the Canadian crude rate among males (9.9 cases/100,000 population).

Notably, the crude rate of new HIV infections in females (4.2 cases/100,000 population) in Manitoba was **31% higher** than the Canadian crude rate among females (3.2 cases/100,000 population). It may be important for preventative and diagnostic efforts in the province that, compared to the Canadian average crude rate, Manitoban women are disproportionately affected by HIV infection.

The **Canadian** crude rate ratio for males-to-females was roughly three new HIV cases in males for every one new female HIV case (9.9 cases/100,000 population and 3.2 cases/100,000, respectively). **Manitoba** followed the national trend of a higher crude rate of new HIV cases in males, though there were approximately two HIV cases in males for every one case in females (8.9 cases/100,000 versus 4.2 cases/100,000, respectively).<sup>5</sup>

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<sup>5</sup> National data generated by PHAC's 2017 HIV Surveillance Report (release date Dec 6, 2018): <https://www.canada.ca/en/public-health/services/diseases/hiv-aids/surveillance-hiv-aids.html>.

## HIV testing in Manitoba

Cadham Provincial Laboratory identified two-to-three HIV infections per 1,000 tests performed.

TABLE 3. HIV ANTIBODY TESTING AT CADHAM PROVINCIAL LABORATORY IN MANITOBA BY TOTAL TESTS AND PEOPLE TESTED, 2017.

	Unit	
	Tests*	People tested**
<b>Total</b>	102,173	83,747
Number of positive results	295	214
Rate positive results per 1,000 units	2.89 <sup>‡</sup>	2.56 <sup>‡¶</sup>
Number of new HIV cases	89	89
Rate of new HIV cases per 1,000 units	0.9 <sup>‡</sup>	1.1 <sup>‡¶</sup>

\* Number of individual tests, includes when multiple tests were performed on one person

\*\* Number of people tested with multiple test counts removed

‡ Number of positive lab tests per 1,000 tests performed, including multiple test results for one person

‡¶ Number of positive lab tests per 1,000 people tested, excluding multiple test results

More than 100,000 HIV antibody tests were performed in Manitoba in 2017 (Table 3). There were an average of 1.2 tests per person tested, indicating that some individuals were tested more than once. If an individual suspects that they were exposed to HIV, then three tests are performed on that person over a span of six months; therefore, these results are not surprising.

The rate of positive HIV test results per 1,000 tests and per 1,000 people tested are typical for Manitoba in recent years (Cadham Provincial Laboratory personal communication, 2017) at 2.89 positive results per 1,000 tests and 2.56 positive results per 1,000 people tested, respectively.

Women were more likely to be tested for HIV than men.

TABLE 4. HIV ANTIBODY TESTING AT CADHAM PROVINCIAL LABORATORY IN MANITOBA BY SEX, 2017.

Tests	Sex			Total
	Male	Female	Unknown	
Test count	37,826	64,233	114	102,173
Number of new HIV cases	60	24	0	89
Rate of new HIV cases/10,000 tests	15.9	3.7	-	8.2

Despite harbouring two-thirds of new HIV infections in Manitoba in 2017, men were tested for HIV by antibody screening almost half as frequently as women (Table 4; 37,826 tests versus 64,233 tests, respectively). This can be explained partially by the fact that pregnant women in Manitoba are screened for HIV, regardless of their risk status. Nonetheless, this result indicates an obvious disparity in testing between men and women.

# Conclusion

The improved sensitivity of MHSAL’s new HIV case definition to include clinical consultation in the surveillance processes may have contributed to the observed decrease in HIV cases in 2017. Twenty fewer cases were reported in 2017 from 2016. Despite the new definition, though, we cannot rule out that, in that time frame, there was a notable decrease in the number of new HIV cases in Manitoba. For the first time in more than five years, the rate of new HIV cases in Manitoba was similar to the national rate. These data may suggest that Manitoba is improving in its ability to prevent new cases. However, there remain subgroups of the population that are disproportionately affected by HIV infection.

In Manitoba, new HIV case numbers are highest in Winnipeg. Interestingly, when broken down by region, the Winnipeg Regional Health Authority has the **lowest ratio** of HIV antibody tests performed to new positive cases at 775 tests to identify one new case (Figure 9). In all other regions, at least 750 tests are performed to identify one new HIV case. This issue echoes the disparity of testing to positive HIV case findings seen in males versus females (Table 4), where the subgroup with the highest case counts had the lowest screening numbers to find one case. Taken together, these results may guide the identification of groups to target for HIV screening blitzes.

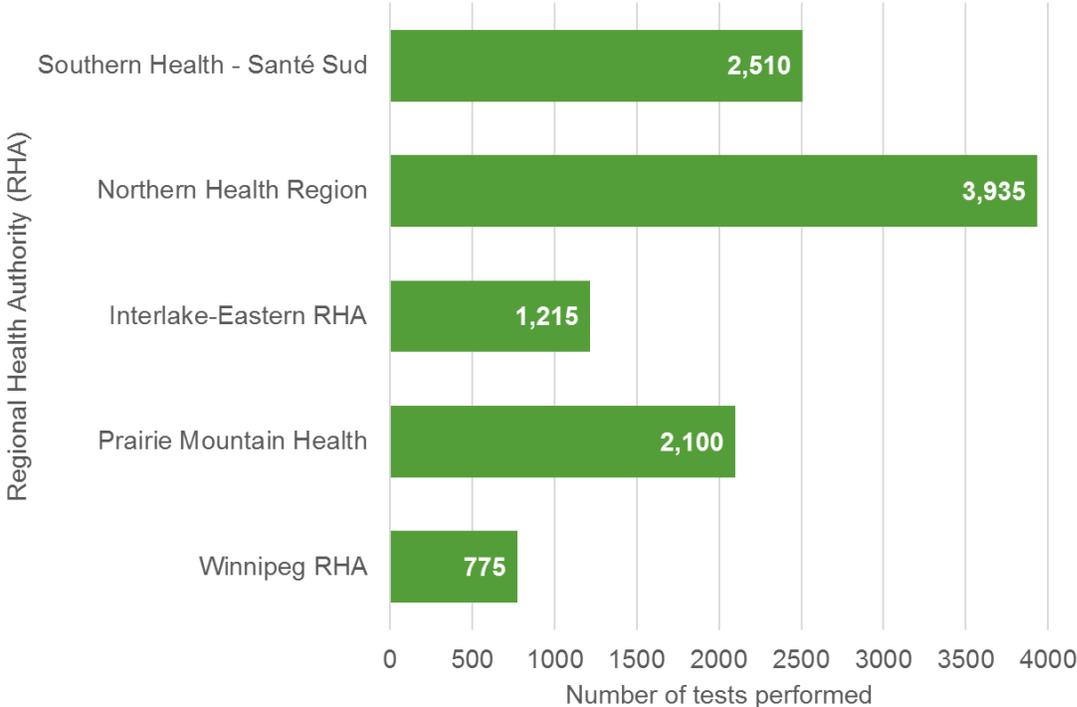
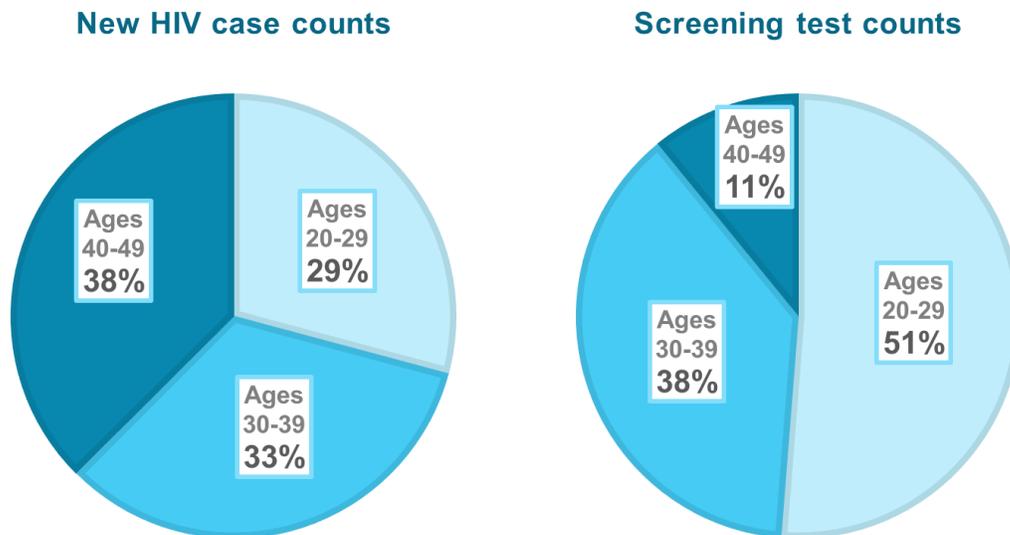


FIGURE 9. NUMBER OF HIV ANTIBODY SCREEN TESTS TO FIND ONE NEW POSITIVE HIV CASE BY REGIONAL HEALTH AUTHORITY, 2017.

Males continue to be at higher risk for HIV infections. This is of particular concern for screening activities, as males are screened for HIV nearly half as frequently as females. Conceivably, males may benefit from a higher rate of HIV screening (i.e. earlier access to HIV care).

Though the higher risk of infection in males can be partially attributed to the higher risk of HIV transmission during male/male sex, it is important to note that the data from MHSAL’s HIV investigation forms from 2017 (data not shown), previous years, and the Manitoba HIV Program publications, indicate that the most common risk of new HIV infections in the province is attributed to heterosexual sex. It is therefore logical that prevention efforts for males focus on both male/female and male/male partnering.

HIV testing was much higher in females than males. This can be explained partially by the automatic prenatal HIV screening that pregnant women in Manitoba undergo. As such, testing in women is skewed younger than the age of women who are newly reported as HIV-positive in 2017 (Figure 10). Once again, a lower proportion of HIV testing among a group at higher risk for HIV was observed.



Note: The <19 years and 50+ years age categories are omitted for simplicity.

FIGURE 10. HIV INFECTION AND TESTING AGE DISTRIBUTION IN FEMALES.

While the rate of HIV cases remains lower in females, Manitoban females nonetheless have a higher risk of HIV acquisition or presentation than females across Canada. A major source of new female infections is likely the introduction of cases from outside provinces or countries. This indicates that intervention strategies for females would benefit from focussing on HIV treatment for newcomers. Notably, male/female sex is an important risk factor for women who acquire new infections in the province.

Manitoba continues to see new infections occurring in older populations. Seventeen of 89 new cases (19%) were reported in individuals at or over the age of fifty, and three of these cases were in people at or over the age of sixty. The older and aging HIV-positive people residing in Manitoba represent a growing number of prevalent cases who will need to access HIV care that is appropriate for their specific needs.

Surveillance data provide a general overview of the status of HIV over time but cannot provide insight into the causal factors of HIV acquisition nor disease spread. Importantly, as yet there is no cure, nor a vaccine for HIV, surveillance remains an important clue as to the state of HIV in Manitoba.