

HIV/AIDS in New England

(updated June 2021)



HIV/AIDS in New England

This educational packet is a curated compilation of resources on HIV in New England.

The contents of this packet are listed below:

- HIV in Connecticut: Data Reported Through 2020
- Maine HIV Surveillance Report: 2019
- The Massachusetts HIV/AIDS Epidemic at a Glance
- New Hampshire STD/HIV Surveillance Program: 5-Year Data Summary Report – 2014-2018 (this packet includes the report's HIV data only)
- Rhode Island HIV, Sexually Transmitted Diseases, Viral Hepatitis, and Tuberculosis Surveillance Report: 2019 (this packet includes the report's HIV data only)
- 2017 Vermont HIV Annual Report

You may wish to customize this packet to meet the needs or interests of particular groups, such as event participants, providers, patients, clients, or the general public. So please feel free to distribute all or part of this document as either a printout or PDF.

HIV in Connecticut

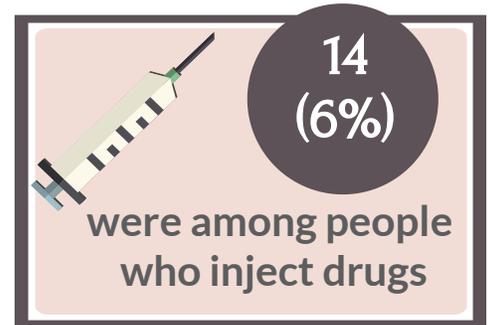
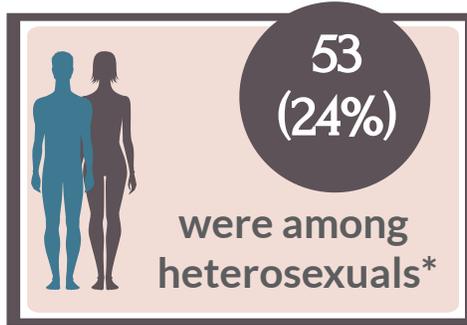
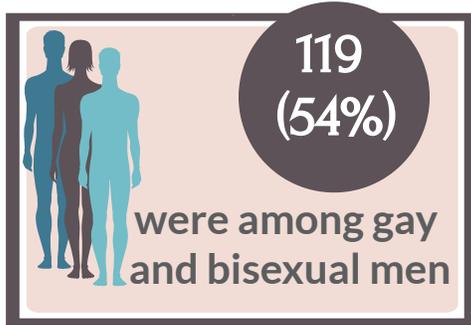
Data reported through 2020



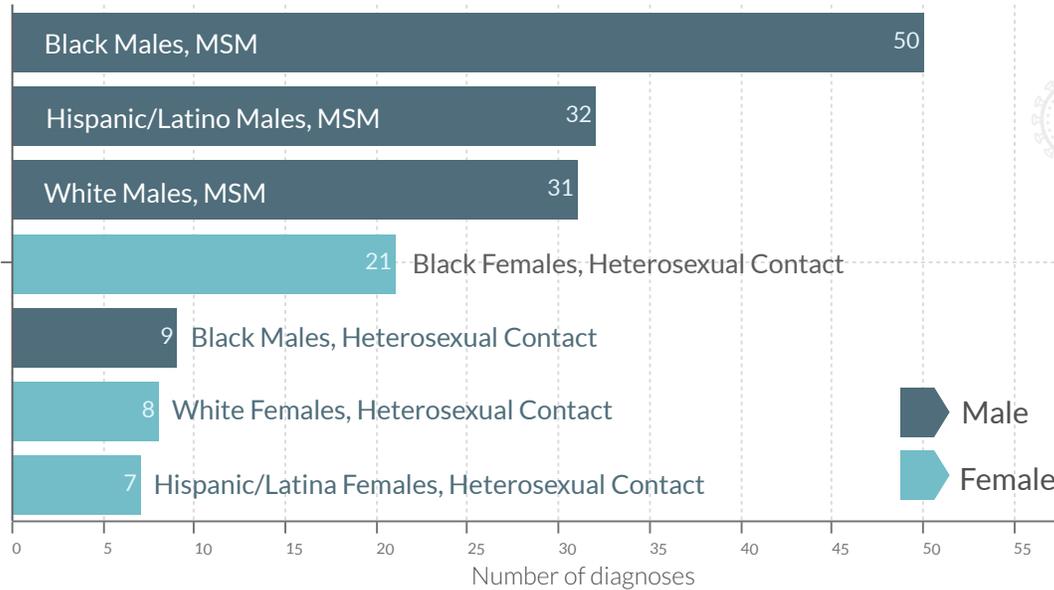
In 2019, 220 new HIV infections were reported to DPH.

January 2021

Of the 220 newly identified HIV diagnoses in 2019:



2019 HIV Diagnoses in Connecticut, Most Affected Subpopulations



REPORTED TOTALS 1981 - 2019

22,019

ALL HIV-INFECTED PEOPLE LIVING OR DECEASED

8,752

PEOPLE WHO INJECT DRUGS

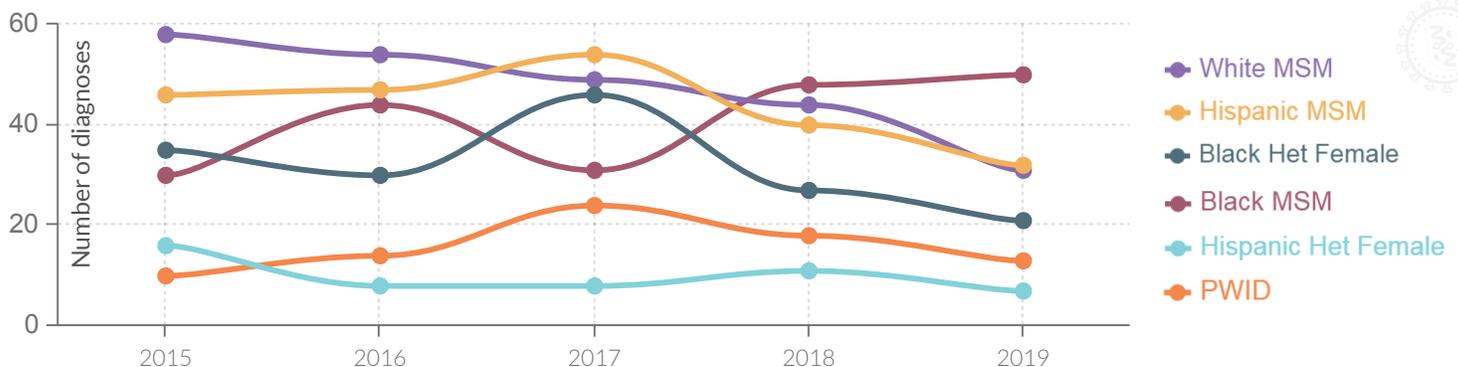
5,871

GAY OR BISEXUAL MEN

4,967

HETEROSEXUAL

5-Year Trends in Subpopulations, 2015-2019:



* Heterosexual transmission category includes presumed heterosexual risk

** PWID: People who inject drugs

Black/African Americans account for **12%** of the CT population and **47%** of new HIV diagnoses

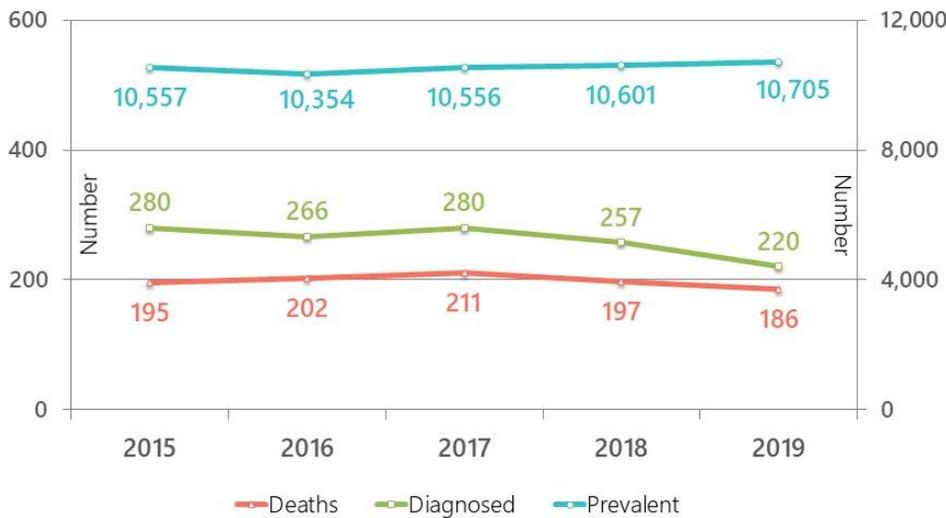
Hispanic/Latinx account for **16%** of the CT population and **23%** of new HIV diagnoses



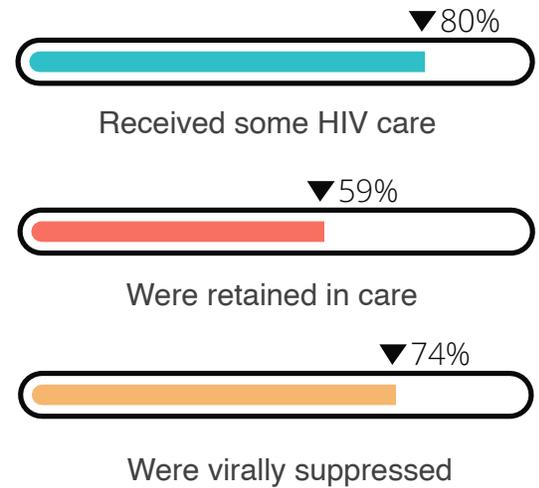
10,705

People in CT are **LIVING WITH HIV**

5-Year Trends in New Diagnoses, Prevalence and Deaths, 2015-2019:



FOR PEOPLE LIVING WITH HIV



People diagnosed with HIV in CT who died in 2019

186

(preliminary data)

Coming soon...

Goodbye paper, hello e-CRF!

HIV Care Providers will soon be able to report new HIV cases online in a new, secure portal. Using industry-standard multi-factor authentication and unique case codes, completing HIV Case Report Forms will soon be a modern, efficient process.

HIV Surveillance Website

The HIV surveillance website will be updated with the full set of 2019 data and statistics in January. The Program will continue to enhance surveillance web pages to improve the user experience for our consumers with health literacy at the forefront.



For more HIV surveillance data visit: www.ct.gov/dph/hivsurveillance



HIV

Maine Surveillance Report | 2019

Case Information:

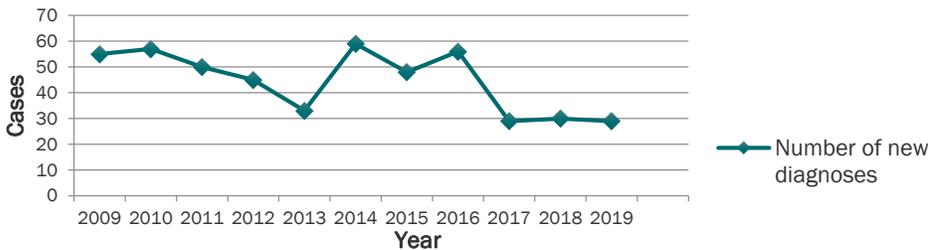
29

Patients diagnosed with HIV

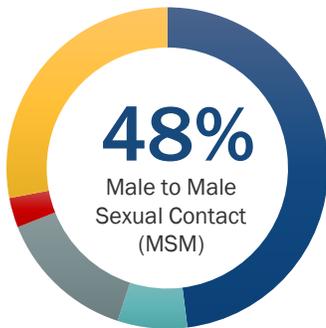
2.2

Cases per 100,000 people

Number of New HIV Cases, Maine



Transmission Category:



14%
Reported heterosexual contact

28%
Reported no risk factor reported

- MSM
- IDU
- Heterosexual contact
- No identified risk
- No risk factor reported

Prevention:



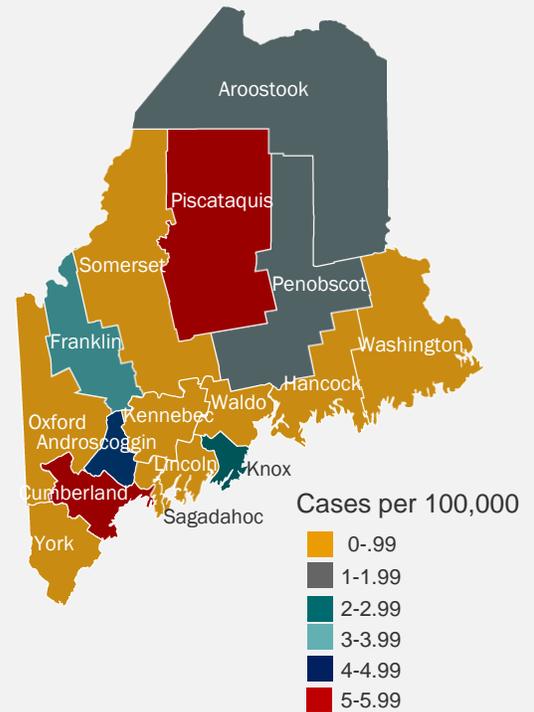
- Proper condom use
- PrEP for those at risk
- Treatment for those who are HIV positive/maintaining viral suppression
- Regular HIV testing by providers
- Clean injecting equipment

Demographics:



69% of new cases were male
Median age: 38
59% Non Hispanic, White

County Data:



For more information visit:

<http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/hiv.shtml>

<https://www.cdc.gov/hiv/default.html>

<https://www.cdc.gov/hiv/basics/prep.html>

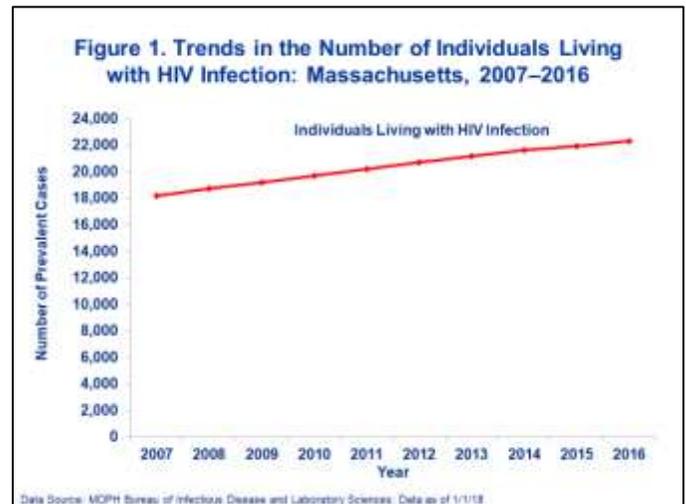
<https://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/services/hiv-testing-sites.shtml>

2018 Massachusetts HIV/AIDS Epidemiologic Profile

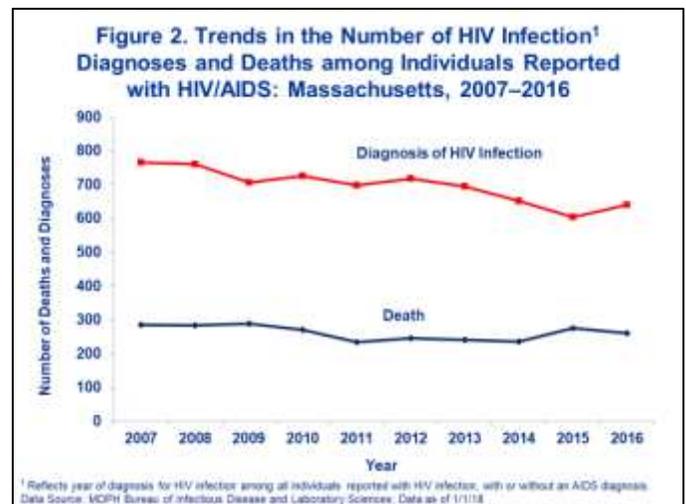
The Massachusetts HIV/AIDS Epidemic at a Glance

Fast Facts

- Ongoing transmission of HIV infection coupled with improvements in health and longevity, as a result of antiretroviral treatments, have resulted in an increase in the number of individuals living with HIV infection in Massachusetts of approximately 3% per year.
- The number of new HIV infection diagnoses decreased by 46% (from 1,196 to 641) and deaths among individuals reported with HIV infection decreased by 27% (from 354 to 260) in Massachusetts during the period 2000 to 2016.ⁱ
- After declining by 70% from 2007 (N=99) to 2014 (N=30), the number of reported HIV cases with injection drug use as the exposure mode increased to 67 in 2016.ⁱⁱ
- Although there have been reductions in new cases and increased survival of individuals living with HIV infection, vulnerable populations remain disproportionately impacted (as of 1/1/18):
 - Men who have sex with men continue to represent the largest proportion of new diagnoses (45% in 2014–2016).
 - Black (non-Hispanic) and Hispanic/Latino individuals were diagnosed with HIV infection during 2014–2016 at population rates ten and six times that of the white (non-Hispanic) individuals, respectively.
 - Persons who inject drugs accounted for about half of all deaths among HIV+ individuals but only 17% of all individuals living with HIV infection (as of 1/1/18).ⁱⁱⁱ



- During the same time period, the number of all-cause deaths among people reported with HIV infection remained between 288 (2009) and 234 (2011).
- The number of annual HIV infection diagnoses decreased by 16% from 2007 (N=766) to 2016 (N=641) (Figure 2).



HIV/AIDS Trends from 2000 to 2016

- From 2007 to 2016, the number of individuals living with HIV infection in Massachusetts increased by 23%, or approximately 2% per year (Figure 1).

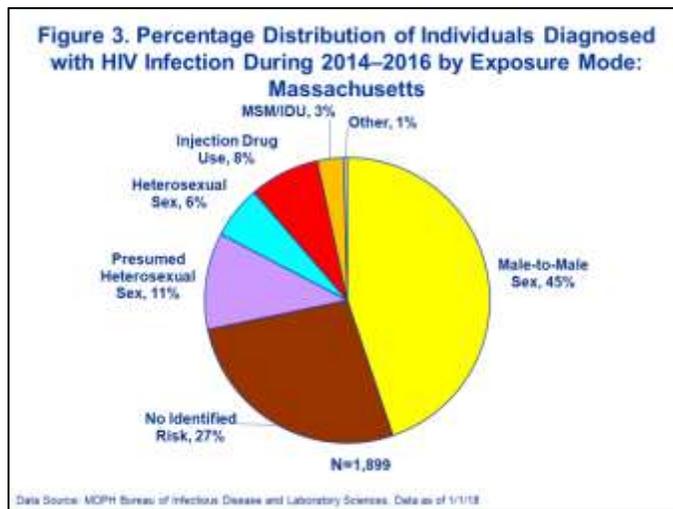
General Statistics

- As of January 1, 2018, a cumulative total of 37,603 individuals were ever diagnosed and reported with HIV infection in Massachusetts, with or without an AIDS diagnosis.
 - 41% (N=15,491) have died and 59% (N=22,112) were living with HIV infection.

- There are an estimated 23,800 (95% confidence interval: 21,400–26,100) individuals living with HIV infection in the Commonwealth.^{iv}

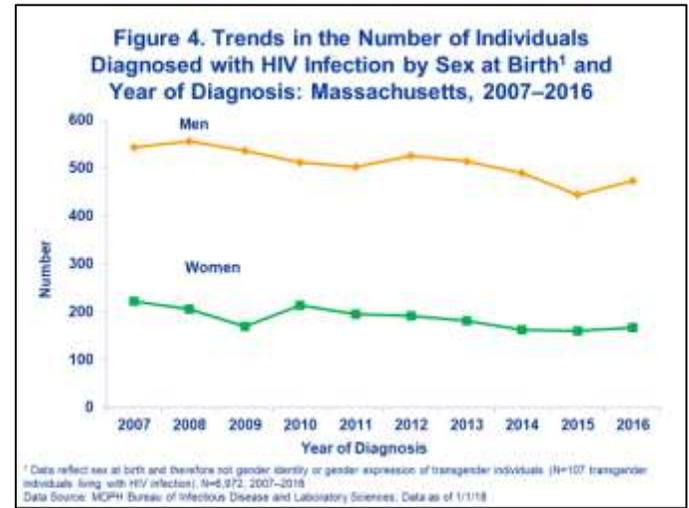
Who is most affected by HIV infection?

- Among individuals recently diagnosed with HIV infection (during 2014 to 2016), male-to-male sex (MSM) was the leading reported exposure mode, accounting for 45% of diagnoses, followed by 27% with no identified risk (NIR) for exposure mode (Figure 3).^v

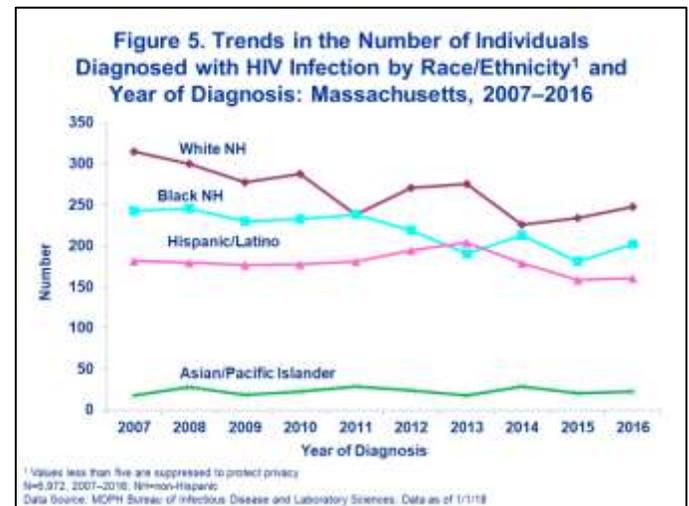


- From 2007 to 2016, male-to-male sex (MSM) remained the predominant exposure mode, accounting for the largest proportion of persons newly diagnosed with HIV infection each year, at 43% (N=2,997/6,972) of all cases during this time period.
- Among men,^{vi} the proportion of HIV diagnoses with MSM as the exposure mode remained between 54% and 62% from 2007 to 2016, while the absolute number of new infections attributed to MSM exposure declined (from 295 in 2007 to 270 in 2016).
- The number of reported cases with injection drug use (IDU) as the exposure mode decreased by 68% from 99 in 2007 to a ten-year low of 30 in 2014, then increased to 50 in 2015 and 67 in 2016.
- The increase in reported cases with IDU exposure mode was largely among white (non-Hispanic) individuals, among whom the number of cases increased from 2014 (N=14) to 2016 (N=45). Increases among black (non-Hispanic) and Hispanic/Latino persons who inject drugs (PWID) were less pronounced during this time period: from five to eight cases among black non-Hispanic PWID and from ten to 14 among Hispanic/Latino PWID.

- From 2007 to 2016, the number of women diagnosed with HIV infection decreased by 25% (from 222 to 167), while the number of men diagnosed with HIV infection decreased by 13% (from 544 to 474) (Figure 4).



- From 2007 to 2016, the number of white (non-Hispanic) individuals diagnosed with HIV infection decreased by 21% (from 315 to 248); the number of black (non-Hispanic) individuals decreased by 17% (from 243 to 202); and the number of Hispanic/Latino individuals decreased by 12% (from 182 to 161) (Figure 5).



- While 42% (N=590/1,409) of men diagnosed with HIV infection during 2014 to 2016 were white (non-Hispanic), 51% (N=250/490) of women diagnosed during this time period were black (non-Hispanic).
- The age-adjusted average annual rate of HIV diagnosis from 2014 to 2016 was 46.8 cases per 100,000 population among black (non-Hispanic) individuals and 26.7 cases per 100,000 among Hispanic/Latino individuals. These rates are ten and six times greater than

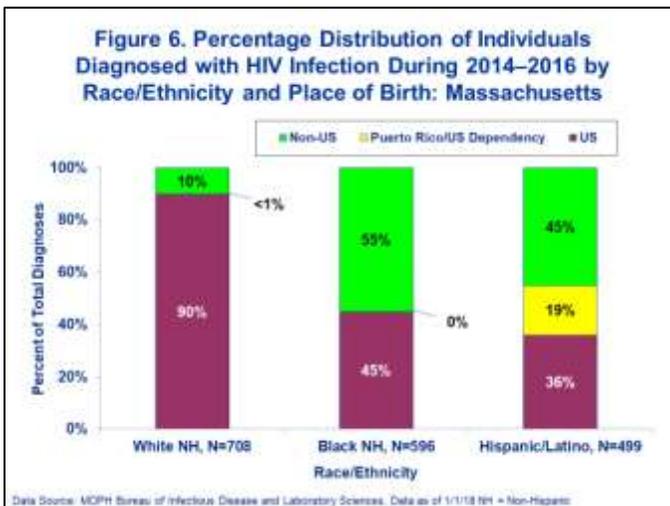
the rate among white (non-Hispanic) individuals (4.6 per 100,000), respectively.

- The age-adjusted average annual rate of HIV diagnosis from 2014 to 2016 was 56.2 cases per 100,000 among black (non-Hispanic) men and 41.6 cases per 100,000 among Hispanic/Latino men. These rates are seven and five times that of white (non-Hispanic) men (7.8 per 100,000), respectively.
- The age-adjusted average annual rate of HIV diagnosis from 2014 to 2016 was 38.0 cases per 100,000 among black (non-Hispanic) women and 12.5 cases per 100,000 among Hispanic/Latina women. These rates are 24 and eight times that of white (non-Hispanic) women (1.6 per 100,000).
- During 2014 to 2016, 55% of black (non-Hispanic) individuals diagnosed with HIV infection were born outside the US, compared to 45% of Hispanic/Latino individuals and 10% of white (non-Hispanic) individuals. An additional 19% percent of Hispanic/Latino individuals diagnosed with HIV infection during this time period were born in Puerto Rico or another US Dependency, compared to less than one percent of white (non-Hispanic) individuals and no black (non-Hispanic) individuals (Figure 6).

- Forty-one percent of individuals living with HIV infection in Massachusetts are white (non-Hispanic), 29% are black (non-Hispanic), 26% are Hispanic/Latino, 2% are Asian/Pacific Islander, and 1% are of other/undetermined race/ethnicity. By comparison, black (non-Hispanic) individuals make up 6% and Hispanic/Latino individuals 10% of the total Massachusetts population.
- Among 15,810 men living with HIV infection, 49% are white (non-Hispanic), 23% are black (non-Hispanic), 25% are Hispanic/Latino, 2% are Asian/Pacific Islander, and 1% are of other/undetermined race/ethnicity.
- Among 6,302 women living with HIV infection, 23% are white (non-Hispanic), 46% are black (non-Hispanic), 29% are Hispanic/Latina, 2% are Asian/Pacific Islander, and 1% are of other/undetermined race/ethnicity.

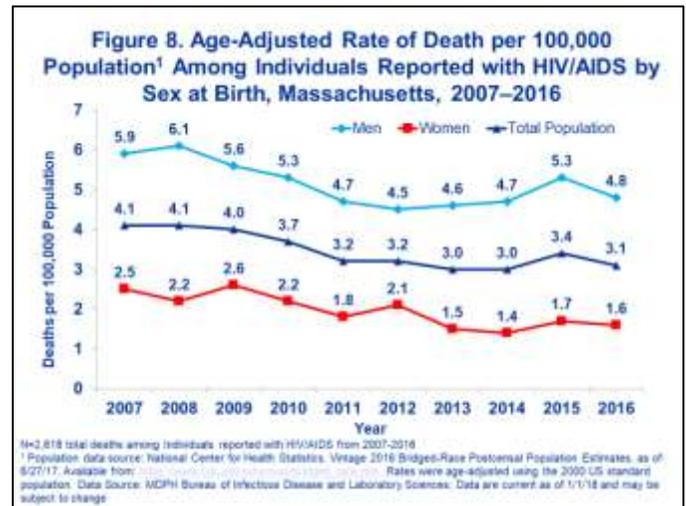
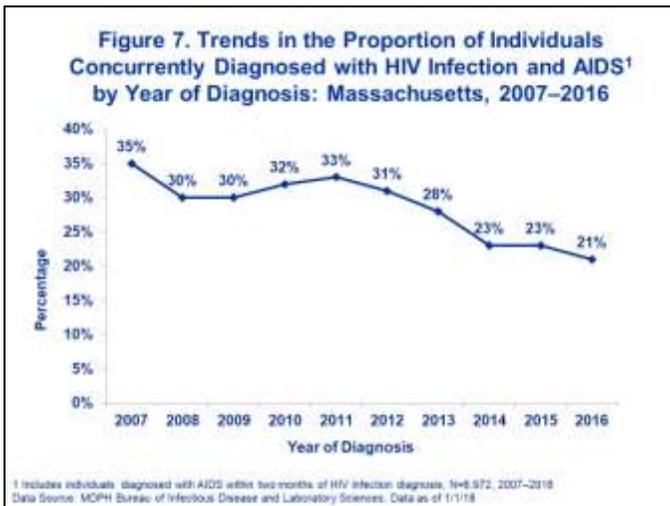
How many individuals are concurrently diagnosed with HIV infection and AIDS?

- AIDS refers to the most advanced form of HIV infection. Individuals are diagnosed with AIDS when their CD4 cell count (a measure of immune system health) drops below 200 cells/mm or if they develop certain opportunistic illnesses.^{vii}
- From 2014 to 2016, 426 individuals had AIDS when their HIV infection was first diagnosed (or were diagnosed with AIDS within two months), representing 22% of the 1,899 individuals diagnosed with HIV infection during this time period.
- Forty-four percent of the 426 individuals who had AIDS when their HIV infection was first diagnosed (or were diagnosed with AIDS within two months) were born outside the US, compared to 34% of 1,473 individuals who did not have an AIDS diagnosis when their HIV infection was first diagnosed.
- The proportion of individuals concurrently diagnosed with HIV infection and AIDS decreased from 35% (N=266/766) in 2007 to 21% (N=137/641) in 2016 (Figure 7).



Who is currently living with HIV infection?

- Male-to-male sex and injection drug use were the leading exposure modes for HIV infection among the 22,122 individuals living with HIV infection in Massachusetts on January 1, 2018 accounting for 39% and 17% of all exposures, respectively.



Who is being diagnosed with AIDS and how has this changed over time?

- The relative proportions of new AIDS diagnosis by exposure mode, race/ethnicity, sex at birth, and place of birth have remained fairly stable over the past ten years.
- The number of individuals diagnosed with AIDS each year in Massachusetts decreased by 53% from 570 in 2007 to 268 in 2016.

Who is dying with HIV/AIDS and how has this changed over time?

- The number of deaths among individuals reported with HIV/AIDS decreased from 286 in 2007 to 234 in 2011, then averaged 251 deaths from 2012 to 2016.
- The proportion of deaths among individuals reported with HIV/AIDS, with an exposure mode of no identified risk, increased from 8% (N=24/286) in 2007 to 17% (N=45/260) in 2016.
- From 2007 to 2016, the proportion of deaths among individuals reported with HIV/AIDS by race/ethnicity remained fairly stable with roughly half (46–54%) of the deaths each year among white (non-Hispanic) individuals and roughly one quarter (24–31%) among black (non-Hispanic) and one fifth to one quarter (17–27%) among Hispanic/Latino individuals.
- In 2016, the age-adjusted rate of death per 100,000 population for men reported with HIV/AIDS (4.8 per 100,000) was three times the rate for women (1.6 per 100,000) (Figure 8).

Data Notes and Sources:

Data Source for all HIV/AIDS Case Data: MDPH HIV/AIDS Surveillance Program, data are current as of 1/1/18 and may be subject to change.

ⁱ The year 2000 is used as a baseline to present historical trends in HIV infection diagnosis, HIV/AIDS prevalence, and deaths among those reported with HIV/AIDS to avoid reporting artifacts associated with the first year of HIV (non-AIDS) reporting (1999) in the Commonwealth of Massachusetts. The most recent ten-year period for which HIV infection diagnosis data are available (2007 to 2016) is used elsewhere to describe HIV infection diagnosis trends.

ⁱⁱ New HIV diagnoses continue to include only individuals who were first diagnosed in Massachusetts.

ⁱⁱⁱ As of January 1, 2018, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease and Laboratory Sciences (BIDLS), HIV/AIDS fact sheets, epidemiologic reports, and other HIV data presentations include all individuals living with HIV infection who are currently residing in Massachusetts. These prevalent cases include those who may have been first diagnosed in another state. Please note that HIV/AIDS fact sheets, data reports, and presentations published from 2011 to 2017 include only cases that were first diagnosed in Massachusetts. BIDLS service planning continues to ensure responsive services to the entire population living with HIV infection in Massachusetts, regardless of place of diagnosis.

^{iv} Data source for HIV prevalence estimate: Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease and Laboratory Sciences (BIDLS), using CDC's CD4 methodology for estimating HIV prevalence. For more information see CDC. [Estimated HIV incidence and prevalence in the United States, 2010–2015. HIV Surveillance Supplemental Report 2018;23\(1\).](#)

^v The category of presumed heterosexual is used exclusively for women, to define HIV exposure mode in cases when sex with men is the only reported risk factor for HIV infection.

^{vi} Please note “women” and “men” are used for stylistic reasons to describe female and male populations diagnosed with HIV infection that include a small number of girls and boys (N=24 children living with HIV infection under age 13 as of 1/1/18). Data reflect sex at birth and therefore not gender identity or gender expression of transgender individuals (N=107 transgender individuals living with HIV infection).

^{vii} For more information see CDC, Revised Surveillance Case Definition for HIV Infection — United States, 2014. *Recommendations and Reports. MMWR*: April 11, 2014 / 63(RR03);1-10



New Hampshire STD/HIV Surveillance Program 5 Year Data Summary Report 2015-2019



Data Notes:

All Data in this report are based upon information provided to the New Hampshire Department of Health and Human Services under specific legislative authority. The numbers may represent an underestimate of the true absolute number and incidence rate of cases in the state. Any release of personal identifying information is conditioned upon such information remaining confidential. The unauthorized disclosure of any confidential medical or scientific data is a misdemeanor under New Hampshire law. The department is not responsible for any duplication or misrepresentation of surveillance data released in accordance with this guideline. Population data used in this report come from the most recently available U.S. Census Bureau population estimates. Historical data in this report may differ from previously released data due to ongoing quality assurance activities and receipt of new surveillance information. HIV/AIDS data in this report are complete as of August 11, 2020. Gorrhea and syphilis data in this report are complete as of August 20, 2020. Chlamydia data in this report are complete as of September 2, 2020.

- 1: Case rate per 100,000 persons. Case rates calculated for events <20 are considered statistically unreliable and should be interpreted with caution. The Infectious Disease Surveillance Section restricts the release of calculated rate data to cell sizes ≥ 5 cases.
 - 2: Other/Unknown race category includes multi-racial for STD data and persons of Hispanic ethnicity for HIV/AIDS data.
 - 3: Hispanic ethnicity may be of any race.
 - 4: NC= Not Calculated. As most STD cases have an unknown HIV status, data regarding HIV co-infection is considered incomplete. Rates are not presented due to incomplete data.
 - 5: PLWHA= People living with HIV/AIDS.
 - 6: County and city data is based upon residence at time of disease diagnosis.
 - 7: Infectious syphilis includes cases diagnosed during the primary, secondary, and early non-primary non-secondary stages of syphilis infection in accordance with the CDC case definition. It excludes congenital syphilis and cases of unknown duration or diagnosed during late stage infection.
 - 8: MSM= Male-to-male sexual contact. IDU = Injection drug use. Perinatal= Mother with or at risk for HIV. NRR= No reported risk. NIR= No identified risk. Heterosexual Contact=Specific heterosexual contact with a person known either to have or to be at high risk for HIV infection.
 - 9: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.
 - 10: Indicates a new diagnosis of AIDS in the specified year, regardless of when diagnosed with HIV.
- Data sources: Patient Reporting Investigating Surveillance Manager (PRISM), enhanced HIV AIDS Reporting System (eHARS), and Environmental Systems Research Institute (ESRI) ArcMap.

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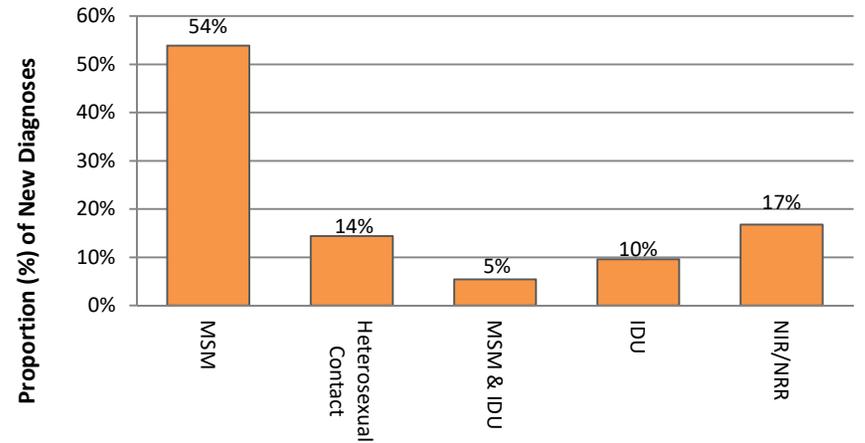
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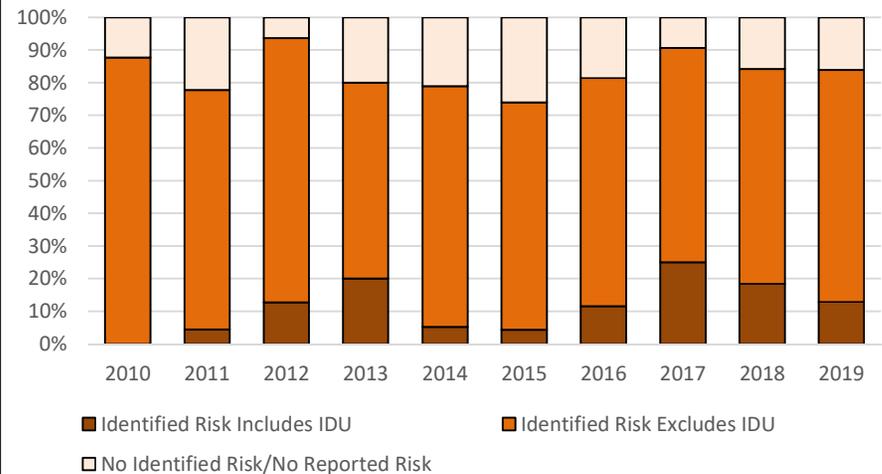
New Hampshire Infectious Disease Surveillance Section
 STD/HIV Summary Report: HIV
 2015-2019

YEAR	2015		2016		2017		2018		2019	
	Cases	Rate ¹								
TOTAL⁹	23	1.7	43	3.2	32	2.4	38	2.8	31	2.3
SEX	Cases	Rate ¹								
Male	21	3.2	28	4.2	24	3.6	30	4.5	27	4.0
Female	2	*	15	2.2	8	1.2	8	1.2	4	*
AGE-SPECIFIC	Cases	Rate ¹								
0-12	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-19	1	*	0	0.0	0	0.0	0	0.0	0	0.0
20-24	4	*	5	5.4	7	7.7	3	*	1	*
25-29	2	*	6	7.3	3	*	7	8.1	12	13.7
30-34	4	*	6	7.5	4	*	7	8.4	6	7.0
35-39	2	*	4	*	6	7.7	2	*	3	*
40-44	3	*	5	6.5	1	*	7	9.4	0	0.0
45-49	0	0.0	6	6.3	3	*	7	7.8	1	*
50-54	4	*	7	6.5	4	*	3	*	1	*
55-59	3	*	2	*	2	*	1	*	6	5.4
60+	0	0.0	2	*	2	*	1	*	1	*
RACE	Cases	Rate ¹								
White	19	1.5	26	2.1	21	1.7	30	2.4	17	1.3
Black	2	*	8	37.4	3	*	3	*	4	*
Asian/Pacific Isl.	0	0.0	1	*	0	0.0	1	*	4	*
Amlnd/AlaskNat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown ²	2	*	8	35.8	8	34.8	4	*	6	24.8
ETHNICITY	Cases	Rate ¹								
Hispanic ³	0	0.0	7	14.7	5	9.9	3	*	5	9.2
COUNTY/CITY⁵	Cases	Rate ¹								
Belknap	2	*	0	0.0	0	0.0	1	*	0	0.0
Carroll	0	0.0	1	*	2	*	1	*	0	0.0
Cheshire	0	0.0	4	*	1	*	0	0.0	0	0.0
Coos	0	0.0	0	0.0	0	0.0	0	0.0	2	*
Grafton	2	*	2	*	1	*	0	0.0	4	*
Hillsborough	8	2.0	18	4.4	19	4.6	26	6.3	12	2.9
Merrimack	4	*	8	7.3	3	*	4	*	3	*
Rockingham	5	5.7	5	5.7	4	*	3	*	5	5.6
Strafford	2	*	4	*	2	*	3	*	1	*
Sullivan	0	0.0	1	*	0	0.0	0	0.0	4	*

HIV Incidence by Identified or Reported Risk⁸, 2015-2019

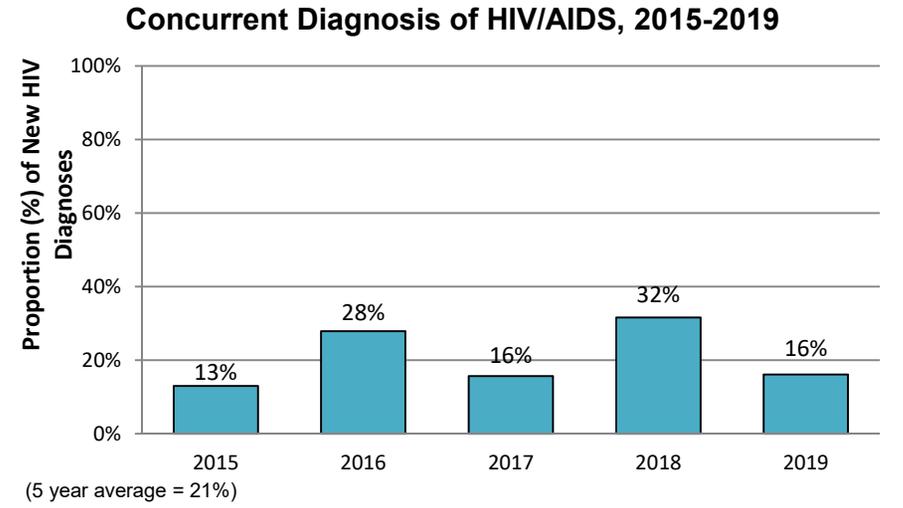


HIV Incidence by Identified or Reported Risk⁸ Including Injection Drug Use (IDU), 2010-2019

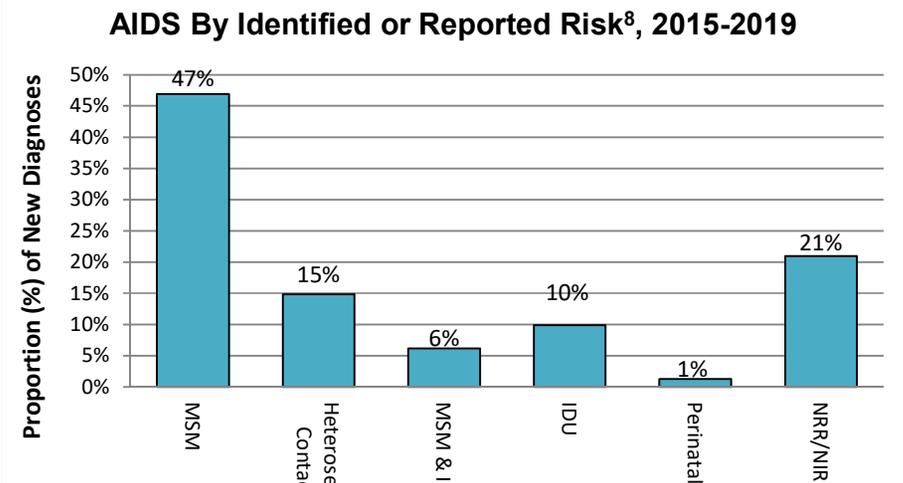


New Hampshire Infectious Disease Surveillance Section
 STD/HIV Summary Report: AIDS
 2015-2019

YEAR	2015		2016		2017		2018		2019	
	Cases	Rate ¹								
TOTAL ¹⁰	15	1.1	23	1.7	14	1.0	19	1.4	10	0.7
SEX	Cases	Rate ¹								
Male	12	1.8	19	2.9	11	1.6	12	1.8	5	0.7
Female	3	*	4	*	3	*	7	1.0	5	0.7
AGE-SPECIFIC	Cases	Rate ¹								
0-12	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-19	0	0.0	0	0.0	0	0.0	0	0.0	1	*
20-24	2	*	0	0.0	2	*	1	*	0	0.0
25-29	2	*	3	*	0	0.0	3	*	2	*
30-34	2	*	2	*	0	0.0	2	*	0	0.0
35-39	0	0.0	3	*	1	*	1	*	2	*
40-44	0	0.0	1	*	2	*	3	*	1	*
45-49	2	*	8	8.4	4	*	4	*	2	*
50-54	3	*	3	*	1	*	3	*	0	0.0
55-59	3	*	3	*	3	*	1	*	1	*
60+	1	*	0	0.0	1	*	1	*	1	*
RACE	Cases	Rate ¹								
White	10	0.8	17	1.4	9	0.7	12	1.0	6	0.5
Black	3	*	1	*	3	*	3	*	0	0.0
Asian/Pacific Isl.	0	0.0	1	*	0	0.0	1	*	0	0.0
Amlnd/AlaskNat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown ²	2	*	4	*	2	*	3	*	4	*
ETHNICITY	Cases	Rate ¹								
Hispanic ³	2	*	3	*	2	*	3	*	4	*
COUNTY/CITY ⁶	Cases	Rate ¹								
Belknap	0	0.0	0	0.0	1	*	1	*	0	0.0
Carroll	0	0.0	0	0.0	1	*	0	0.0	0	0.0
Cheshire	1	*	2	*	0	0.0	1	*	0	0.0
Coos	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grafton	0	0.0	1	*	0	0.0	0	0.0	1	*
Hillsborough	7	1.7	12	2.9	7	1.7	12	2.9	5	1.2
Merrimack	3	*	1	*	1	*	1	*	1	*
Rockingham	2	*	6	6.9	4	*	3	*	2	*
Strafford	2	*	1	*	0	0.0	1	*	1	*
Sullivan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0



Concurrent diagnosis is defined as diagnosis of AIDS within 12 months of an initial HIV diagnosis. 2019 concurrent diagnosis data is provisional and not yet validated. 2019 concurrent diagnosis data may change when data are finalized.





RHODE ISLAND

HIV, Sexually Transmitted Diseases,
Viral Hepatitis, and Tuberculosis
Surveillance Report

2019

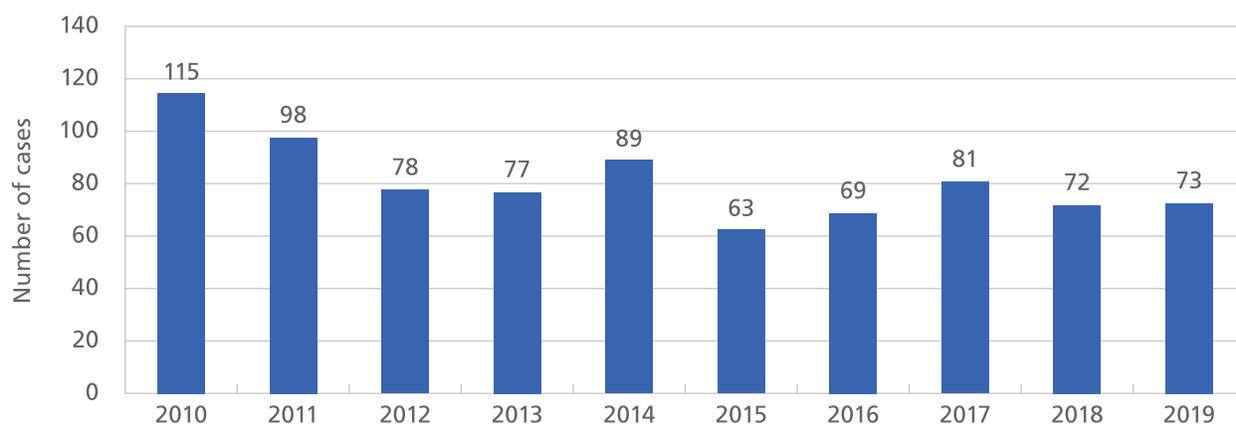


01 | HIV/AIDS

The Human Immunodeficiency Virus (HIV) is a virus that can be spread through sexual contact, needle-sharing, and from a woman to her child through pregnancy, birth, and breastfeeding. While HIV is not a curable infection, people living with HIV who are in medical care and are taking their medications can achieve an undetectable HIV viral load and have a normal life expectancy. If left untreated, HIV infection can lead to acquired immunodeficiency syndrome, or AIDS. Because the immune system is greatly weakened for people diagnosed with AIDS, those living with AIDS have an increased susceptibility to certain infections and cancers that can potentially result in death.

FIGURE 1

Number of Newly Diagnosed Cases of HIV, Rhode Island, 2010-2019



Source: Rhode Island Department of Health

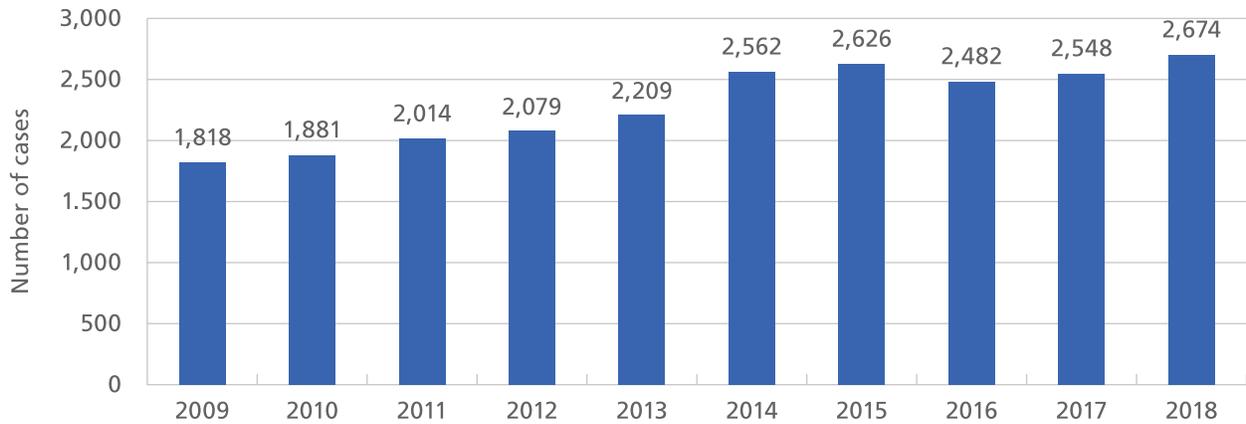
Over the last 10 years, there has been an overall reduction in the number of newly diagnosed cases of HIV in Rhode Island. There has been a slight increase from 2015 through 2019, however, the number of cases in 2018 and 2019 remained stable.

HIV/AIDS Deaths

Since 1983, a total of 1,854 deaths have occurred among Rhode Island residents diagnosed with HIV/AIDS. However, only 185 (9.9%) of those deaths occurred from 2014-2018, and deaths decreased annually in this five-year period. Between 2010 and 2017, the national age-adjusted rate of HIV-related deaths fell by nearly half.¹ This reduction in deaths underscores the impact of improved treatment and access to care for people living with HIV (PLWH).

FIGURE 2

Estimated Number of Persons Diagnosed and Living with HIV, Rhode Island, 2009-2018

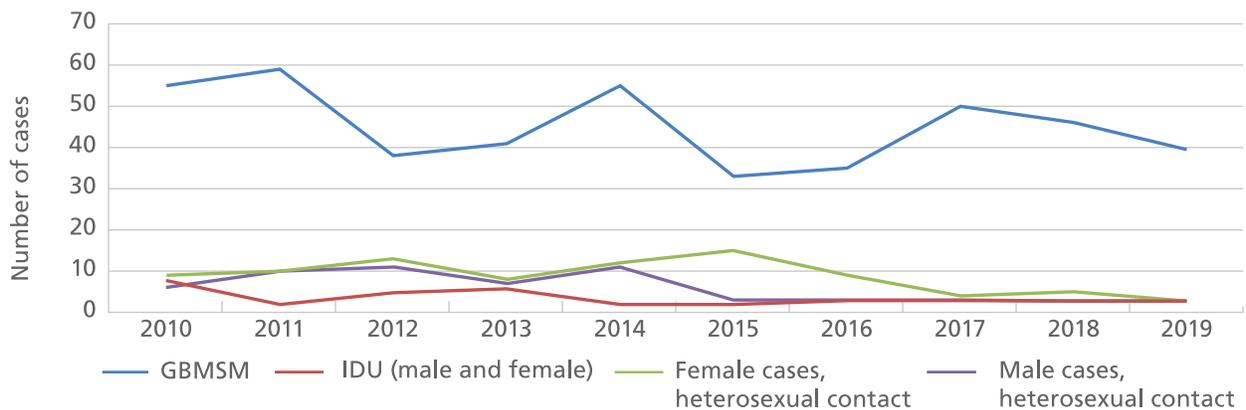


Source: Rhode Island Department of Health

It is estimated that 2,674 Rhode Islanders were diagnosed and living with HIV through the end of 2018. It is also estimated that about 11% of individuals who are HIV-infected do not know their status, which suggests the numbers above are an underestimate of all Rhode Islanders living with HIV. Due to advances in HIV treatment, people who are HIV-positive are living longer lives and represent a growing segment of Rhode Island's population. The numbers above also reflect the migration of people living with HIV who migrate into and out of the state.

FIGURE 3a

Number of Newly Diagnosed Cases of HIV, by Mode of Exposure, Rhode Island, 2010-2019



Source: Rhode Island Department of Health

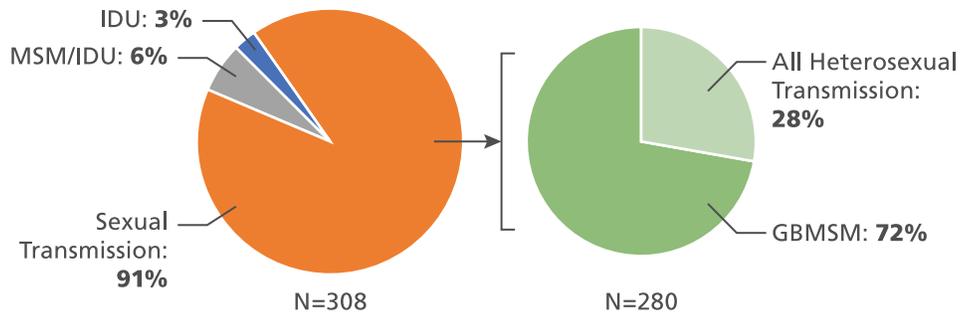
Note: Between 2010-2019, there were 101 cases of newly diagnosed HIV for which a risk could not be determined.

Note: Cases where risk is MSM/IDU are not included in this figure. See Glossary of Terms for explanations of exposure categories

Over the last 10 years, amongst those with a known mode of exposure, slightly more than half (54.6%) of newly diagnosed cases of HIV were among gay, bisexual, or other men who have sex with men (GBMSM). Meanwhile, the number of newly diagnosed cases of HIV among heterosexual males and females, as well as persons who inject drugs (PWID), has remained low. In 2019, there were almost 3 times as many cases of HIV among GBMSM when compared to females, male heterosexuals, and PWID, combined. Figure 3b provides a snapshot of the five-year period of 2015-2019.

FIGURE 3b

Snapshot: Mode of HIV Exposure, Rhode Island, 2015-2019



Source: Rhode Island Department of Health

Note: Between 2015-2019, there were 50 cases of newly diagnosed HIV for which a risk could not be determined. See Glossary of Terms for explanations of exposure categories.

From 2015 to 2019, the predominant (91%) mode of HIV exposure among newly diagnosed HIV cases was sexual contact, followed by MSM/IDU (6%) and IDU (3%). GBMSM represent the majority (72%) of individuals among those with sexual contact as a mode of exposure. There was no reported transmission of HIV from pregnant HIV+ women to their babies during this time.

Intravenous Drug Use

HIV infection associated with intravenous drug use (IDU) has decreased substantially in the last 20 years. In the last five years, just over 3% of newly-diagnosed cases were attributed strictly to IDU. A significant factor in the success of reducing IDU transmission is the ENCORE (Education, Needle Exchange, Counseling, Outreach and Referral) Program that has been operating in Rhode Island since 1995.

Source: Rhode Island Department of Health

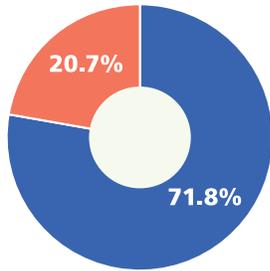
Mother-to-child HIV Transmission

A Rhode Island public health success has been the virtual elimination of HIV among babies born to mothers who are HIV positive. This success is due in large part to the routine HIV testing of pregnant women and anti-retroviral treatment therapy, when indicated as part of prenatal care. There have been zero reported cases of mother-to-child transmission in the last five years.

Source: Rhode Island Department of Health

FIGURE 4

Percentage of Newly Diagnosed Cases of HIV, by Disease Progression at Diagnosis, Rhode Island, 2015-2019



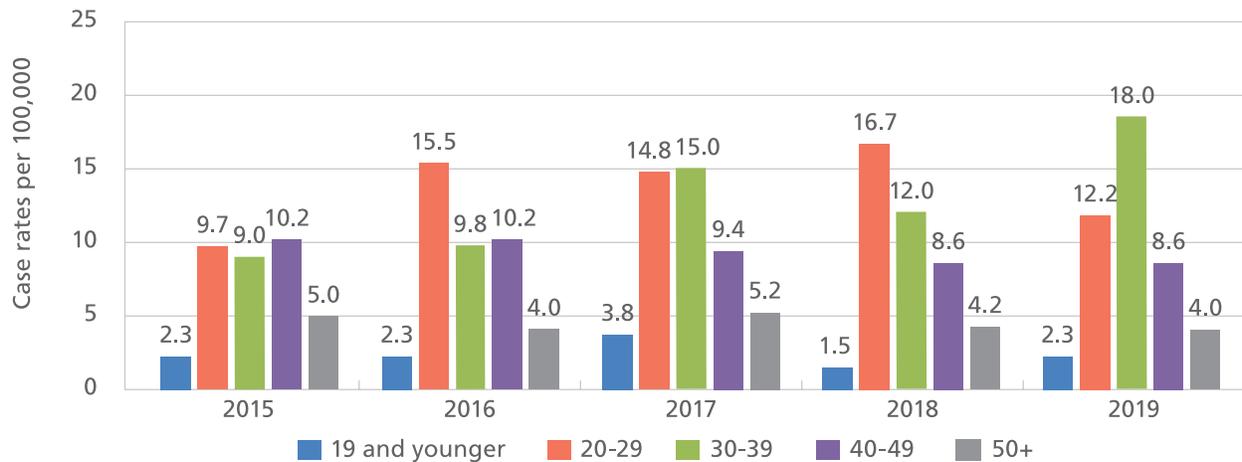
From 2015-2019, about 21% of individuals newly diagnosed with HIV in Rhode Island also had a concurrent HIV stage 3 (AIDS) diagnosis. The average time from untreated HIV infection to development of stage 3 infection is eight years. During this time, undiagnosed HIV-positive individuals could have benefitted from treatment that would have benefitted their health outcomes. Because many people with HIV do not have any symptoms, undiagnosed HIV-positive individuals may also unknowingly transmit HIV to others.

- HIV only diagnosis
- HIV diagnosis with progression to AIDS within 30 days

Source: Rhode Island Department of Health

FIGURE 5

Rates of Newly Diagnosed Cases of HIV, by Age, Rhode Island, 2015-2019



Source: Rhode Island Department of Health

In the past five years, the rates of newly diagnosed HIV cases were highest among Rhode Islanders in their 20s, 30s, and 40s. Rates among individuals ages 20-29 and 30-39 have remained consistently high compared to other groups, although from 2018 to 2019 there was 50% increase in cases in those ages 30-39. This is a continuation of a gradual increase in cases in this age group over the last five years.

02 | RHODE ISLAND HIV CARE CONTINUUM

In 2016, Rhode Island signed on to the International Association of Providers of AIDS Care (IAPAC) Fast-Track Cities Initiative. This initiative is a global partnership with local municipalities, IAPAC, the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Human Settlements Program (UN-Habitat), and the City of Paris. The goal of this initiative is to attain the UNAIDS 90-90-90 targets, which include: 90% of all people living with HIV in Rhode Island will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART), and 90% of all people receiving ART will achieve viral suppression.

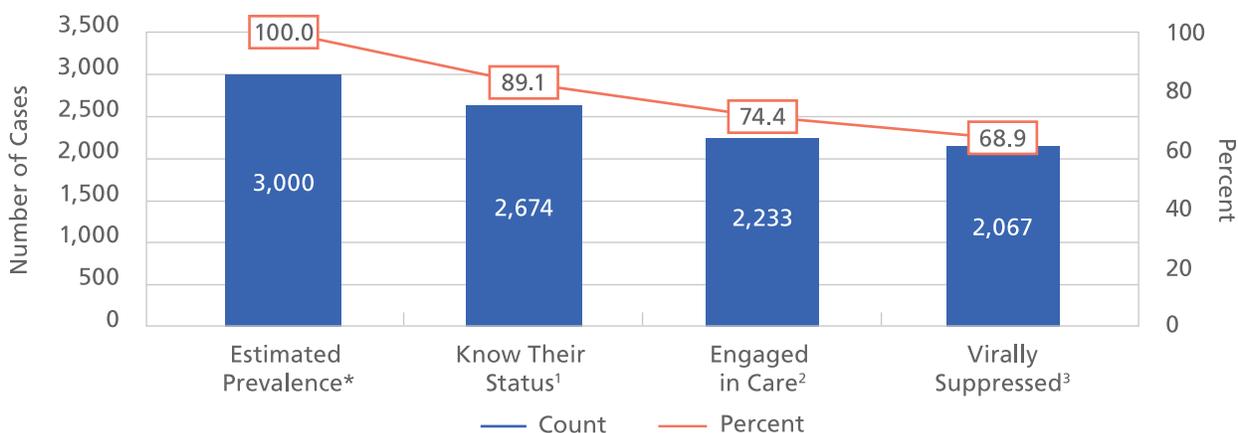
The Rhode Island HIV Care Continuum is a visual representation of the care status of individuals diagnosed with HIV that reside in Rhode Island. Engagement in care is used as a proxy measure for receiving sustained ART. As the Care Continuum below indicates, Rhode Island has made progress on its 90-90-90 goals: 89% of Rhode Islanders who are HIV positive know their status, 74% of Rhode Islanders living with HIV are engaged in care, and 69% of Rhode Islanders living with HIV have achieved viral suppression.

When considering only those who have been diagnosed with HIV, 83% are engaged in care and 77% are virally suppressed.

Nationally, from 2010 to 2018, the number of Americans who knew their HIV status increased from 82% to an all-time high of 86%, and the number of people with diagnosed HIV who had a suppressed viral load increased from 46% to nearly 65%. Rhode Island is currently surpassing these national averages as a result of a multifaceted approach to re-engagement and retention in care for people living with HIV (PLWH).

To help track Rhode Island's efforts and ensure accountability and transparency, RIDOH provides quarterly updates on 90-90-90 progress online at www.health.ri.gov/909090.

FIGURE 6
Rhode Island HIV Care Continuum, 2019



* Prevalence estimates derived by using HIV surveillance and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of $>1,000$ to reflect model uncertainty. Reflects estimated number of people living with HIV, both diagnosed and undiagnosed, at the end of 2019.

¹ The number of people diagnosed with HIV ("know their status") reflects persons diagnosed through 2018 and alive through the end of 2019 with most recent residence in Rhode Island.

² Receipt of care any care is defined as at least one care visit during the calendar year (2019).

³ A viral load (VL) test result of < 200 copies per milliliter (c/ml) of blood represents HIV viral suppression. VL test results are from the most recent test during the specified year (2019).



2017 Vermont HIV Annual Report

Introduction

The 2017 Vermont HIV Annual Report presents HIV surveillance data collected through the end of the calendar year 2017. Data collected during the report period are reviewed and interjurisdictional deduplication activities are completed to produce an accurate summary of Vermont's community of people living with diagnosed HIV infection (PLWDHI) as well as cases newly reported to the Health Department. Reporting this information annually allows the Health Department to inform the public, community partners, policy makers, and service providers of trends and changes observed through the Department's HIV disease surveillance. Due to Vermont's relatively small HIV positive population, the analysis herein is strictly descriptive and readers are encouraged to review all citations and footnotes carefully.

Section 1: Transmission Cluster Investigation

In 2017, the Health Department investigated an HIV "transmission cluster". According to the CDC, a transmission cluster is a group of HIV-infected people (with diagnosed or undiagnosed HIV) who are connected by mode of transmission¹. The 2017 transmission cluster investigation was initiated in September of that year when the number of newly reported cases among men who have sex with men (MSM) was uncharacteristically high for that point in a twelve month period in Vermont. Through monitoring of newly reported cases, interviews with newly diagnosed people conducted by the Health Department's Disease Intervention Specialist (DIS), implementation of molecular HIV surveillance, and consultation with the Centers for Disease Control, the transmission cluster was investigated with the goal of diagnosing previously undiagnosed cases of HIV, getting people engaged or re-engaged in HIV care, and preventing new HIV infections.

Of the 18 new cases of HIV infection that were reported to the Health Department during 2017, 16 were warranted further investigation due to their reported risk factors. Two additional cases - one diagnosed out of state and one diagnosed in Vermont in 2016 - were also investigated because of related risk with aforementioned cases. These 18 cases were considered the "network of investigation".

DIS interviews were conducted within the network of investigation with the goal of identifying people who may be at risk for HIV infection and who may benefit from HIV testing. The interviews led to an additional 34 people being added to the network of investigation, expanding the network to 52 people. A total of 44 people (85% of the network) were able to be interviewed by the DIS. Thirty-four of the interviews were conducted with named partners of newly diagnosed people. Two new HIV positive statuses were discovered

2017 Points of Interest



678 People living with HIV



18 Newly reported cases of HIV



83% Viral suppression among PLWDHI



43% MSM cases among newly reported HIV

among people interviewed by the DIS.

Ultimately, within the network of investigation, ten cases were found to meet the definition of a transmission cluster. Based on the demography and risk of the transmission cluster the Health Department procured rapid home HIV testing kits for distribution through an LGBTQ community based organization. The kits were distributed to high-risk men who have sex with men (MSM) engaging in methamphetamine use via social networks testing care advocates. Nineteen named contacts of the cases included in the investigation network were confirmed HIV negative and, of those, 11 were connected to providers that prescribe preexposure prophylaxis (PrEP).

The 2017 transmission cluster investigation highlighted the importance of case surveillance and public health intervention in HIV care and prevention efforts.

Section 2: History of HIV in Vermont

Figure 2.1 summarizes reported stage 3 (AIDS) diagnoses and deaths among people living with diagnosed HIV infection (PLWDHI) in Vermont from 1982 through 2017, according to reportable disease records. The overall trend in this figure mirrors that of the national stage 3 (AIDS) diagnoses and deaths statistics from 1985 through 2013 represented in figure 2.2. Significant declines in both stage 3 (AIDS) diagnoses and deaths can be observed in the mid-nineties as HIV treatment improved. In 1995 the first antiretroviral therapy (ART) medications that slow the progression of HIV were introduced, greatly reducing the number of new stage 3 (AIDS) diagnoses and deaths among people living with HIV. As treatment has improved over the course of the epidemic, HIV infection has become more manageable.

While the value of HIV treatment to the person living with the virus has always been understood, it is now known that ART adherence also has powerful implications for HIV prevention. In September of 2017 the CDC released a “Dear Colleague” letter in which it was stated that “...people who take ART daily as prescribed and achieve and maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner.” This concept, known as “treatment as prevention,” emphasizes the importance of identifying undiagnosed cases of HIV, and getting those people tested and on ART. More information about the treatment and viral suppression among Vermont’s HIV population can be found in section five.

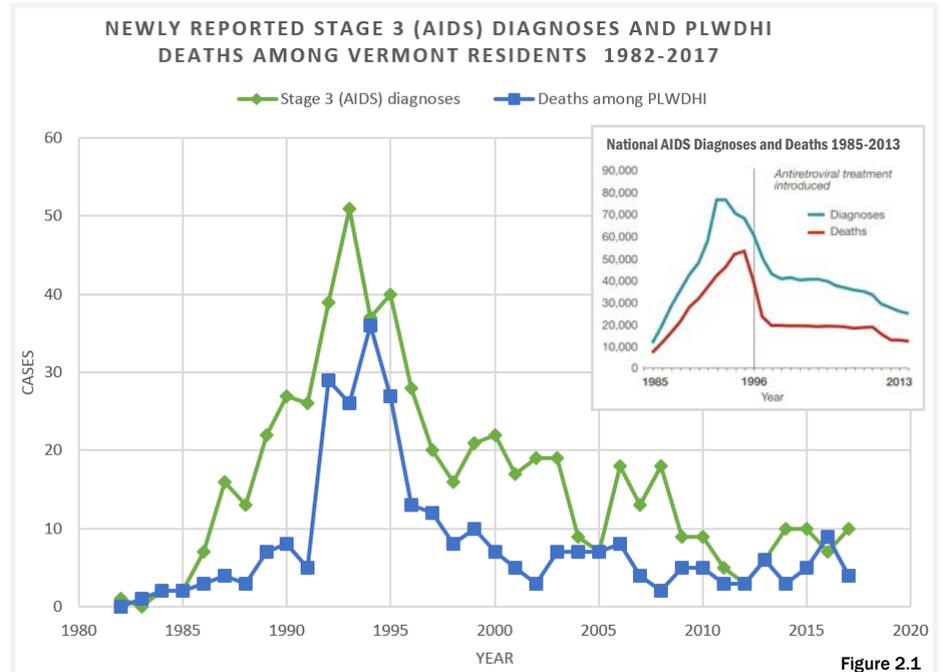


Figure 2.1

Section 3: Newly Reported HIV in Vermont

During 2017 there were 18 reports of HIV made to the Health Department for cases that had not previously been reported and for which no report could be identified in another jurisdiction. Among the 18 reported cases, ten were HIV-only and eight were concurrent diagnoses of HIV and stage 3 (AIDS), the highest number of concurrent diagnoses in the last ten years. Diagnoses are considered concurrent if a stage 3 (AIDS) diagnosis occurs within 31 days of an HIV diagnosis.

Concurrent diagnoses are of concern because they indicate that the person may have been unaware of their HIV status for an extended period of time and their health has declined as a result.

Without treatment, it can take ten years or more from the time of HIV infection until symptoms of HIV

disease develop², so regular testing for people at high-risk of HIV infection is an important step in identifying infections as early as possible.

Newly reported cases of HIV are investigated to verify that they were not previously diagnosed in another jurisdiction. De-duplication efforts, such as the Routine Interstate Duplicate Review (RIDR) process, allow the Health Department to identify cases that were diagnosed or lived in other jurisdictions to prevent duplicate reporting to the CDC. When matches are identified through interjurisdictional RIDR communications, diagnosis and other pertinent lab data is shared to improve data quality.

Over the ten year period between 2008-2017 there were 156 new reports of HIV among Vermont

residents made to the Health Department. Figure 3.1 summarizes these newly reported infections, showing both HIV-only and concurrent HIV and stage 3 (AIDS) diagnoses. From 2008 to 2017, the number of newly reported diagnoses has fluctuated from a high of 22 in 2008 and 2009 to a low of six in 2016.

Figures 3.2, 3.3, and 3.4 show the percentage of the newly reported diagnoses for the past ten years according to age at diagnosis, transmission category, and reported race, respectively.

Newly reported cases of HIV have been seen across all age groups (Figure 3.2) with the highest percentage, 14.7%

(n=22), among people 30-34 years of age at the time of report. According to the 2017 HIV Surveillance Report¹ released by the CDC in November 2017, the highest percentage of newly reported infections nationally was among people aged 25-29 which accounted for 20% (n=7,691) of all newly diagnosed cases of HIV.

Transmission category (Figure 3.3) is the mode of transmission calculated by the enhanced HIV/AIDS Reporting System (eHARS) based on reported risk information. While the majority of new diagnoses in Vermont in the last ten years were among MSM, a significant portion (26.3%) did not have enough information at the time of report to calculate transmission category.

The information regarding race among newly reported cases in the last ten years (Figure 3.4) is similar to the demography for the entire community of PLWDHI in Vermont (Figure 4.2). While White, not-Hispanic people account for over three quarters of cases in figures 3.4 and 4.2, people of color are disproportionately affected by HIV. Over the last ten years in Vermont, 19.3% (n=30) of new diagnoses have been among people of color, despite people of color accounting for less than six percent of the state's total population². This issue is further discussed in section four of this report, Prevalence and Demography.

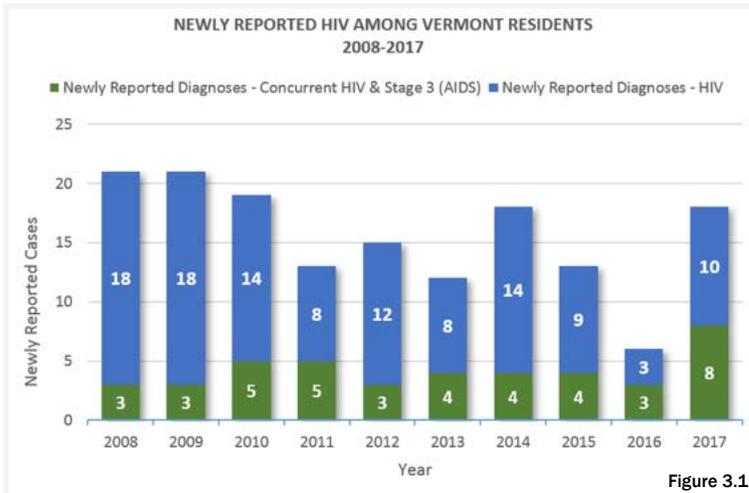


Figure 3.1

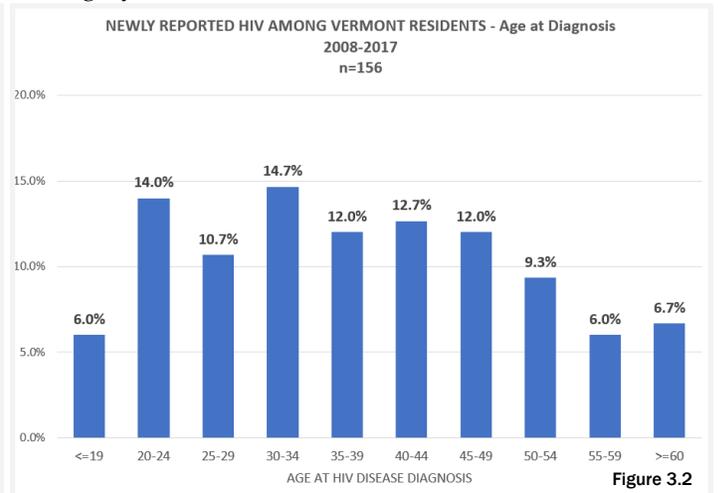


Figure 3.2

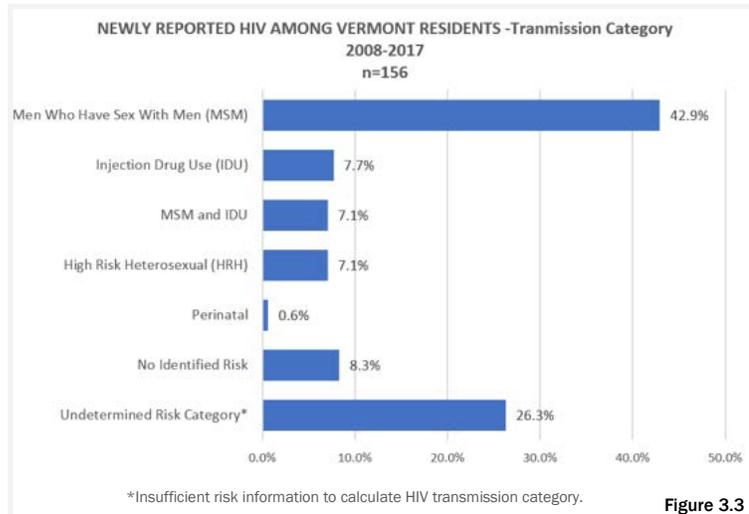


Figure 3.3

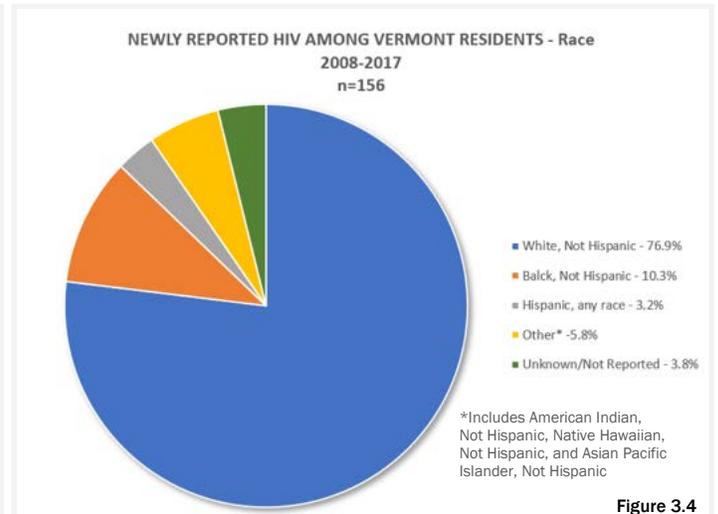


Figure 3.4

Section 4: Prevalence and Demography

At the end of December 2017 an estimated 678 people living with diagnosed HIV infection (PLWDHI) were residing in Vermont, 362 of whom were residing in Vermont at the time of HIV diagnosis. The 678 PLWDHI is an estimate that reflects cases reported to the Health Department under the Reportable and Communicable Diseases Rule¹ and that had reported HIV-related lab results (evidence of care) within the last five years. Unlike the figures discussed in section three, the 678 cases were residents of Vermont as of the end of 2017, regardless of where they received their HIV diagnosis.

Of the PLWDHI in Vermont in 2017, 329 had received a stage 3 (AIDS) diagnosis and 349 had been diagnosed with HIV infection only. Figure 4.1 summarizes sex at birth and race information for the PLWDHI population of Vermont. The rate of HIV in Vermont at the end of 2017 was 108.7 cases per 100,000 based on 2017 Census population estimates².

Race

While 78.8% (n=534) of Vermont’s PLWDHI population are White, Not Hispanic, people of color have a far higher rate of HIV infection based on 2017 census population estimates. Not Hispanic, Black, Hispanic, and Not Hispanic, Asian Vermont residents all have higher rates of HIV than Not Hispanic, White, as shown in Figure 4.1. Figure 4.3 compares the number of people living with HIV who identify as White, Not Hispanic to those that identify as Black, Not Hispanic, Hispanic, Any Race, Asian, Not Hispanic, Multi Race, Not Hispanic, American Indian, Not Hispanic, Native Hawaiian, Not Hispanic, and Asian Pacific Islander, Not Hispanic (collapsed into “people of color”). Though people of color account for just over seven percent of Vermont’s general population, they account for nearly 20.2% of the state’s PLWDHI population (n=144).

Geography

People living with diagnosed HIV infection reside throughout the state of Vermont as figure 4.4 demonstrates,

	VT PLWDHI	Rate of HIV per 100,000
Total	678	108.7
Male	553	179.5
Female	125	39.6
Race		
Not Hispanic, White	534	92.2
Not Hispanic, Black	68	778.8
Hispanic, any race	37	312.2
Not Hispanic, Asian	15	133.6
Not Hispanic, Multi-race	10	84.4
Other*	7	N/A
Unknown	7	N/A

*Includes Not Hispanic, American Indian/Alaska Native, Not Hispanic, Native Hawaiian or Other Pacific Islander, Not Hispanic, Legacy Asian/Pacific Islander

Figure 4.1

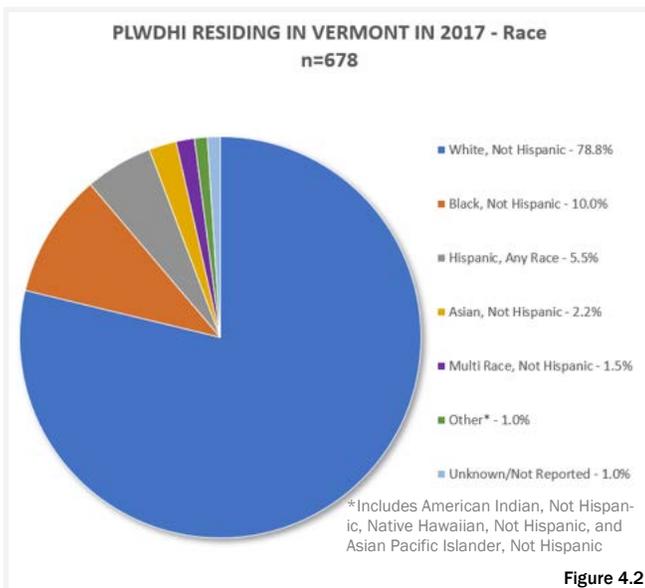


Figure 4.2

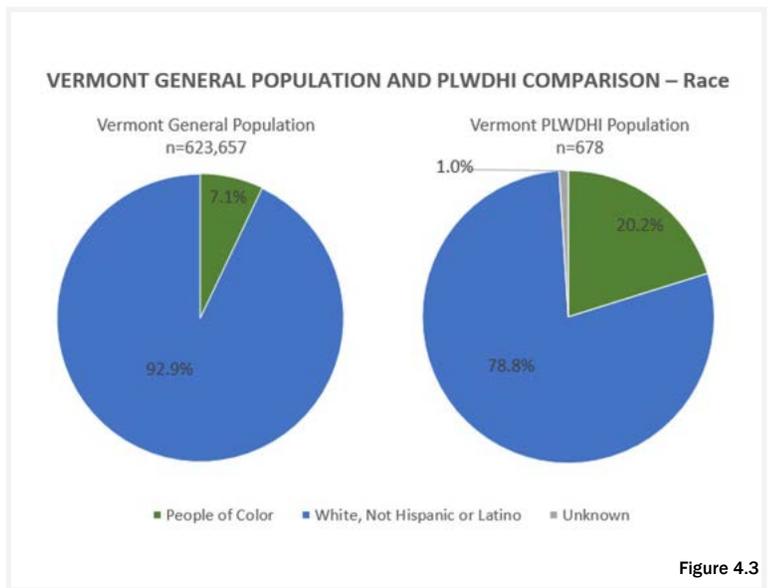


Figure 4.3

with most PLWDHI, 32.3%(n=219), living in the most populous county of Chittenden. Also noted in figure 4.4 are the locations of the University of Vermont Medical Center’s Comprehensive Care Clinics (CCC). The CCC is the primary provider of HIV care in Vermont. The main office of the CCC is located in Burlington with three satellite offices strategically located around the state in Rutland, Brattleboro, and Saint Johnsbury.

Figure 4.5 shows the rate of HIV in Vermont according to county of

residence. Essex County has the highest rate of HIV at 19.3 per 10,000 residents. Chittenden County, despite having the highest percentage of HIV positive residents, has the fourth highest rate at 13.5 per 10,000.

Age

Figure 4.6 reflects the age of PLWDHI in Vermont at the end of 2017 as well as their age at the time of diagnosis. While most people living with the virus in Vermont are over 45, the age at which they were

diagnosed skews younger, similar to those diagnosed in the last ten years represented in Figure 3.2.

Transmission Category

The majority of HIV infection in Vermont has consistently been among MSM, much like the data on newly reported cases represented in figure 3.3. Figure 4.7 shows that in 2017, MSM was the calculated transmission category for 54.9% of PLWDHI in Vermont, with the next most common being heterosexual contact at 9.1%, followed by injection drug use (IDU), and then people with both MSM and IDU risk.

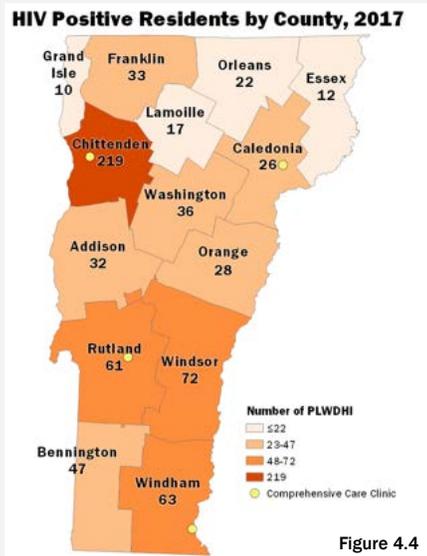


Figure 4.4

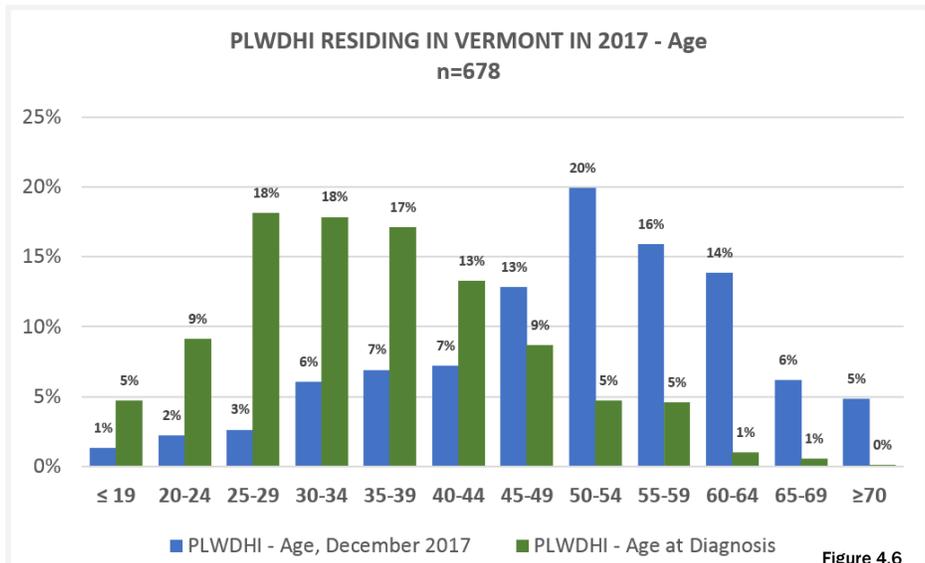


Figure 4.6

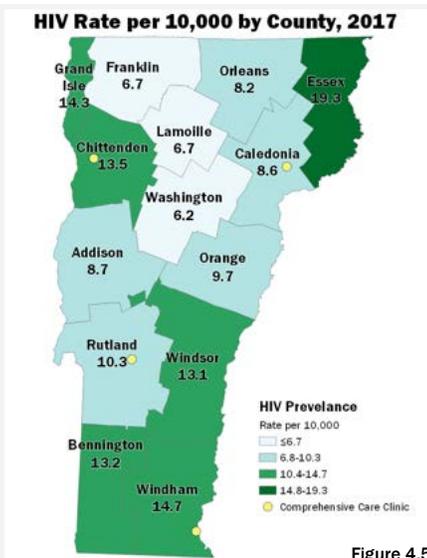


Figure 4.5

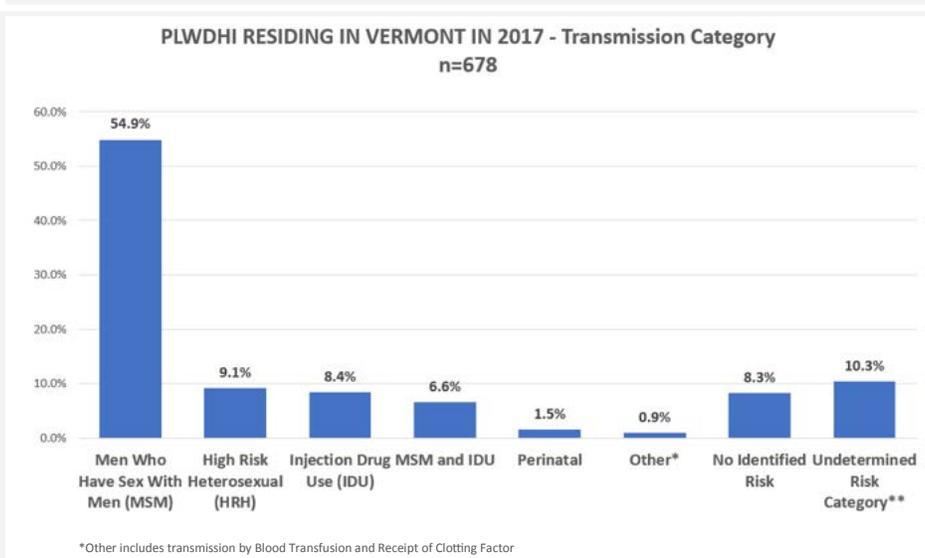


Figure 4.7

*Other includes transmission by Blood Transfusion and Receipt of Clotting Factor
 **Insufficient risk information to calculate HIV transmission category.

Section 5: HIV Linkage to Care and Viral Suppression

Number and percentage of Vermont residents linked to care ^a within 30, 91, 182, and 365 days ^b of their HIV infection diagnosis 01/01/2017 through 12/31/2017								
People diagnosed with HIV infection	People linked to care within 30 days of diagnosis		People linked to care within 91 days of diagnosis		People linked to care within 182 days of diagnosis		People linked to care within 365 days of diagnosis	
	No.	%	No.	%	No.	%	No.	%
18	18	100	18	100	18	100	18	100

^aPeople who have at least one CD4 or viral load or HIV-1 genotype test during a specific time period are considered as linked to care during that time.
^bThe months difference is calculated between diagnosis date of HIV infection and sample collection date, and year, month, and day are used in calculation.

Figure 5.1

The National HIV/AIDS Strategy¹ (NHAS), a five year plan released in 2010 and updated in 2015, established national goals for HIV prevention and care. Twelve indicators are used to monitor progress toward the three goals of the NHAS; reducing new infections, improving health outcomes, and reducing HIV-related disparities. One indicator is to “Increase the percentage of newly diagnosed people linked to HIV medical care within one month of their HIV diagnosis to at least 85 percent.” Figure 5.1 demonstrates that all eighteen of the newly reported cases in 2017 were linked to care within 30 days of diagnosis. Timely linkage to HIV medical care after initial diagnosis often improves long-term health outcomes for PLWDHI.

Indicator six aims to “Increase the percentage of people with diagnosed HIV infection who are virally suppressed to at least 80 percent.” The HIV care continuum represented

in figure 5.2 demonstrates linkage to care and viral suppression among the Vermont PLWDHI community. A person living with diagnosed HIV infection is considered to be virally suppressed if the measurement of the copies of the virus in their blood is less than 200 per milliliter. In Vermont, 83% of people known to be living with HIV with evidence of care in the last five years have

achieved viral suppression. When looking at PLWDHI that had care in 2017, that increases to 95% viral suppression. The Health Department works with community based organizations, healthcare providers and the community at large to prevent new HIV infections and to ensure the best possible care for people living with HIV in Vermont.

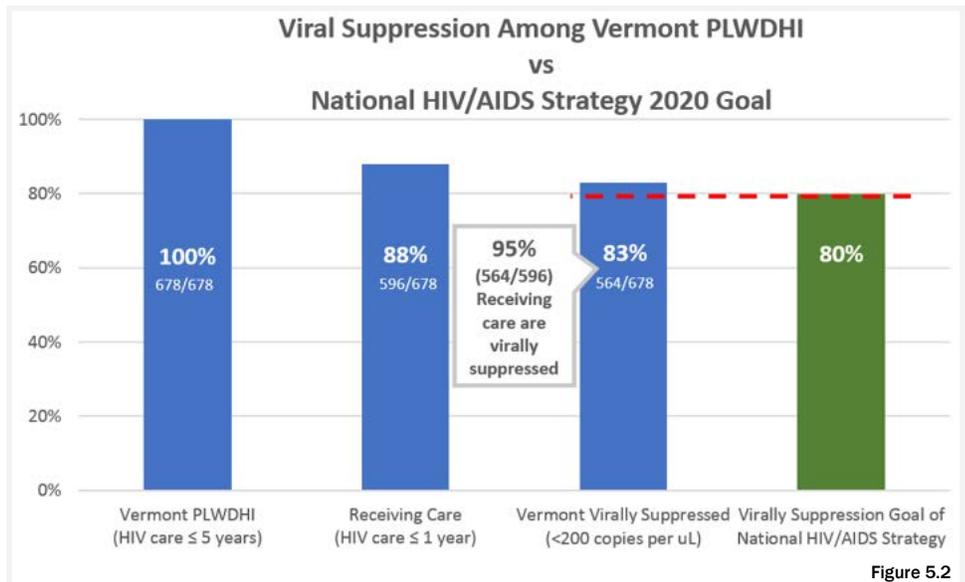


Figure 5.2

Additional HIV Resources

- HIV Surveillance in Vermont: www.healthvermont.gov
- CDC HIV/AIDS website: www.cdc.gov/hiv
- NCHHSTP Atlas: www.cdc.gov/nchhstp/atlas
- Vermont Comprehensive Care Clinics: www.uvmhealth.org
- AIDS Project of Southern Vermont: <http://www.aidsprojectsouthernvermont.org>
- HIV/Hepatitis C Resource Center (H2RC): www.h2rc.org
- Vermont People With AIDS Coalition: www.vtpwac.org
- Pride Center of Vermont: www.pridecentervt.org
- Howard Center - Safe Recovery: www.howardcenter.org
- Twin States Network: www.twinstatesnetwork.net
- Vermont CARES: www.vtcars.org



DEPARTMENT OF HEALTH

The statistics in this document are estimates based on available data.

Questions can be directed to:

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State of Vermont

Department of Health

HIV/STD/Hepatitis Program