



HIV Incidence Report, 2018

Sexually Transmitted Diseases, HIV and Tuberculosis Section,
Epidemiology and Surveillance Unit

Introduction (I)

These two introduction slides provide a general context for the data used to create this slide set. If you have questions about any of the slides please refer to *HIV Surveillance Technical Notes*.

This slide set describes new HIV diagnoses (including AIDS at first diagnosis) in Minnesota by person, place, and time.

The slides rely on data from HIV/AIDS cases diagnosed through 2018 and reported to the Minnesota Department of Health (MDH) HIV/AIDS Surveillance System.

The data are displayed by year of HIV diagnosis.

Introduction (II)

Data analyses exclude people diagnosed in federal or private correctional facilities, but include state prisoners (number of state prisoners believed to be living with HIV/AIDS (n=30)).

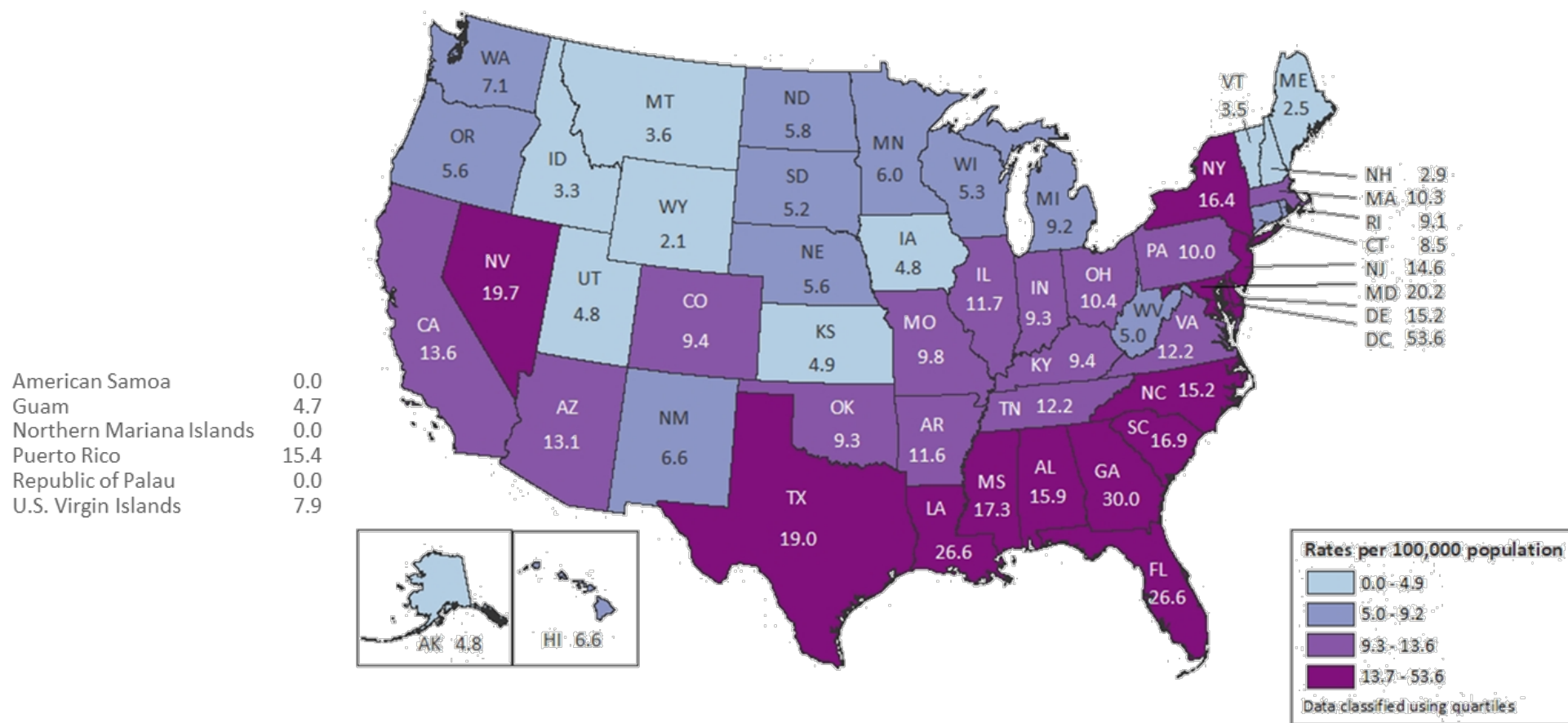
Data analyses for new HIV diagnoses exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program (number of primary HIV+ refugees in this program living in MN as of December 31, 2018 = 169), as well as, other refugees/immigrants reporting a positive test prior to their arrival in Minnesota (n=164).

Some limitations of surveillance data:

- Data do not include HIV-infected people who have not been tested for HIV
- Data do not include people whose positive test results have not been reported to MDH
- Data do not include HIV-infected people who have only tested anonymously
- Case numbers for the most recent years may be undercounted due to delays in reporting
- Reporting of living cases that were not initially diagnosed in Minnesota is known to be incomplete

National Context (I)

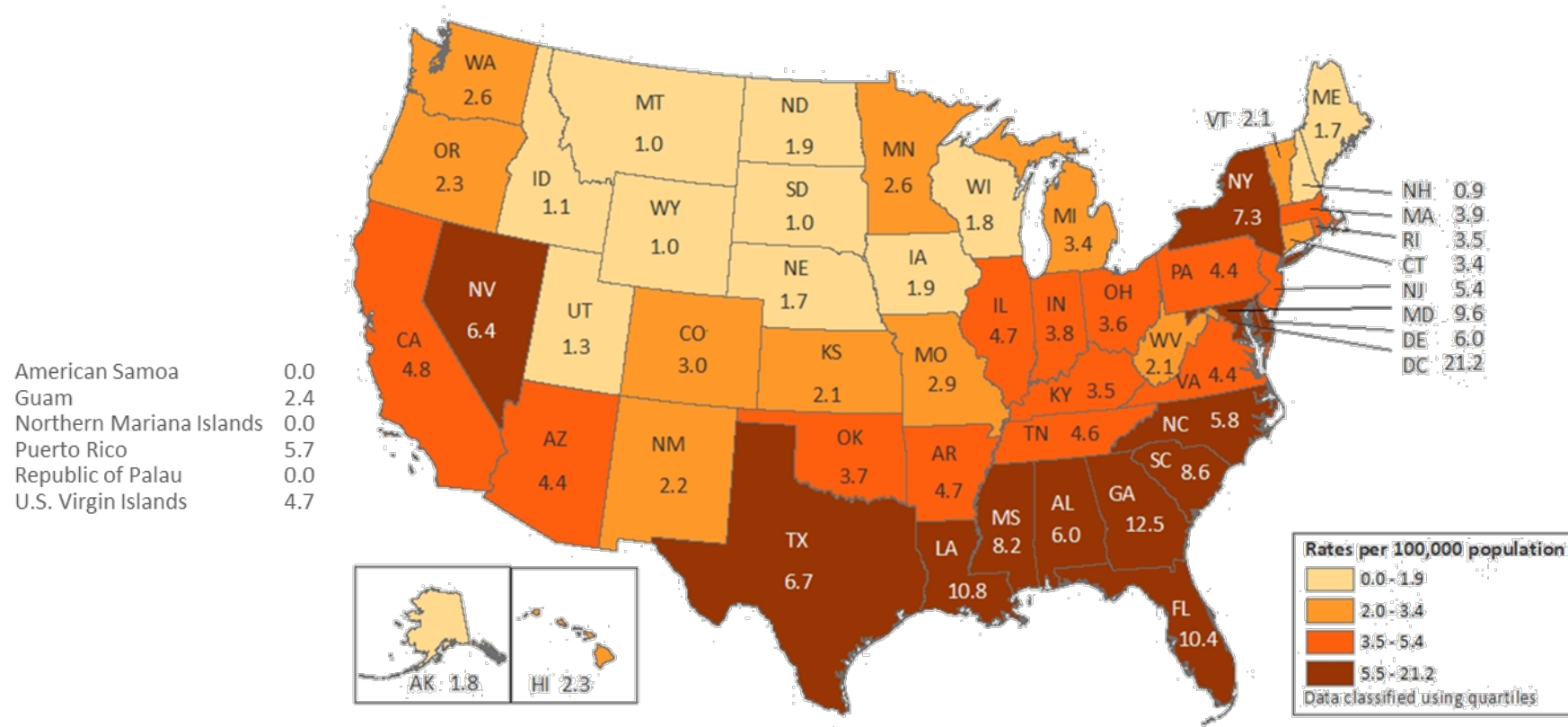
Rates of Diagnoses of HIV Infection among Adults and Adolescents
2017- United States and 6 Dependent Areas



Note. Data for the year 2017 are considered preliminary and based on 6 months reporting delay.

National Context (II)

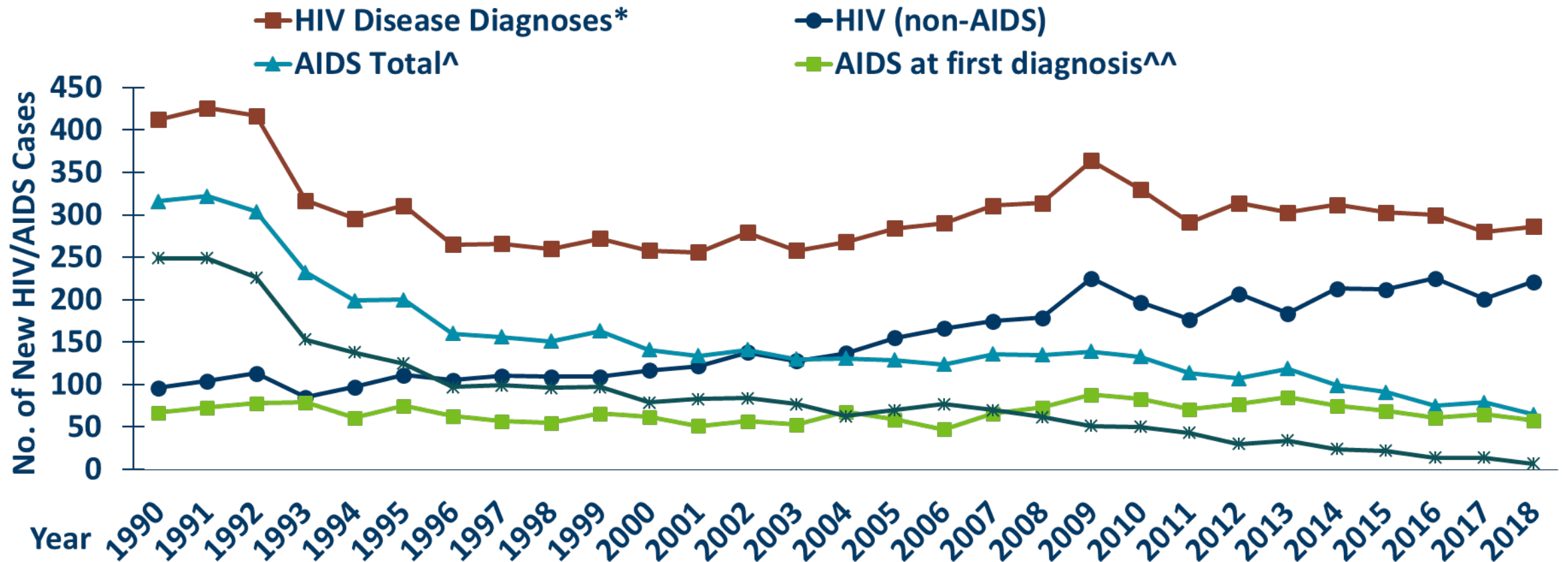
Rates of Diagnosed HIV Infection Classified as Stage 3 (AIDS) 2017- United States and 6 Dependent Areas



Note. Data for the year 2017 are considered preliminary and based on 6 months reporting delay.

Overview of HIV/AIDS in Minnesota

New HIV Diagnoses, HIV (non-AIDS) and AIDS Cases by Year of HIV Diagnosis, 1990-2018

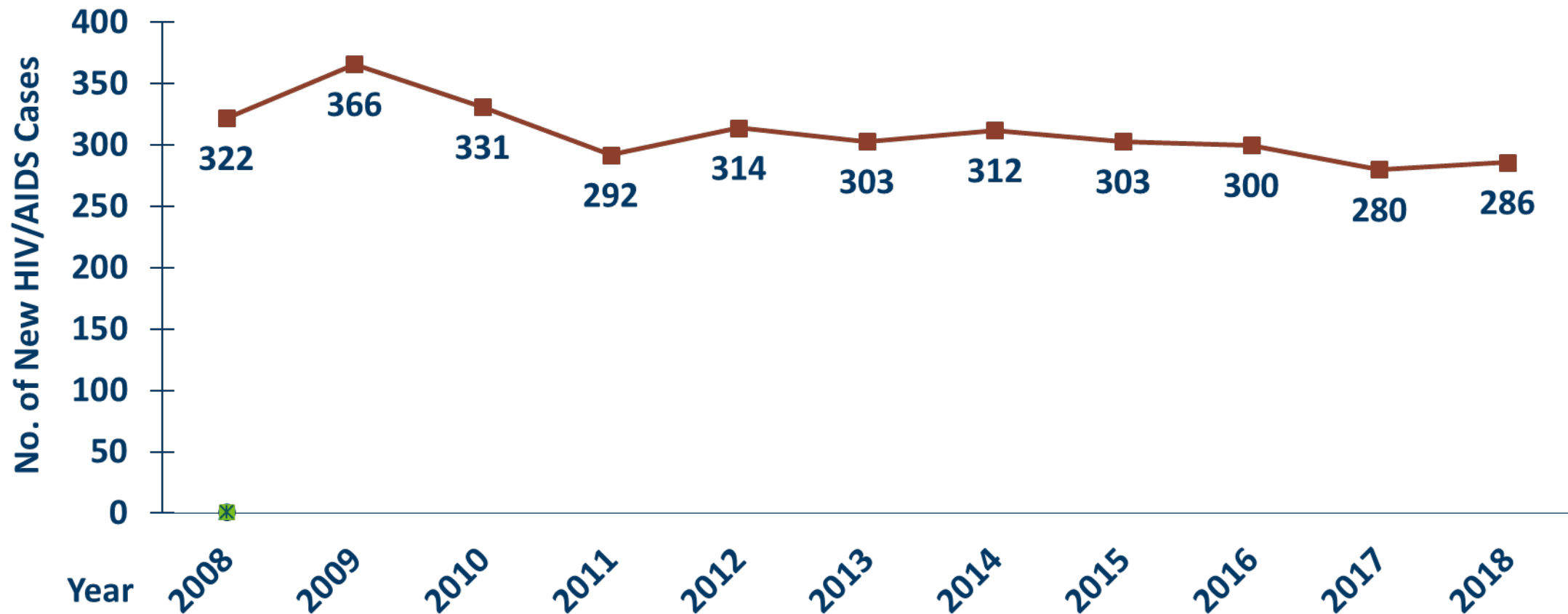


*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis diagnosed within a given calendar year.

^Includes all cases diagnosed with HIV in that year who subsequently progressed to AIDS diagnosis status, including those diagnosed with AIDS when they were first diagnosed with HIV^^ and those who were diagnosed with AIDS in subsequent years^^^

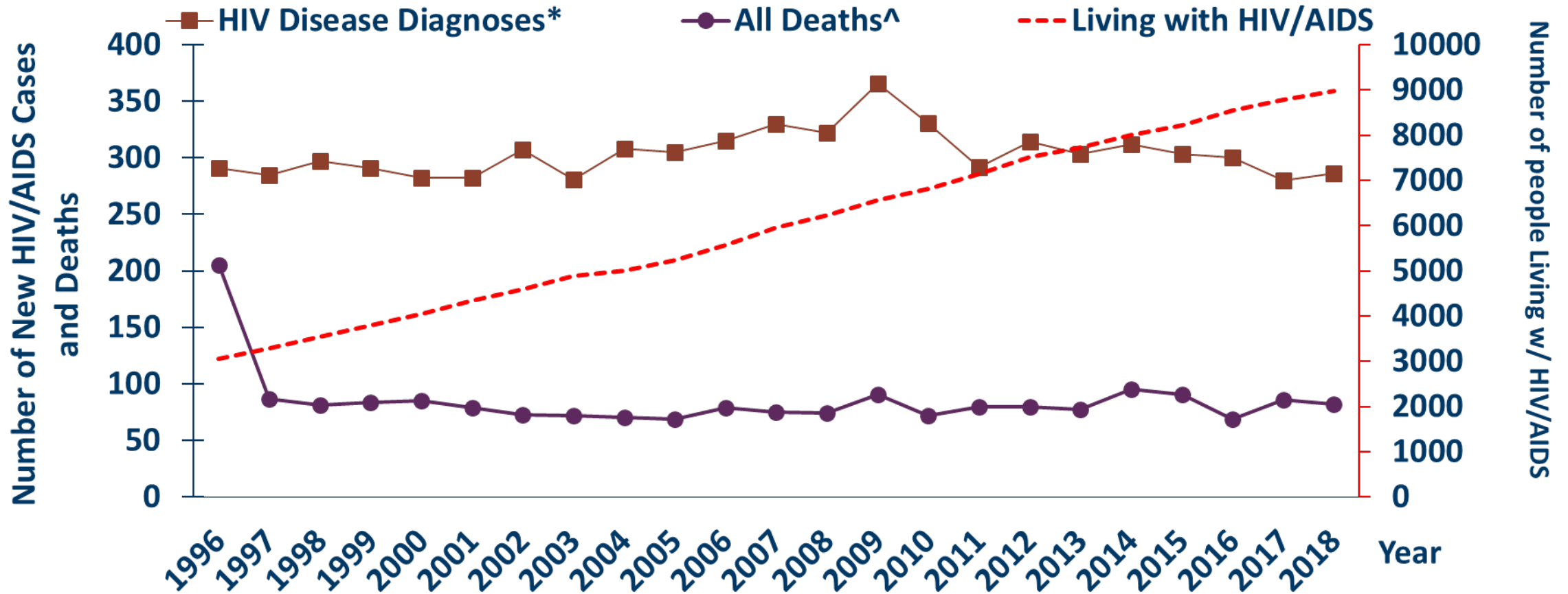
This includes refugees in the HIV+ Resettlement Program, as well as, other refugee/immigrants diagnosed with AIDS subsequent to their arrival in the United States.

New HIV Disease Diagnoses*, HIV/AIDS Cases by Year, 2008-2018



*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

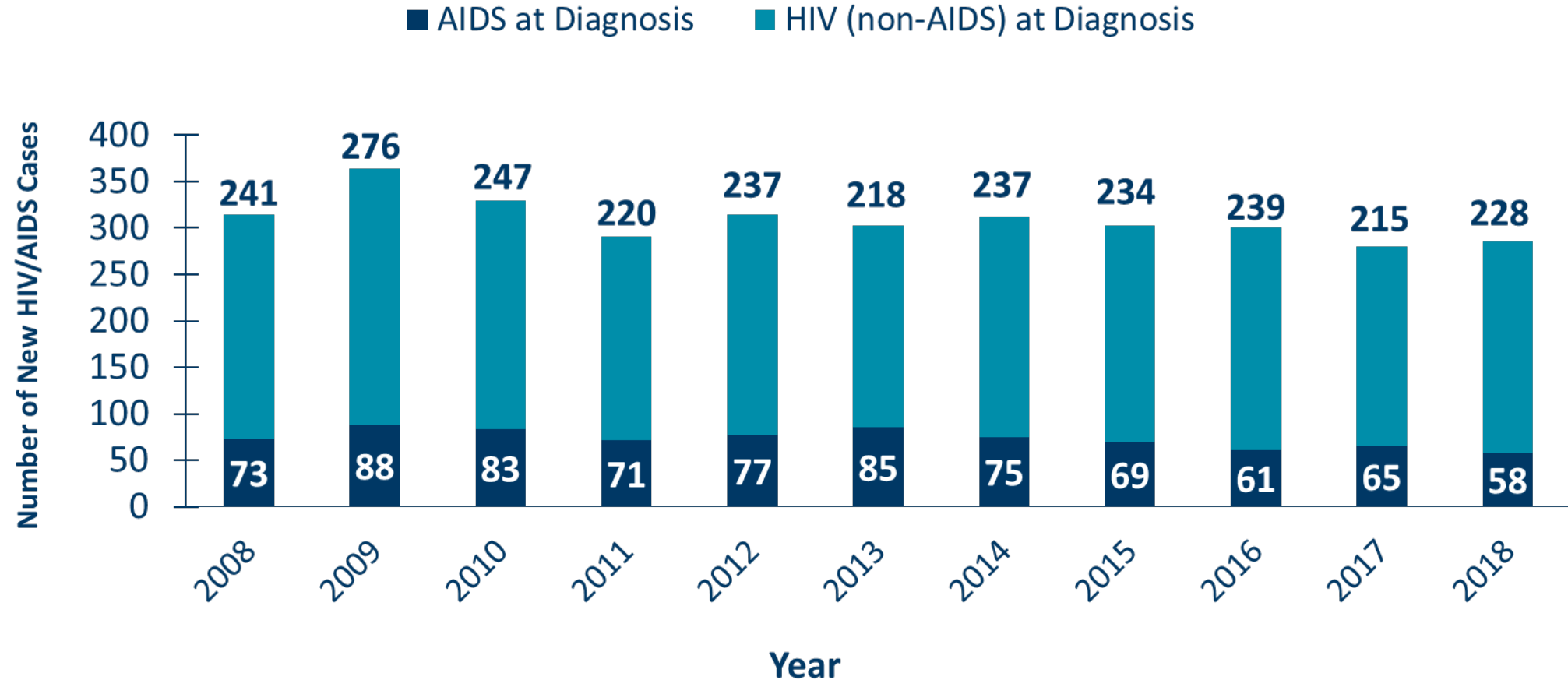
New HIV Diagnoses, Deaths, and Prevalent Cases by Year, 1996-2018



*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^Deaths in Minnesota among people with HIV/AIDS, regardless of location of diagnosis and cause.

HIV (non-AIDS) and AIDS at Diagnosis by Year, 2008-2018



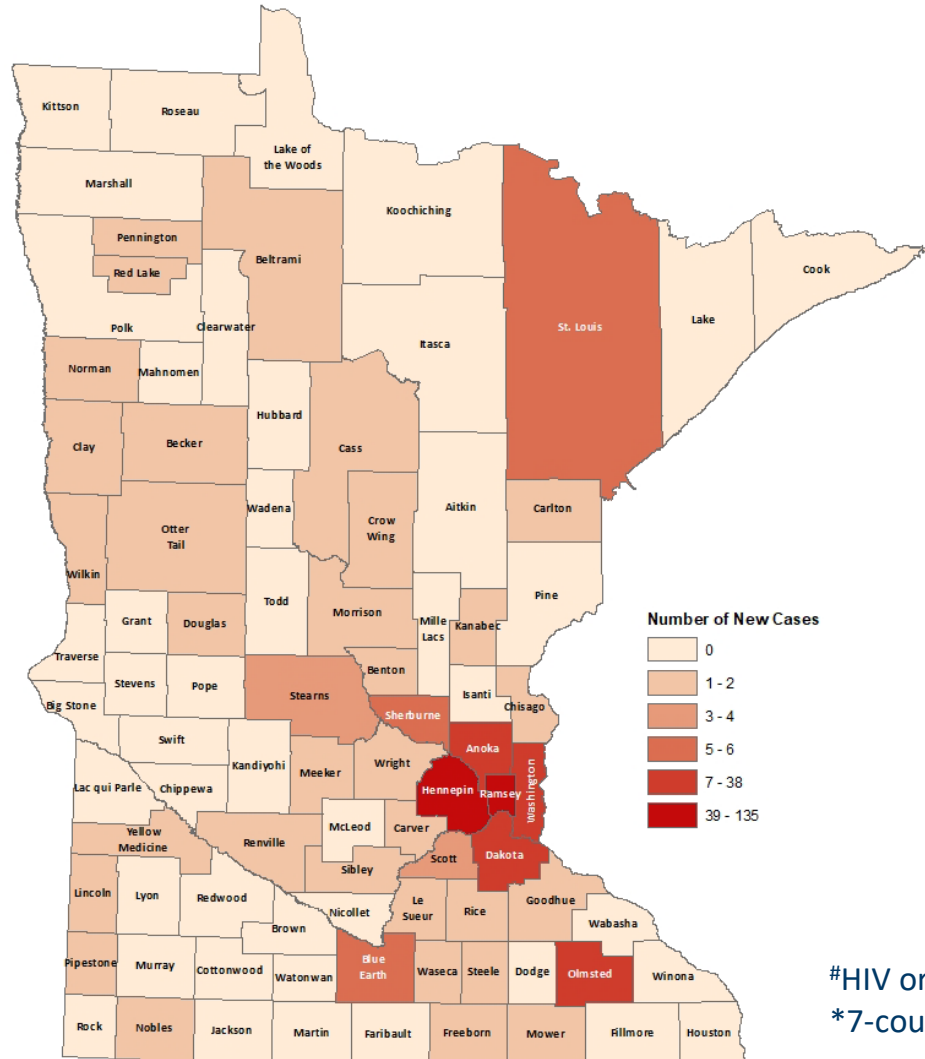
^Includes all new cases of HIV that were diagnosed with HIV and AIDS simultaneously

This includes refugees in the HIV+ Resettlement Program, as well as, other refugee/immigrants diagnosed with AIDS subsequent to their arrival in the United States.

HIV Diagnoses* in Minnesota by Person, Place, and Time

Place

HIV Diagnoses[#] by County of Residence at Diagnosis, 2018



City of Minneapolis:

75 cases (26%)

City of St. Paul:

33 cases (11%)

Suburban*:

113 cases (40%)

Greater Minnesota:

65 cases (23%)

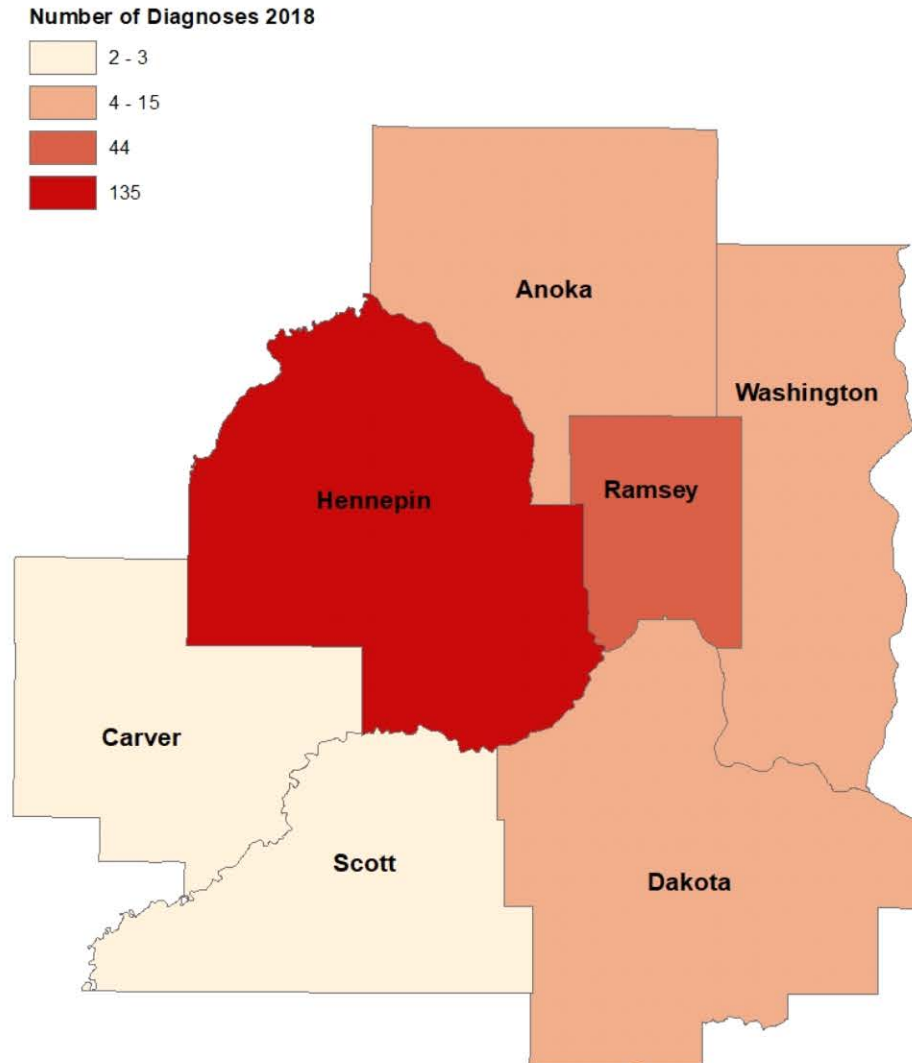
Total:

286 cases

[#]HIV or AIDS at first diagnosis

*7-county metro area, excluding the cities of Minneapolis and St. Paul

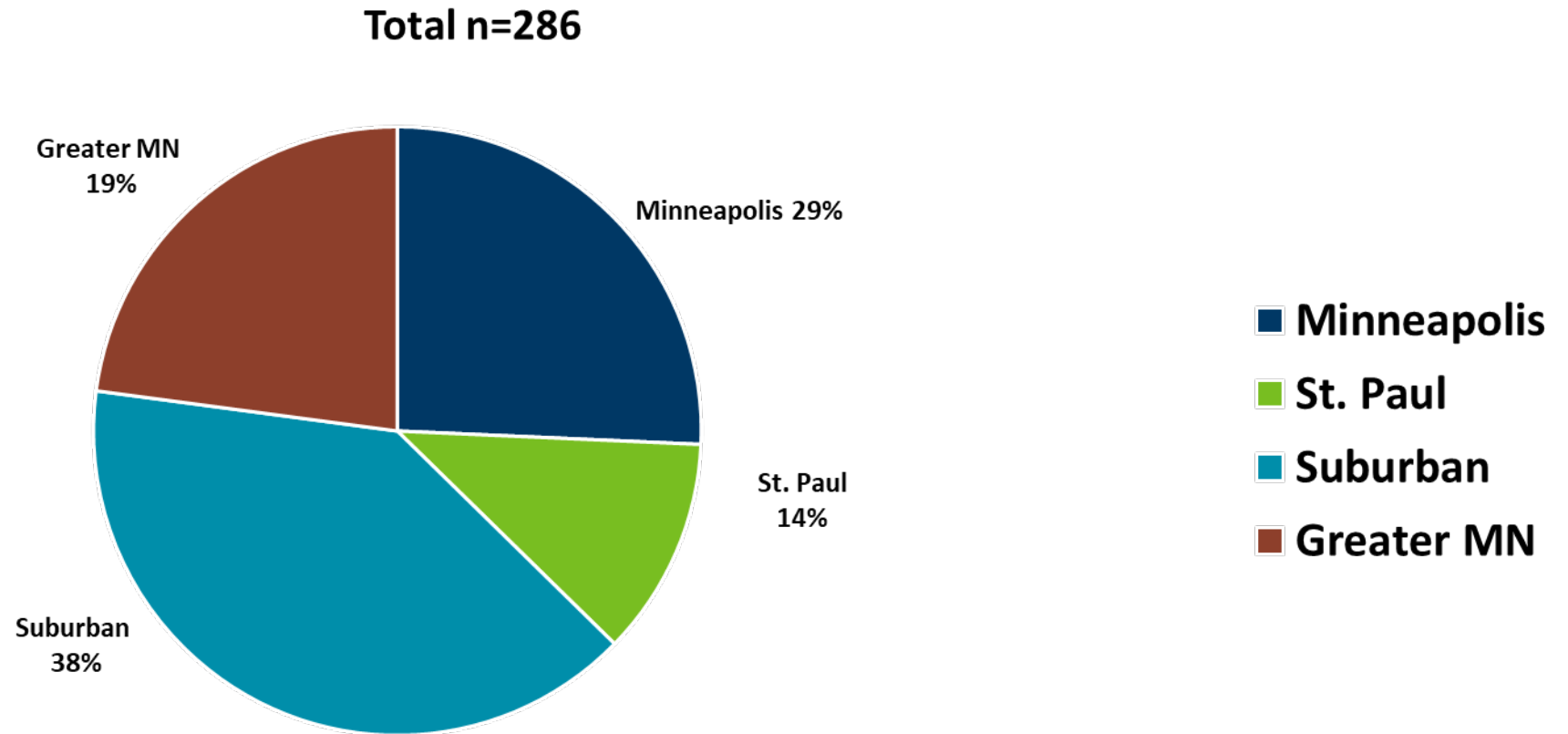
2018 Minnesota HIV New Diagnoses by Metro County



City of Minneapolis	75 cases (19.6 per 100,000)
City of St. Paul	33 cases (11.6 per 100,000)
Suburban*	113 cases (5.2 per 100,000)
Greater Minnesota	65 cases (2.6 per 100,000)
Total	286 cases (5.4 per 100,000)

*7-county metro area, excluding the cities of Minneapolis and St. Paul

HIV Diagnoses* in Minnesota by Residence at Diagnosis, 2018

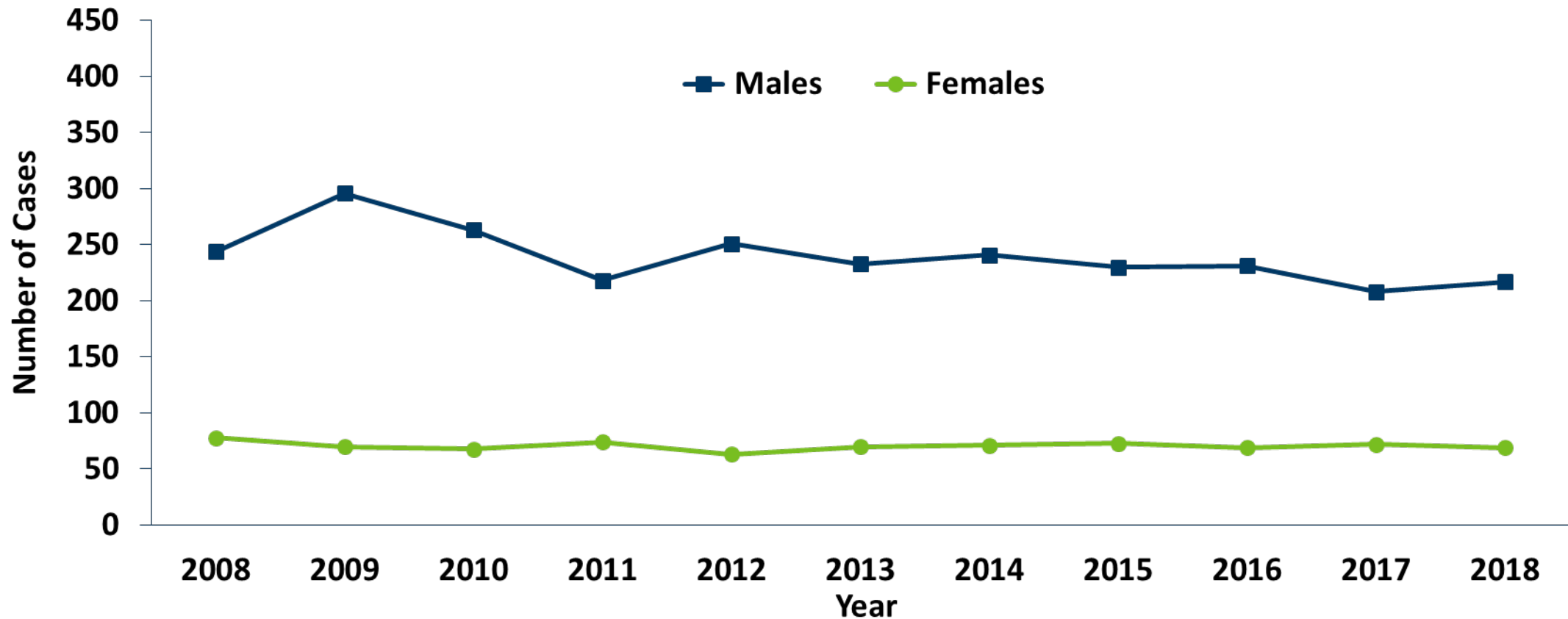


Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties, outside the seven-county metro area.

*HIV or AIDS at first diagnosis

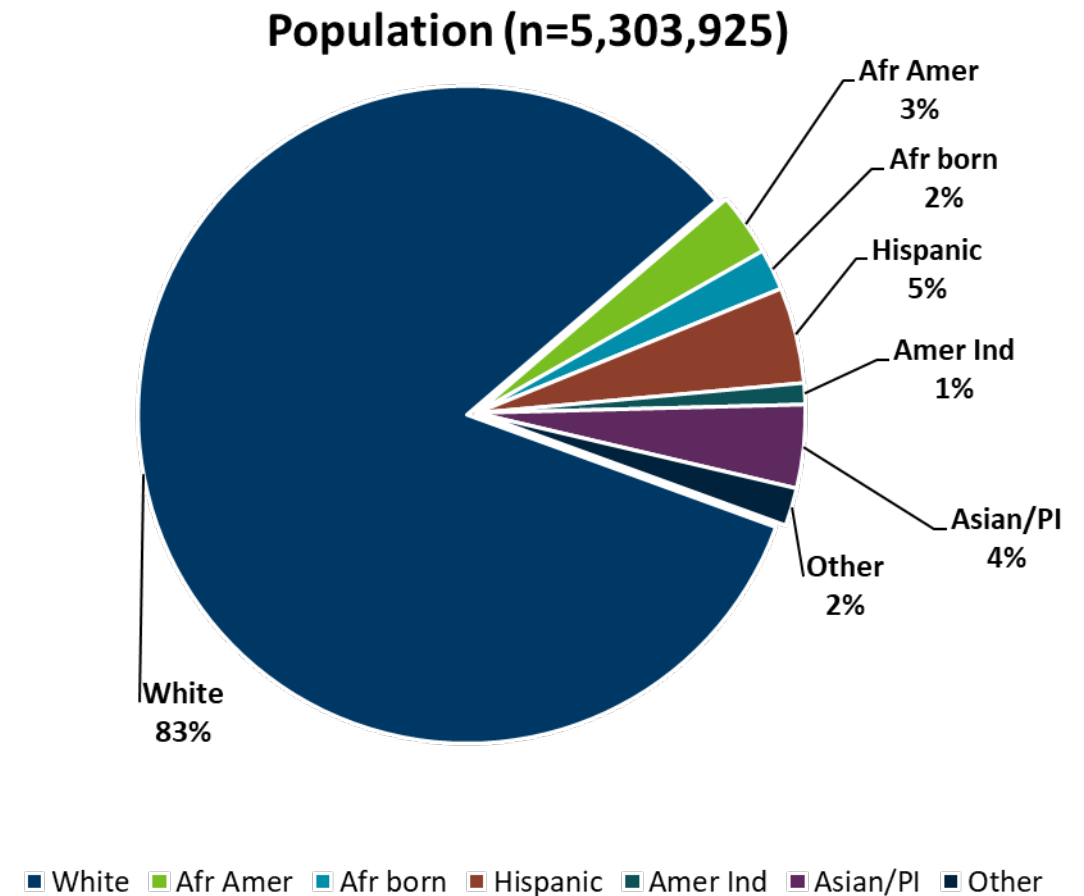
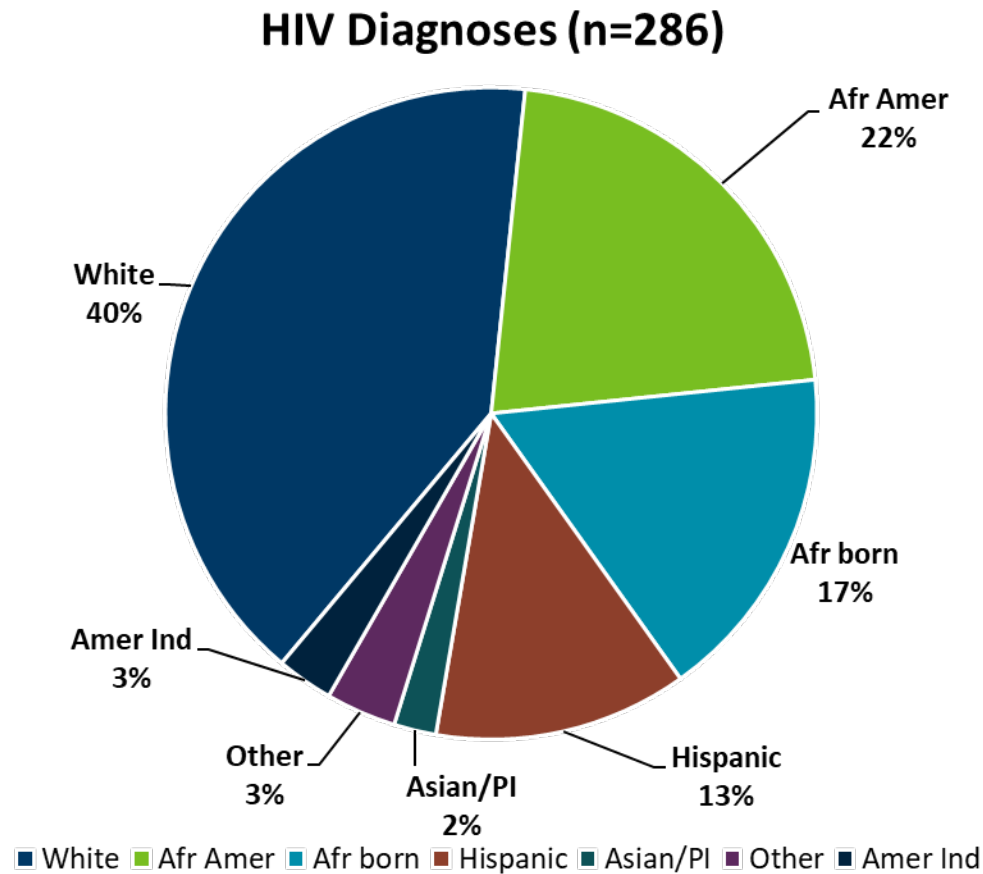
Sex at Birth, Gender and Race/Ethnicity

HIV Diagnoses* by Sex Assigned at Birth and Year of Diagnosis, 2008 - 2018



*HIV or AIDS at first diagnosis

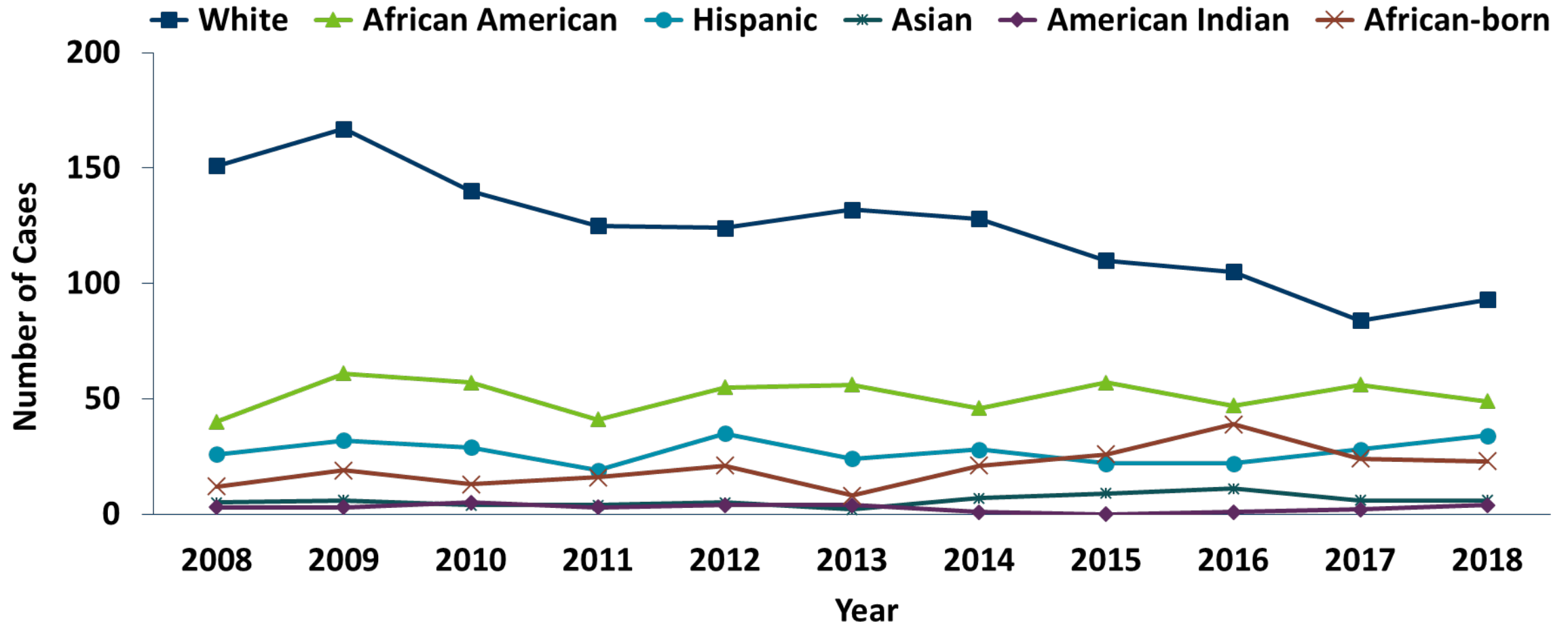
HIV Diagnoses* in 2018 and General Population in Minnesota by Race/Ethnicity



* HIV or AIDS at first diagnosis † Population estimates based on 2010 U.S. Census data. (n = Number of people)

Amer Ind = American Indian , Afr Amer = African American (Black, not African-born people) , and Afr born = African-born (Black, African-born people)

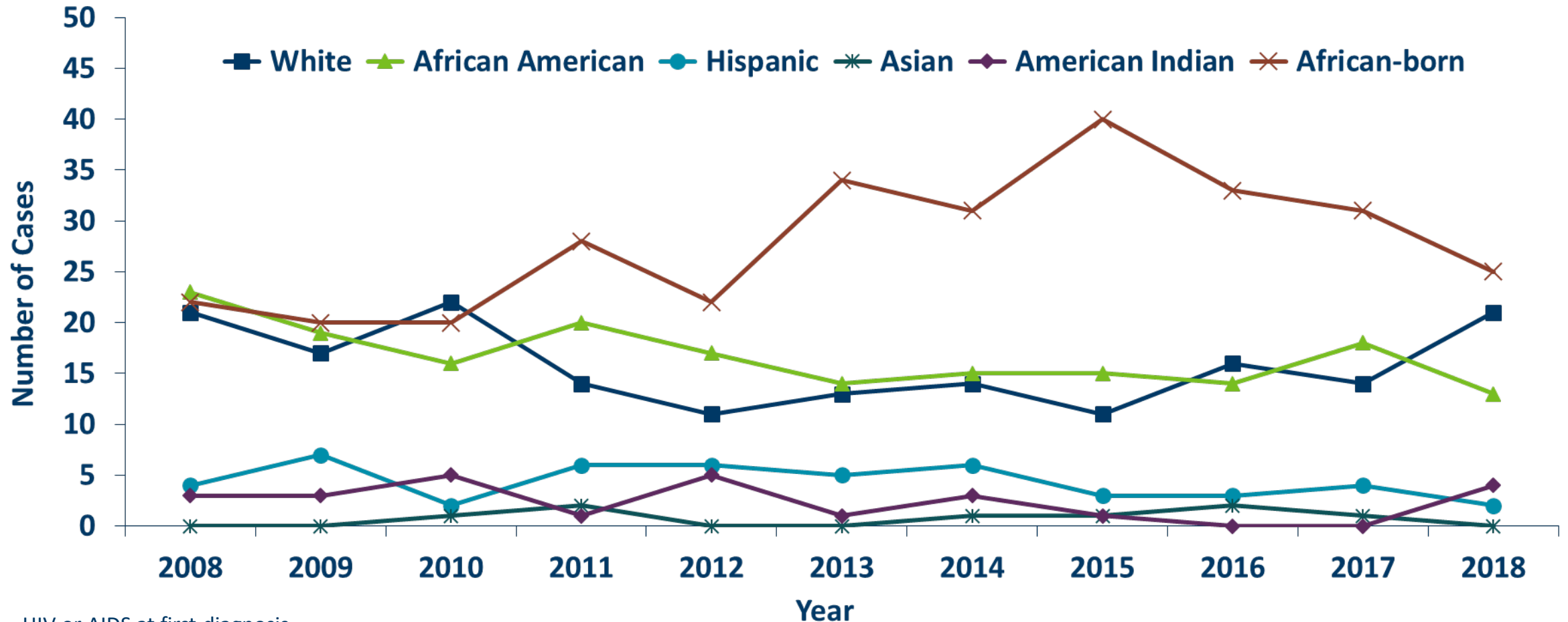
HIV Diagnoses* Among People Assigned Male Sex at Birth by Race/Ethnicity† and Year of Diagnosis, 2008 - 2018



* HIV or AIDS at first diagnosis

† "African-born" refers to Blacks who reported an African country of birth; "African American" refers to all other Blacks. Cases with unknown or multiple races are excluded.

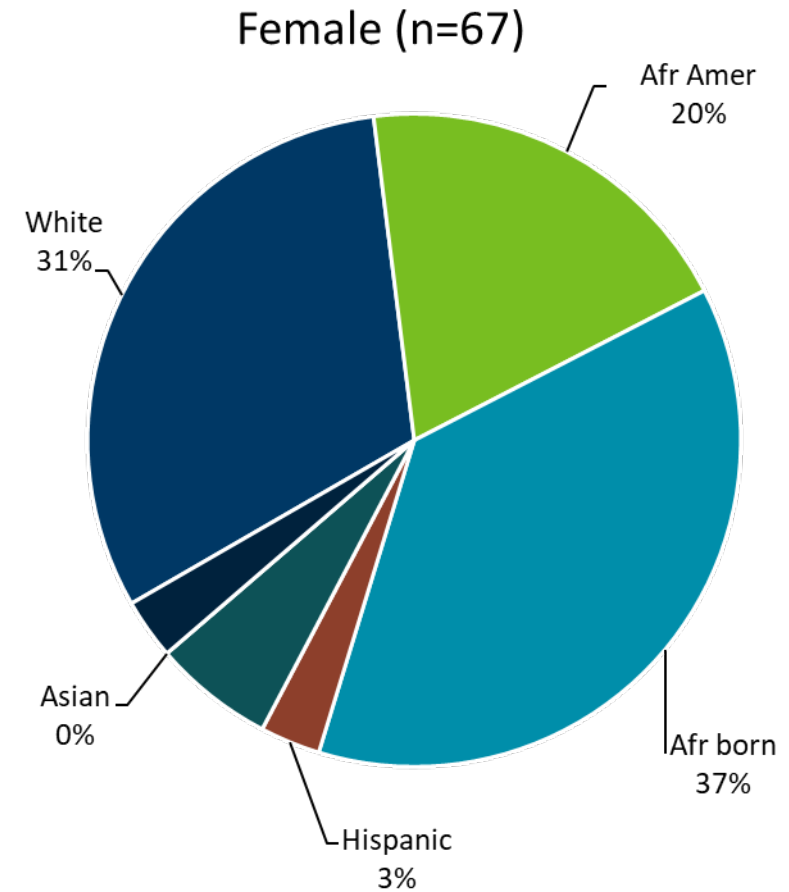
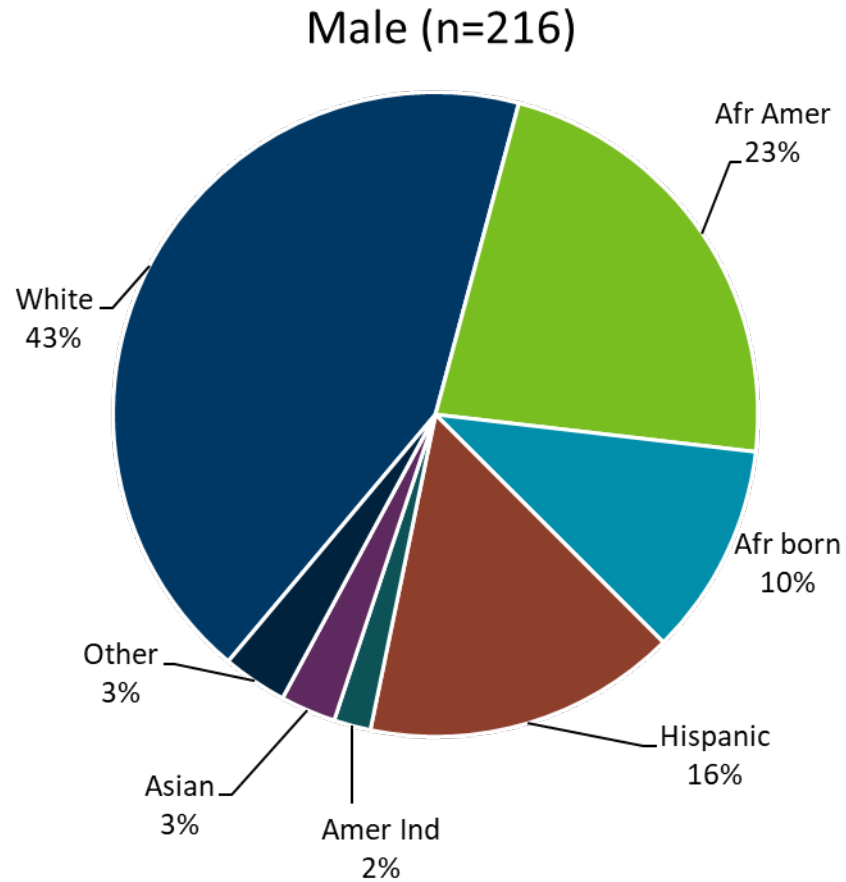
HIV Diagnoses* Among People Assigned Female Sex at Birth by Race/Ethnicity† and Year of Diagnosis, 2008 - 2018



HIV or AIDS at first diagnosis

† “African-born” refers to Blacks who reported an African country of birth; “African American” refers to all other Blacks. Cases with unknown race are excluded.

HIV Diagnoses* Diagnosed in 2018 by Sex Assigned at Birth and Race/Ethnicity



* HIV or AIDS at first diagnosis (n = Number of people)

Amer Ind = American Indian , Afr Amer = African American (Black, not African-born people) , and Afr born = African-born (Black, African-born people)

Number of Cases and Rates (per 100,000 people) of HIV Diagnoses* by Race/Ethnicity†, Minnesota, 2018

Race/Ethnicity	Cases	%	Rate
White, non-Hispanic	116	40%	2.5
Black, African-American	62	22%	36.6
Black, African-born	48	17%	45.8 ^{††}
Hispanic	36	13%	14.4
American Indian	8	3%	13.1
Asian/Pacific Islander	6	2%	2.8
Other [^]	10	3%	#
Total	286	100%	5.4

* HIV or AIDS at first diagnosis; 2010 U.S. Census Data used for rate calculations.

† “African-born” refers to Blacks who reported an African country of birth; “African American” refers to all other Blacks.

†† Estimate of 107,880 Source: 2010-2012 American Community Survey. Additional calculations by the State Demographic Center.

(Note: Rates for black, African-American and black, African-born are not comparable to previous years due to an increase in the estimate for black, African-born population.)

[^] Other = Multi-racial people or people with unknown or missing race

Unable to calculate rate, unknown denominator

Cases & Rates (per 100,000) of Adults & Adolescents* Diagnosed With HIV/AIDS by Sex Assigned at Birth and Risk† in MN, 2018

Sex/Risk	Number of Cases	Percent of Total	Rate per 100,000^
Assigned Male at Birth	217	76%	8.2
<i>MSM†</i>	149	52%	164.3 ^{††}
<i>Non-MSM</i>	68	24%	2.7
Assigned Female at Birth	69	24%	2.58
Total	286	100%	5.4

*HIV or AIDS at first diagnosis ages 13 and older.

^2010 United States Census Data used for rate calculations, except where otherwise specified.

†MSM refers to both MSM and MSM/IDU risk identified at time of reported HIV diagnosis. It includes all PLWH assigned the sex of male at birth who report a male sexual partner. Therefore, some Trans Women are included in both the total number of cases and the population estimate.

††Estimate of 90,663 Source: Rates of Primary and Secondary Syphilis Among White and Black Non-Hispanic Men Who Have Sex With Men, US, 2014
<http://www.emorycamp.org/item.php?i=92>

Number of Cases of Adults and Adolescents* Diagnosed with HIV/AIDS by Gender Identity in Minnesota, 2018

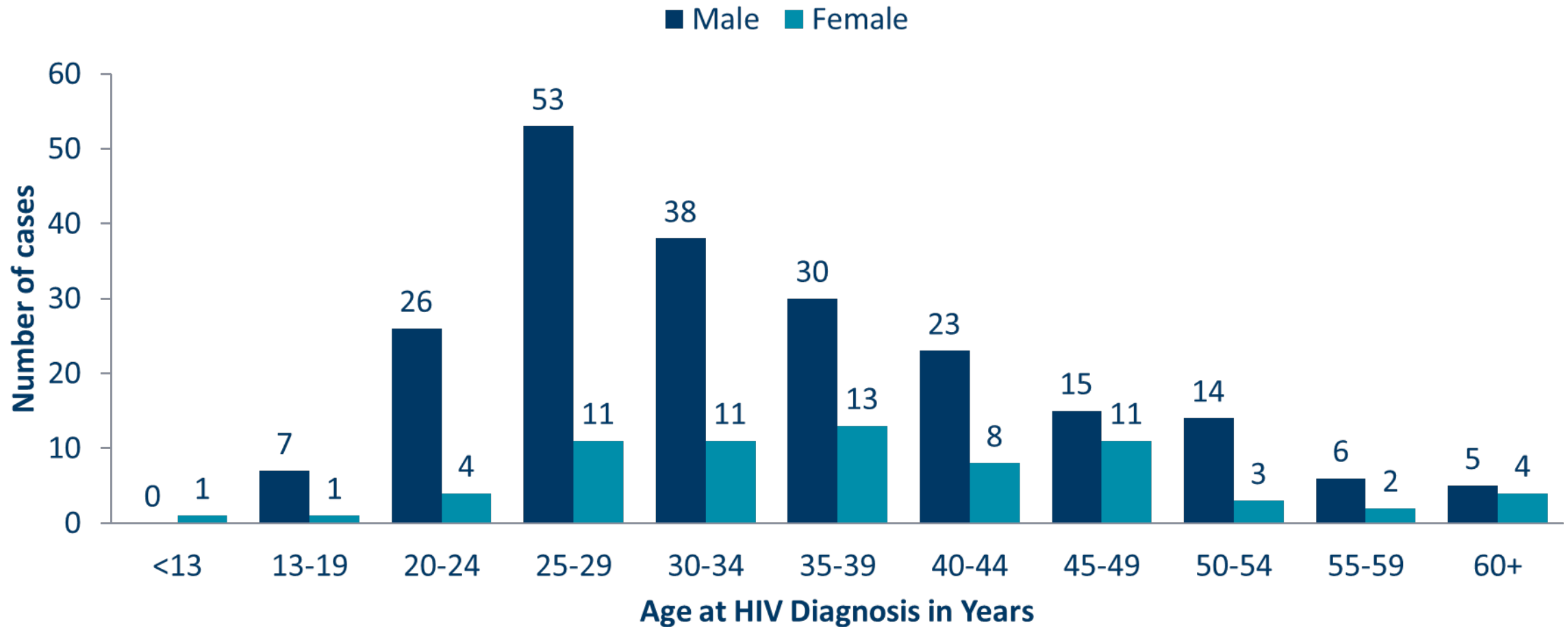
Gender Identity	Number of Cases	Percent of Total
Cisgender Men	214	75%
Cisgender Women	67	23%
Transgender⁺⁺ (Total)	5	2%
<i>Trans Women</i>	<i>3</i>	<i>1%</i>
<i>Trans Men</i>	<i>2</i>	<i>1%</i>
<i>Other Transgender</i>	<i>0</i>	<i>0%</i>
Total	286	100%

*HIV or AIDS at first diagnosis ages 13 and older.

⁺⁺Current gender was not reportable until 2009, so may be incomplete for HIV infections reported before that time. Because current gender is incomplete for a large number of cases, there may be misclassification of transgender Minnesotans in either of the cisgender groups.

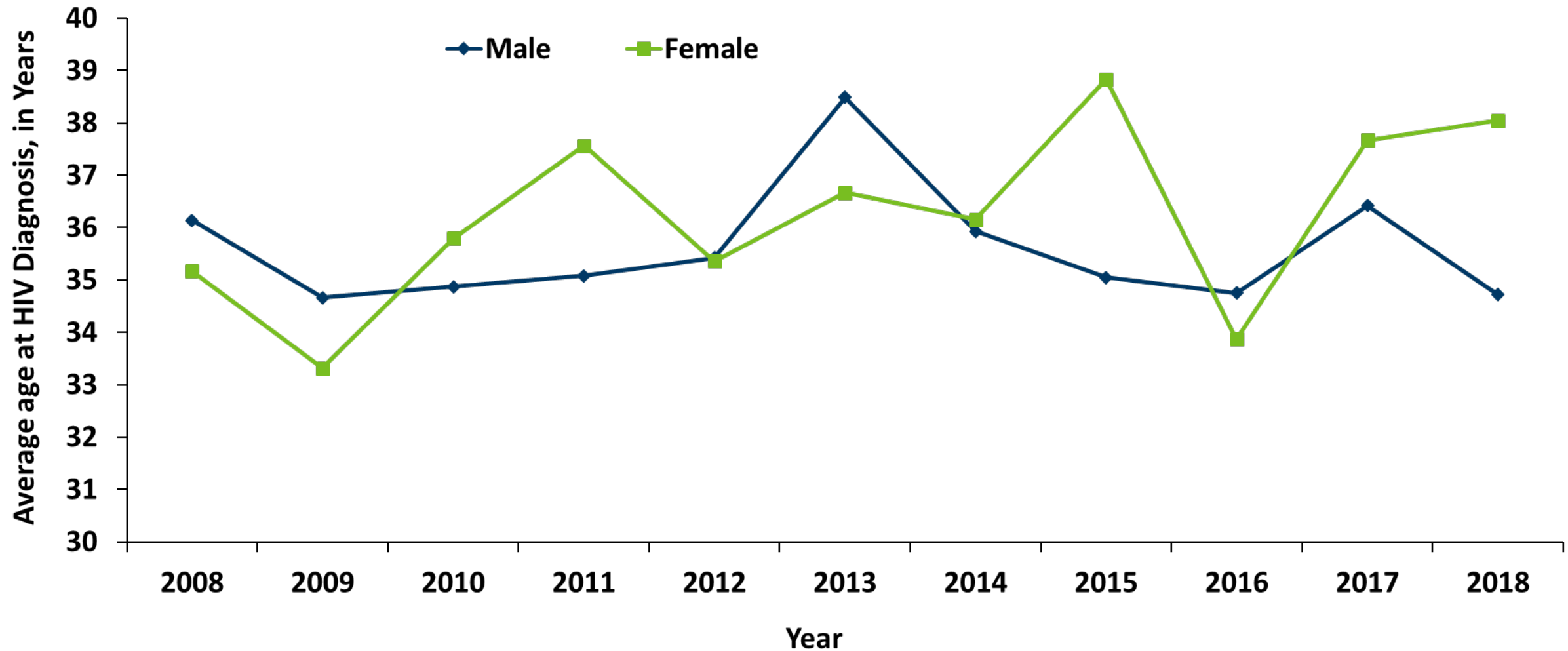
Age

Age at HIV Diagnosis* by Sex Assigned at Birth, Minnesota, 2018



*HIV or AIDS at first diagnosis

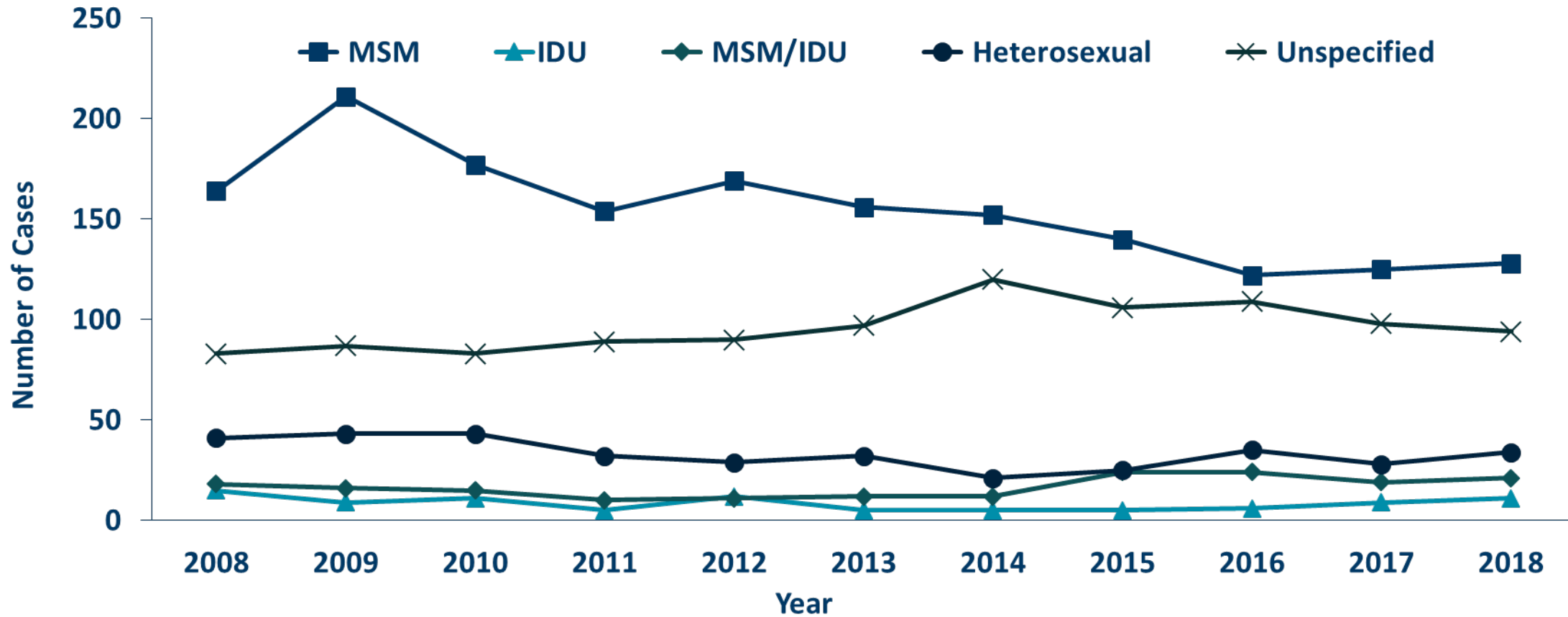
Average Age at HIV Diagnosis* by Sex Assigned at Birth, 2008-2018



*HIV or AIDS at first diagnosis

Mode of Exposure

HIV Diagnoses* by Mode of Exposure and Year, 2008 - 2018



*HIV or AIDS at first diagnosis

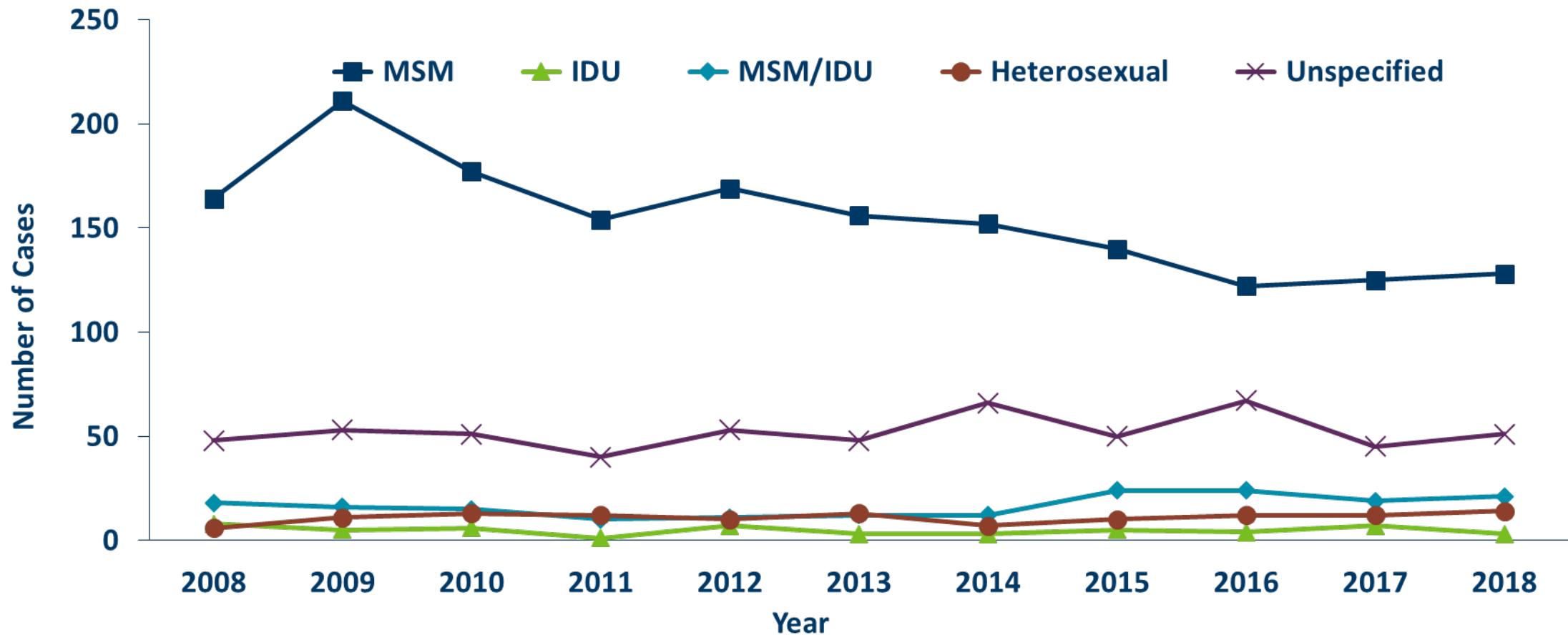
MSM = Men who have sex with men
ascertained

IDU = Injecting drug use

Heterosexual = Heterosexual contact

Unspecified = No mode of exposure

HIV Diagnoses* Among People Assigned Male Sex at Birth by Mode of Exposure and Year, 2008 - 2018



* HIV or AIDS at first diagnosis

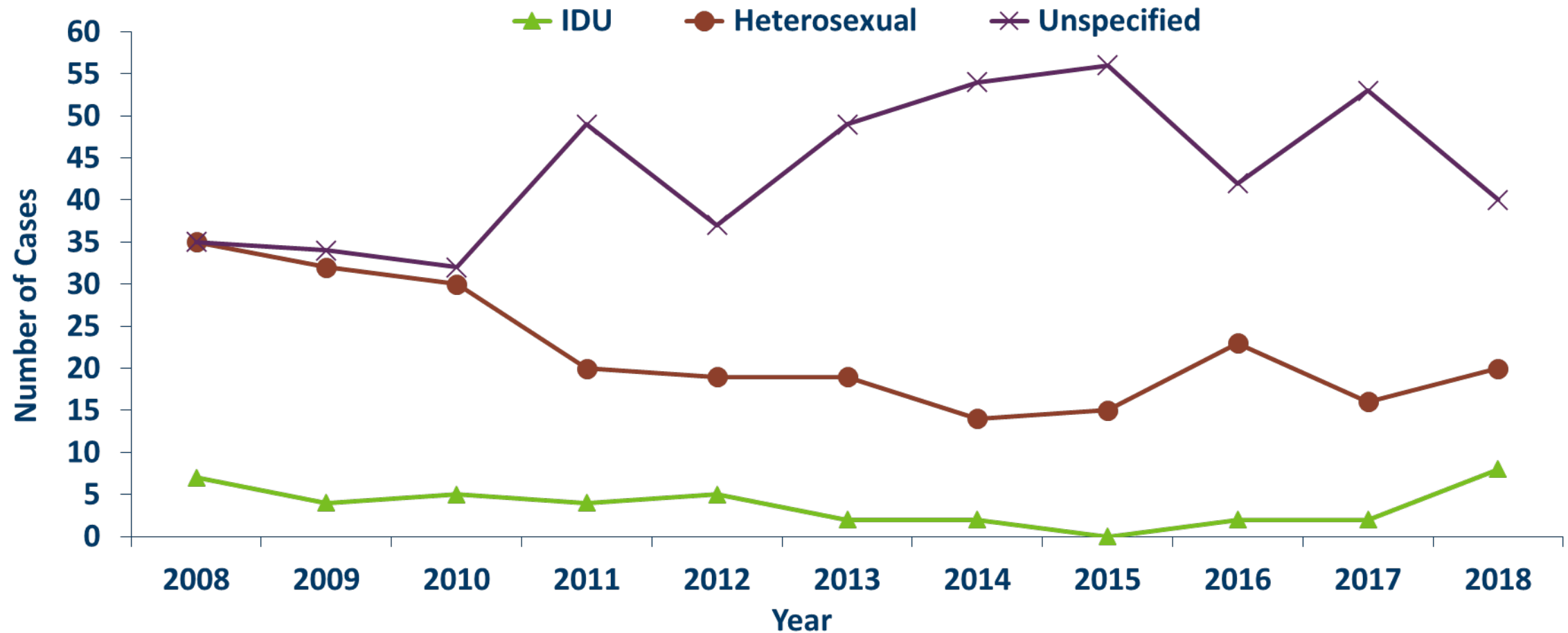
MSM = Men who have sex with men

IDU = Injecting drug use

Heterosexual = Heterosexual contact

Unspecified = No mode of exposure ascertained

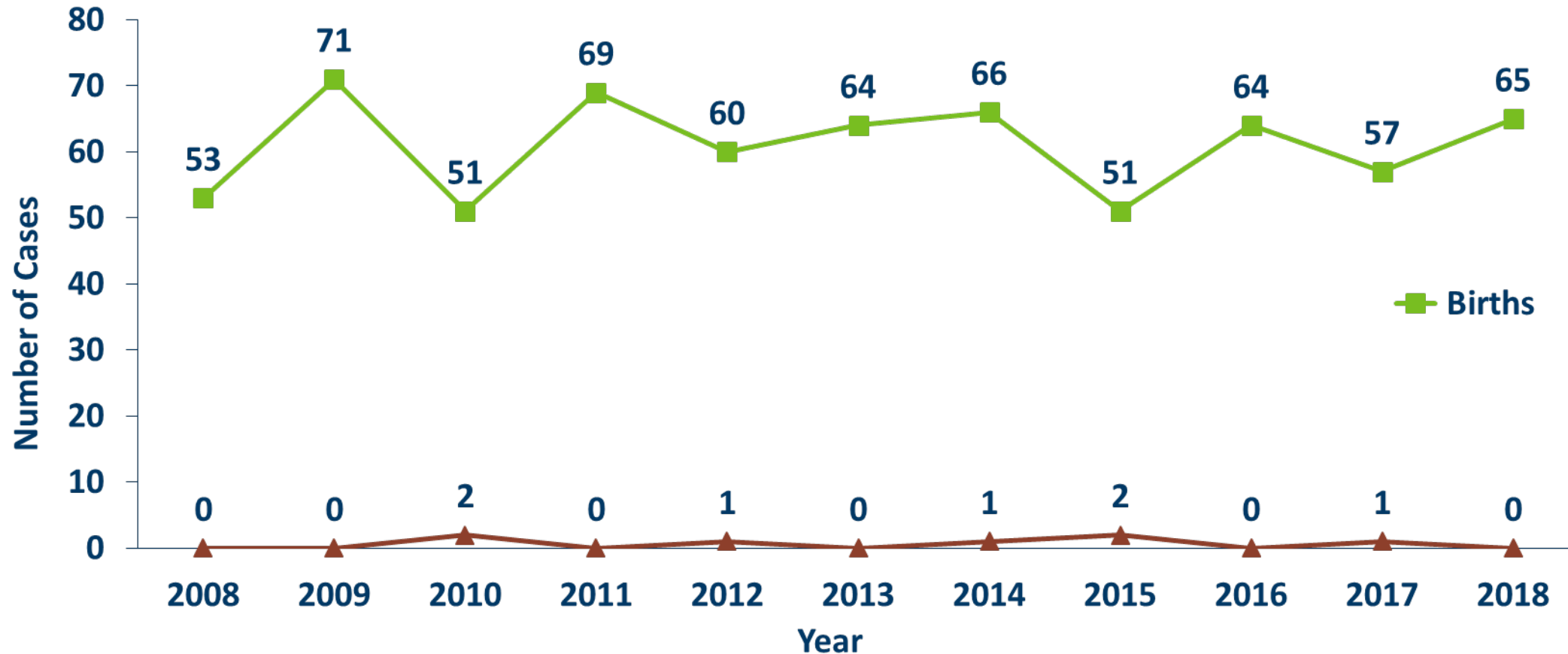
HIV Diagnoses* Among People Assigned Female Sex at Birth by Mode of Exposure and Year of Diagnosis, 2008 - 2018



* HIV or AIDS at first diagnosis

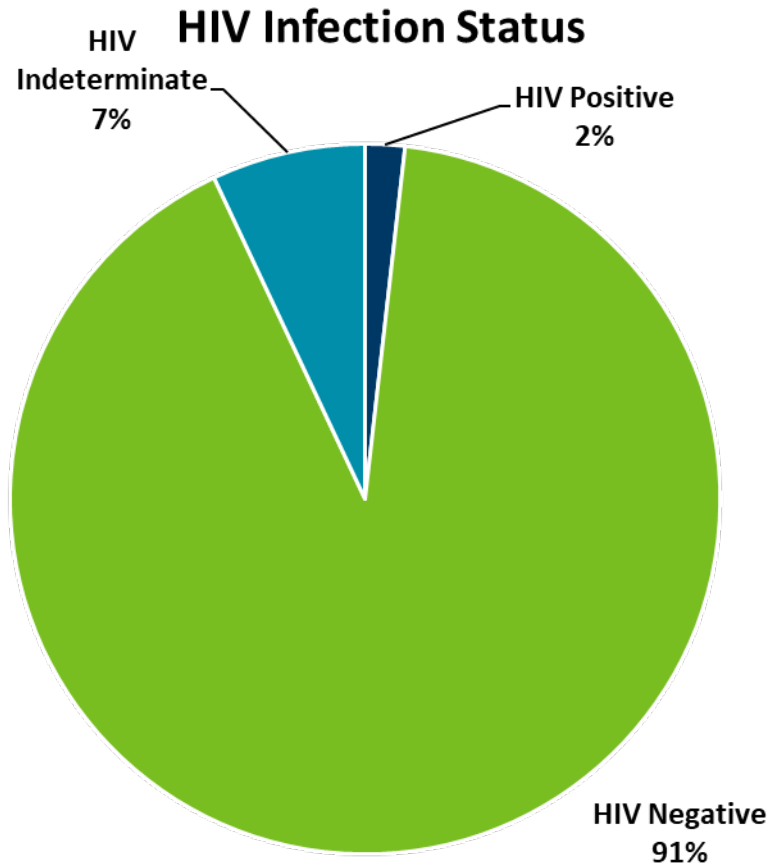
IDU = Injecting drug use Heterosexual = Heterosexual contact Unspecified = No mode of exposure ascertained

Births to HIV-Infected Pregnant people and Number of Perinatal Acquired HIV Infections* by Year of Birth, 2008- 2018



* HIV or AIDS at first diagnosis for a child exposed to HIV during mother's pregnancy, at birth, and/or during breastfeeding.

Outcome for Perinatally HIV-Exposed Infants Born in 2017

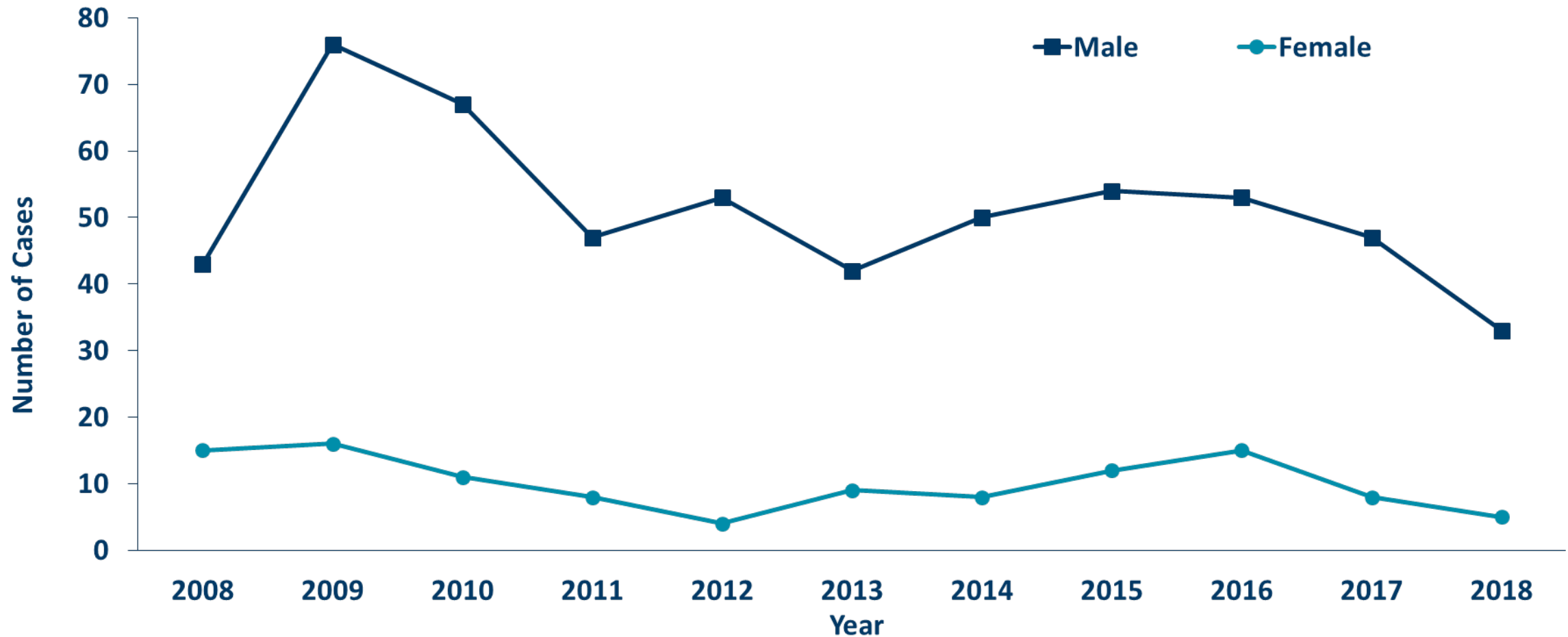


HIV Infection Status	MN births 2017	CDC Outcome Standards
Negative or Positive	93% (53)	≥ 85%
Indeterminate	7% (4)	< 15%

Adolescents & Young Adults (Ages 13-24)*

* Case numbers are too small to present meaningful data separately for adolescents and young adults

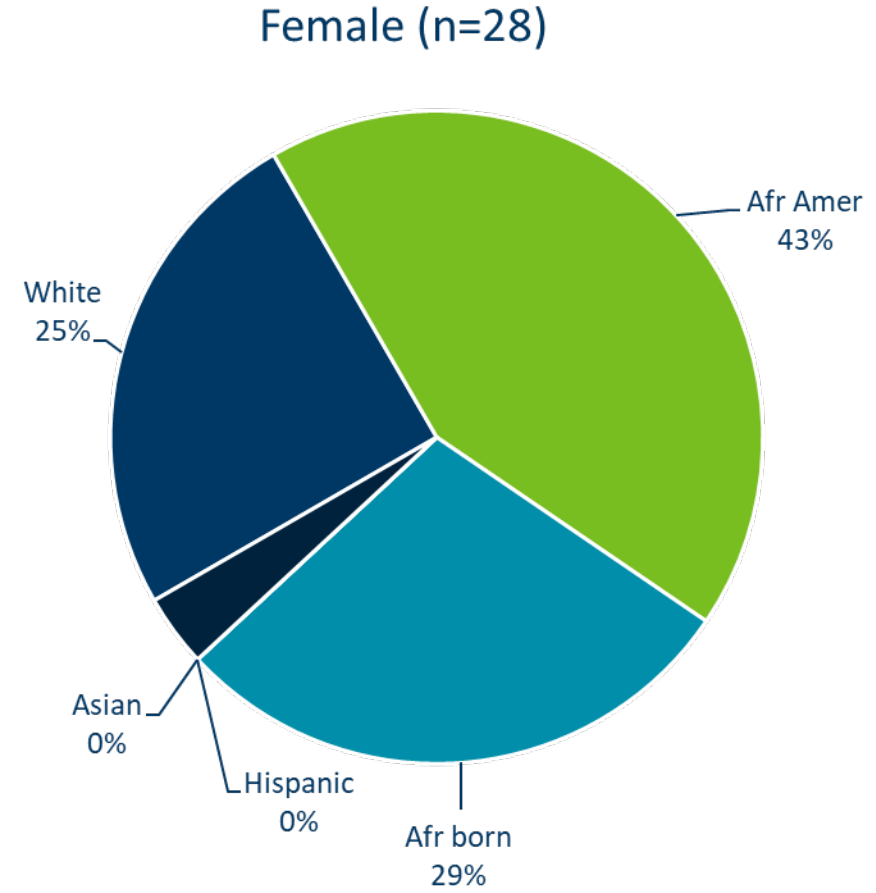
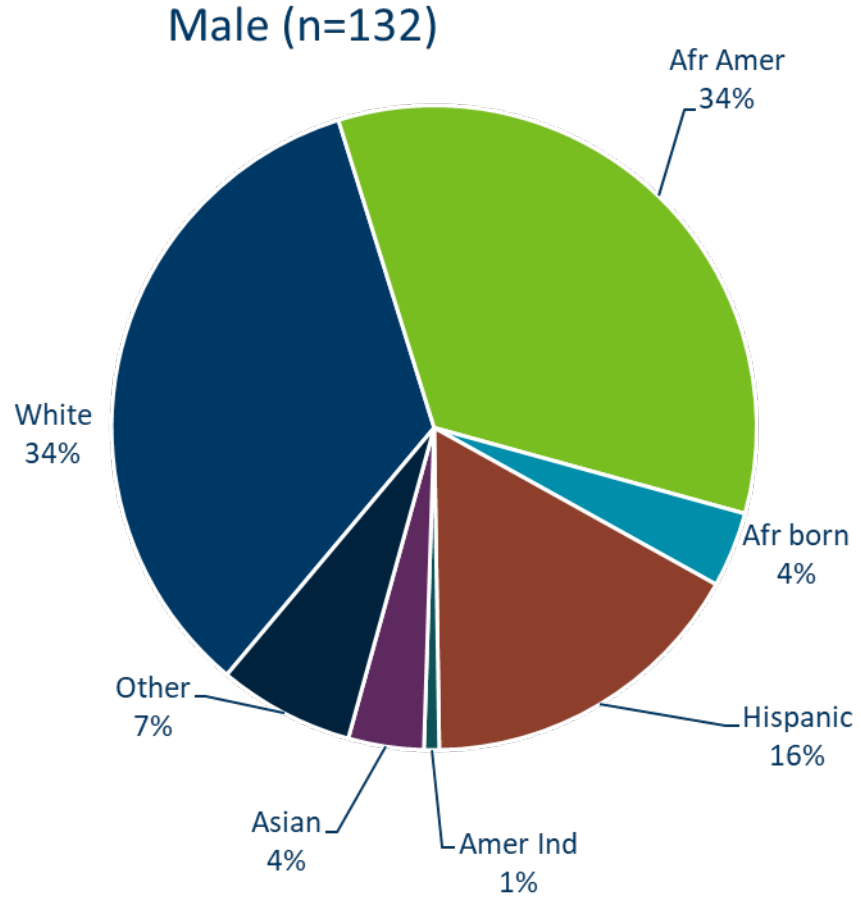
HIV Diagnoses* Among Adolescents and Young Adults† by Sex Assigned at Birth and Year, 2008 - 2018



* HIV or AIDS at first diagnosis

† Adolescents defined as 13-19 year-olds; Young Adults defined as 20-24 year-olds.

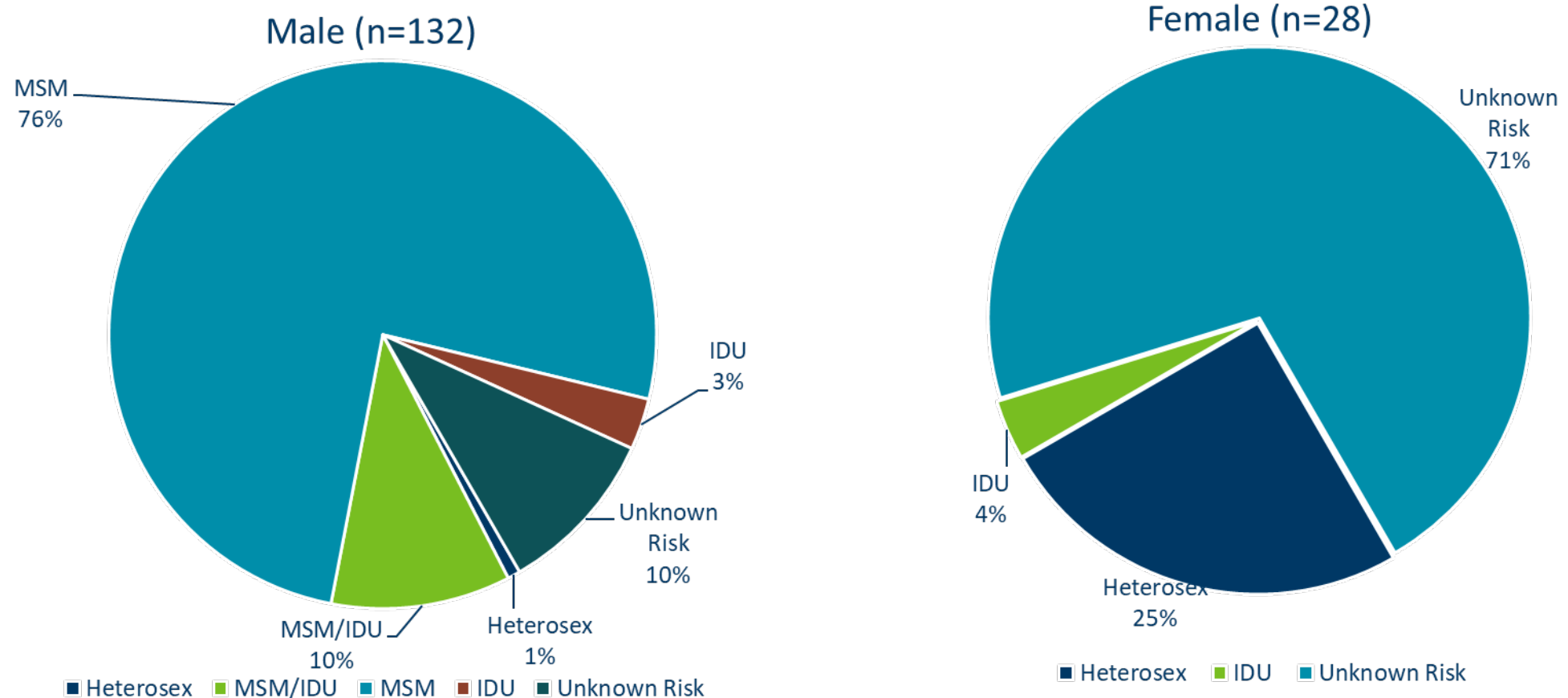
HIV Diagnoses* Among Adolescents and Young Adults[†] by Sex Assigned at Birth and Race/Ethnicity, 2016 - 2018 Combined



* HIV or AIDS at first diagnosis (n = Number of people)

Amer Ind = American Indian, Afr Amer = African American (Black, not African-born people), and Afr born = African-born (Black, African-born people)

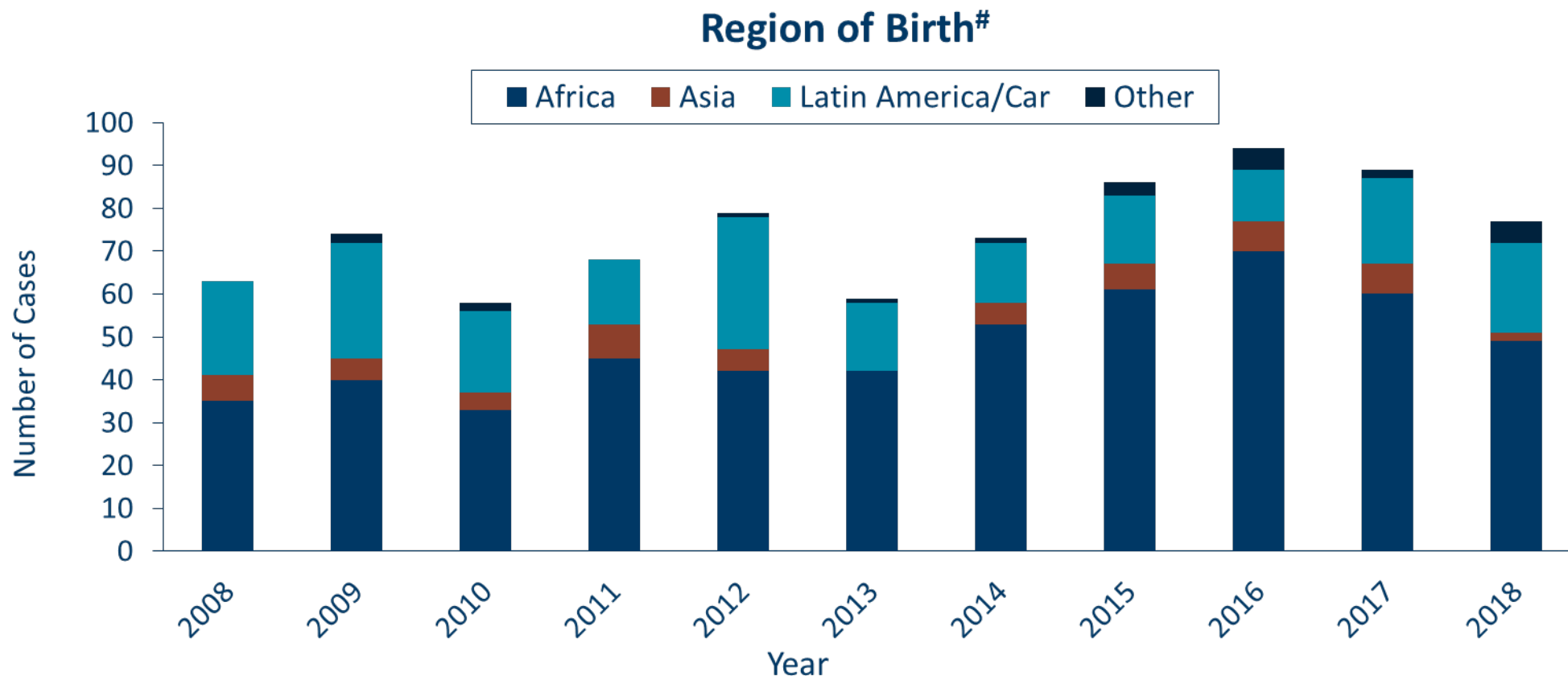
HIV Diagnoses* Among Adolescents and Young Adults† by Sex at Birth and Exposure Group 2016 - 2018 Combined



† Adolescents defined as 13-19 year-olds; Young Adults defined as 20-24 year-olds.
MSM = Men who have sex with men IDU = Injecting drug use Heterosex = Heterosexual contact
n = Number of people
• HIV or AIDS at first diagnosis

Foreign-born Cases

HIV Diagnoses* among Foreign-Born People† in Minnesota by Year and Region of Birth, 2008 - 2018

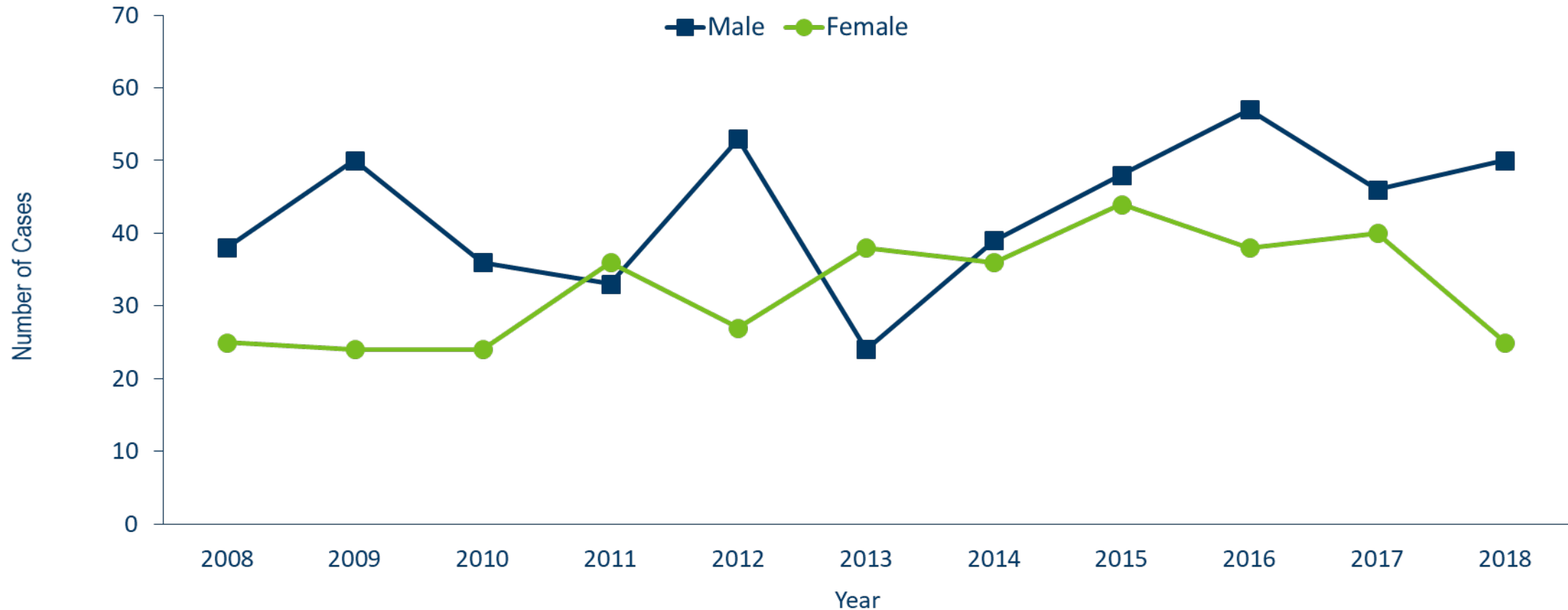


* HIV or AIDS at first diagnosis

† Excludes people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

Latin America/Car includes Mexico and all Central, South American, and Caribbean countries.

HIV Diagnoses* Among Foreign-Born People† by Sex Assigned at Birth and Year, 2008 – 2018



*HIV or AIDS at first diagnosis

† Excludes people arriving in Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

Countries of Birth Among Foreign-Born People[†] Diagnosed with HIV* Minnesota, 2018

Country	N
Liberia	18
Ethiopia	9
Mexico	8
Kenya	5
Guatemala	4
Nigeria	4
Other [^]	23

* HIV or AIDS at first diagnosis

[†] Excludes people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

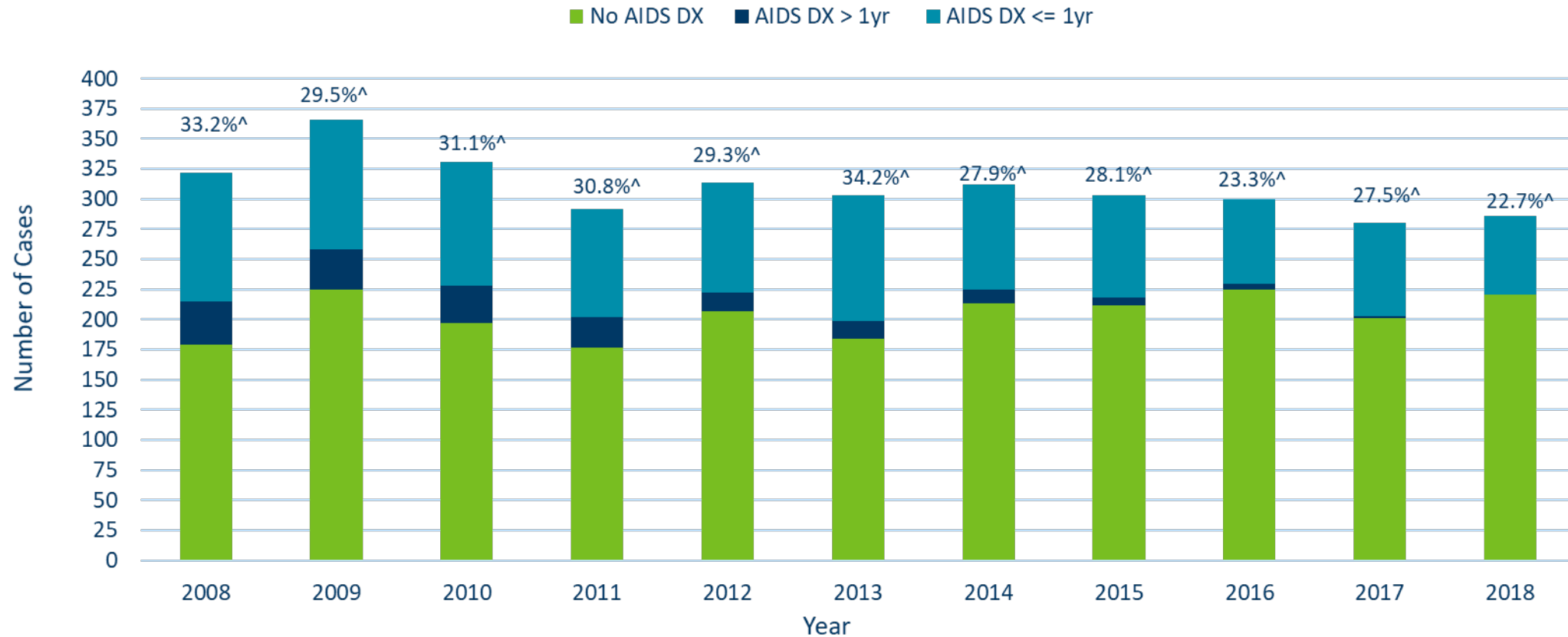
[^] Includes 22 additional countries.

Late-Testers

(AIDS Diagnosis within one year of initial HIV Diagnosis)

Time of Progression to AIDS for HIV Diagnoses in Minnesota*

2008 - 2018†

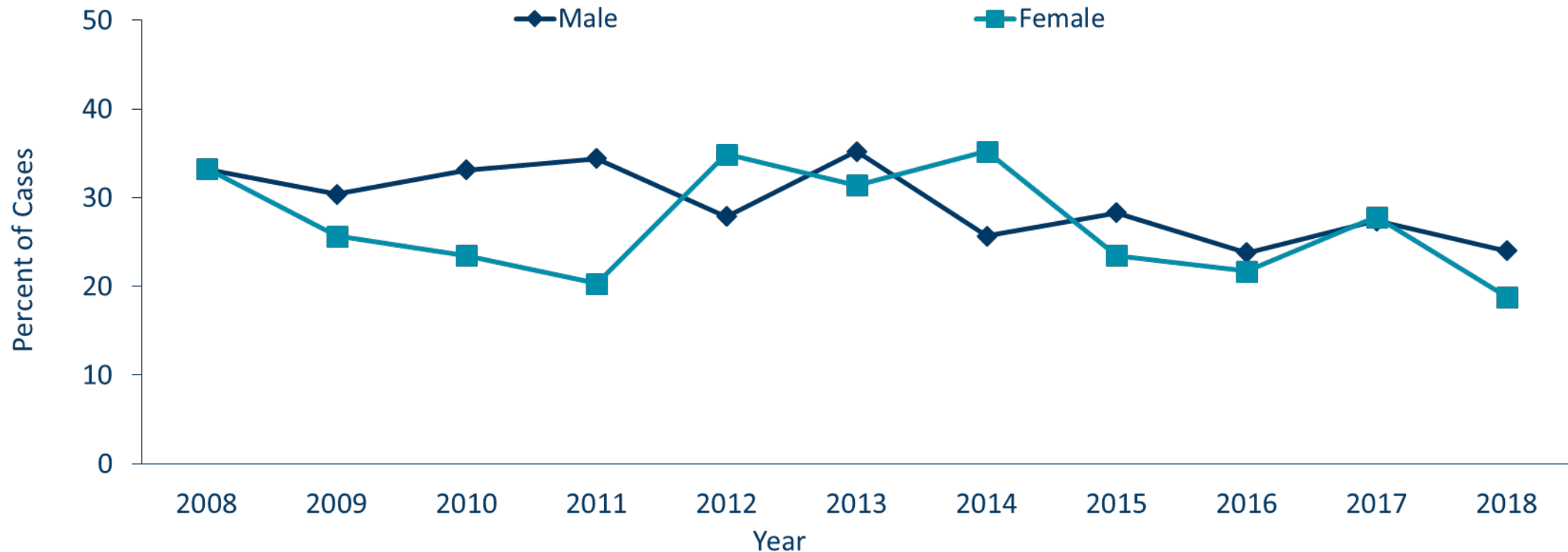


*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

^ Percent of cases progressing to AIDS within one year of initial diagnosis with HIV

† Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2018.

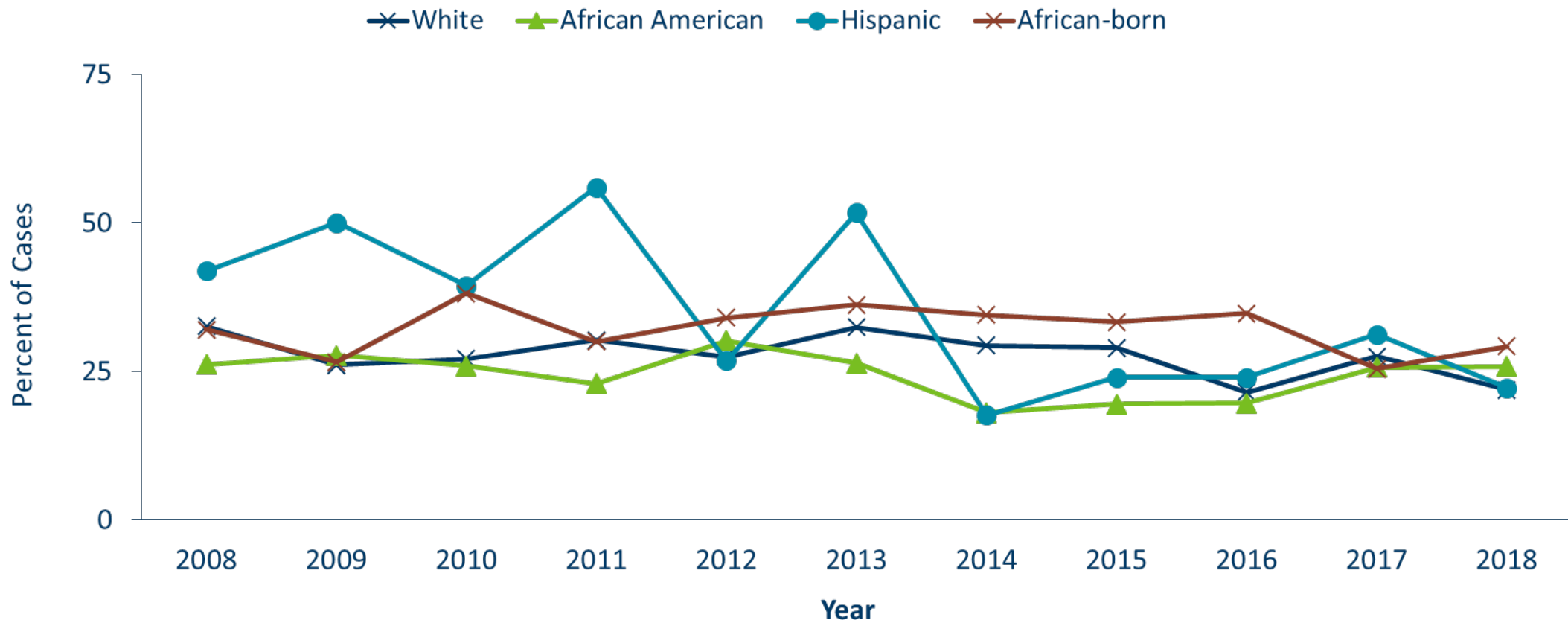
Progression to AIDS within 1 year of initial HIV Diagnosis* by Sex Assigned at Birth, 2008 - 2018[†]



*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[†] Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2017

Progression to AIDS within 1 year of initial HIV Diagnoses* by Race/Ethnicity^ 2008 - 2018†

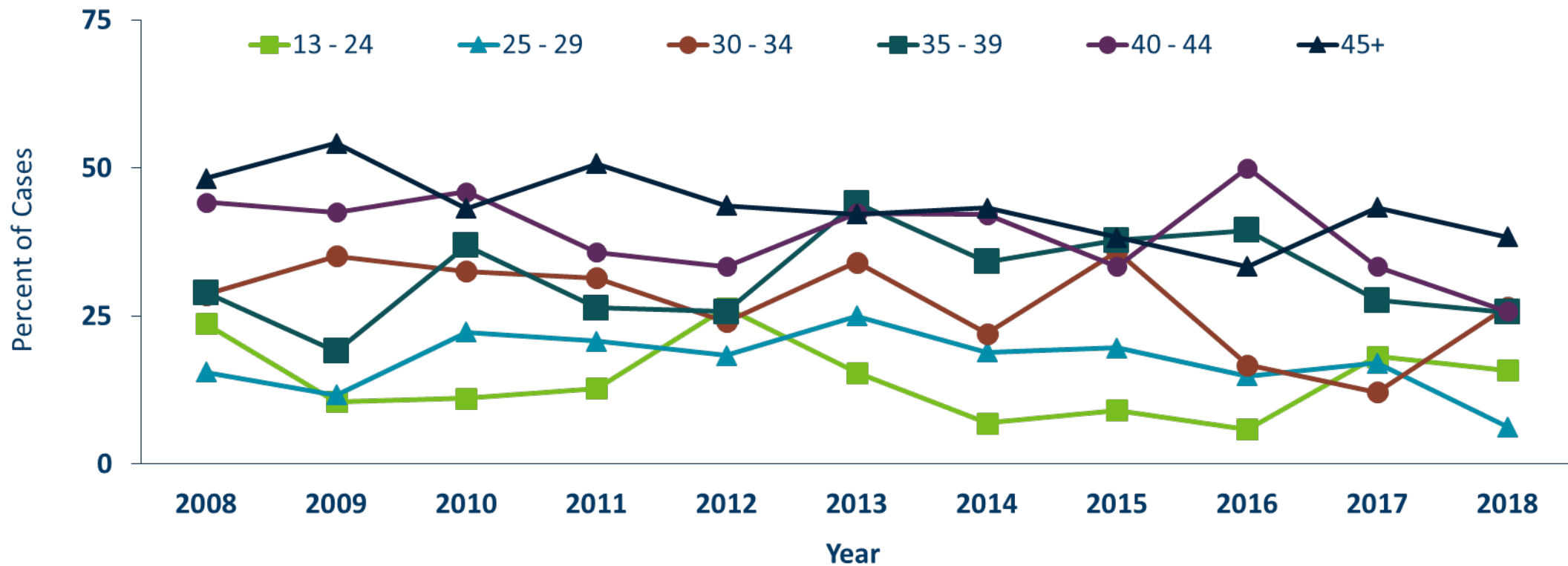


*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

† Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2018.

^Percentage not calculated if less than 10 cases diagnosed per year

Progression to AIDS within 1 year of initial HIV Diagnosis* by Age, 2008 - 2018[†]

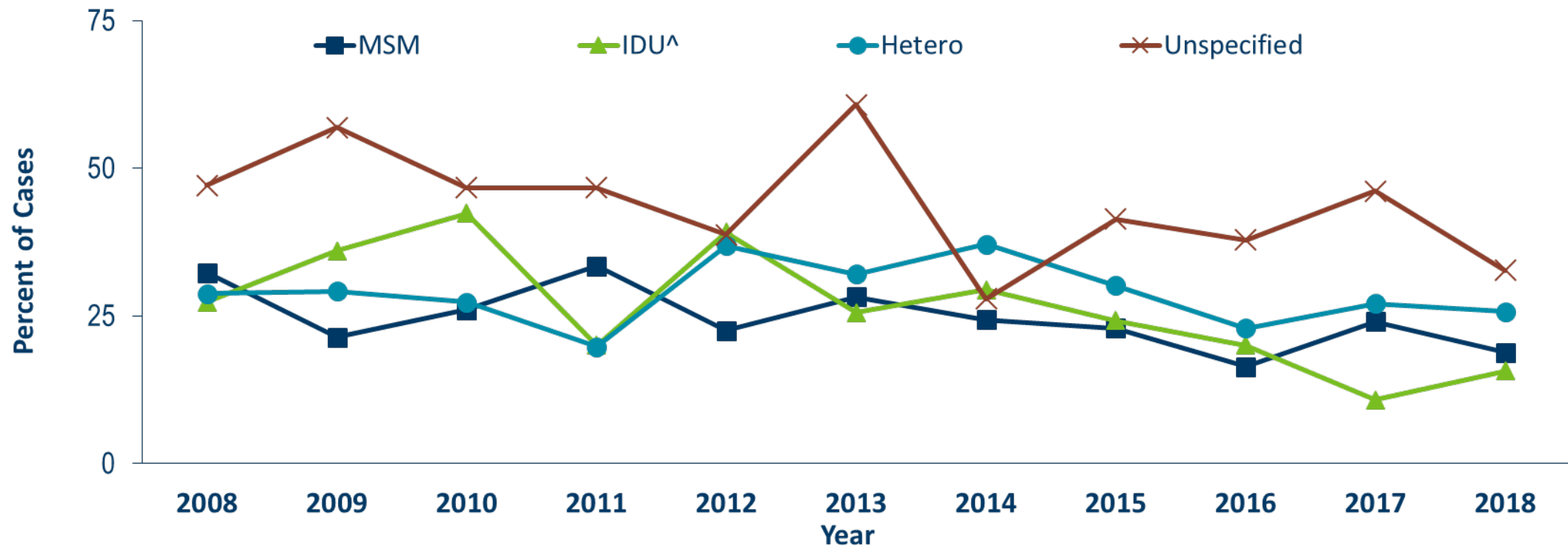


*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[†] Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2018.

[^]Percentage not calculated if less than 10 cases diagnosed per year

Progression to AIDS within 1 year of initial HIV Diagnosis* by Mode of Transmission, 2008 - 2018[†]

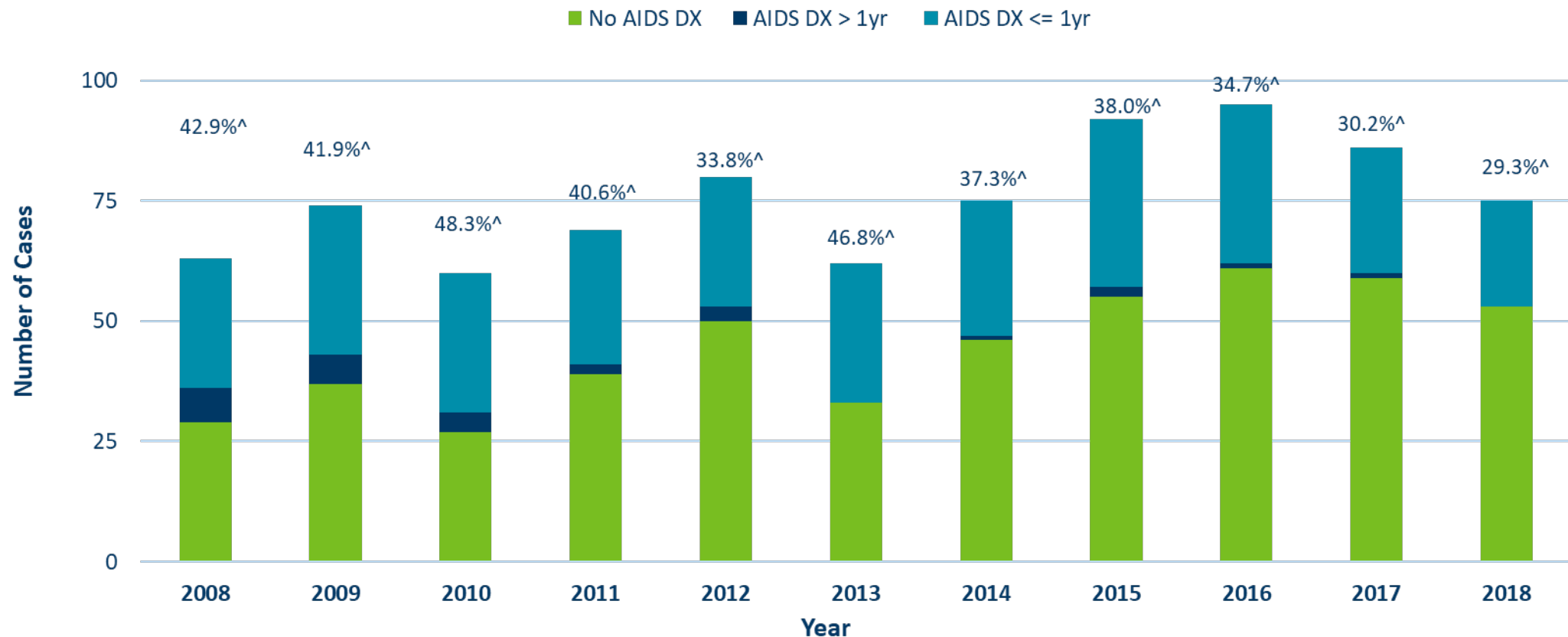


*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[†] Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2018.

[^]Includes MSM/IDU

Time of Progression to AIDS for HIV Diagnoses* Among Foreign-Born People, Minnesota 2008 - 2018[†]



*Numbers include AIDS at 1st report but exclude people arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

[^] Percent of cases progressing to AIDS within one year of initial diagnosis with HIV

[†] Numbers/Percent for cases diagnosed in 2017 only represents cases progressing to AIDS through March 20, 2018.

Thank you!

HIV Surveillance Team

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651-201-4040



HIV/AIDS Prevalence and Mortality Report, 2018

HIV/AIDS Surveillance System

<http://www.health.state.mn.us/diseases/hiv/stats/index.html>

Introduction (I)

- These three introduction slides provide a general context for the data used to create this slide set. If you have questions about any of the slides, please refer to the *HIV/AIDS Surveillance Technical Notes* on our website.
- This slide set displays estimates of the number of persons living with HIV/AIDS (prevalence) and mortality in Minnesota by person, place, and time.
- The slides rely on data from HIV/AIDS cases diagnosed through 2018 and reported to the Minnesota Department of Health (MDH) HIV/AIDS Surveillance System, which is a part of the National HIV/AIDS Surveillance System (NHSS).

Introduction (II)

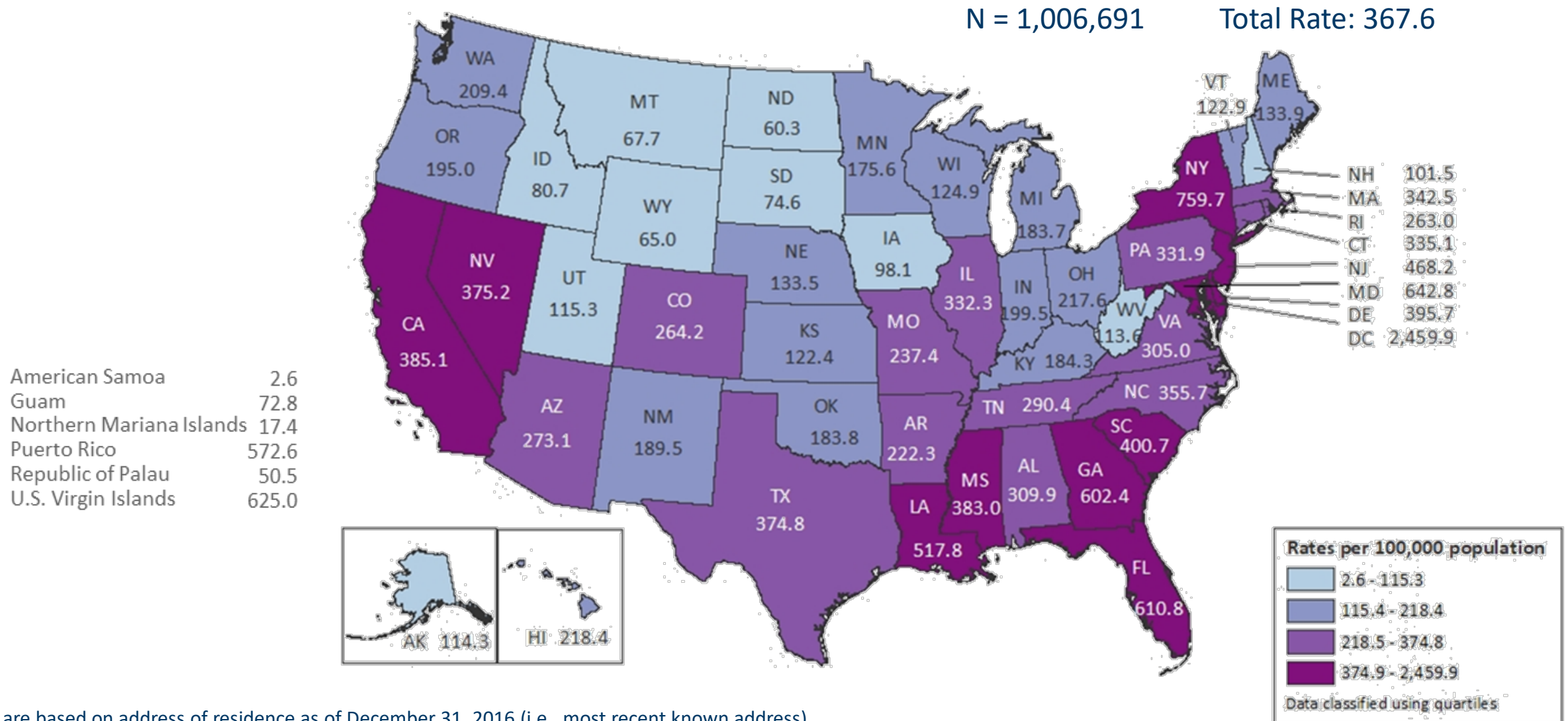
- Data analyses exclude persons diagnosed in federal or private correctional facilities, but include state prisoners (number of state prisoners believed to be living with HIV/AIDS = 30).
- Data analyses for new infections exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program (number of primary HIV+ refugees in this program living in Minnesota as of December 31, 2018 = 169), as well as other refugees/immigrants reporting a positive test prior to their arrival in Minnesota (n = 164).
- Some limitations of surveillance data:
 - Do not include people living with HIV who have not been tested for HIV
 - Do not include persons whose positive test results have not been reported to MDH
 - Do not include people living with HIV who have only tested anonymously
 - Case numbers for the most recent years may be undercounted due to delays in reporting
 - Reporting of living cases that were not initially diagnosed in Minnesota is known to be incomplete, as well as transfer of living cases that have moved to other states from Minnesota

Introduction (III)

- Persons are assumed to be alive unless MDH has knowledge of their death.
- Persons whose most recently reported state of residence was Minnesota are assumed to be currently residing in Minnesota unless MDH has knowledge of their relocation. Our ability to track changes of residence, including within the state, is limited and subject to reporting delays.
- Vital status and current residence are updated through one or more of the following methods:
 - Standard case reporting
 - Correspondence with other health departments
 - Active surveillance
 - Death certificate reviews (annually)
 - Birth certificate reviews (annually, pregnant persons only)

National Context

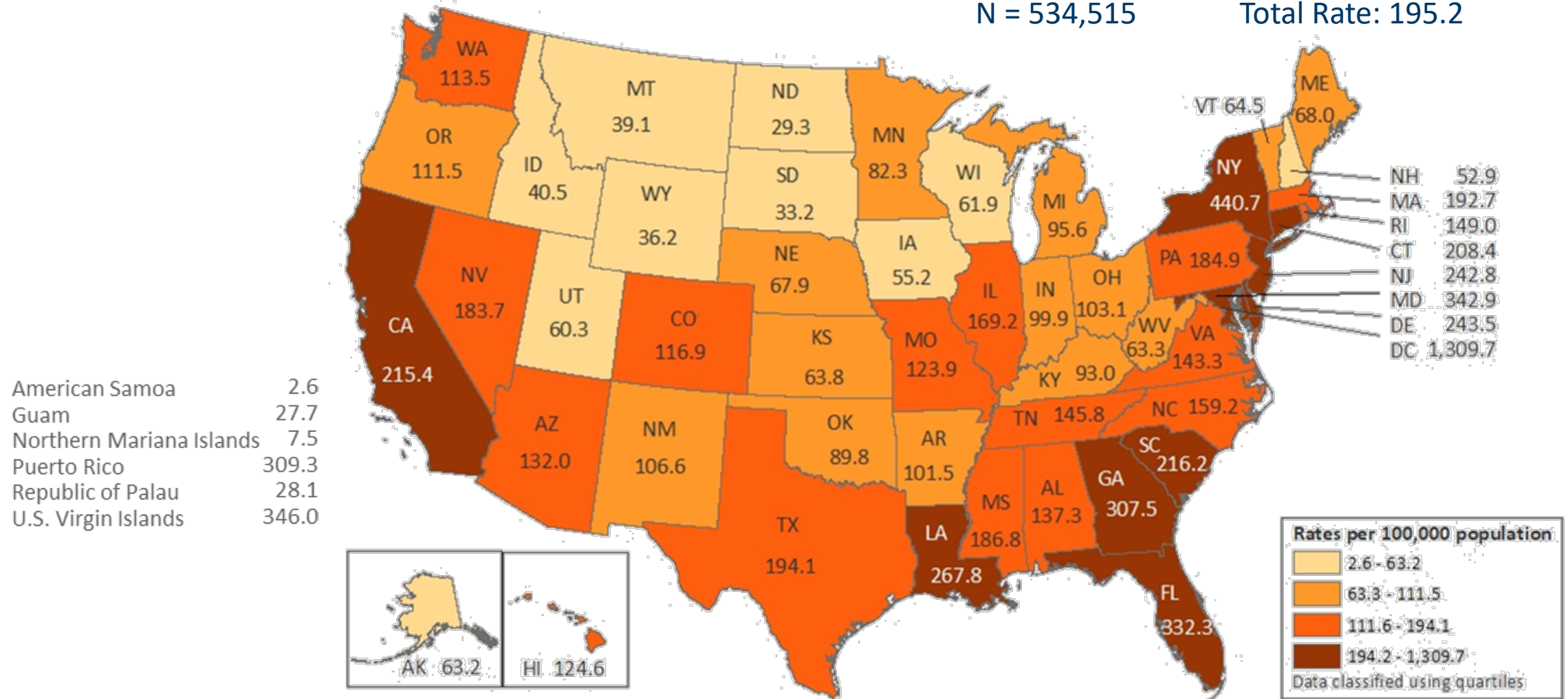
Adults and Adolescents with Diagnosed HIV Infection, by Area of Residence, Year-end 2016 — U.S. and 6 Dependent Areas



Rates of Adults and Adolescents with HIV Infection Ever Classified as Stage 3 (AIDS), by Area of Residence, Year-end 2016— U.S. and 6 Dependent Areas

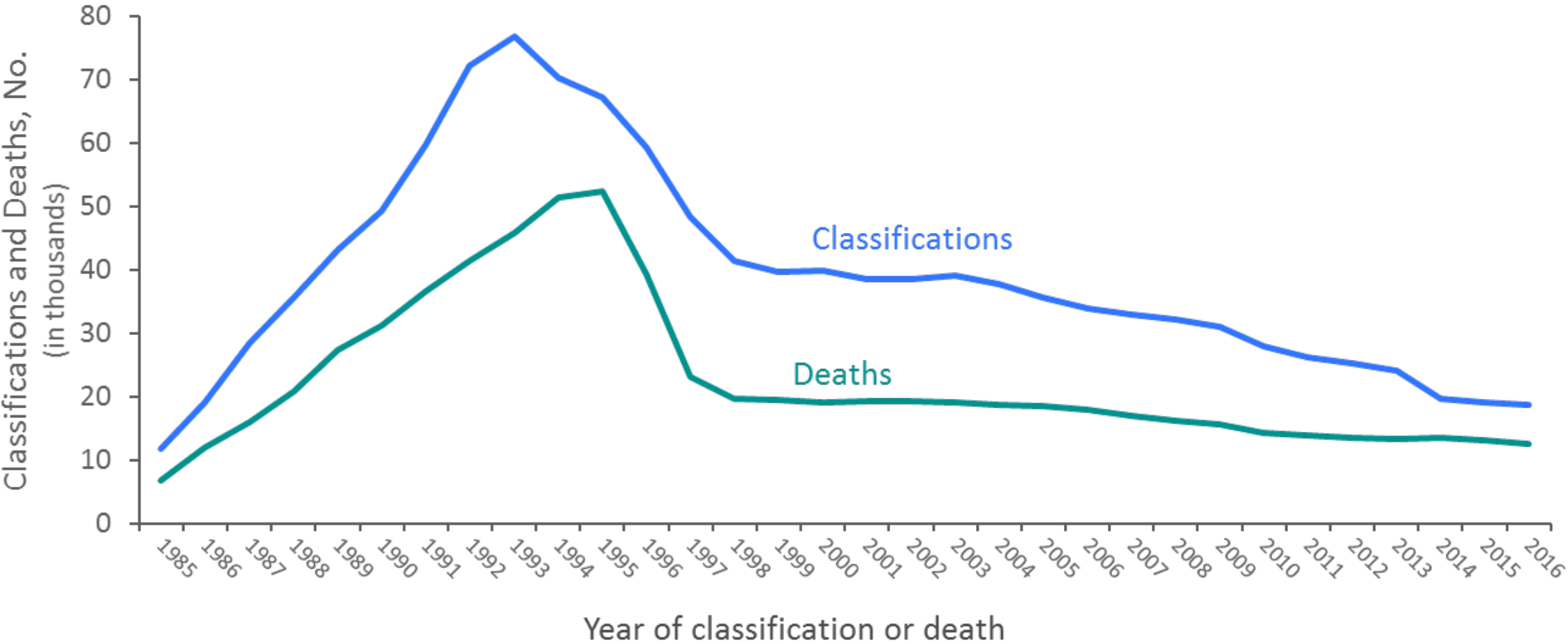
N = 534,515

Total Rate: 195.2



Data are based on address of residence as of December 31, 2016 (i.e., most recent known address).

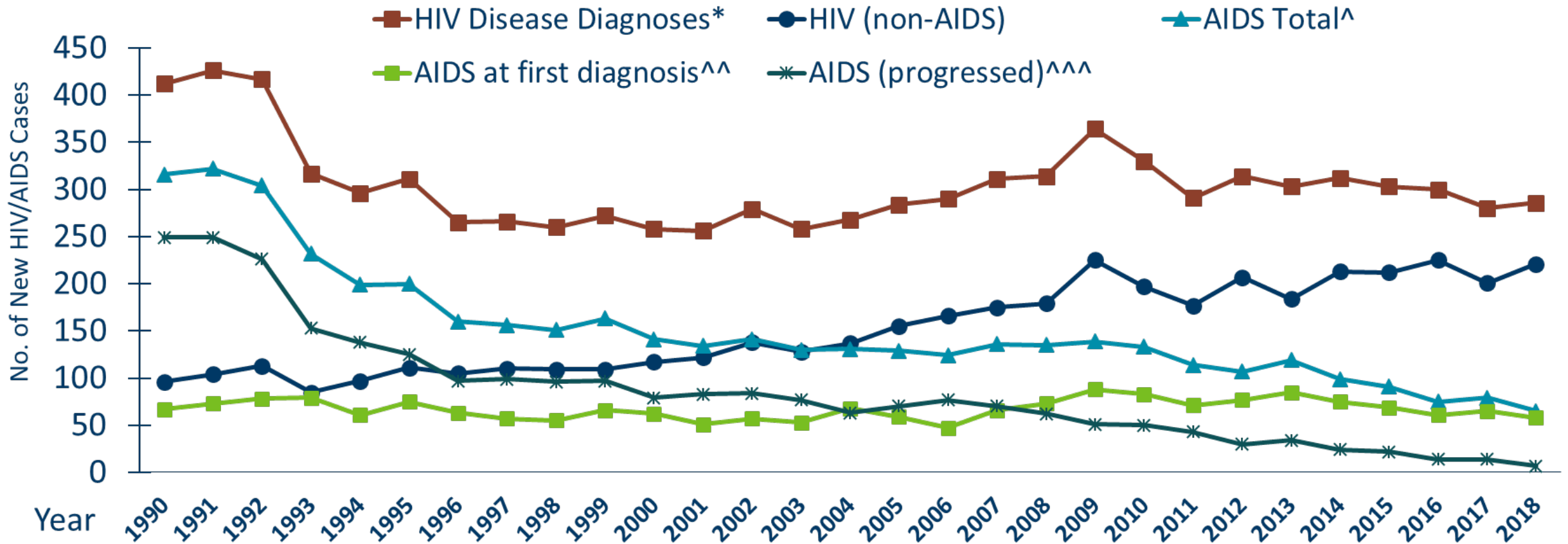
Stage 3 (AIDS) Classifications and Deaths of Persons with Diagnosed HIV Infection Ever Classified as Stage 3 (AIDS) 1985–2016, U.S. and 6 Dependent Areas



Deaths of persons with HIV infection, stage 3 (AIDS) may be due to any cause.

Overview of HIV/AIDS in Minnesota

New HIV Diagnoses, HIV (non-AIDS) and AIDS Cases by Year of HIV Diagnosis, 1990-2018



*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis diagnosed within a given calendar year.

^Includes all cases diagnosed with HIV in that year who subsequently progressed to AIDS diagnosis status, including those diagnosed with AIDS when they were first diagnosed with HIV^^ and those who were diagnosed with AIDS in subsequent years^^^

This includes refugees in the HIV+ Resettlement Program, as well as, other refugee/immigrants diagnosed with AIDS subsequent to their arrival in the United States.

Persons Living with HIV/AIDS in Minnesota

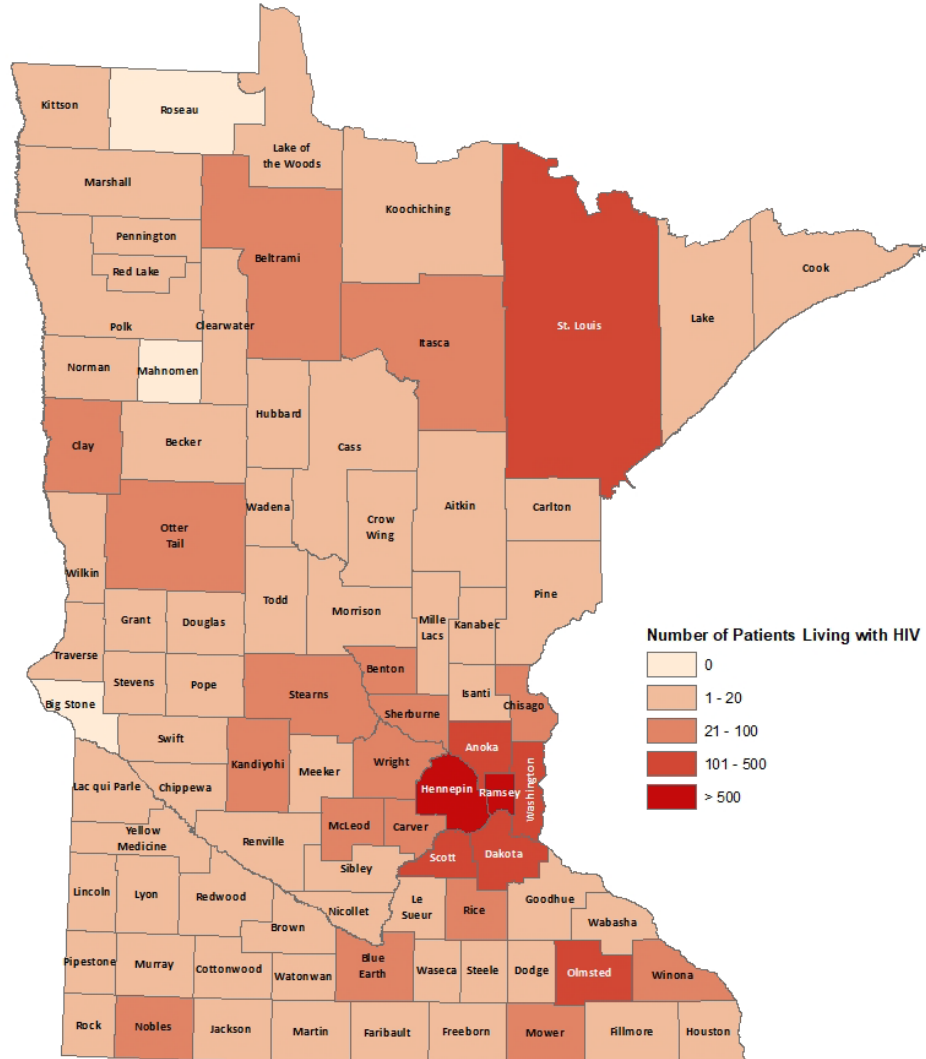
Estimated Number of Persons Living with HIV/AIDS in Minnesota

- As of December 31, 2018 8,981* persons are assumed alive and living in Minnesota with HIV/AIDS. This includes:
 - 4,937 (55%) living with HIV infection (non-AIDS)
 - 4,044 (45%) living with AIDS
- This number includes 2,331 persons who were first reported with HIV or AIDS elsewhere and subsequently moved to Minnesota
- This number excludes 1,560 persons who were first reported with HIV or AIDS in Minnesota and subsequently moved out of the state

*This number includes persons with Minnesota reported as their current state of residence, regardless of residence at time of diagnosis. It also includes state prisoners and refugees arriving through the HIV+ Refugee Resettlement Program, as well as HIV+ refugees/immigrants arriving through other programs.

Place

Minnesota Patients Living with HIV[#] by County of Current Residence, 2018



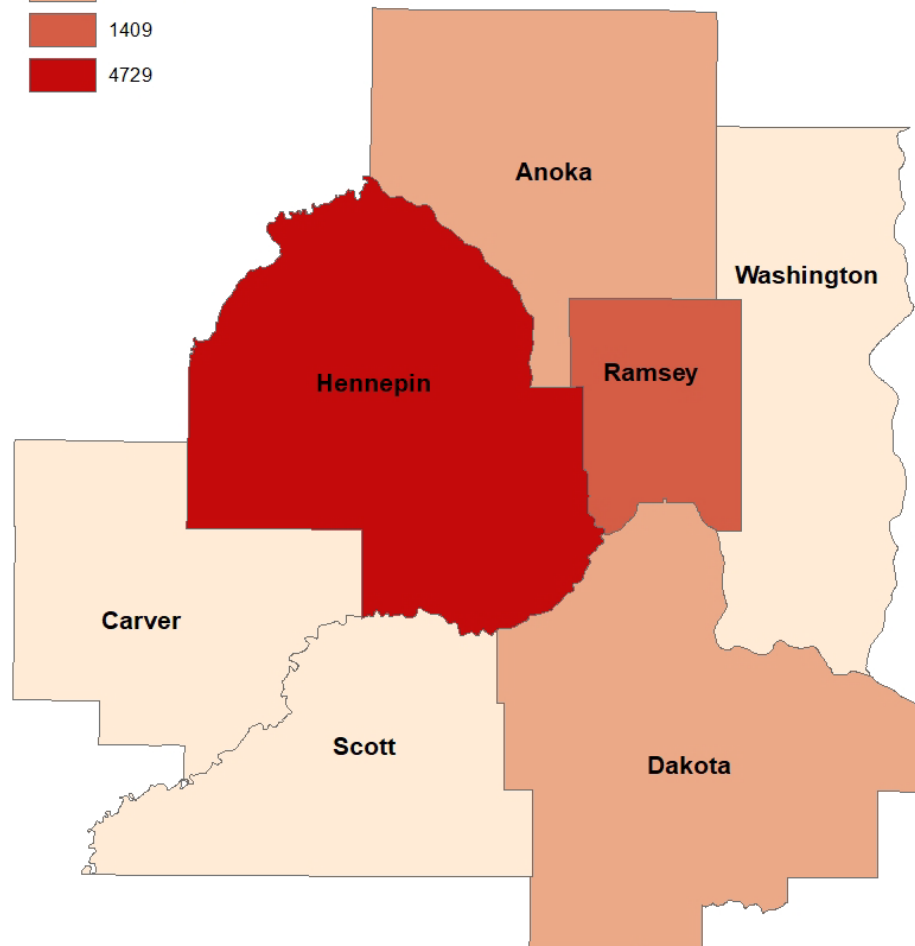
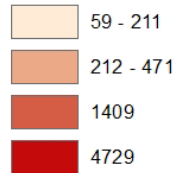
City of Minneapolis	3,190 cases (833.8 per 100,000)
City of St. Paul	1,149 cases (403.1 per 100,000)
Suburban*	3,105 cases (142.3 per 100,000)
Greater Minnesota	1522 cases (62.0 per 100,000)
Total	8,966 cases (169.0 per 100,000)

[#]HIV or AIDS at last appointment

*7-county metro area, excluding the cities of Minneapolis and St. Paul

2018 Minnesota Patients Living with HIV by Metro County

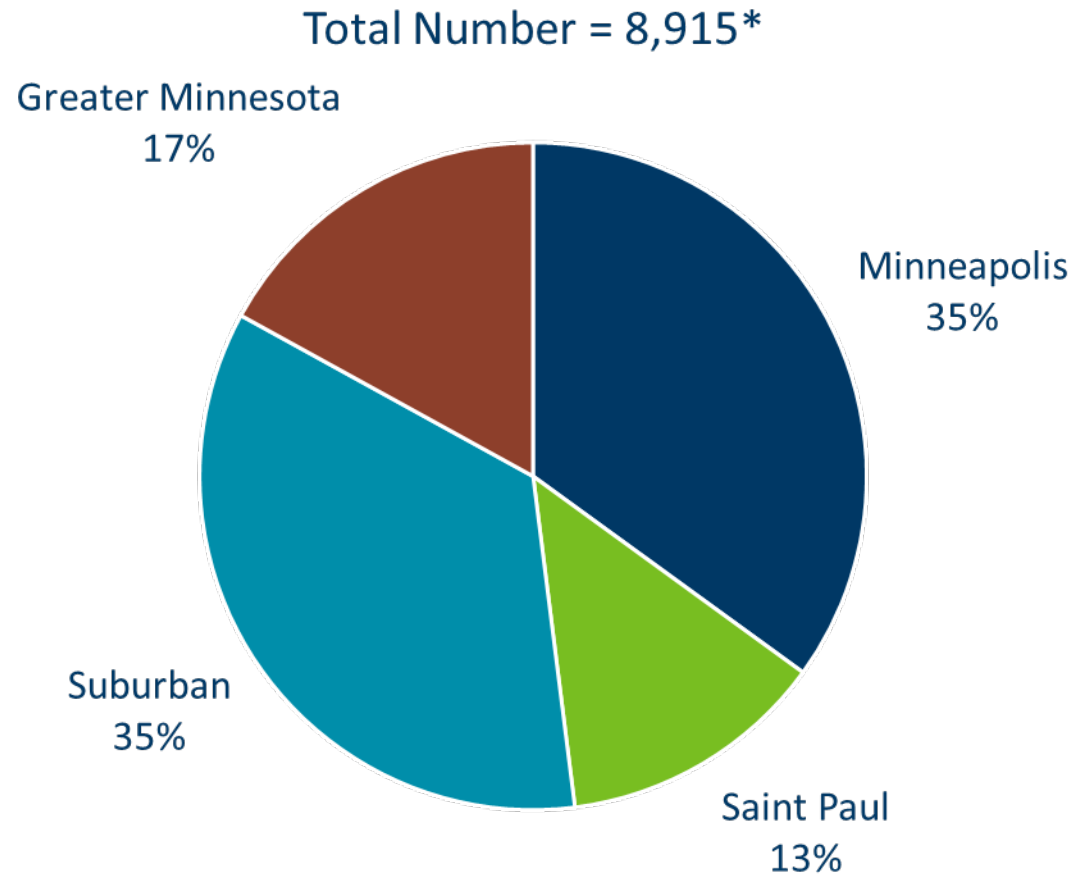
Number of Patients Living with HIV



City of Minneapolis	3,190 cases (833.8 per 100,000)
City of St. Paul	1,149 cases (403.1 per 100,000)
Suburban*	3,105 cases (142.3 per 100,000)
Greater Minnesota	1522 cases (52.0 per 100,000)
Total	8,966 cases (169.0 per 100,000)

*7-county metro area, excluding the cities of Minneapolis and St. Paul

Persons Living with HIV/AIDS in Minnesota by Current Residence, 2018

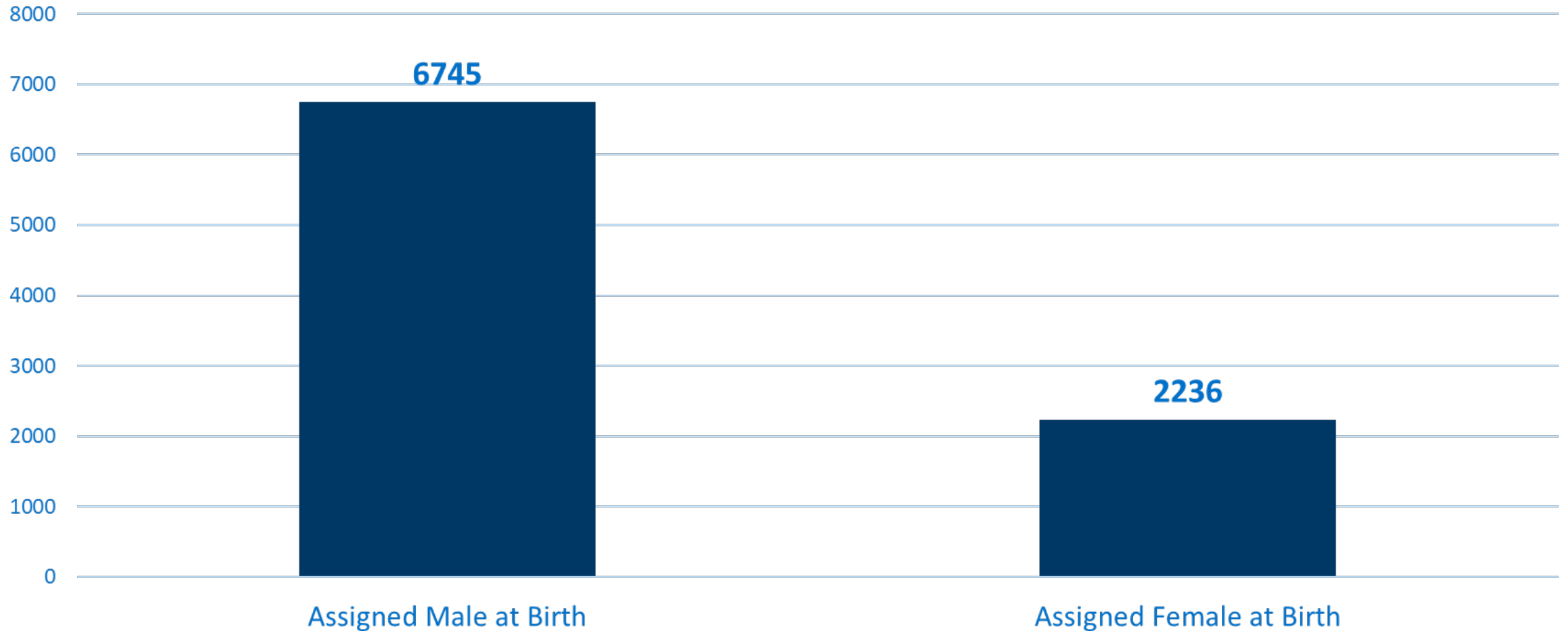


*66 persons missing residence information

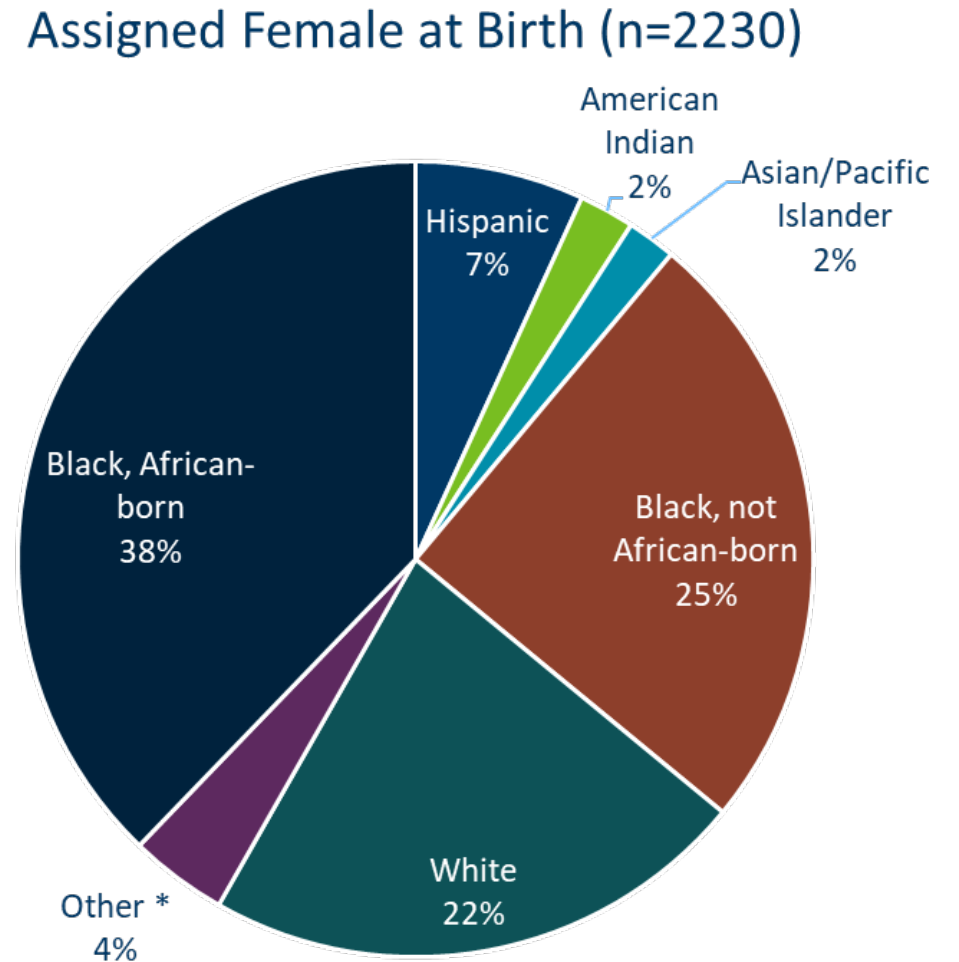
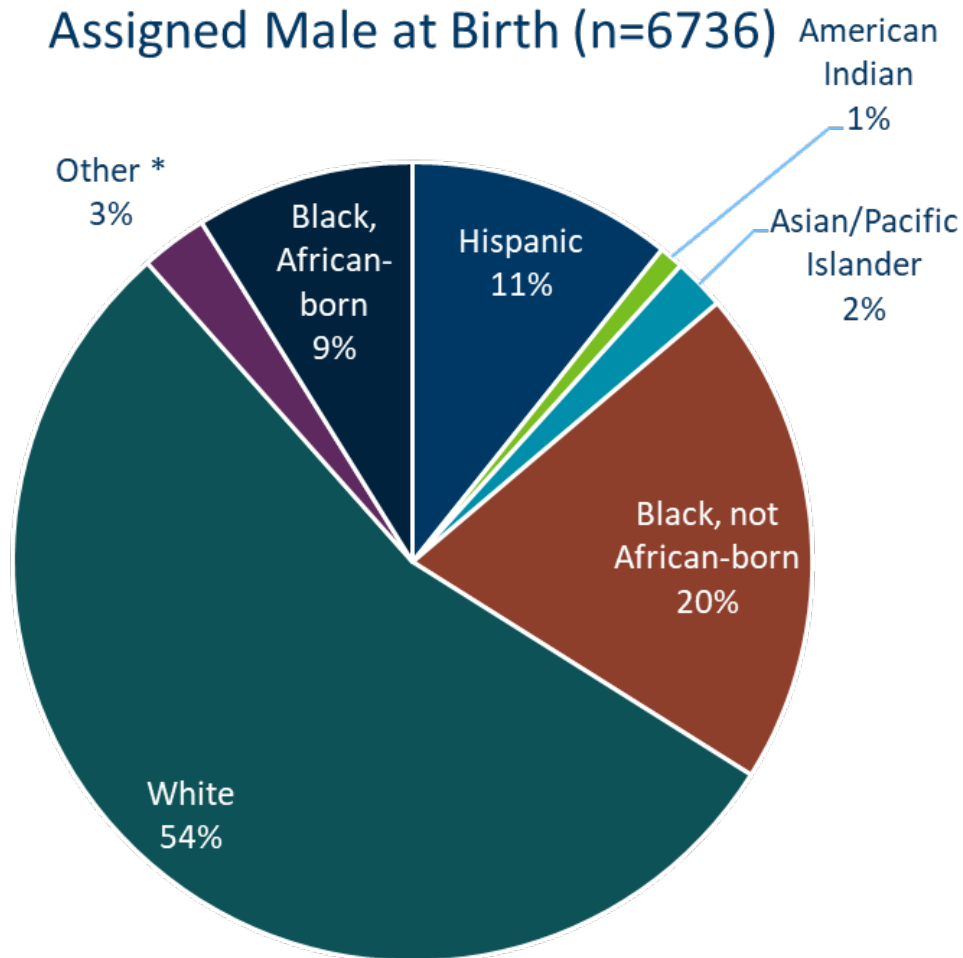
Suburban includes the seven-county metro area of Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except Saint Paul), Scott, and Washington counties. Greater Minnesota includes all other counties outside of the seven-county metro area.

Sex Assigned at Birth and Race/Ethnicity

Persons Living with HIV/AIDS in Minnesota by Sex Assigned at Birth, 2018



Persons Living with HIV/AIDS in Minnesota by Sex Assigned at Birth and Race/Ethnicity, 2018



*Other includes multi-racial persons and persons with unknown race. Race information missing for 15 PLWH.

Number of Cases and Rates (per 100,000 persons) of Persons Living with HIV/AIDS by Race/Ethnicity in Minnesota, 2018

Race/Ethnicity	Number of Cases	Percentage of Total	Rate per 100,000 [^]
White, non-Hispanic	4,117	46%	91.0
Black, non African-born	1,876	21%	1,106.2
Black, African-born*	1,468	16%	1,400.4 ⁺⁺
Hispanic	894	10%	357.2
American Indian	115	1%	188.8
Asian/Pacific Islander	188	2%	86.9
Other [†]	308	3%	X
Total	8,966	100%	169.0

[^]2010 United States Census Data used for rate calculations, except where otherwise specified.

*African-born refers to Blacks who reported an African country of birth. Non African-born refers to all other Blacks. Rates for black, non African-born and black, African-born are not comparable to previous years due to a decrease in the estimate for black, African-born population.

[†] Other includes multi-racial persons and persons with unknown race

⁺⁺Estimate of 104,828 Source: 2014-2016 American Community Survey with additional calculations by the Minnesota State Demographic Center.

Number of Cases and Rates (per 100,000 persons) of Adults and Adolescents* Living with HIV/AIDS by Sex Assigned at Birth and Risk† in Minnesota, 2018

Sex/Risk	Number of Cases	Percent of Total	Rate per 100,000^
Assigned Male at Birth	6,668	75%	253.3
<i>MSM†</i>	4,850	55%	5,349.5 ^{††}
<i>Non-MSM</i>	1,818	21%	71.5
Assigned Female at Birth	2,148	25%	80.4
Total	8,816	100%	166.2

*HIV or AIDS at first diagnosis ages 13 and older.

^2010 United States Census Data used for rate calculations, except where otherwise specified.

†MSM refers to both MSM and MSM/IDU risk identified at time of reported HIV diagnosis. It includes all PLWH assigned the sex of male at birth who report a male sexual partner. Therefore, some Trans Women are included in both the total number of cases and the population estimate.

††Estimate of 90,663 Source: <http://www.emorycamp.org/item.php?i=92>

Number of Cases of Adults and Adolescents* Living with HIV/AIDS by Gender Identity in Minnesota, 2018

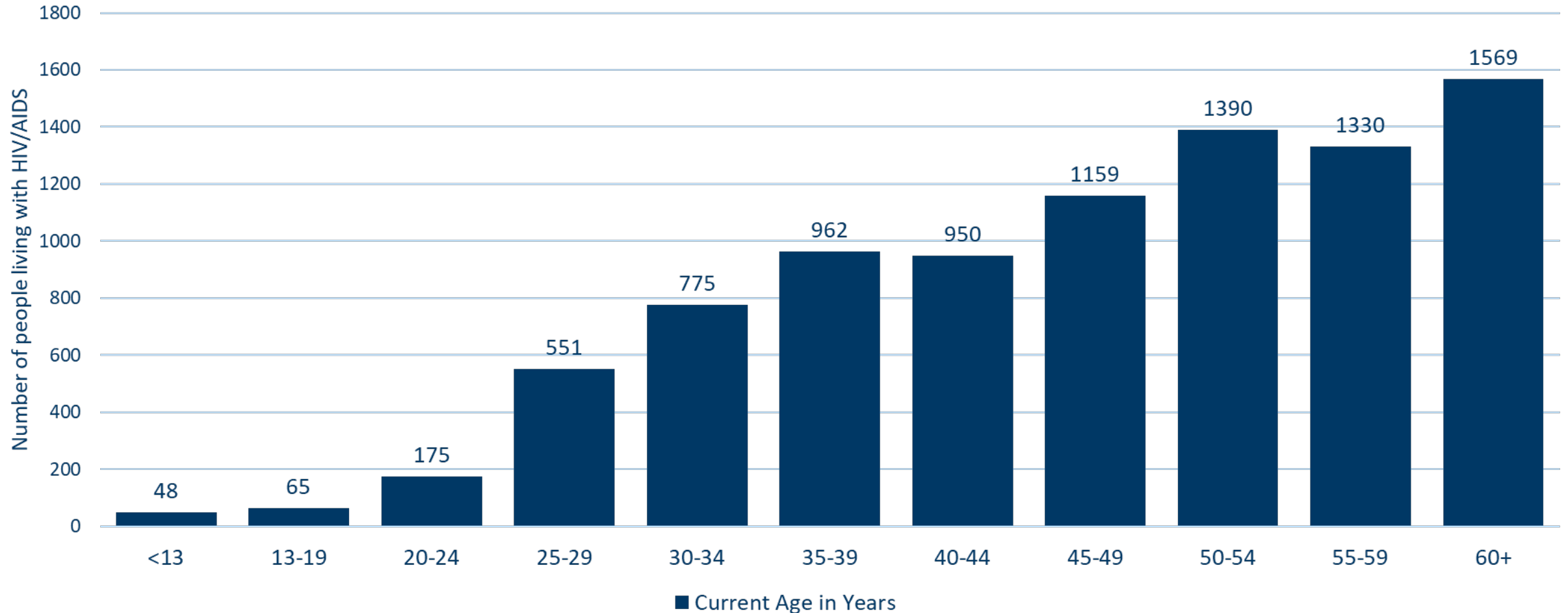
Gender Identity	Number of Cases	Percent of Total
Cisgender Men	6,670	74%
Cisgender Women	2217	25%
Transgender^{††} (Total)	94	1%
<i>Trans Women</i>	<i>74</i>	<i>79%</i>
<i>Trans Men</i>	<i>18</i>	<i>19%</i>
<i>Other Transgender</i>	<i>5</i>	<i>5%</i>
Total	8,981	100%

*HIV or AIDS at first diagnosis ages 13 and older.

^{††}Current gender was not reportable until 2009, so may be incomplete for HIV infections reported before that time. Because current gender is incomplete for a large number of cases, there may be misclassification of transgender Minnesotans in either of the cisgender groups.

Age

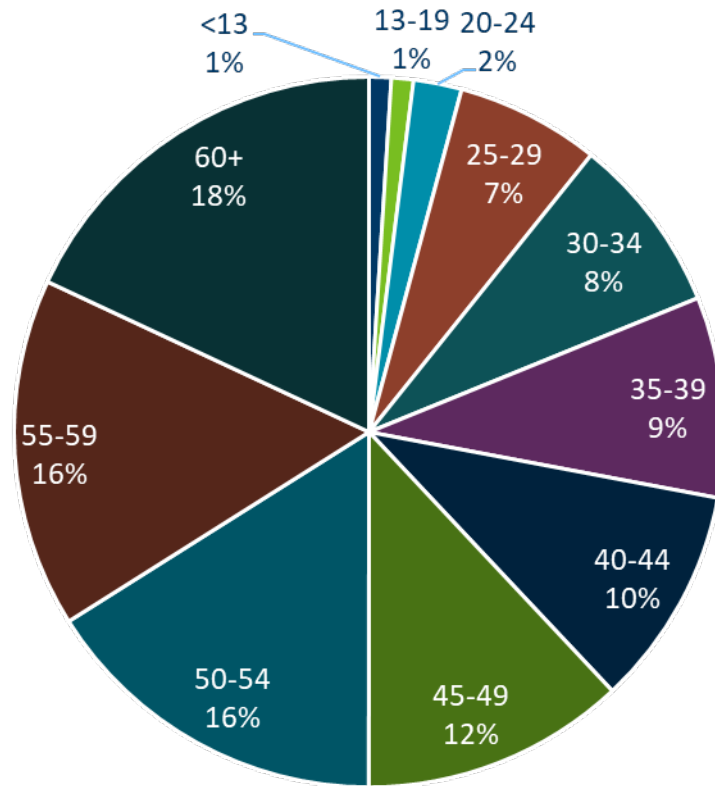
Persons Living with HIV/AIDS in Minnesota by Age Group*, 2018



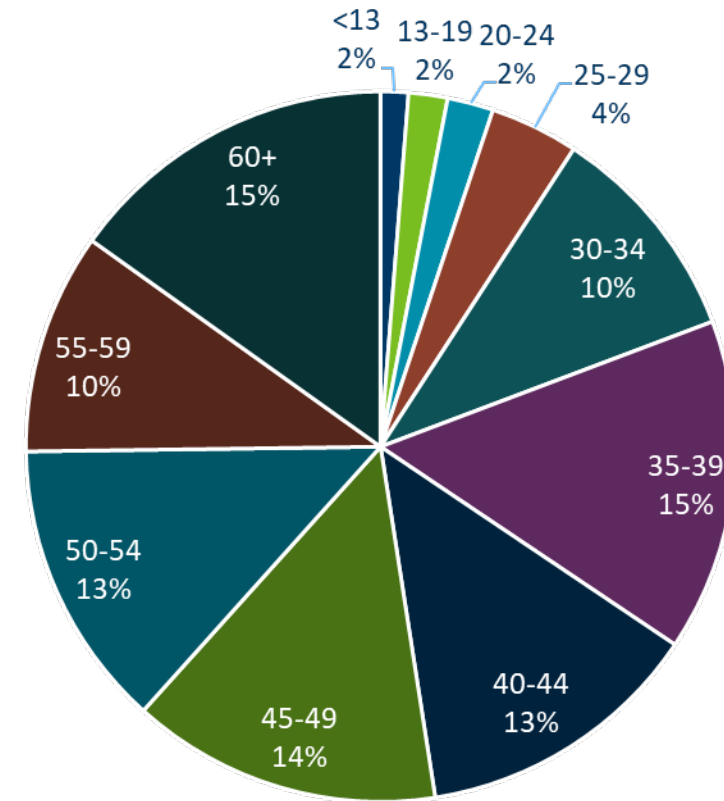
*Age missing for 7 persons living with HIV/AIDS

Persons Living with HIV/AIDS in Minnesota by Age* and Sex Assigned at Birth, 2018

Assigned Male at Birth (n=6738)



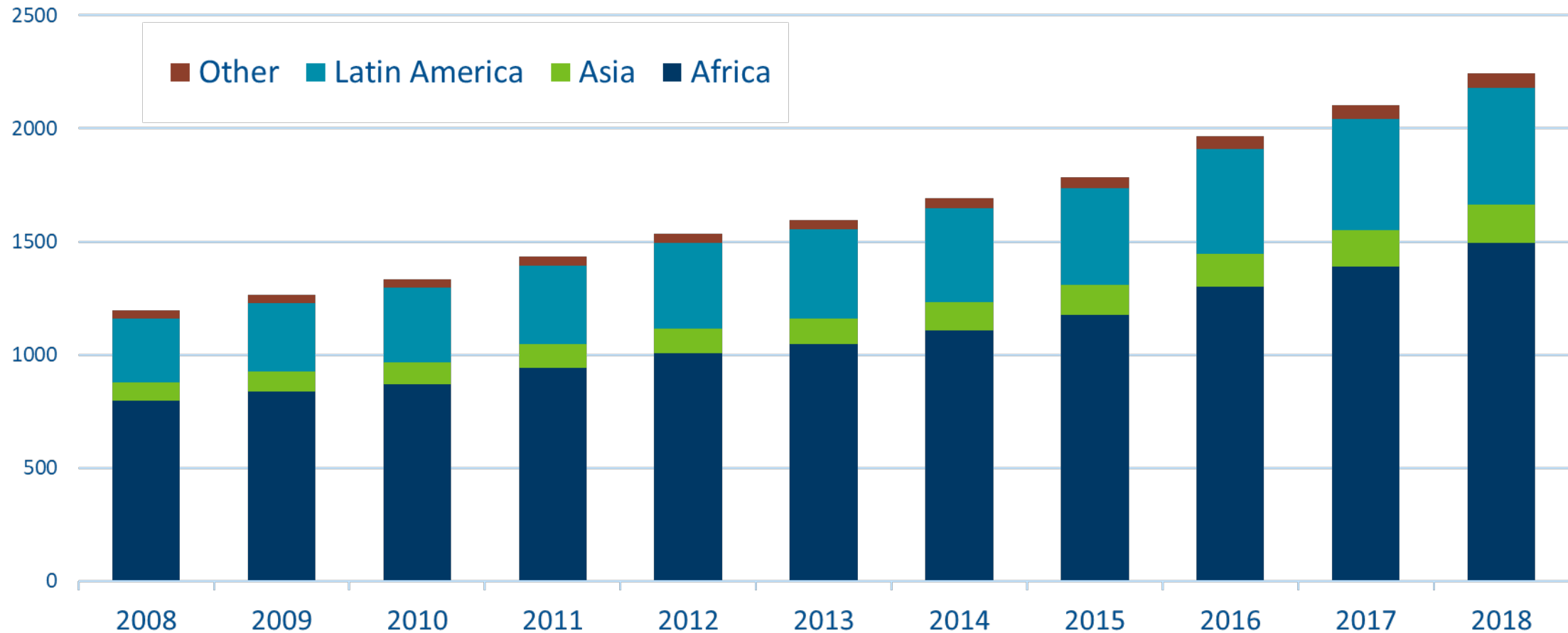
Assigned Female at Birth (n=2236)



*Age missing for 7 persons living with HIV/AIDS

Foreign Born Populations

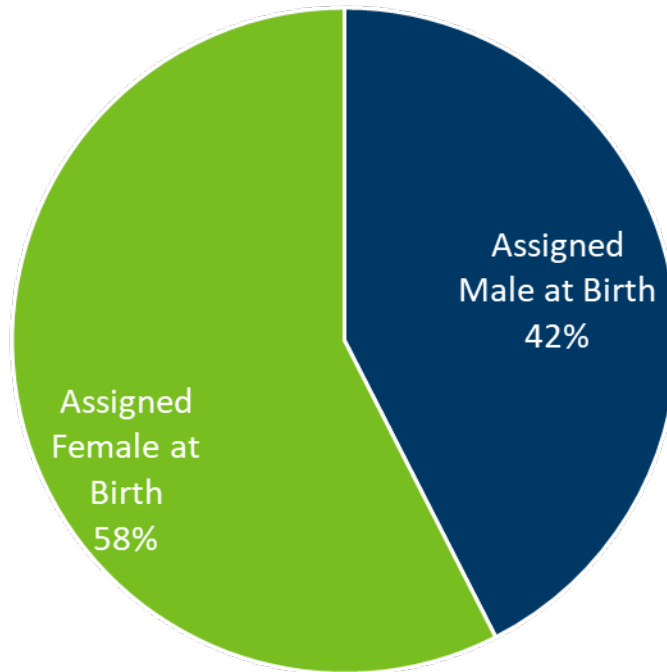
Foreign Born Persons Living with HIV/AIDS in Minnesota by Region of Birth, 2008-2018



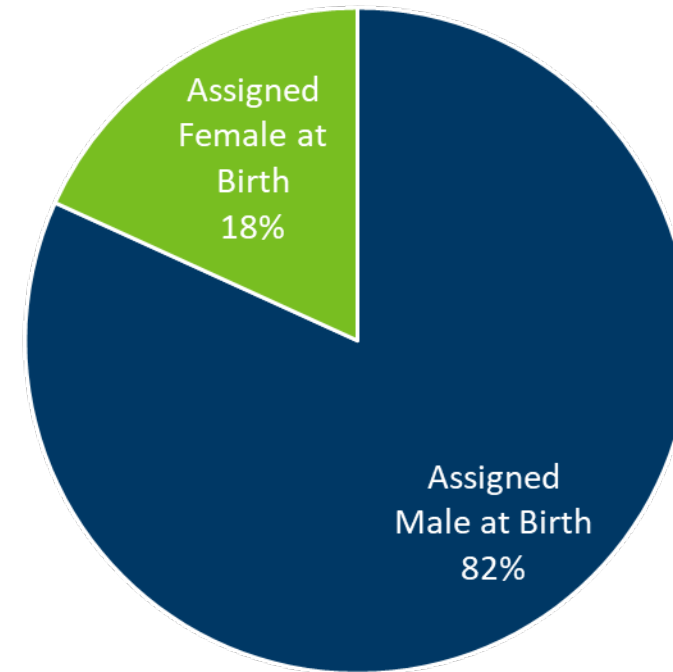
*This number includes persons who reported Minnesota as their current state of residence, regardless of residence at time of diagnosis. It also includes state prisoners and refugees arriving through the HIV+ Refugee Resettlement Program, as well as HIV+ refugees/immigrants arriving through other programs.

African-Born* Persons Living with HIV/AIDS Compared to Other Minnesota Cases by Sex Assigned at Birth, 2018

African-born Cases (n=1494)



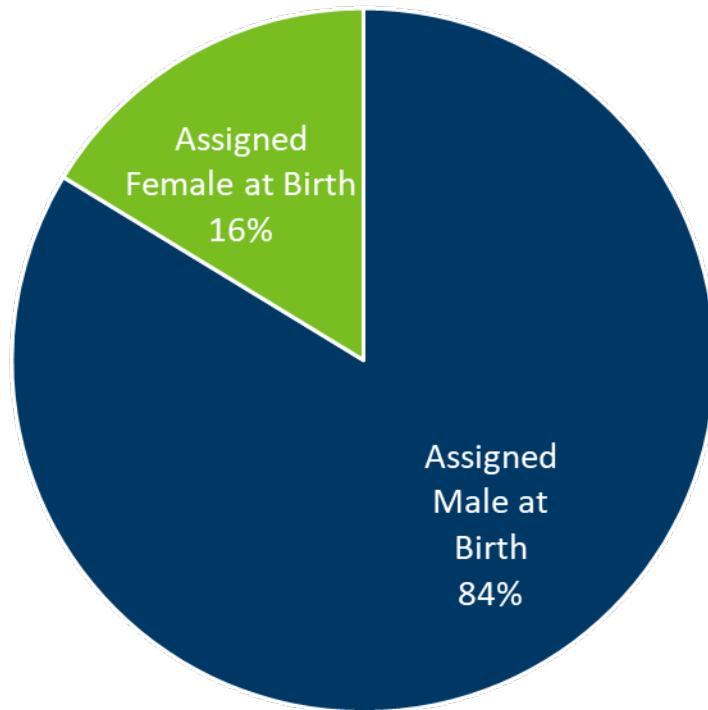
U.S.-born Cases (n=6737)



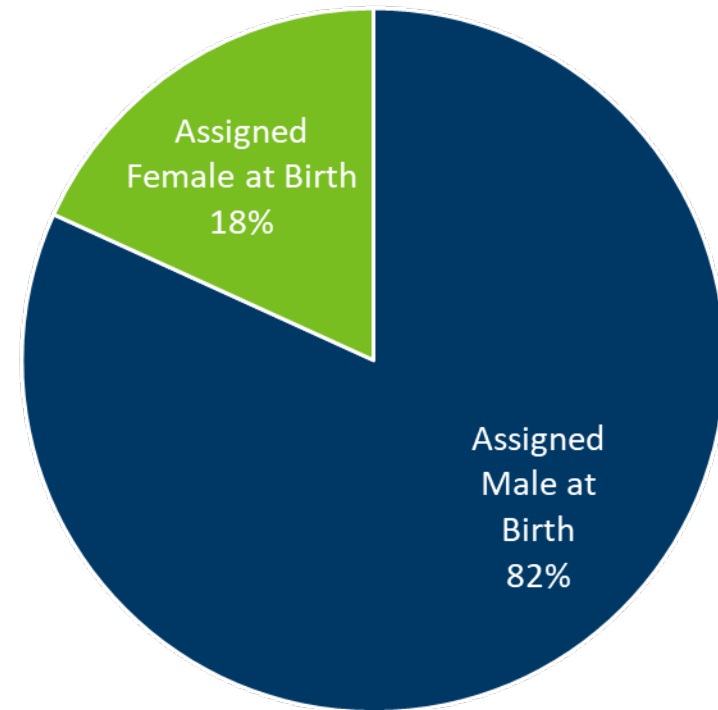
*Includes persons arriving to Minnesota through the HIV+ Refugee Resettlement Program and other refugee/immigrant programs. Also includes 4 Hispanic, 4 White, and 15 Multi-Race identifying African-born persons. Three African-born persons had missing race information.

Latin American/Caribbean* Persons Living with HIV/AIDS Compared to Other Minnesota Cases by Sex Assigned at Birth, 2018

Latin American/Caribbean Cases (n=516)



U.S.-born Cases (n=6688)



*Includes Mexico and all Central/South American and Caribbean countries.

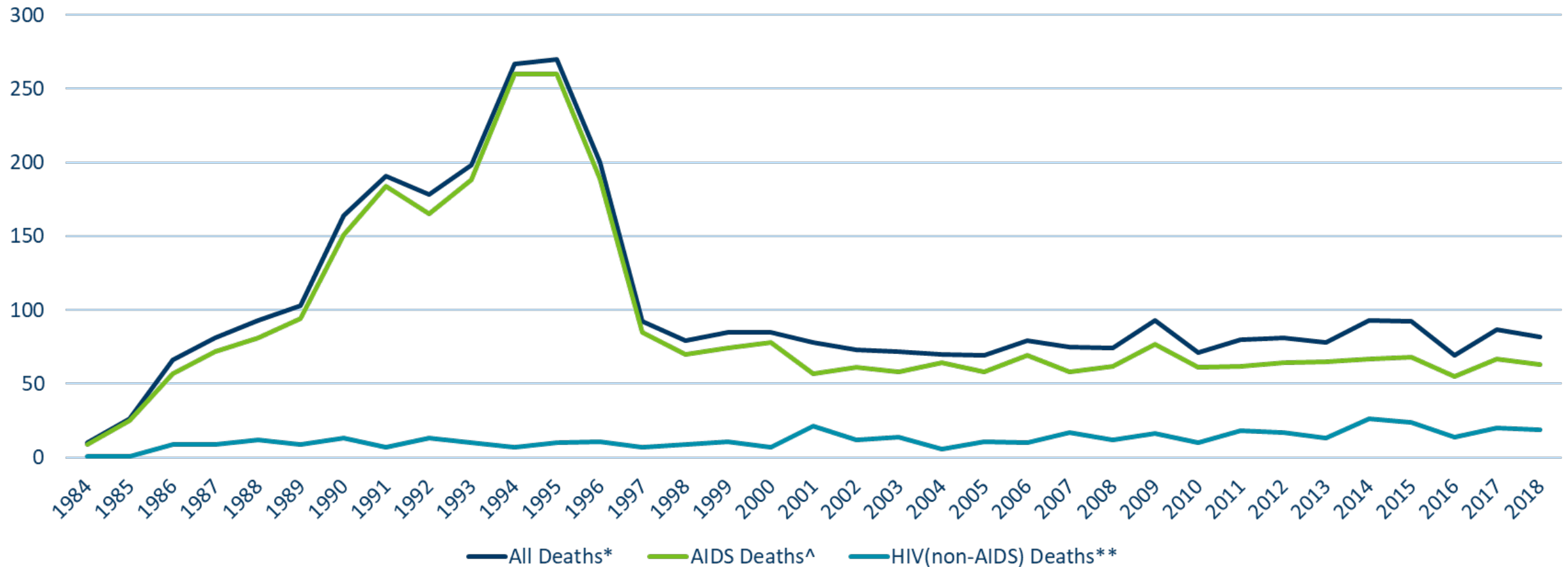
Countries of Birth Among Foreign Born Persons* Living with HIV/AIDS in Minnesota, 2018

Country of Birth	Number of Prevalent Cases	Percent of Total
Ethiopia	337	15%
Mexico	278	12%
Liberia	252	11%
Kenya	192	8%
Somalia	153	7%
Cameroon	120	5%
Sudan	72	3%
Nigeria	61	3%
Uganda	40	2%
Guatemala	34	1%
Other* Countries	750	33%

*Includes over 100 additional countries

Mortality

Reported Deaths Among Persons living with HIV/AIDS in Minnesota, 1984-2018



*Number of deaths known to have occurred among all people living with HIV infection in Minnesota, regardless of location of diagnosis or cause of death

^Number of deaths known to have occurred among people living with AIDS in Minnesota in a given calendar year, regardless of location of diagnosis or cause of death

**Number of deaths known to have occurred among people living with HIV (non-AIDS) in Minnesota in a given calendar year, regardless of location of diagnosis or cause of death

HIV/AIDS Surveillance Technical Notes

Surveillance of HIV/AIDS

The Minnesota Department of Health (MDH) collects case reports of HIV infection and AIDS diagnoses through a passive and active HIV/AIDS surveillance system. Passive surveillance relies on physicians and laboratories to report new cases of HIV infection or AIDS directly to the MDH in compliance with state rules¹. Active surveillance conducted by MDH staff involves routine visits and correspondence with select HIV clinical facilities to ensure completeness of reporting and accuracy of the data.

Factors that impact the completeness and accuracy of HIV/AIDS surveillance data include: availability and targeting of HIV testing services, test-seeking behaviors of HIV-infected individuals, compliance with case reporting, and timeliness of case reporting. Certain events have also impacted trends in HIV/AIDS surveillance data. For example changes over time in the surveillance case definition (most notably the 1993 expansion of the case definition for adults and adolescents²) have resulted in artificial jumps in AIDS case counts at the time the new definition went into effect or in the preceding year because changes in case definition allowed for retrospective diagnoses. Additionally, on January 4, 2010 the U.S. travel ban on HIV+ visitors and immigrants was lifted. Persons now testing positive for the first time in Minnesota after arriving from their native country will no longer be assigned the status of 'immigrant', as compared to those who were diagnosed pre-2010 during obligatory immigrant physical examinations. Finally, an amendment to the communicable disease reporting rule was passed in June 2011, requiring the report of all CD4 and Viral Load test results.

New HIV Diagnoses

New HIV diagnoses refer to persons who are diagnosed with HIV infection and newly reported to the MDH. This includes case-patients that meet the CDC surveillance definition for AIDS at the time they are initially diagnosed with HIV infection (AIDS at first diagnosis). Cases of new HIV diagnosis are displayed by year of earliest HIV diagnosis. The number of new HIV diagnoses in Minnesota includes only persons who were first reported with HIV infection while residents of Minnesota. Persons moving to Minnesota already infected with HIV are excluded if they were previously reported in another state.

Vital Status of HIV/AIDS Cases

Persons are assumed alive unless the MDH has knowledge of their death. Vital status information is updated by monthly visits to select reporting facilities, correspondence with other health departments, annual death certificate reviews (updated through December 31,

¹ Minnesota Rule 4605.7040

² MMWR 1992;41[no.RR-17]:1-19

2018), and periodic matches with the National Death Index (updated through December 31, 2016) and Social Security Death Master File (updated through March 31, 2017). “All deaths” refers to all deaths among HIV/AIDS cases regardless of the cause of death.

Place of Residence for HIV/AIDS Cases

Persons are assumed to be residing in Minnesota if their most recently reported state of residence was Minnesota and the MDH has not received notice of relocation outside of the state. Likewise, a person’s county or city of residence is assumed to be the most recently reported value unless the MDH is otherwise notified. Residence information is updated through standard case reporting, routine lab reporting, and/or correspondence with other state health departments. Persons diagnosed with HIV infection while imprisoned in a state correctional facility are included in the data presented unless otherwise noted (federal and private prisoners are excluded). Residential relocation, including release from state prison, is difficult to track and therefore data presented by *current* residence must be interpreted in this light. Data on residence *at time of diagnosis* are considered more accurate, limited only by the accuracy of self-reported residence location.

Data Tabulation and Presentation

The data displayed are not adjusted to correct for reporting delays, case definition changes, or other factors.

MDH surveillance reports published before 2000 displayed data by year of report while subsequent reports display the data by earliest date of HIV diagnosis. The report date is a function of reporting practices and may be months or years after the date of diagnosis and the date of infection. The date of diagnosis is temporally closer to the date of infection. Displaying data by year of diagnosis more closely approximates when infection occurred. Readers should bear in mind that diagnosis date is also an approximation for infection date. Many years may pass between time of infection and diagnosis; the incubation period³ for HIV/AIDS is approximately 10 years. It should also be noted that because of delays in reporting, the annual number of cases reportedly diagnosed in recent years is slightly lower than actual. This discrepancy corrects itself over time. The number of cases diagnosed within a calendar year changes relatively little after two years have passed.

Unless otherwise noted, data analyses exclude persons diagnosed in federal or private correctional facilities (inmates generally are not Minnesota residents before incarceration and do not stay in Minnesota upon their release), infants with unknown or negative HIV status who were born to HIV positive mothers, HIV-infected refugees who resettled in Minnesota as part of the HIV-Positive Refugee Resettlement Program, and other refugees/immigrants with a documented HIV diagnosis prior to their arrival in Minnesota. However, refugees in the HIV-

³ Incubation period is the time between initial infection with the virus and the development of disease symptoms.

Positive Refugee Resettlement Program, as well as, other refugees/immigrants diagnosed with AIDS subsequent to their arrival in the U.S. are included in the number of new AIDS cases.

Mode of Exposure Hierarchy

All state and city HIV/AIDS surveillance systems funded by the Centers for Disease Control and Prevention use a standardized hierarchy of mode of exposure categories. HIV and AIDS cases with more than one reported mode of exposure to HIV are classified in the exposure category listed first in the hierarchy. In this way, each case is counted as having only one mode of exposure. The only exception to this rule is the joint risk of male-to-male sex (MSM) and injection drug use (IDU), which makes up a separate exposure category in the hierarchy. The following is a list of the hierarchy for adolescent/adult HIV/AIDS cases:

1. MSM
2. IDU
3. MSM/IDU
4. Hemophilia patient
5. Heterosexual contact
6. Receipt of blood transfusion or tissue/organ transplant
7. Other (e.g. needle stick in a health care setting)
8. Risk not specified.

The following is the list of the hierarchy for pediatric HIV/AIDS cases:

1. Hemophilia patient
2. Mother with HIV or HIV risk
3. Receipt of blood transfusion or tissue/organ transplant
4. Other
5. Risk not specified.

Heterosexual contact is only designated if a male or female can report specific heterosexual contact with a partner who has, or is at increased risk for, HIV infection (e.g. an injection drug user). For females this includes heterosexual contact with a bisexual male (mainly due to the elevated prevalence of HIV infection among men who have sex with men).

“Risk not specified” refers to cases with no reported history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories. These cases include persons who have not yet been interviewed by MDH staff; persons whose exposure history is incomplete because they died, declined to be interviewed, or were lost to follow-up; and persons who were interviewed or for whom follow-up information was available but no exposure was identified/acknowledged.

The growing number of cases with unspecified risk in recent years is, in part, artificial and due to interviews that have not yet been completed. In time, a number of these will be assigned a mode of exposure category. However, part of the observed increase is real. As stated above, a person must have intimate knowledge about his/her partner to meet the criteria for heterosexual mode of exposure. Often cases will not be certain about their partners’ HIV status or risk. Additionally, the perception of social stigma presumably decreases the likelihood that a person will acknowledge certain risk behaviors, particularly male-to-male sex or injection drug

use. Thus, if the *true* numbers of cases due to heterosexual contact, MSM, and/or IDU increase, a larger number of cases without a specified risk would be expected.

MSM Estimate

In 2017 a national estimate of MSM populations was published that modeled data from the American Community Survey and the National Health and Nutrition Examination Survey in conjunction with census data to calculate local MSM estimates⁴.

This method estimated that there are 4,642,002 MSM living in the US and 90,633 MSM living in MN.

Definitions Related to Race/Ethnicity

When data are stratified by race, black race is broken down into African-born and African American (not African-born) based on reported country of birth.

The terms “persons of color” and “non-whites” refer to all race/ethnicity categories other than white (black, Hispanic, American Indian, and Asian/Pacific Islander).

Routine Interstate Duplicate Review (RIDR)

The Minnesota Department of Health (MDH) continues to participate in RIDR. RIDR is a CDC project aimed at eliminating duplicate reports of HIV and AIDS cases among states. Each case of HIV and AIDS is assigned to the state (or states when the diagnosis of HIV and AIDS occurs in two different states) where a person was first diagnosed. RIDR was the second such de-duplication initiative by CDC. The first initiative, IDEP, looked at cases reported through December 31, 2001. RIDR is now an ongoing activity that all states are expected to undertake. CDC will release a RIDR report every 6 months which will affect the ownership of Minnesota cases. While the Surveillance staff will always inquire about previous diagnosis and will check with CDC to determine if the case has been previously reported, it is possible that cases we believe to have been initially diagnosed in Minnesota were in fact diagnosed in another state. Ongoing participation in this initiative will allow for proper attribution of incident and prevalent cases in Minnesota.

Minnesota Department of Health
651-201-5414

www.health.state.mn.us/hiv

04/30/2019

To obtain this information in a different format, call: 651-201-5414.

⁴ Grey J, Bernstein M, Sullivan P, et al. Rates of Primary and Secondary Syphilis Among White and Black non-Hispanic Men Who Have Sex with Men, US States, 2014. JAIDS Journal of Acquired Immune Deficiency Syndromes; November 2017.

HIV Incidence Report Data Tables, Minnesota 2018

Table 1. Number of New Cases and Rates (per 100,000 persons) of HIV Diagnoses, HIV (non-AIDS), & AIDS (New Diagnosis AIDS, Progressed to AIDS)^I Minnesota, 1982-2018

Year	HIV Diagnosis ^{III}		HIV (non-AIDS) ^{III}		New AIDS Diagnosis		Progressed to AIDS		Total AIDS ^{IV}	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
1982-1999	6,033	--	5,034	--	999	--	2531	--	3,530	--
2000	282	5.7	220	4.5	62	1.3	111	2.3	173	3.5
2001	282	5.7	231	4.6	51	1.0	95	1.9	146	2.9
2002	307	6.1	250	5.0	57	1.1	117	2.3	174	3.5
2003	281	5.6	228	4.5	53	1.0	143	2.8	196	3.9
2004	308	6.1	240	4.7	68	1.3	179	3.5	247	4.9
2005	305	6.0	246	4.8	59	1.2	157	3.1	216	4.2
2006	315	6.1	268	5.2	47	0.9	149	2.9	196	3.8
2007	330	6.3	264	5.1	66	1.3	123	2.4	189	3.6
2008	322	6.1	249	4.7	73	1.4	130	2.5	203	3.9
2009	366	6.9	278	5.3	88	1.7	101	1.9	189	3.6
2010	331	6.2	248	4.7	83	1.6	98	1.8	181	3.4
2011	292	5.5	221	4.2	71	1.3	116	2.2	187	3.5
2012	314	5.9	237	4.5	77	1.5	122	2.3	199	3.8
2013	303	5.7	218	4.1	85	1.6	80	1.5	165	3.1
2014	312	5.9	237	4.5	75	1.4	95	1.8	170	3.2
2015	303	5.7	234	4.4	69	1.3	79	1.5	148	2.8
2016	300	5.7	239	4.5	61	1.2	74	1.4	135	2.5
2017	280	5.3	215	4.1	65	1.2	81	1.5	146	2.8
2018	286	5.4	228	4.3	58	1.1	58	1.1	116	2.2
Cumulative Total^{II}	11,852	223.5	9,585	180.7	2267	42.7	4639	87.5	6,906	130.2

^I HIV Diagnosis = New cases of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year. HIV (non-AIDS) = New cases of HIV diagnosis (excluding AIDS at first diagnosis) diagnosed within a given calendar year. New AIDS Diagnosis= AIDS at first diagnosis. Progressed to AIDS= diagnosis of HIV (non-AIDS) in a previous year with a diagnosis of AIDS in given calendar year. Total AIDS = All new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis.

^{II} The cumulative rate is calculated by dividing the cumulative number of cases by the estimated current state population and multiplying by 100,000. Rates for individual calendar years were calculated using 2010 U.S. Census population data (2010-2013), 2000 U.S. Census population data for 2000, and U.S. Census intercensal population estimates released in September 2011 were used for years 2001-2009.

^{III} Numbers and rates exclude federal and private prisoners and refugees in the HIV-Positive Refugee Resettlement Program, as well as refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota

^{IV} Numbers and rates include refugees in the HIV-Positive Refugee Resettlement Program, as well as other refugee/immigrants diagnosed with AIDS subsequent to their arrival in the U.S.

The sum of HIV (non-AIDS) cases and AIDS cases will be greater than the number of cases of HIV Infection in a given year. The difference occurs because, unlike the HIV Infection category, the AIDS category includes both cases that are AIDS at first diagnosis as well as those cases that progress from HIV (non-AIDS) to AIDS during the year (see above definitions).

Table 2. Number of Cases and Rates (per 100,000 persons) of HIV Diagnosis by Residence, Age, and Sex Assigned at Birth^I Minnesota, 2018

Group	Males		Females		Total		HIV
	Cases	%	Cases	%	Cases	%	Infection Rate
Residence^{II}							
Minneapolis	68	31%	7	10%	75	26%	19.6
St. Paul	26	12%	7	10%	33	12%	11.6
Suburban	73	34%	40	58%	113	40%	5.2
Greater Minnesota	50	23%	15	22%	65	23%	2.6
Total	217	100%	69	100%	286	100%	5.4
Age							
<13 yrs	0	0%	1	1%	1	0%	0.1
13-19 yrs	7	3%	1	1%	8	3%	1.6
20-24 yrs	26	12%	4	6%	30	10%	8.4
25-29 yrs	53	24%	11	16%	64	22%	17.2
30-34 yrs	38	18%	11	16%	49	17%	14.3
35-39 yrs	30	14%	13	19%	43	15%	13.1
40-44 yrs	23	11%	8	12%	31	11%	8.8
45-49 yrs	15	7%	11	16%	26	9%	6.4
50-54 yrs	14	6%	3	4%	17	6%	4.2
55-59 yrs	6	3%	2	3%	8	3%	2.3
60+ yrs	5	2%	4	6%	9	3%	0.9
Total	217	100%	69	100%	286	100%	5.4

^IHIV Diagnosis includes all new cases of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis) among Minnesota residents in 2018.

^{II}Residence at time of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis).

Suburban = Seven-county metropolitan area except Minneapolis & St. Paul (Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties). Greater Minnesota = Remaining 80 counties outside of the seven-county metropolitan area.

Numbers and rates exclude federal and private prisoners and refugees in the HIV-Positive Refugee Resettlement Program, as well as refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota. State prisoners are included (0 diagnosis in 2018).

Rates calculated using U.S. Census 2010 data. Percentages may not add to 100 due to rounding.

Table 3. Number of Cases and Rates (per 100,000 persons) of HIV Diagnosis by Race/Ethnicity & Mode of Exposure^I Minnesota by Sex Assigned at Birth, 2018

	Males			Females			Total		
Group	Cases	%	Rate ^{IV}	Cases	%	Rate ^{IV}	Cases	%	Rate ^{III}
Race/Ethnicity									
White, non-Hispanic	93	43%	4.2	21	31%	0.9	114	40%	2.5
Black ^{II} , African-American, non-Hispanic	49	23%	X	13	19%	X	62	22%	36.6
Black ^{II} , African-born ^{III} , non-Hispanic	23	11%	X	25	37%	X	48	17%	45.8
Hispanic, any race	34	16%	25.8	2	3%	1.7	36	13%	14.4
American Indian, non-Hispanic	4	2%	#	4	6%	#	8	3%	#
Asian/PI, non-Hispanic	6	3%	5.7	0	0%	#	6	2%	2.8
Other ^{II} , non-Hispanic	7	3%	X	2	3%	X	9	3%	X
Total	216	100%	8.2	67	100%	2.5	283	100%	5.3
Mode of Exposure									
MSM	128	59%	X	--	--	X	128	45%	X
IDU	3	1%	X	8	13%	X	11	4%	X
MSM/IDU	21	10%	X	--	--	X	21	7%	X
Heterosexual	14	6%	X	20	31%	X	34	12%	X
Perinatal	0	0%	X	1	2%	X	1	0%	X
Other	0	0%	X	0	0%	X	0	0%	X
Unspecified	51	24%	X	40	58%	X	91	32%	X
Total	217	100%	8.2	69	100%	2.6	286	100%	5.4

^I HIV Diagnosis includes all new cases of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis) among Minnesota residents in 2018.

^{II} African-born Blacks are reported separately from other Blacks (born in the U.S. or elsewhere). The Black, African-American population is non-Hispanic. "Other" includes multi-racial persons and persons with unknown race

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^{III} Rates calculated using U.S. Census 2010 data. The population estimate for African-born persons was calculated by the Minnesota State Demographic Center . The population estimate for Black, African-American persons (191,584) was calculated by subtracting the U.S. Census estimate for African-born persons (77,557) from the total Black population (269,141). Note that this assumes that all African-born persons are Black (as opposed to another race).

^{IV} U.S. Census 2010 data necessary to calculate race-specific rates by gender are not available for all subpopulations, and/or numbers are too small to calculate reliable rates.

Numbers exclude federal and private prisoners and refugees in the HIV-Positive Refugee Resettlement Program, as well as, refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

MSM = Men who have sex with men. IDU = Injecting drug use. Heterosexual = For males: heterosexual contact with a female known to be HIV+, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. For females: heterosexual contact with a male known to be HIV+, bisexual, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. Perinatal = Mother to child HIV transmission; birth may have occurred in a previous year. Unspecified = Cases who did not acknowledge any of the risks listed above. No Interview, Unspecified = Cases who refused to be, could not be or have not yet been interviewed.

Percentages may not add to 100 due to rounding.

Table 4. Number of Cases and Rates (per 100,000 persons) of HIV Diagnosis by County of Residence¹ – Minnesota, 2018

County	HIV Diagnosis		County	HIV Diagnosis	
	Cases	Rate		Cases	Rate
Aitkin	0	-	Freeborn	2	-
Anoka	15	4.5	Goodhue	2	-
Becker	2	-	Grant	0	-
Beltrami	1	-	Hennepin	135	11.7
Benton	1	-	Houston	0	-
Big Stone	0	-	Hubbard	0	-
Blue Earth	5	7.8	Isanti	0	-
Brown	0	-	Itasca	0	-
Carlton	1	-	Jackson	0	-
Carver	2	-	Kanabec	1	-
Cass	1	-	Kandiyohi	0	-
Chippewa	0	-	Kittson	0	-
Chisago	1	-	Koochiching	0	-
Clay	1	-	Lac Qui Parle	0	-
Clearwater	0	-	Lake	0	-
Cook	0	-	Lake of the Woods	0	-
Cottonwood	0	-	Le Sueur	1	-
Crow Wing	1	-	Lincoln	1	-
Dakota	13	3.3	Lyon	0	-
Dodge	0	-	McLeod	0	-
Douglas	2	-	Mahnomen	0	-
Faribault	0	-	Marshall	0	-
Fillmore	0	-	Martin	0	-

County	HIV Diagnosis		County	HIV Diagnosis	
	Cases	Rate		Cases	Rate
Meeker	1	-	Roseau	0	-
Mille Lacs	0	-	St. Louis	5	2.5
Morrison	1	-	Scott	3	-
Mower	2	-	Sherburne	5	5.6
Murray	0	-	Sibley	1	-
Nicollet	0	-	Stearns	3	-
Nobles	1	-	Steele	1	-
Norman	1	-	Stevens	0	-
Olmsted	7	4.9	Swift	0	-
Otter Tail	2	-	Todd	0	-
Pennington	2	-	Traverse	0	-
Pine	0	-	Wabasha	0	-
Pipestone	1	-	Wadena	0	-
Polk	0	-	Waseca	1	-
Pope	0	-	Washington	9	3.8
Ramsey	44	8.7	Watonwan	0	-
Red Lake	1	-	Wilkin	1	-
Redwood	0	-	Winona	0	-
Renville	1	-	Wright	1	-
Rice	2	-	Yellow Medicine	1	-
Rock	0	-	<i>State Total</i>	<i>285</i>	<i>5.4</i>

¹HIV Diagnosis includes all new cases of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis) among Minnesota residents in 2018.

²Residence at time of HIV diagnosis (both HIV (non-AIDS) and AIDS at first diagnosis)

³Rates calculated using U.S. Census 2010 data. Rates not calculated for counties with fewer than 5 cases.

Numbers and rates exclude federal and private prisoners and refugees in the HIV-Positive Refugee Resettlement Program, as well as, refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota. HIV infection was diagnosed among 0 state prisoners during 2018 (State correctional facilities are located in the following counties: Anoka, Carlton, Chisago, Goodhue, Itasca, Rice, Scott, Sherburne, and Washington).

Table 5a. Perinatal HIV Exposure^I: Number of Births to HIV-Infected Pregnant Persons by Year of Child's Birth and Mother's Race/Ethnicity, Minnesota 1982-2018

Year(s)	Race/Ethnicity of Pregnant Person							Total	Foreign-born Pregnant Persons ^{IV}	
	White	Black, African-American ^{III}	Black, African-born ^{III}	Hispanic	American Indian	Asian/PI	Multi-racial		Number	(% of total in time period)
1982-1999	84	62	10	9	14	3	8	190	20	11%
2000	12	9	7	2	1	1	1	33	9	27%
2001	1	20	11	1	2	0	1	36	14	39%
2002	9	6	13	3	2	0	3	36	14	39%
2003	5	13	18	6	0	1	4	47	21	45%
2004	7	13	22	3	2	1	1	49	24	49%
2005	7	8	20	3	0	2	1	41	25	61%
2006	7	14	21	6	1	1	2	52	27	52%
2007 [^]	16	12	24	2	2	1	2	60	29	48%
2008	3	12	26	6	0	2	4	53	34	64%
2009	15	13	33	4	1	2	3	71	39	55%
2010 [^]	7	13	22	2	2	1	4	50	23	46%
2011 [^]	10	10	28	9	4	1	4	68	36	53%
2012 [^]	14	11	25	3	2	0	4	59	32	54%
2013 [^]	8	11	32	5	4	1	1	62	35	56%
2014 [^]	5	8	40	4	1	1	5	62	45	73%
2015 [^]	3	10	30	3	0	0	5	49	32	65%
2016 [^]	6	9	32	5	0	1	8	60	38	63%
2017 [^]	5	10	33	4	1	2	2	53	41	77%
2018 [^]	10	10	28	8	0	2	6	65	38	58%
Cumulative Total	234	274	475	88	39	23	69	1,196	576	48%

A birth to an HIV-Infected pregnant person was only included in the table if her residence at the time of child's birth was reported as Minnesota.

^I Exposure of child to HIV during pregnancy, at birth, and/or during breastfeeding.

^{II} HIV-infected pregnant persons may or may not have progressed to an AIDS diagnosis.

^{III} African-born Blacks are reported separately from other Blacks (born in the U.S. or elsewhere).

^{IV} Pregnant Persons' places of birth include: Pregnant Persons' places of birth include: Africa (457), Asia/Pacific Islands (25), Central America/Caribbean (18), Europe (5), Mexico (18), and South America (8).

[^] Pregnant Person's race was missing for 1 birth in 2007, 3 births in 2011, 1 birth in 2012, 2 birth in 2013, 2 birth in 2014, 3 in 2016, and 0 in 2018. Country of mother's birth was missing for 1 birth in 2010, 1 birth in 2011, 1 birth in 2012, 2 birth in 2013, 4 births in 2014, 2 birth in 2015, 4 births in 2016 and 4 in 2017 and 0 in 2018

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Table 5b. Perinatal HIV Transmission^I: Number of Perinatally-Acquired HIV/AIDS Cases by Year of Child's Birth and Pregnant Person's Race/Ethnicity, Minnesota 1982-2018

Year(s)	Race/Ethnicity of Pregnant Person							Total	Foreign-born Pregnant Person ^{III}	
	White	Black, African-American ^{II}	Black, African-born ^{II}	Hispanic	American Indian	Asian/PI	Multi-racial		Number	(% of total in time period)
1982-1999	18	5	3	3	2	2	0	33	6	18%
2000	0	1	0	0	0	0	0	1	0	0%
2001	0	0	0	0	0	0	0	0	0	-
2002	0	0	0	1	0	0	0	1	1	100%
2003	0	0	1	0	0	0	0	1	1	100%
2004	0	0	0	0	0	0	0	0	0	-
2005	0	0	0	0	0	0	0	0	0	-
2006	0	0	1	0	0	0	0	1	1	100%
2007	0	0	1	0	0	0	0	1	1	100%
2008	0	0	0	0	0	0	0	0	0	-
2009	0	0	0	0	0	0	0	0	0	-
2010	0	0	2	0	0	0	0	2	2	100%
2011	0	0	0	0	0	0	0	0	0	-
2012	1	0	0	0	0	0	0	1	1	100%
2013	0	0	0	0	0	0	0	0	0	-
2014	0	1	0	0	0	0	0	1	0	0%
2015	0	1	1	0	0	0	0	2	1	50%
2016	0	0	0	0	0	0	0	0	0	-
2017	1	0	0	0	0	0	0	1	1	100%
2018	0	0	0	0	0	0	0	0	0	-
Cumulative Total	20	8	9	4	2	2	0	45	15	33%
Rate of Transmission 2016-2018	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.9%	--
Cumulative Rate of Transmission ^{IV}	9.0%	3.0%	2.0%	5.0%	5.0%	--	--	4.0%	2.8%	--

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Cases of perinatally-acquired HIV/AIDS were only included in the table if the child's residence at the time of birth was reported as Minnesota.

^I Transmission of HIV from mother to child during pregnancy, at birth, and/or during breastfeeding.

^{II} African-born Blacks are reported separately from other Blacks (born in the U.S. or elsewhere).

^{III} Mothers' places of birth include: Africa (9), Asia/Pacific Islands (2), Central America/Caribbean (1), Europe (1), Mexico (1).

^{IV} The cumulative rate of HIV transmission is calculated by dividing the total number of perinatally-acquired HIV infections by the total number of births in a category and multiplying by 100. Rates calculated only for categories where the cumulative number of births is 30 or greater.

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HIV Prevalence Report Data Tables, Minnesota 2018

Table 1. Number^I and Rate^{II} (per 100,000 persons) of Persons Living with HIV (non-AIDS) and AIDS by Residence, Age, and Sex Assigned at Birth Minnesota, 2018

Group	HIV (non-AIDS)		AIDS		Total		HIV/AIDS
	Cases	%	Cases	%	Cases	%	Prevalence Rate
Residence^{III}							
Minneapolis	1,788	36%	1,402	35%	3,190	36%	833.8
St. Paul	631	13%	518	13%	1,149	13%	403.1
Suburban	1,728	35%	1,377	34%	3,105	35%	142.3
Greater Minnesota	777	16%	745	18%	1,522	17%	62.0
Total	4,924	100%	4,042	100%	8,966	100%	169.0
Age^{IV}							
<13 yrs	45	1%	3	<1%	48	1%	5.2
13-19 yrs	58	1%	7	<1%	65	1%	12.8
20-24 yrs	137	3%	38	1%	175	2%	49.2
25-29 yrs	449	9%	102	3%	551	6%	147.8
30-34 yrs	540	11%	235	6%	775	9%	226.0
35-39 yrs	590	12%	372	9%	962	11%	293.1
40-44 yrs	528	11%	422	10%	950	11%	269.2
45-49 yrs	617	13%	542	13%	1,159	13%	285.3
50-54 yrs	669	14%	721	18%	1,390	15%	346.0
55-59 yrs	570	12%	760	19%	1,330	15%	380.4
60+ yrs	727	15%	842	21%	1,569	17%	162.9
Total	4,930	100%	4,044	100%	8,974	100%	169.2
Gender	3,677	74%	3,068	76%	6,745	75%	256.3
Male	1,260	26%	976	24%	2,236	25%	83.7
Female	4,937	100%	4,044	100%	8,981	100%	169.3
Total	4,937		4,044		8,981		169.3

^I Cases reported to MDH, assumed to be alive, and currently residing in Minnesota as of December 31, 2019.

^{II} HIV/AIDS prevalence rate calculated by dividing the total number of prevalent cases in a stratum (e.g persons aged 20-24 years) by the estimated population for that stratum and multiplying by 100,000. Population estimates are based on 2010 U.S. Census data.

^{III} Residence information missing for 13 persons living with HIV and 2 persons living with AIDS.

^{IV} Age missing for 7 persons living with HIV and 0 persons living with AIDS.

Suburban = Seven-county metropolitan area except Minneapolis & St. Paul (Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties). Greater Minnesota = Remaining 80 counties outside of the seven-county metropolitan area.

Numbers exclude federal and private prisoners, but include 133 state prisoners, 169 refugees in the HIV-Positive Refugee Resettlement Program, and 164 additional refugees/immigrants with HIV infection prior to resettling in Minnesota.

Percentages may not add to 100 due to rounding.

Table 2. Number of People Living with HIV and Rates (per 100,000) Living with HIV (non-AIDS) and AIDS by Race/Ethnicity and Mode of Exposure^I by Sex Assigned at Birth- Minnesota, 2018

	Males				Females				Total					
Group	HIV (non-AIDS)	AIDS	Total		HIV (non-AIDS)	AIDS	Total		HIV (non-AIDS)	AIDS	Grand Total			
			Cases	%			Cases	%			Cases	%	Rate"	
Race/Ethnicity														
White, non-Hispanic	2,063	1,566	3,629	54%	277	211	488	22%	2,340	1,777	4,117	46%	91.0	
Black", African-American, non-Hispanic	711	610	1,321	20%	296	259	555	25%	1,007	869	1,876	21%	1106.2	
Black", African-born, non-Hispanic	308	308	616	9%	510	342	852	38%	818	650	1,468	16%	1400.4	
Hispanic, any race	361	388	749	11%	75	70	145	7%	436	458	894	10%	357.2	
American Indian, non-Hispanic	28	35	63	1%	25	27	52	2%	53	62	115	1%	188.8	
Asian/PI, non-Hispanic	76	61	137	2%	27	24	51	2%	103	85	188	2%	86.9	
Other", non-Hispanic	122	99	221	3%	44	43	87	4%	166	142	308	3%	X	
Total	3,669	3,067	6,736	100%	1,254	976	2,230	100%	4,923	4,043	8,966	100%	169.0	
Mode of Exposure														
MSM	2,508	1,856	4,364	65%	--	--	--	--	2,508	1,856	4,364	49%	X	
IDU	105	135	240	4%	80	95	175	8%	185	230	415	5%	X	
MSM/IDU	254	232	486	7%	--	--	--	--	254	232	486	5%	X	
Heterosexual (Total)	(135)	(173)	(308)	5%	(442)	(364)	(806)	36%	(577)	(537)	(1114)	12%	X	
Perinatal	34	17	51	1%	45	13	58	3%	79	30	109	1%	X	
Other	7	19	26	0%	3	3	6	0%	10	22	32	0%	X	
Unspecified	634	636	1,270	19%	690	501	1,191	53%	1,324	1,137	2,461	27%	X	
Total	3,677	3,068	6,745	100%	1,260	976	2,236	100%	4,937	4,044	8,981	100%	169.3	

^I Cases reported to MDH, assumed to be alive and currently residing in Minnesota as of December 31, 2018.

^{II} African-born Blacks are reported separately from other Blacks (born in the U.S. or elsewhere). "Other" includes multi-racial persons and persons with unknown or missing race.

^{III} Rates calculated using U.S. Census 2010 data. The population estimate for African-born persons was calculated by the Minnesota State Demographic Center. The population estimate for Black, African-American persons (169,584) was calculated by subtracting the U.S. Census estimate

for African-born persons (104,828) from the total Black population (274,412). Note that this assumes that all African-born persons are Black (as opposed to another race).

^{IV} Hetero, unknown risk - Females who were interviewed and whose only risk is heterosexual contact but who were not able to provide information on the sexual partner's risk.

MSM = Men who have sex with men. IDU = Injecting drug use. Heterosexual = For males: heterosexual contact with a female known to be HIV+, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. For females: heterosexual contact with a male known to be HIV+, bisexual, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. Perinatal = Mother to child HIV transmission. Other = Hemophilia patient/blood product or organ transplant recipient. Unspecified = Cases who did not acknowledge any of the risks listed above. No Interview, Unspecified = Cases who refused to be, could not be or have not yet been interviewed.

Numbers exclude federal and private prisoners, but include 133 state prisoners, 169 refugees in the HIV-Positive Refugee Resettlement Program, and 164 additional refugees/immigrants with HIV infection prior to resettling in Minnesota.

Percentages may not add to 100 due to rounding.

Table 3. Number and Rate (per 100,000) of Persons Living with HIV (non-AIDS) and AIDS by County of Residence¹ -- Minnesota, 2018

County ^{II}	HIV (non-AIDS)	AIDS	Total	Rate ^{III}
Aitkin	4	1	5	30.9
Anoka	239	205	444	134.2
Becker	8	7	15	46.1
Beltrami	14	13	27	60.8
Benton	19	18	37	96.2
Big Stone	0	0	0	-
Blue Earth	26	17	43	67.2
Brown	5	6	11	42.5
Carlton	5	12	17	48.0
Carver	27	32	59	64.8
Cass	8	11	19	66.5
Chippewa	3	5	8	64.3
Chisago	12	10	22	40.8
Clay	29	17	46	78.0
Clearwater	2	2	4	-
Cook	0	2	2	-
Cottonwood	3	6	9	77.0
Crow Wing	10	6	16	25.6
Dakota	261	210	471	118.2
Dodge	3	2	5	24.9
Douglas	9	4	13	36.1
Faribault	3	5	8	55.0
Fillmore	4	2	6	28.8
Freeborn	2	11	13	41.6
Goodhue	6	14	20	43.3
Grant	4	4	8	132.9

County ^{II}	HIV (non-AIDS)	AIDS	Total	Rate ^{III}
Hennepin	2665	2064	4,729	410.4
Houston	4	6	10	52.6
Hubbard	3	2	5	24.5
Isanti	12	8	20	52.9
Itasca	10	11	21	46.6
Jackson	4	6	10	97.4
Kanabec	4	4	8	49.3
Kandiyohi	19	13	32	75.8
Kittson	0	3	3	-
Koochiching	1	0	1	-
Lac Qui Parle	0	3	3	-
Lake	5	2	7	64.4
Lake of the Woods	0	1	0	1
Le Sueur	6	9	15	54.1
Lincoln	4	1	5	84.8
Lyon	7	4	11	42.5
McLeod	13	9	22	60.0
Mahnomen	0	0	0	-
Marshall	2	0	2	-
Martin	7	7	14	67.2
Meeker	8	4	12	51.5
Mille Lacs	4	15	19	72.8
Morrison	7	7	14	42.2
Mower	32	31	63	160.9
Murray	2	0	2	-
Nicollet	10	8	18	55.0

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County ^I	HIV (non-AIDS)	AIDS	Total	Rate ^{III}
Nobles	14	15	29	135.7
Norman	3	0	3	-
Olmsted	93	83	176	122.0
Otter Tail	14	8	22	38.4
Pennington	4	3	7	50.3
Pine	6	9	15	50.4
Pipestone	3	2	5	52.1
Polk	9	10	19	60.1
Pope	3	6	9	81.9
Ramsey	766	643	1,409	277.0
Red Lake	0	2	2	-
Redwood	2	1	3	-
Renville	3	5	8	50.9
Rice	46	31	77	120.0
Rock	2	4	6	61.9
Roseau	0	0	0	-
St. Louis	78	87	165	82.4
Scott	57	64	121	93.1

County ^I	HIV (non-AIDS)	AIDS	Total	Rate ^{III}
Sherburne	28	26	54	61.0
Sibley	4	1	5	32.8
Stearns	41	55	96	63.7
Steele	8	6	14	38.3
Stevens	0	3	3	-
Swift	1	5	6	61.3
Todd	1	2	3	-
Traverse	1	1	2	-
Wabasha	3	5	8	36.9
Wadena	2	2	4	-
Waseca	4	4	8	41.8
Washington	132	79	211	88.6
Watsonwan	2	2	4	-
Wilkin	1	2	3	-
Winona	18	8	26	50.5
Wright	38	29	67	53.7
Yellow Medicine	1	0	1	-
State Total^{II}	4,924	4,042	8,966	182.3

^I Cases reported to the MDH, assumed to be alive and currently residing in a Minnesota county as of December 31, 2018.

^{II} Residence information missing for 12 persons living with HIV and 3 persons living with AIDS. Total rate is based on all cases in the state (n=8,966). Numbers by county exclude federal, and private prisoners, but include 169 refugees in the HIV-Positive Refugee Resettlement Program and 164 additional refugees/immigrants with HIV infection prior to resettling in Minnesota. Numbers for counties in which a state correctional facility is located exclude those inmates. The total number of state prisoners is 133. State correctional facilities are located in the following counties: Anoka, Carlton, Chisago, Goodhue, Itasca, Rice, Scott, Sherburne, and Washington.

^{III} HIV/AIDS prevalence rate calculated by dividing the total number of prevalent cases in a stratum (e.g persons living in Hennepin county) by the estimated population for that stratum and multiplying by 100,000. Population estimates are based on 2010 U.S. Census data. Rates not calculated for counties with fewer than 5 cases.

Table 4. Number of New HIV Cases, People Living with HIV (PLWH), All Deaths¹ and Deaths Due to Underlying HIV disease, Minnesota 2007-2018

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total HIV Diagnoses	330	322	366	331	292	314	303	312	303	300	280	286
PLWH	5,950	6,221	6,552	6,814	7,136	7,516	7,723	7,988	8,215	8,554	8,789	8,966
All Deaths	128	115	127	111	134	108	123	167	141	107	106	82
Death Due to Underlying HIV Disease	75	54	70	61	51	30	52	61	44	46	36	26

¹ HIV (non-AIDS) = New cases of HIV infection (excluding AIDS at first diagnosis) diagnosed within a given calendar year. AIDS = All new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis. All deaths= Number of deaths known to have occurred among all people living with HIV infection in Minnesota, regardless of location of diagnosis and cause of death.

¹¹Numbers include refugees in the HIV-Positive Refugee Resettlement Program and other refugees/immigrants diagnosed with AIDS subsequent to their arrival in the U.S.

These numbers refer to events, not individuals. For example, a person diagnosed as an HIV (non-AIDS) case in 2003 and then diagnosed as an AIDS case in 2008 will be counted twice in Table 4, once for each event. Thus, the numbers of HIV (non-AIDS) and AIDS cases cannot be summed over years to obtain cumulative totals. Please refer to the Minnesota HIV Surveillance Report, 2018 New HIV Infections, Table 1 for cumulative totals.

Case numbers exclude federal and private prisoners.

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