HIV Surveillance Report, 2016

HIV/AIDS Surveillance System



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 the *Companion Text to the Minnesota HIV Surveillance Report, 2016* or *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 2016 and reported to the Minnesota Department of Health (MDH) HIV/AIDS Surveillance System.
- The data are displayed by year of HIV diagnosis.

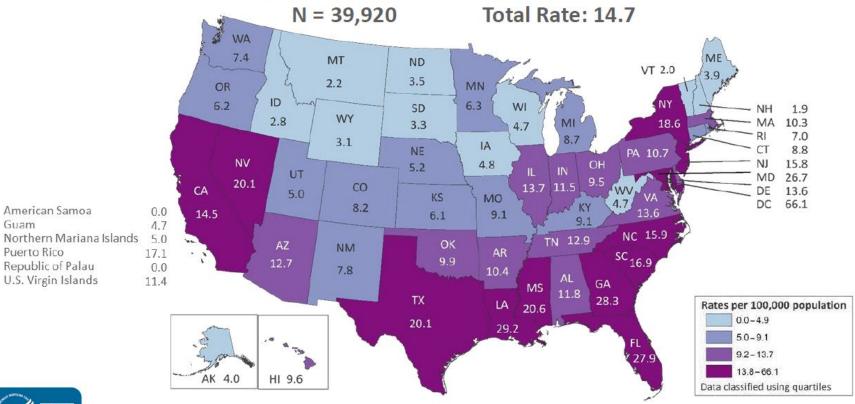
Introduction (II)

- Data analyses exclude persons diagnosed in federal or private correctional facilities, but include state prisoners (number of state prisoners believed to be living with HIV/AIDS = 102).
- Data analyses for new HIV diagnoses exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program (number of primary HIV+ refugees in this program living in MN as of December 31, 2016= 168), as well as, other refugees/immigrants reporting a positive test prior to their arrival in Minnesota (n=171).
- Some limitations of surveillance data:
 - Data do not include HIV-infected persons who have not been tested for HIV
 - Data do not include persons whose positive test results have not been reported to MDH
 - Data do not include HIV-infected persons 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

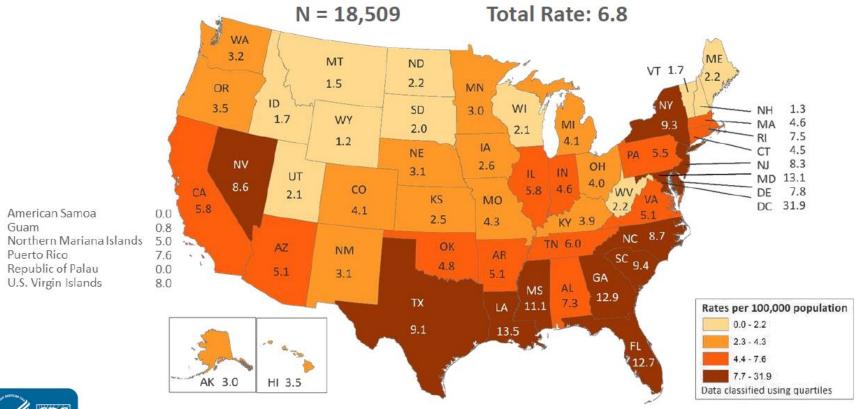


Rates of Diagnoses of HIV Infection among Adults and Adolescents, by Area of Residence, 2015 — United States and 6 Dependent Areas



Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data for the year 2015 are preliminary and based on 6 months reporting delay.

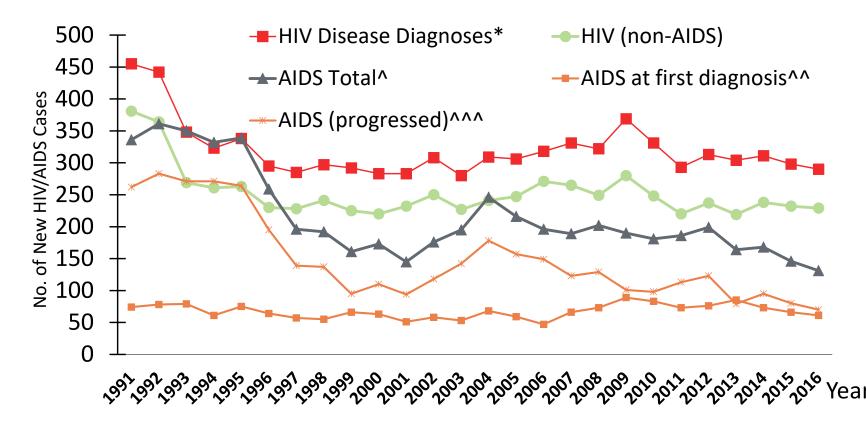
Rates of Diagnosed HIV Infection Classified as Stage 3 (AIDS) among Adults and Adolescents, by Area of Residence, 2015 — United States and 6 Dependent Areas



Note. Data for the year 2015 are preliminary and based on 6 months reporting delay.

Overview of HIV/AIDS in Minnesota

New HIV Disease Diagnoses, HIV (non-AIDS) and AIDS Cases by Year, 1990-2016

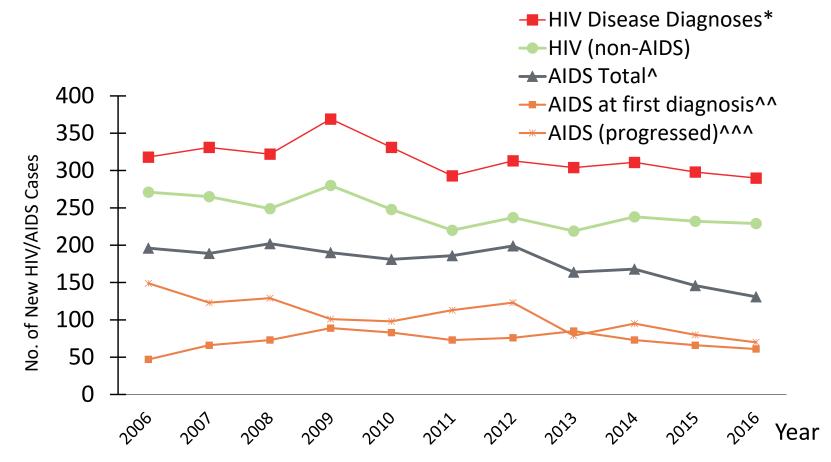


*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^Includes all new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis^^ and AIDS ((progressed)^^^ previous diagnosis of HIV).

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/AIDS in Minnesota: Annual Review*

New HIV Disease Diagnoses, HIV (non-AIDS) and AIDS Cases by Year, 2006-2016

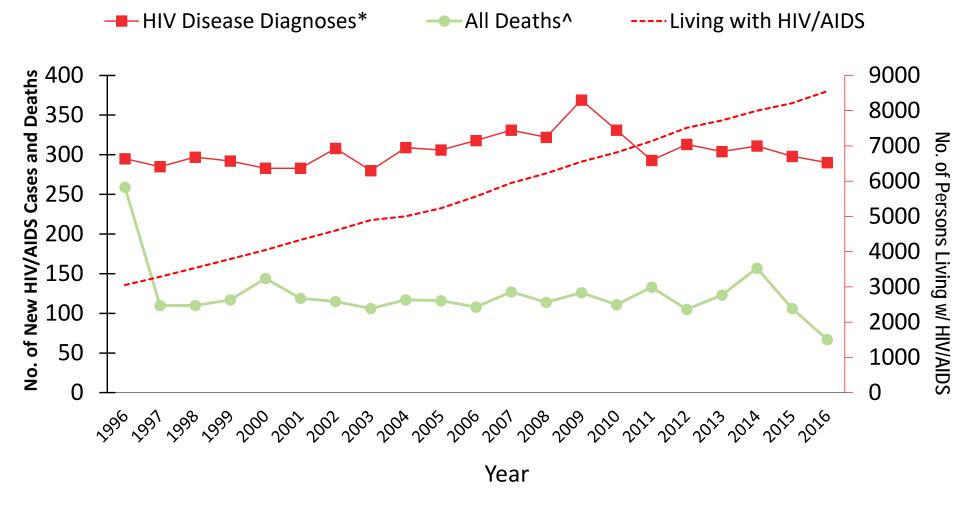


*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^Includes all new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis^^ and AIDS ((progressed)^^^ previous diagnosis of HIV).

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.

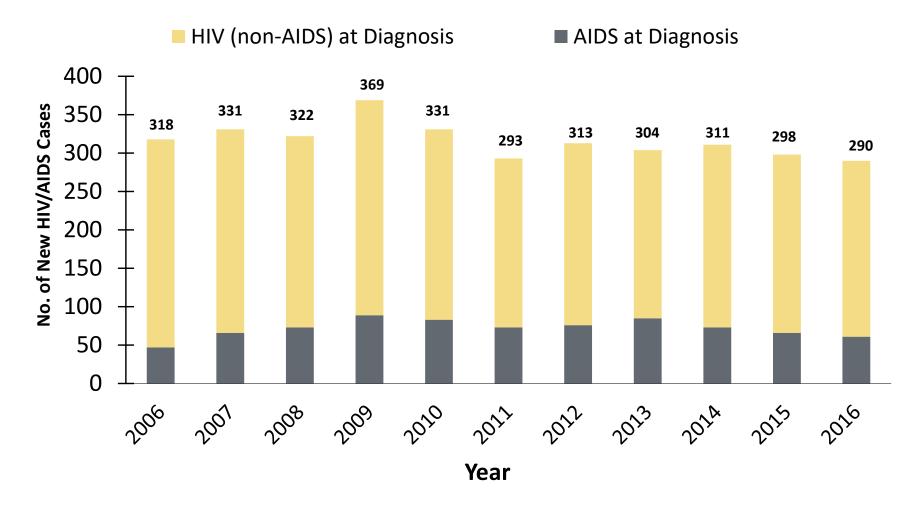
New HIV Disease Diagnoses, Deaths and Prevalent Cases by Year, 1996-2016



*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, 2006-2016



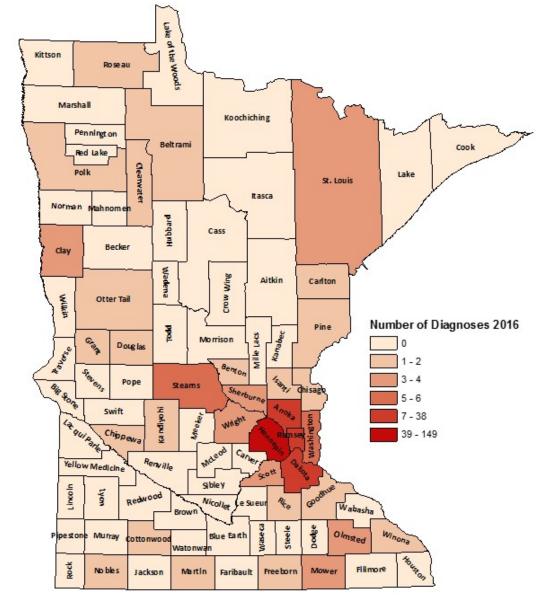
*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^Includes all new cases of AIDS diagnosed within a given calendar year, including AIDS at first diagnosis. 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

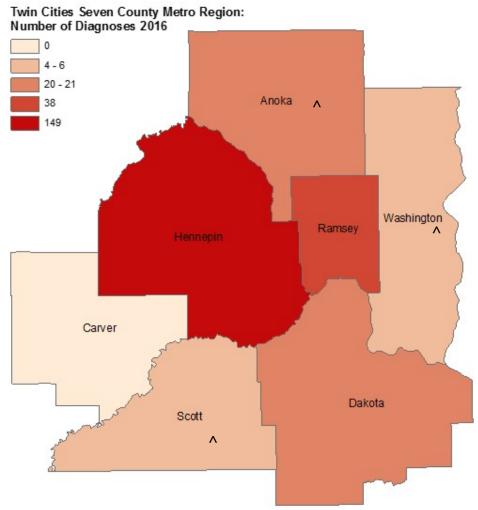
HIV Diagnoses* by County of Residence at Diagnosis, 2016



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City of Minneapolis – 92 City of St. Paul – 28 Suburban[#] – 118 Greater Minnesota – 52 Total number = 290

HIV Diagnoses^{*} by County of Residence at Diagnosis, 2016: Seven-County Metro Area



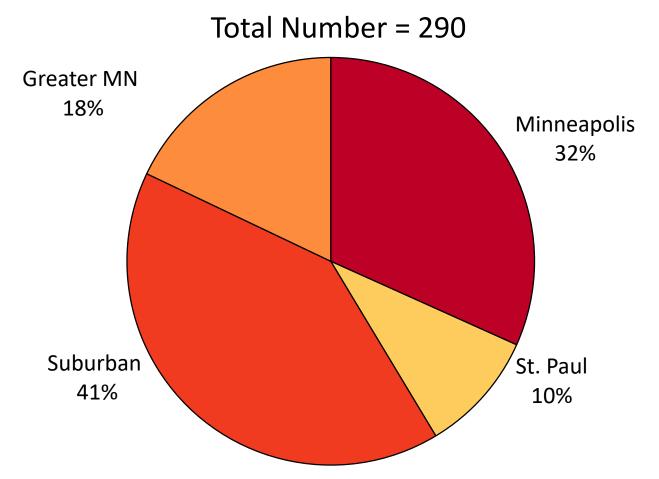
^Counties in which a state correctional facility is located.

City of Minneapolis –92 City of St. Paul – 28 Suburban[#] – 118 Total number (Metro only) = 238 [#] 7-county metro area, excluding the cities of Minneapolis and St. Paul

* HIV or AIDS at first diagnosis



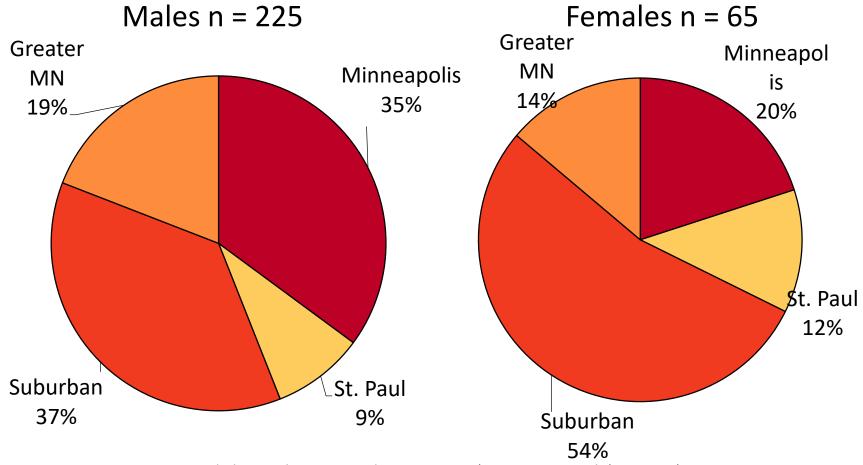
HIV Diagnoses* in Minnesota by Residence at Diagnosis, 2016



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

HIV Diagnoses* in Minnesota by Gender and Residence at Diagnosis, 2016

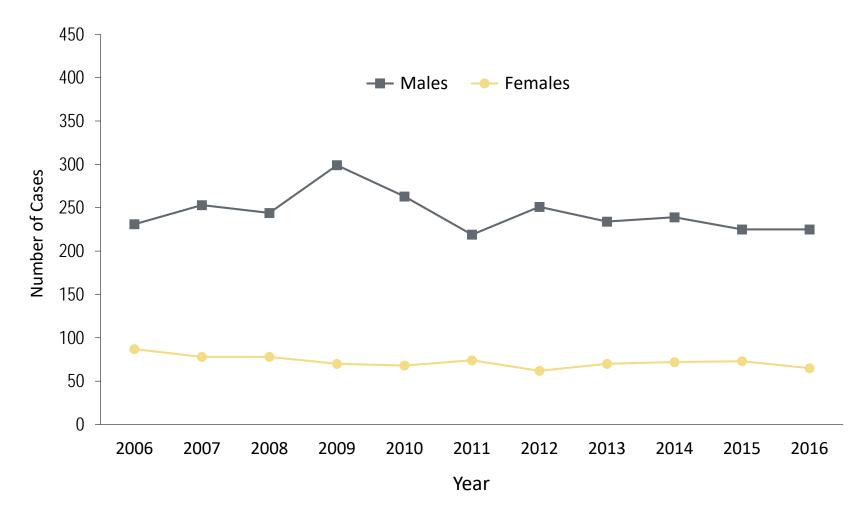


Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties, outside the seven-county metro area.

* HIV or AIDS at first diagnosis

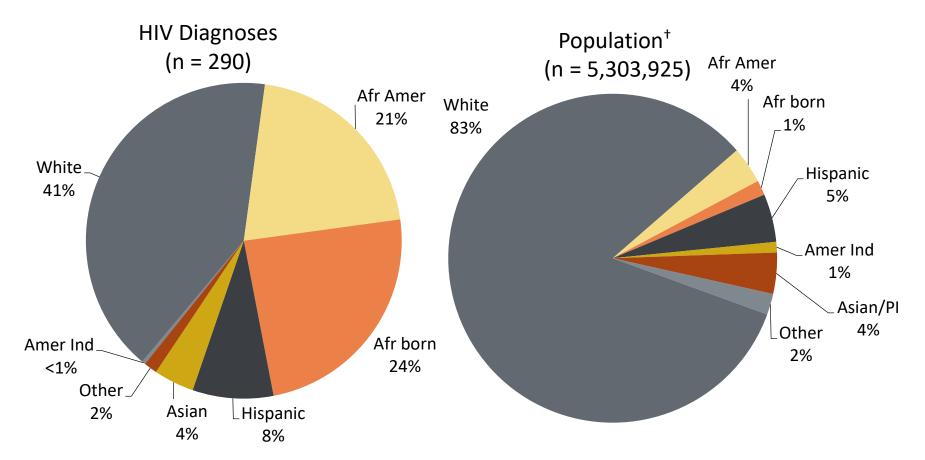
Gender and Race/Ethnicity

HIV Diagnoses* by Gender and Year of Diagnosis, 2006 - 2016



* HIV or AIDS at first diagnosis

HIV Diagnoses* in Year 2016 and General Population in Minnesota by Race/Ethnicity



* HIV or AIDS at first diagnosis

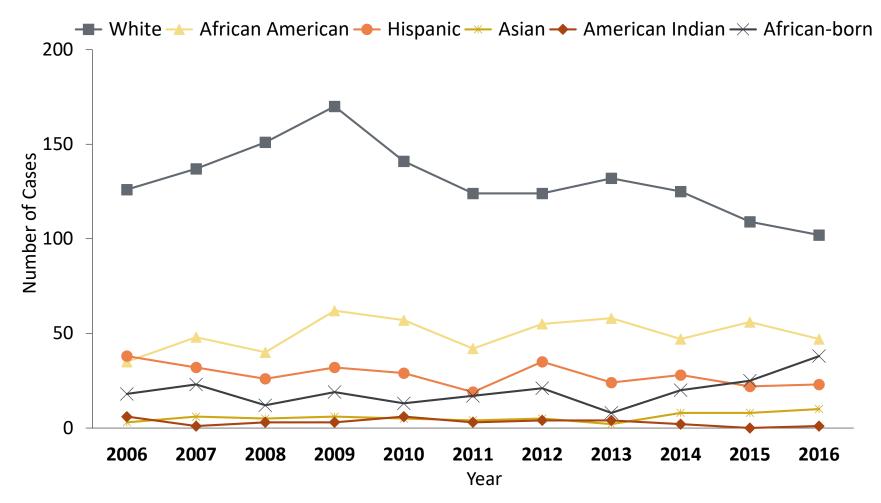
⁺ Population estimates based on 2010 U.S. Census data.

- n = Number of persons
- Amer Ind = American Indian

Afr Amer = African American (Black, not African-born persons)

Afr born = African-born (Black, African-born persons)

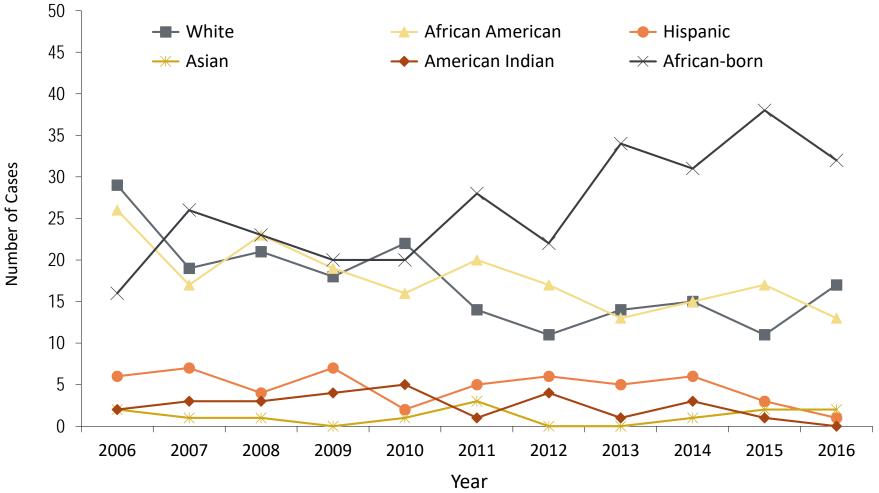
HIV Diagnoses^{*} Among Males by Race/Ethnicity[†] and Year of Diagnosis, 2006 - 2016



* 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/AIDS in Minnesota: Annual Review*

HIV Diagnoses* Among Females by Race/Ethnicity⁺ and Year of Diagnosis, 2006 – 2016



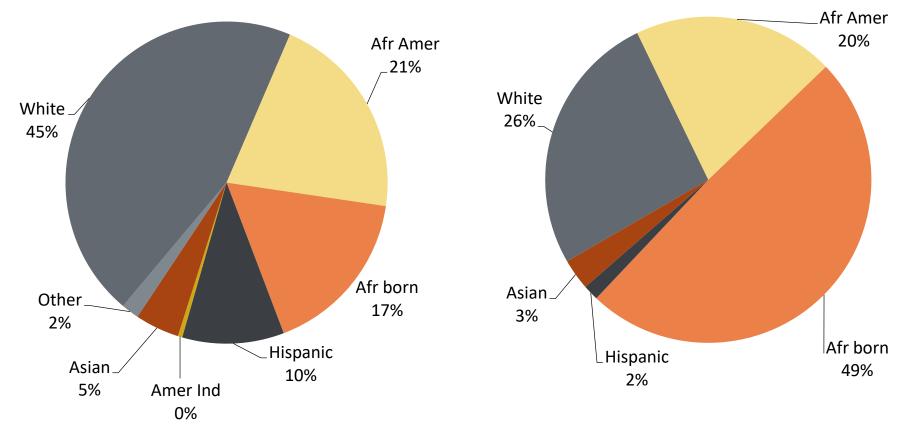
* HIV or AIDS at first diagnosis

⁺ "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 Year 2016 by Gender and Race/Ethnicity

Males (n = 225)

Females (n = 65)



* HIV or AIDS at first diagnosis

n = Number of persons Afr Amer = African American (Black, not African-born persons) Afr born = African-born (Black, African-born persons) Amer Ind = American Indian

Other = Multi-racial persons or persons with unknown race

Number of Cases and Rates (per 100,000 persons) of HIV Diagnoses* by Race/Ethnicity⁺– Minnesota, 2016

Race/Ethnicity	Cases	%	Rate
White, non-Hispanic	119	41%	2.7
Black, African-American	60	21%	31.3
Black, African-born	70	24%	90.3**
Hispanic	24	8%	9.6
American Indian	1	0.3%	#
Asian/Pacific Islander	12	4%	5.6
Other^	4	1%	#
Total	290	100%	5.5

* 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 77,557 Source: 2010-2012 American Community Survey. Additional calculations by the State Demographic Center.

^ Other = Multi-racial persons or persons with unknown or missing race

Number of cases too small to calculate reliable rate

Number of Cases of Adult and Adolescent HIV Diagnoses** by Gender Identity and Risk⁺, Minnesota, 2016

Gender/Risk	Cases	%	Rate
Men (Total)	(222)	77%	10.3
MSM [†]	139	62%	149.8
Non-MSM	83	38%	4.1
Women	61	22%	2.8
Transgender ^ (Total)	4	1%	X
Male to Female	2	50%	X
Female to Male	2	50%	Х
Total	287	100%	6.6

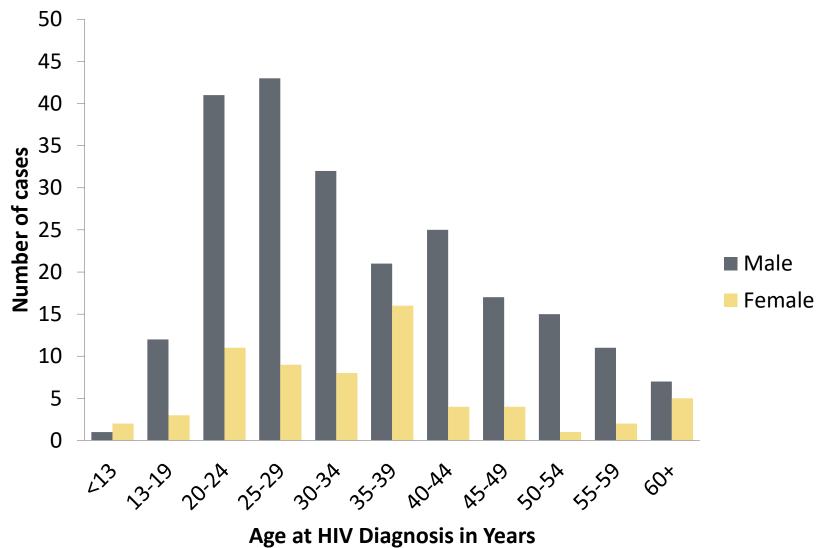
**HIV or AIDS at first diagnosis over the age of 13

⁺ "MSM" refers to both MSM and MSM/IDU. Estimate of 92,788

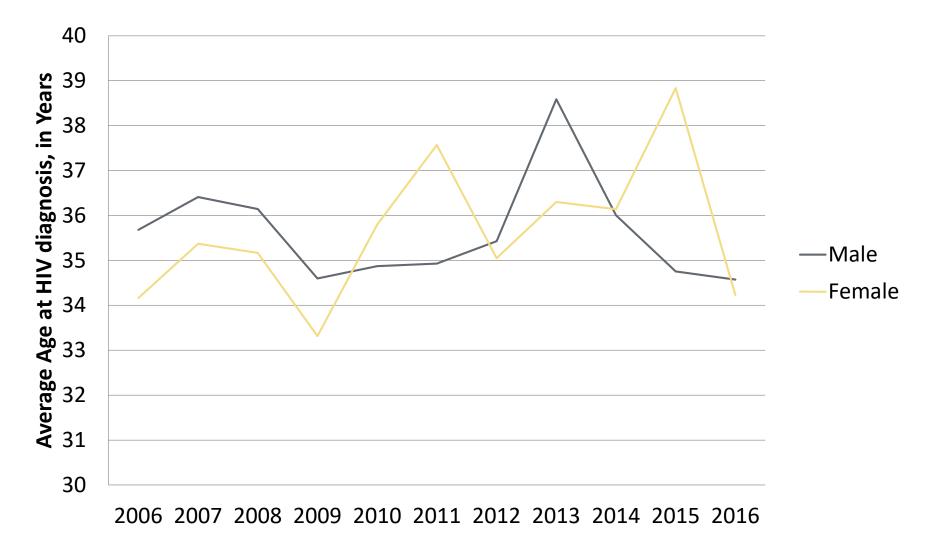
^ No current transgender estimate available



Age at HIV Diagnosis* by Sex at Birth, Minnesota, 2016



Average Age at HIV Diagnosis* by Sex at Birth, 2006-2016

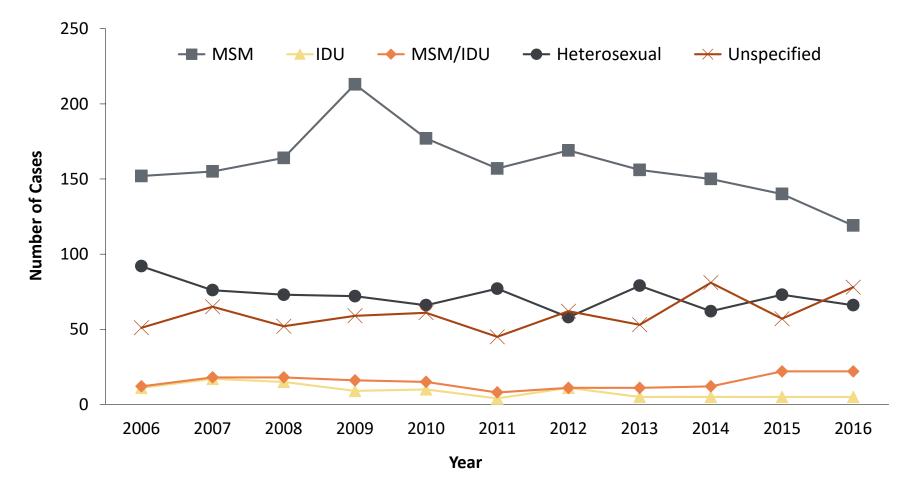


* HIV or AIDS at first diagnosis



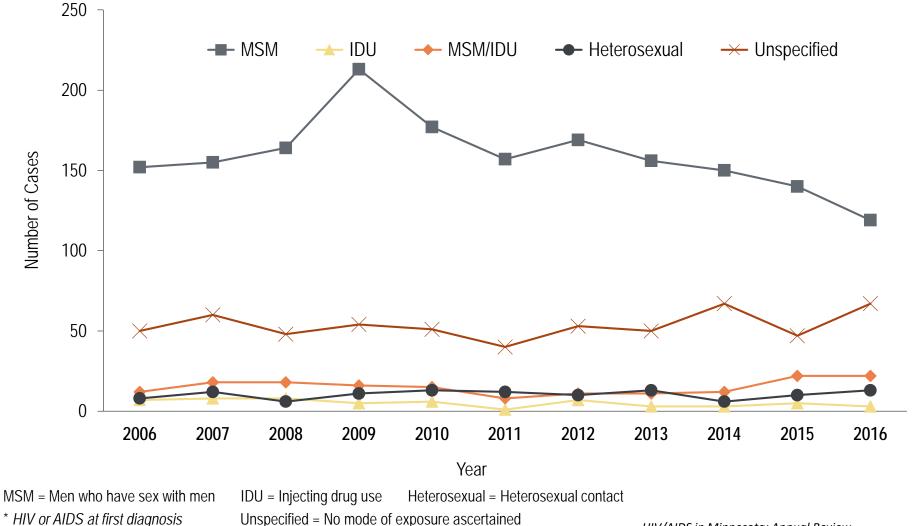
Mode of Exposure

HIV Diagnoses* by Mode of Exposure and Year, 2005 - 2016



*HIV or AIDS at first diagnosis Unspecified = No mode of exposure ascertained

HIV Diagnoses* Among Males by Mode of Exposure and Year, 2006 - 2016



HIV Diagnoses* Among Females by Mode of Exposure and Year of Diagnosis, 2006 - 2016 - Heterosexual \rightarrow Unspecified 📥 IDU Number of Cases Year

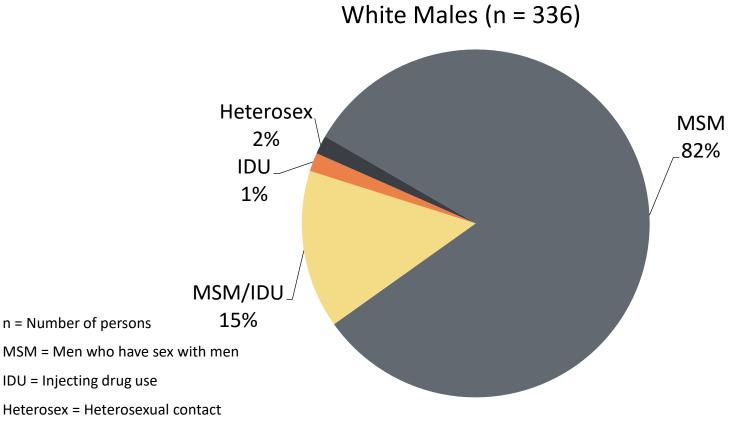
IDU = Injecting drug use

Heterosexual = Heterosexual contact with HIV+, bisexual, IDU, hemophiliac/blood project or organ transplant recipient, or with partner with unknown risk

Unspecified = No mode of exposure ascertained

* HIV or AIDS at first diagnosis

HIV Diagnoses* by Estimated Mode of Exposure⁺ 2014–2016 combined

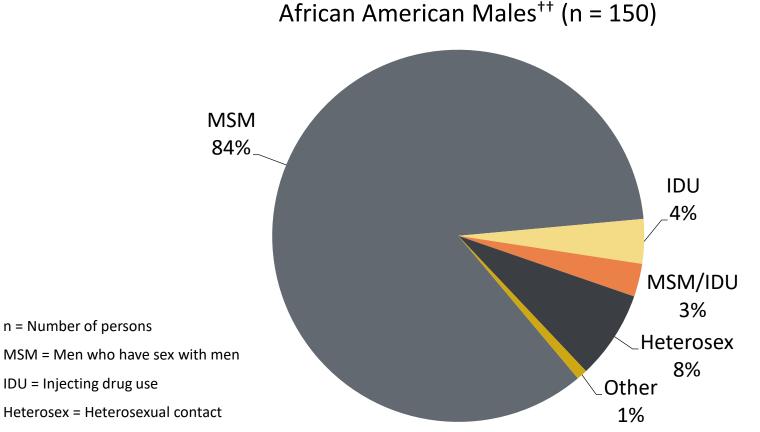


Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk

* HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*

HIV Diagnoses* by Estimated Mode of Exposure⁺ 2014 - 2016 combined



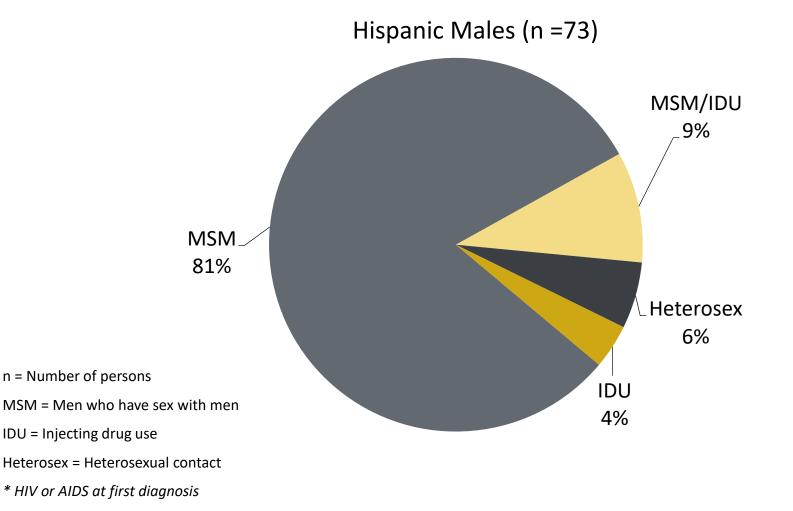
Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk

* HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes.

⁺⁺ Refers to Black, African American (not African-born) males.

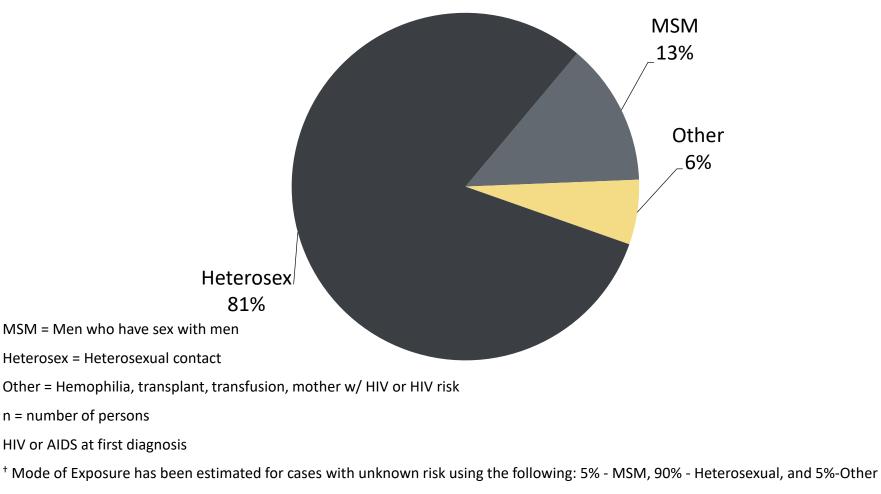
HIV Diagnoses* by Estimated Mode of Exposure[†] 2014 - 2016 combined



⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*

HIV Diagnoses* by Estimated Mode of Exposure⁺ 2014 - 2016 combined

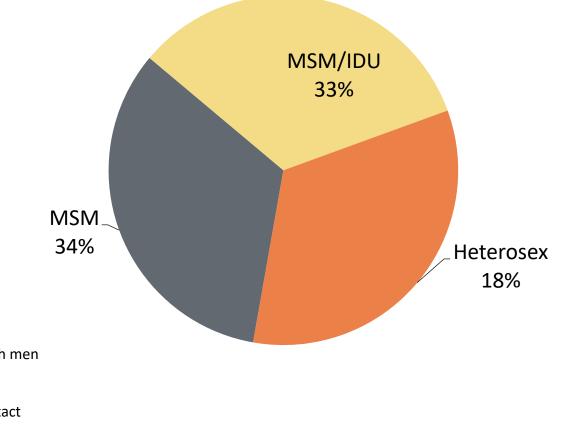
African-born Males⁺⁺ (n =83)



For more detail see the HIV Surveillance Technical notes.

⁺⁺ Refers to Black, African-born males.

American Indian Males (n = 3) CAUTION: Small number of cases – interpret carefully.



n = Number of persons

MSM = Men who have sex with men

IDU = Injecting drug use

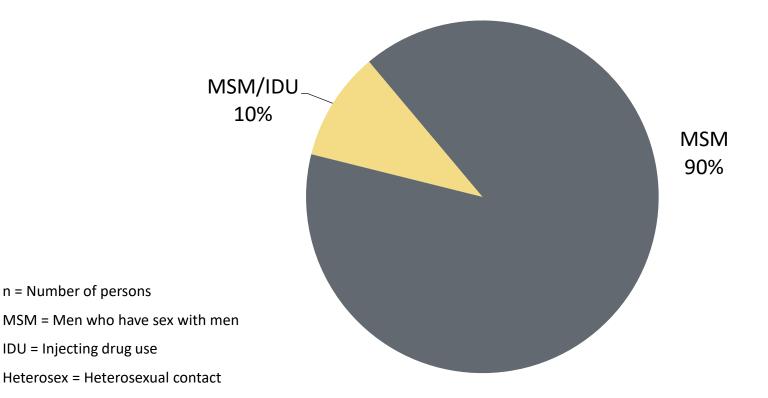
Heterosex = Heterosexual contact

* HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*

Asian Males (n = 26)

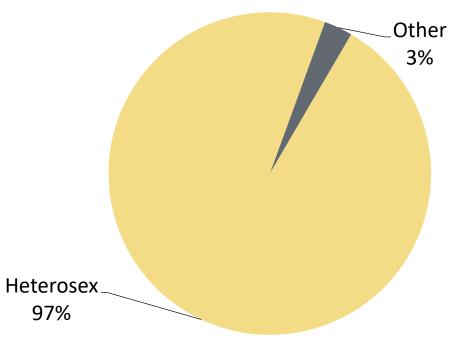
CAUTION: Small number of cases – interpret carefully.



* HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*

African-born Females⁺⁺ (n = 101)



n = Number of persons

Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk

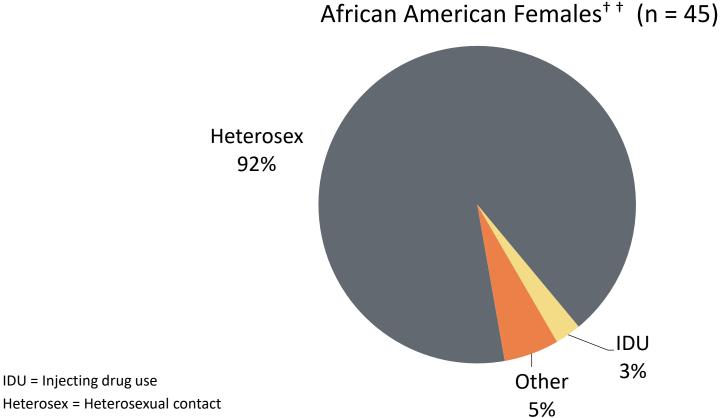
Heterosex = Heterosexual contact

* HIV or AIDS at first diagnosis

⁺ Mode of Exposure has been estimated for cases with unknown risk using the following: 95% - Heterosexual and 5%-Other.

For more detail see the HIV Surveillance Technical notes.

⁺⁺ Refers to Black, African-born females.



Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk

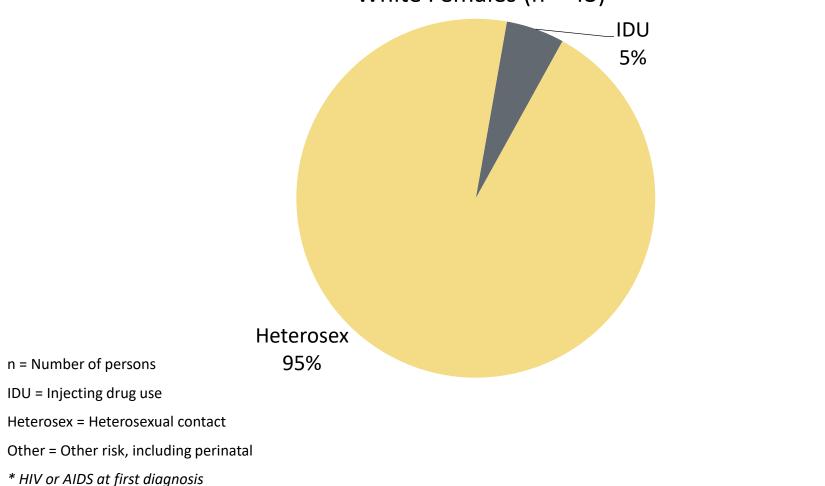
n = Number of persons

* HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes.

⁺⁺ Refers to Black, African American (not African-born) females.

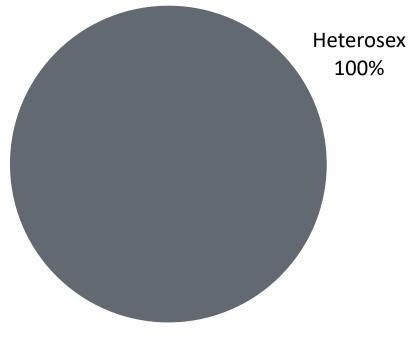
White Females (n = 43)



⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*

Hispanic Females (n = 10)

CAUTION: Small number of cases – interpret carefully.



IDU = Injecting drug use

Heterosex = Heterosexual contact

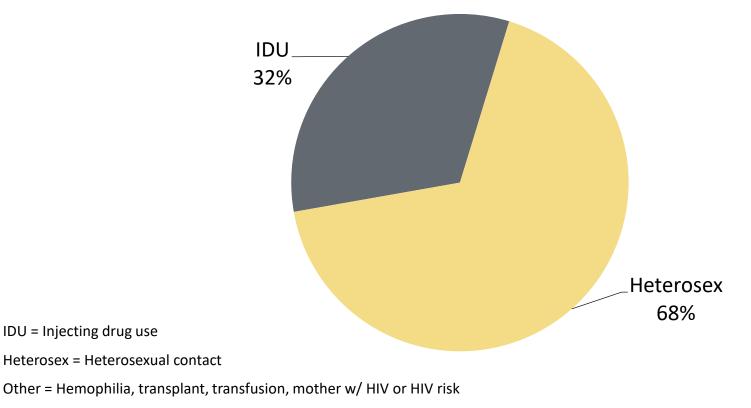
Other = Hemophilia, transplant, transfusion, mother w/ HIV or HIV risk

- n = Number of persons
- * HIV or AIDS at first diagnosis

[†] Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes.

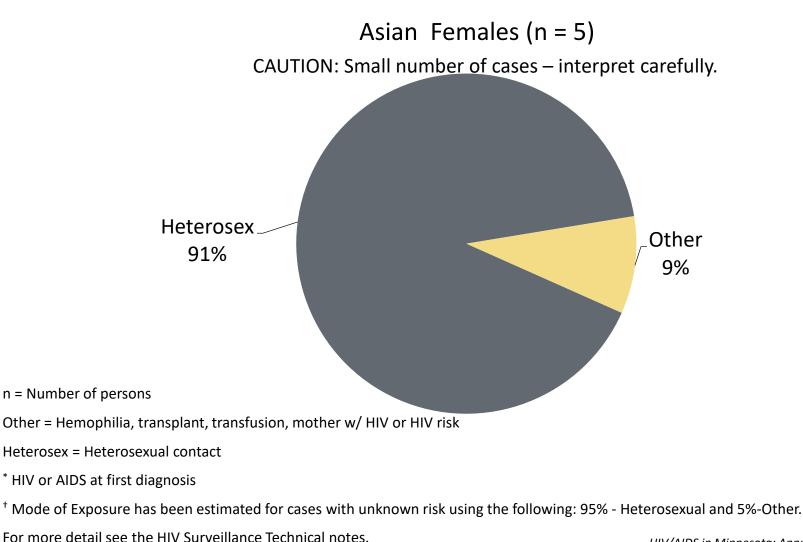
American Indian Females (n = 4)

CAUTION: Small number of cases – interpret carefully.

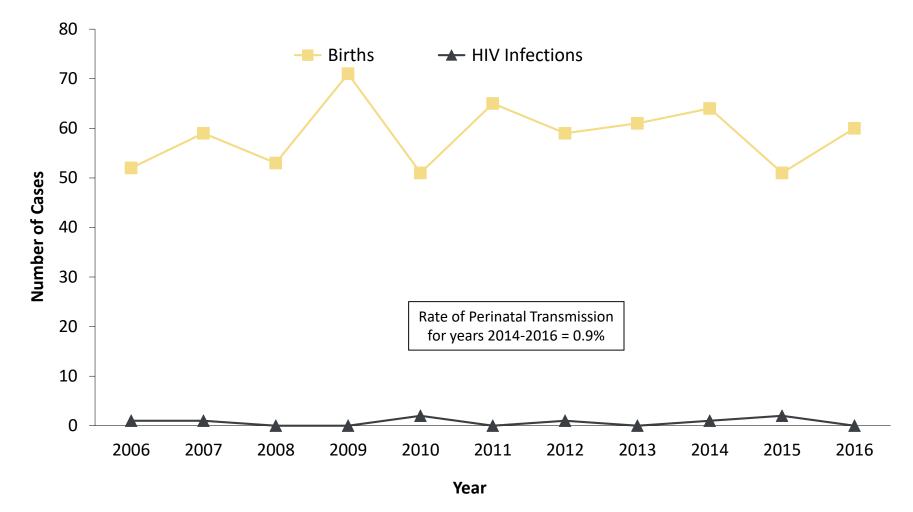


- n = Number of persons
- * HIV or AIDS at first diagnosis

⁺ Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes. *HIV/AIDS in Minnesota: Annual Review*



Births to HIV-Infected Women and Number of Perinatally Acquired HIV Infections* by Year of Birth, 2006 - 2016

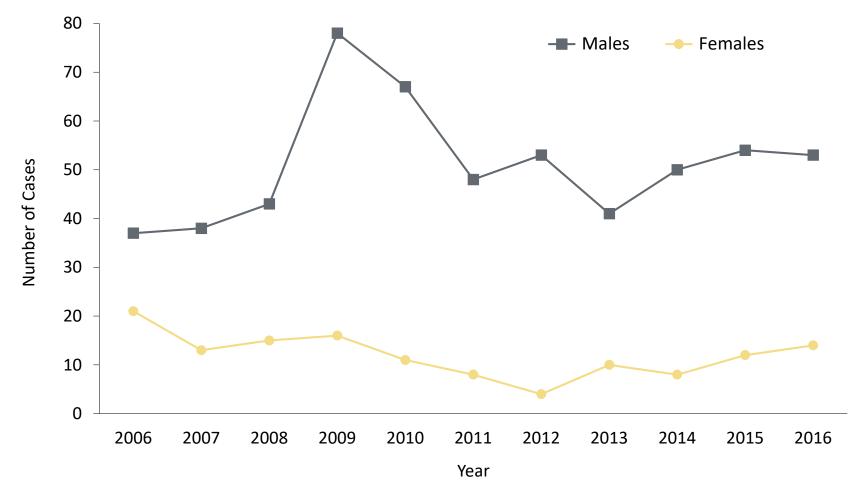


* HIV or AIDS at first diagnosis for a child exposed to HIV during mother's pregnancy, at birth, and/or during breastfeeding.

Adolescents & Young Adults (Ages 13-24)*

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

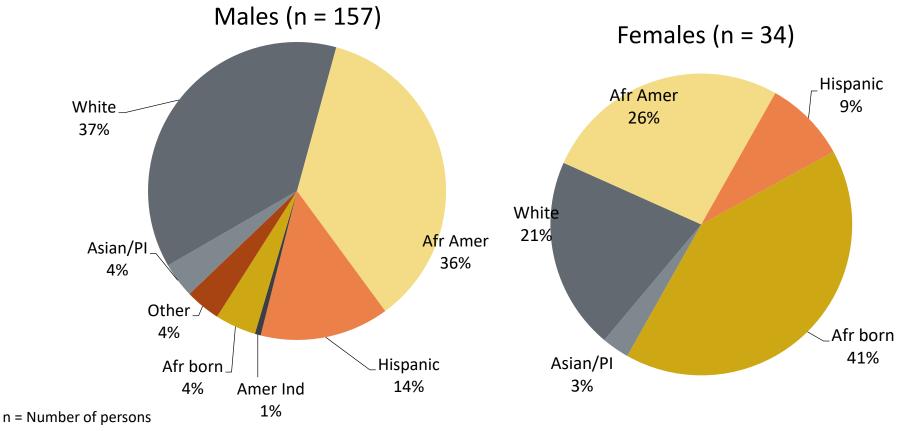
HIV Diagnoses* Among Adolescents and Young Adults[†] by Gender and Year, 2006 - 2016



* 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 Gender and Race/Ethnicity, 2014 - 2016 Combined



* HIV or AIDS at first diagnosis

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

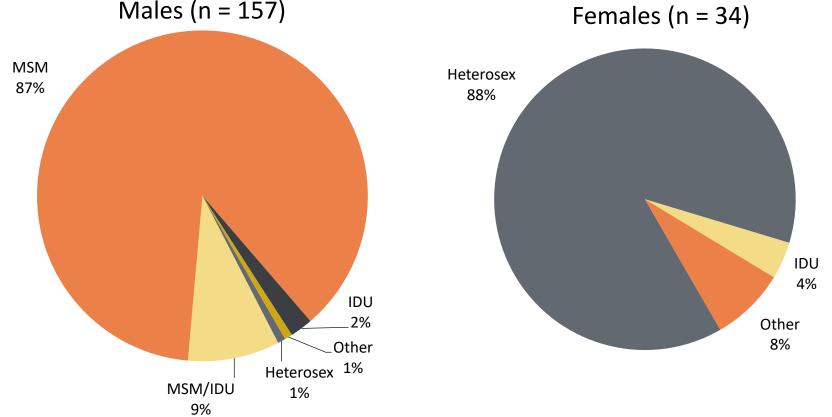
Amer Ind = American Indian

Afr Amer = African American (Black, not African-born persons)

Afr born = African-born (Black, African-born persons)

Other = Multi-racial persons or persons with unknown race

HIV Diagnoses* Among Adolescents and Young Adults⁺ by Gender and Estimated Exposure Group[#], 2014 - 2016 Combined



* HIV or AIDS at first diagnosis

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

[#] Mode of Exposure proportions have been estimated using cases for 2014-2016 with known risk. For more detail see the HIV Surveillance Technical notes.

n = Number of persons

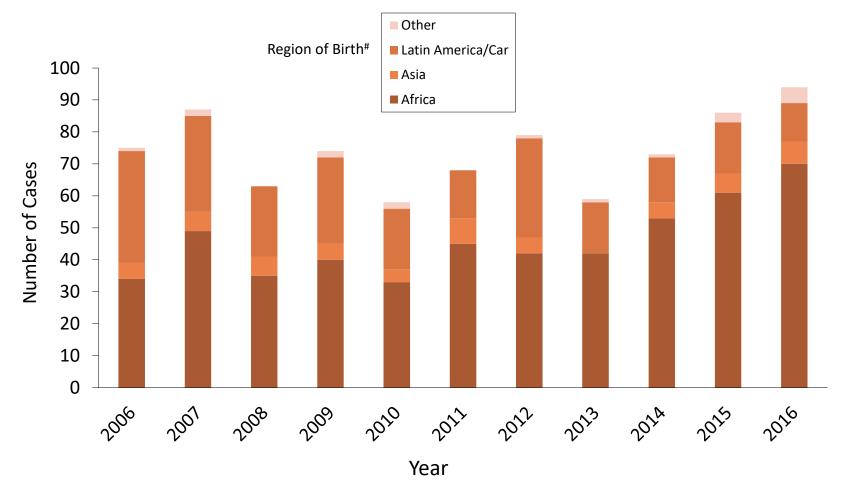
MSM = Men who have sex with men

IDU = Injecting drug use

Heterosex = Heterosexual contact

Foreign-born Cases

HIV Diagnoses* among Foreign-Born Persons[†] in Minnesota by Year and Region of Birth, 2006 - 2016

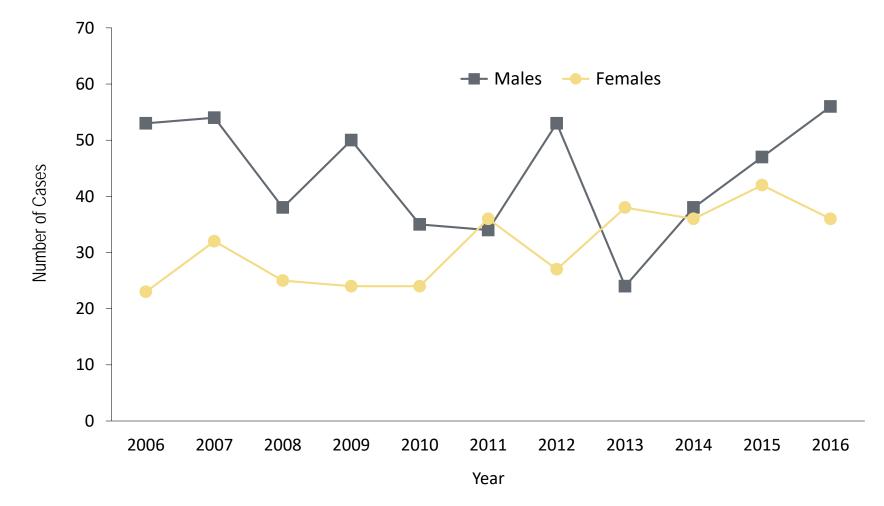


* HIV or AIDS at first diagnosis

⁺ Excludes persons 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 Persons[†] by Gender and Year, 2006 – 2016



*HIV or AIDS at first diagnosis

⁺ Excludes persons 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 Persons⁺ Diagnosed with HIV*, Minnesota, 2016

- Liberia (n=24)
- Ethiopia (n=11)
- Somalia (n=9)
- Mexico (n=8)
- Kenya (n=7)
- Nigeria (n=5)
- Cameroon (n=4)
- Viet Nam (n=3)
- Togo (n=2)
- Tanzania (n=2)
- Other^ (n=19)

* HIV or AIDS at first diagnosis

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

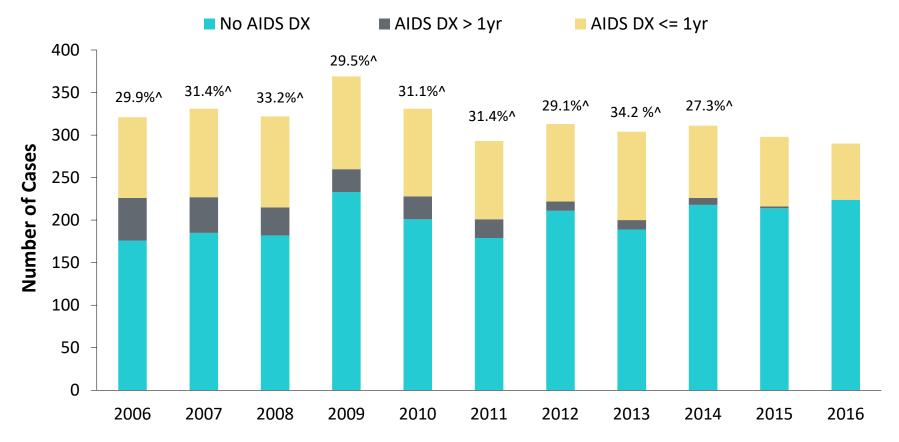
^ Includes 17 additional countries and 2 not specified.



Late Testers

(AIDS Diagnosis within one year of initial HIV Diagnosis)

Time of Progression to AIDS for HIV Diagnoses in Minnesota*,2006 - 2016⁺



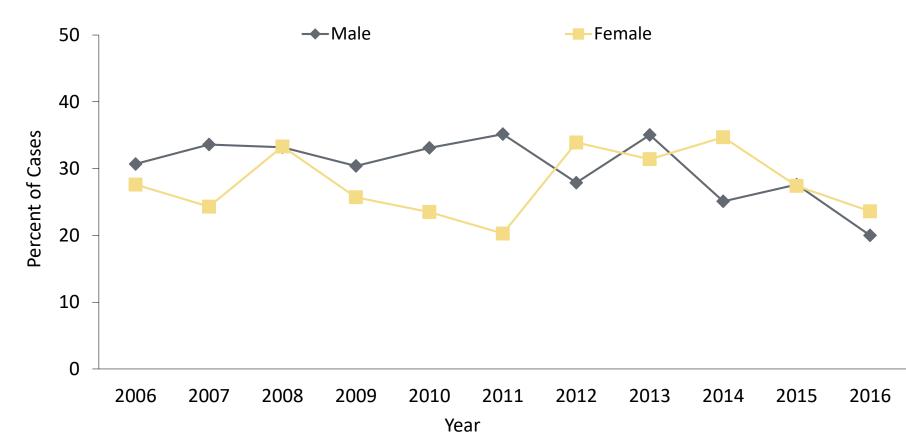
Year

*Numbers include AIDS at 1st report but exclude persons 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 2016 only represents cases progressing to AIDS through March 20, 2017.

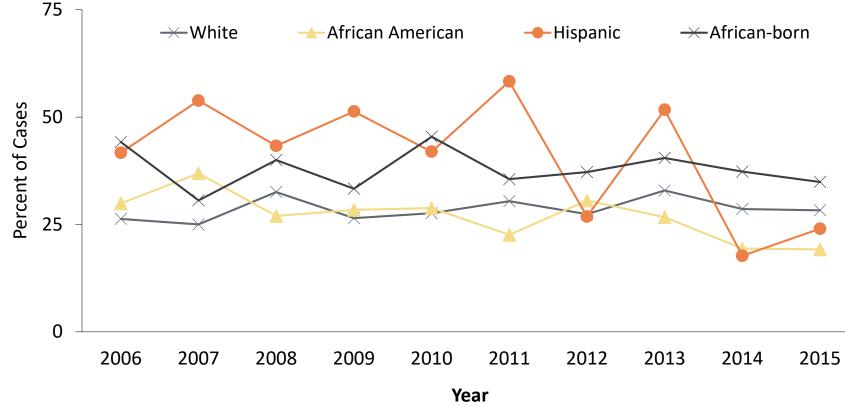
Progression to AIDS within 1 year of initial HIV Diagnosis* by Sex at Birth, 2006 - 2016[†]



*Numbers include AIDS at 1st report but exclude persons 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 2016 only represents cases progressing to AIDS through March 20, 2017.

Progression to AIDS within 1 year of initial HIV Diagnoses* by Race/Ethnicity^, 2006 - 2016⁺

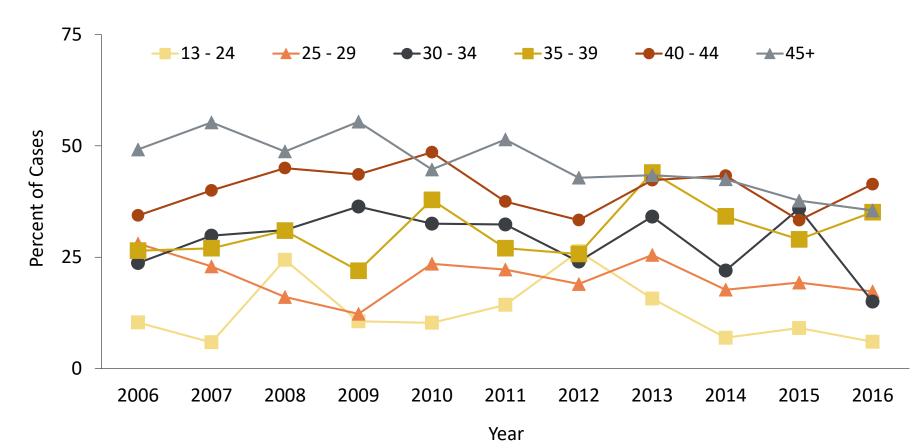


*Numbers include AIDS at 1st report but exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

⁺ Numbers/Percent for cases diagnosed in 2015 only represents cases progressing to AIDS through March 20, 2017.

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

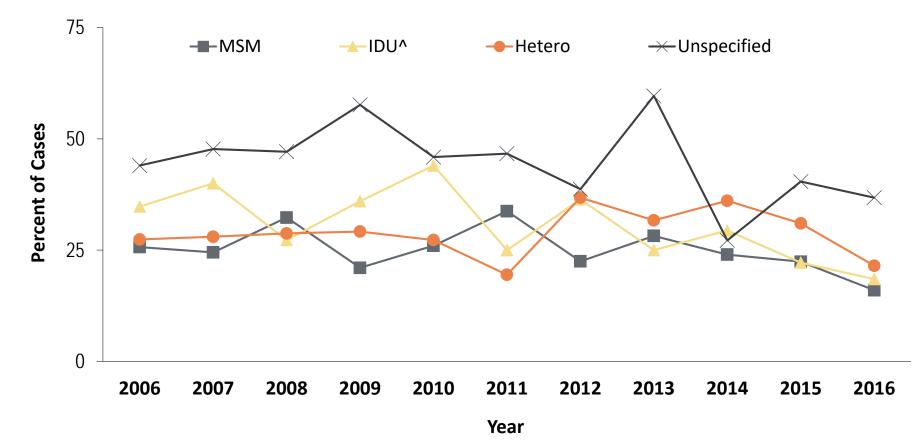
Progression to AIDS within 1 year of initial HIV Diagnosis* by Age, 2006 - 2016⁺



*Numbers include AIDS at 1st report but exclude persons 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 2015 only represents cases progressing to AIDS through April 6, 2016.

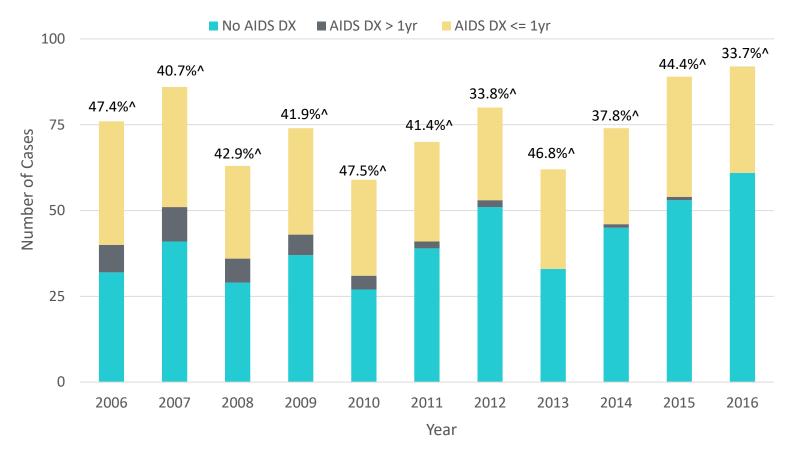
Progression to AIDS within 1 year of initial HIV Diagnosis* by Mode of Transmission, 2005 - 2015⁺



*Numbers include AIDS at 1st report but exclude persons 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 2016 only represents cases progressing to AIDS through March 20, 2017. ^Includes MSM/IDU HIV/AIDS in Minnesot

Time of Progression to AIDS for HIV Diagnoses* Among Foreign-Born Persons, Minnesota 2006 - 2016⁺



*Numbers include AIDS at 1st report but exclude persons 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 2015 only represents cases progressing to AIDS through April 6, 2016.