



STD, HIV and Hepatitis C 2017 Data Release

April 24, 2018



Acronyms

- **MDH** = Minnesota Department of Health
- **STD** = Sexually transmitted disease
- **MSM** = Men who have sex with men
- **HCV** = Hepatitis C virus
- **HBV** = Hepatitis B virus
- **IDU** = Injection drug use
- **SSuN** = STD Surveillance Network



Agenda

1. STD Surveillance Data

- Dawn Ginzl, STD Surveillance Coordinator and Epidemiologist
- Laura Tourdot, SSuN Coordinator

2. HIV Surveillance Data

- Cheryl Barber, HIV Specialist Epidemiologist
- Jared Shenk, HIV Care and Prevention Epidemiologist

3. Hepatitis C Surveillance Data

- Kristin Sweet, Hepatitis Epidemiology Supervisor



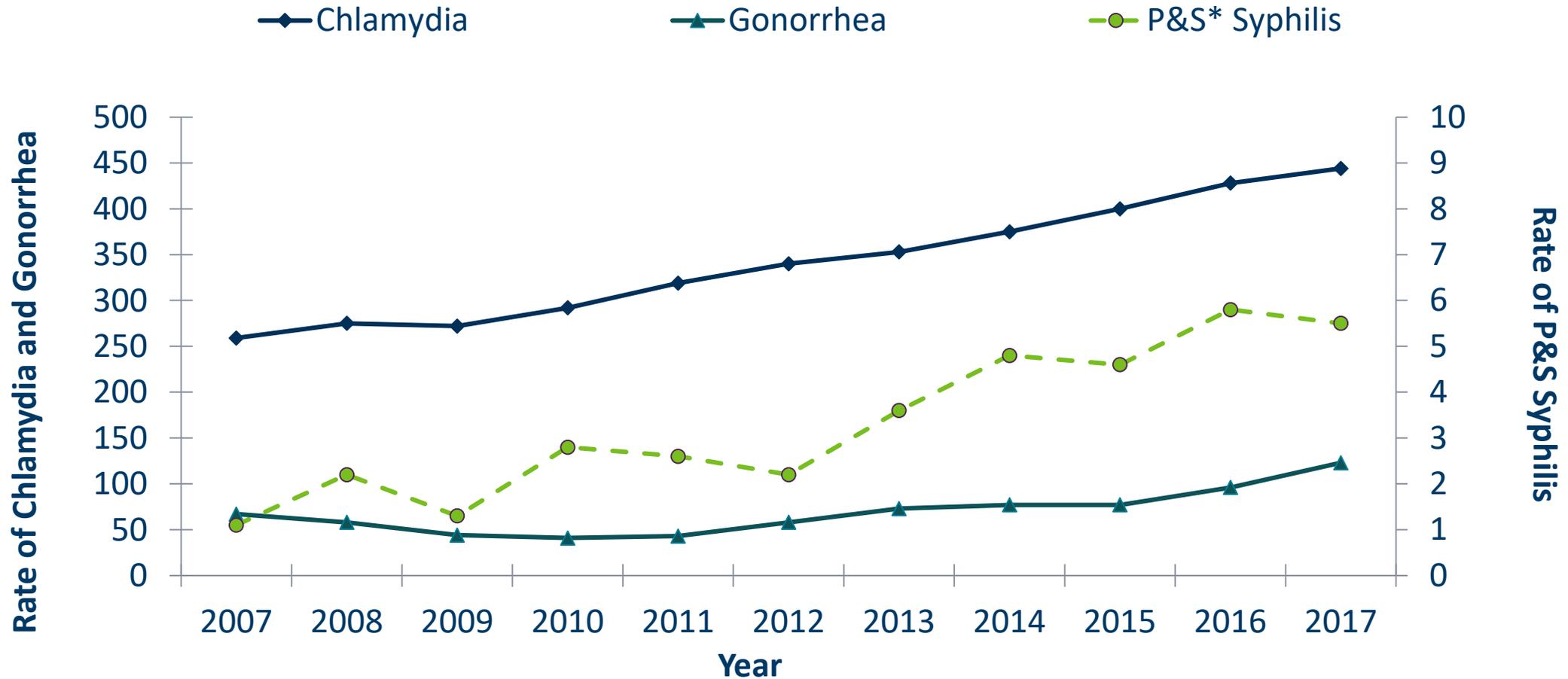
Highlights from the Minnesota STD Surveillance Report, 2017

STD Surveillance System

<http://www.health.state.mn.us/divs/idepc/dtopics/stds/stats/index.html>

STDs in Minnesota

Rate per 100,000 by Year of Diagnosis, 2007-2017



* P&S = Primary and Secondary

STDs in Minnesota

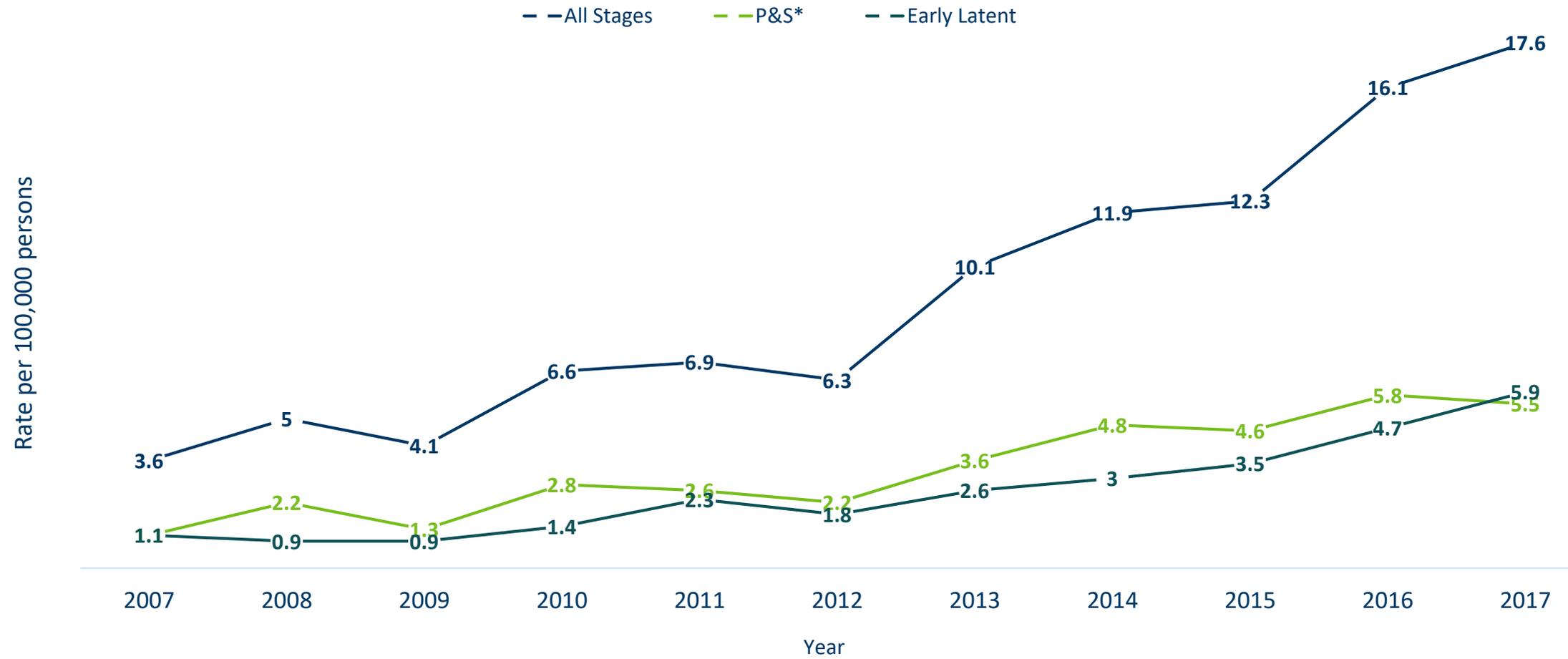
Number of Cases Reported in 2017

- Total of 30,981 STD cases reported to MDH in 2017:
 - 23,528 Chlamydia cases
 - 6,519 Gonorrhea cases
 - 934 Syphilis cases (all stages)
 - 0 Chancroid cases

Syphilis

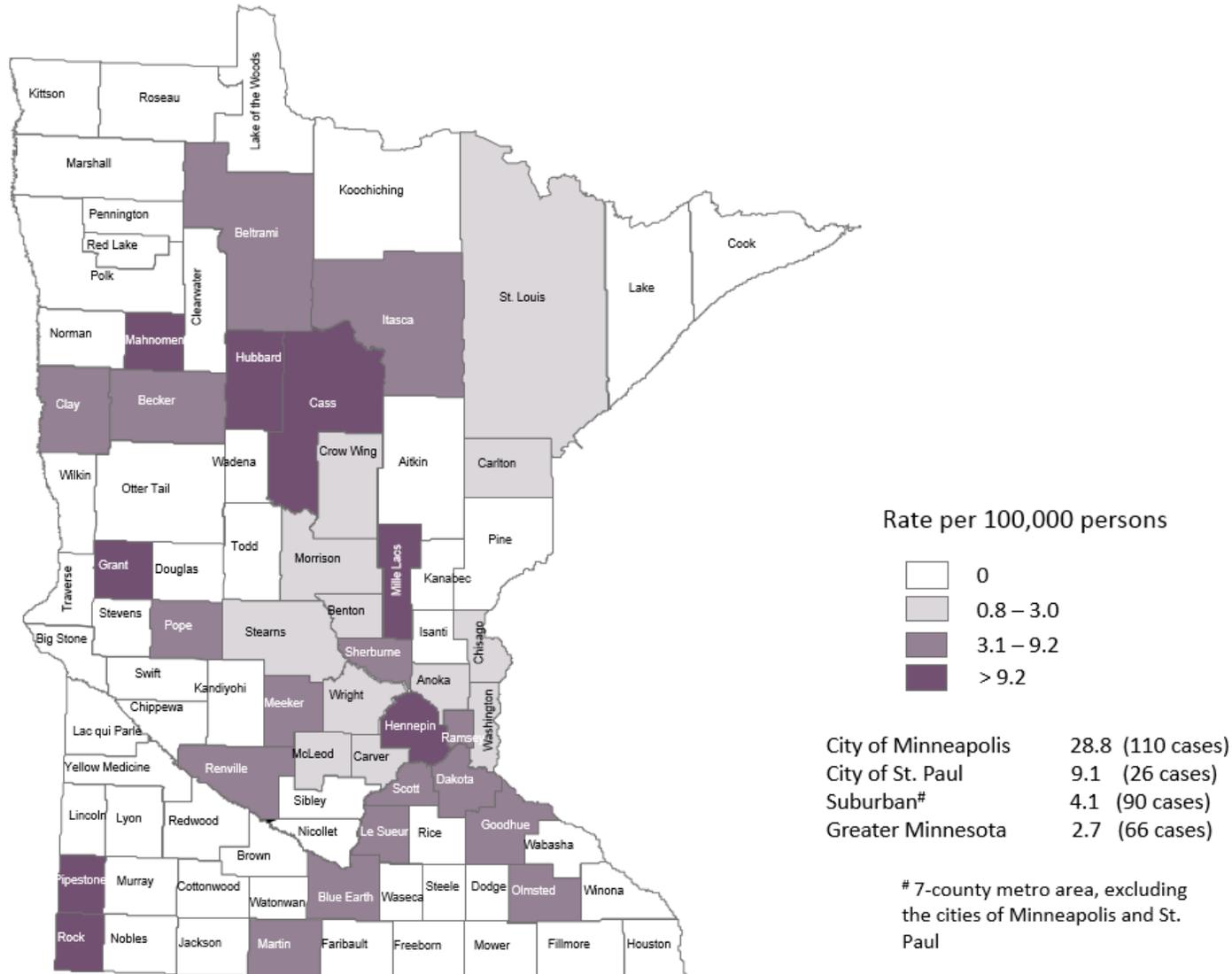
Minnesota Department of Health STD Surveillance System

Syphilis Rates by Stage of Diagnosis Minnesota, 2007-2017

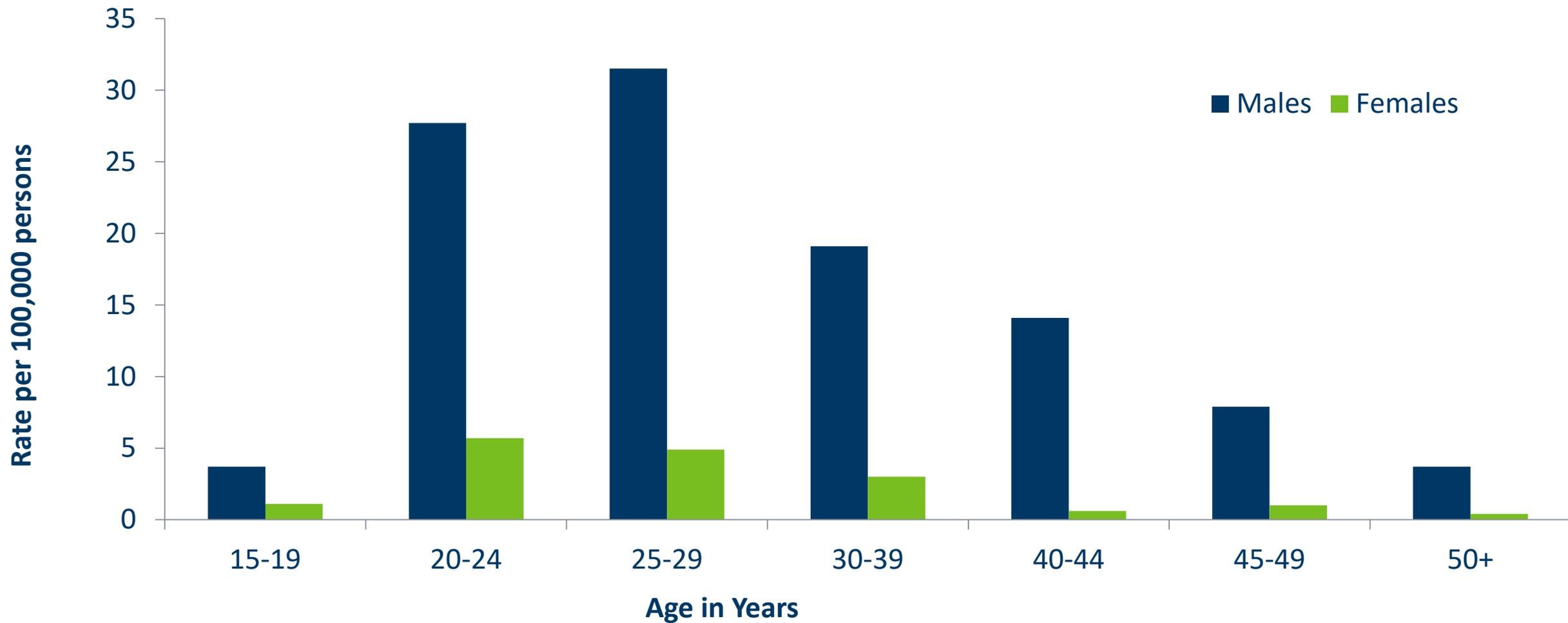


* P&S = Primary and Secondary

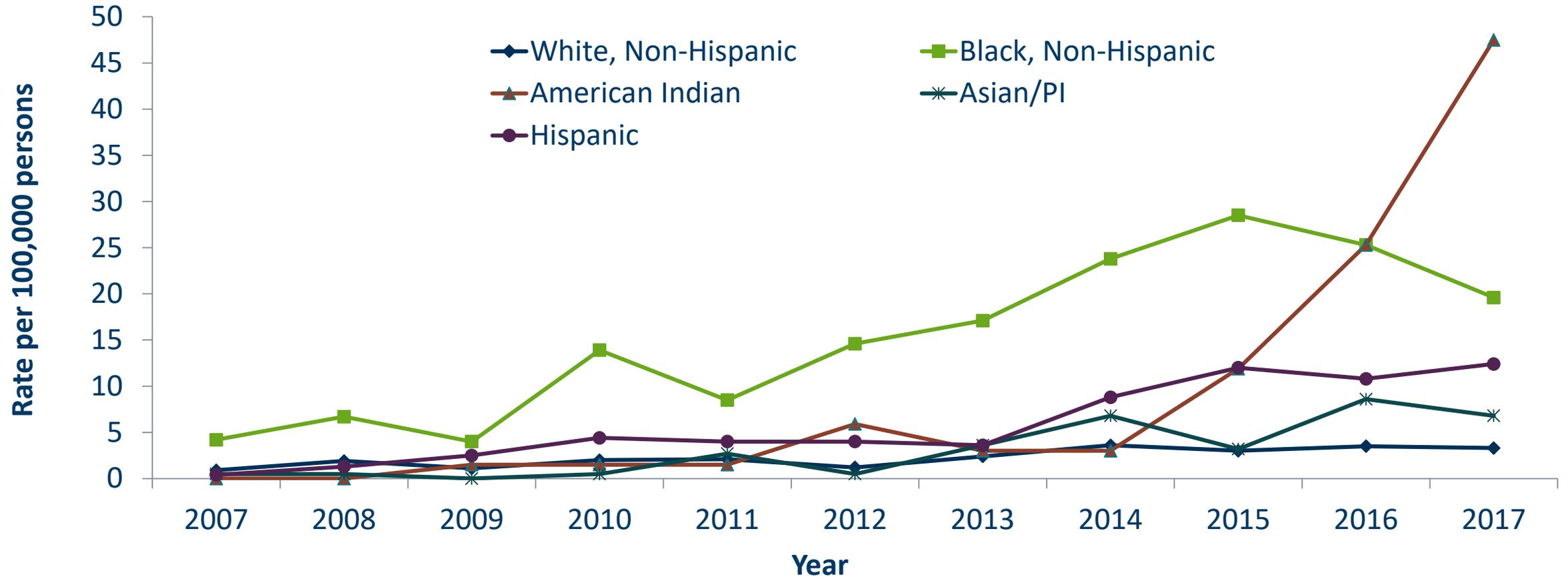
2017 Minnesota Primary & Secondary Syphilis Rates by County



Age-Specific Primary & Secondary Syphilis Rates by Gender Minnesota, 2017



Primary & Secondary Syphilis Rates by Race/Ethnicity Minnesota, 2007-2017



* Persons of Hispanic ethnicity can be of any race.

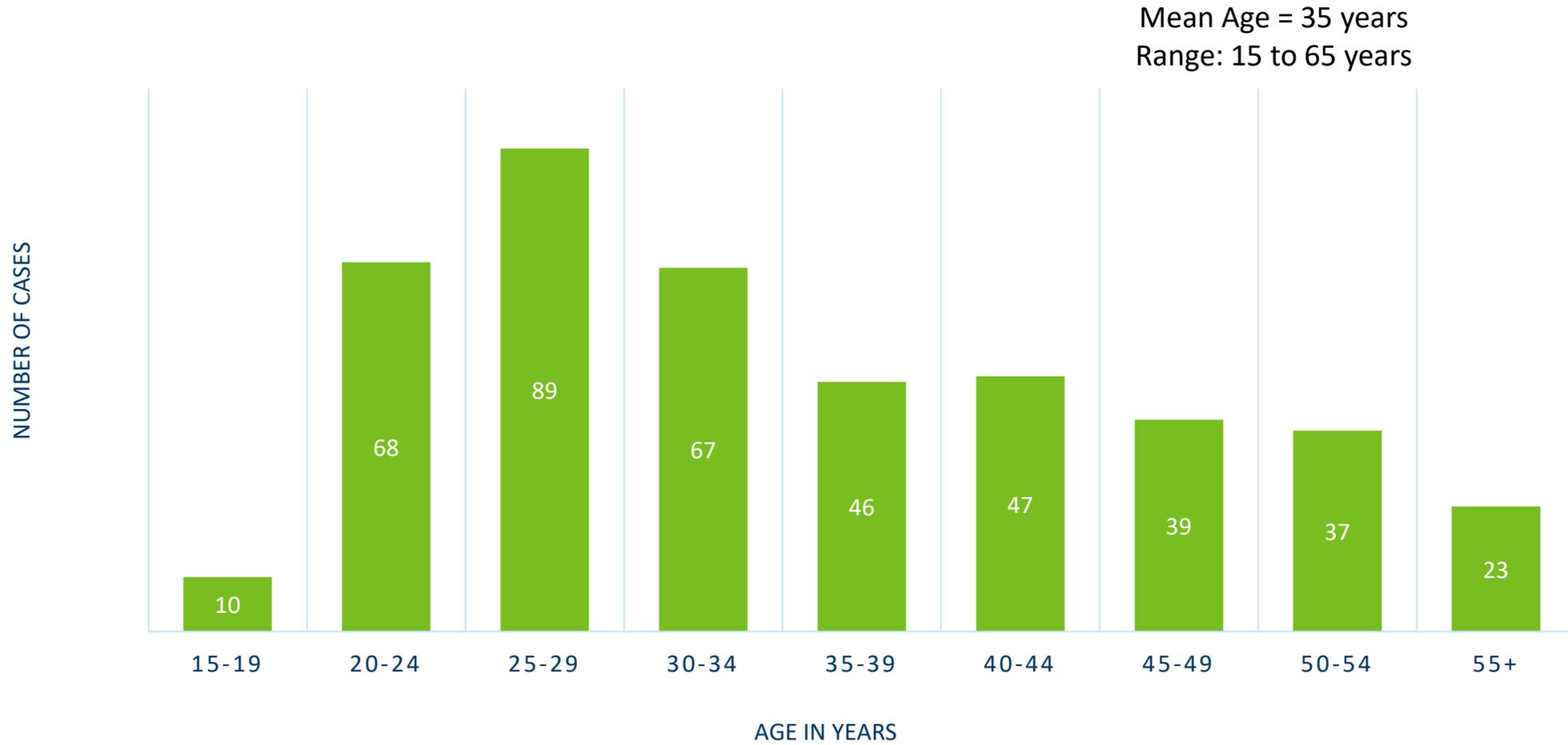
Early Syphilis[†] by Gender and Sexual Behavior Minnesota, 2007-2017

Year	Early Syphilis Cases	Male Cases (%)	MSM Cases (% of males)
2007	114	111 (97)	103 (93)
2008	163	158 (97)	140 (89)
2009	117	106 (91)	96 (91)
2010	221	207 (94)	185 (89)
2011	260	246 (95)	218 (89)
2012	214	196 (92)	158 (81)
2013	332	298 (90)	261 (88)
2014	416	374 (90)	283 (76)
2015	431	341 (79)	222 (65)
2016	557	468 (84)	359 (77)
2017	605	511 (84)	426 (83)

MSM=Men who have sex with men

[†] Early Syphilis includes primary, secondary, and early latent stages of syphilis.

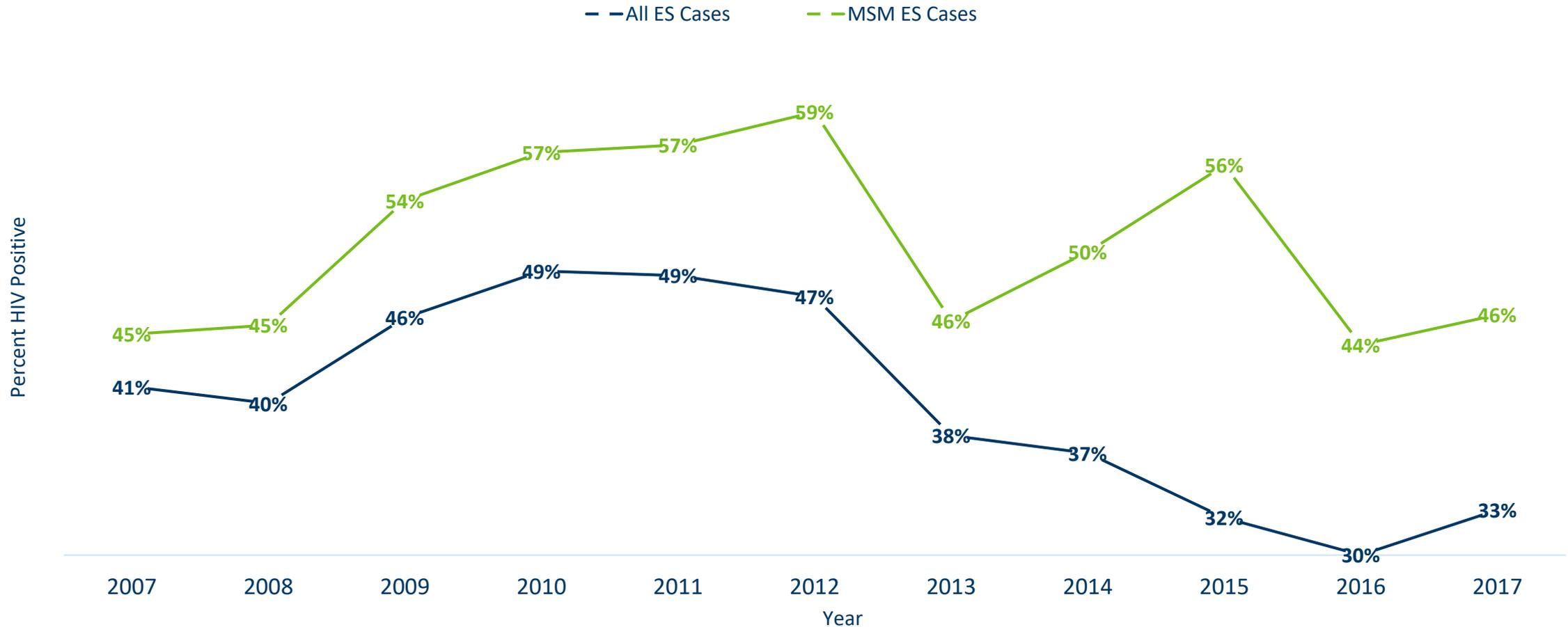
Early Syphilis[†] Cases Among MSM by Age Minnesota, 2017 (n=426)



MSM=Men who have sex with men

[†] Early Syphilis includes primary, secondary, and early latent stages of syphilis.

Early Syphilis[†] (ES) Cases Co-infected with HIV 2007-2017

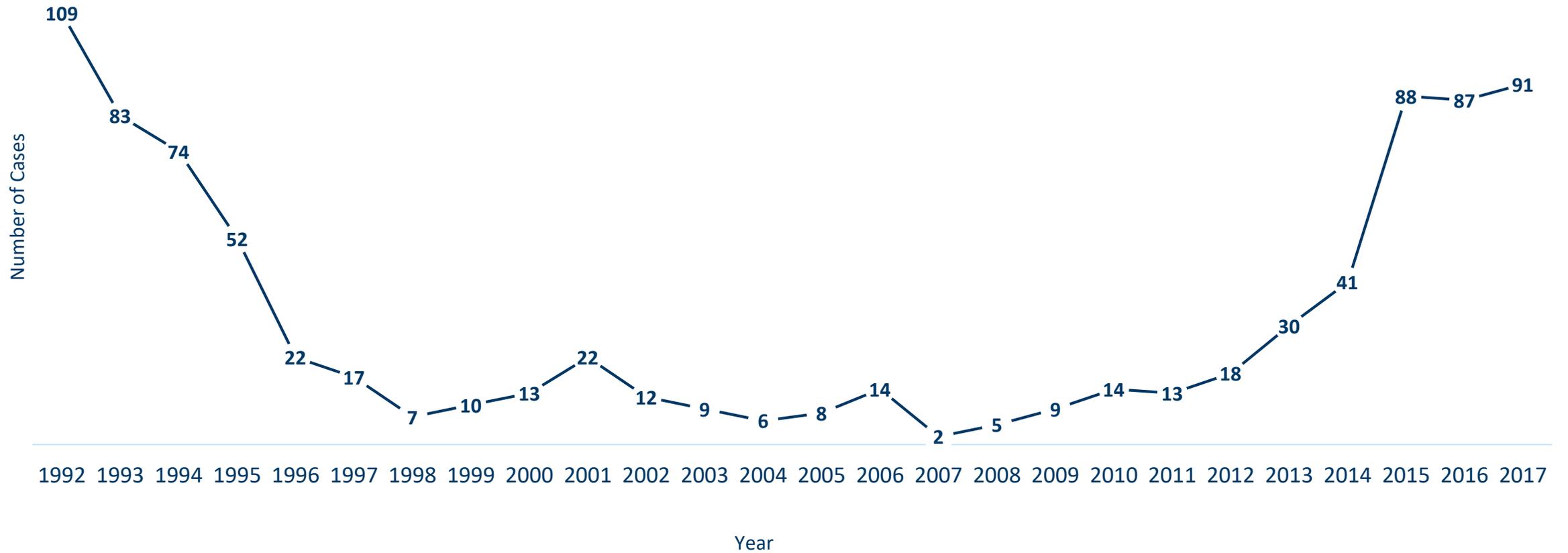


MSM=Men who have sex with men

[†] Early Syphilis includes primary, secondary, and early latent stages of syphilis.

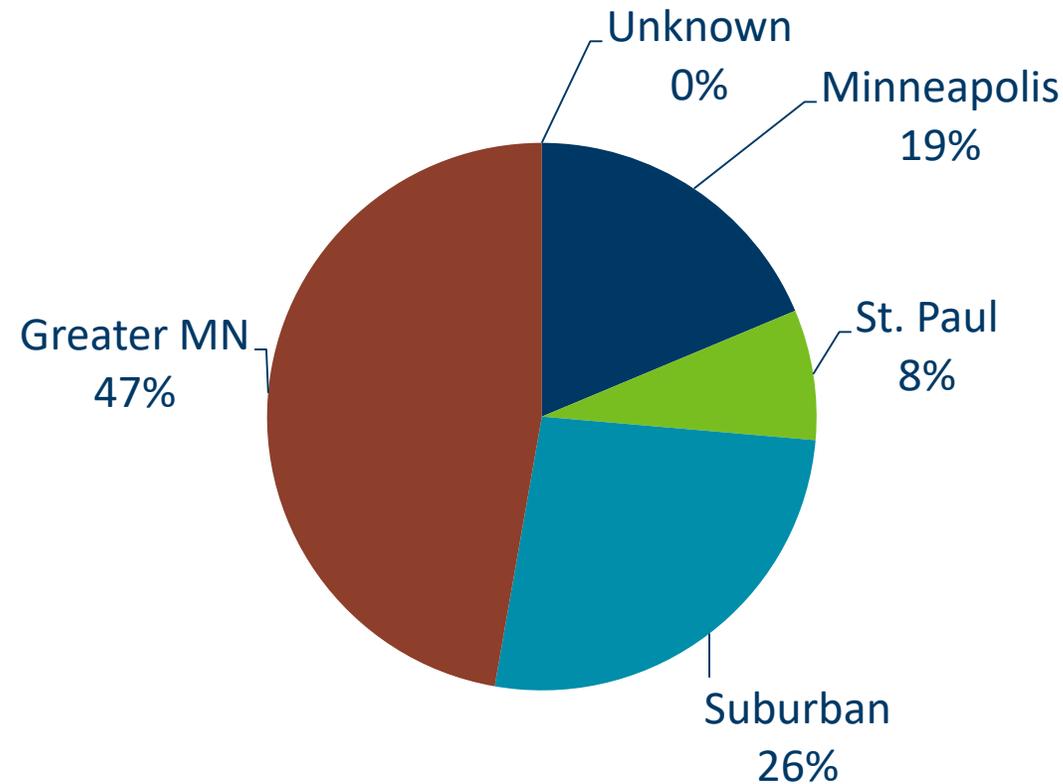
Female Early Syphilis Cases

NUMBER OF FEMALE EARLY SYPHILIS CASES



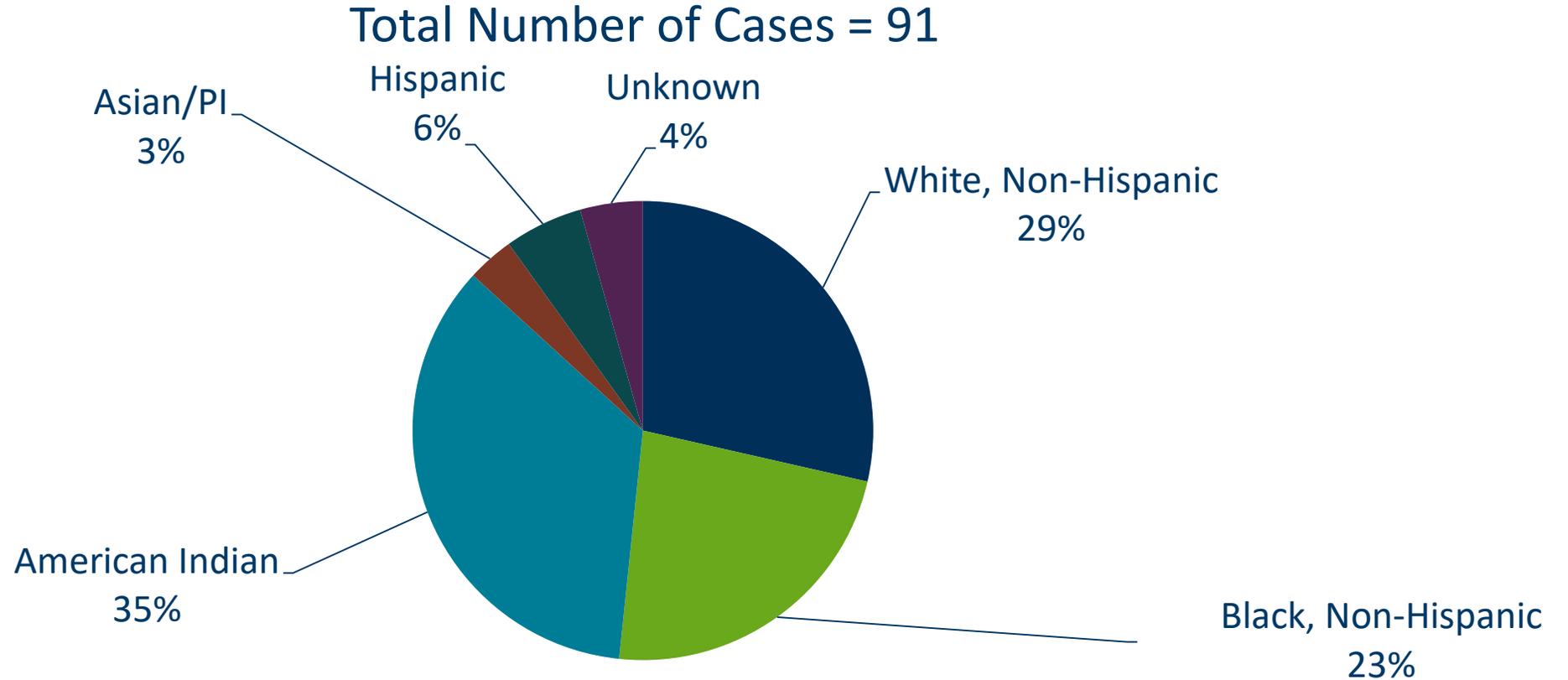
Early Syphilis Infections in Women in Minnesota by Residence at Diagnosis, 2017

Total Number of Cases = 91



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

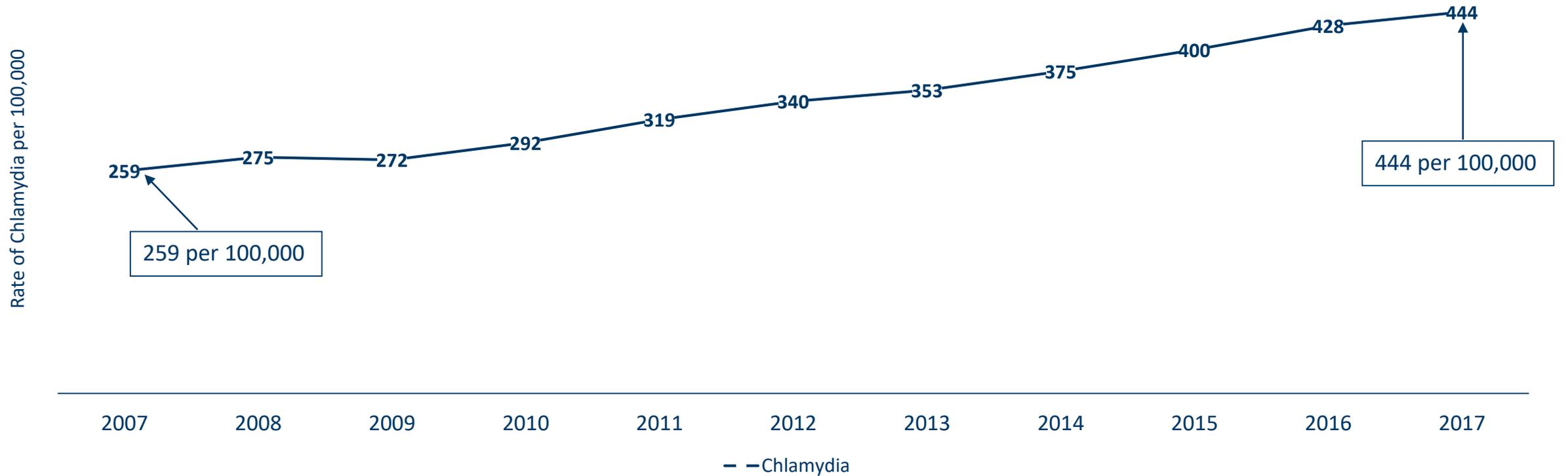
Early Syphilis Cases in Females by Race Minnesota, 2017



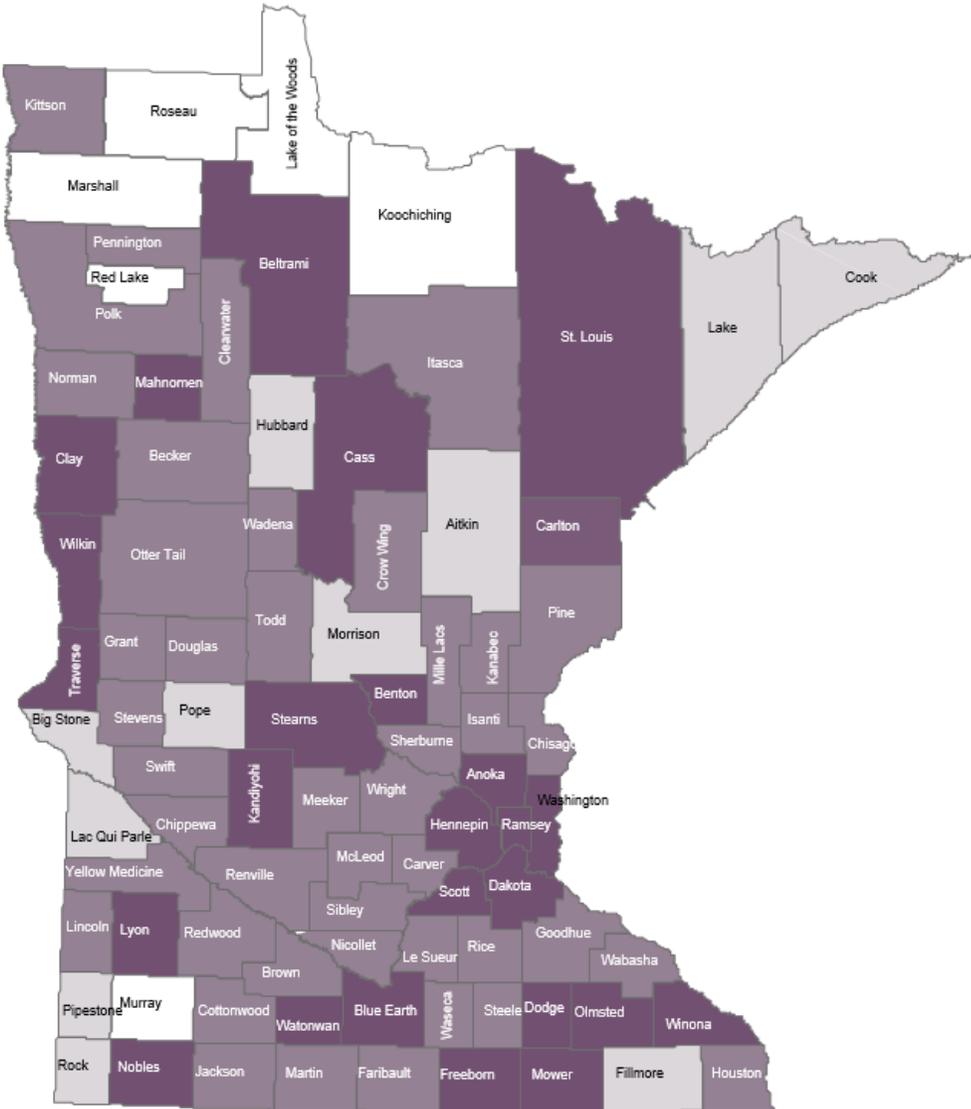
*Includes persons reported with more than one race

Chlamydia

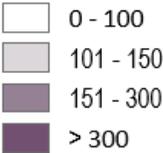
Chlamydia in Minnesota Rate per 100,000 by Year of Diagnosis 2007-2017



2017 Minnesota Chlamydia Rates by County



Rate per 100,000 persons

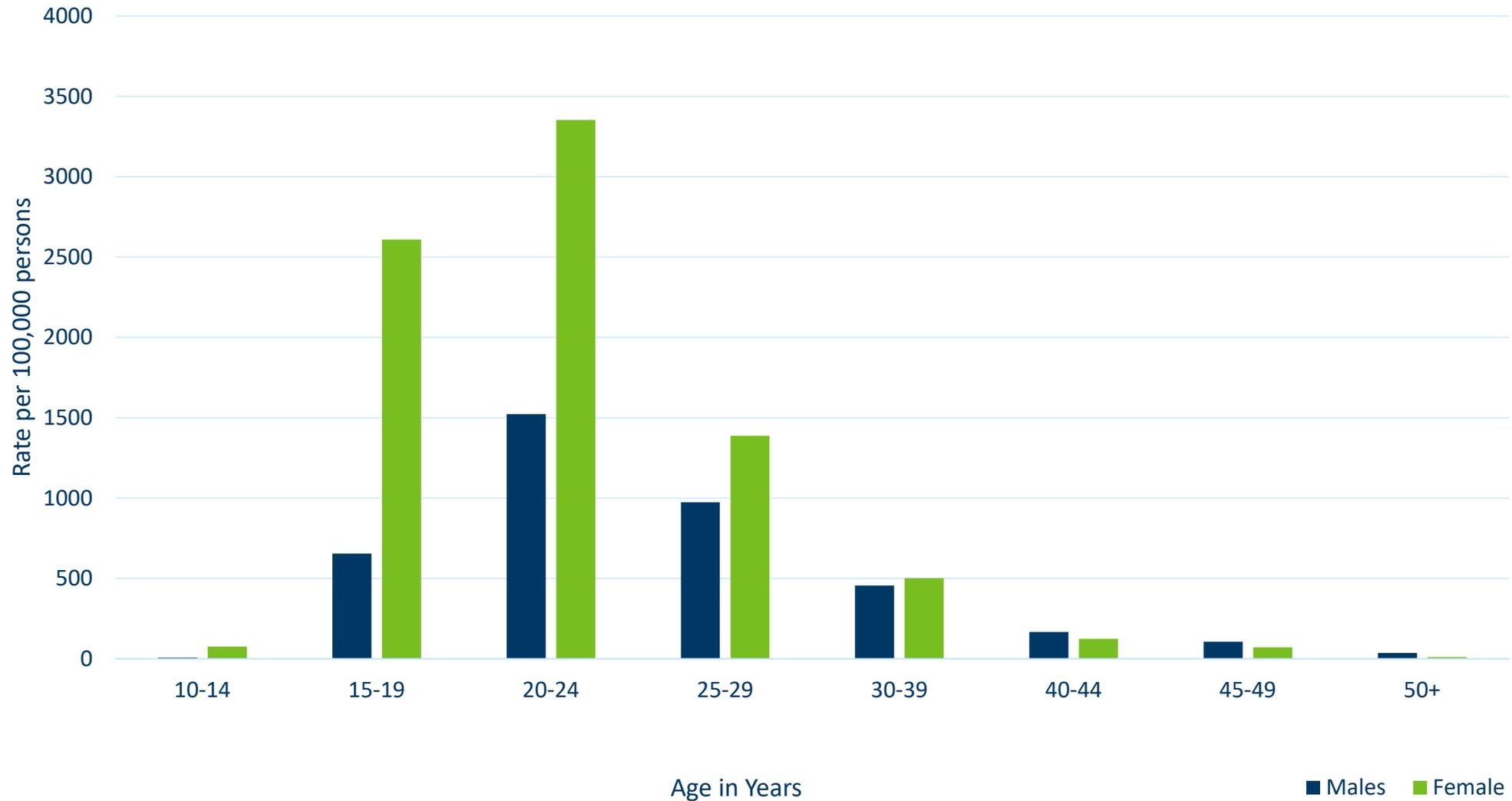


City of Minneapolis	1,293
City of St. Paul	976
Suburban [#]	362
Greater Minnesota	301

(480 cases missing residence information)

[#] 7-county metro area, excluding the cities of Minneapolis and St. Paul

Age-Specific Chlamydia Rates by Gender Minnesota, 2017



Chlamydia Rates by Race/Ethnicity Minnesota, 2007-2017

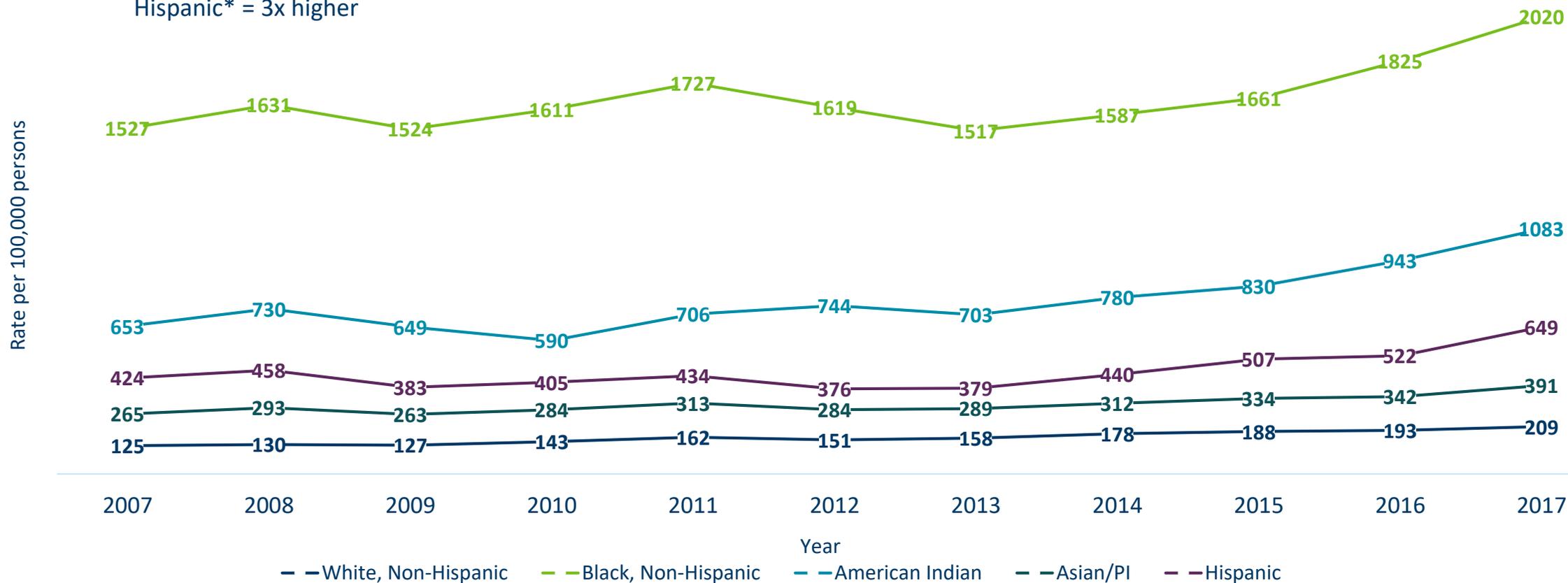
2017 rates compared with Whites:

Black, Non-Hispanic = 9.7x higher

American Indian = 5x higher

Asian/PI = 2x higher

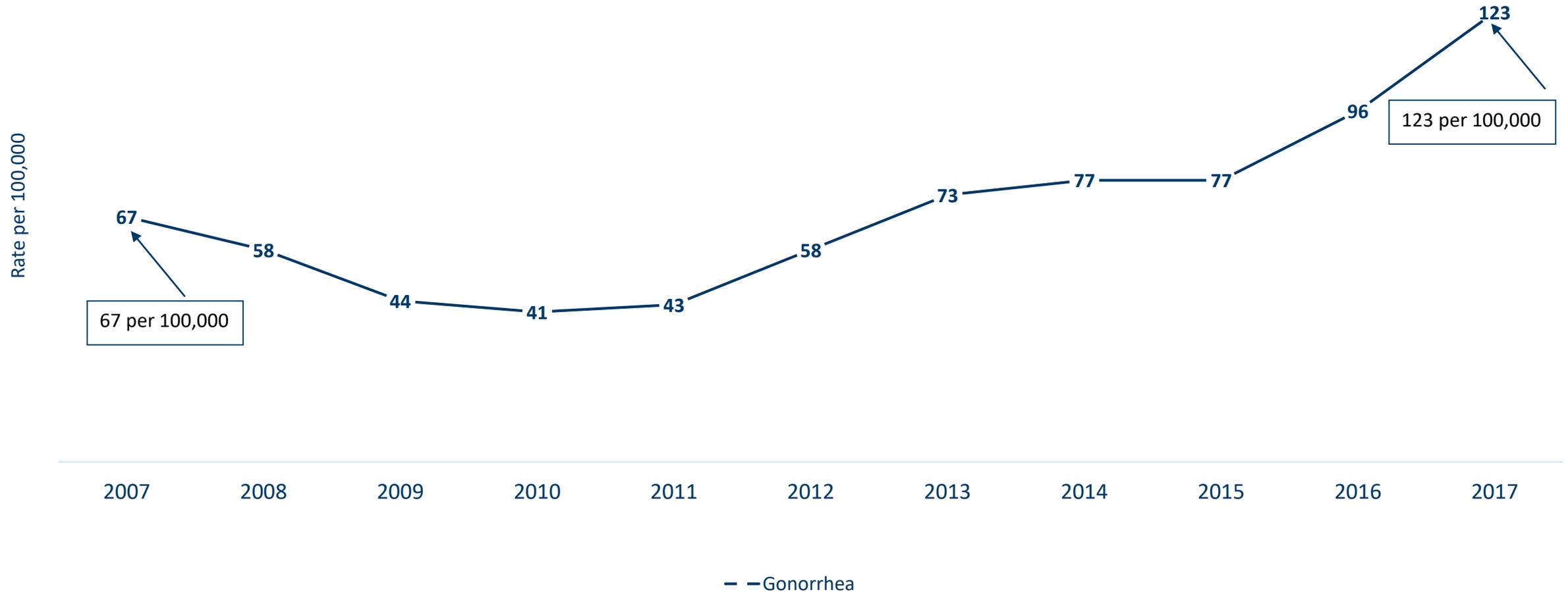
Hispanic* = 3x higher



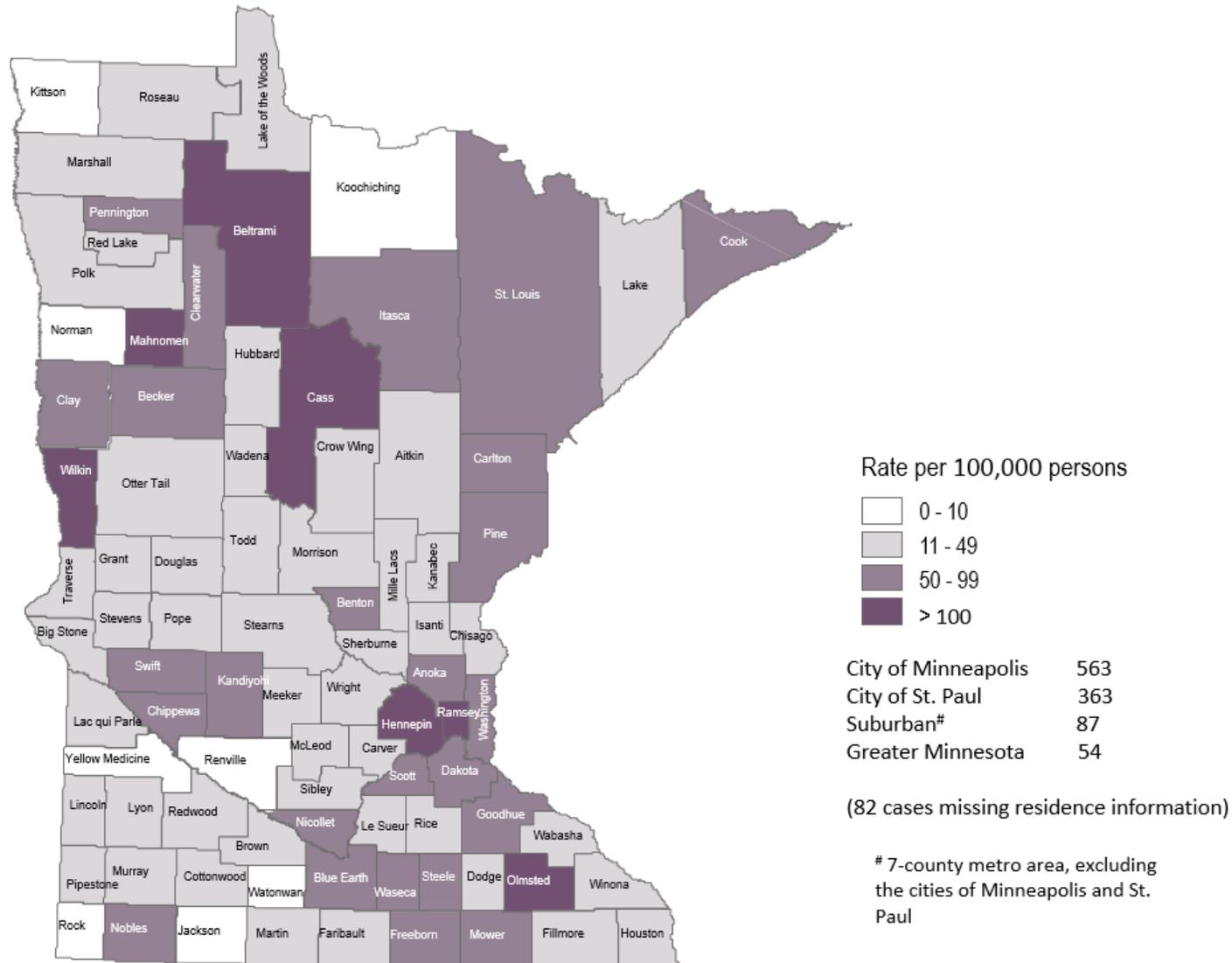
* Persons of Hispanic ethnicity can be of any race

Gonorrhoea

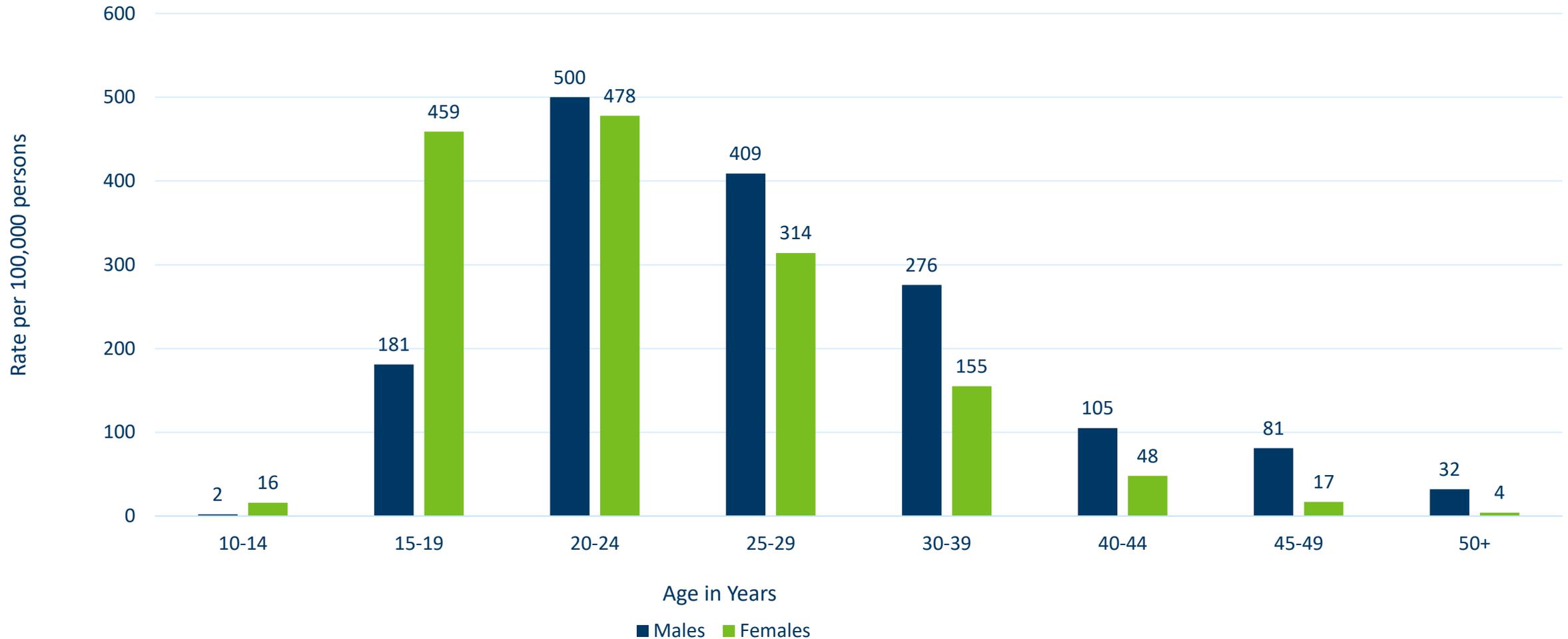
Gonorrhea in Minnesota: Rate per 100,000 by Year of Diagnosis, 2007-2017



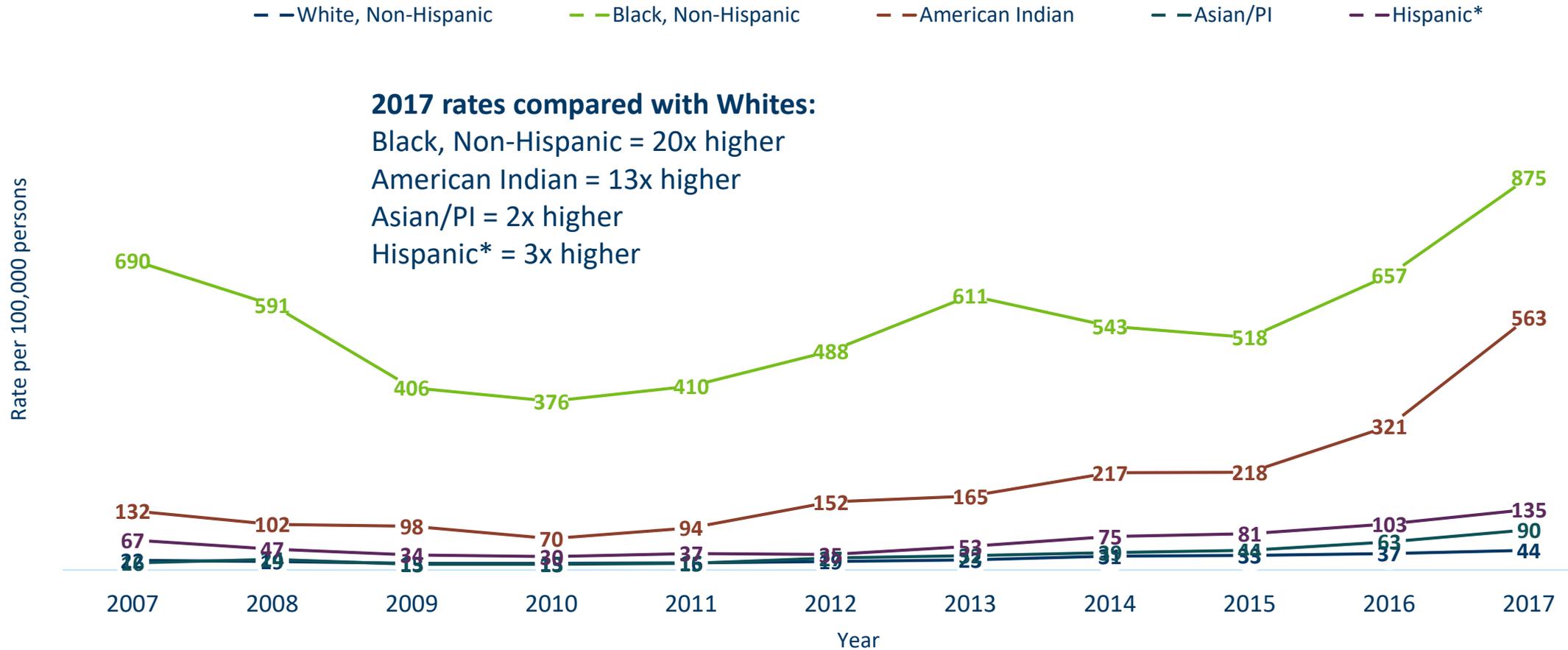
2017 Minnesota Gonorrhea Rates by County



Age-Specific Gonorrhea Rates by Gender Minnesota, 2017



Gonorrhea Rates by Race/Ethnicity Minnesota, 2007-2017

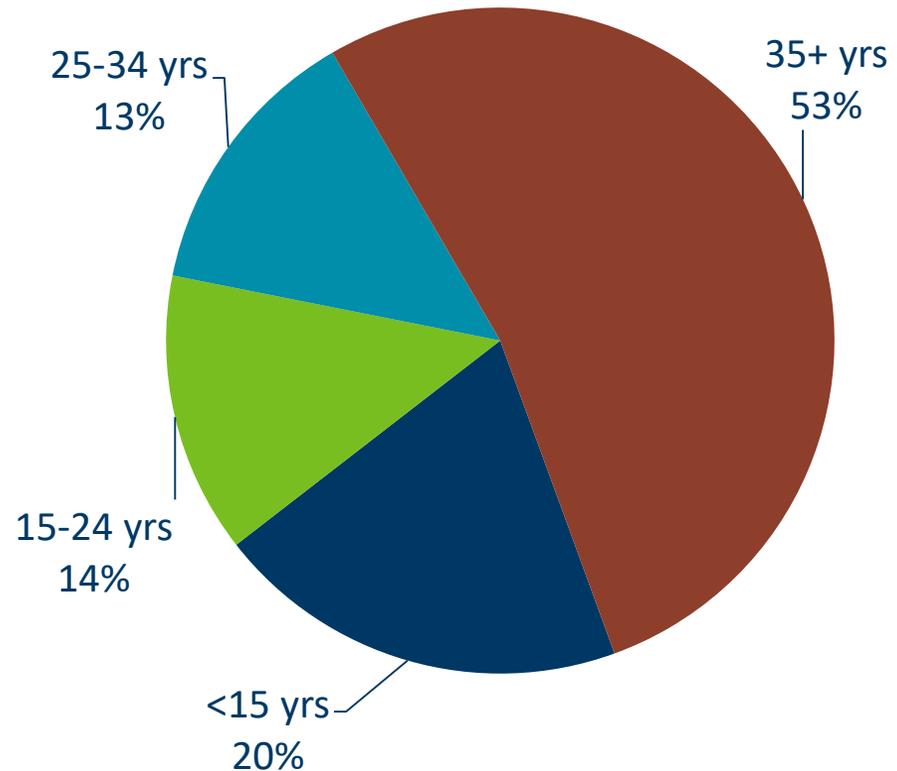


* Persons of Hispanic ethnicity can be of any race

Chlamydia Disproportionately Impacts Youth

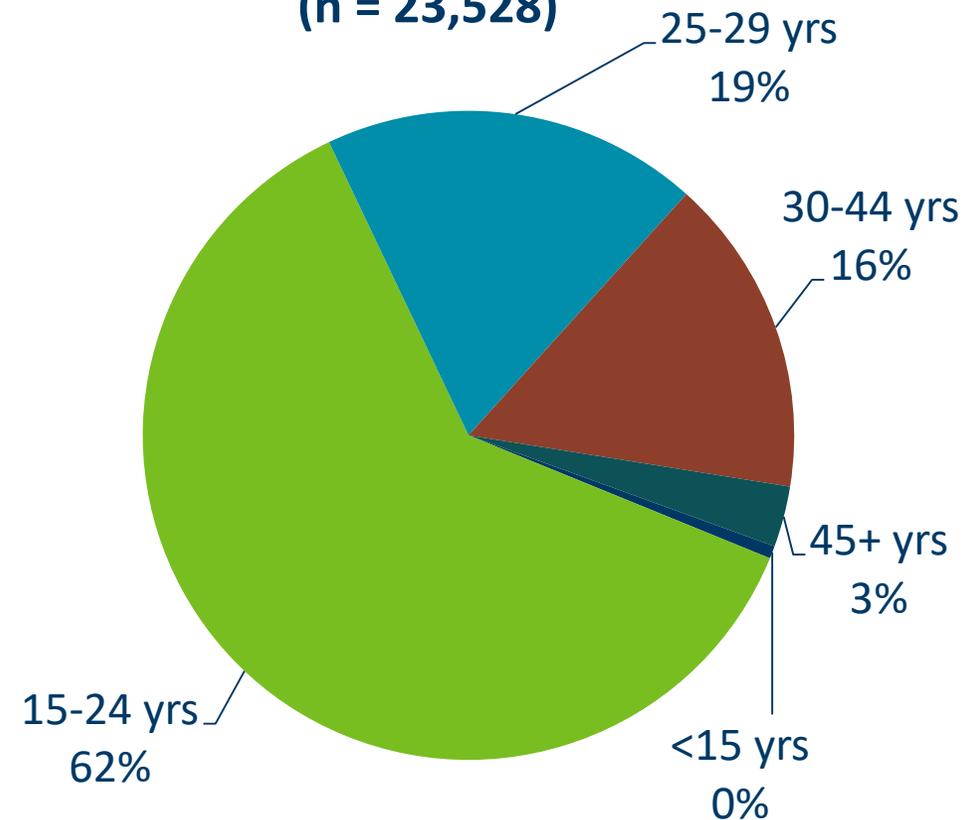
MN Population in 2010

(n = 5,303,925)



Chlamydia Cases in 2017

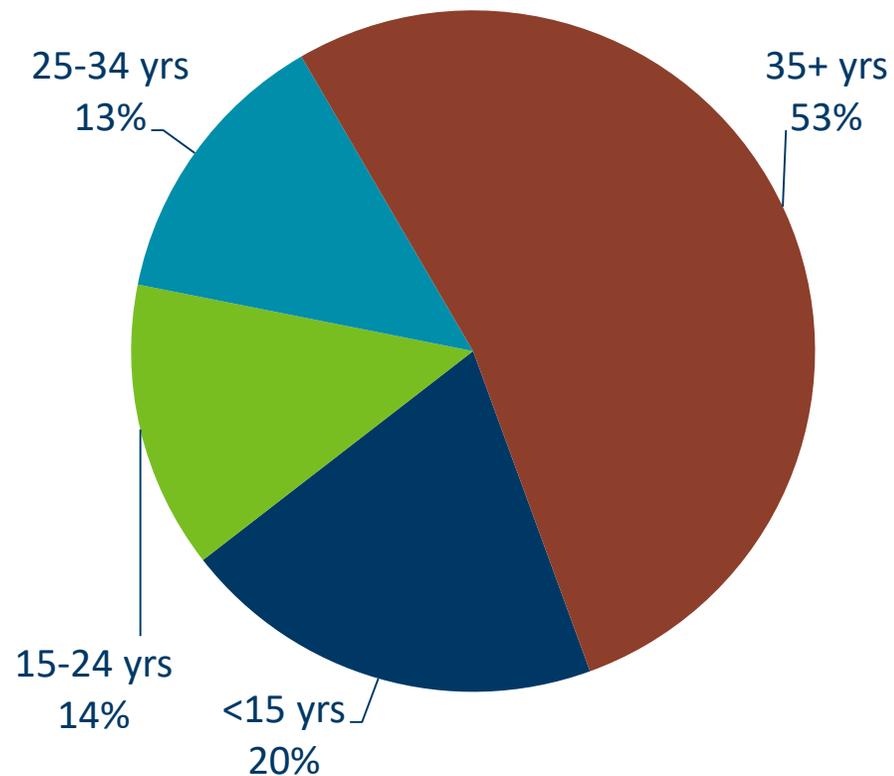
(n = 23,528)



Gonorrhea Disproportionately Impacts Youth

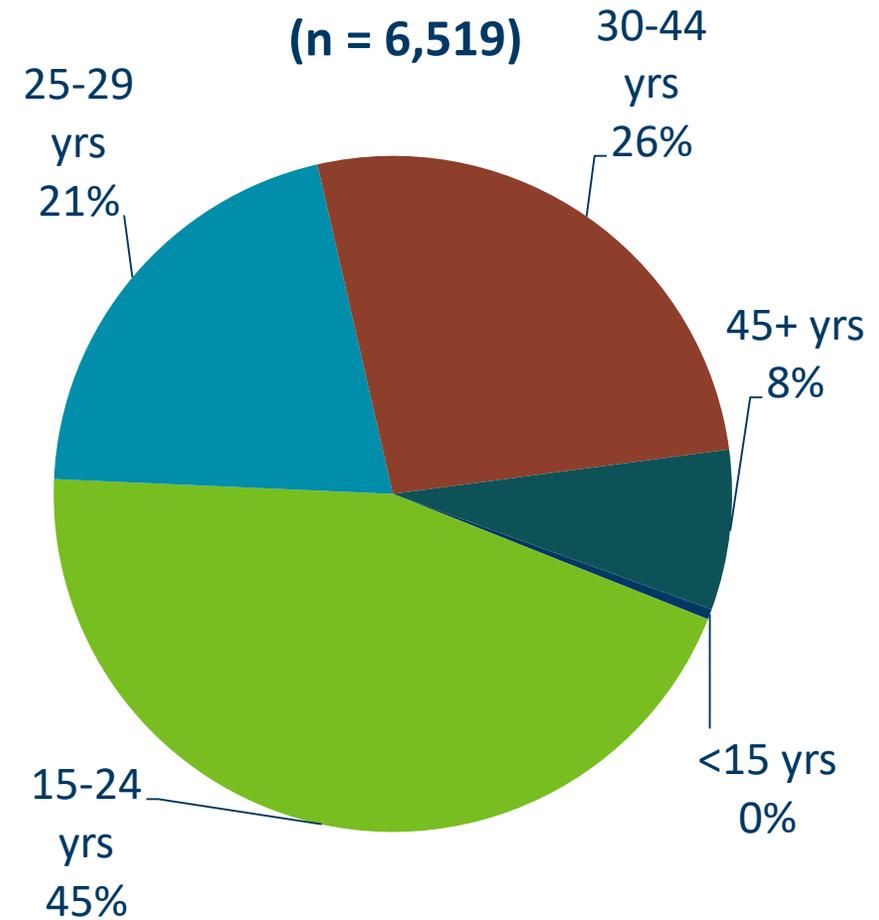
MN Population in 2010

(n = 5,303,925)



Gonorrhea Cases in 2017

(n = 6,519)



SSuN

Provider Investigation



FAX

Confidential Patient Investigation Supplement

The Minnesota Department of Health (MDH) is collaborating with the U.S. Centers for Disease Control and Prevention (CDC) to obtain additional information on a representative sample of gonorrhea cases reported to state and local health departments. This important information is urgently needed to help prevent emergence of antibiotic-resistant gonorrhea, to help prioritize public health resources for gonorrhea prevention and to better understand disease prevalence and incidence patterns in your community.

The patient named below was randomly chosen for this supplemental investigation from all cases routinely reported to the health department. This report is confidential; no identifying information on patients or clinicians will ever be released. Your cooperation in providing this information specific to the patient and diagnosis below is greatly appreciated. If you have questions or concerns about this supplemental investigation, please call the SSuN project coordinator Laura Tourdot at 651-201-3866 or the CDC SSuN Project Officer, Division of STD Prevention, U.S. Centers for Disease Control and Prevention 404-639-8356.

Please FAX completed form to Minnesota Department of Health, 651-201-4040: Attn SSuN Project Coordinator

Patient		
Last Name	First Name	MI DOB
Diagnosis Reported to Health Department		
Diagnosis: Gonorrhea	Date of Diagnosis/Report to MDH	If patient is NOT KNOWN to this practice/facility please check here and return by FAX to MDH <input type="checkbox"/>
Provider Information (Please provide the following information)		
Facility/Practice/Healthcare Organization Name	Name of clinician examining this patient	Date of Patient Visit
	<input type="checkbox"/> MD <input type="checkbox"/> RN <input type="checkbox"/> PA <input type="checkbox"/> ARNP <input type="checkbox"/> PN <input type="checkbox"/> Other	
Patient and Diagnostic Information		
Does patient have health insurance? <input type="checkbox"/> Yes <input type="checkbox"/> No	Were any of the following present on exam? (mark all that apply) <input type="checkbox"/> Urethritis <input type="checkbox"/> Proctitis <input type="checkbox"/> Epididymitis <input type="checkbox"/> PID <input type="checkbox"/> Discharge <input type="checkbox"/> Other <input type="checkbox"/> None	
Anatomic sites tested for gonorrhea (mark all that apply): <input type="checkbox"/> Urine <input type="checkbox"/> Urethra <input type="checkbox"/> Pharynx <input type="checkbox"/> Cervix/Vaginal Swab <input type="checkbox"/> Rectum <input type="checkbox"/> Other		Anatomic sites testing positive for gonorrhea (mark all that apply): <input type="checkbox"/> Urine <input type="checkbox"/> Urethra <input type="checkbox"/> Pharynx <input type="checkbox"/> Cervix/Vaginal Swab <input type="checkbox"/> Rectum <input type="checkbox"/> Other
Was patient tested for HIV infection at this visit? <input type="checkbox"/> Yes <input type="checkbox"/> No	Gender of patient's sex partners? <input type="checkbox"/> Males <input type="checkbox"/> Females <input type="checkbox"/> Both <input type="checkbox"/> Unknown	
Counseling / Referral		
Were any medications/prescriptions provided to patient to give to their sex partners? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was patient counseled to prevent transmission/reinfection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was patient referred to health department for partner notification or other services? <input type="checkbox"/> Yes <input type="checkbox"/> No

Confidential

This facsimile transmission contains confidential information, some or all of which may be protected health information as defined by the federal Health Insurance Portability & Accountability Act (HIPAA) Privacy Rule. This transmission is intended for the exclusive use of the individual or entity to whom it is addressed and may contain information that is proprietary, privileged, confidential and/or exempt from disclosure under applicable law. If you are not the intended recipient (or an employee or agent responsible for delivering this facsimile transmission to the intended recipient), you are hereby notified that any disclosure, dissemination, distribution or copying of this information is strictly prohibited and may be subject to legal restriction or sanction. Please notify the sender by telephone (number listed above) to arrange the return or destruction of the information and all copies.

Patient Investigation

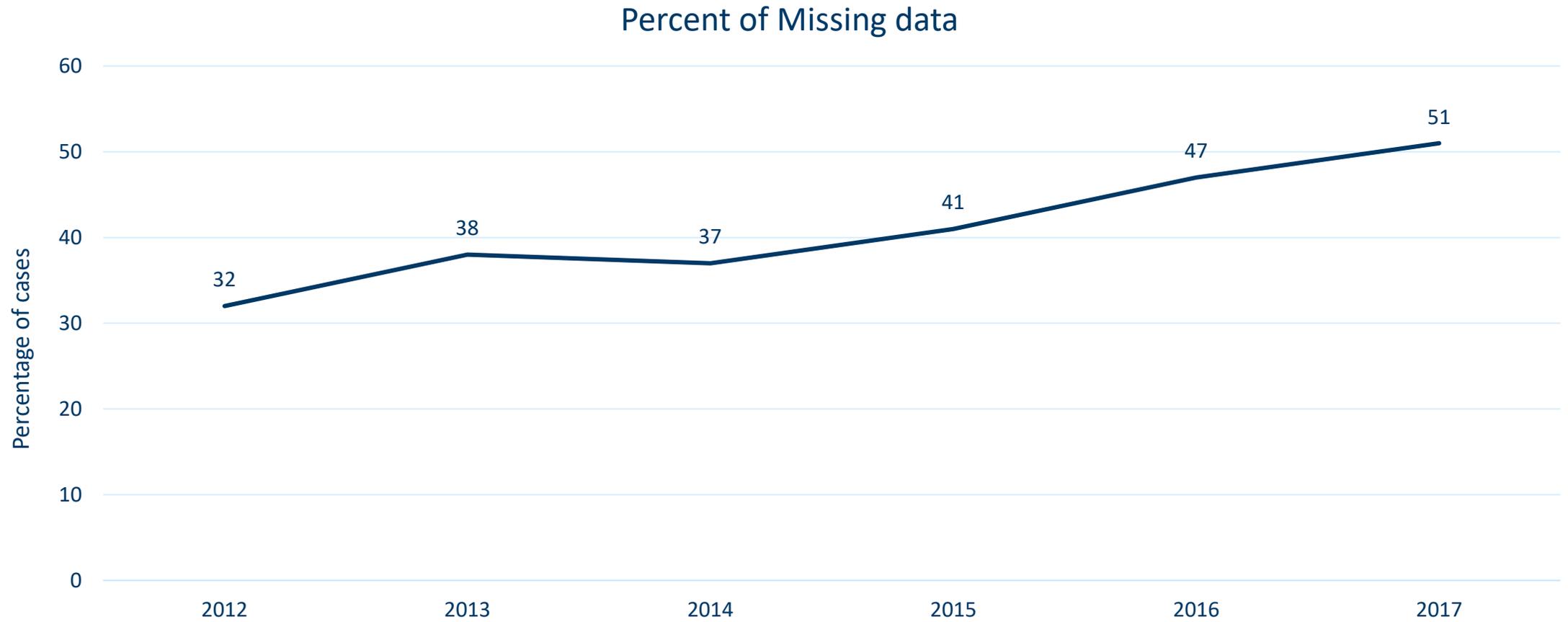


Gonorrhea is a notifiable condition in MN

- Please remember to notify all patients after any STD diagnosis that their name and information is required by law to be reported to the Minnesota Department of Health.
- Please ensure all STD case and lab reports are submitted to the MDH with proper contact information, including telephone number.
- Please inform your patients, after a STD diagnosis, that they have a chance of being contacted by the MDH for additional follow up.

Patient Investigation Interview

Gender of Sex Partner



Summary of STD Trends in Minnesota

- From 2007-2017, the chlamydia rate increased by 71%. The rate of gonorrhea increased by 84%. Rates of reported syphilis increased in 2017 compared to 2016 by 10%.
- Minnesota has seen a resurgence of syphilis over the past decade, with men who have sex with men and those co-infected with HIV being especially impacted. However, the number of females is near the record high for the last decade.
- Persons of color continue to be disproportionately affected by STDs.
- STD rates are highest in the cities of Minneapolis and Saint Paul. However, chlamydia and gonorrhea cases in the Twin Cities suburbs and Greater Minnesota account for 62% of the reported cases in 2017.
- Between 2016 and 2017, early syphilis cases increased by 9%. Men who have sex with men comprised 83% of all male cases in 2017; cases among women are continuing to rise.

Future Updates to STD Reporting and Current Follow-Up

- New case report form to accommodate changes in treatment guidelines, requesting HIV testing status, and PrEP (Pre-Exposure Prophylaxis) usage.
- The case report form can be filled out on a computer and printed or faxed into MDH
- All cases co-infected with HIV (diagnosed in the last year)/Gonorrhea, HIV/Syphilis, and Early Syphilis will continue to be assigned to MDH Partner Services for follow-up
- All Gonorrhea cases continue to have the potential for being contacted by MDH for additional follow-up

Thank you

Laura Tourdot, Laura.Tourdot@state.mn.us, 651-201-3866

Dawn Ginzl, Dawn.Ginzl@state.mn.us, 651-201-4041



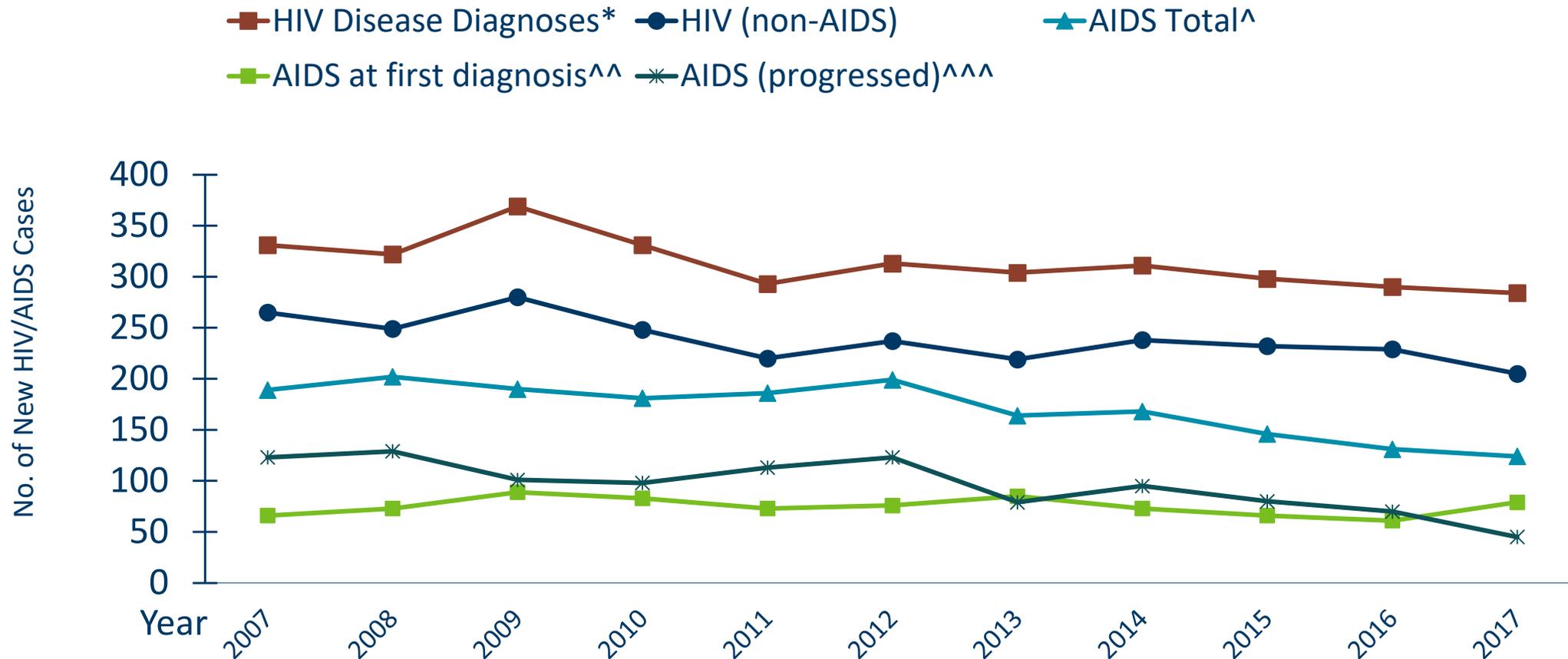
Highlights from the Minnesota HIV Surveillance Report, 2017

HIV/AIDS Surveillance System

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

New HIV diagnoses in Minnesota, 2017

New HIV Disease Diagnoses, HIV (non-AIDS) and AIDS Cases by Year, 2007-2017

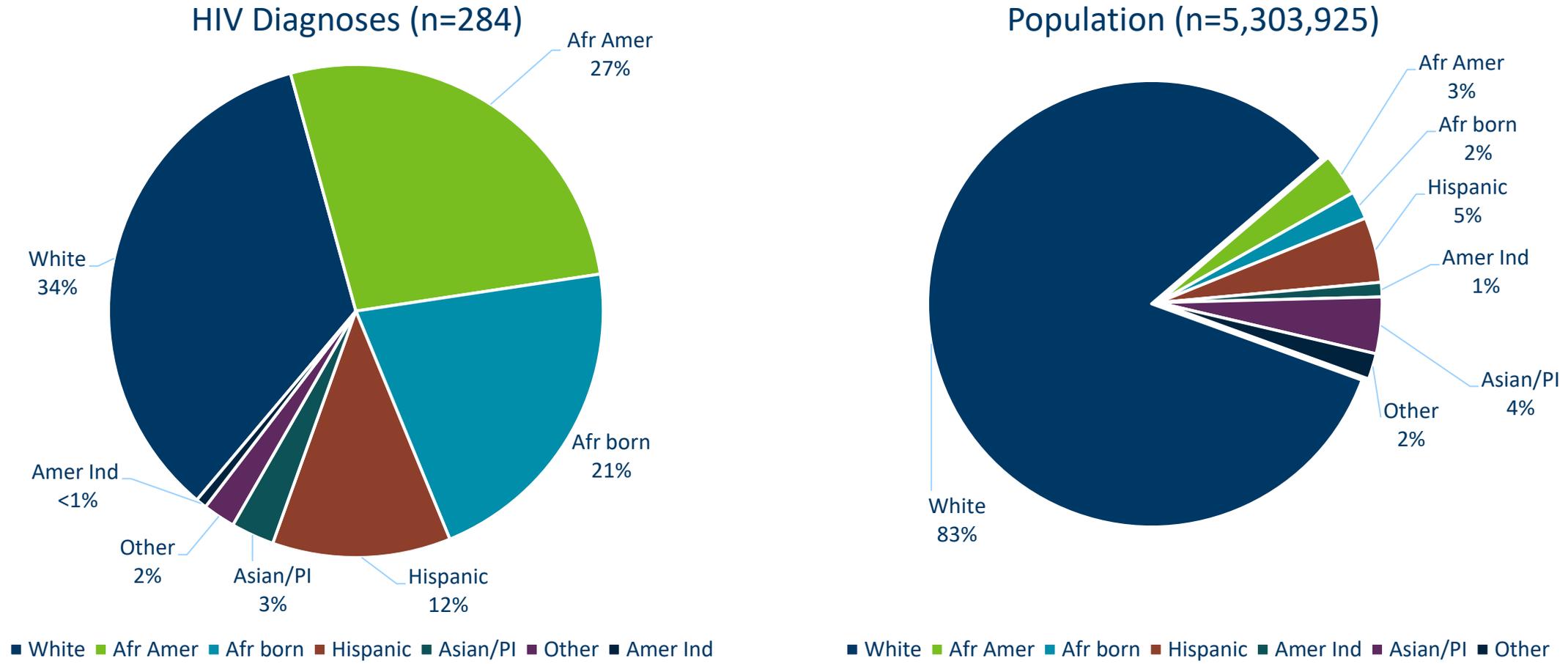


*Includes all new cases of HIV infection (both HIV (non-AIDS) and AIDS at first diagnosis) diagnosed within a given calendar year.

^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 Diagnoses* in Year 2017 and General Population in Minnesota by Race/Ethnicity



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

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

Number of Cases and Rates (per 100,000 persons) of HIV Diagnoses* by Race/Ethnicity† Minnesota, 2017

Race/Ethnicity	Cases	%	Rate
White, non-Hispanic	98	35%	2.2
Black, African-American	76	27%	46.6
Black, African-born	60	21%	55.6 ^{††}
Hispanic	33	12%	13.2
American Indian	2	0.7%	#
Asian/Pacific Islander	8	3%	3.7
Other [^]	6	2%	6.0
Total	283	100%	5.3

* 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.

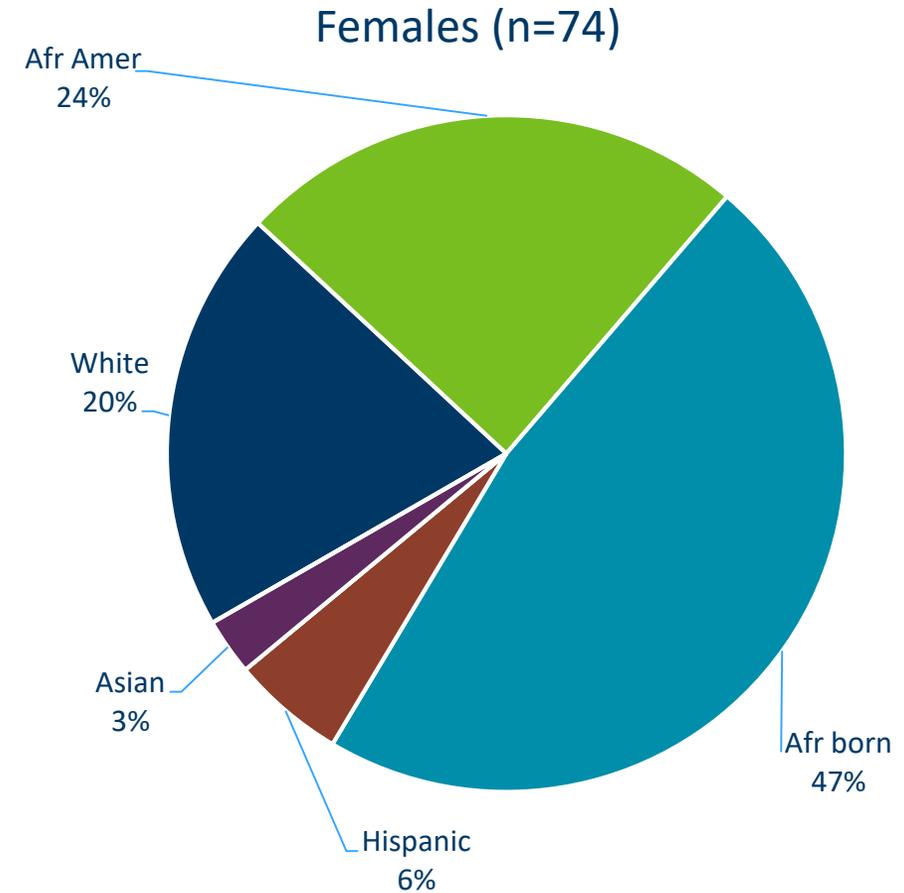
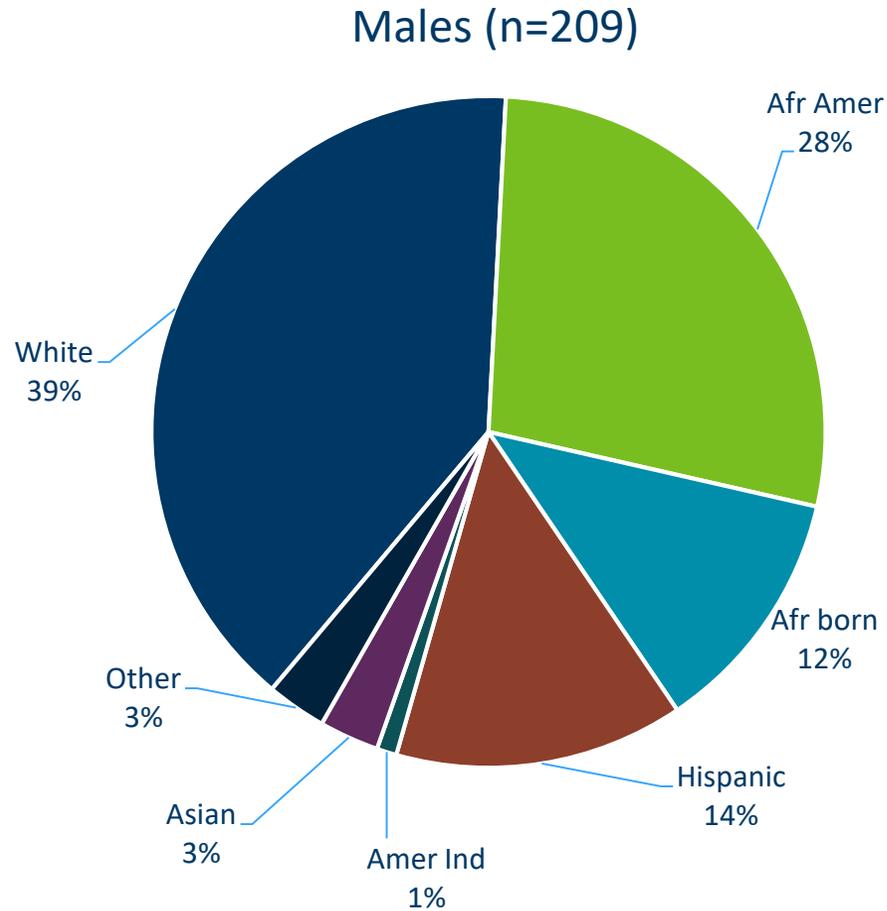
†† Estimate of 107,880 Source: 2010-2012 American Community Survey. Additional calculations by the State Demographic Center.

(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 persons or persons with unknown or missing race

Number of cases too small to calculate reliable rate

HIV Diagnoses* Diagnosed in Year 2017 by Gender and Race/Ethnicity



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

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

Number of Cases of Adult and Adolescent HIV Diagnoses** by Gender Identity and Risk† Minnesota, 2017

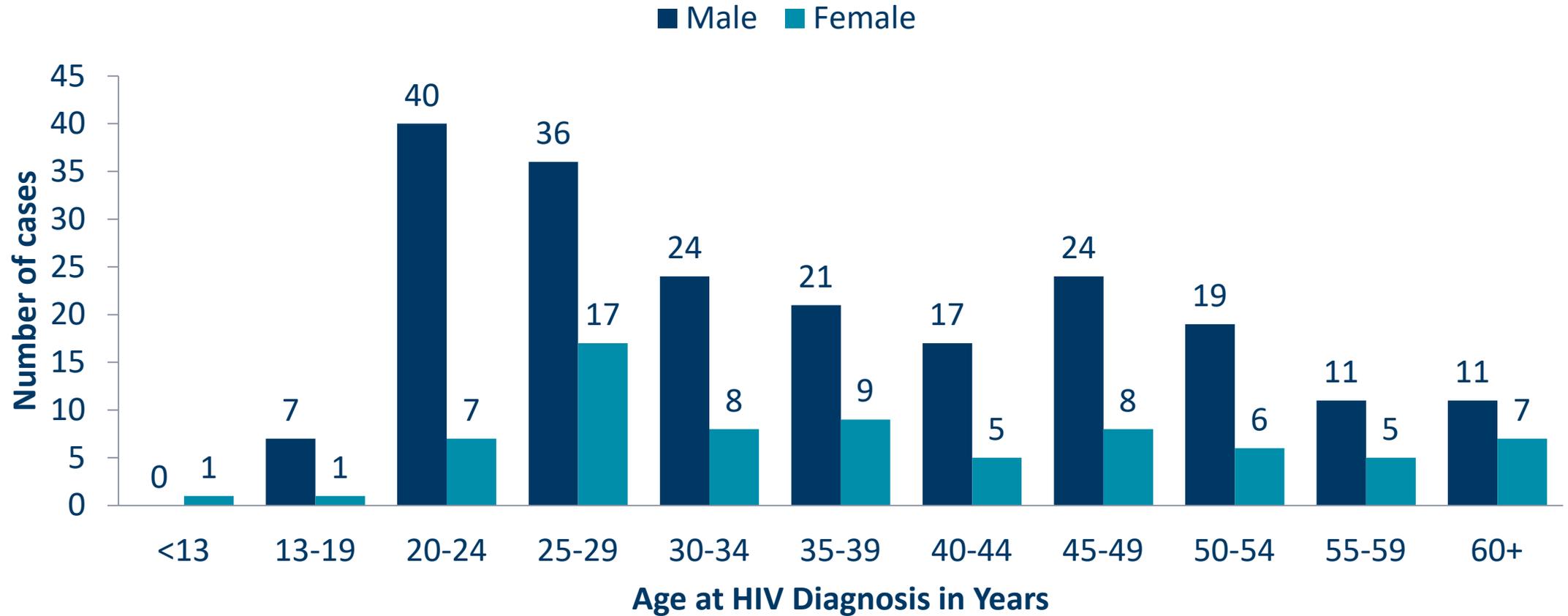
Gender/Risk	Cases	%	Rate
Men (Total)	(204)	72%	7.8
MSM†	136	(67%)	150.0
Non-MSM	68	(33%)	2.7
Women	70	25%	2.6
Transgender ^ (Total)		3%	x
Male to Female	6	(67%)	x
Female to Male	3	(33%)	x
Total	283	100%	5.3

**HIV or AIDS at first diagnosis over the age of 13 (1 infant not included)

† “MSM” refers to both MSM and MSM/IDU. Estimate of 90,663

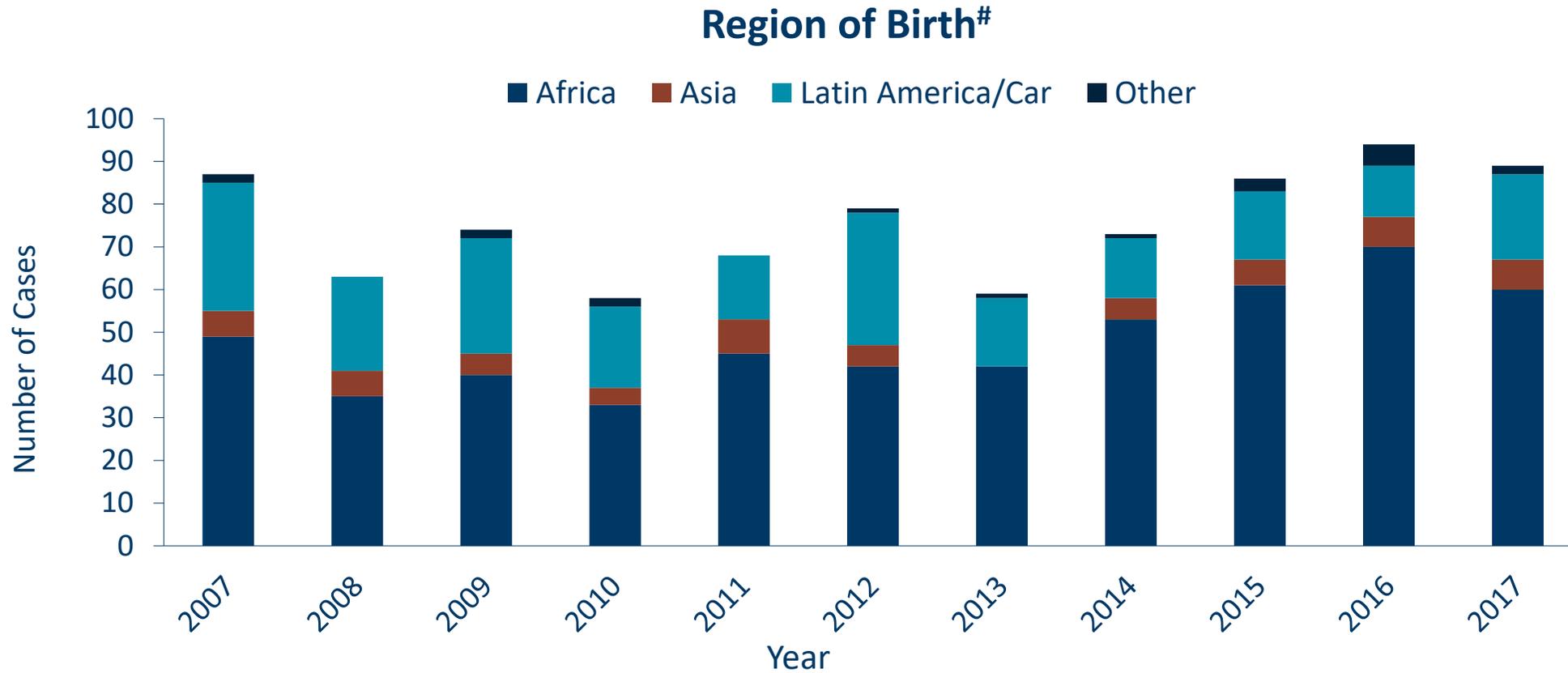
^ No current transgender estimate available

Age at HIV Diagnosis* by Sex at Birth, Minnesota, 2017



*HIV or AIDS at first diagnosis

HIV Diagnoses* among Foreign-Born Persons† in Minnesota by Year and Region of Birth 2007 - 2017

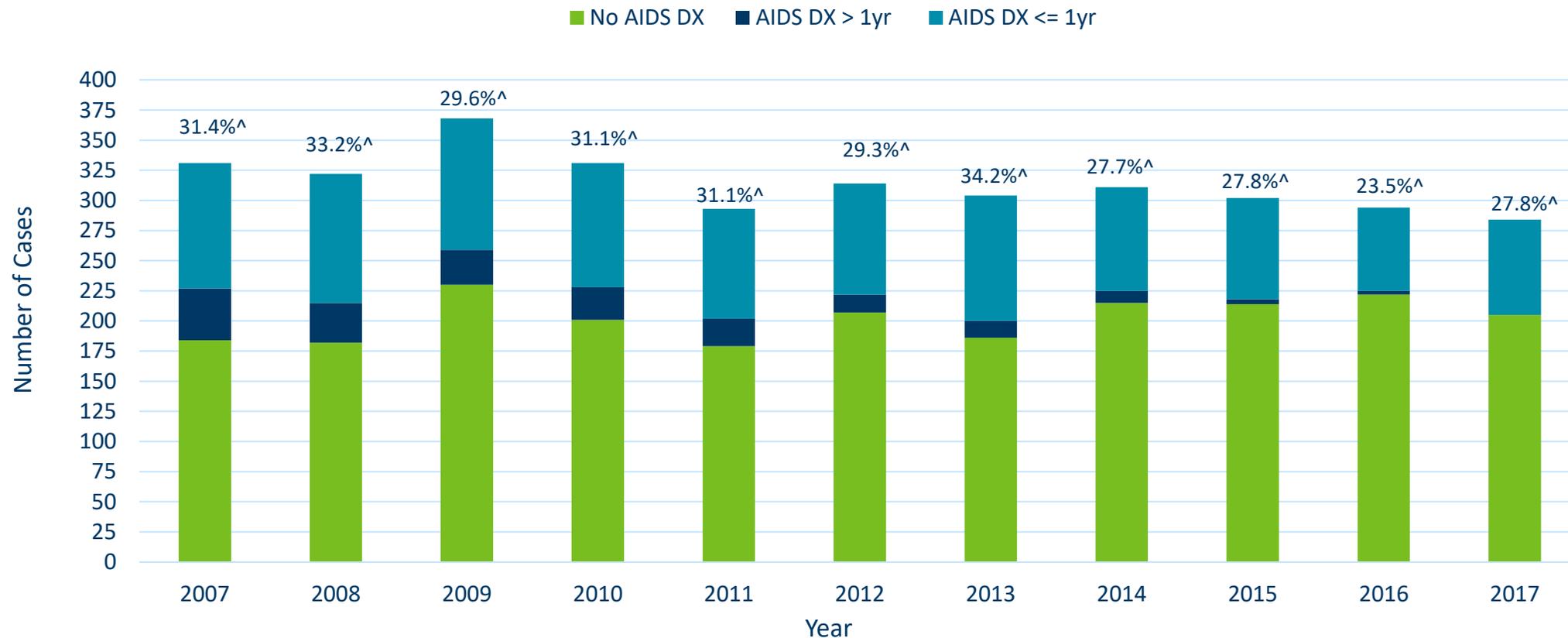


* HIV or AIDS at first diagnosis

† 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.

Time of Progression to AIDS for HIV Diagnoses in Minnesota* 2007 - 2017[†]

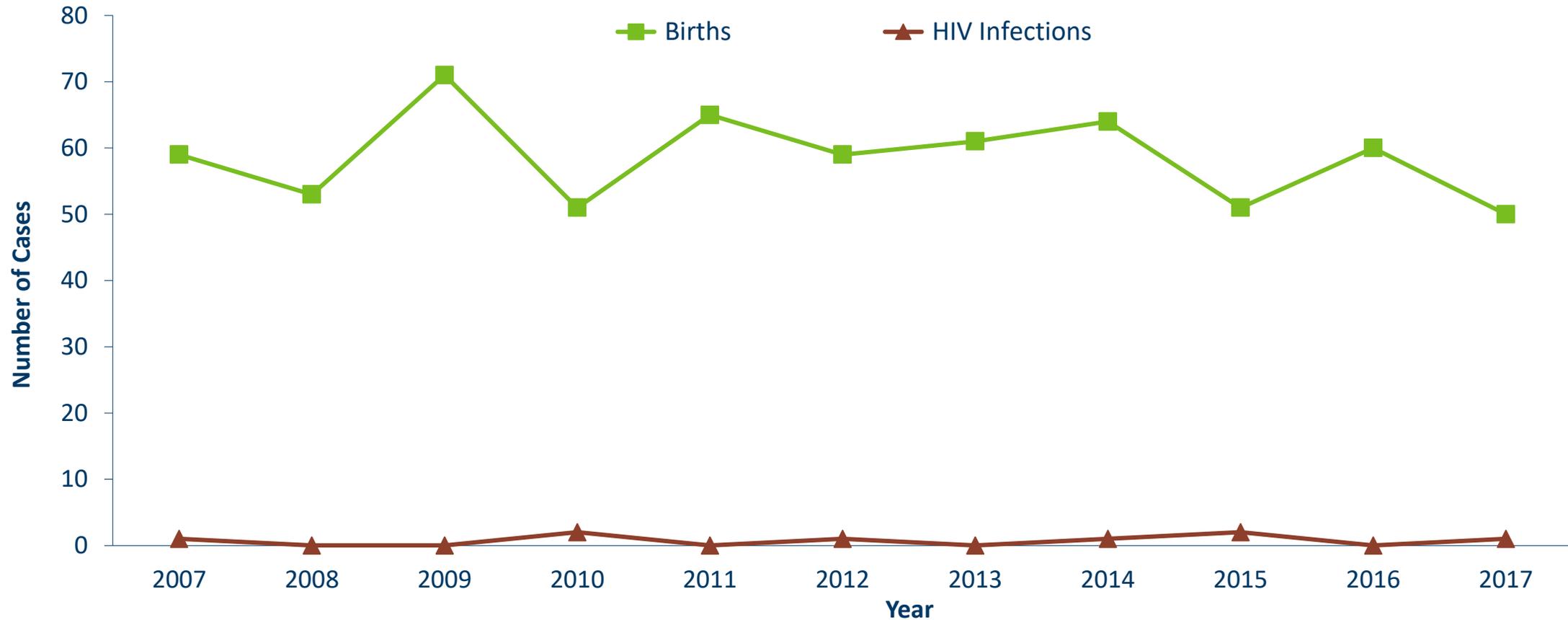


*Numbers include AIDS at 1st report but exclude persons arriving to Minnesota through the HIV+ Refugee Resettlement Program, as well as other refugee/immigrants with an HIV diagnosis prior to arrival in Minnesota.

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

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

Births to HIV-Infected Women and Number of Perinatal Acquired HIV Infections* by Year of Birth, 2007- 2017



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

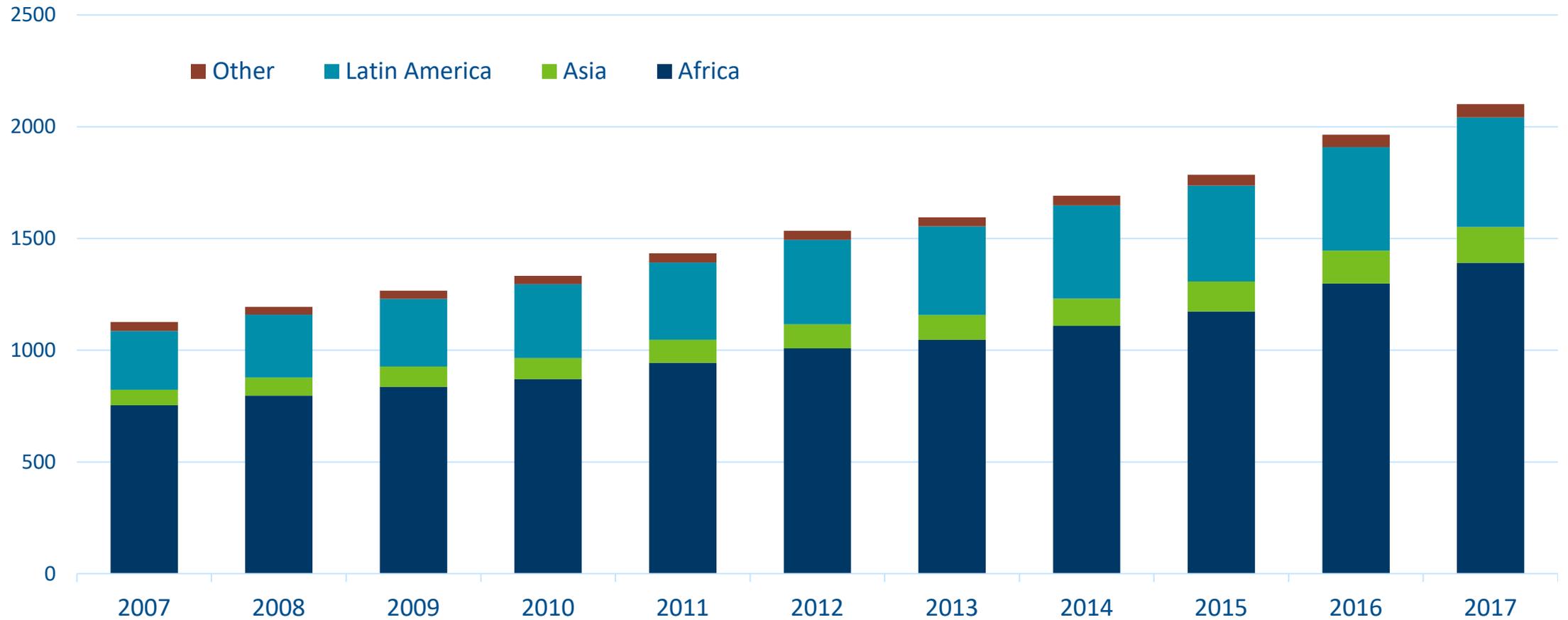
People Living with HIV/AIDS in Minnesota



Estimated Number of Persons Living with HIV/AIDS in Minnesota

- As of December 31, 2017 **8,789*** persons are assumed alive and living in Minnesota with HIV/AIDS. This includes:
 - 4,751 (54%) living with HIV infection (non-AIDS)
 - 4,038 (46%) living with AIDS
- This number includes **2,219** persons who were first reported with HIV or AIDS elsewhere and subsequently moved to Minnesota
- This number excludes **1,449** persons who were first reported with HIV or AIDS in Minnesota and subsequently moved out of the state

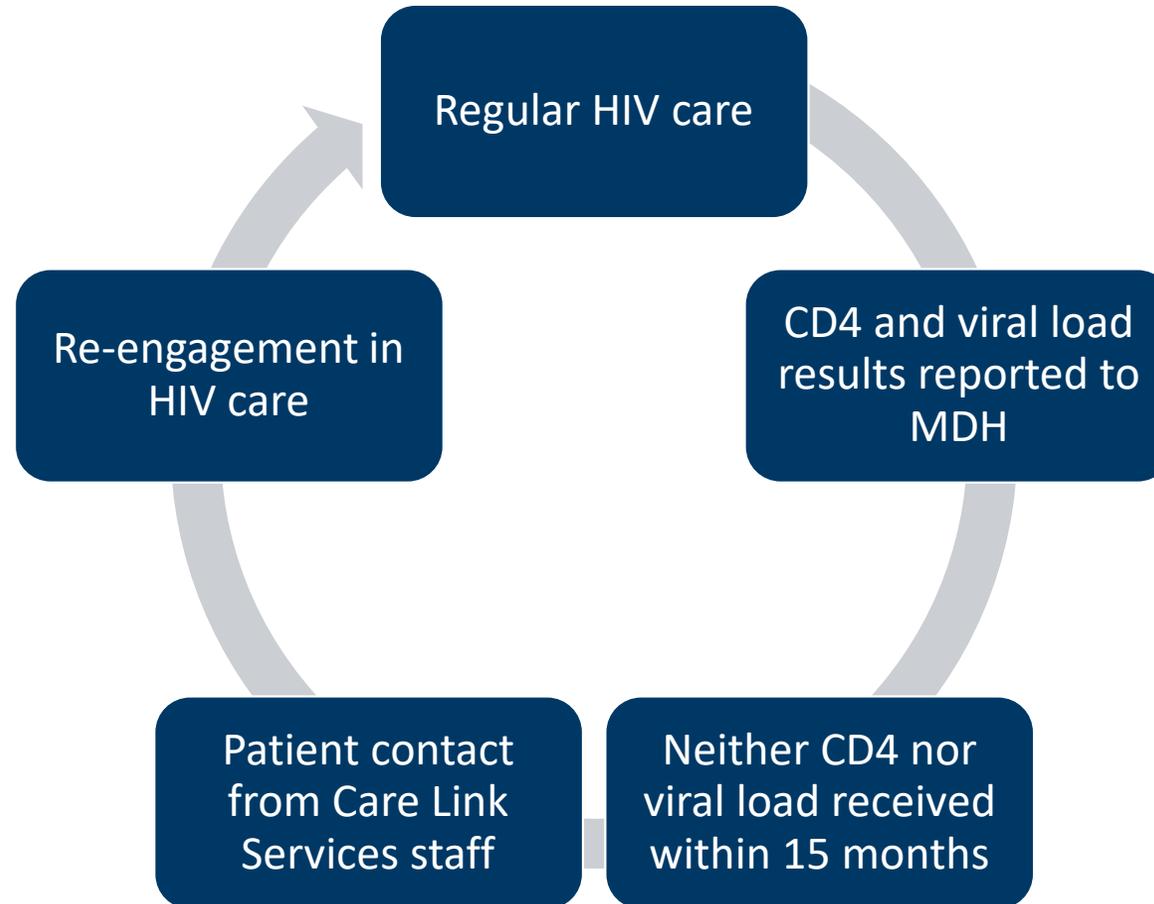
Foreign Born Persons Living with HIV/AIDS in Minnesota by Region of Birth, 2007-2017



*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.

Data2Care Activities

What causes a Care Link Investigation?





MDH Care Link Services Program

The Care Link Services (CLS) program conducts activities to facilitate linkage or re-engagement to medical care and other services for HIV positive persons who may be in need of these services and who reside in Minnesota outside of Hennepin County.

- The CLS team consists of:
 - Supervisors: Marcie Babcock and Brian Kendrick
 - Lead CLS Disease Intervention Specialist (DIS): George Kraus
 - CLS DIS: Anna Bosch, Mady Ekue-Hettah, Jose Ramirez
- For information contact George Kraus, George.Kraus@state.mn.us or 651-201-4010
- Hennepin County residents are serviced by the Red Door Data2Care program. For information contact Scott Bilodeau scott.bilodeau@hennepin.us or 612-596-7905



Conclusions

- Total HIV diagnoses for 2017 slightly lower than 2016
- Men who have sex with men continue to have high rates of new HIV infections
- More than half of newly reported HIV infections were among communities of color
- More than one-third of newly reported HIV infections were under 30 years of age
- There is a continuing pattern of increased HIV infection among injection drug users (IDU)
- HIV prevalence increased by 235 during 2017, some as a result of Data2Care activities

Thank you!

Cheryl Barber and Jared Shenk, HIV Epidemiologists

Cheryl.Barber@state.mn.us

Jared.Shenk@state.mn.us



Highlights from the Hepatitis Surveillance Report, 2017

Hepatitis Surveillance System

<http://www.health.state.mn.us/divs/idepc/diseases/hepc/stats/index.html>



Introduction

- Data in this presentation are current through 2017
- Definitions:
 - Acute case:
 - Infected within the last six months
 - Symptomatic OR negative test in six months before diagnosis
 - Chronic case:
 - Infected for over six months
 - Asymptomatic or symptomatic
 - Resolved cases:
 - No evidence of current infection
 - Evidence of past infection



Data limitations

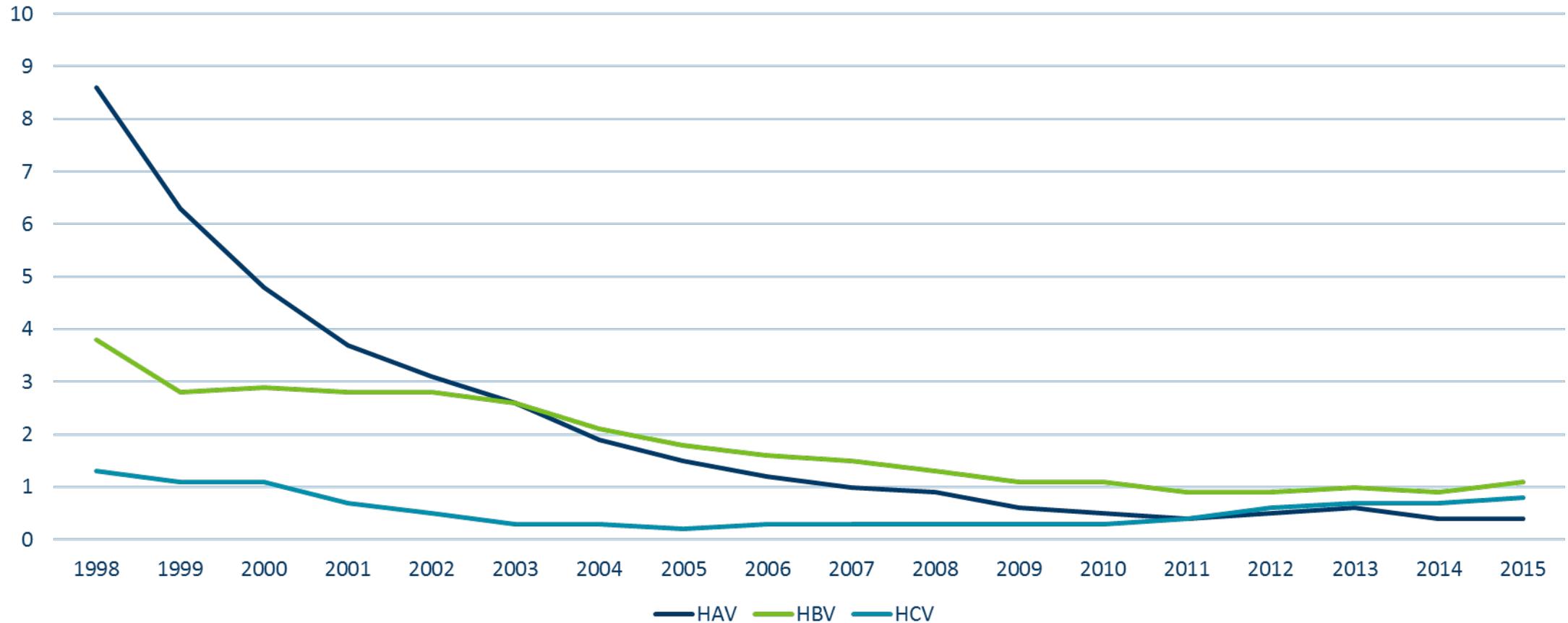
- The slides rely on data from HCV and HBV cases diagnosed through 2017 and reported to the Minnesota Department of Health (MDH) Hepatitis Surveillance System.
- Some limitations of surveillance data:
 - Data do not include hepatitis-infected persons who have not been tested
 - Data do not include persons whose positive test results have not been reported to the MDH
- Persons are assumed to be alive unless the MDH has knowledge of their death. Most recent match with Minnesota death records was in 2016.
- Persons whose most recently reported state of residence was Minnesota are assumed to be currently residing in Minnesota unless the MDH has knowledge of their relocation.



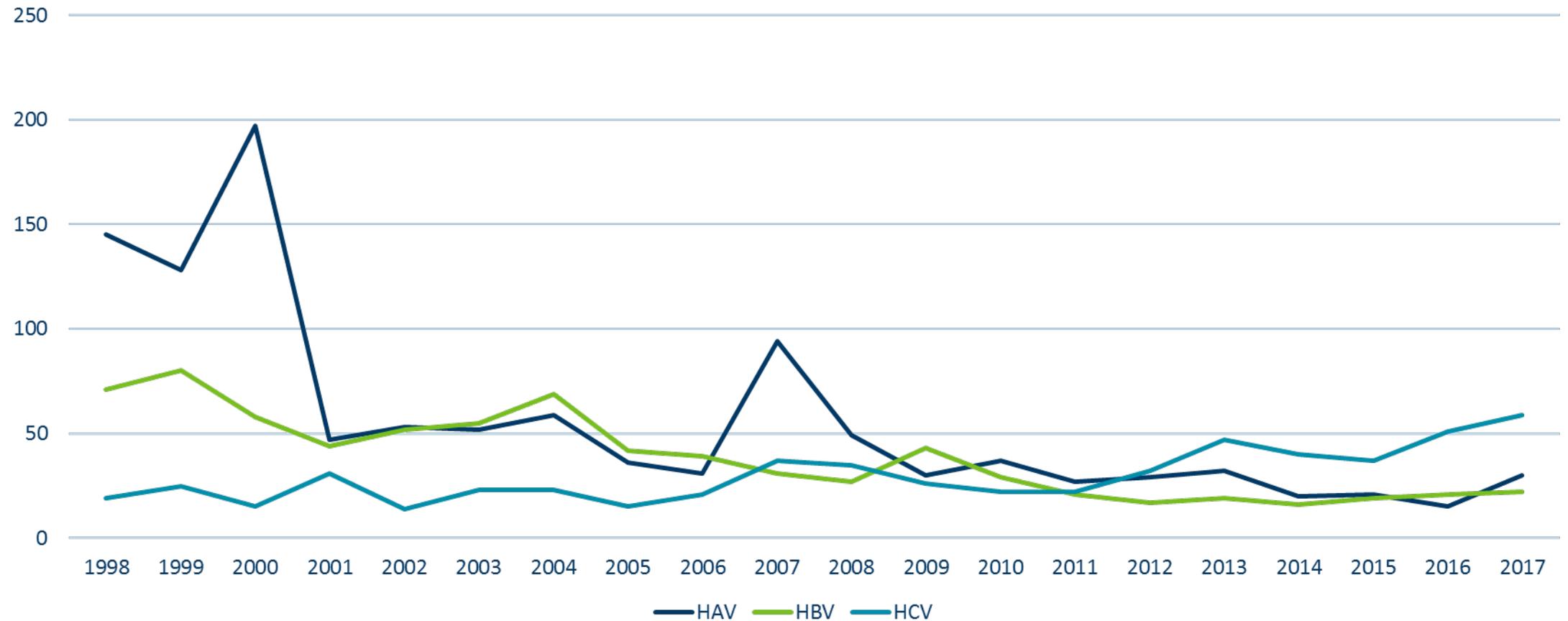
Acute Viral Hepatitis

- Acute case:
 - Infected within the last six months
 - Symptomatic OR negative test within 6 months before diagnosis

Reported rate per 100,000 population of acute viral hepatitis United States, 1998-2015



Number of Acute* Cases per year Minnesota 1998-2017



*Acute cases include seroconverters for all years for HBV and HCV

Chronic Viral Hepatitis



Overview of HCV in Minnesota

A hepatitis C case is defined as current infection with hepatitis C and includes:

- Chronic cases:
 - Probable – anti-HCV + alone
 - Confirmed – HCV RNA +



Changes in Case Counting, 2016

- Removed resolved infections from case counts
- Completed match with death registry for 1997 through 2016



Reported Number of Persons Living with HCV in MN

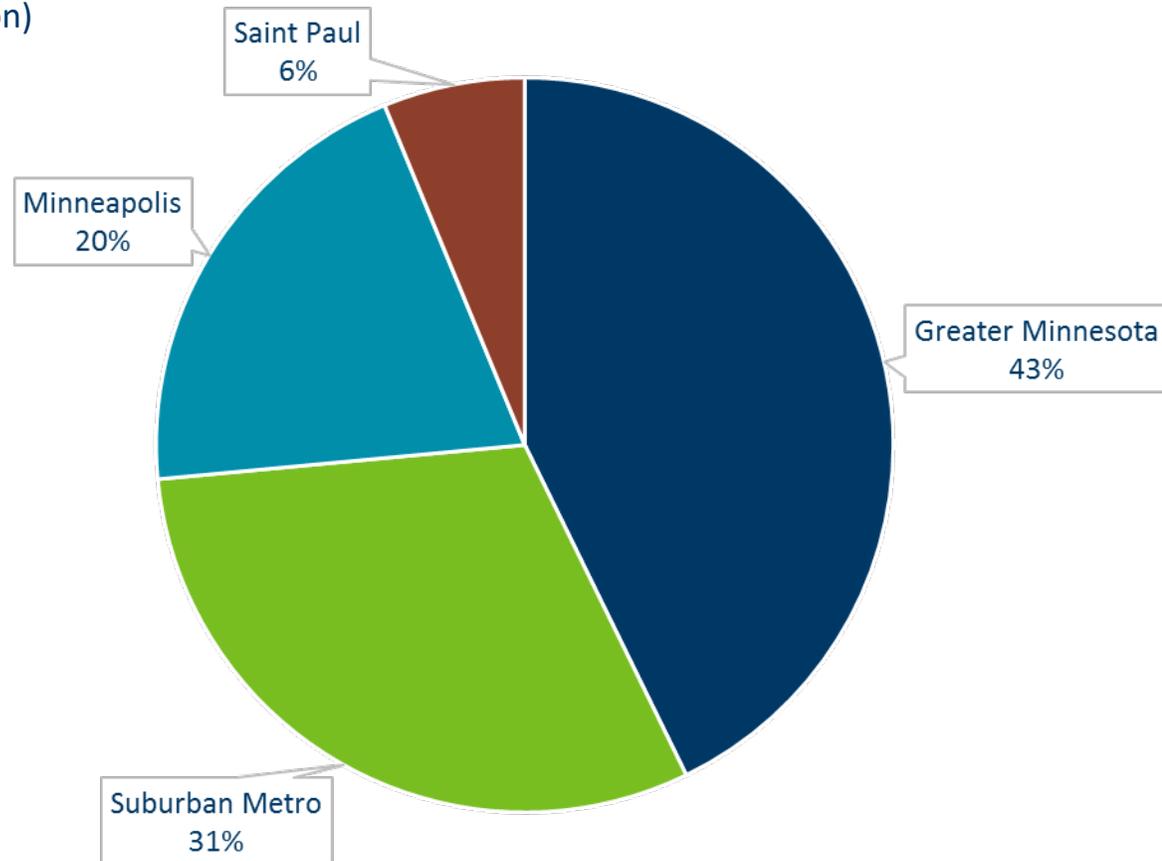
- As of December 31, 2017, 34,720* persons are assumed alive and living in MN with HCV

Note: Includes all acute, chronic, probable chronic, and resolved cases

*Includes persons with unknown city of residence.

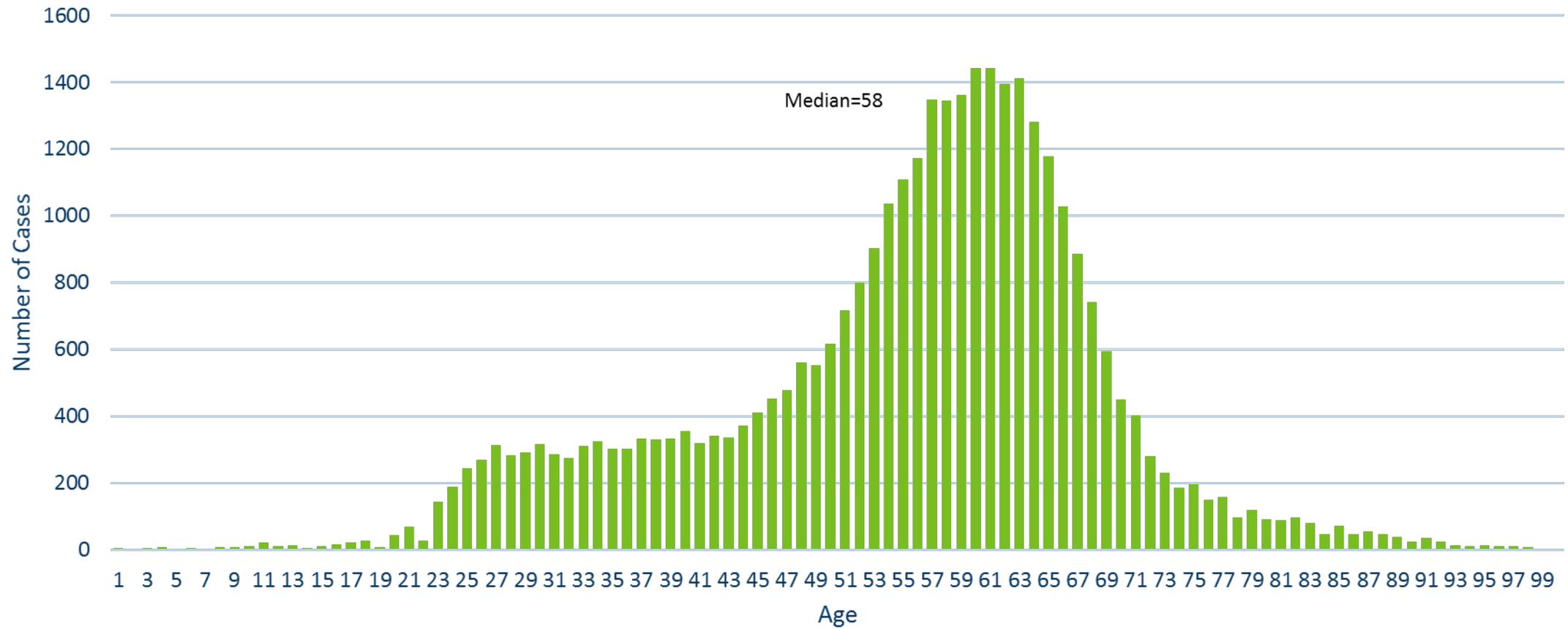
Persons Living with HCV in MN by Current Residence, 2017

Total number with residence information = 33,897
(823 missing residence information)

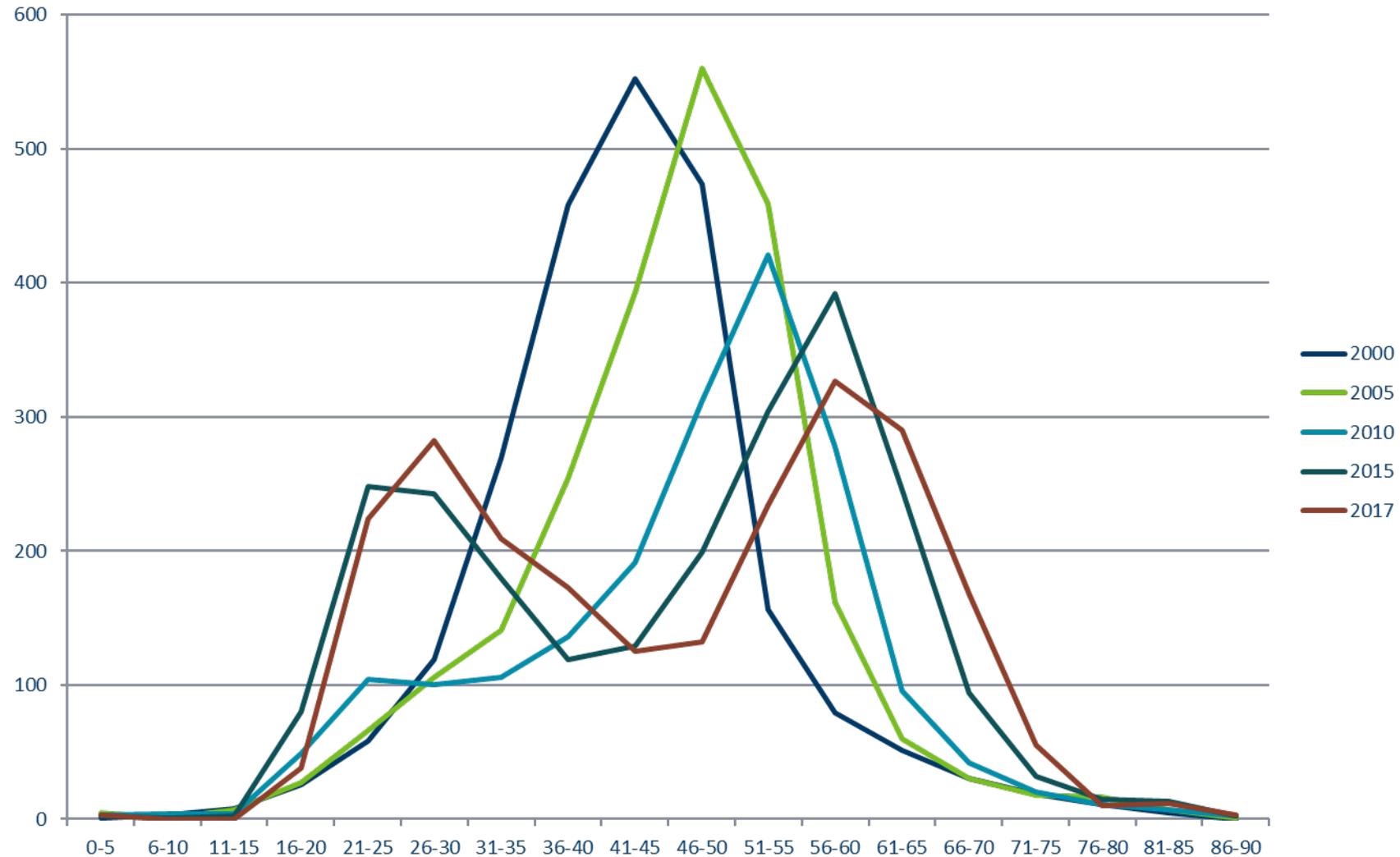


Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro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

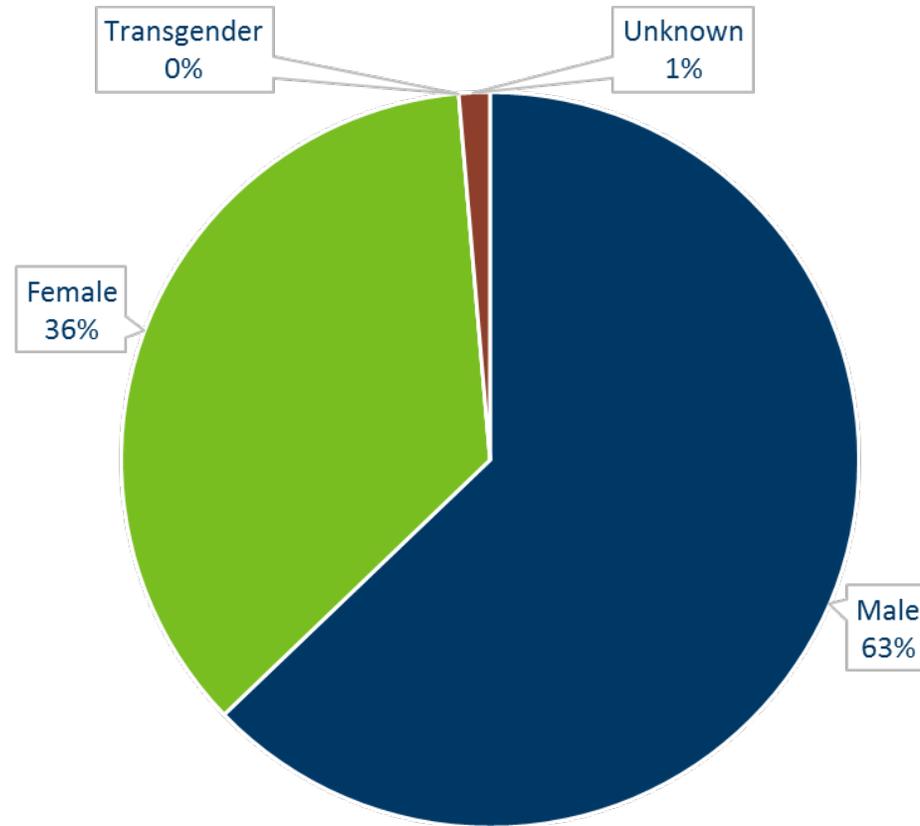
Persons Living with HCV in MN by Age, 2017



New Reports of HCV in Minnesota by Age Group, 2017

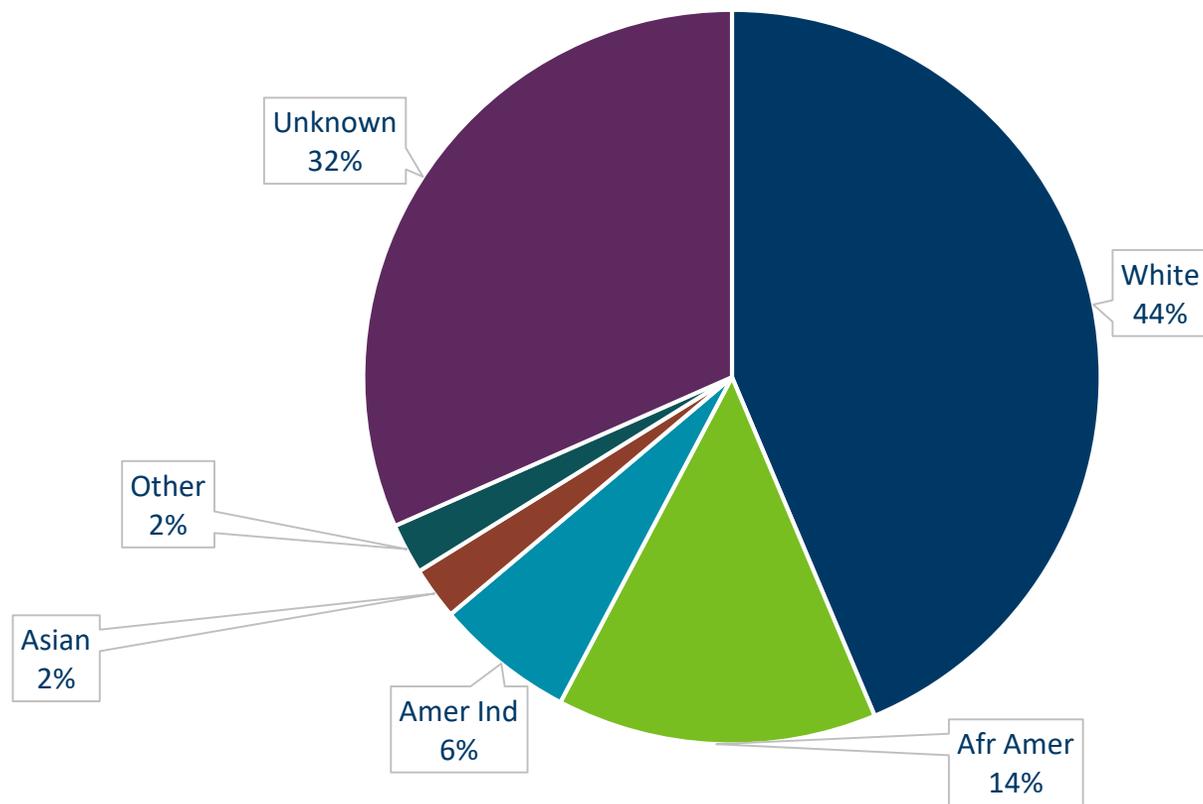


Persons Living with HCV in MN by Gender*, 2017



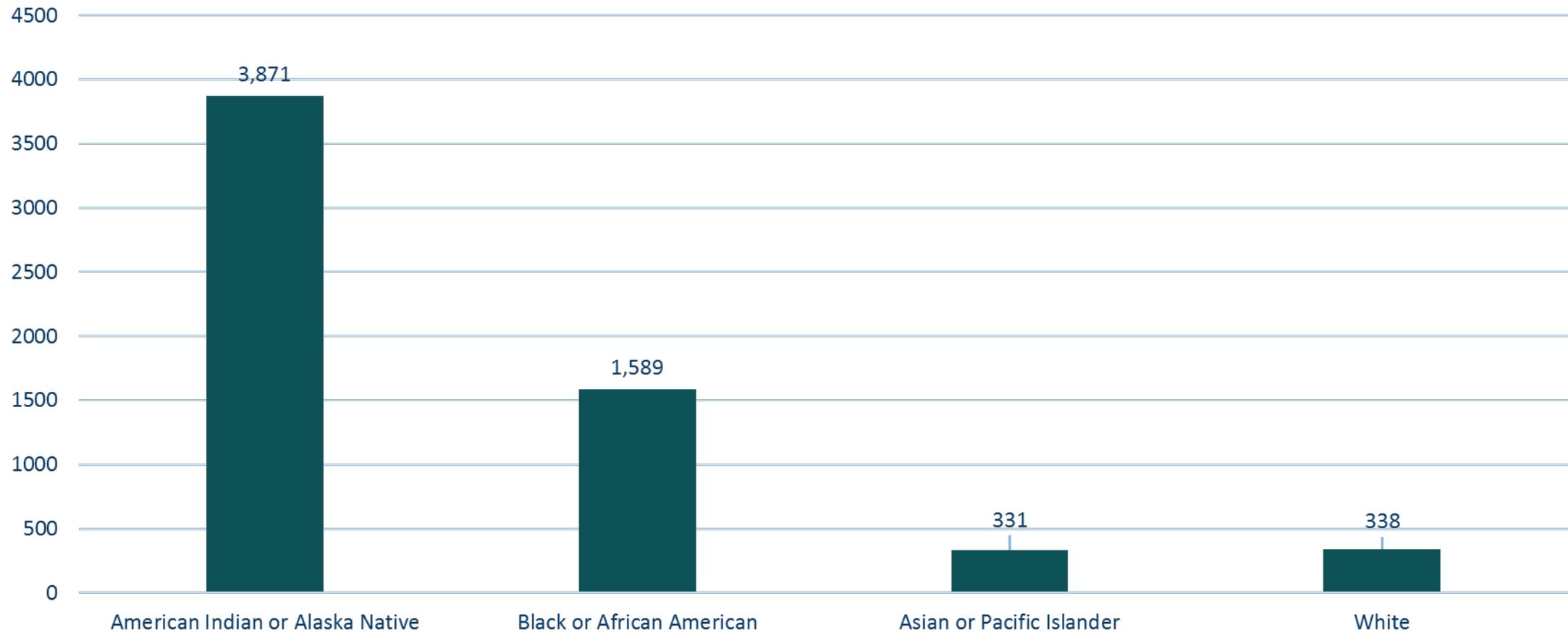
*Includes anonymous methadone patients

Persons Living with Chronic HCV in Minnesota by Race, 2017



Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

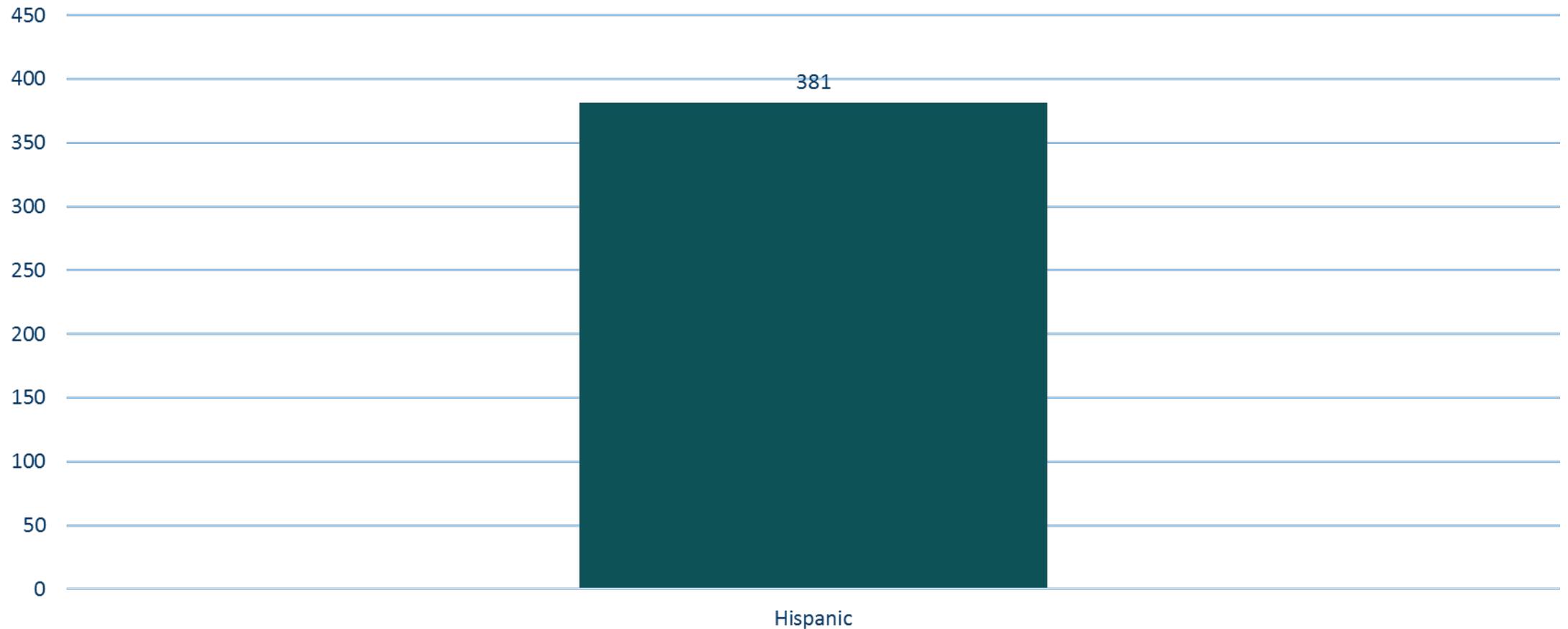
Persons Living with HCV in Minnesota by Race rates (per 100,000 persons*), 2017



*Rates calculated using 2015 U.S. Census ACS data

Excludes persons with multiple races or unknown race, n=23,385

Persons Living with HCV in Minnesota by Ethnicity rates (per 100,000 persons*), 2017



*Rates calculated using 2014 U.S. Census ACS data

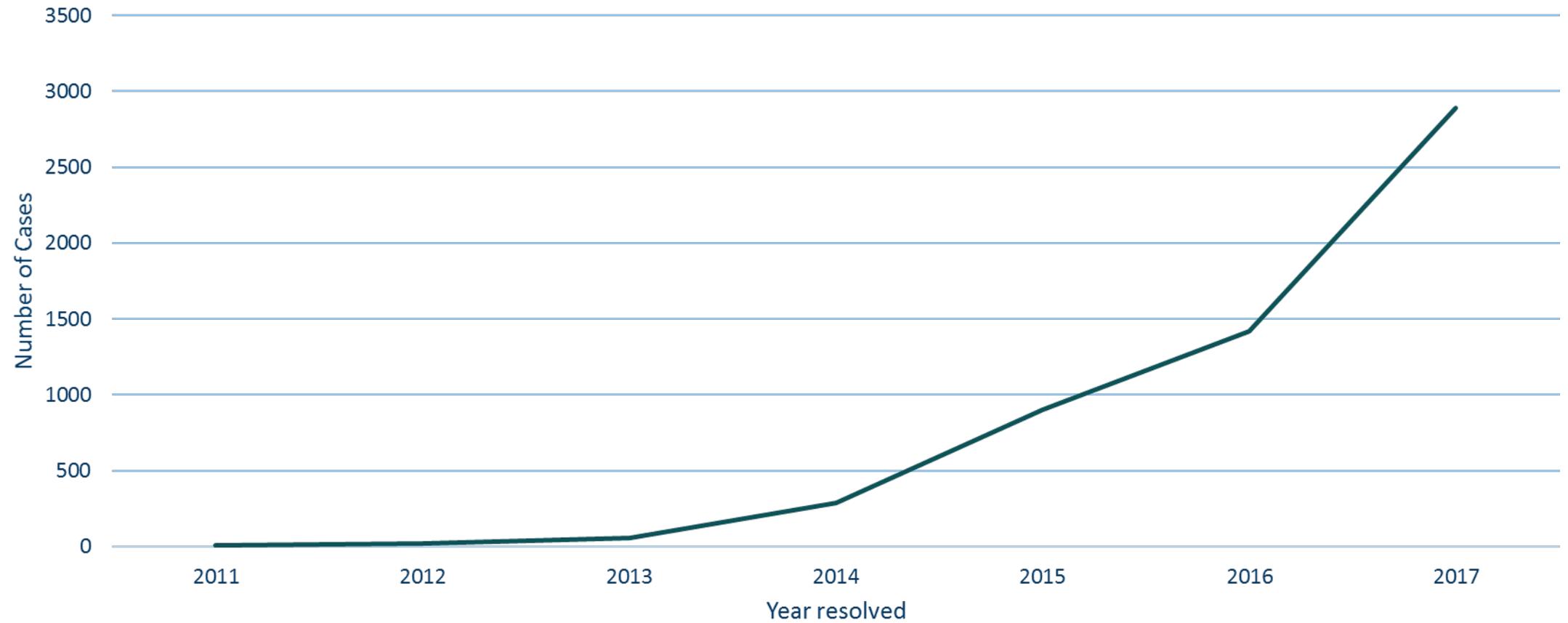
Excludes persons with unknown ethnicity, n=20,068



Resolved HCV Infection

- Previously included in overall HCV case counts
- Defined as:
 - A positive HCV RNA test followed by a negative HCV RNA test
- Does NOT include:
 - Anti-HCV positive with a negative HCV RNA with NO past positive HCV RNA

Resolved hepatitis C, 2017





HIV and Hepatitis B and C

- As of December 31, 2017, 8,789 persons are assumed alive and living in Minnesota with HIV/AIDS
- Of these 8,789 persons, 890 (10%) are co-infected with either Hepatitis B or C
 - Of the 8,789, 412 (4.7%) are living with HIV and HBV
 - Of the 8,789, 430 (4.9%) are living with HIV and HCV
 - Of the 8,789, 48 (0.5%) are living with HIV, HBV, and HCV

Thank you!

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