



Sexually Transmitted Disease (STD) Surveillance Report, 2015

Minnesota Department of Health STD Surveillance System



Introduction

- Under Minnesota law, physicians and laboratories must report all laboratory-confirmed cases of **chlamydia**, **gonorrhea**, **syphilis**, and **chancroid** to the Minnesota Department of Health (MDH) within one working day.
- The MDH does not maintain statistics for other, non-reportable STDs (ex: herpes, HPV/genital warts).
- This slide set describes trends in reportable STDs in Minnesota by person, place, and time.
- Analyses exclude cases reported from federal and private prisons.



Introduction

- STD surveillance is the systematic collection of data from cases for the purpose of monitoring the frequency and distribution of STDs in a given population.
- STD surveillance data are used to detect problems, prioritize resources, develop and target interventions, and evaluate the effectiveness of interventions.



Interpreting STD Surveillance Data

- **Factors that impact the completeness and accuracy of STD data include:**
 - Level of STD screening by healthcare providers
 - Individual test-seeking behavior
 - Sensitivity of diagnostic tests
 - Compliance with case reporting
 - Completeness of case reporting
 - Timeliness of case reporting
- **Increases and decreases in STD rates can be due to actual changes in disease occurrence and/or changes in one or more of the above factors**



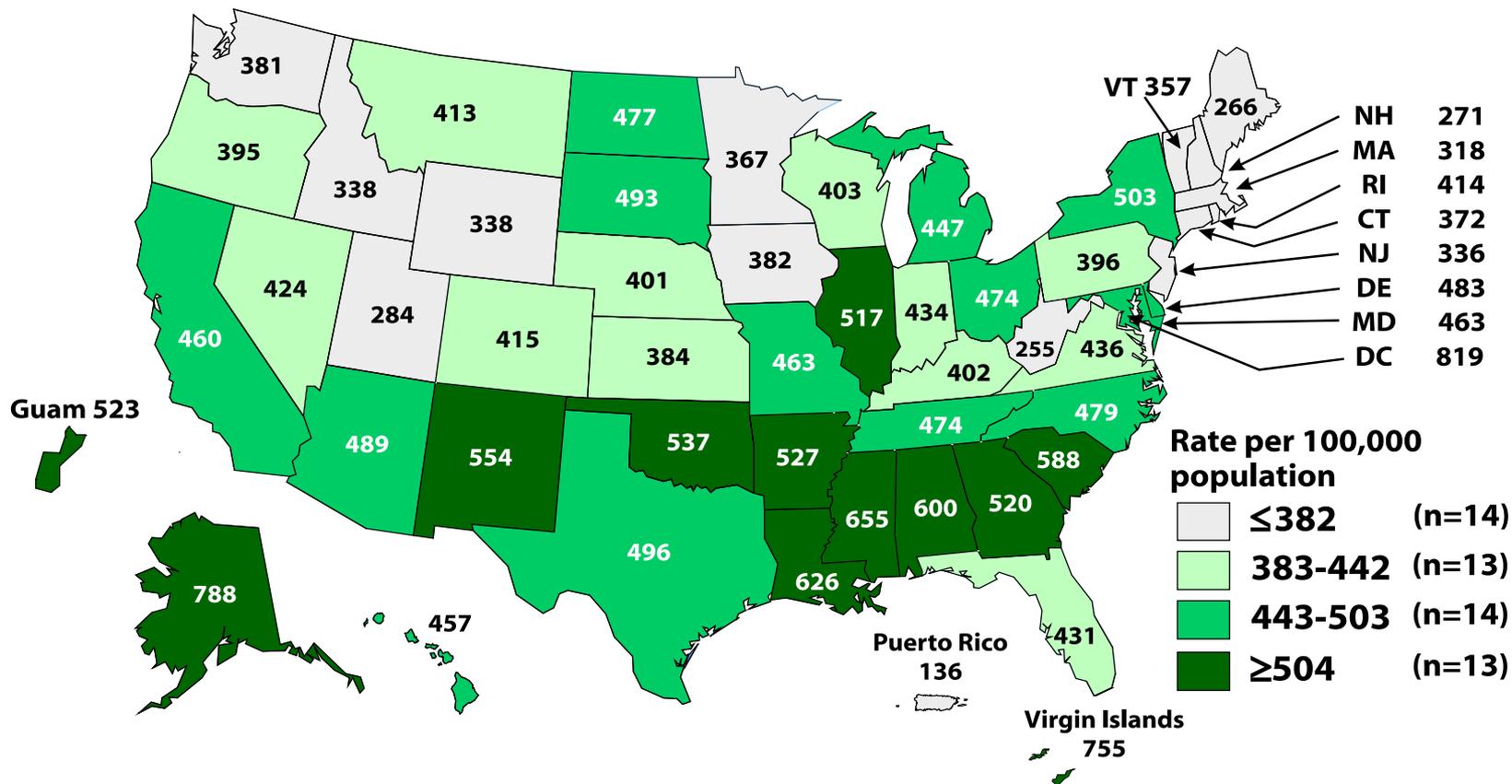
Interpreting STD Surveillance Data

- The surveillance system only includes cases with a positive laboratory test. Cases diagnosed solely on symptoms are not counted.
- Since 2012 we have included cases that had only a lab report and no corresponding case report form. This has increased the number of unknowns in some variables.
- Surveillance data represent cases of infection, not individuals. A person with multiple infections in a given year will be counted more than once.
- Caution is warranted when interpreting changes in STD numbers that can seem disproportionately large when the number of cases is small.



National Context

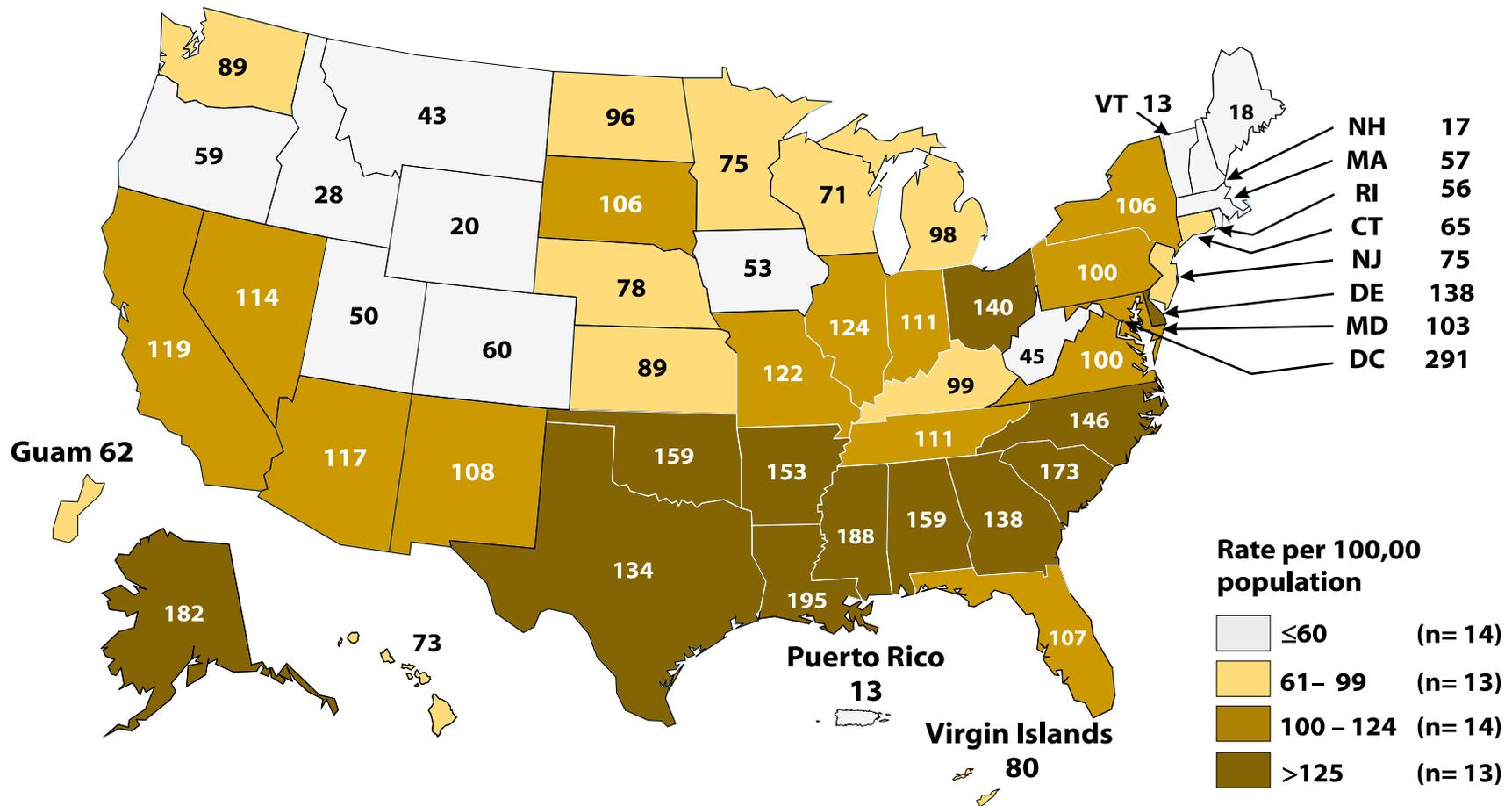
Chlamydia — Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of reported cases of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 452.6 per 100,000 population.



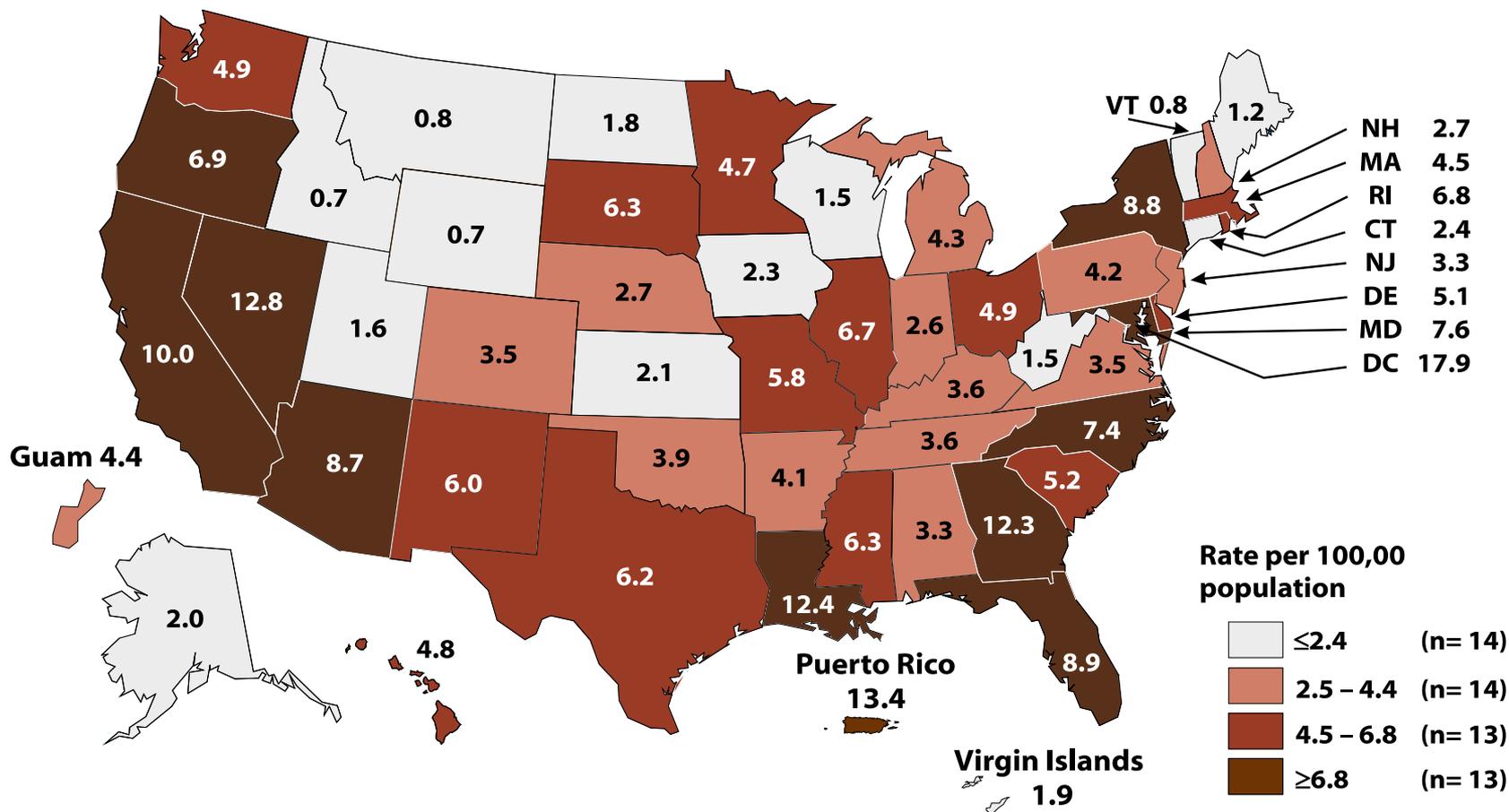
Gonorrhea — Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of reported cases of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 109.6 per 100,000 population.



Primary and Secondary Syphilis—Rates of Reported Cases by State, United States and Outlying Areas, 2014



NOTE: The total rate of primary and secondary syphilis for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 6.4 per 100,000 population.



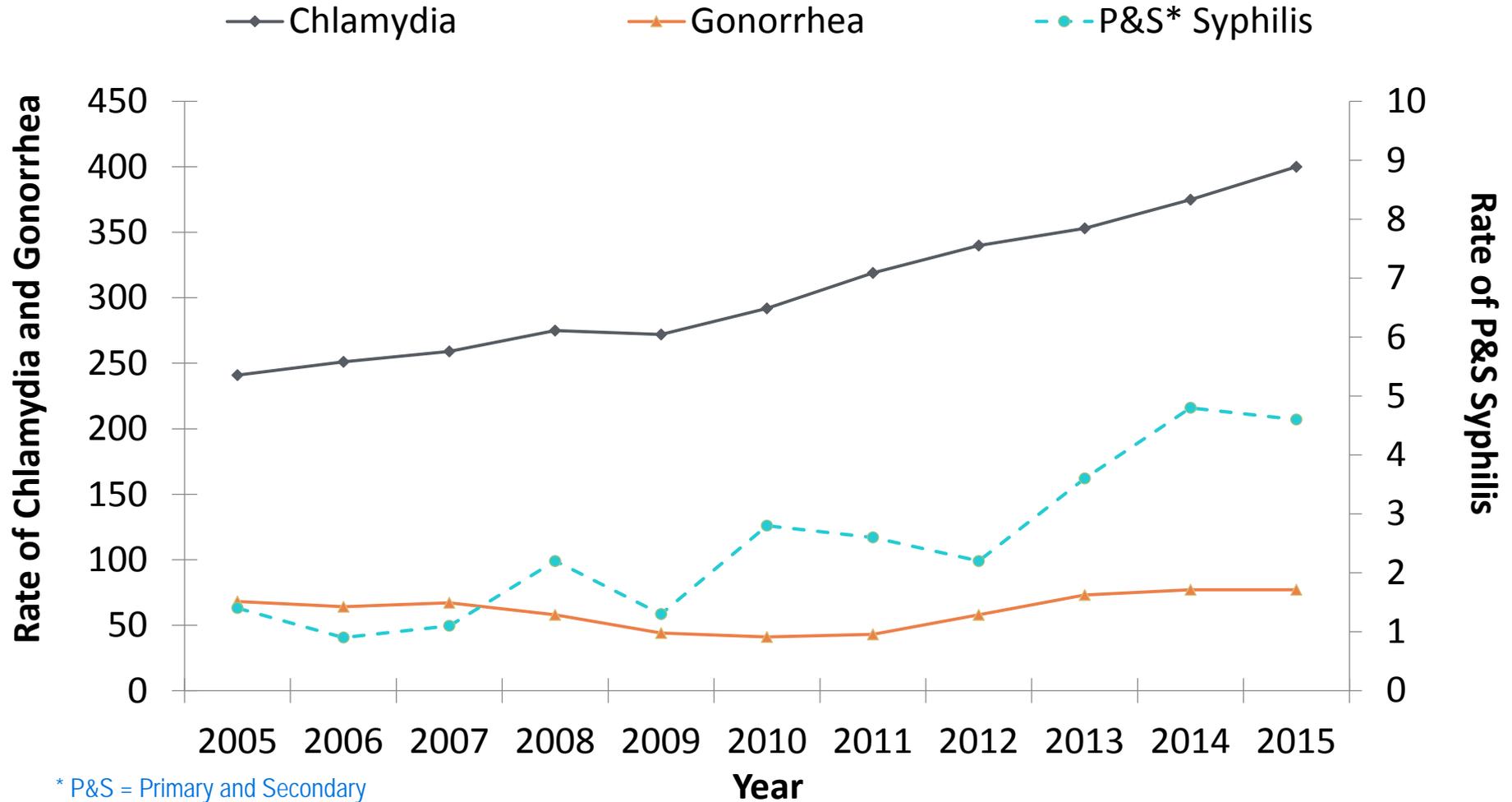


Overview of STDs in Minnesota



STDs in Minnesota

Rate per 100,000 by Year of Diagnosis, 2005-2015



* P&S = Primary and Secondary



STDs in Minnesota: Number of Cases Reported in 2015

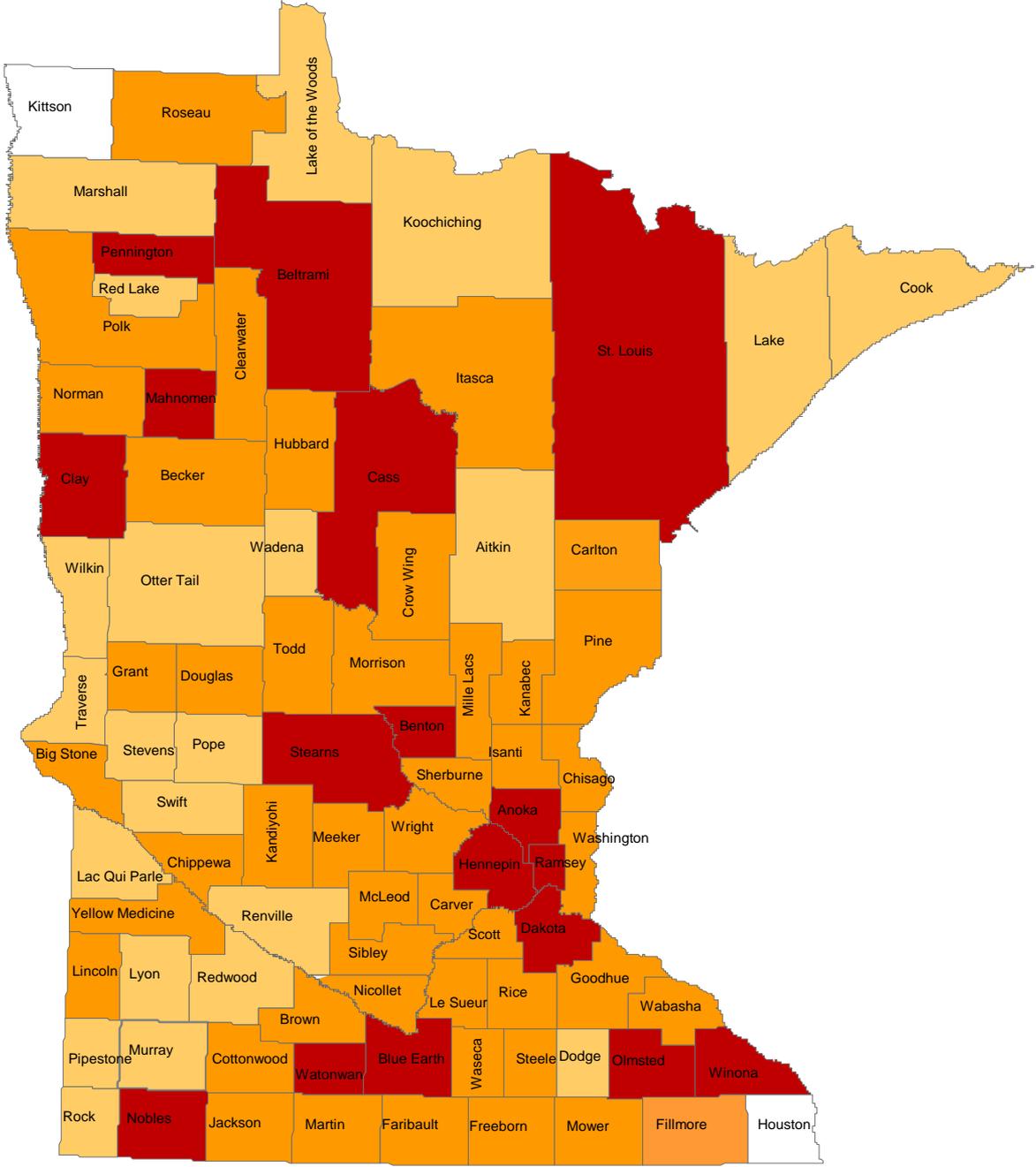
- **Total of 25,989 STD cases reported to MDH in 2015:**
 - 21,238 Chlamydia cases
 - 4,097 Gonorrhea cases
 - 654 Syphilis cases (all stages)
 - 0 Chancroid cases



CHLAMYDIA



2015 Minnesota Chlamydia Rates by County



Rate per 100,000 persons

- 0 - 75
- 76 - 150
- 151 - 300
- > 300

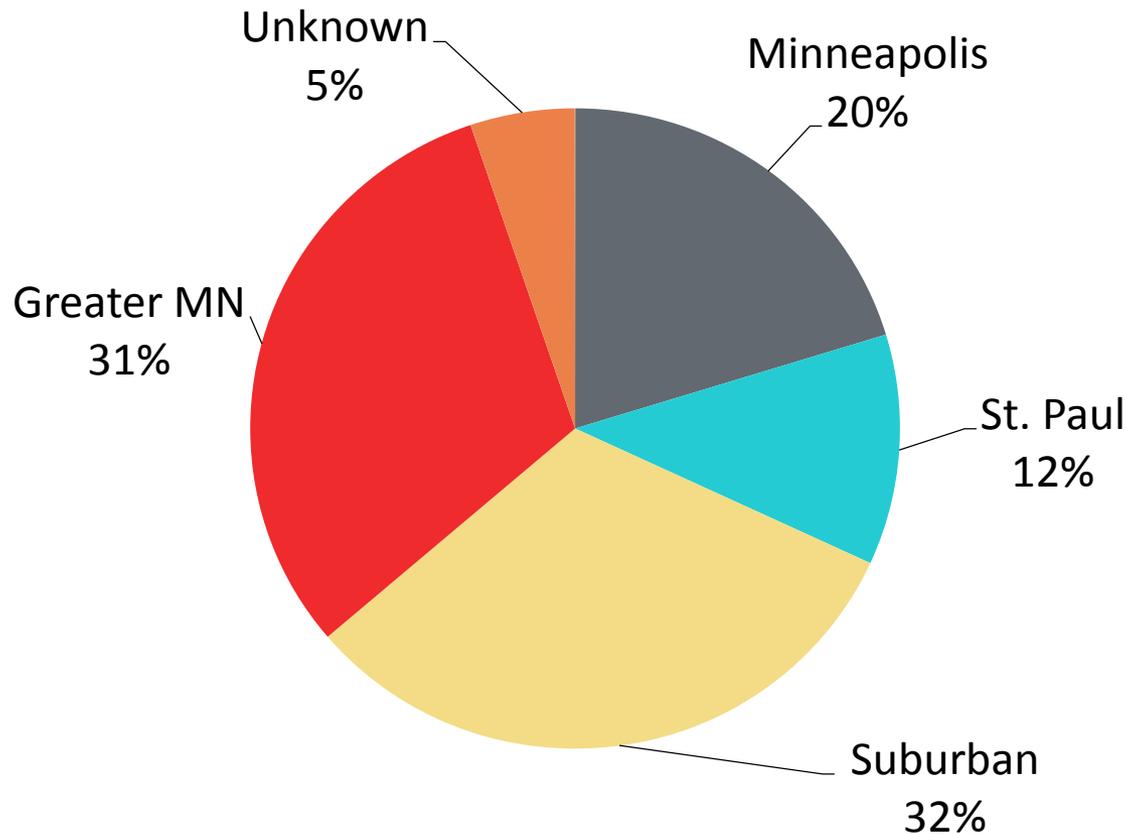
City of Minneapolis	1124
City of St. Paul	868
Suburban#	310
Greater Minnesota	269

(1,107 cases missing residence information)

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

Chlamydia Infections by Residence at Diagnosis Minnesota, 2015

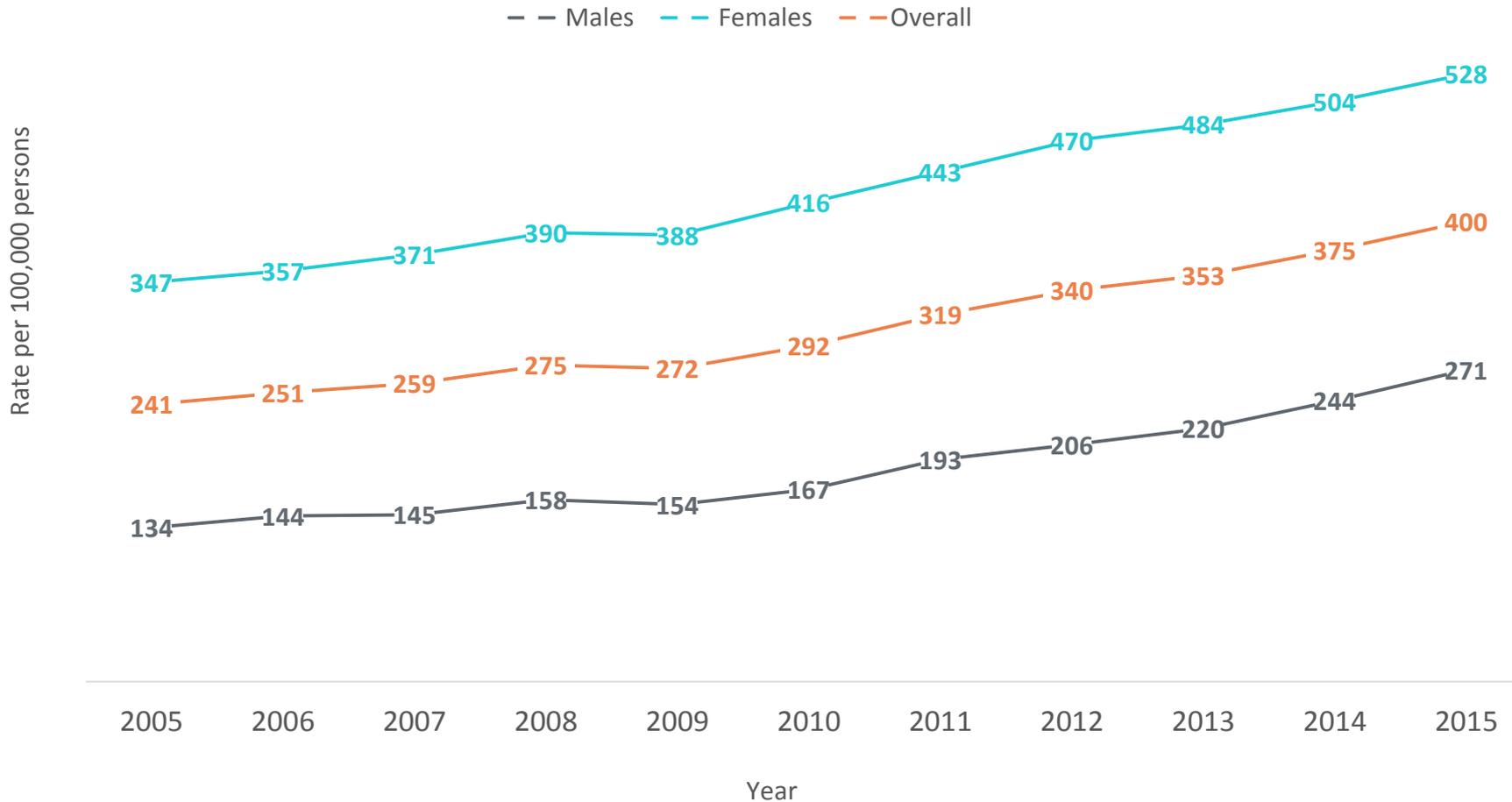
Total Number of Cases = 21,238



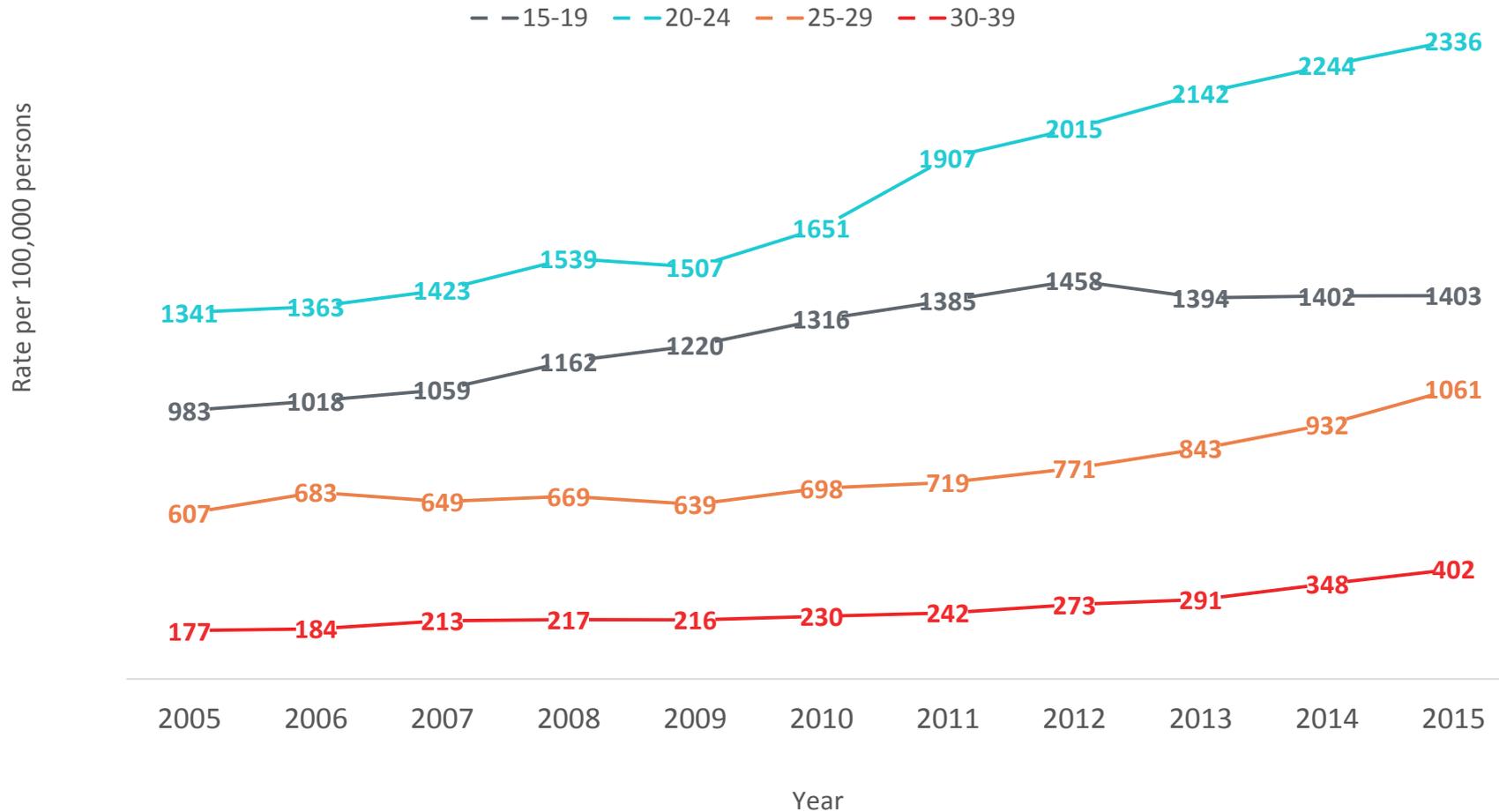
Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (excluding Minneapolis), Ramsey (excluding St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties outside the seven-county metro area.



Chlamydia Rates by Gender Minnesota, 2005-2015

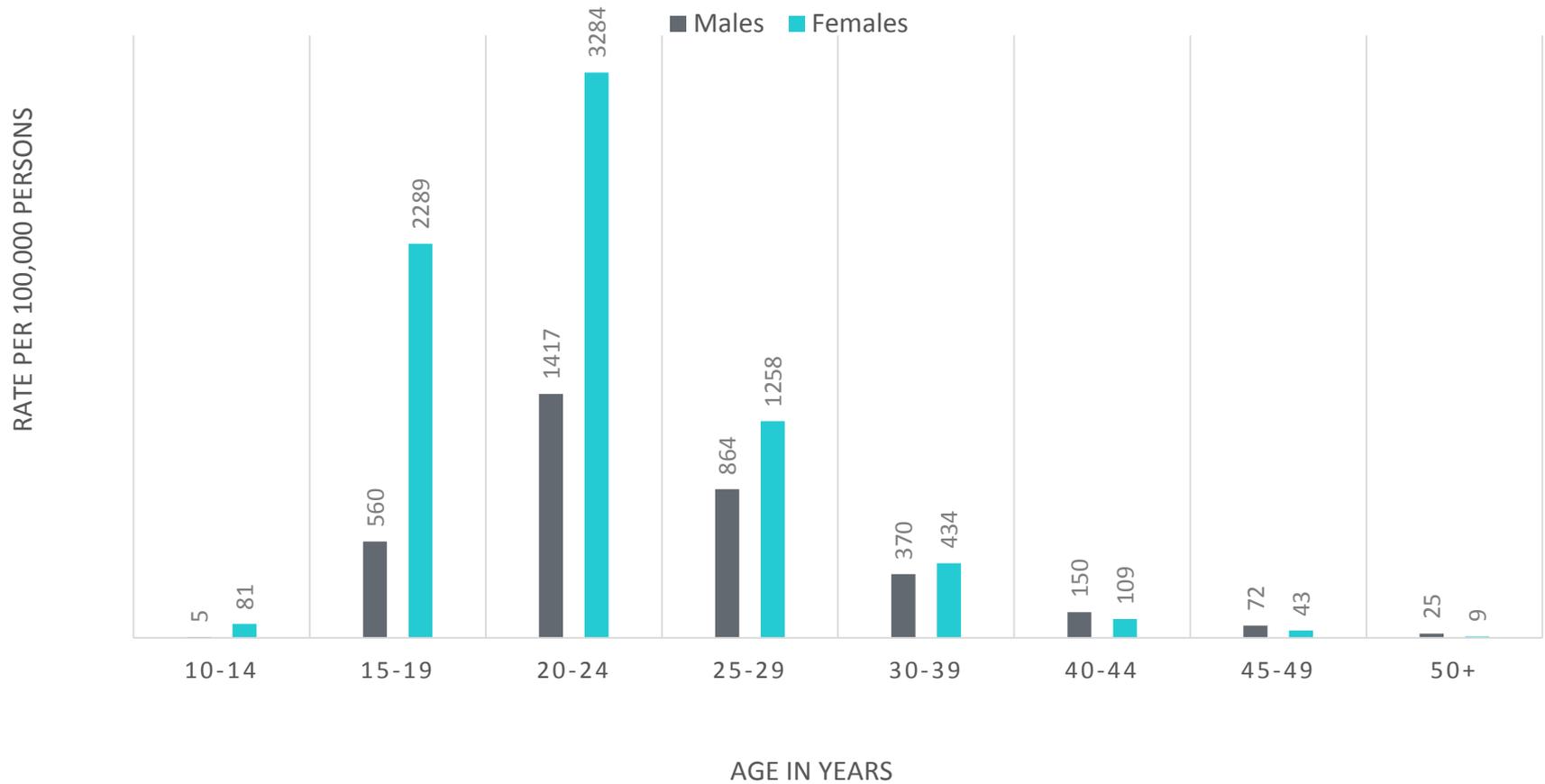


Chlamydia Rates by Age Minnesota, 2005-2015

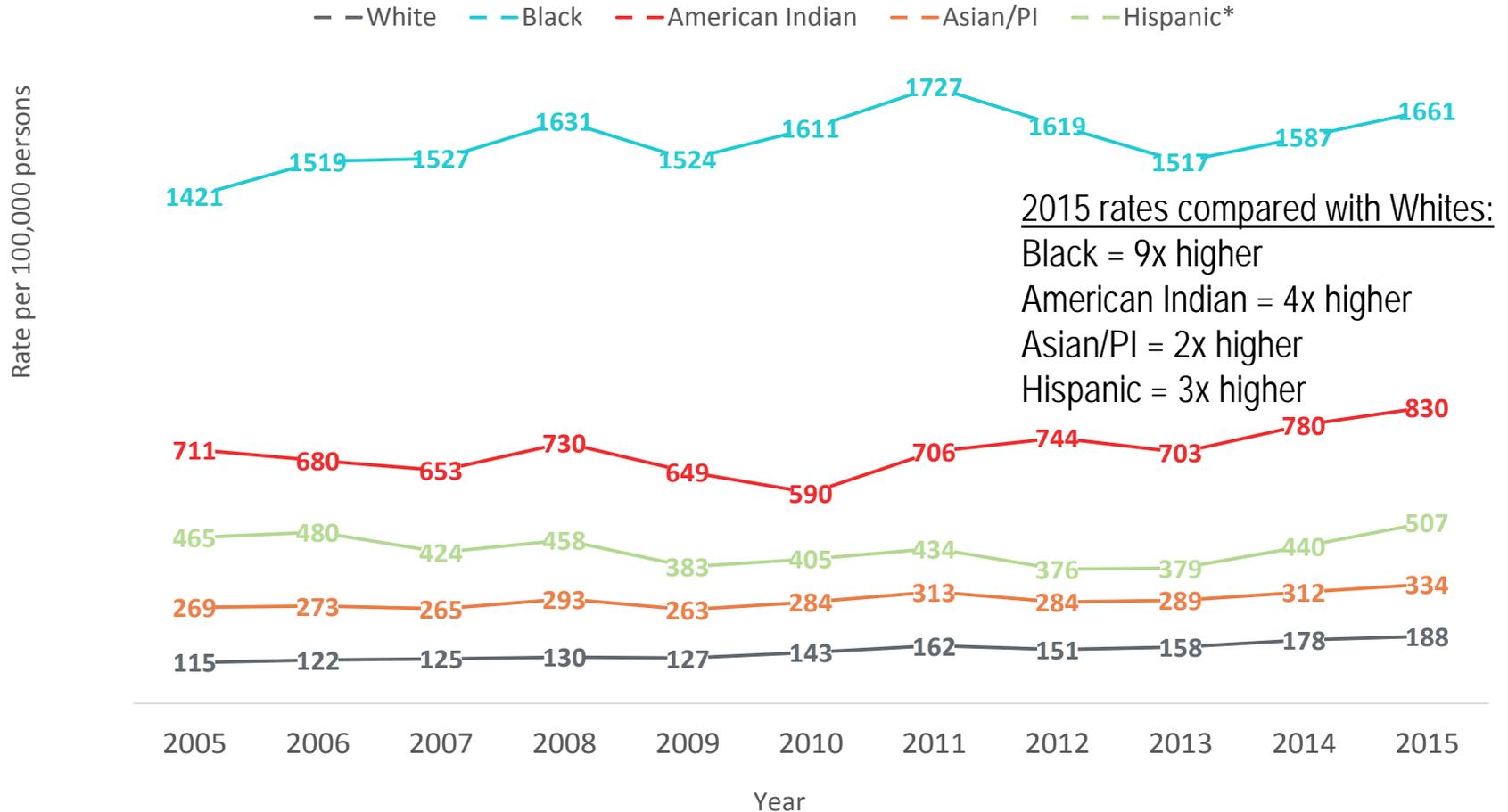




Age-Specific Chlamydia Rates by Gender Minnesota, 2015

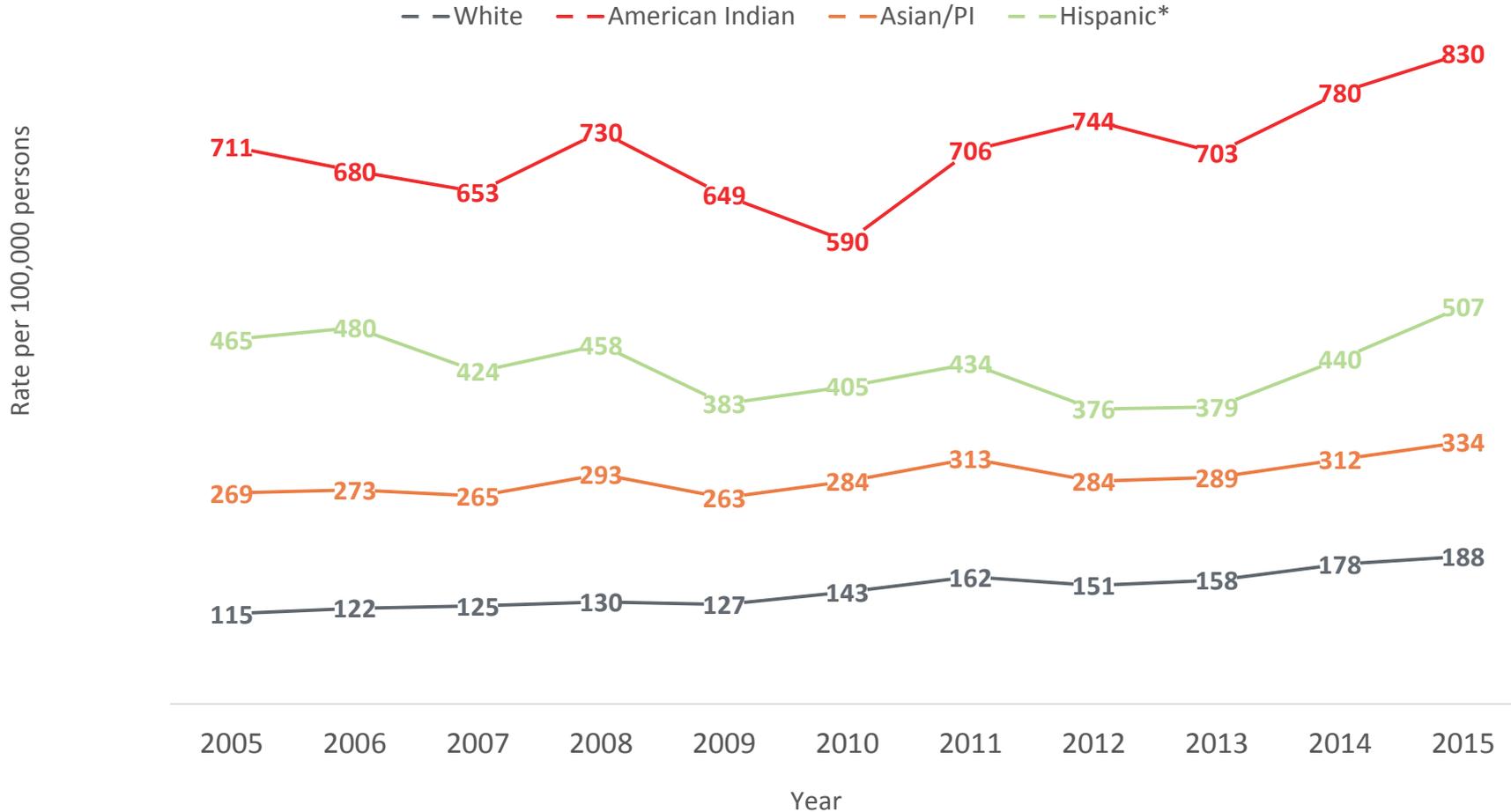


Chlamydia Rates by Race/Ethnicity Minnesota, 2005-2015



* Persons of Hispanic ethnicity can be of any race.

Chlamydia Rates by Race/Ethnicity Minnesota, 2005-2015



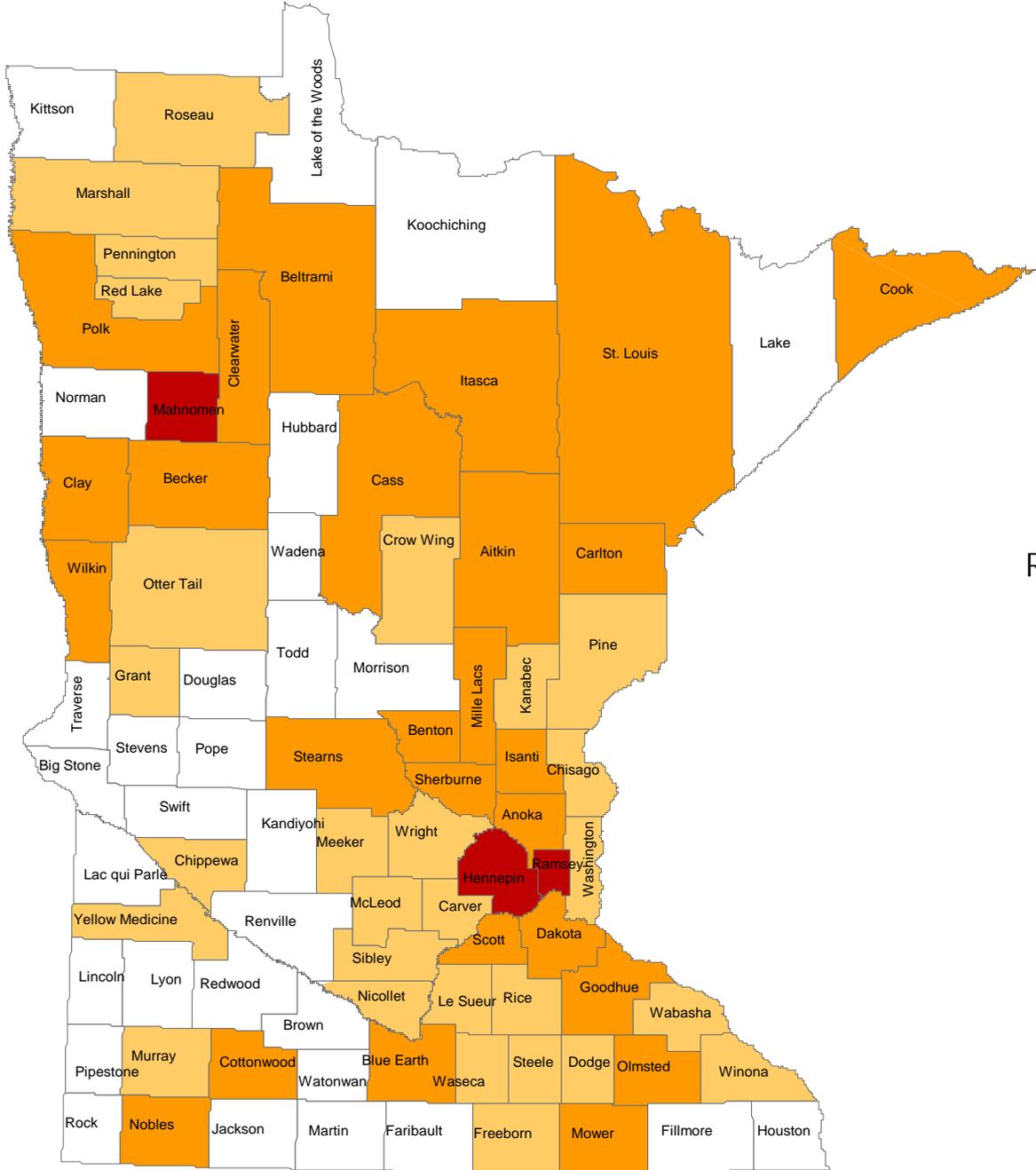
* Persons of Hispanic ethnicity can be of any race.



GONORRHEA



2015 Minnesota Gonorrhea Rates by County



Rate per 100,000 persons

- 0 - 10
- 11 - 29
- 30 - 100
- > 100

City of Minneapolis	376
City of St. Paul	230
Suburban#	49
Greater Minnesota	32

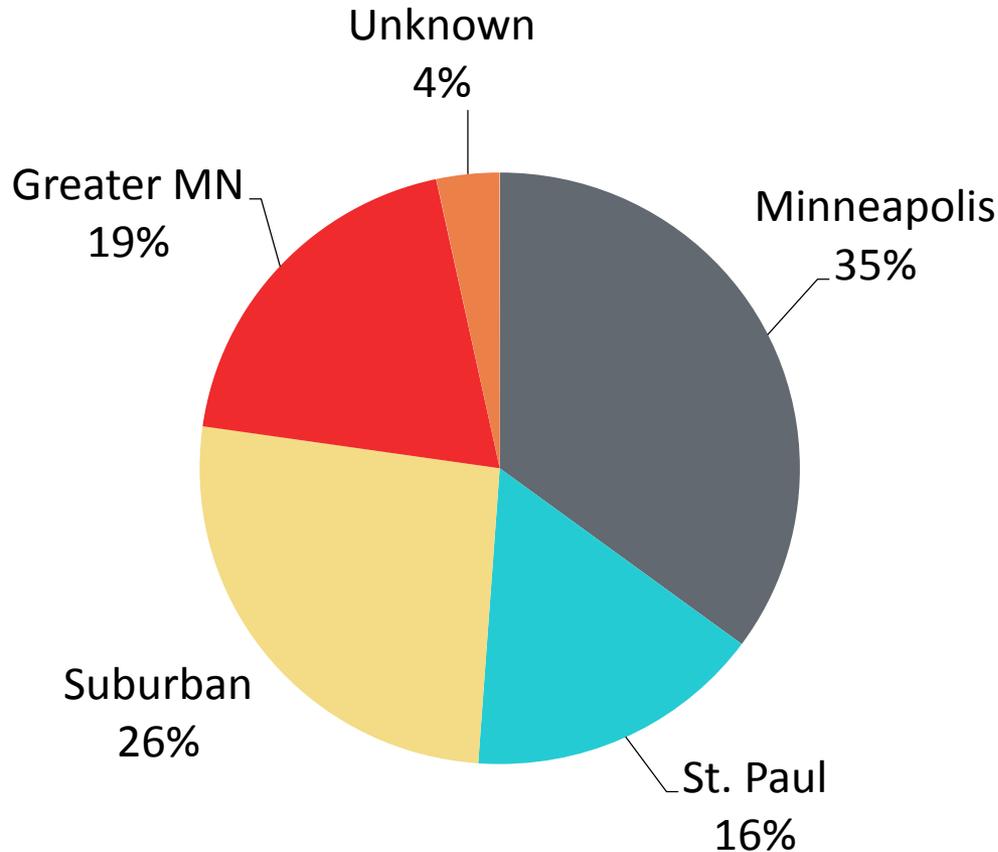
(139 cases missing residence information)

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



Gonorrhea Infections in Minnesota by Residence at Diagnosis, 2015

Total Number of Cases= 4,097



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.

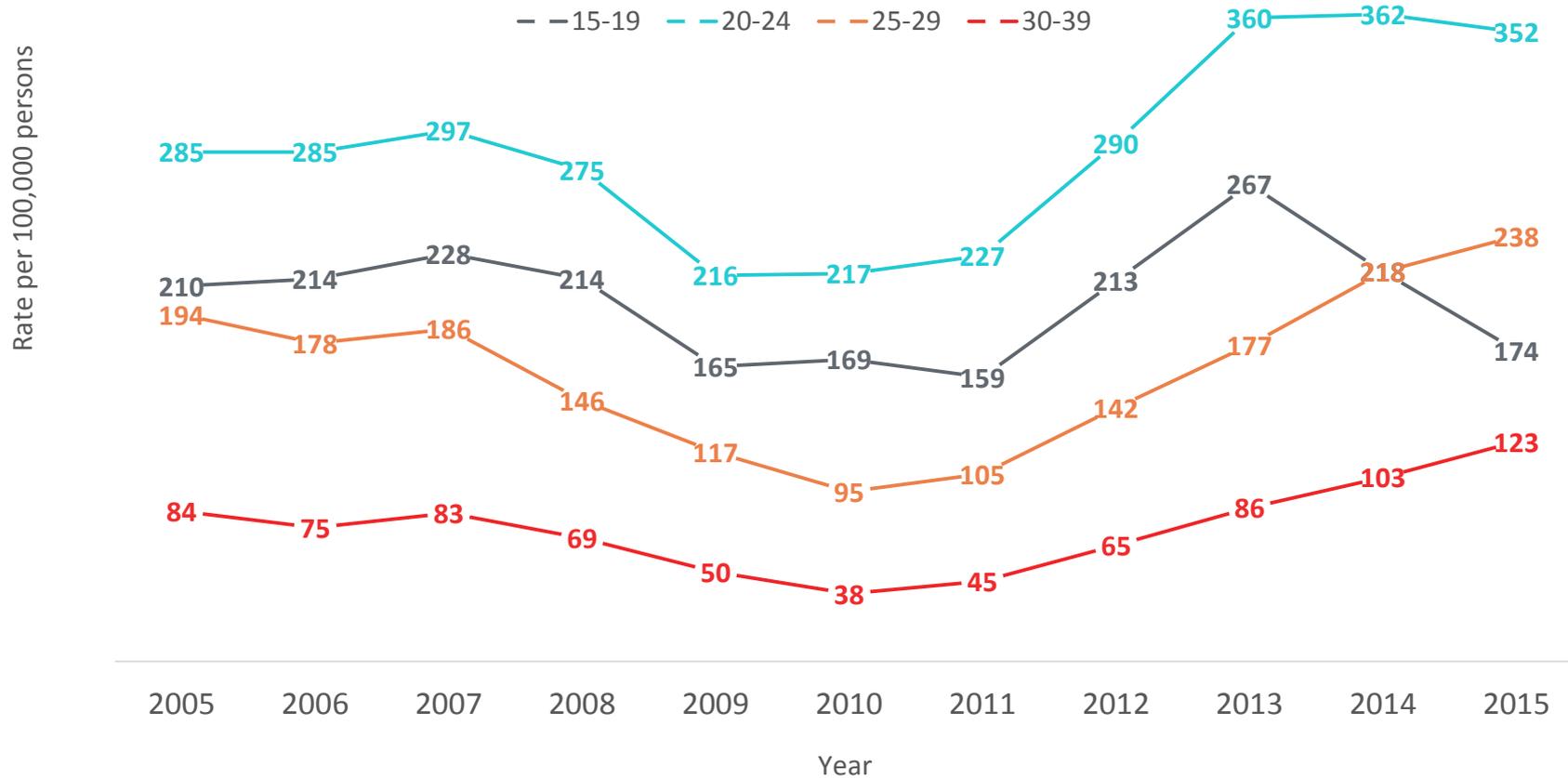


Gonorrhea Rates by Gender Minnesota, 2005-2015



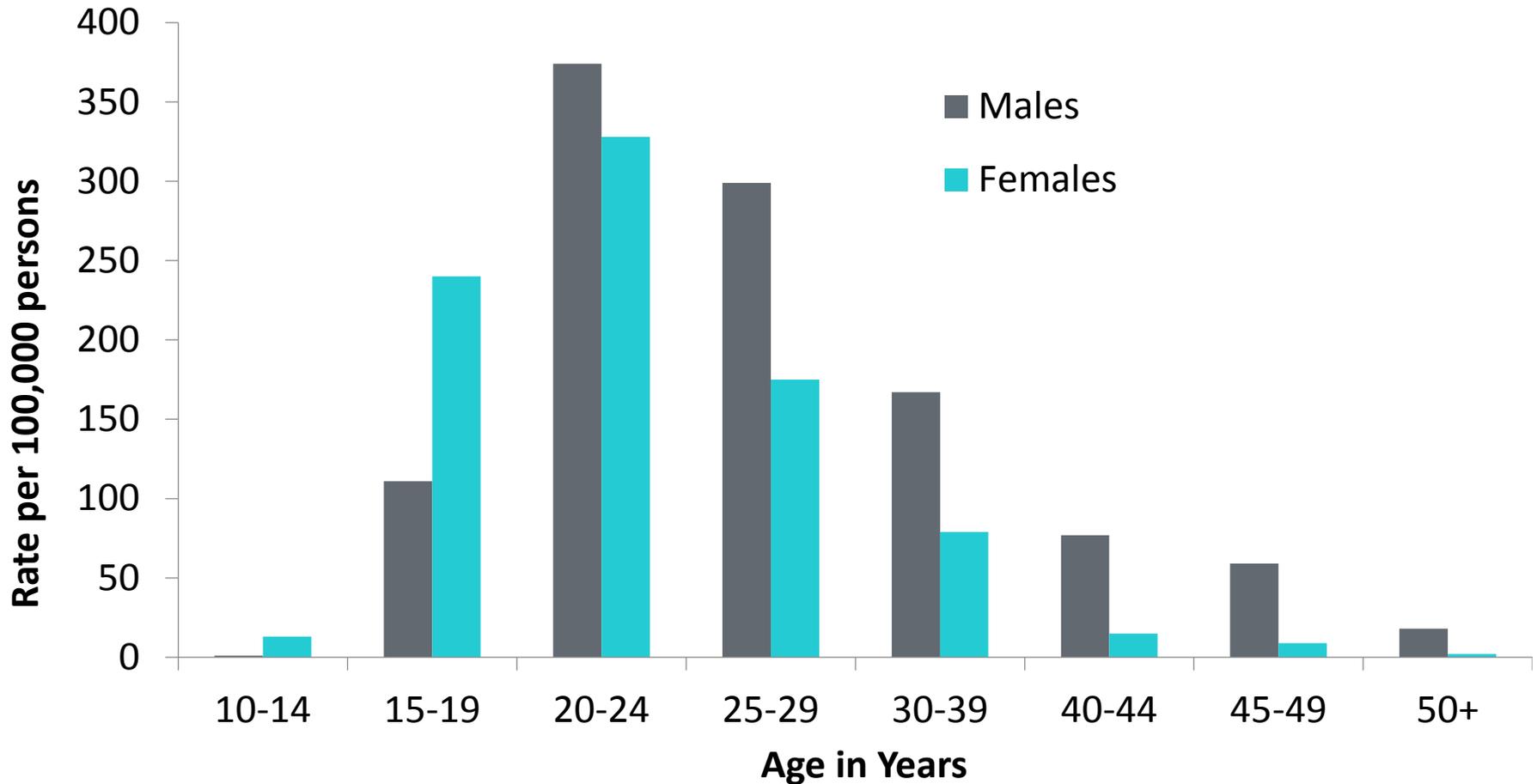


Gonorrhea Rates by Age Minnesota, 2005-2015

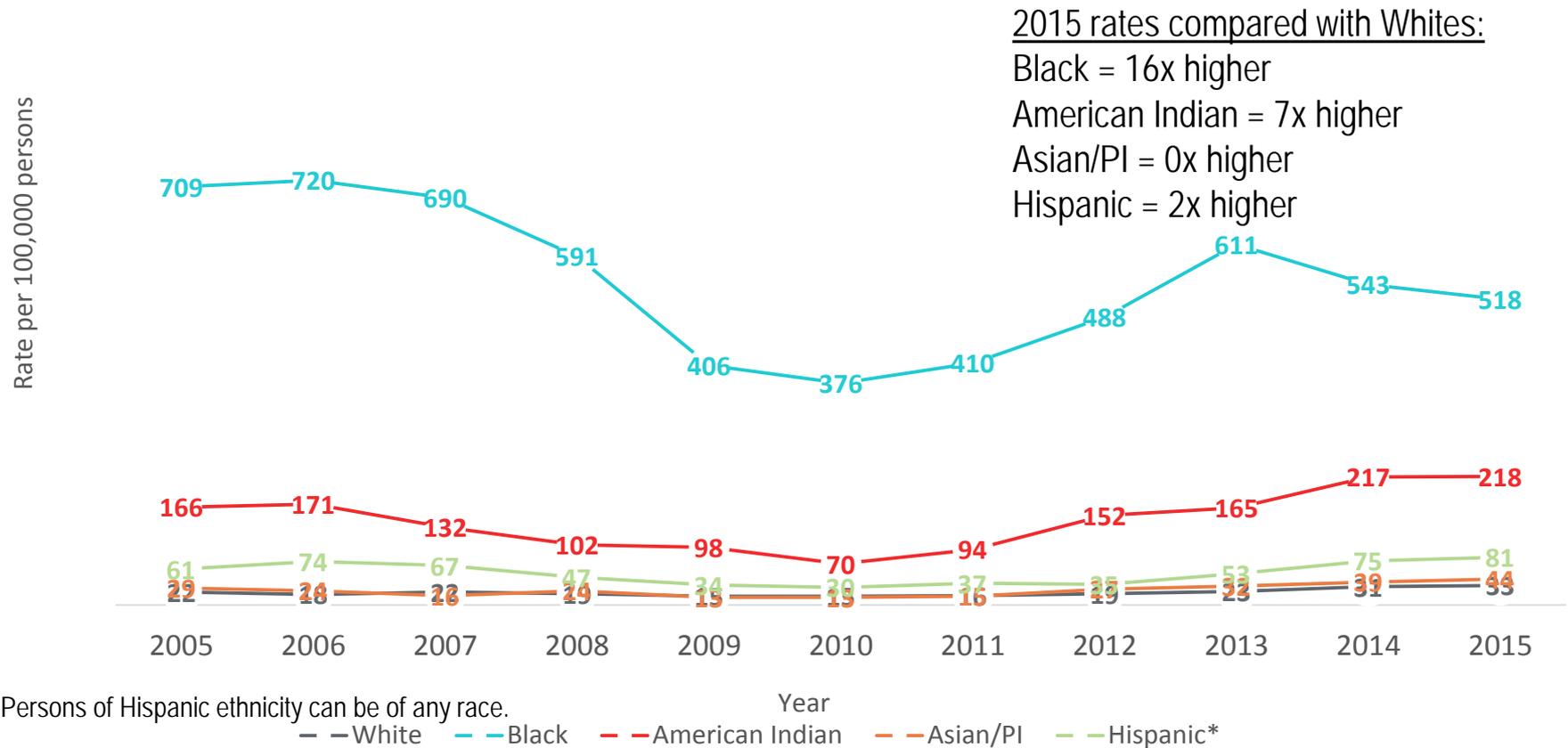




Age-Specific Gonorrhea Rates by Gender Minnesota, 2015

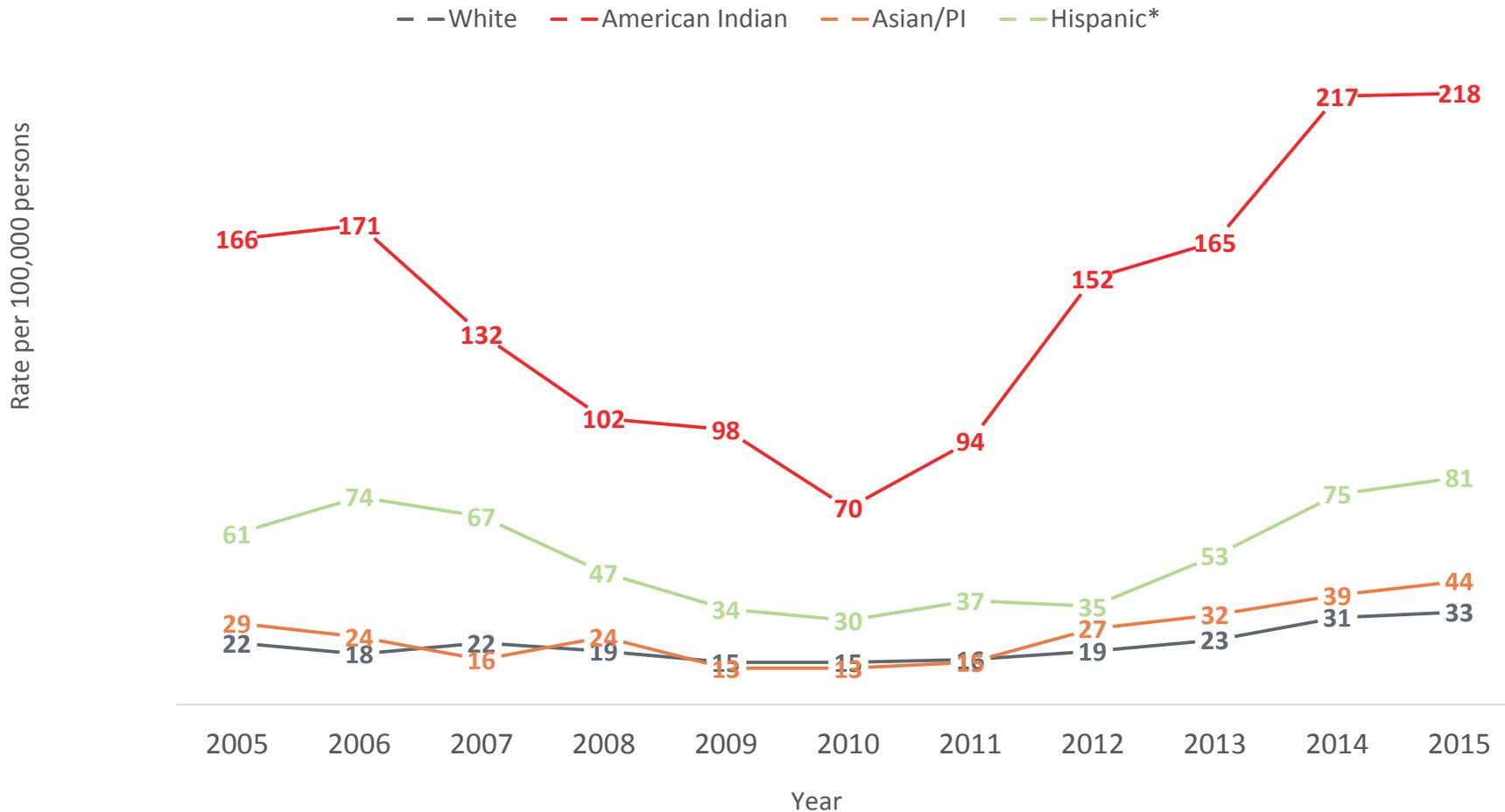


Gonorrhea Rates by Race/Ethnicity Minnesota, 2005-2015



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Gonorrhea Rates by Race/Ethnicity Minnesota, 2005-2015

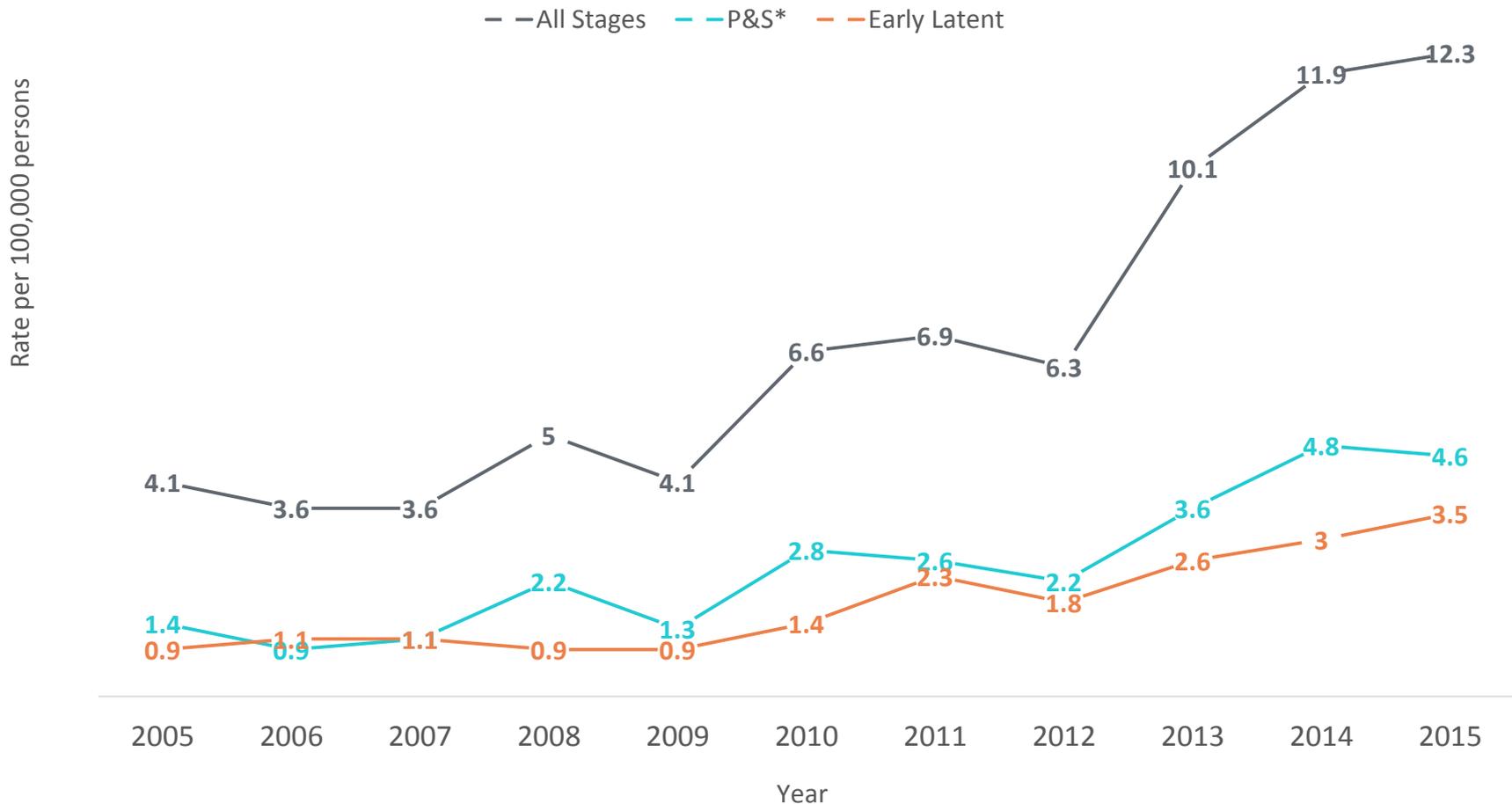


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SYPHILIS

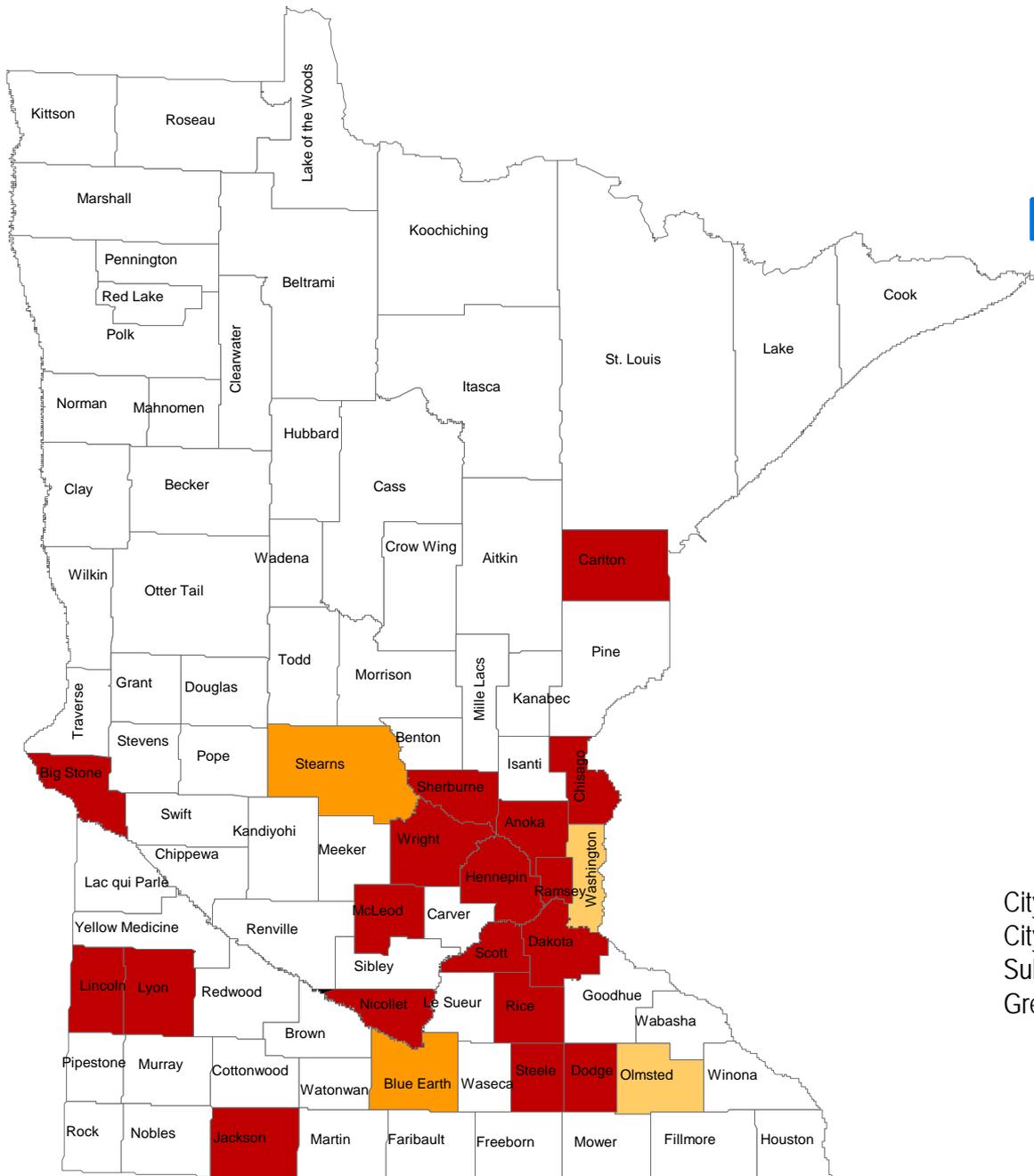
Syphilis Rates by Stage of Diagnosis Minnesota, 2005-2015



* P&S = Primary and Secondary



2015 Minnesota Primary & Secondary Syphilis Rates by County



Rate per 100,000 persons

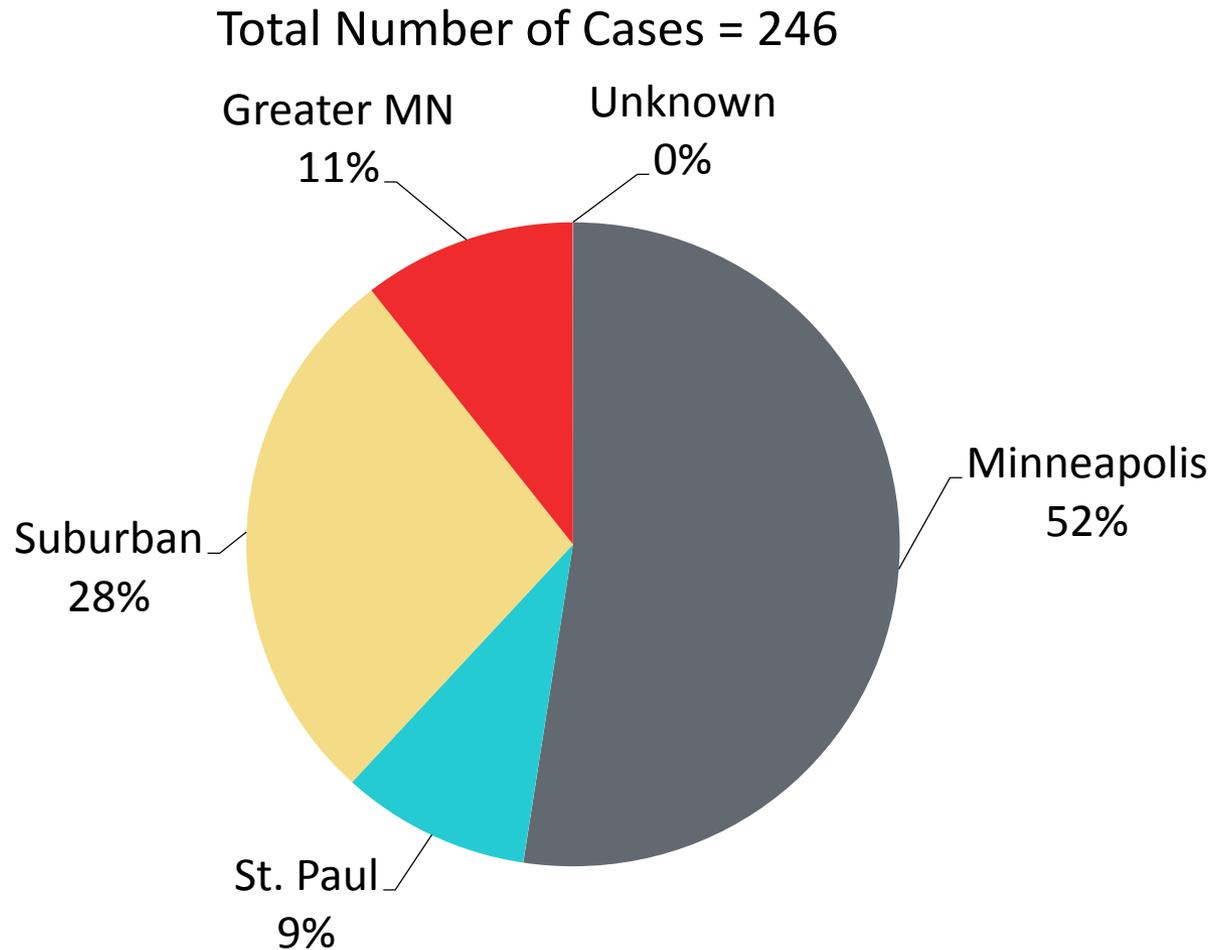


City of Minneapolis	33.7 (129 cases)
City of St. Paul	8.1 (23 cases)
Suburban [#]	3.1 (68 cases)
Greater Minnesota	1.1 (26 cases)

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



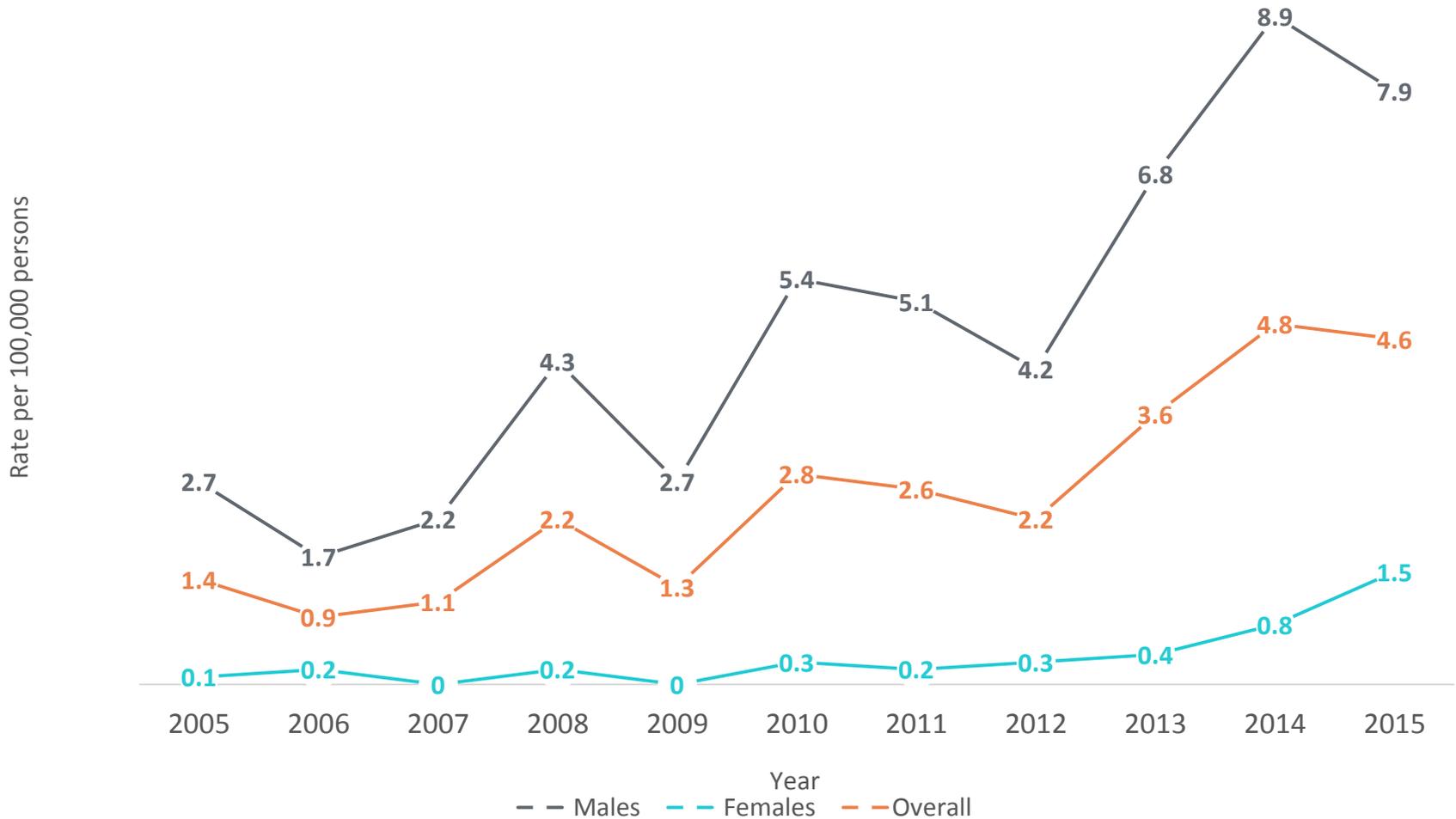
Primary & Secondary Syphilis Infections in Minnesota by Residence at Diagnosis, 2015



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.

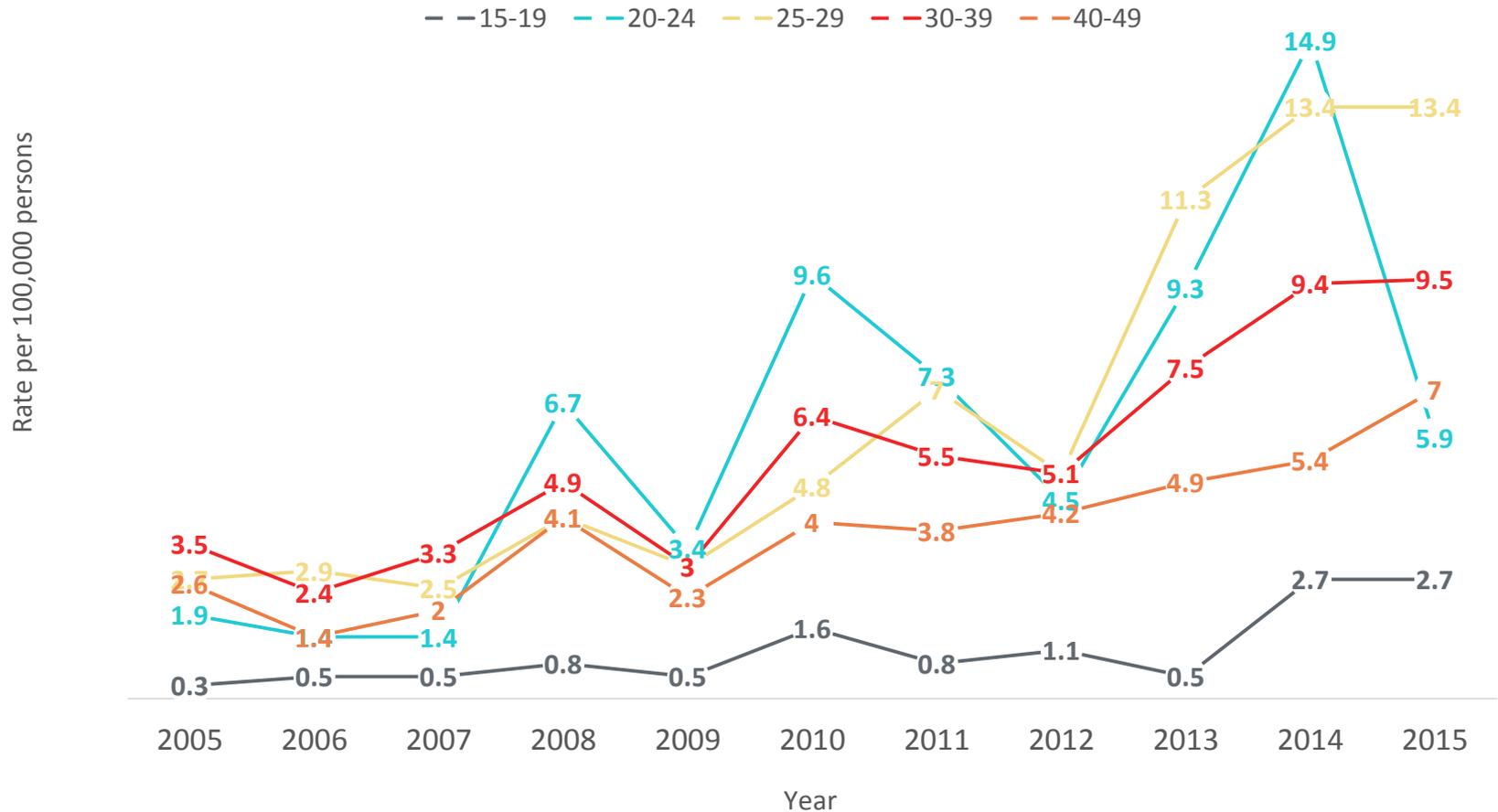


Primary & Secondary Syphilis Rates by Gender Minnesota, 2005-2015

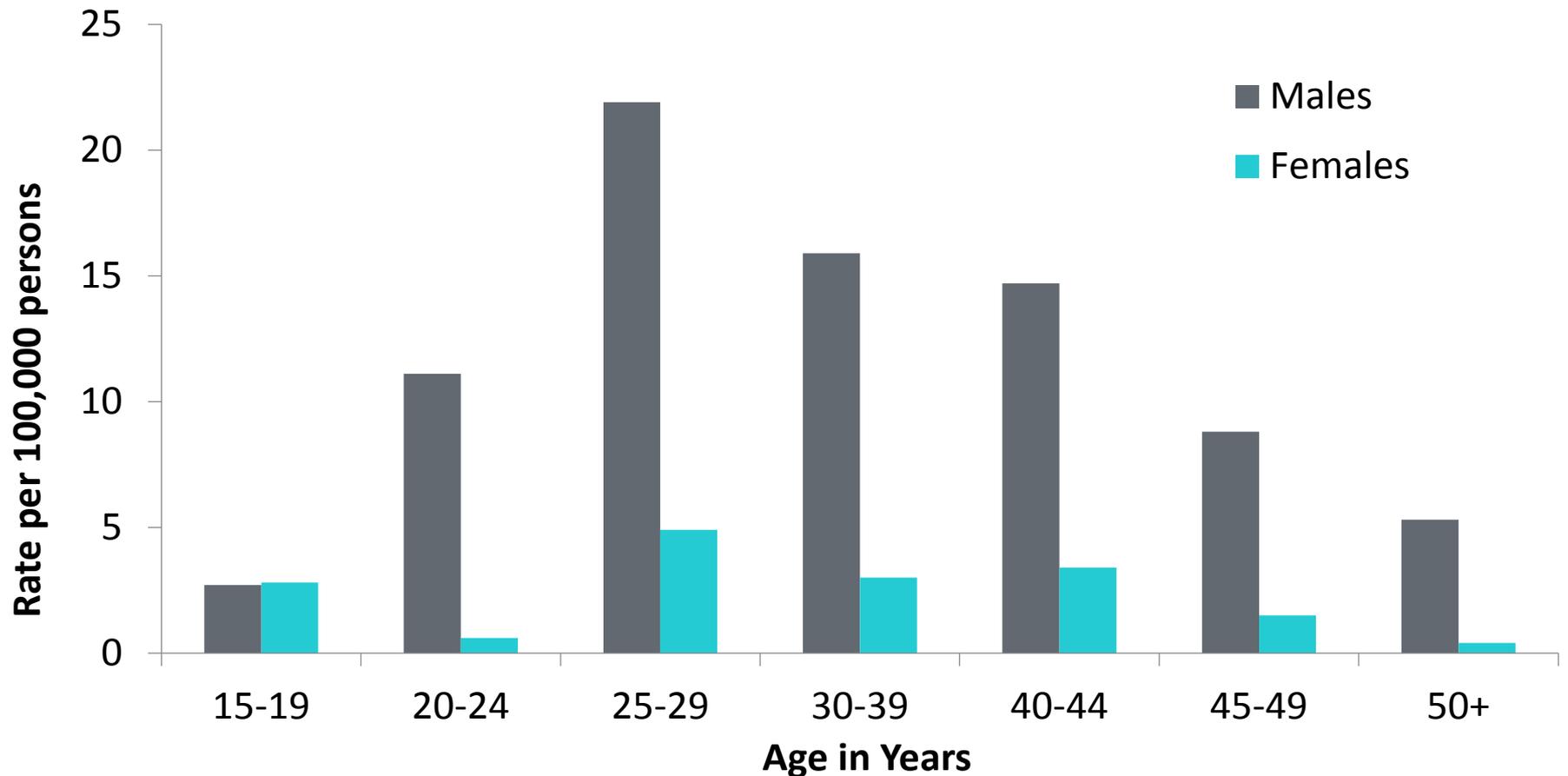




Primary & Secondary Syphilis Rates by Age Minnesota, 2005-2015



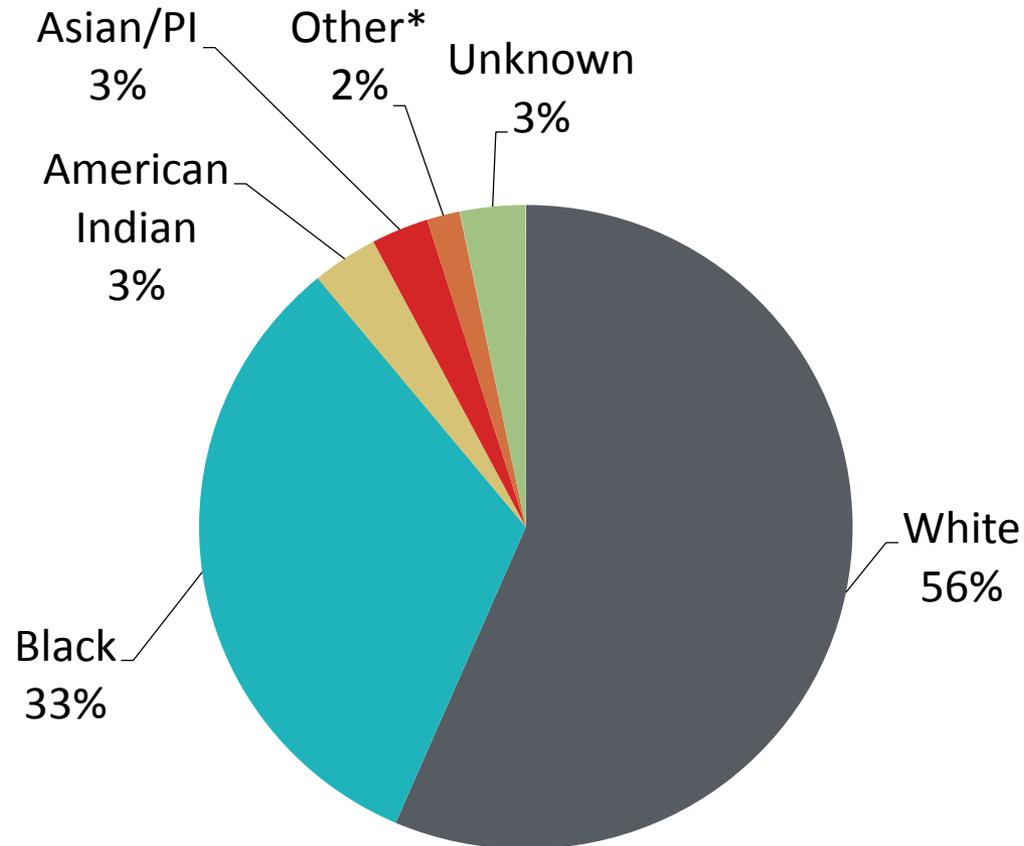
Age-Specific Primary & Secondary Syphilis Rates by Gender, Minnesota, 2015





Primary & Secondary Syphilis Cases by Race Minnesota, 2015

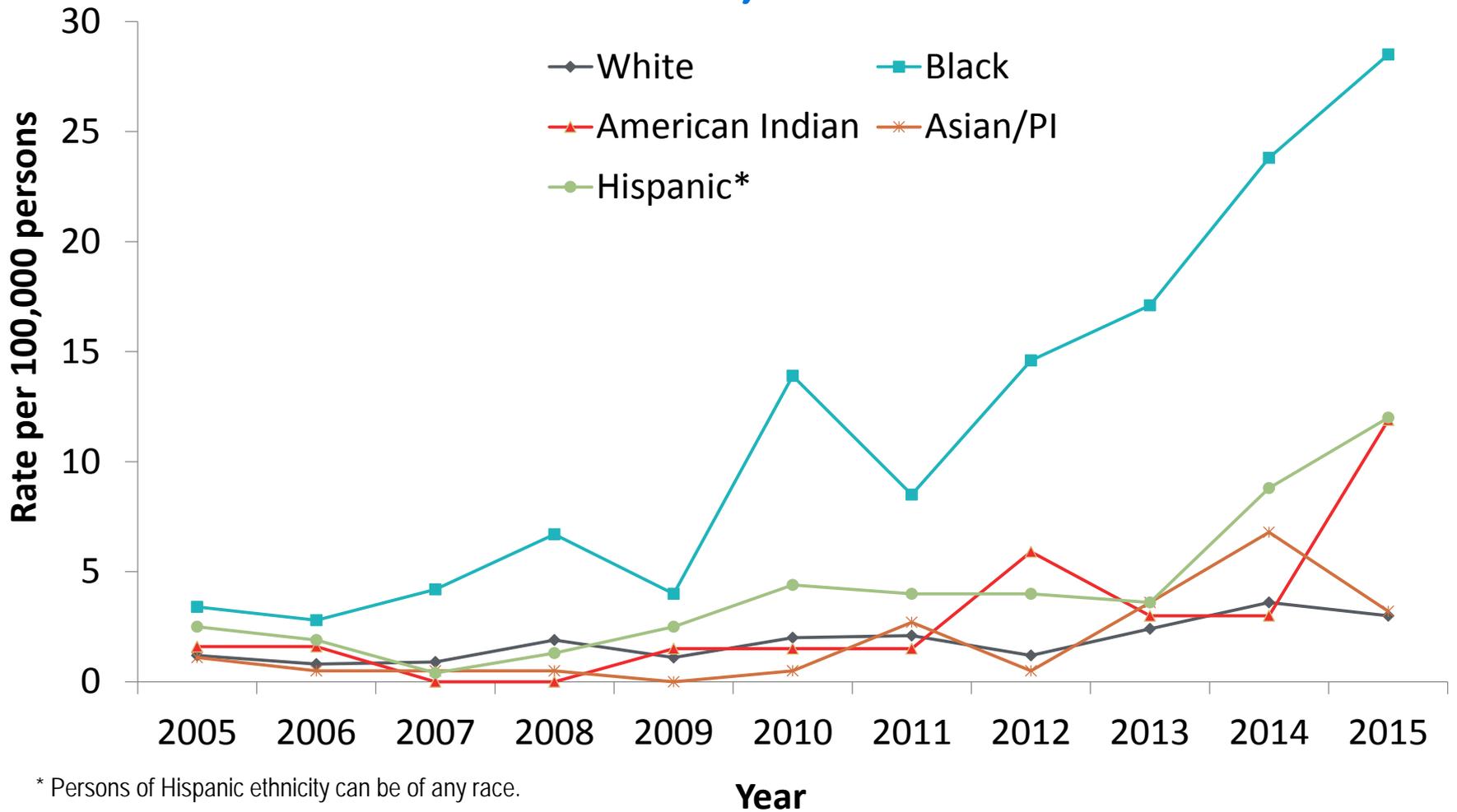
Total Number of Cases = 246



*Includes persons reported with more than one race



Primary & Secondary Syphilis Rates by Race/Ethnicity Minnesota, 2005-2015



* Persons of Hispanic ethnicity can be of any race.



CHLAMYDIA AND GONORRHEA AMONG ADOLESCENTS & YOUNG ADULTS

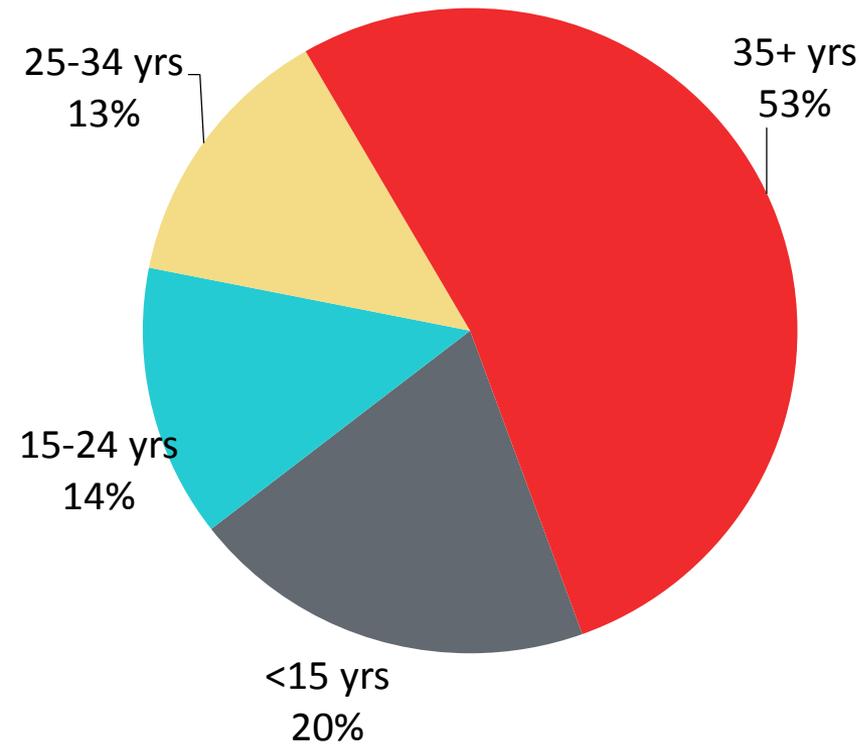
Minnesota Department of Health STD Surveillance System



Chlamydia Disproportionately Impacts Youth

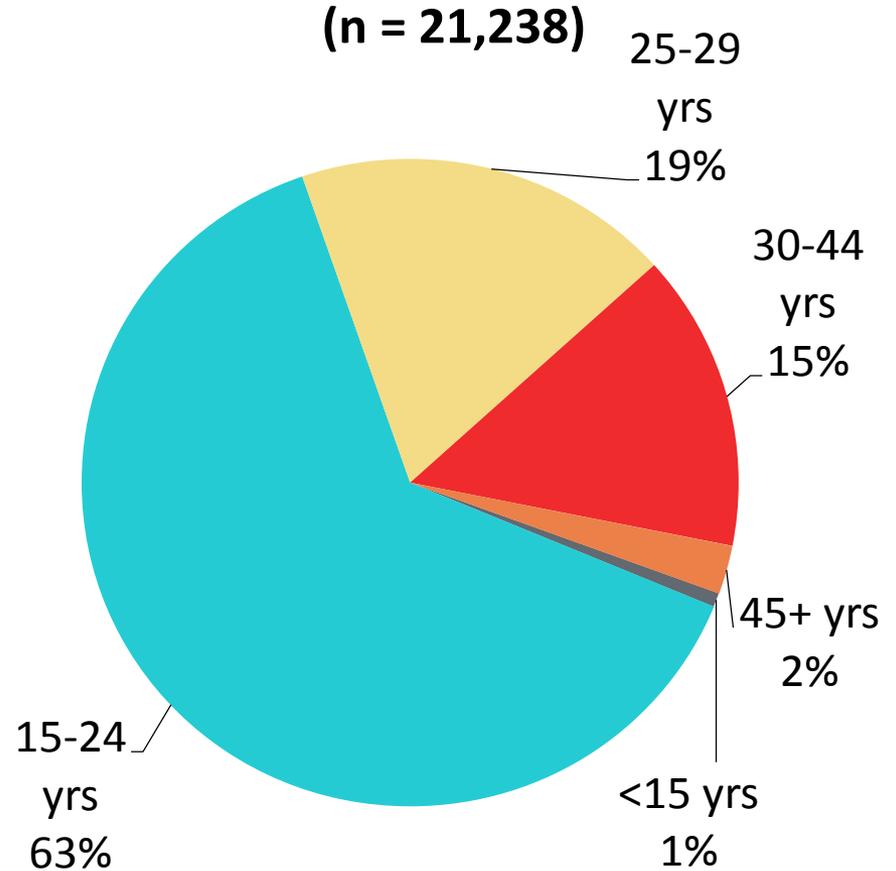
MN Population in 2010

(n = 5,303,925)



Chlamydia Cases in 2015

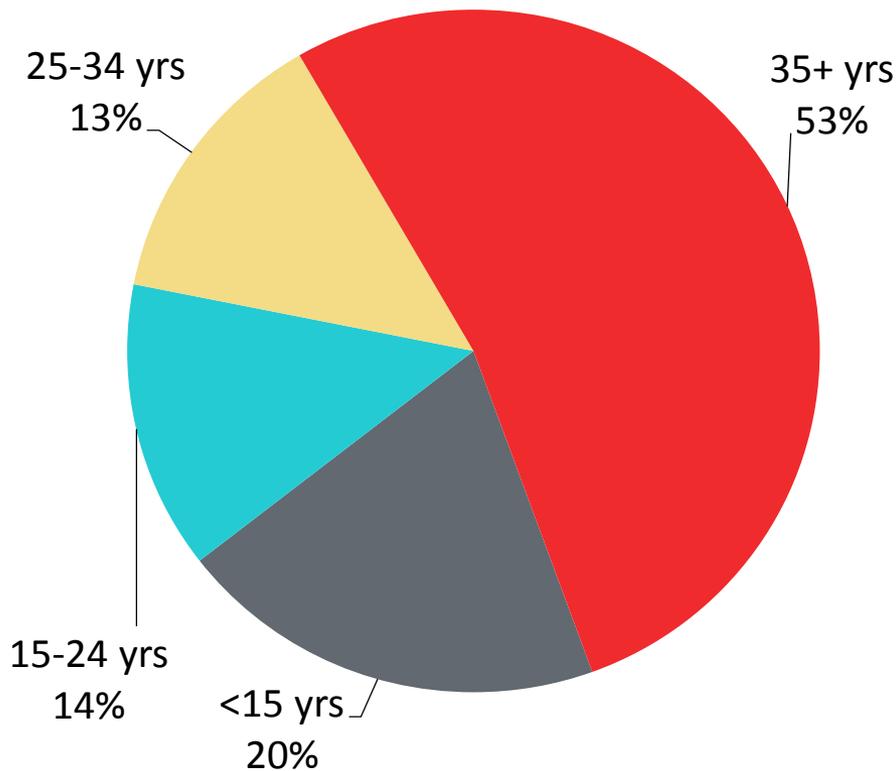
(n = 21,238)



Gonorrhea Disproportionately Impacts Youth

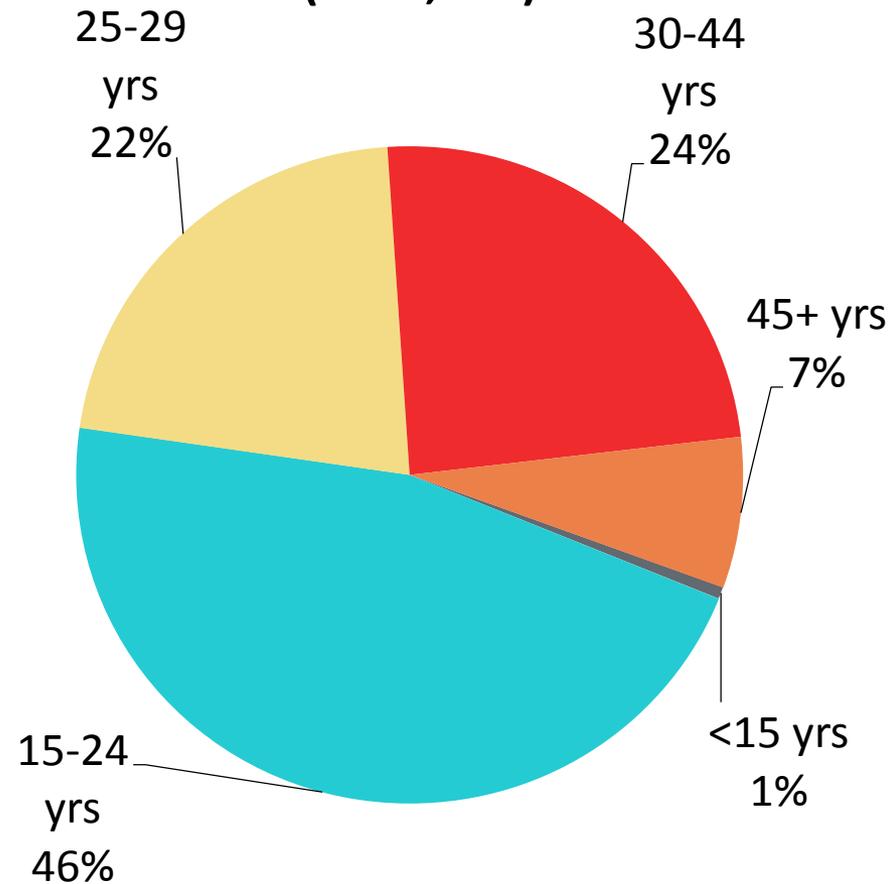
MN Population in 2010

(n = 5,303,925)



Gonorrhea Cases in 2015

(n = 4,097)





Characteristics of Adolescents & Young Adults[†] Diagnosed With Chlamydia or Gonorrhea in 2015

	Cases	% of Total
Male	4,504	29%
Female	10,851	71%
Transgender	5	
White	5,799	38%
Black	3,985	26%
Am Indian	424	3%
Asian/PI	439	3%
Other/Unknown	4,713	31%
TOTAL	15,360	

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Characteristics of Adolescents & Young Adults[†] Diagnosed With Chlamydia or Gonorrhea in 2015

	Cases	% of Total
Hispanic	885	6%
Non-Hispanic	8,573	56%
Unknown	5,902	38%
Minneapolis	2,925	19%
St. Paul	1,917	12%
Suburban MN	4,699	31%
Greater MN	4,988	32%
Unknown	831	5%
TOTAL	15,360	

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.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Chlamydia Rates Among Adolescents & Young Adults[†] by Gender in Minnesota, 2005-2015



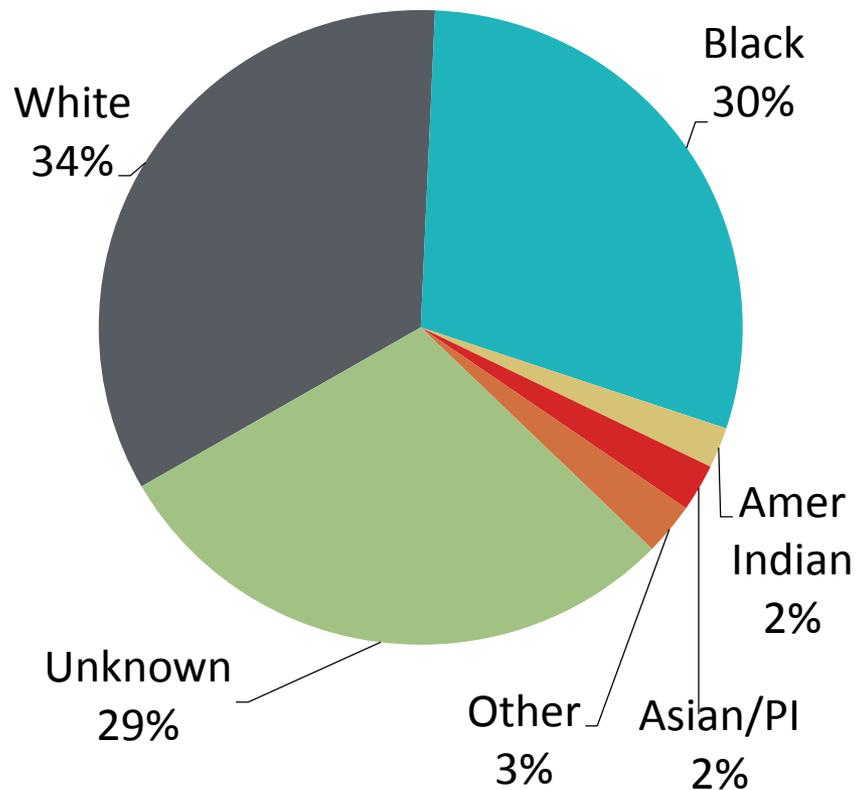
Rate=Cases per 100,000 persons based on 2010 U.S. Census counts.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.

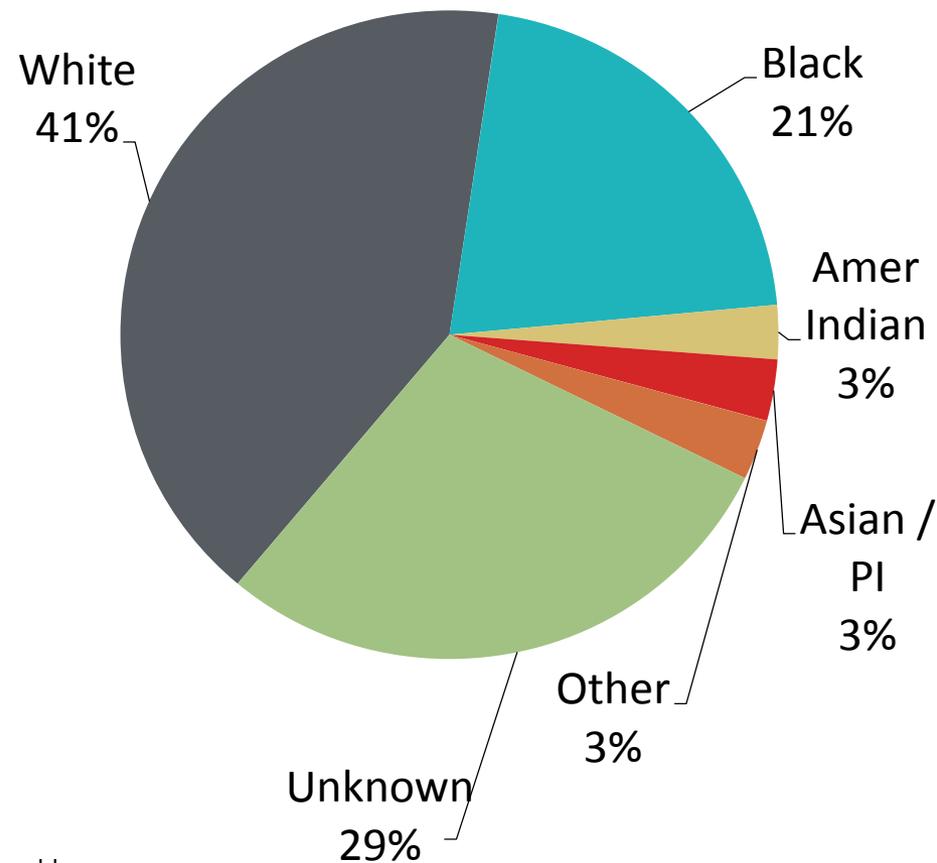


Chlamydia Cases Among Adolescents and Young Adults[†] by Gender and Race, Minnesota, 2015

Males (n = 3,618)



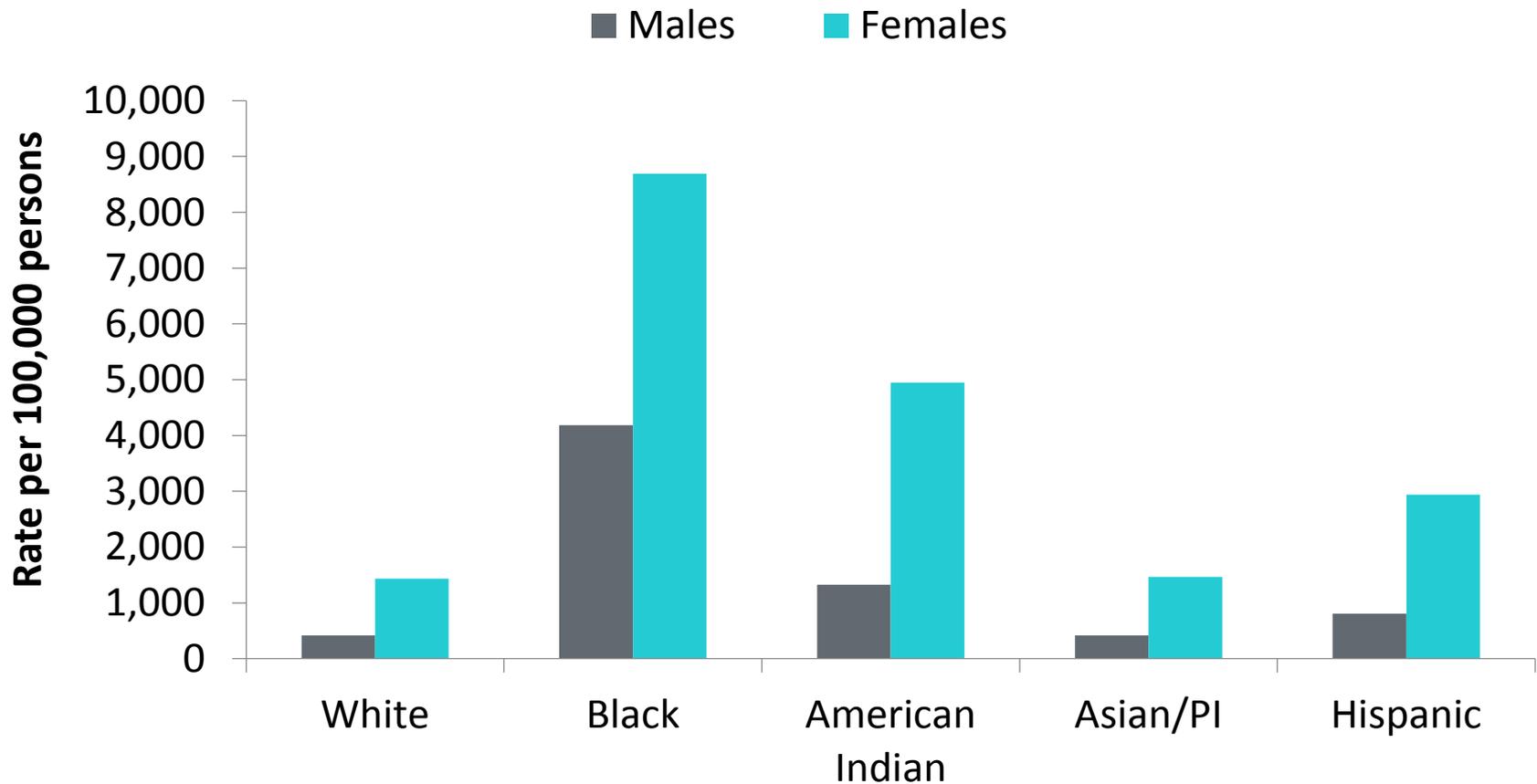
Females (n = 9,847)



[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Chlamydia Rate Among Adolescents and Young Adults[†] by Race, Minnesota, 2015

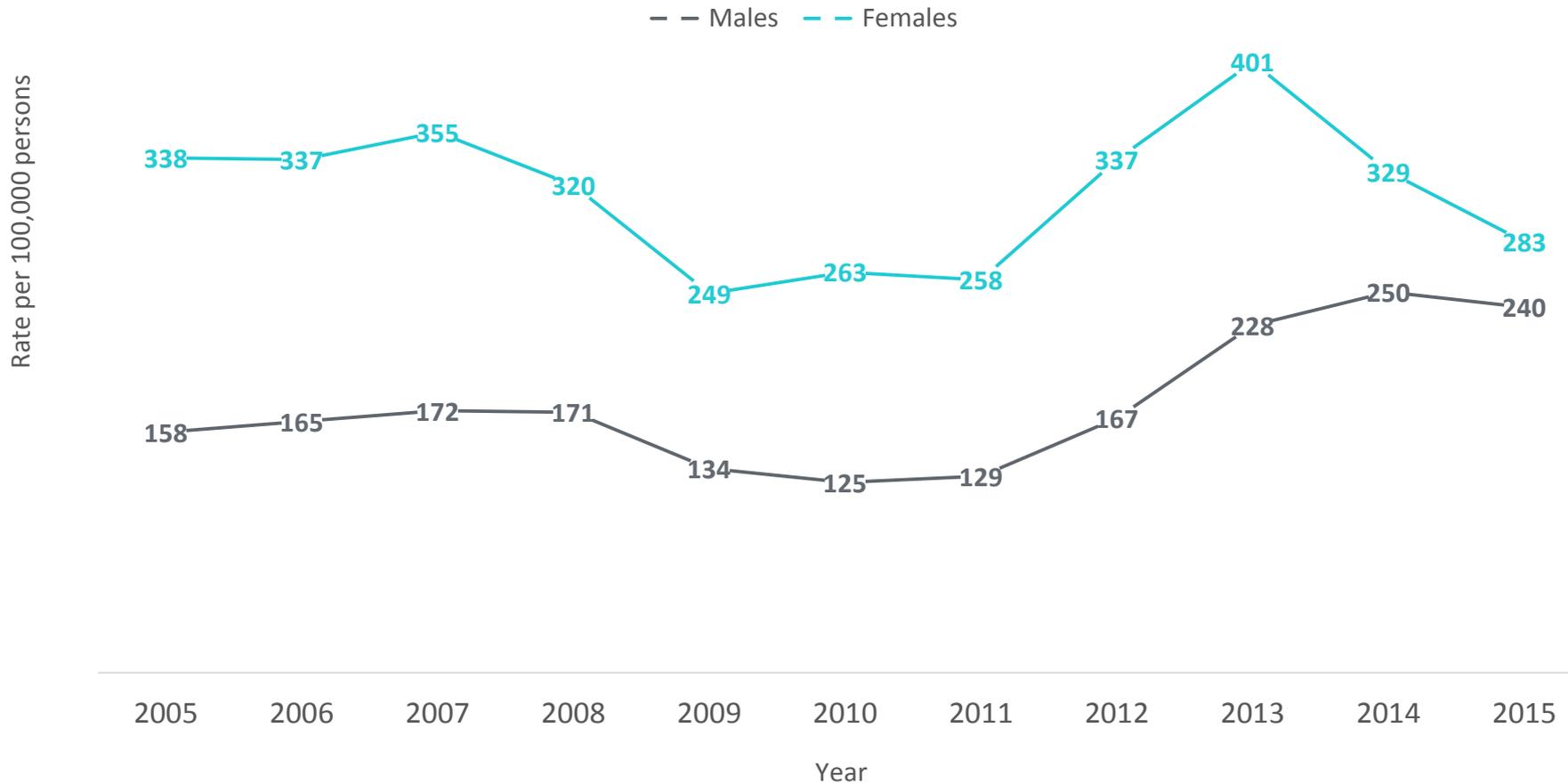


Rate=Cases per 100,000 persons based on 2010 U.S. Census counts.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Gonorrhea Rates Among Adolescents & Young Adults[†] by Gender in Minnesota, 2005-2015



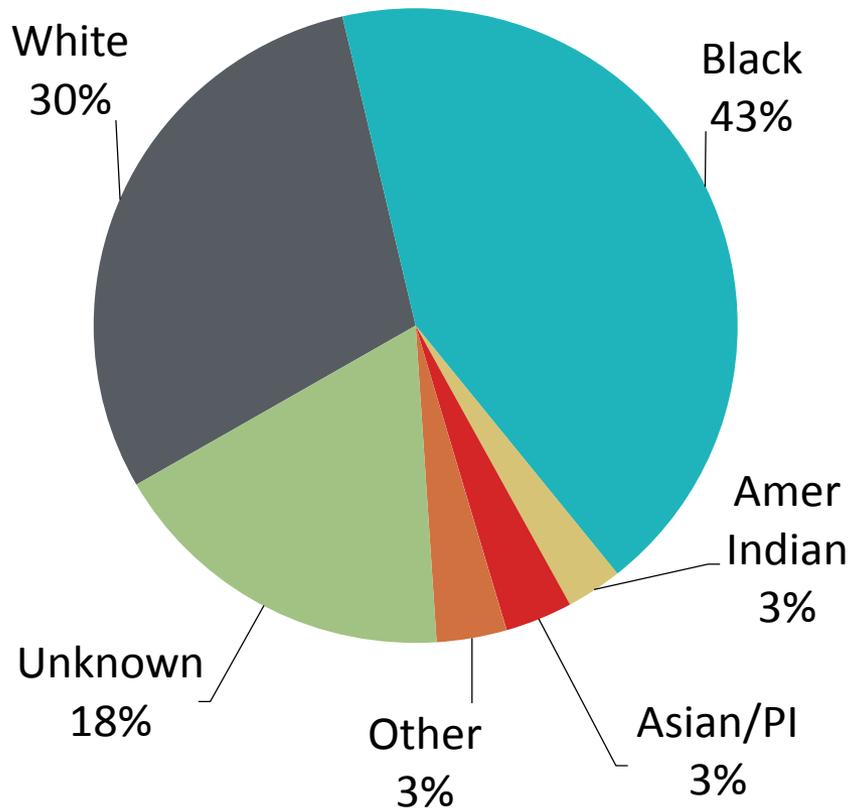
Rate=Cases per 100,000 persons based on 2010 U.S. Census counts.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.

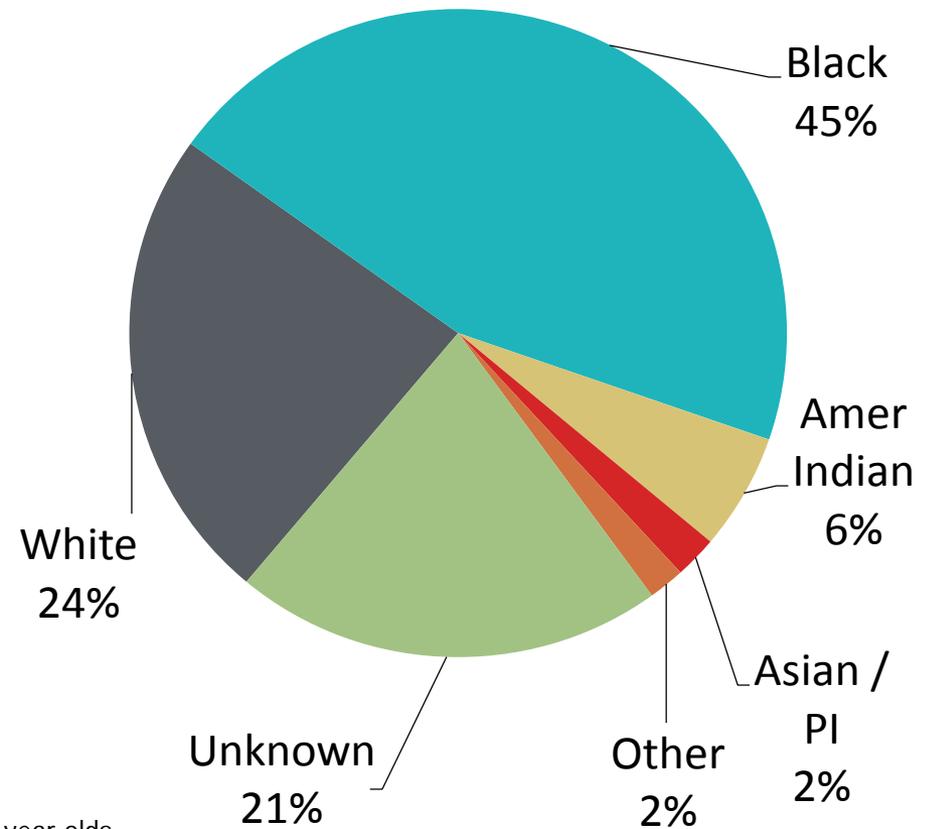


Gonorrhea Cases Among Adolescents and Young Adults[†] by Gender and Race, 2015

Males (n = 886)



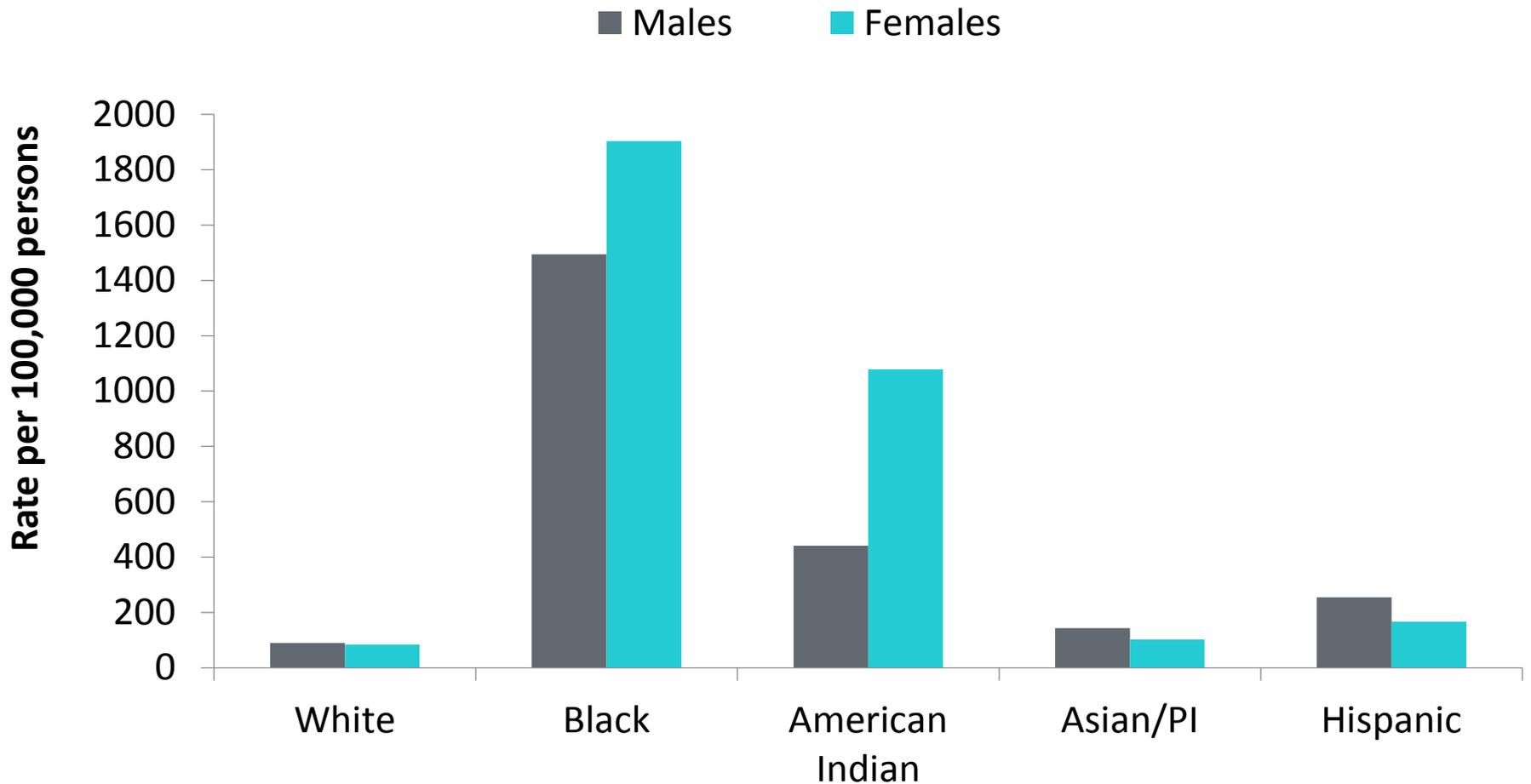
Females (n = 1004)



[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Gonorrhea Rate Among Adolescents and Young Adults[†] by Race, Minnesota, 2015



Rate=Cases per 100,000 persons based on 2010 U.S. Census counts.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Summary of Chlamydia and Gonorrhea Among Adolescents and Young Adults[†], Minnesota, 2015

- Adolescents and young adults accounted for 63% of chlamydia and 46% of gonorrhea cases diagnosed in Minnesota.
- 71% of chlamydia or gonorrhea cases diagnosed among adolescents and young adults were females.
- Whites and Blacks accounted for 39% and 26% of chlamydia or gonorrhea cases, respectively.
- 32% of gonorrhea or chlamydia cases were in the Cities of Minneapolis and Saint Paul.

[†] Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.



Topic of Interest: Early Syphilis Among Men Who Have Sex With Men in Minnesota

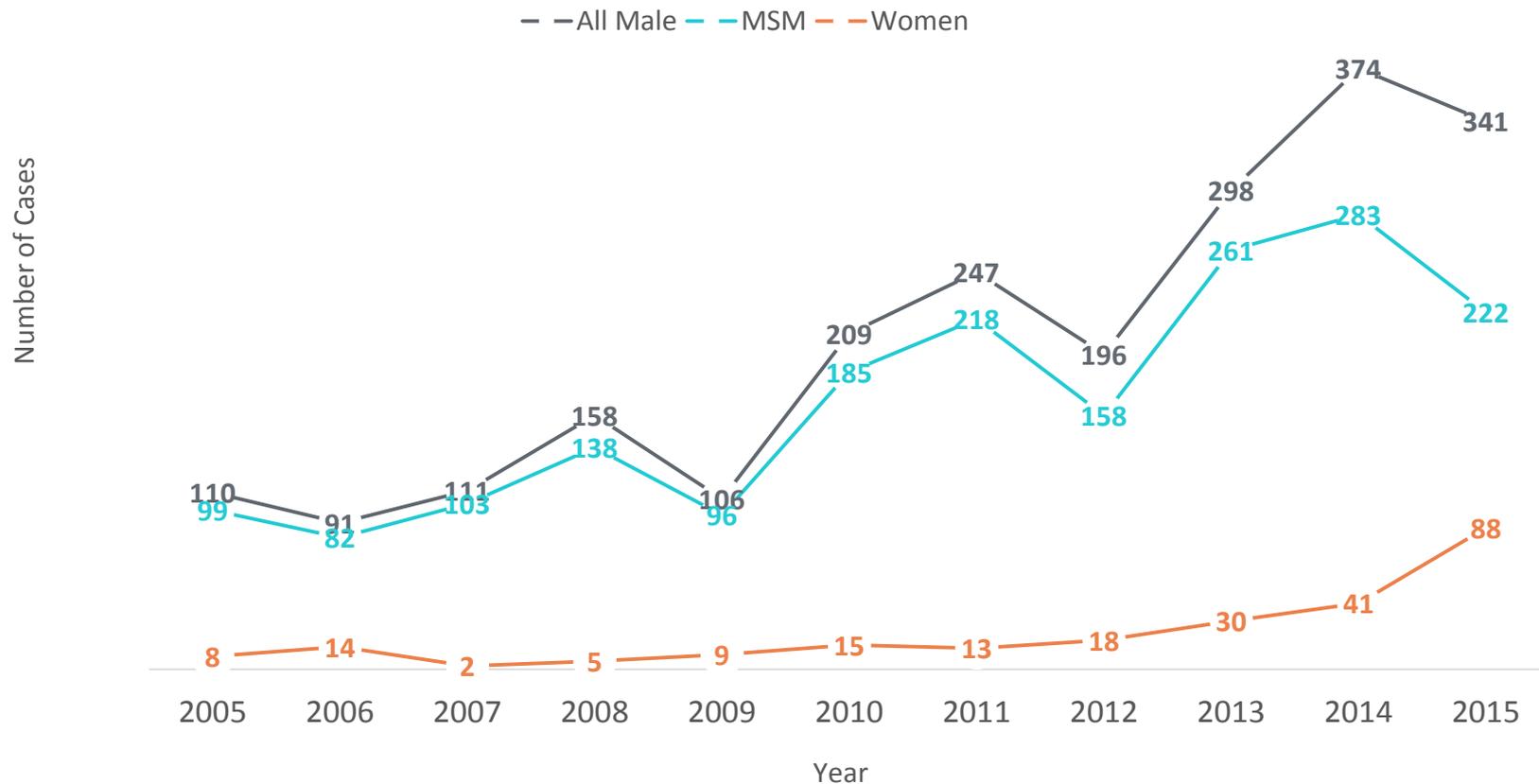
Minnesota Department of Health STD Surveillance System



Minnesota
Department of Health

STD/HIV/TB SECTION

Number of Early Syphilis[†] Cases by Gender Minnesota, 2005-2015



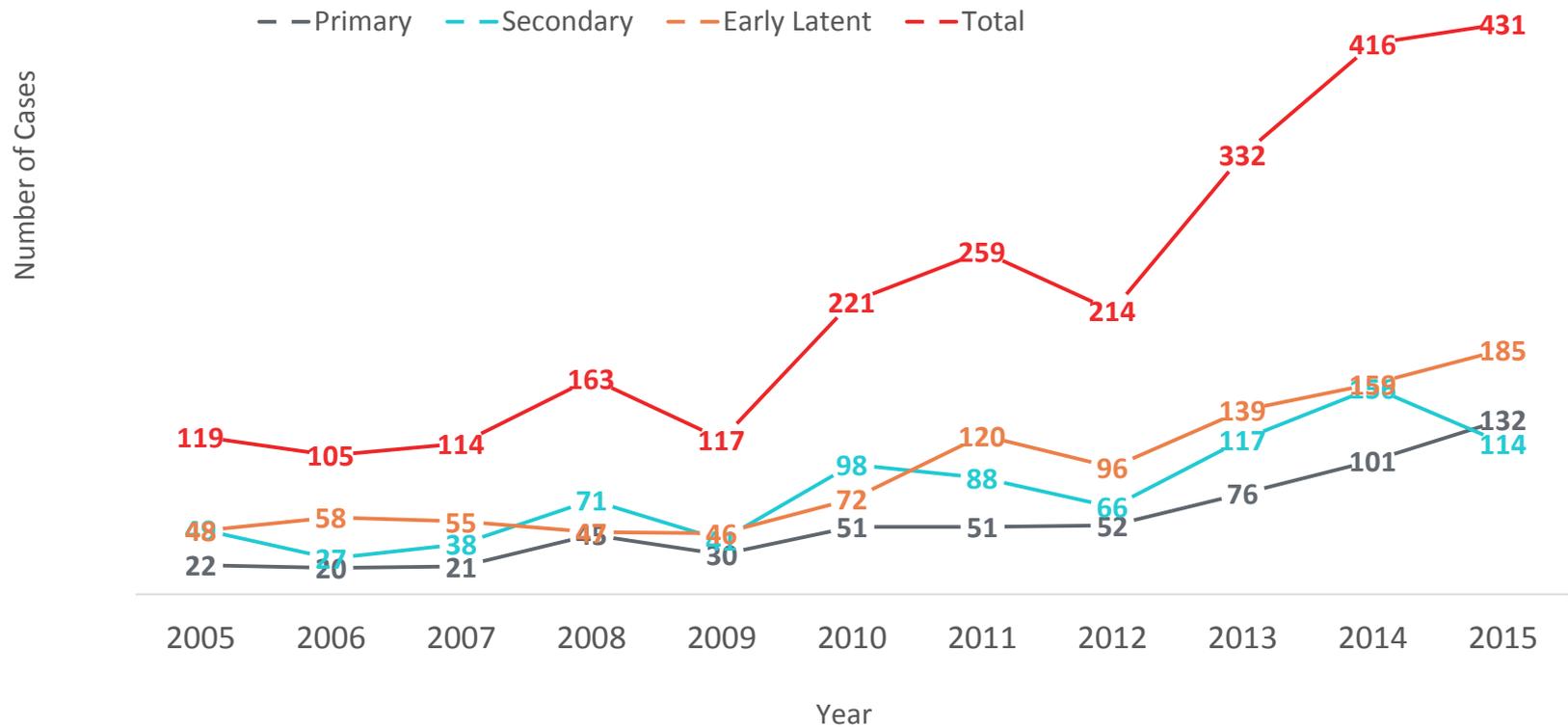
MSM=Men who have sex with men.

Figure does not include cases diagnosed in transgender persons (1 each in 2005, 2007, 2009, 4 in 2013, 1 in 2014, 2 in 2015).

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



Early Syphilis[†] Cases by Stage at Diagnosis Minnesota, 2005-2015



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

Early Syphilis[†] by Gender and Sexual Behavior Minnesota, 2005-2015

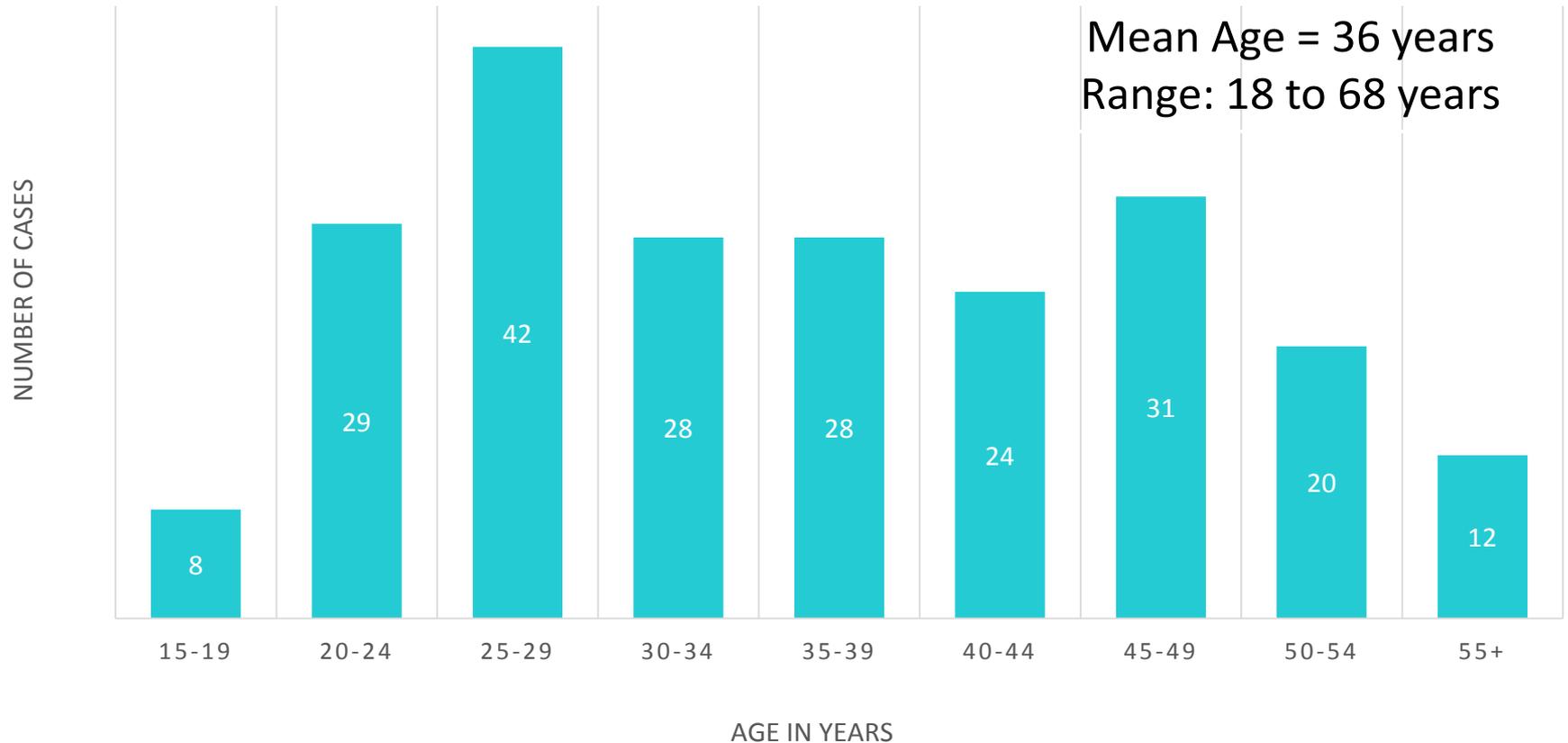
Year	Early Syphilis Cases	Male Cases (%)	MSM Cases (% of males)
2005	116	109 (94)	100 (92)
2006	104	90 (88)	80 (89)
2007	114	111 (97)	103 (93)
2008	163	158 (97)	140 (89)
2009	117	106 (91)	96 (91)
2010	221	207 (94)	185 (89)
2011	260	246 (95)	218 (89)
2012	214	196 (92)	158 (81)
2013	332	298 (90)	261 (88)
2014	416	374 (90)	283 (76)
2015	431	341 (79)	222 (65)

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, 2015 (n=222)

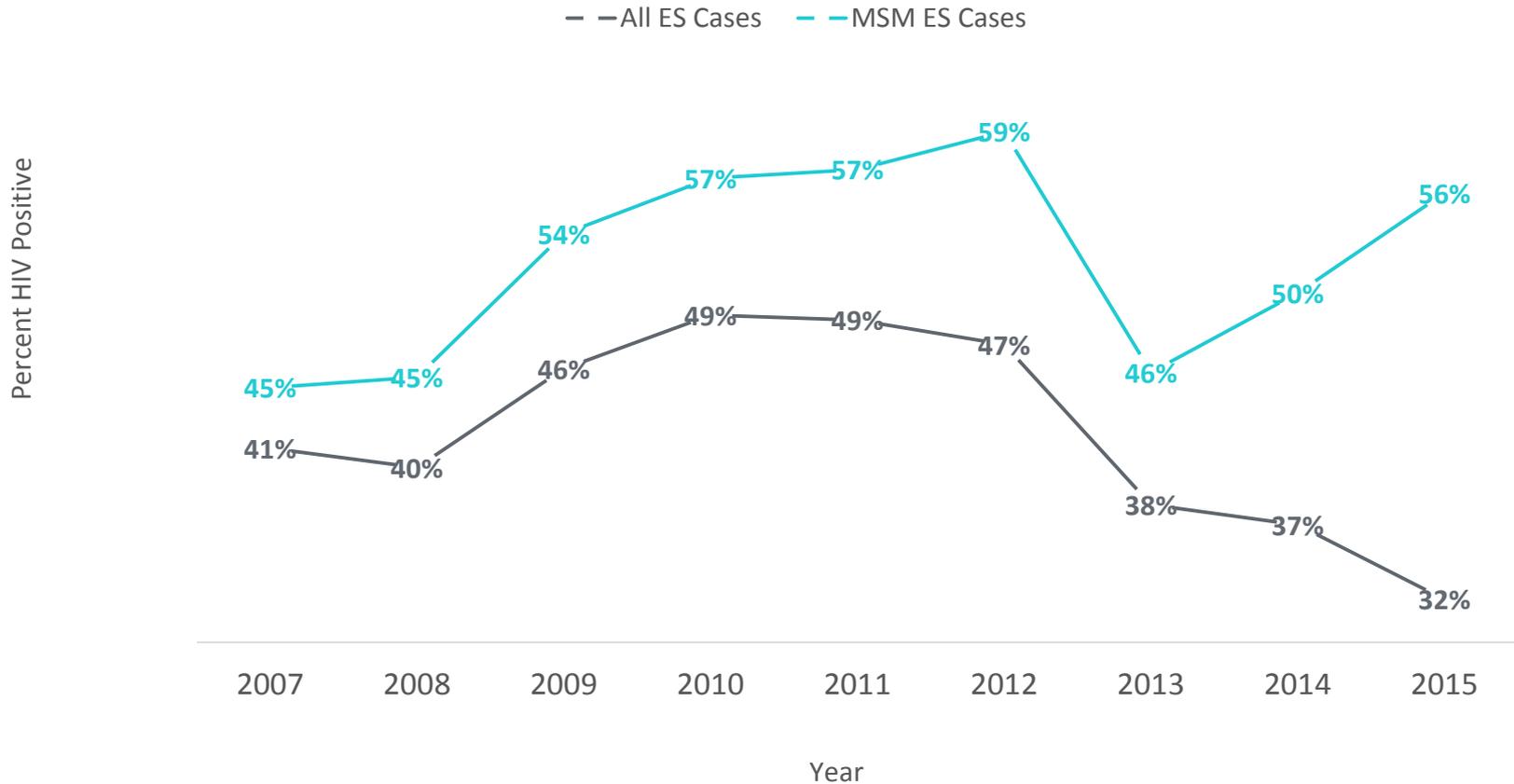


MSM=Men who have sex with men

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



Early Syphilis[†] (ES) Cases Co-infected with HIV, 2007-2015



MSM=Men who have sex with men

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



Characteristics of Early Syphilis[†] Cases Among MSM, Minnesota, 2015

- Gay and bisexual men account for 65% of cases among men.
- 75% of cases among MSM are White, but a disproportionate number of cases (14%) are African American.
- 51% in the City of Minneapolis and 27% live in the suburbs
- 56% of cases are also infected with HIV.

MSM=Men who have sex with men

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



Topic of Interest: Syphilis Among Females and Congenital Syphilis in Minnesota

Minnesota Department of Health STD Surveillance System



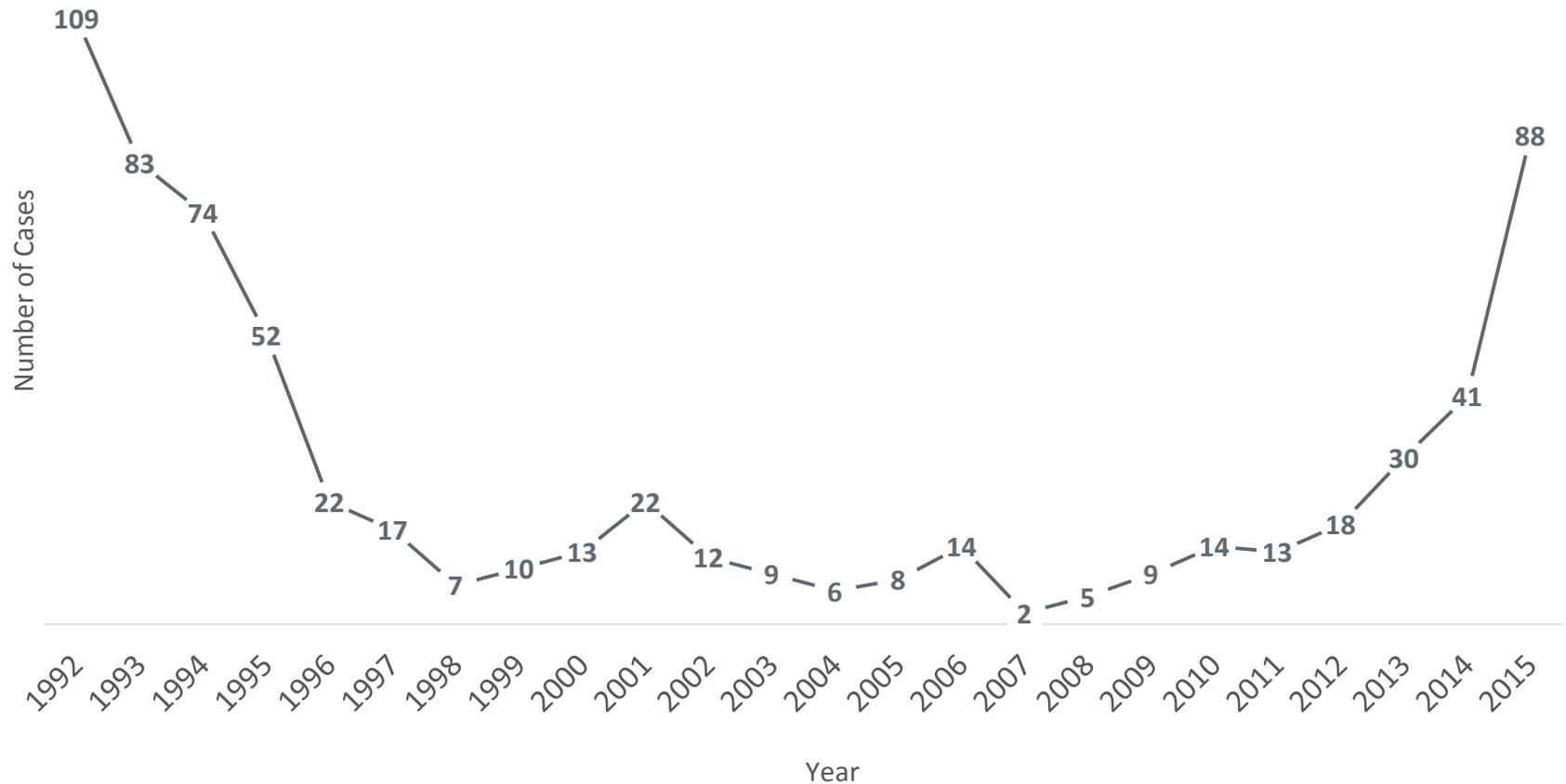
Syphilis Among Females, Minnesota, 2015

- Primary Syphilis – 18 cases
- Secondary Syphilis – 21 Cases
- Early Latent Syphilis – 49 cases
- Late Latent Syphilis – 85 cases



Female Early Syphilis Cases

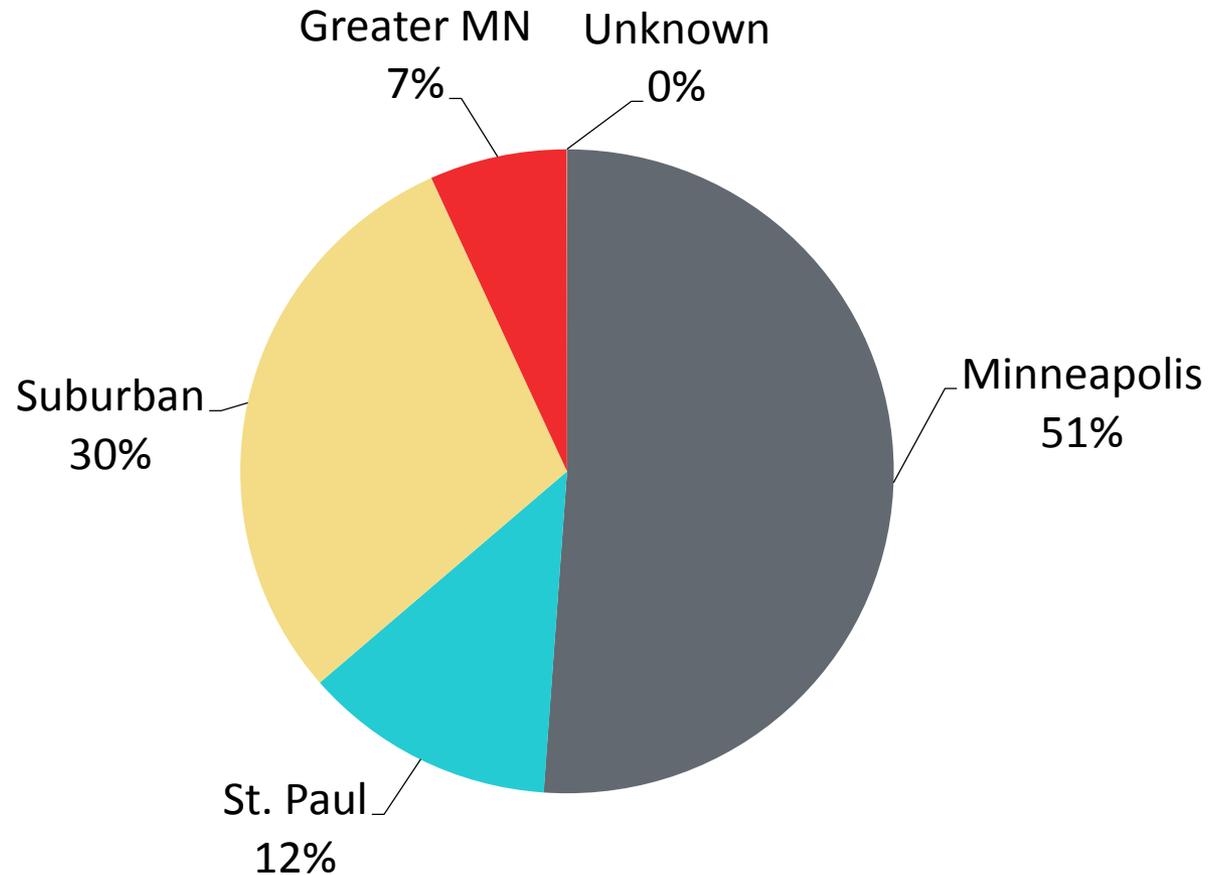
NUMBER OF FEMALE EARLY SYPHILIS CASES





Early Syphilis Infections in Women in Minnesota by Residence at Diagnosis, 2015

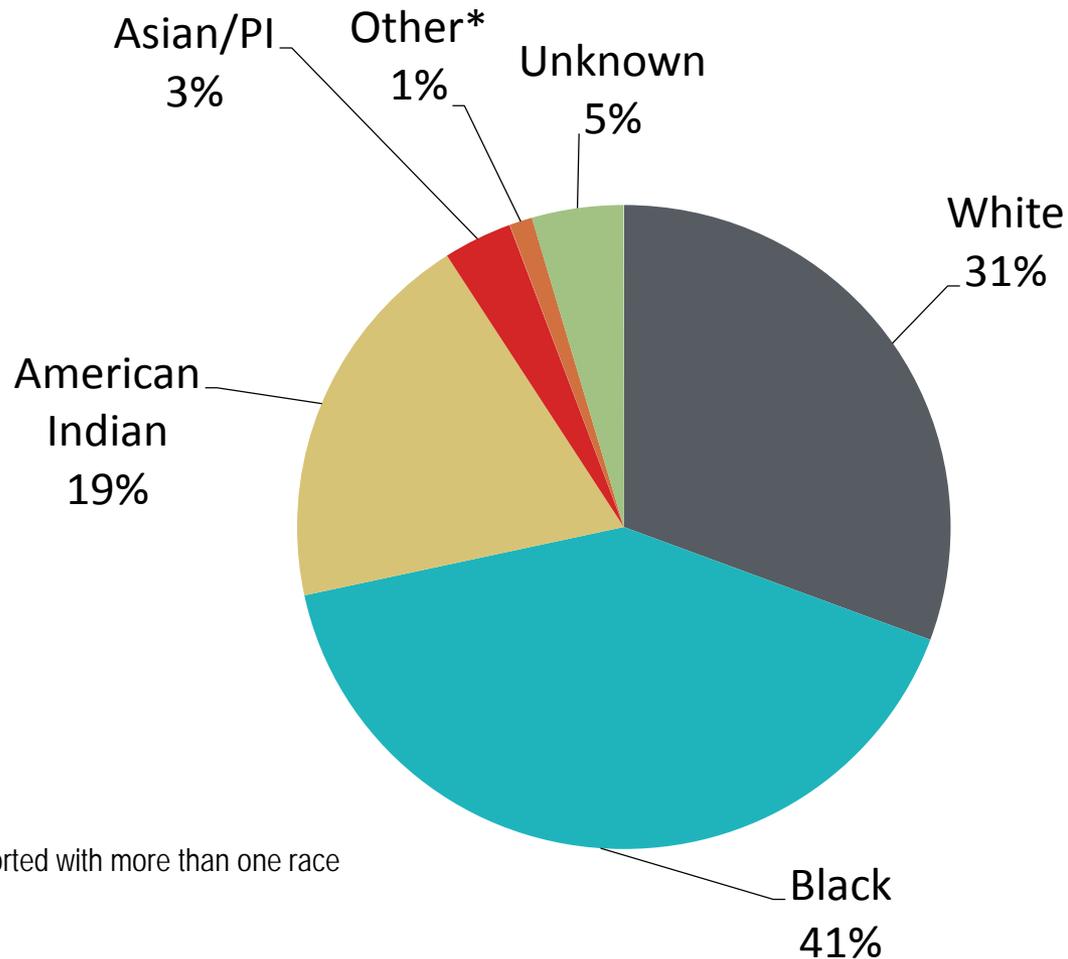
Total Number of Cases = 88



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, 2015

Total Number of Cases = 88



*Includes persons reported with more than one race



What's Being Done in Minnesota?

- The MDH Partner Services Program continues to follow up on early syphilis cases and their sex partners and all pregnant syphilis cases.
- All HIV/Syphilis co-infected cases are assigned to Partner Services for follow-up.
- Physicians are encouraged to screen men who have sex with men at least annually and to ask about sex partners.
- All pregnant females should be screened for syphilis at first prenatal visit, 28 weeks' gestation (at minimum 28-36 weeks), and at delivery.



STD Surveillance Summary

Minnesota Department of Health STD Surveillance System



Summary of STD Trends in Minnesota

- From 2005-2015, the chlamydia rate increased by 66%. The rate of gonorrhea remained the same between 2014 & 2015. Rates of reported syphilis increased in 2015 compared to 2014 by 3%.
- 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 at a 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 63% of the reported cases in 2015.
- Adolescents and young adults (15-24 years) have the highest rates of chlamydia and gonorrhea, making up 61% of new infections in 2015.
- Between 2014 and 2015, early syphilis cases increased by 4%. Men who have sex with men comprised 65% of all male cases in 2015; cases among women are continuing to increase.



Future Updates to STD Reporting

- New case report form to accommodate changes in treatment guidelines
- Case report form is be able to be filled out on a computer and printed to be mailed or faxed in
- All cases co-infected with HIV (diagnosed in the last year)/Gonorrhea, HIV/Syphilis, and Early Syphilis will be 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



For more information, contact:

- **STD Surveillance Data**

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- **MDH Partner Services Program**

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