

# STI Annual Diagnoses and Trends – 2023

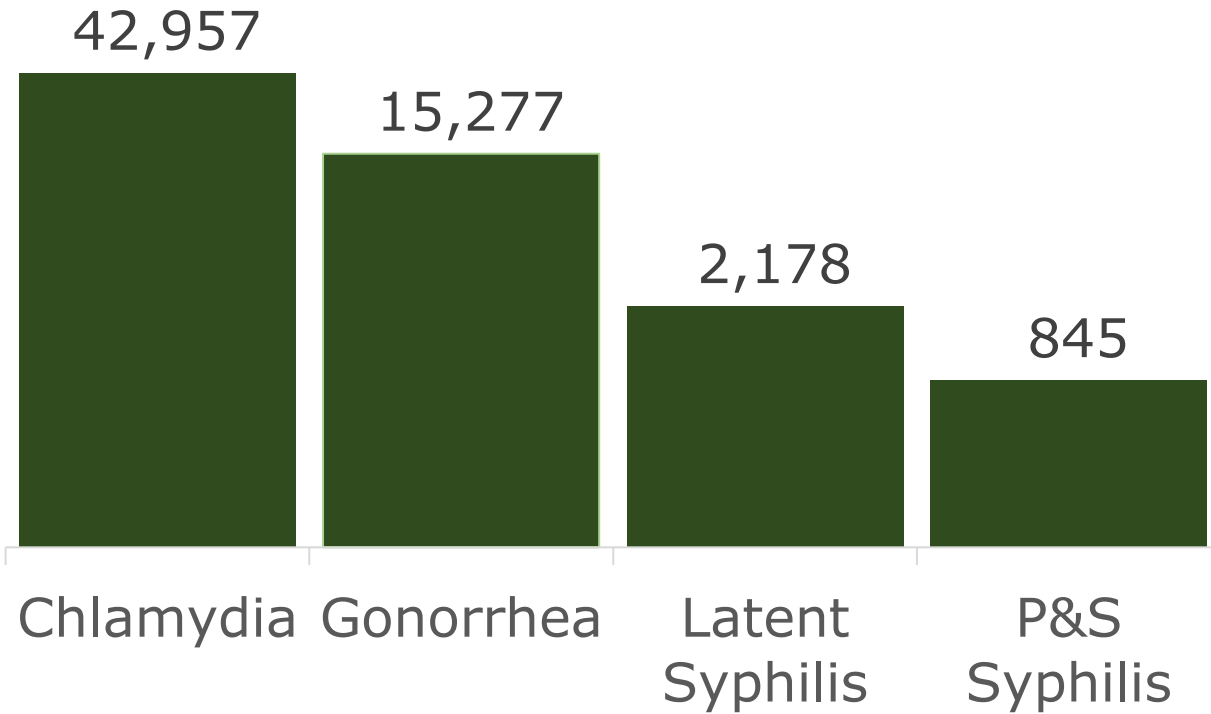
Data as of July 25, 2024

[HIV & STIs in Michigan](#)

# Table of Contents

- 
1. STI Annual Diagnoses and Trends – 2023
  2. Table of Contents
  3. 2023 STI Diagnoses at a Glance
  - Chlamydia**
  5. Chlamydia – Trends over Time
  6. Chlamydia – Priority Populations
  7. Chlamydia – Priority Populations (2)
  8. Chlamydia – Geographic Distribution
  9. Chlamydia/Gonorrhea Coinfections
  - Gonorrhea**
  11. Gonorrhea – Trends over Time
  12. Gonorrhea Trends – Geographic
  13. Gonorrhea – Geographic Distribution
  14. Gonorrhea Trends – Age
  15. Gonorrhea Trends - Men
  16. Gonorrhea Trends - Women
  17. Gonorrhea – Priority Populations
  18. Gonorrhea – Priority Populations (2)
  - Syphilis**
  20. Syphilis – Stages of Infection
  21. Syphilis Manifestations
  22. P&S Syphilis – Trends over Time
  23. P&S Syphilis Trends - Geographic
  24. P&S Syphilis – Geographic Distribution
  25. P&S Syphilis Trends - Age
  26. P&S Syphilis Trends – Men
  27. P&S Syphilis Trends – Women
  28. P&S Syphilis Trends – Exposure Factors
  29. P&S Syphilis – Priority Populations
  30. P&S Syphilis – Priority Populations (2)
  31. P&S Syphilis – Priority Populations (3)
  32. P&S Syphilis and Women
  33. Congenital Syphilis
  34. Maternal and Infant Syphilis Trend
-

# 2023 STI Diagnoses at a Glance



	<b>Diagnoses Count</b>	<b>Rate per 100,000</b>
Chlamydia	42,957	428.0
Gonorrhea	15,277	152.2
Latent Syphilis	2,178	21.7
P&S Syphilis	845	8.4

Primary and secondary (P&S), or the earliest stages of syphilis infection, are used to reflect incident rather than prevalent infection. During primary syphilis, symptoms appear where syphilis entered the body and last 3-6 weeks. During secondary syphilis, symptoms typically manifest with body rash and last 2-10 weeks.

Includes probable and confirmed cases reported in the Michigan Disease Surveillance System (MDSS)

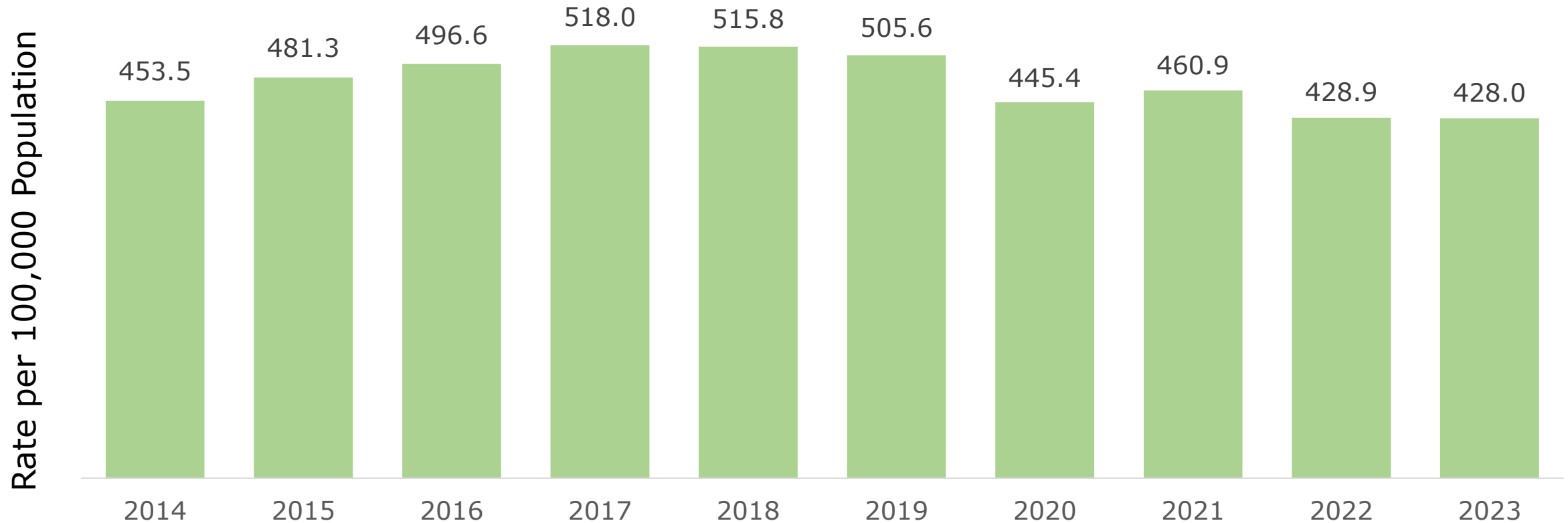
Case dates are pulled from onset date when available, then diagnosis date, then referral date to MDHHS if other dates are blank 3

# Chlamydia

# Chlamydia – Trends over Time

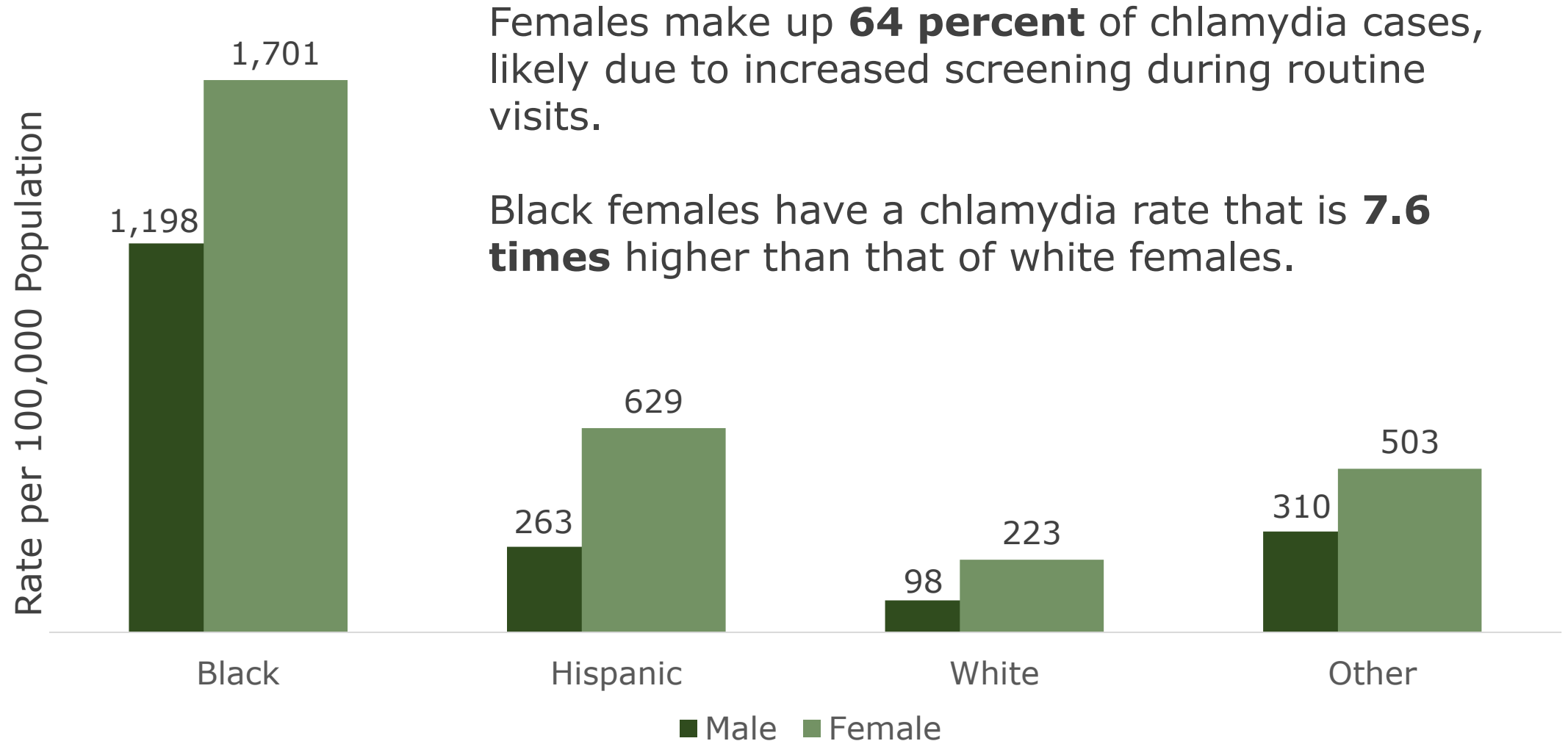
Since 2014, chlamydia rates have decreased **1 percent** annually, on average.

From 2014 to 2017, chlamydia cases increased **15 percent**, but decreased by **17 percent** from 2017 to 2023, with a slight increase observed in 2021.



[See full trend report here.](#)

# Chlamydia – Priority Populations



Females make up **64 percent** of chlamydia cases, likely due to increased screening during routine visits.

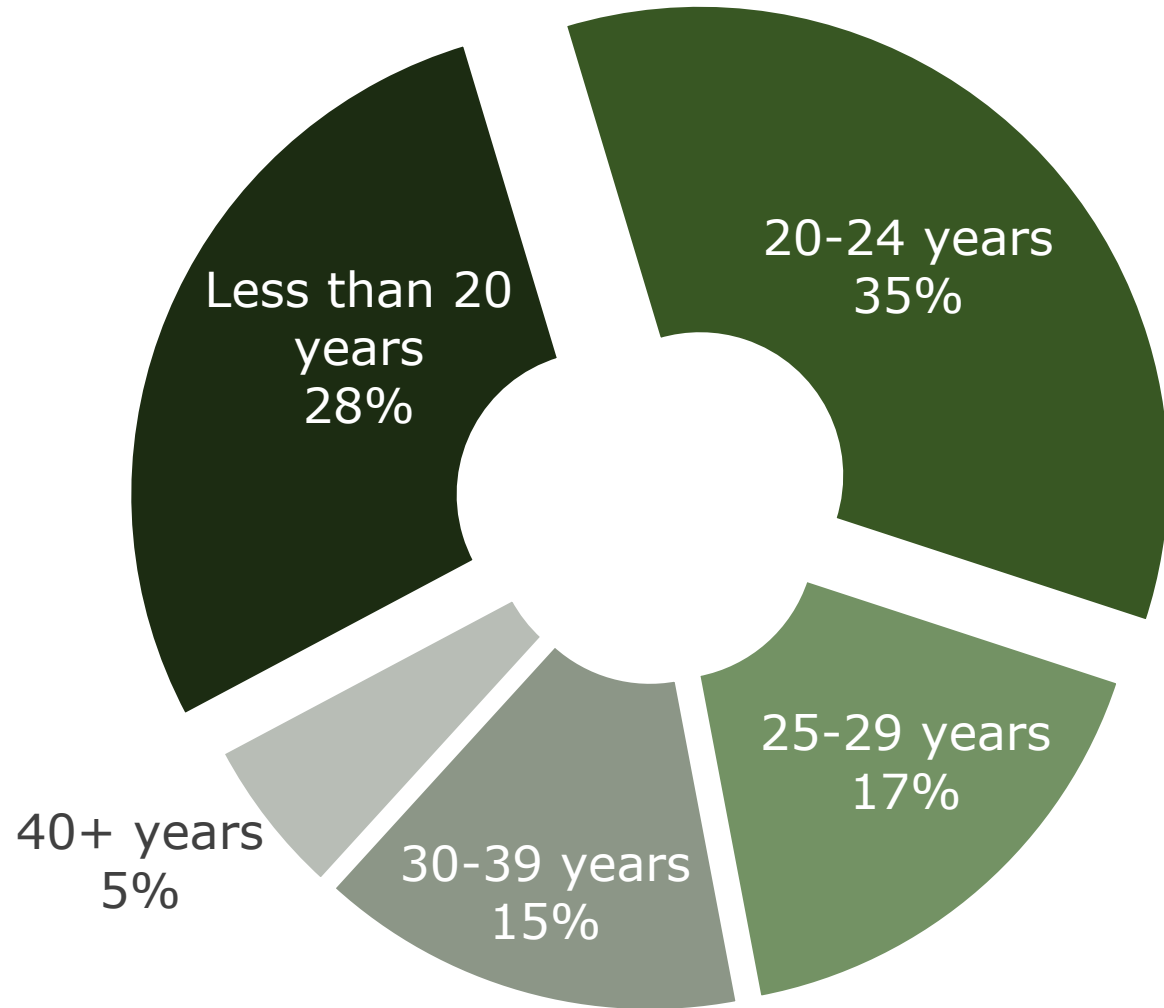
Black females have a chlamydia rate that is **7.6 times** higher than that of white females.

# Chlamydia – Priority Populations

**63 percent** of chlamydia cases were diagnosed among patients less than 25 years old.

People aged <25 years have a rate of chlamydia that is **2 times** that of people aged  $\geq 25$  years.

Over **10 percent** of cases among people aged <25 years are re-infections.



# Chlamydia – Geographic Distribution

Five Local Health Jurisdictions with Highest Case Rate per 100,000

Detroit City

1400.4

Muskegon County

730.6

Kalamazoo County

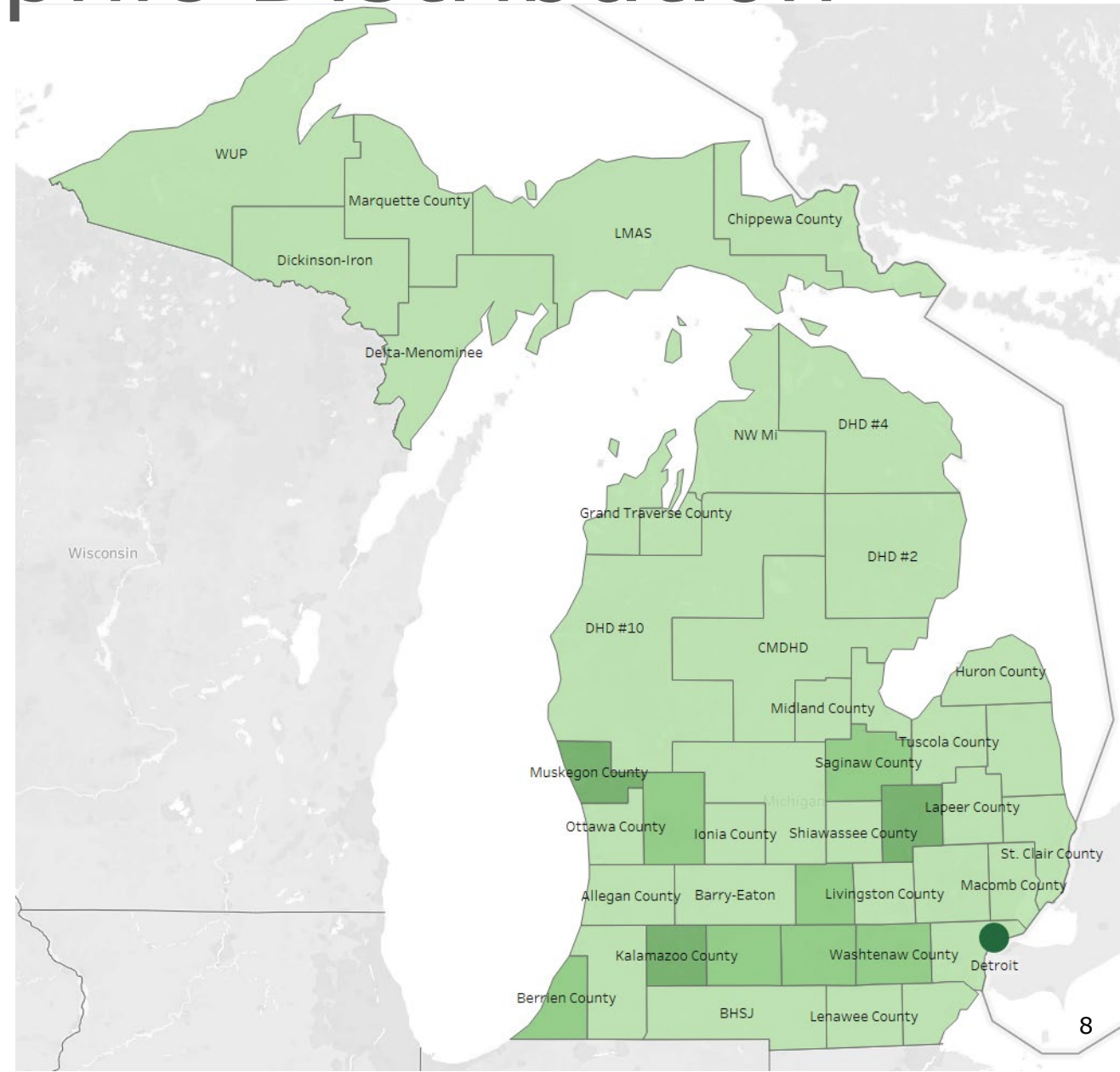
672.7

Calhoun County

630.6

Genesee County

604.9

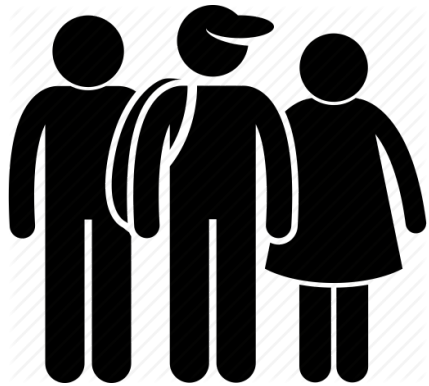




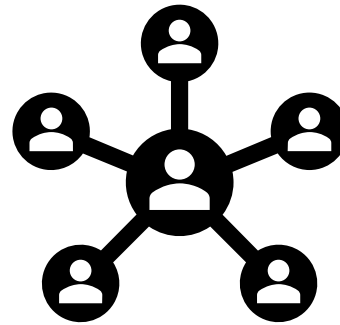
# Chlamydia/Gonorrhea Coinfections

In 2023, **10 percent** of all chlamydia patients were co-diagnosed with gonorrhea; **28 percent** of all gonorrhea patients were co-diagnosed with chlamydia.

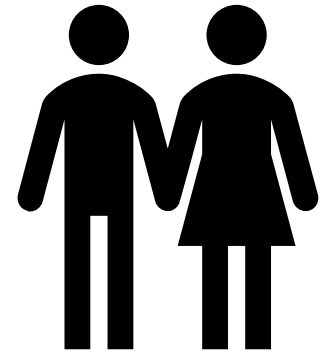
People most likely to be co-diagnosed with gonorrhea and chlamydia include:



15-19 Year-Olds  
(34% of all co-infections)



20-24 Year-Olds  
(30% of all co-infections)



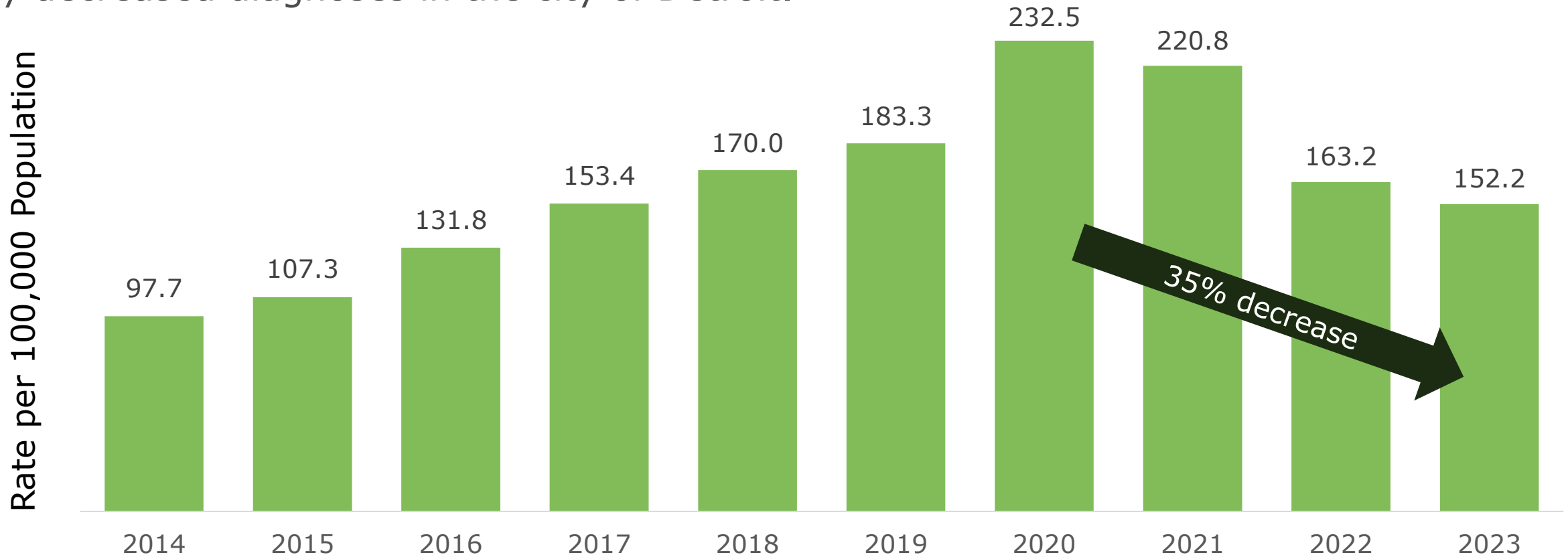
Black Men and Women  
(36% and 32% of all  
co-infections)

# Gonorrhoea

# Gonorrhea – Trends over Time

Since 2014, gonorrhea rates have increased **7 percent** annually, on average.

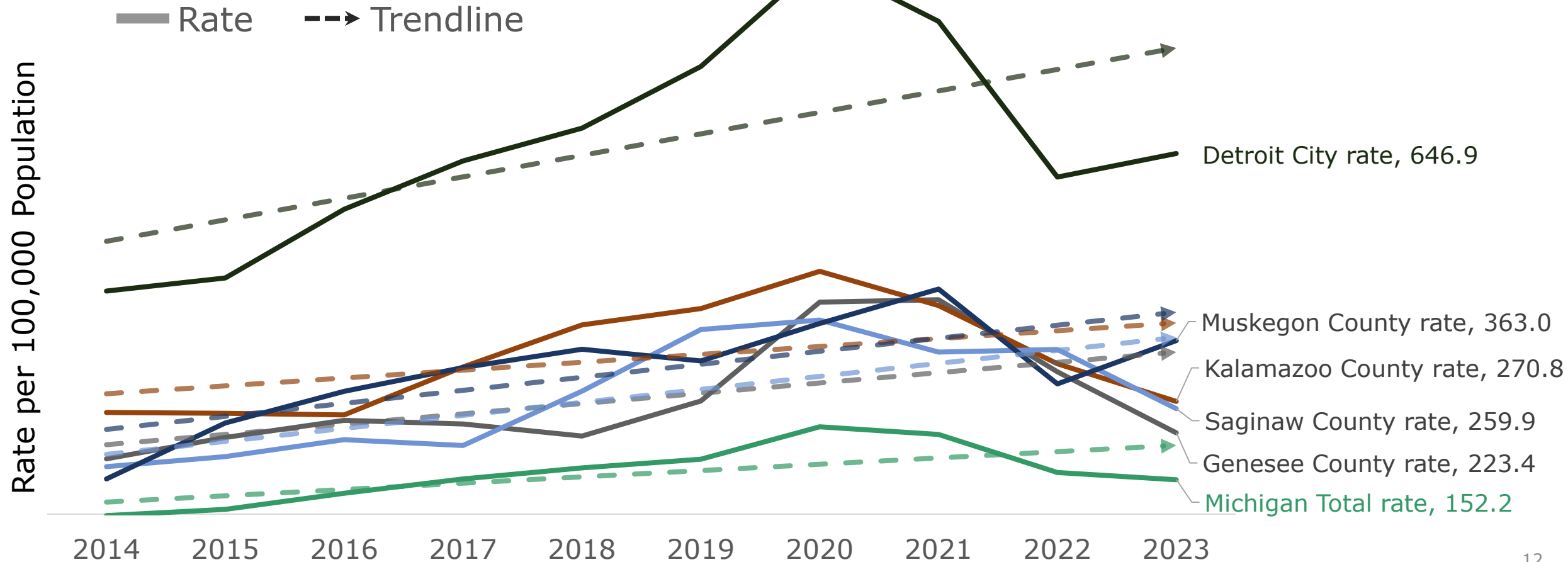
Since 2020, gonorrhea cases in Michigan have decreased **35 percent**, driven largely by decreased diagnoses in the city of Detroit.



[See full trend report here.](#)

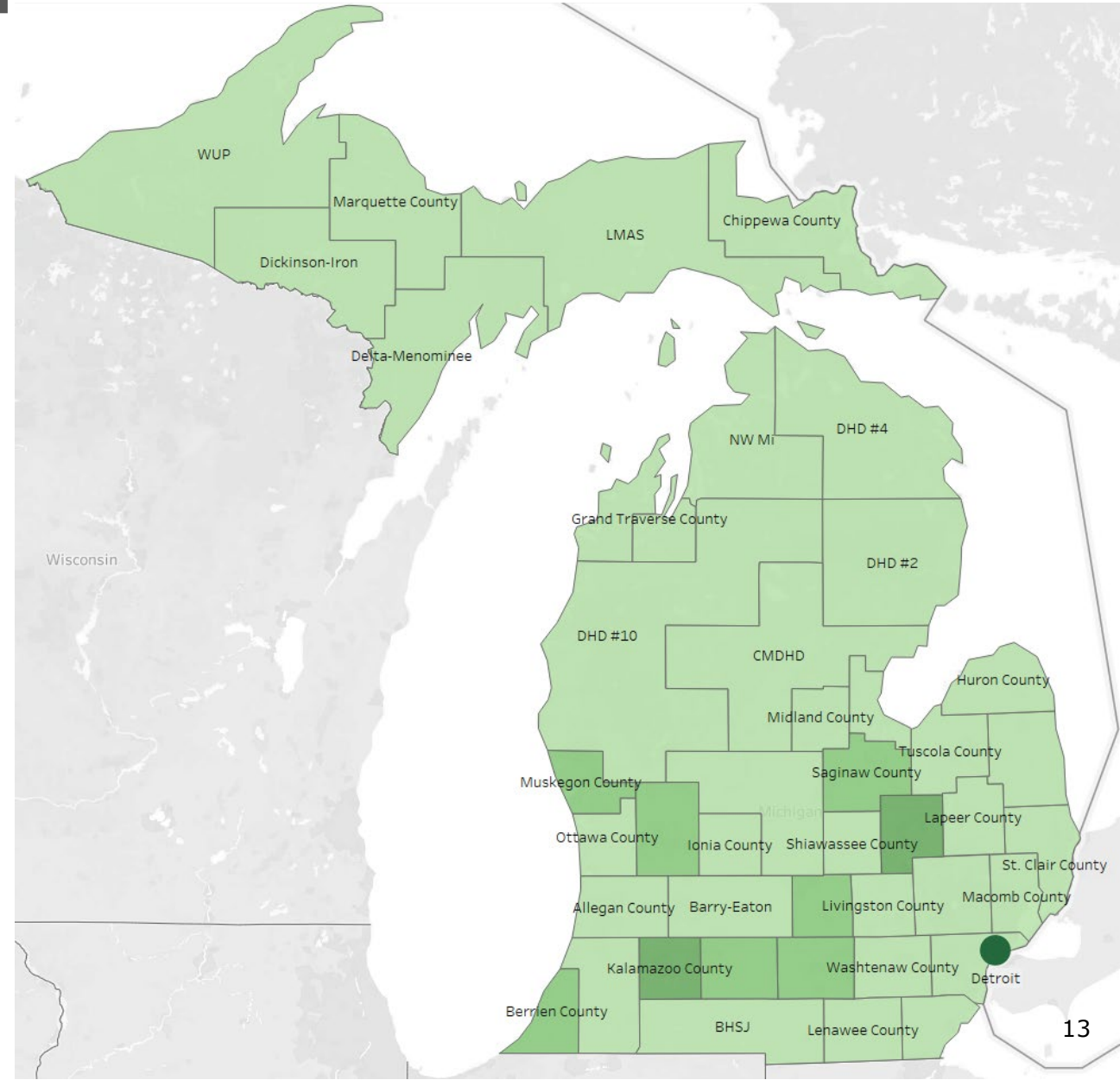
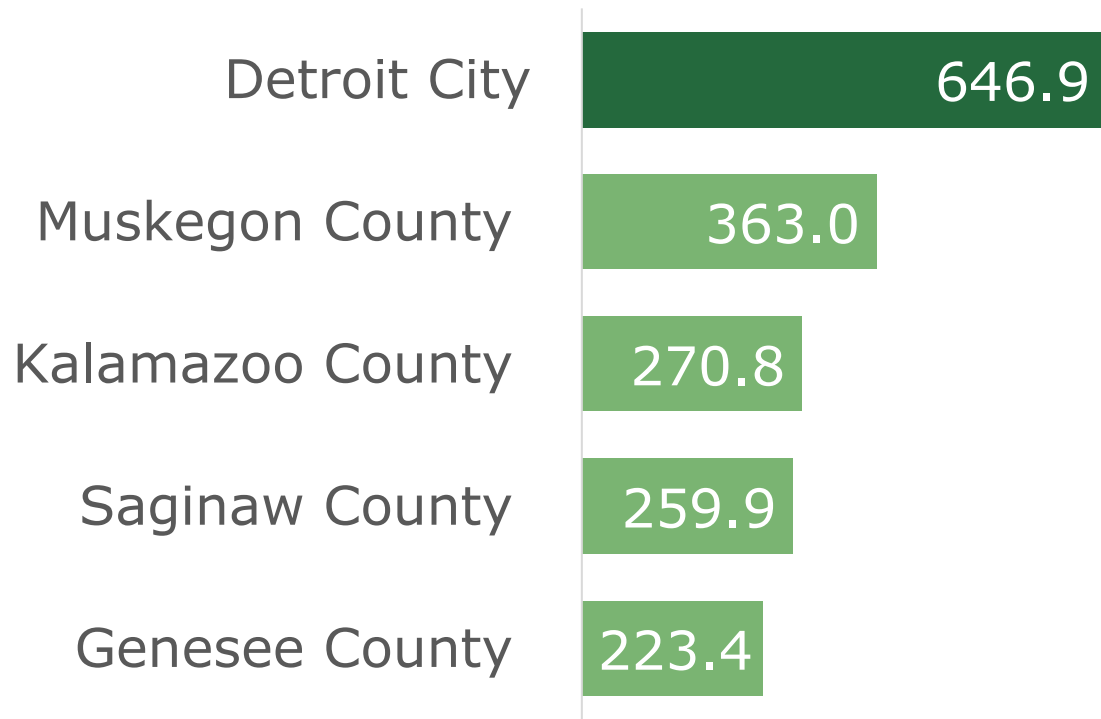
# Gonorrhea Trends – Geographic

The five jurisdictions with the highest gonorrhea rates in 2023 have had similar trends of increases from 2014 to 2020, then drops in case rates since then, with Detroit City and Muskegon County rates increasing after 2022.



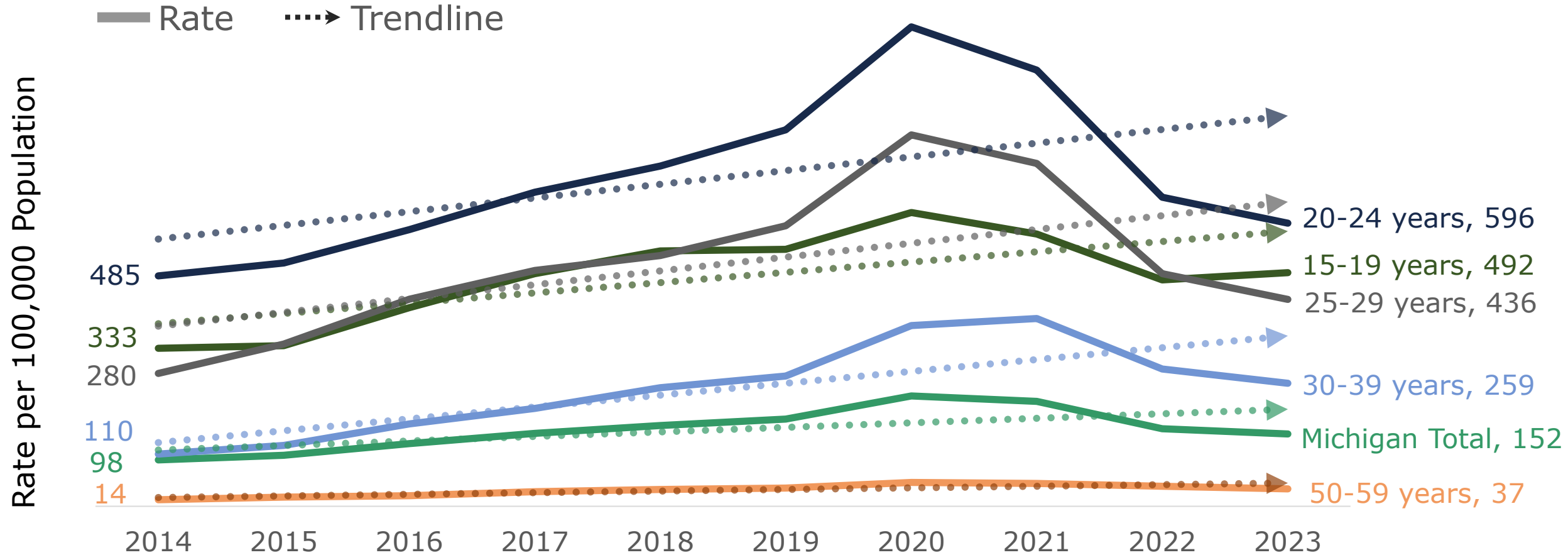
# Gonorrhea – Geographic Distribution

Five Local Health Jurisdictions with Highest Case Rate per 100,000 in 2023



# Gonorrhea Trends – Age

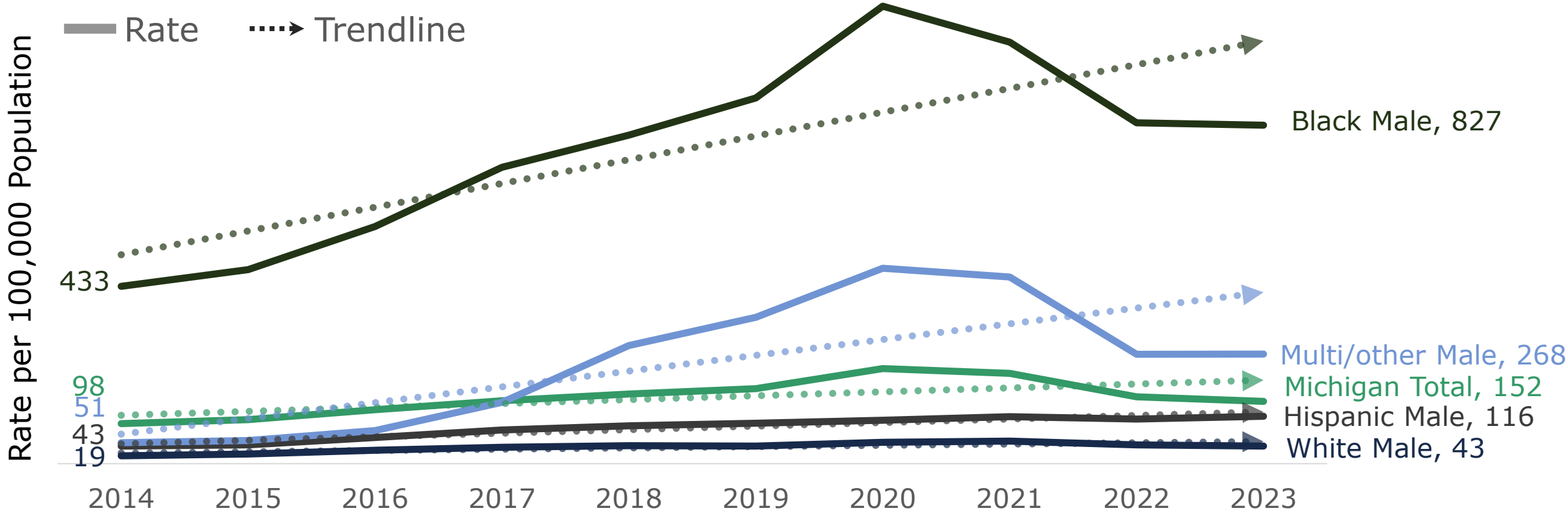
Similar gonorrhea trends have been noted across age groups.



# Gonorrhea Trends - Men

Gonorrhea increases have been noted across racial/ethnic groups.

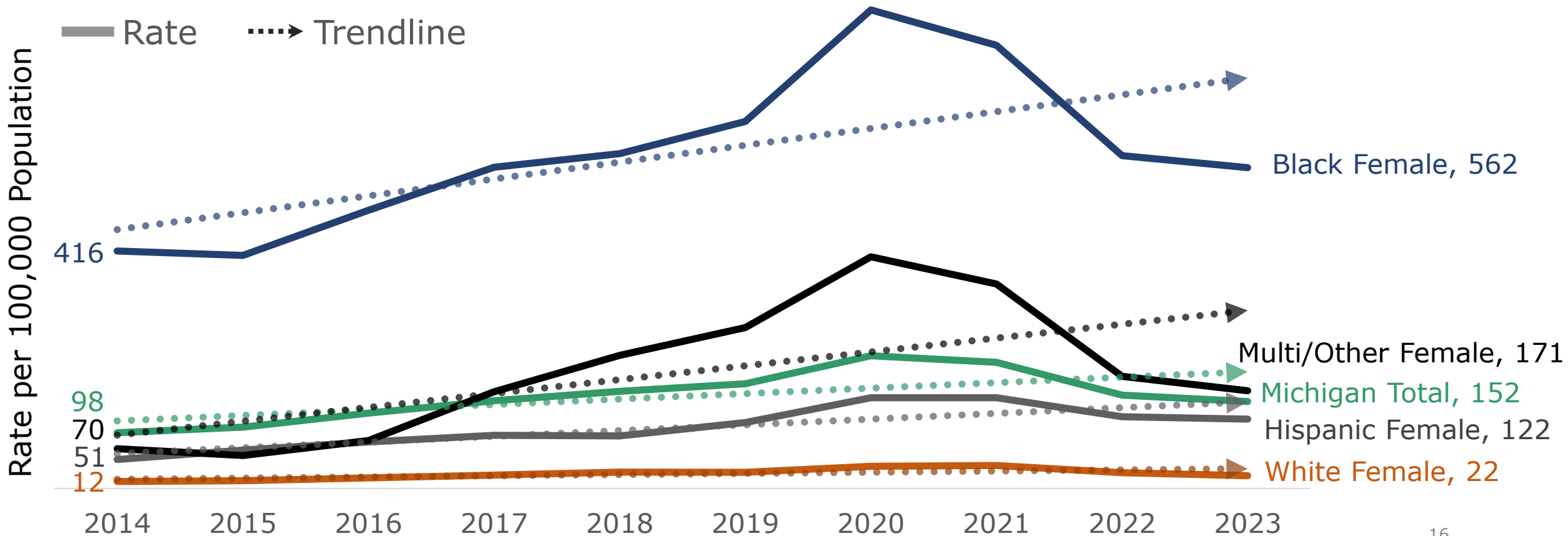
Among men, increases in diagnoses are visible in all racial/ethnic stratifications, but are steepest among Black men and multiracial men.



# Gonorrhea Trends - Women

Recent gonorrhea increases have been noted across racial/ethnic groups.

Among women, increases are steep for all racial and ethnic groups with large disparities across select racial identities.

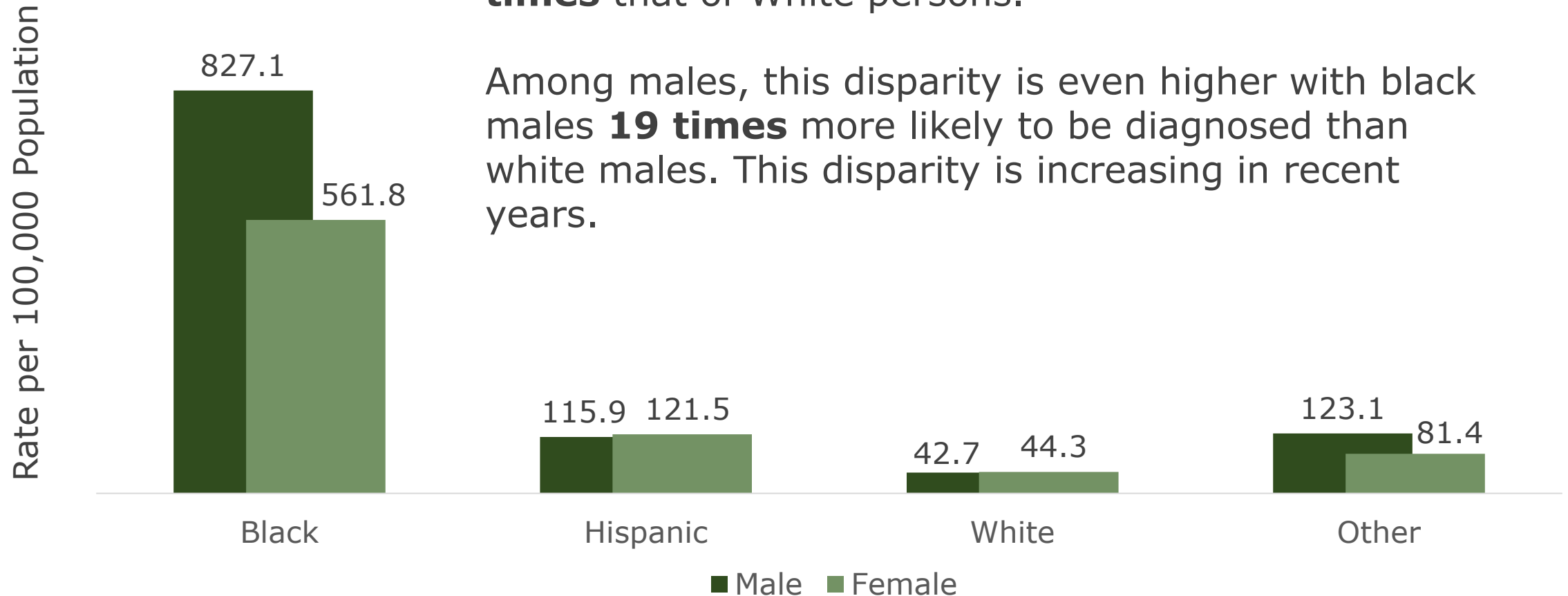




# Gonorrhea – Priority Populations

Black persons have a rate of gonorrhea that is **14 times** that of White persons.

Among males, this disparity is even higher with black males **19 times** more likely to be diagnosed than white males. This disparity is increasing in recent years.

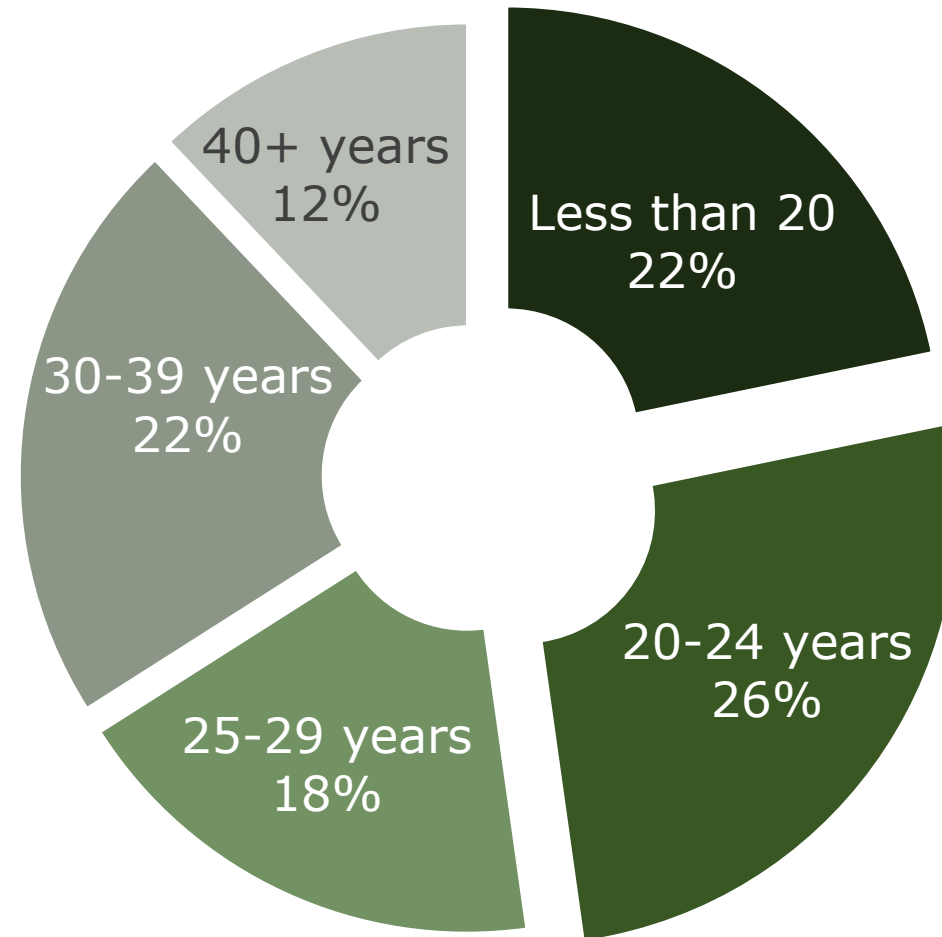


# Gonorrhea – Priority Populations

**48 percent** of gonorrhea cases were diagnosed among patients less than 25 years old.

**20–24 year-olds** have the highest gonorrhea diagnosis rate of all age groups (**596 cases per 100,000**).

**11 percent** of cases among 15–19-year-olds are re-infections.

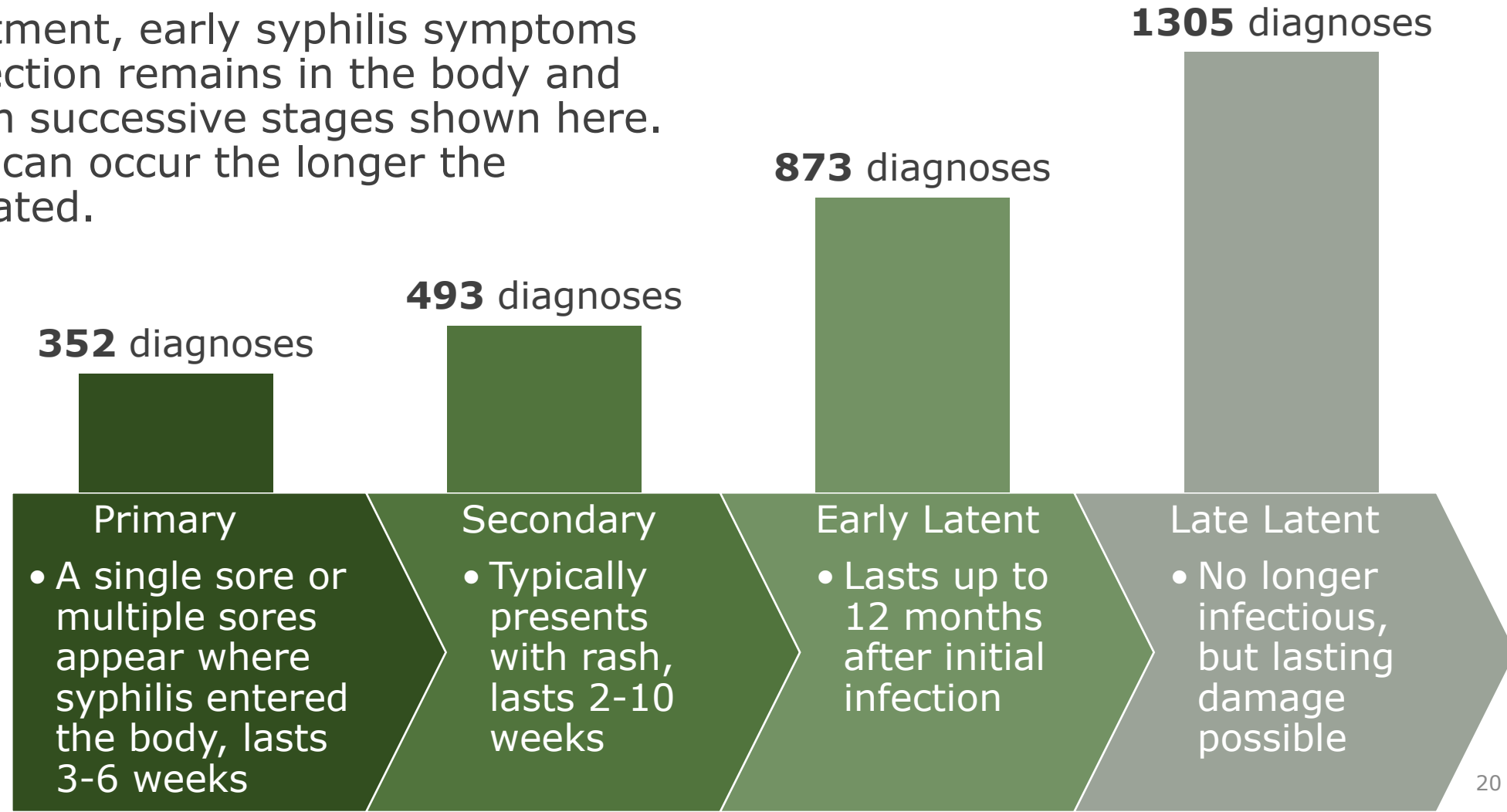


# Syphilis

# Syphilis – Stages of Infection

Without proper treatment, early syphilis symptoms will fade but the infection remains in the body and will progress through successive stages shown here. Irreparable damage can occur the longer the infection goes untreated.

P&S syphilis infections are indicators of new diagnoses. We will focus primarily on these stages throughout the remainder of the slides.



# Syphilis Manifestations

Without treatment, syphilis can spread to the brain, eyes, ears, and other nervous system tissues. This can happen during any stage of syphilis.

Of syphilis cases in 2023, **2.8 percent** had an adverse manifestation reported.

## Neurosyphilis



- **2%** of 2023 syphilis cases
- Severe headache
- Muscle weakness
- Changes to mental state

## Ocular Syphilis



- **2%** of 2023 syphilis cases
- Eye pain or redness
- Changes in vision of blindness

## Otosyphilis

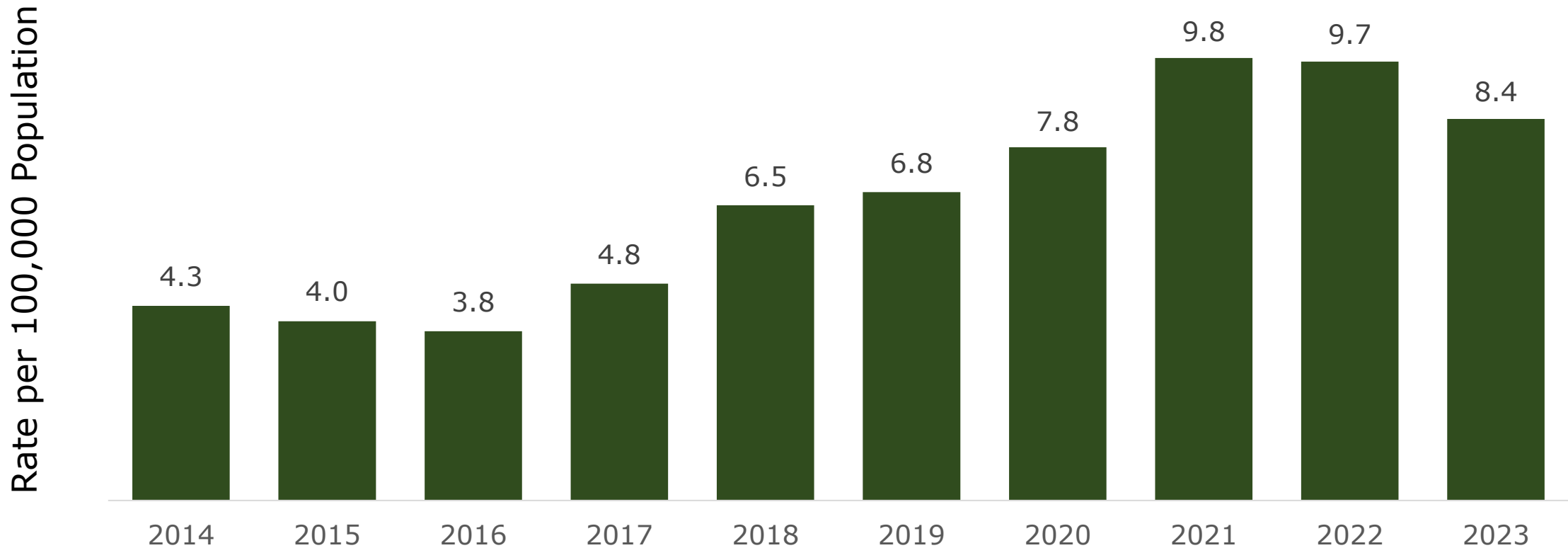


- **0.3%** of 2023 syphilis cases
- Hearing loss
- Ringing, buzzing in ear; tinnitus
- Dizziness or vertigo

# P&S Syphilis – Trends over Time

Since 2014, P&S syphilis rates have increased **12 percent** annually, on average

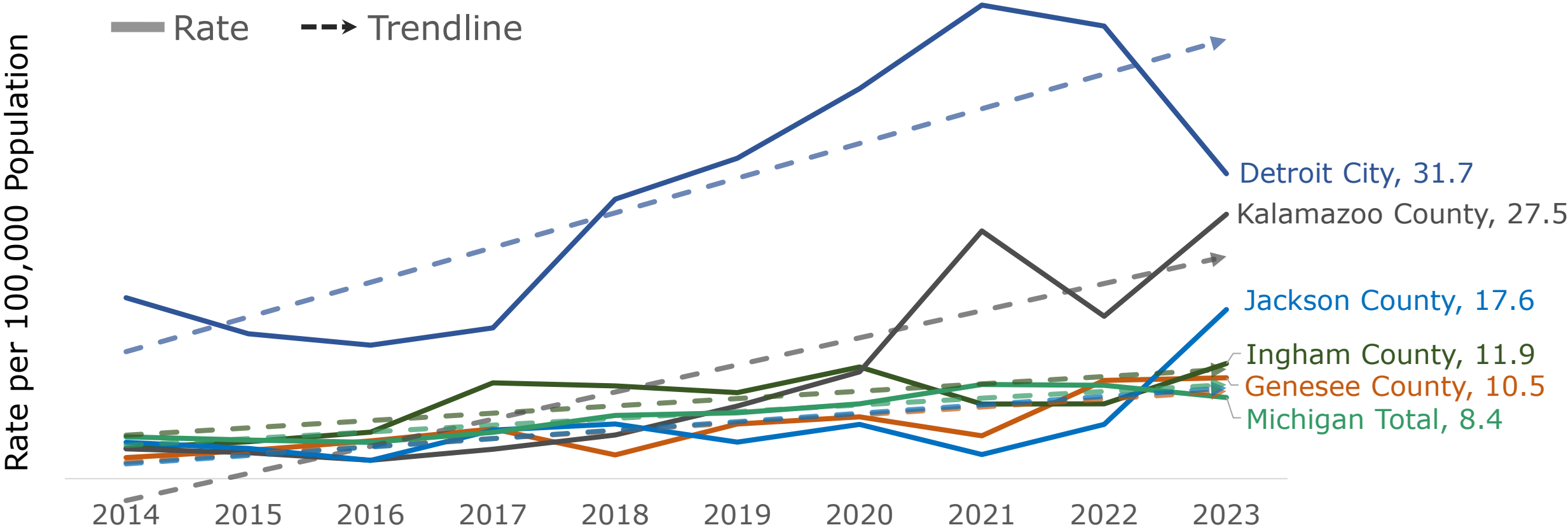
From 2020 to 2021, syphilis case rates increased **26 percent**, but from 2021 to 2023 there was a **14 percent** decrease observed in case rate.



[See full trend report here.](#)

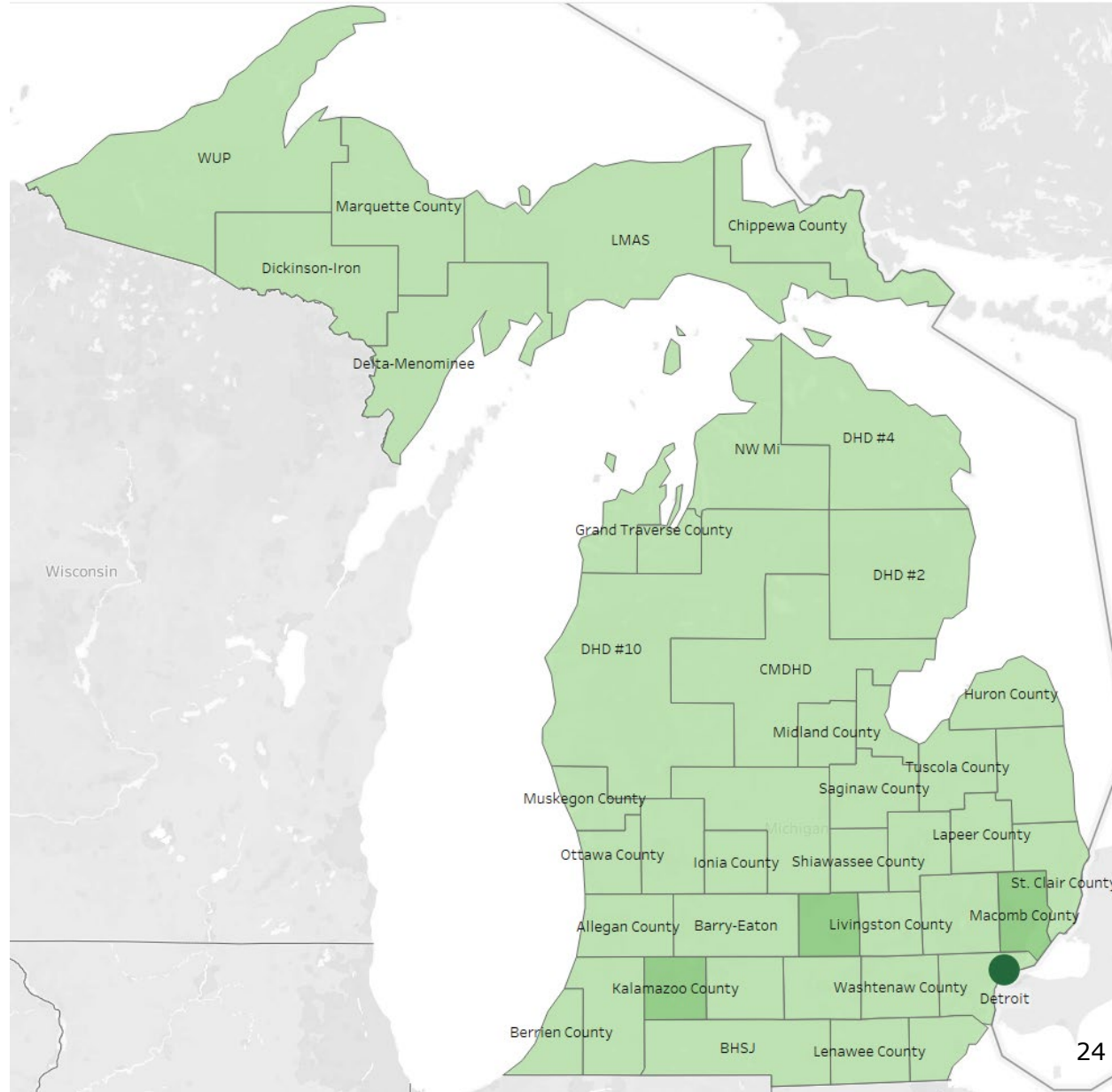
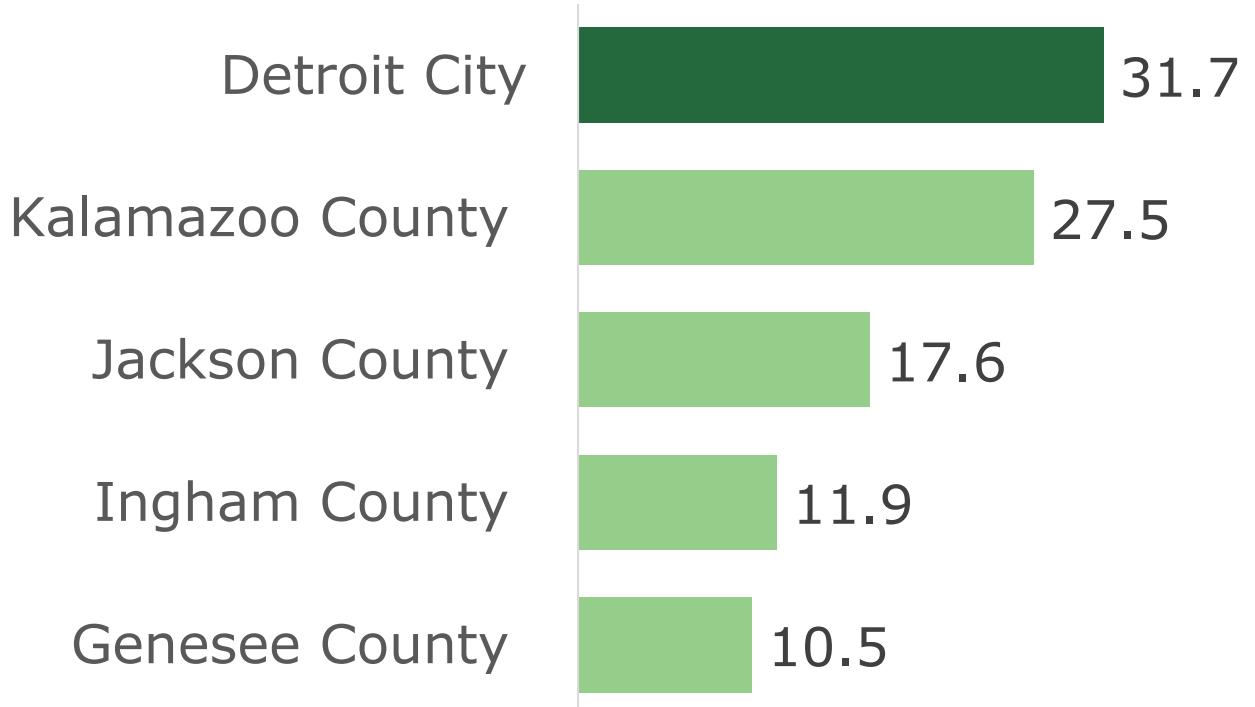
# P&S Syphilis Trends - Geographic

The five jurisdictions with the highest P&S syphilis rates in 2023 have varying shifts in case rates over time, all with an increasing trend trajectory. Detroit City had an increasing trend up to 2022, then a drop in 2023, while Kalamazoo, Jackson, and Ingham Counties experienced increases in 2023.



# P&S Syphilis – Geographic Distribution

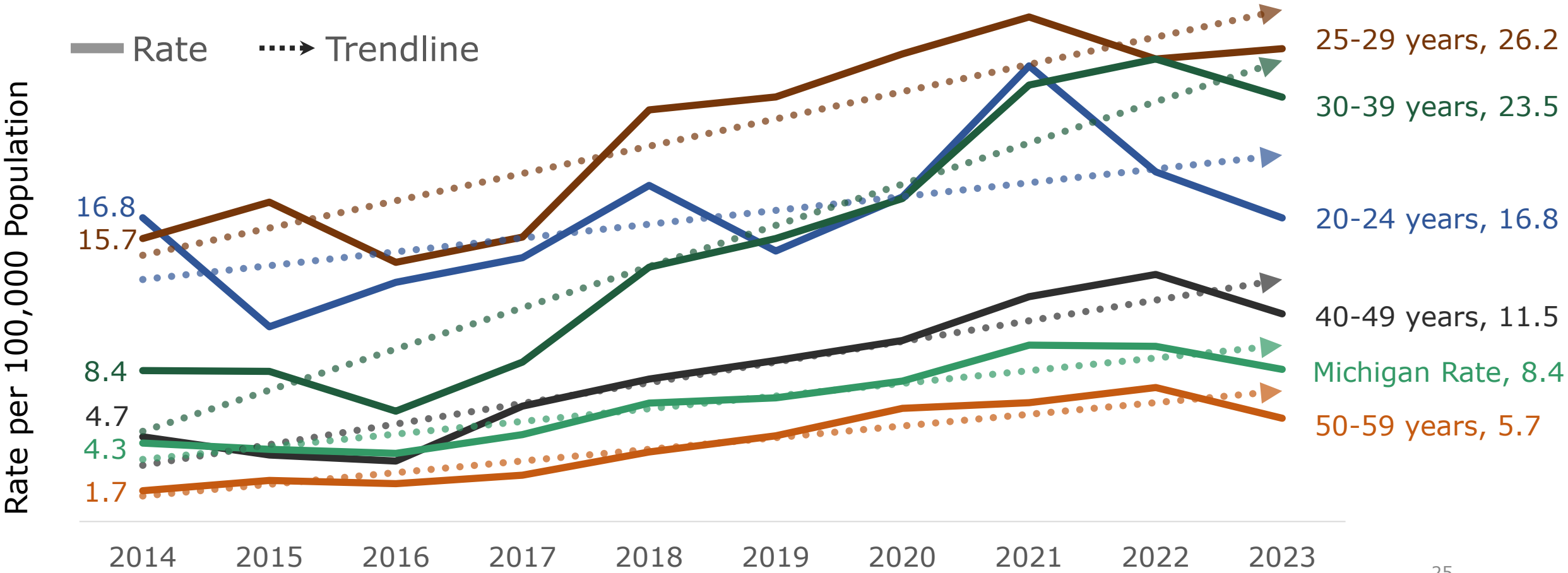
Five Local Health Jurisdictions with Highest Case Rate per 100,000 in 2023





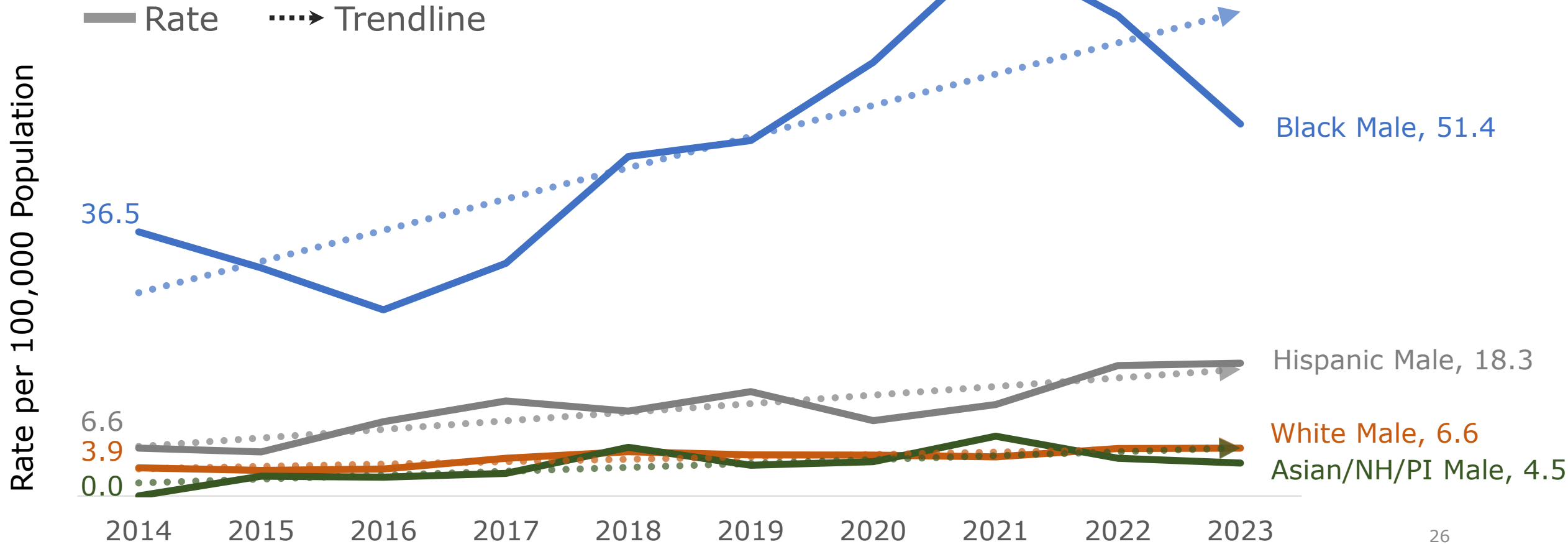
# P&S Syphilis Trends - Age

Recent syphilis increases have been noted in nearly all age groups. By age, people 20 to 39 years continue to experience the highest case rates, and differences in rates by age group are increasing.



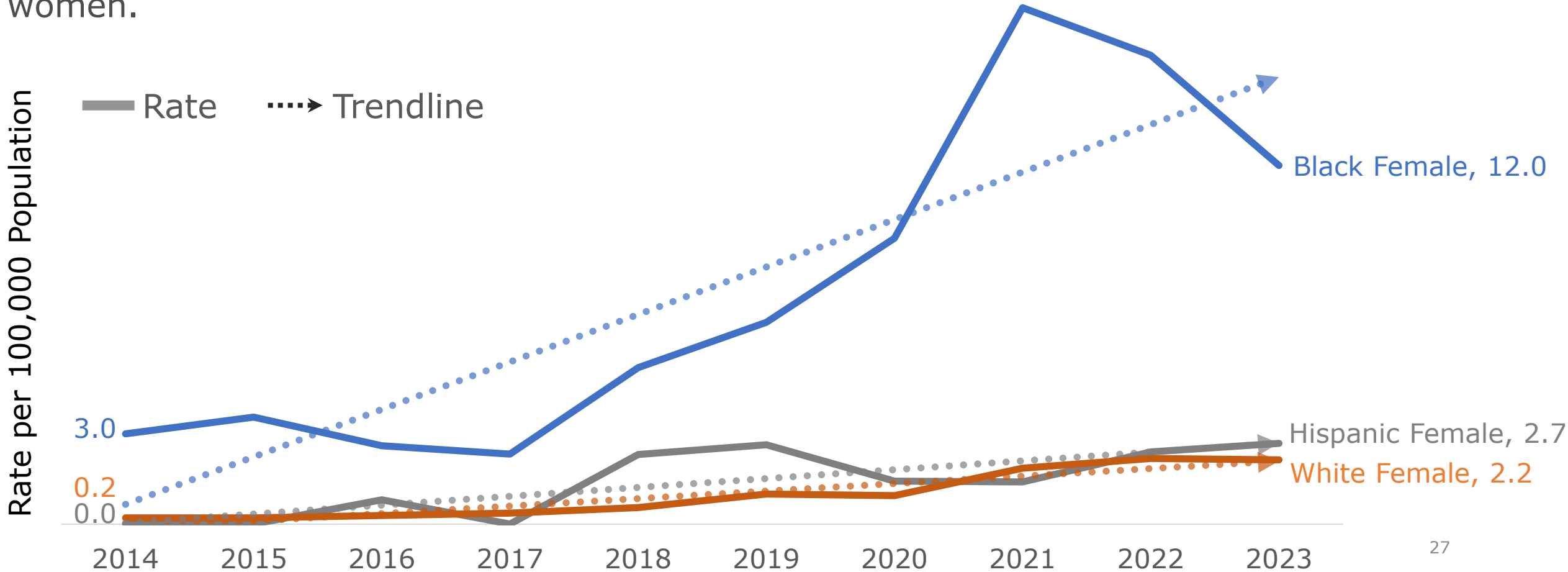
# P&S Syphilis Trends – Men

Among men, by race, significant increases have been measured for Black, Hispanic/Latino, white, and Asian/NH/PI men. There has been a widening of the disparity between Black and white men in syphilis diagnosis rates.



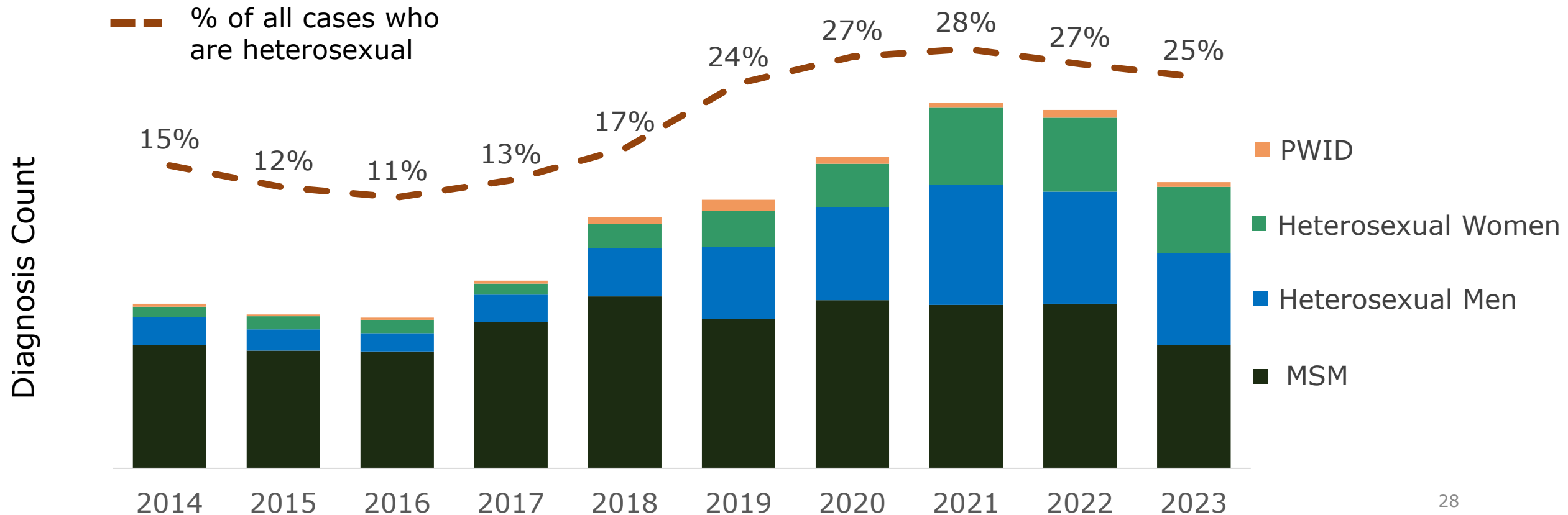
# P&S Syphilis Trends – Women

Cases among women have quadrupled in the past 5 years. Females remain less likely to be diagnosed with syphilis compared to men, but that difference is shrinking in recent years. By race, significant increases have been measured for Black, Hispanic/Latino, and white women.



# P&S Syphilis Trends – Exposure Factors

By exposure factor, cases have been increasing most significantly among people who report only heterosexual sex. Men who have sex with men (MSM) maintain the highest number of diagnoses of syphilis across exposure factors.

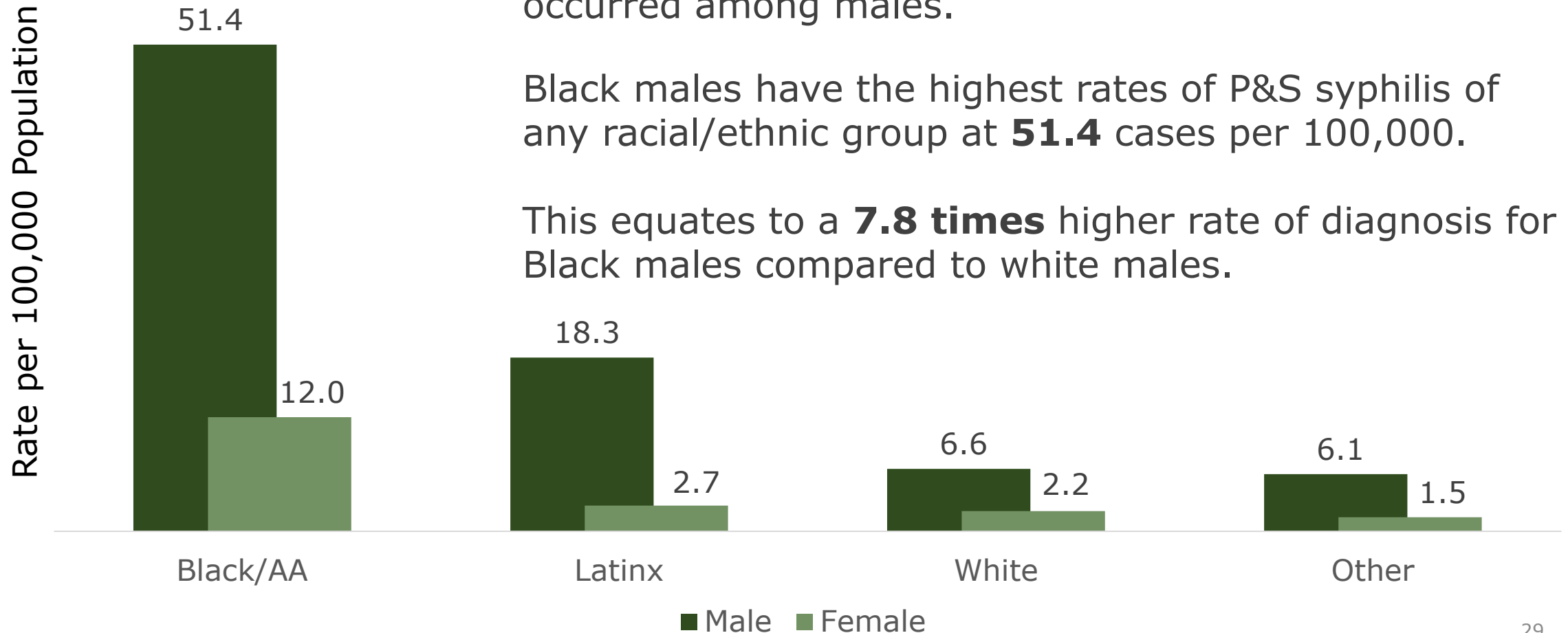


# P&S Syphilis – Priority Populations

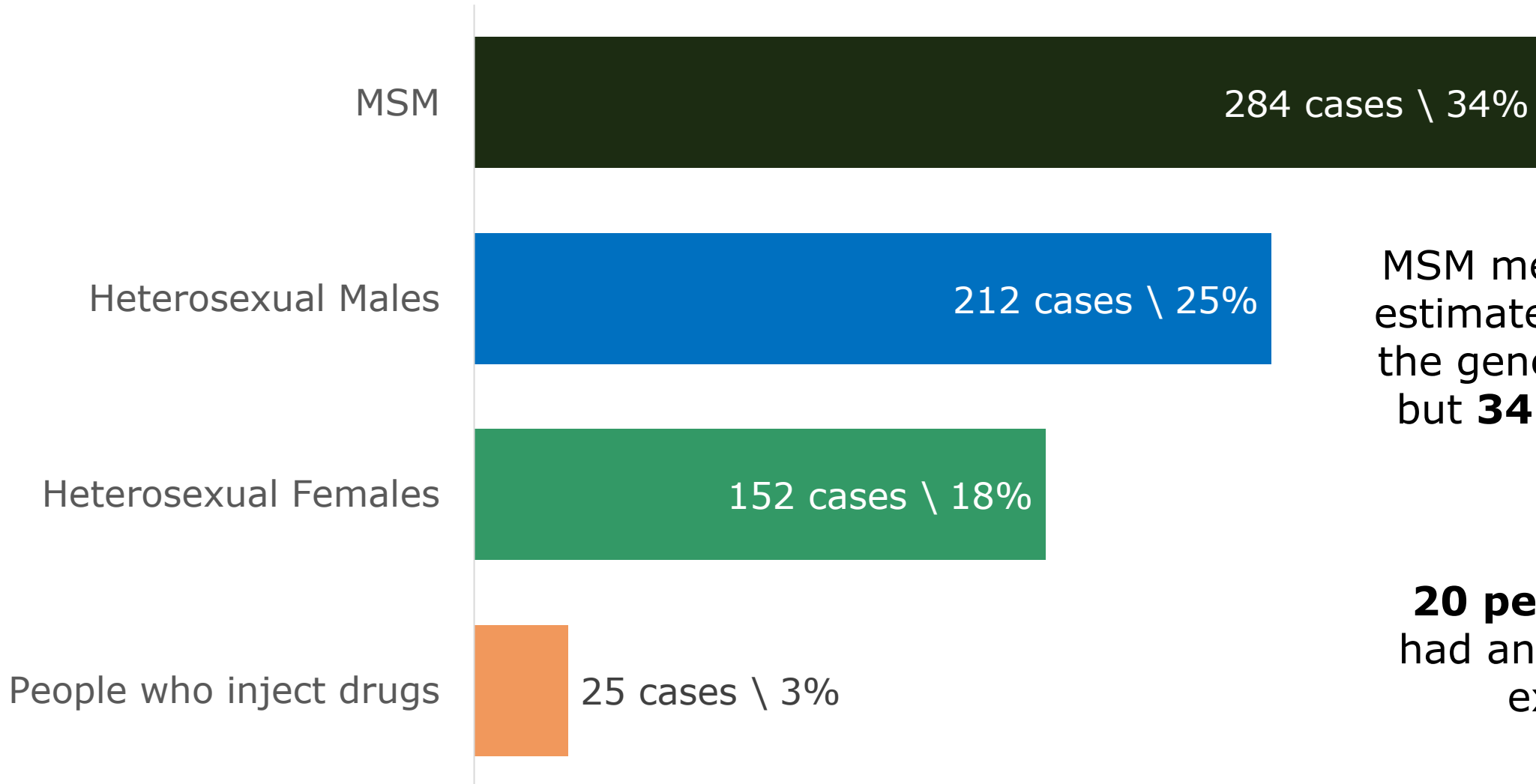
Among reported P&S syphilis cases in 2023, **71%** occurred among males.

Black males have the highest rates of P&S syphilis of any racial/ethnic group at **51.4** cases per 100,000.

This equates to a **7.8 times** higher rate of diagnosis for Black males compared to white males.



# P&S Syphilis – Priority Populations



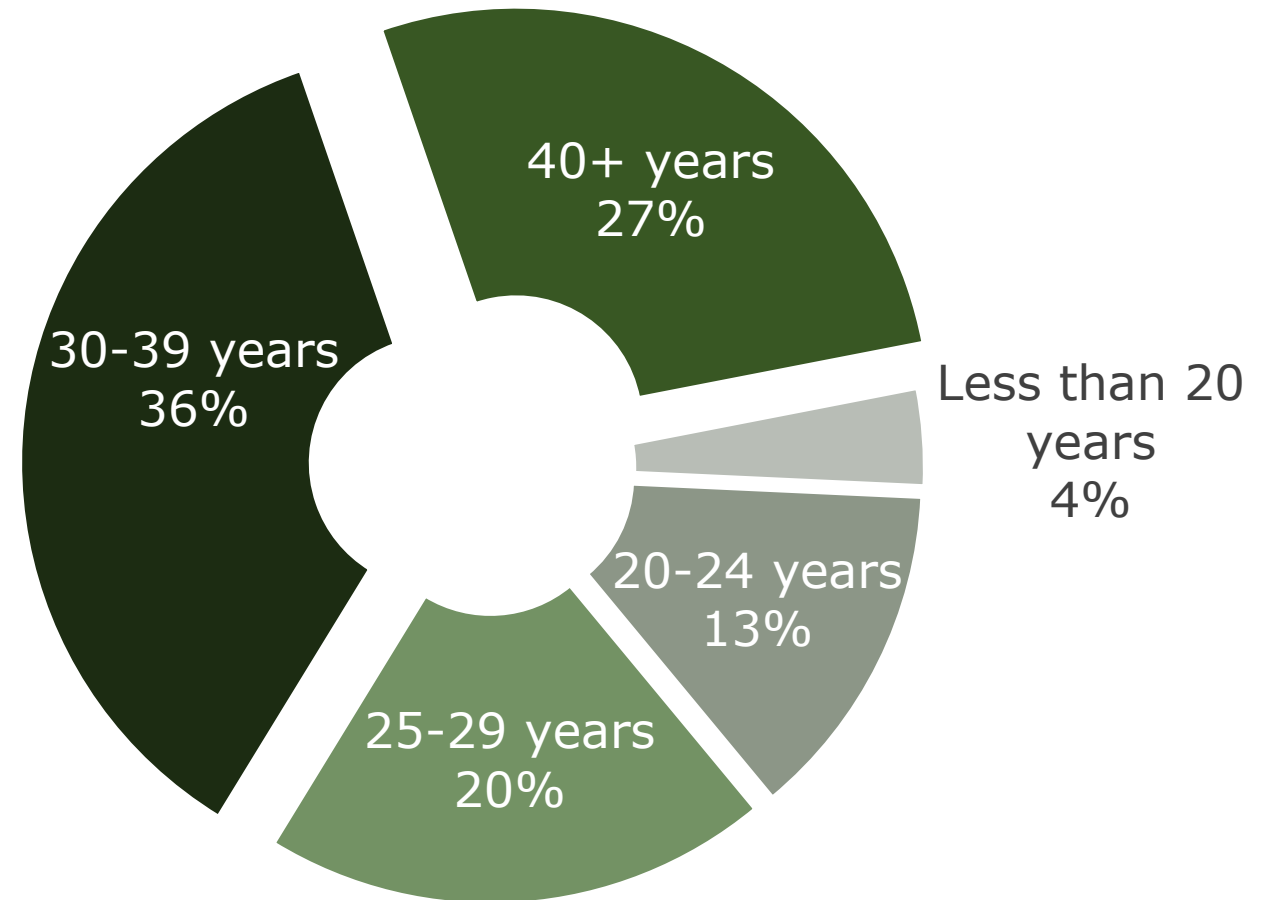
MSM men make up an estimated 6 percent of the general population but **34 percent** of all P&S syphilis diagnoses.

**20 percent** of cases had an undetermined exposure factor.

# P&S Syphilis – Priority Populations

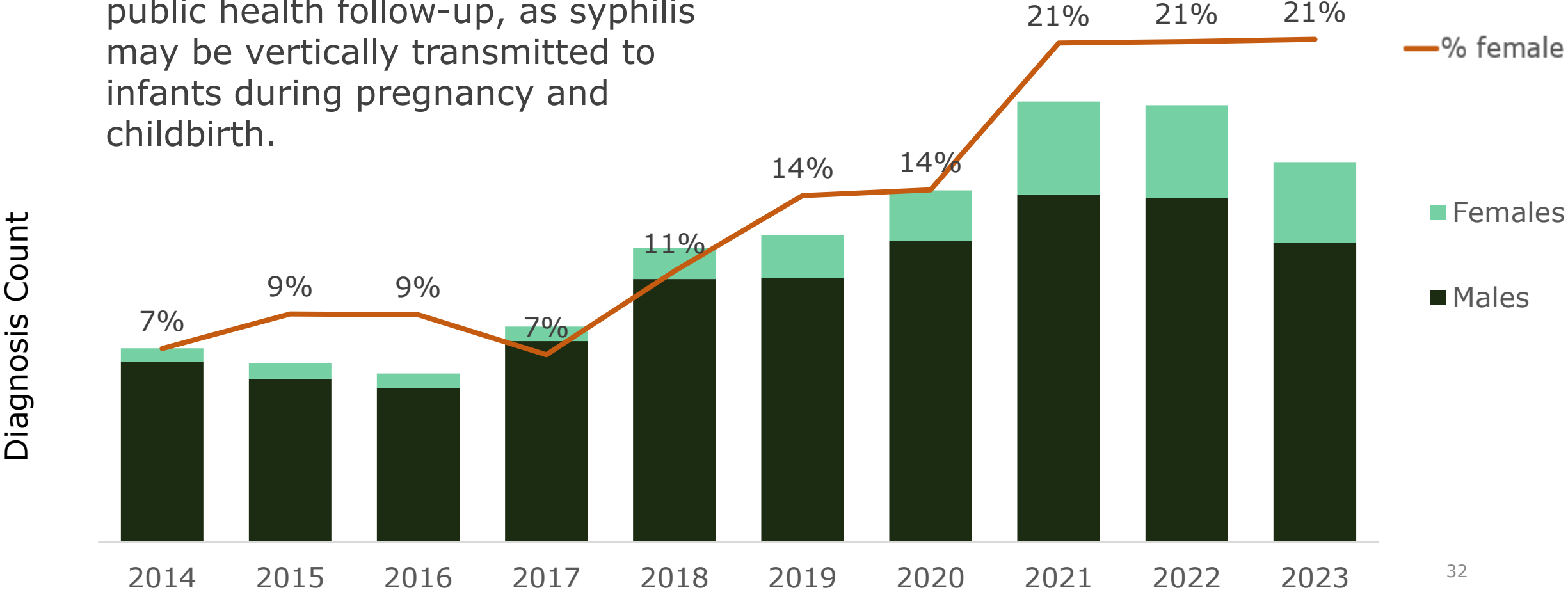
Less than **20 percent** of syphilis cases were diagnosed among patients less than 25 years old.

**Over half** of reported P&S syphilis diagnoses in 2023 were  $\geq 30$  years old.



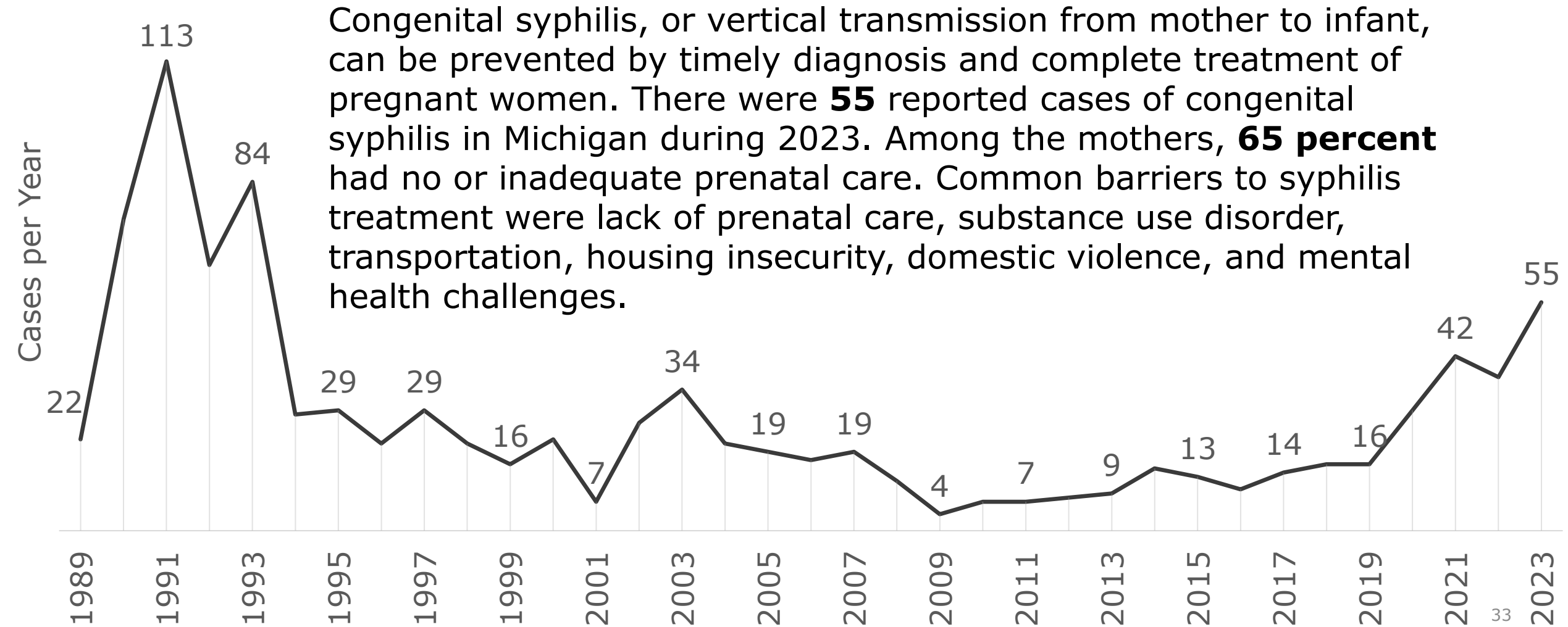
# P&S Syphilis and Women

Women of childbearing age (13-45) remain a priority population for public health follow-up, as syphilis may be vertically transmitted to infants during pregnancy and childbirth.



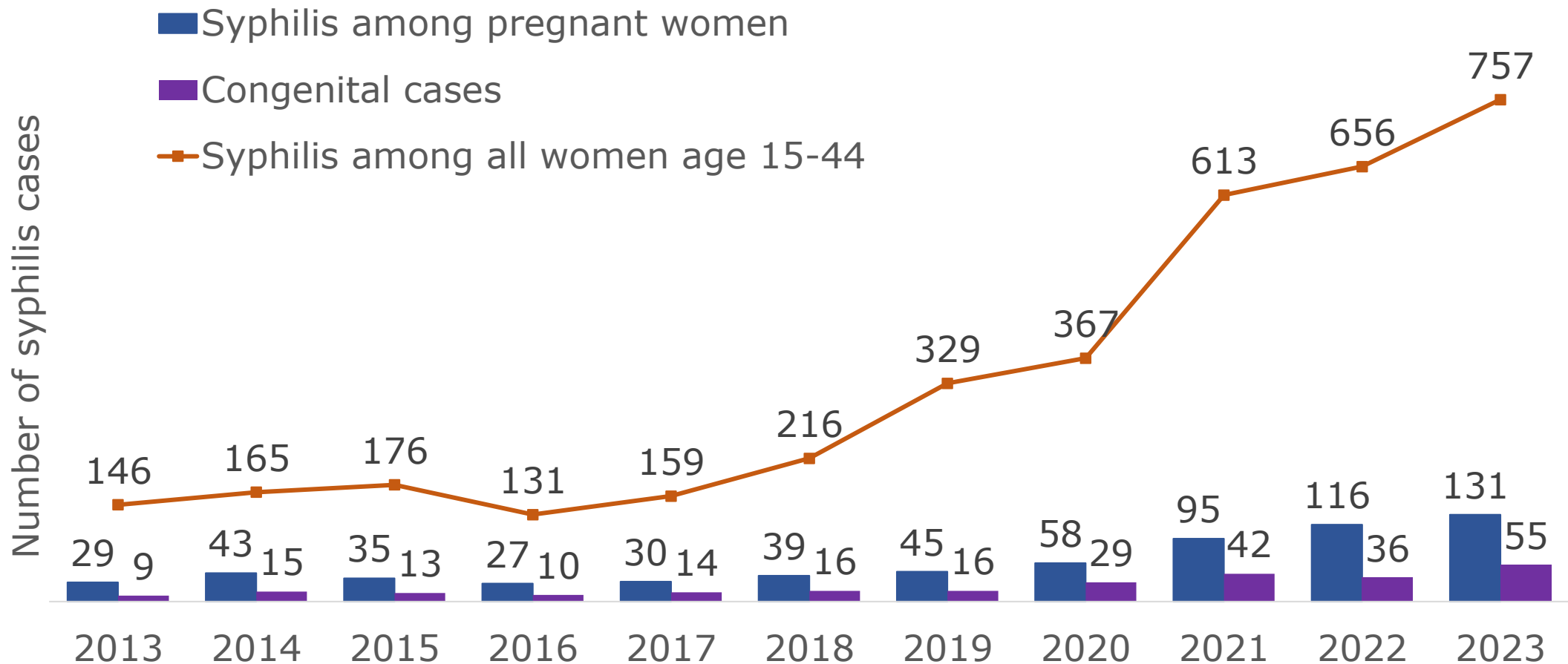


# Congenital Syphilis



# Maternal and Infant Syphilis Trend

Since 2018, syphilis has increased in parallel among all women (250%), pregnant women (236%), and for congenital syphilis births (244%).



For questions on using these data or for additional data, submit requests to:

[www.Michigan.gov/SHOARS](http://www.Michigan.gov/SHOARS)