

STI Annual Diagnoses and Trends – 2021

Data as of July 1, 2022



Michigan Department of Health & Human Services

GRETCHEN WHITMER, GOVERNOR | ELIZABETH HERTEL, DIRECTOR

Reportable Conditions

Chlamydia	Gonorrhea	Syphilis
Caused by bacteria <i>Chlamydia trachomatis</i>	Caused by bacteria <i>Neisseria gonorrhoeae</i>	Caused by bacteria <i>Treponema pallidum</i>
Most people who have chlamydia have no symptoms	Possible sequelae include pelvic inflammatory disease (PID) and disseminated gonococcal infection (DGI)	Syphilis is divided into stages with different signs and symptoms; primary and secondary syphilis present with symptoms
Serovariants of chlamydia can cause lymphogranuloma venereum (LGV)	Antibiotics have successfully treated gonorrhea for several decades; however, the bacteria has historically developed resistance to various drug types	Without treatment, syphilis can spread, causing manifestations such as neurosyphilis, ocular or otic syphilis, or death
Treatable by azithromycin or doxycycline	Treatable by ceftriaxone (updated recommended dosage)	Treatable by benzathine penicillin or doxycycline

Reference and more information at <https://www.cdc.gov/std>

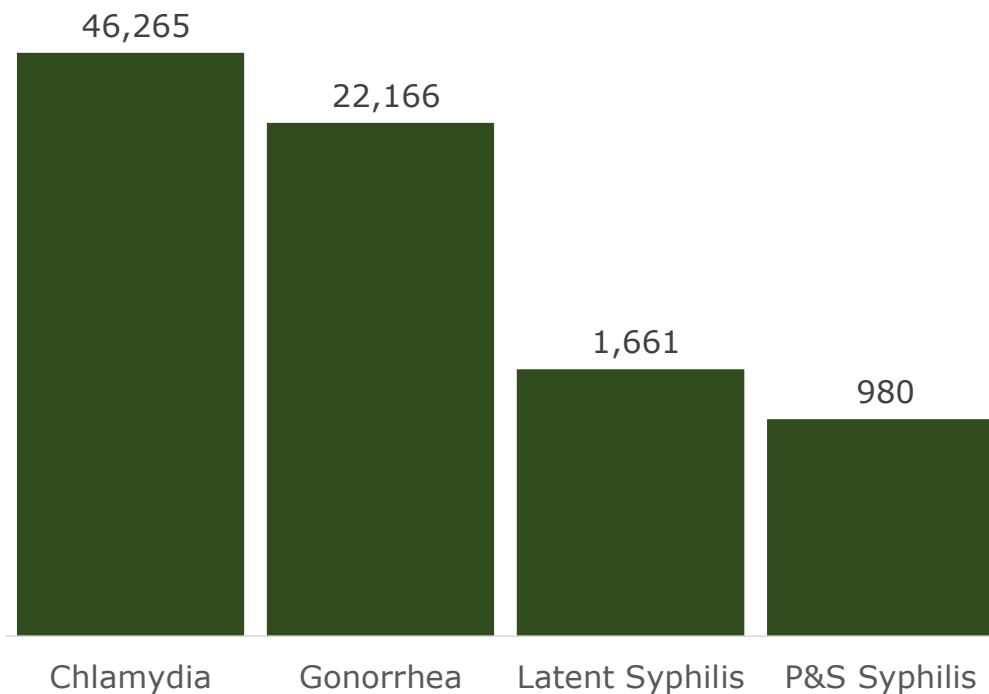
Reportable Conditions

(less common)

Lymphogranuloma venereum	Chancroid	Granuloma inguinalae
Caused by a serovariant of the bacteria <i>Chlamydia trachomatis</i>	Caused by bacteria <i>Hemophilus ducreyi</i>	Caused by bacteria <i>Klebsiella granulomatis</i>
Symptoms range and most commonly include painful inflammation in the rectum (known as proctitis)	Usually presents as one or more genital ulcers that bleed on contact	A disease of the skin and mucous membranes in the genital area, often with granuloma lesions
Most recent cases in Michigan are among men who have sex with men with multiple partners	Rare in the U.S., more common in tropical countries. No cases reported in Michigan in 2019	This is rare in the U.S.; no cases were reported in Michigan in 2019
Treatable by long doses of doxycycline	Treatable by either ceftriaxone or azithromycin	Treatable by doxycycline

Reference and more information at <https://www.cdc.gov/std>

2021 STI Diagnoses at a glance



	Diagnoses Count	Rate* per 100,000
Chlamydia	46,265	464.2
Gonorrhea	22,166	222.4
Latent Syphilis	1,661	16.7
P&S Syphilis	980	9.8

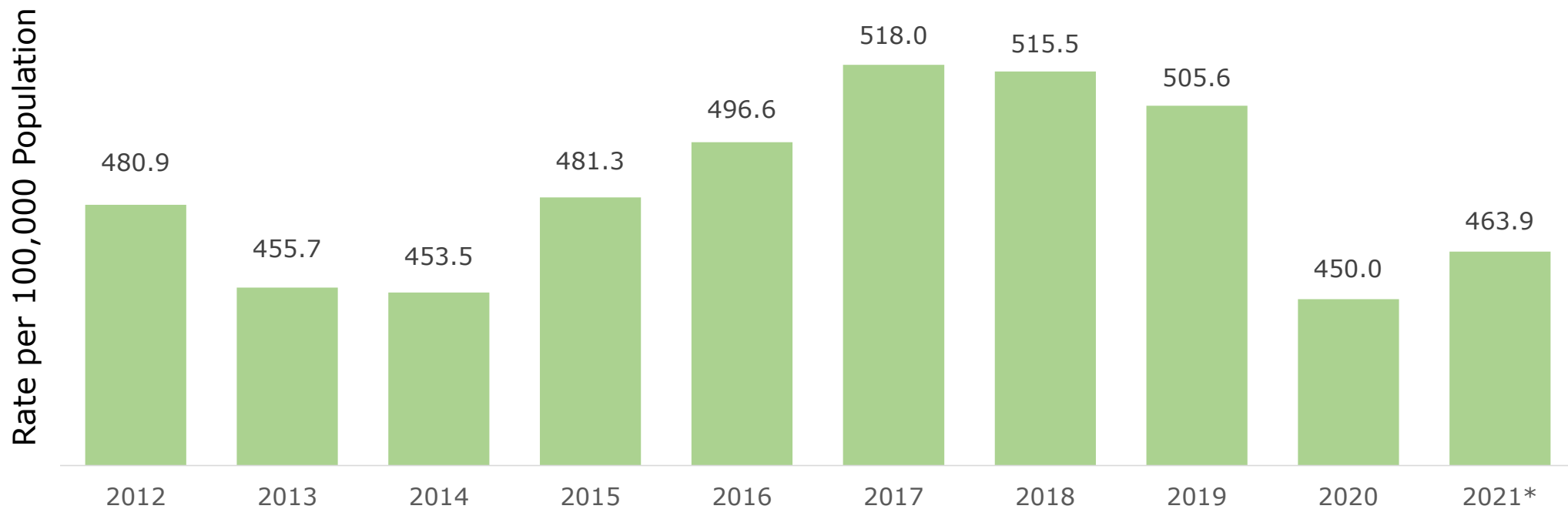
Includes probable and confirmed cases reported in the Michigan Disease Surveillance System (MDSS)

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

*2021 rates were calculated with 2020 census estimates

Chlamydia – Trends over Time

There has been no significant trend in chlamydia rates in the past 10 years.



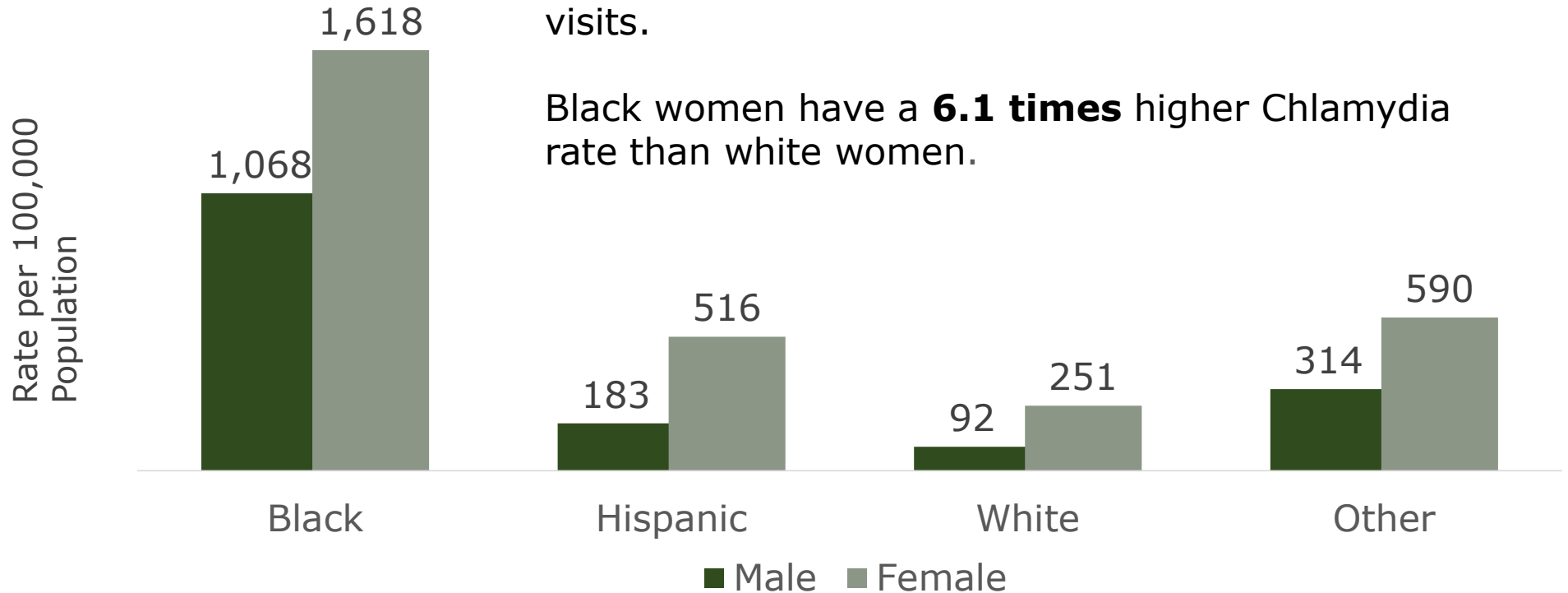
[See full trend report here.](#)

*2021 rates were calculated with 2020 census estimates

Chlamydia – Priority Populations

Women make up **66 percent** of Chlamydia cases, largely due to increased screening during routine visits.

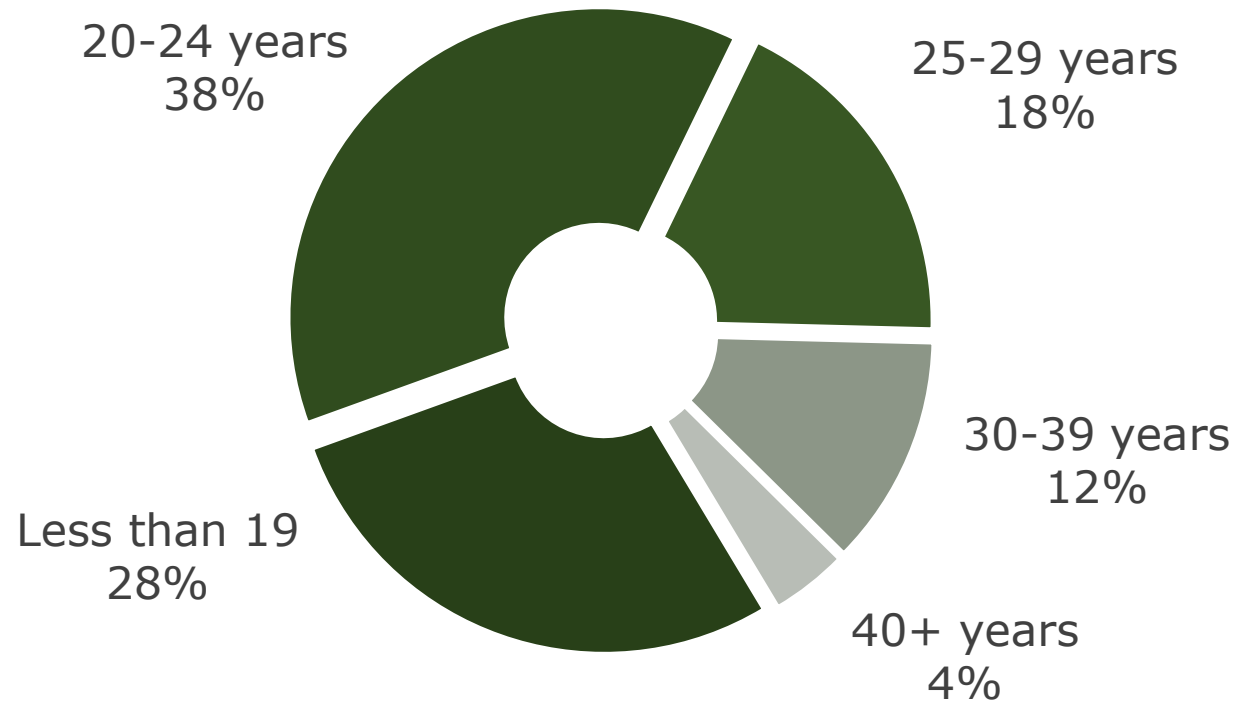
Black women have a **6.1 times** higher Chlamydia rate than white women.



Chlamydia – Priority Populations

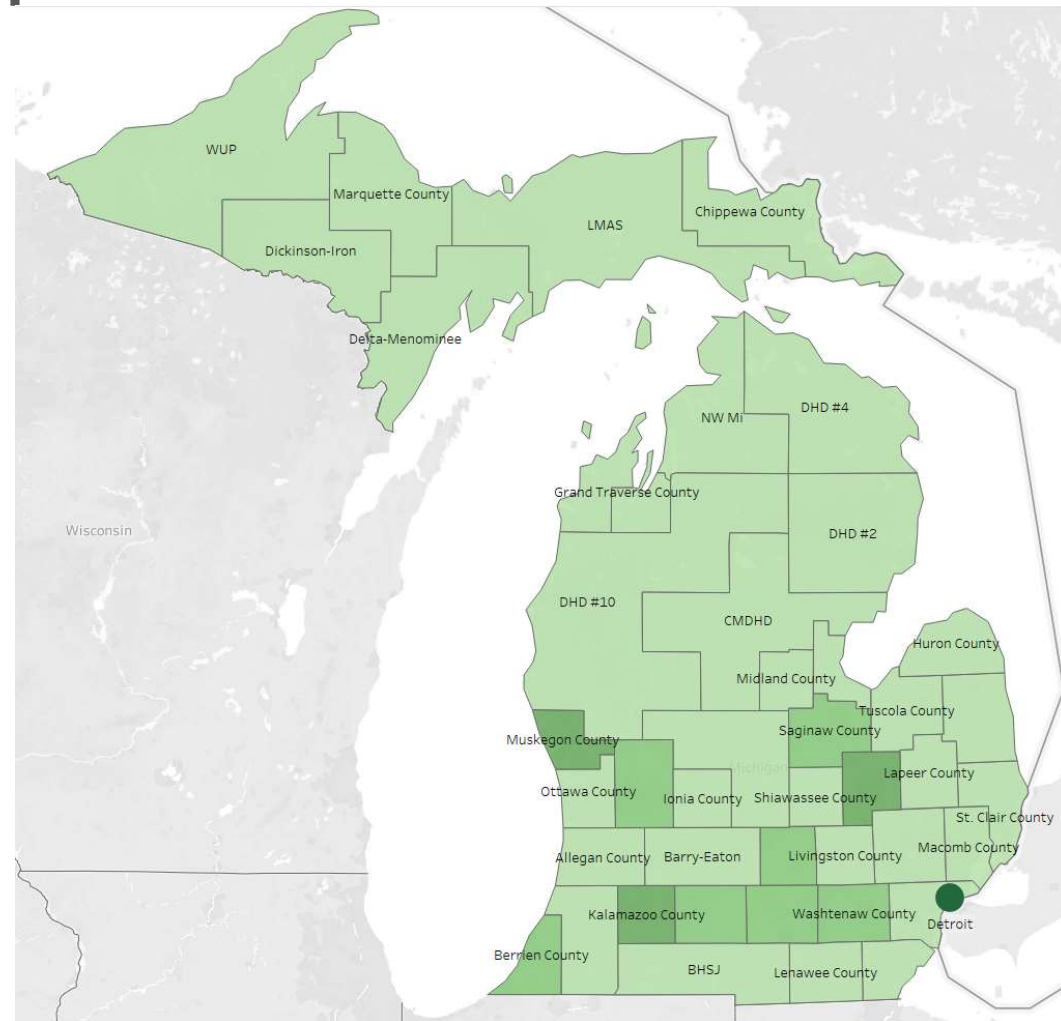
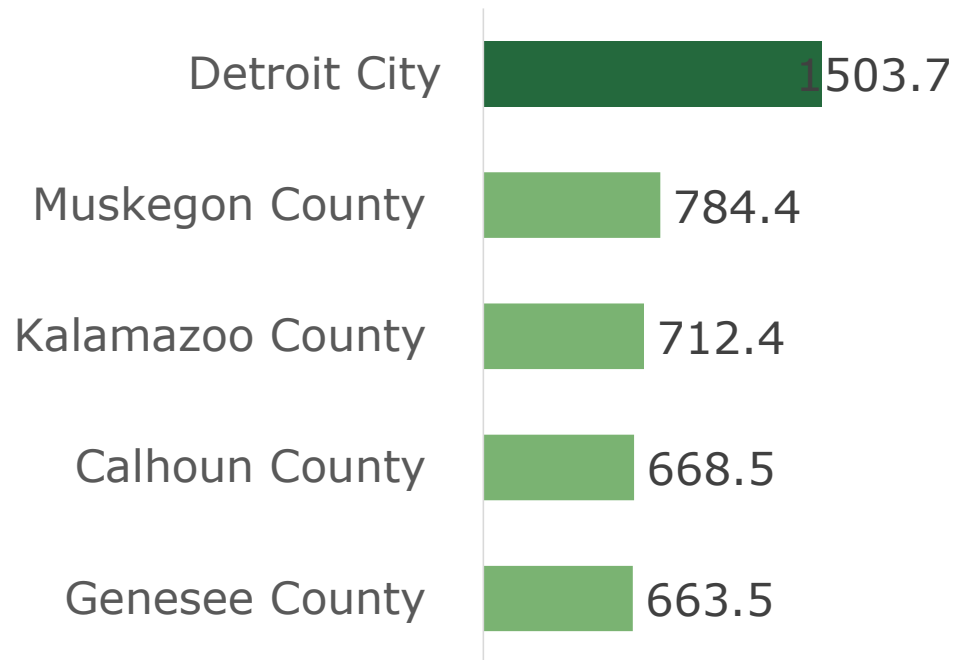
66 percent of Chlamydia cases were diagnosed among patients less than 25 years old.

These young people have more than **10 times** higher risk of chlamydia diagnosis.



Chlamydia – Geographic Distribution

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



Chlamydia–Gonorrhea Coinfections

In 2021, **12%** of all chlamydia patients were co-diagnosed with gonorrhea; **27%** 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
(28% of all co-infections)



20-24 Year Olds
(33% of all co-infections)

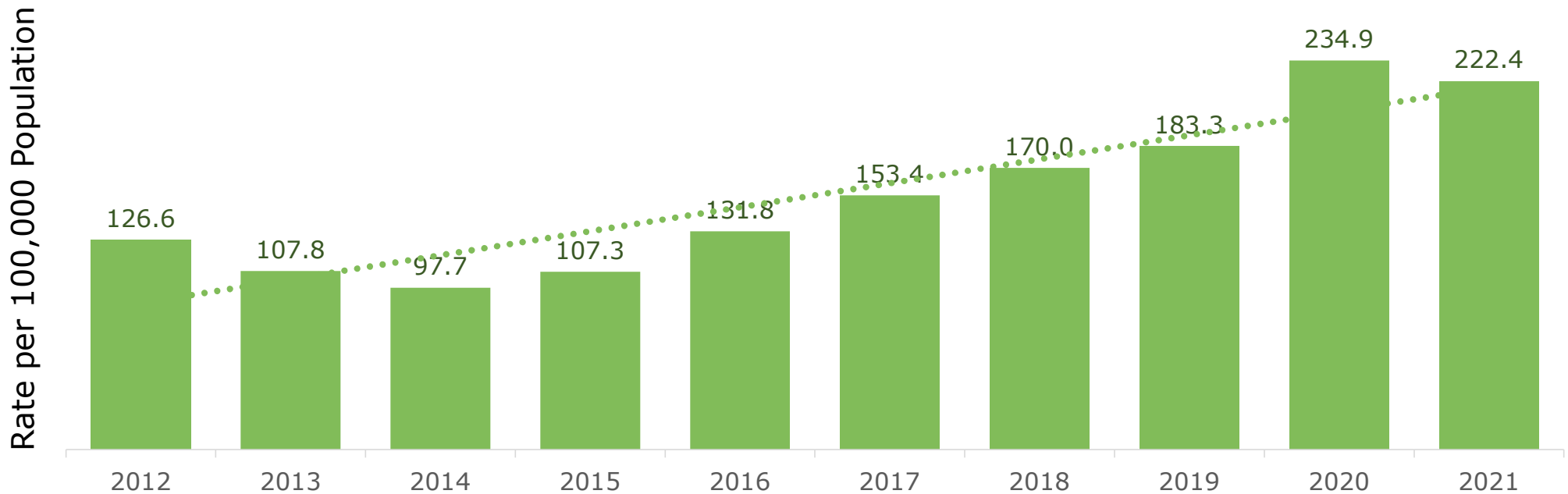


Black Women
(29% of all co-infections)

Gonorrhea – Trends over Time

Since 2012, gonorrhea rates have increased **8 percent** annually, on average

From 2019 to 2021, gonorrhea cases increased **21%**, even while testing rates went down due to the COVID-19 pandemic.

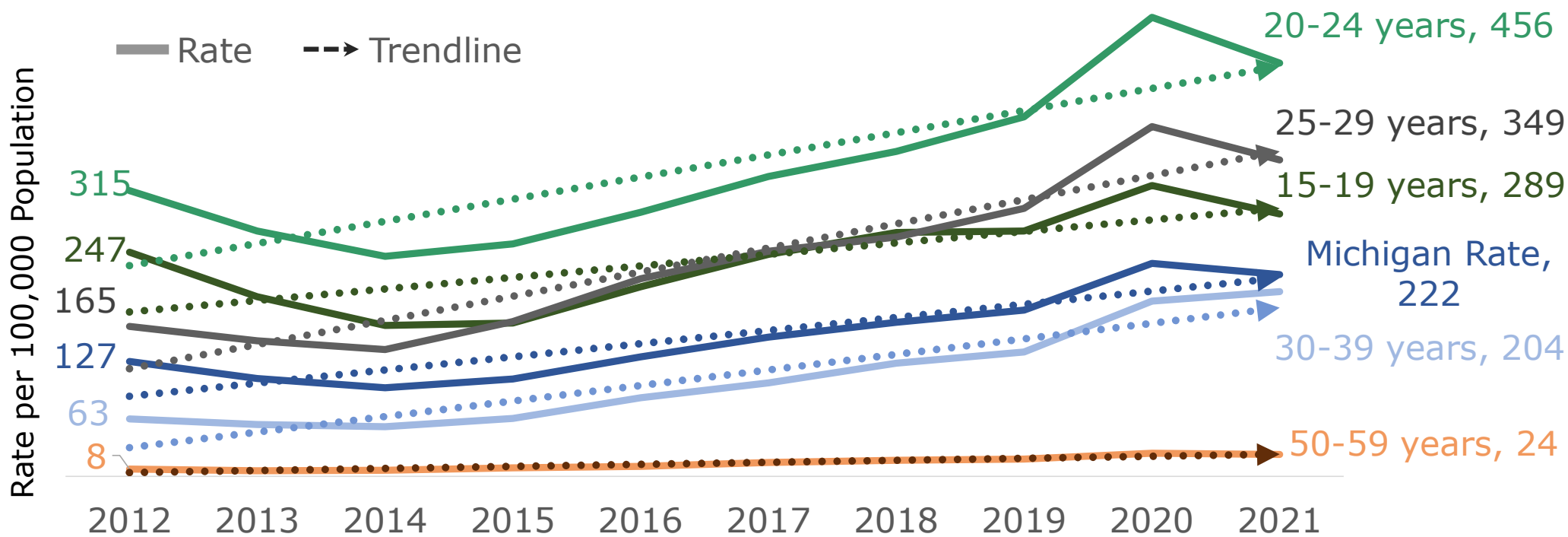


[See full trend report here.](#)

Gonorrhea Trends

Recent gonorrhea increases have been noted in nearly all measurable sub-populations.

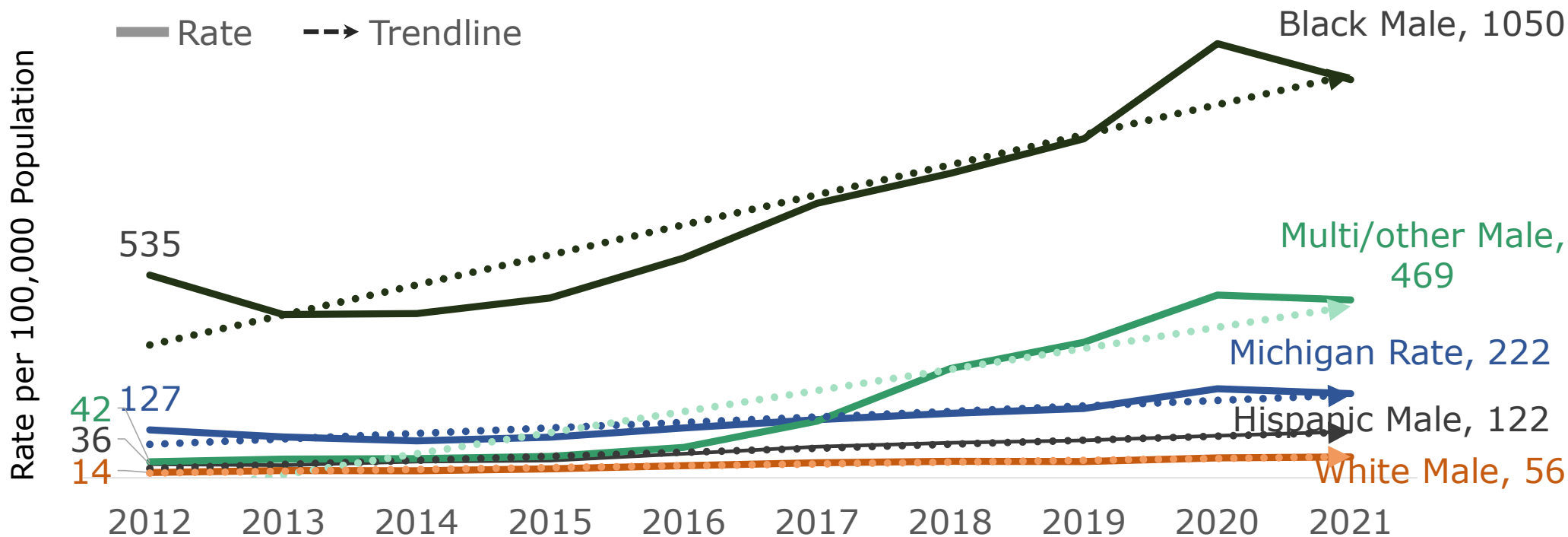
By age, people over 30 are experiencing the highest average annual increases, but people less than 30 still have much higher overall rates of diagnosis.



Gonorrhea Trends - Men

Recent gonorrhea increases have been noted in nearly all measurable sub-populations.

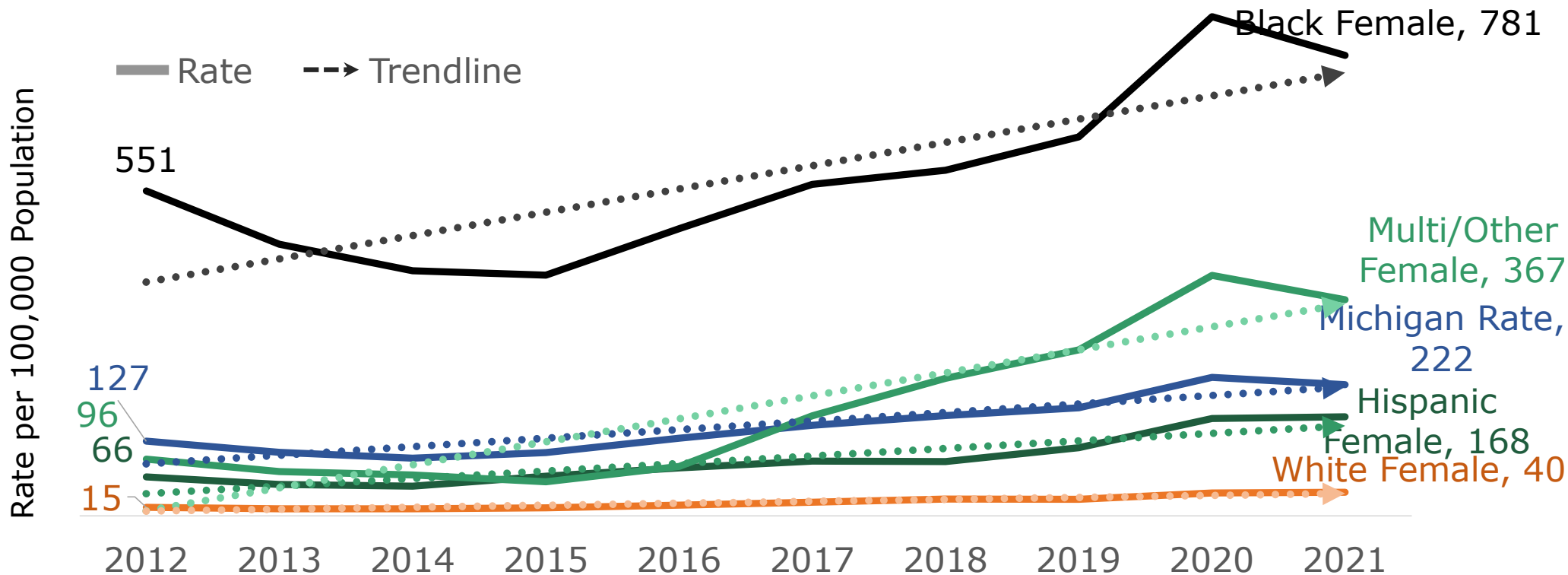
Among men, increases in diagnoses are visible in all racial/ethnic stratifications, but are steepest in Hispanic/Latinx men and multiracial men.



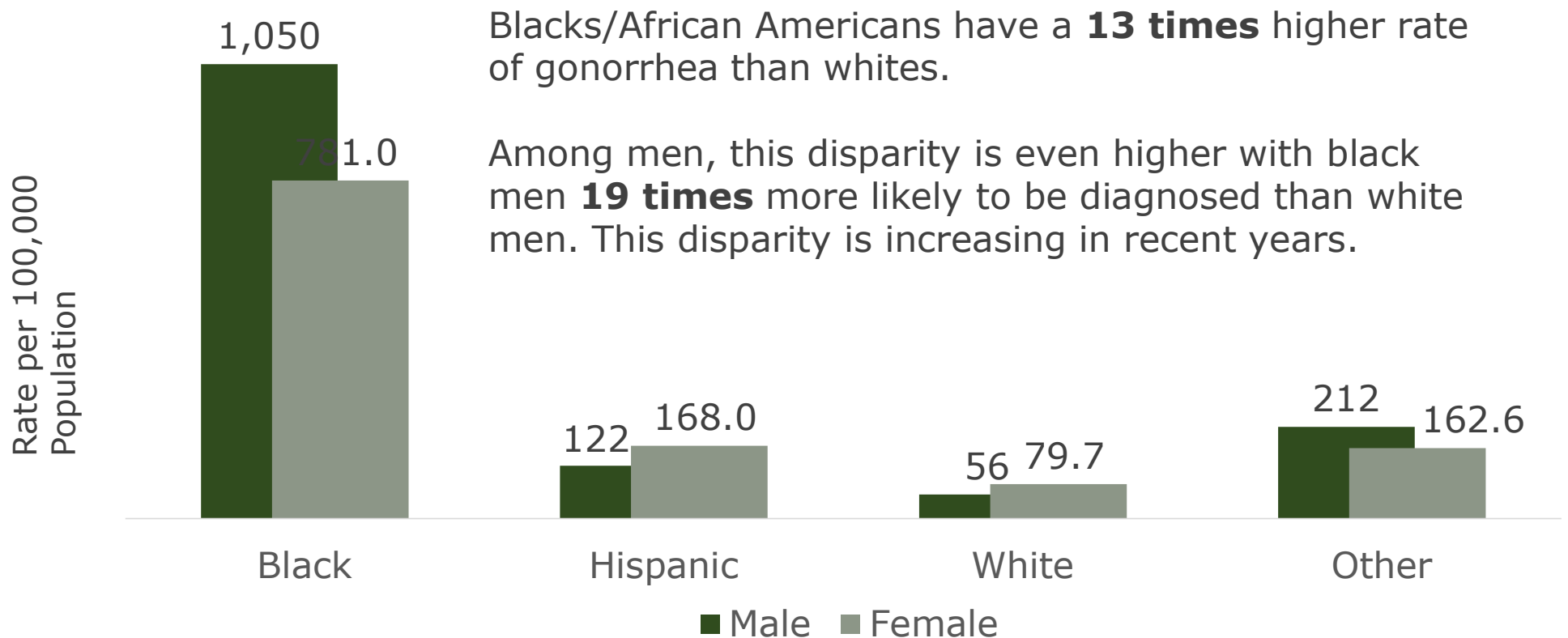
Gonorrhea Trends - Women

Recent gonorrhea increases have been noted in nearly all measurable sub-populations.

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



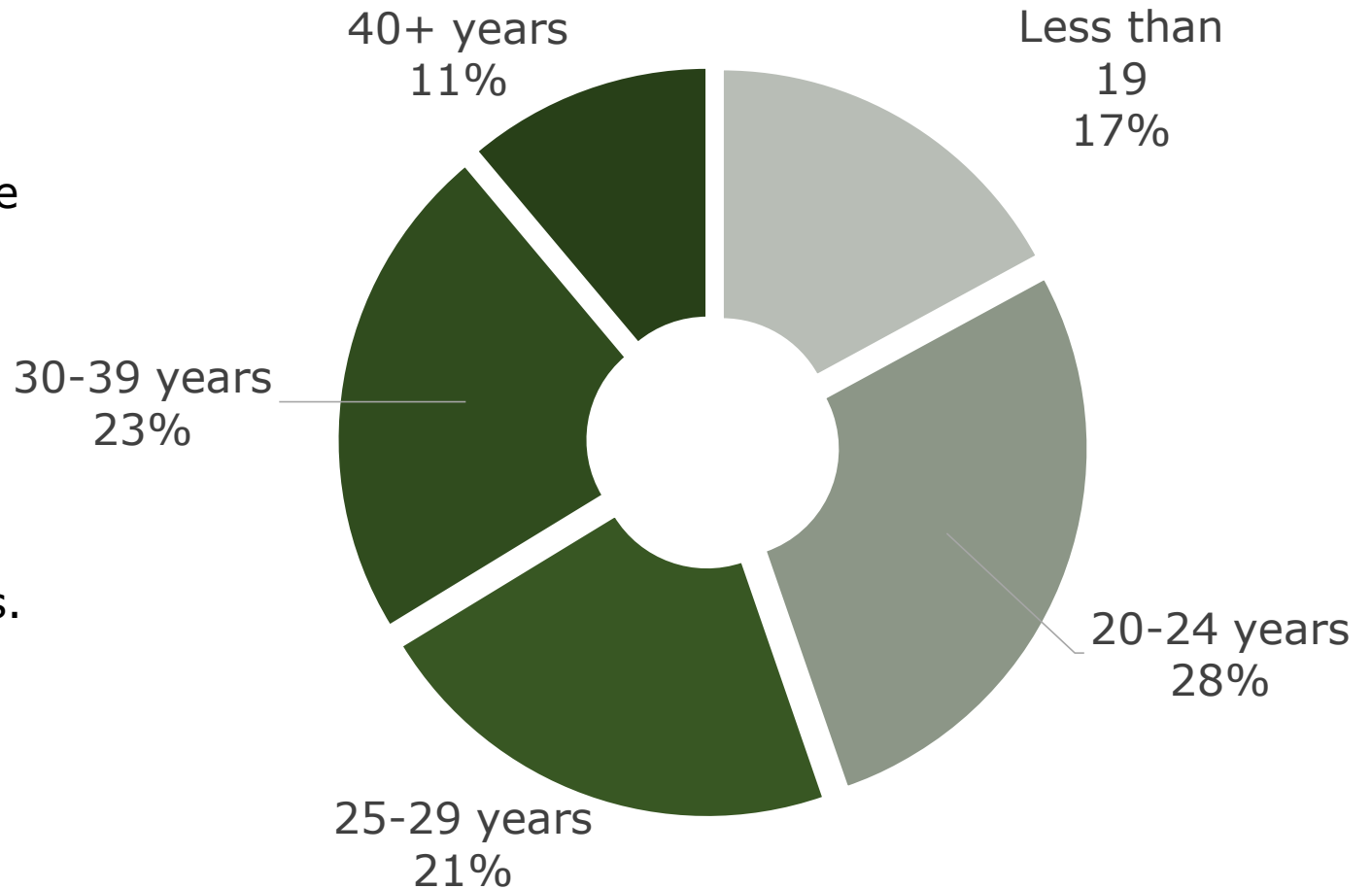
Gonorrhea – Priority Populations



Gonorrhea – Priority Populations

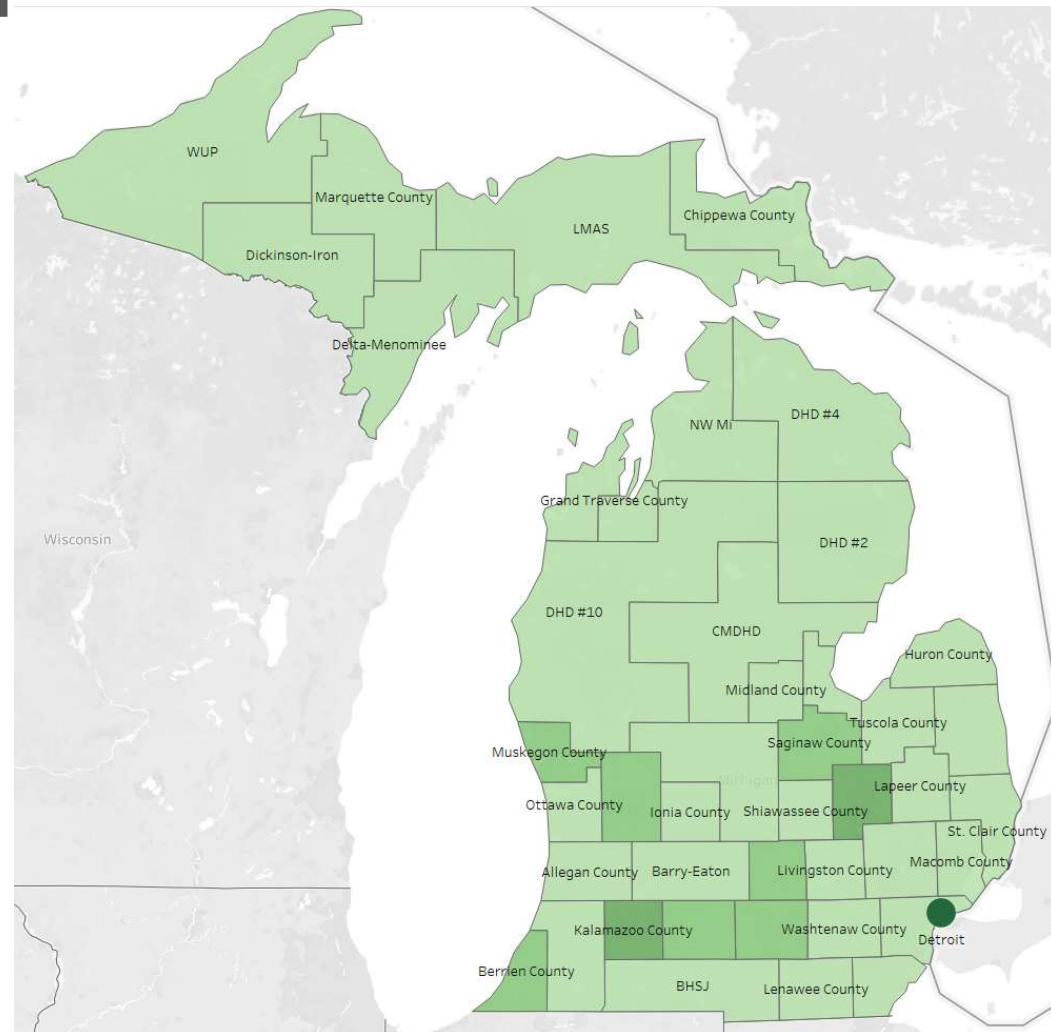
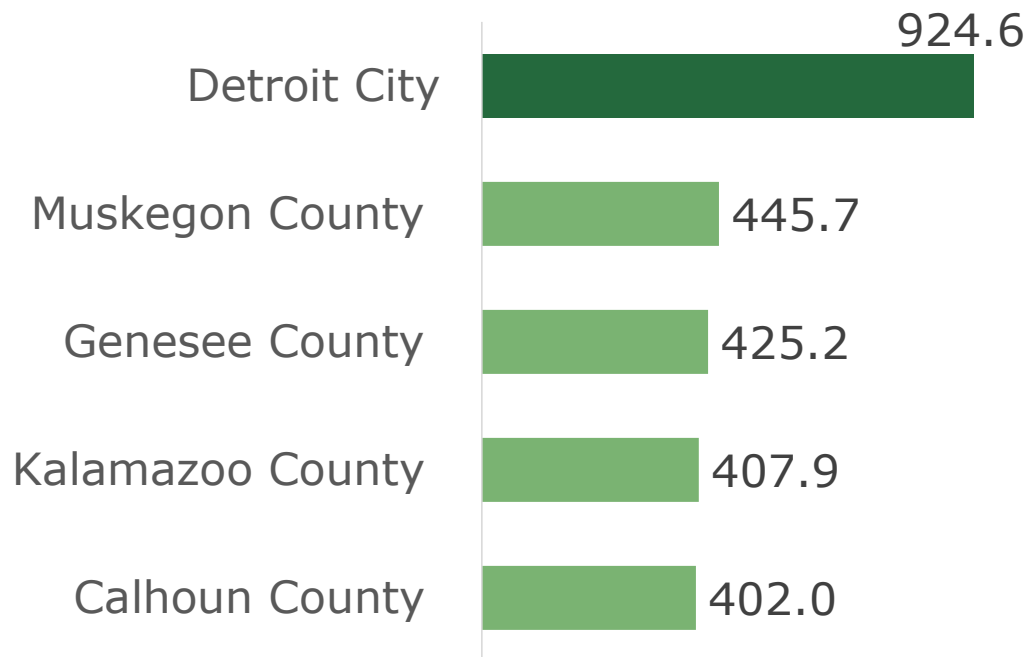
45 percent of gonorrhea cases were diagnosed among patients less than 25 years old.

20–24 year-olds have the highest gonorrhea diagnosis rate of all age groups.



Gonorrhea – Geographic Distribution

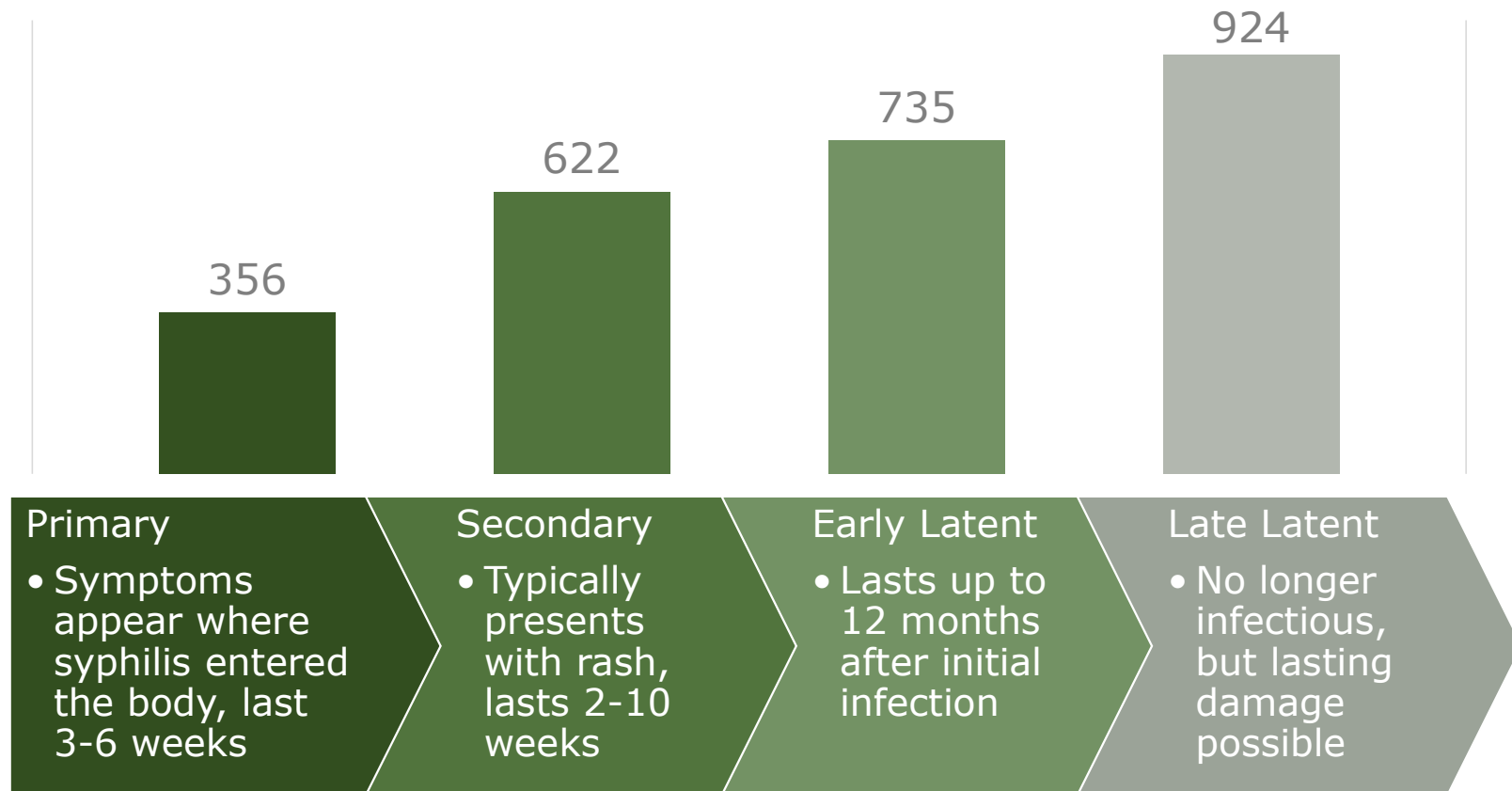
Five Local Health Jurisdictions with Highest Case Rate per 100,000



Syphilis – Stages of Infection

Without proper treatment, early syphilis symptoms will fade but the infection remains in the body and can cause irreparable damage.

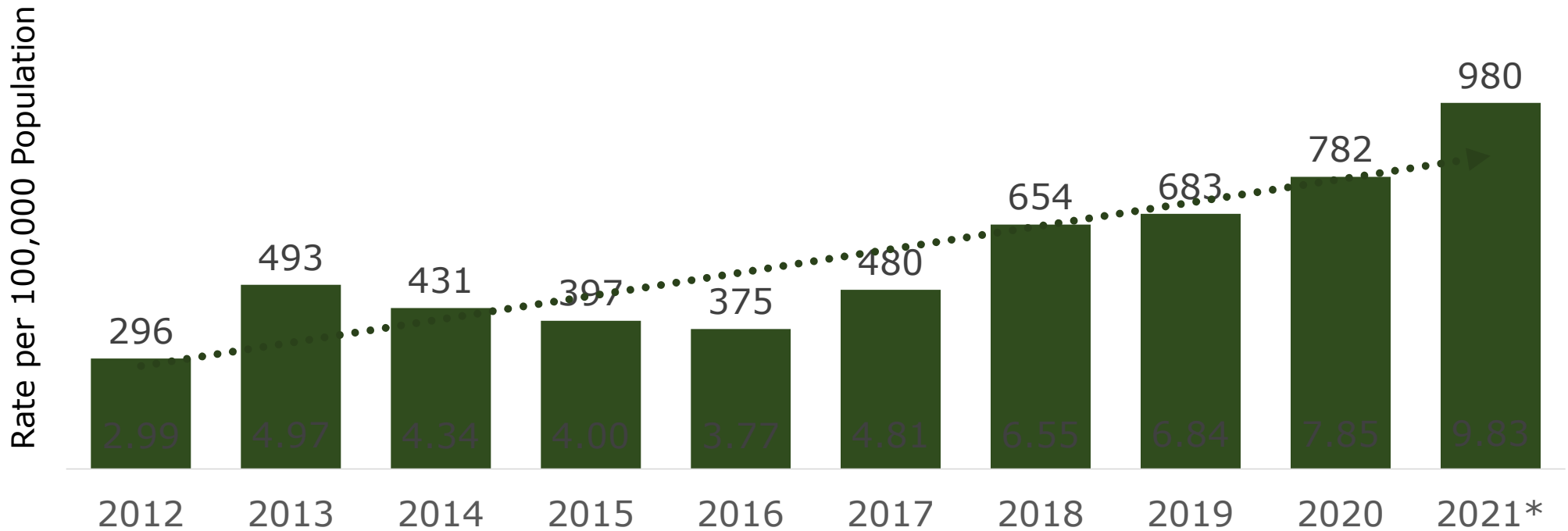
For capturing new diagnoses, we will focus on primary and secondary infections, which have symptoms.



P&S Syphilis – Trends over Time

Since 2012, P&S Syphilis rates have increased **10 percent** annually, on average

From 2020 to 2021, syphilis cases increased **25%**, the steepest one year increase observed since a local outbreak was declared in 2013.

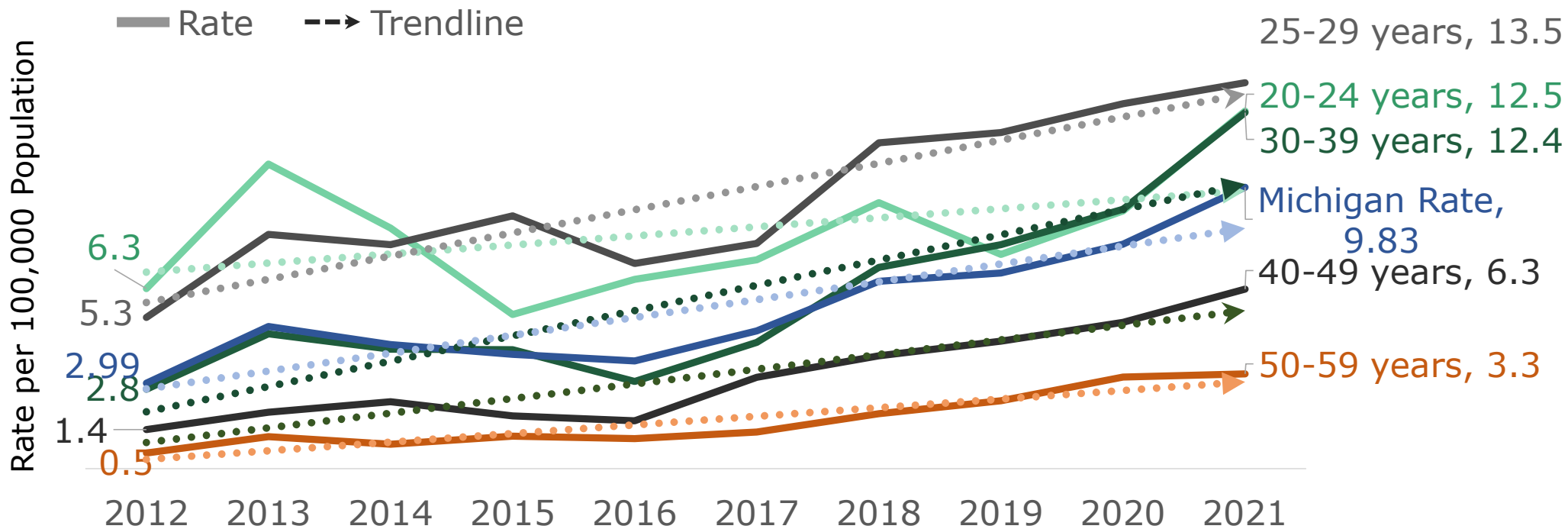


[See full trend report here.](#)

P&S Syphilis Trends

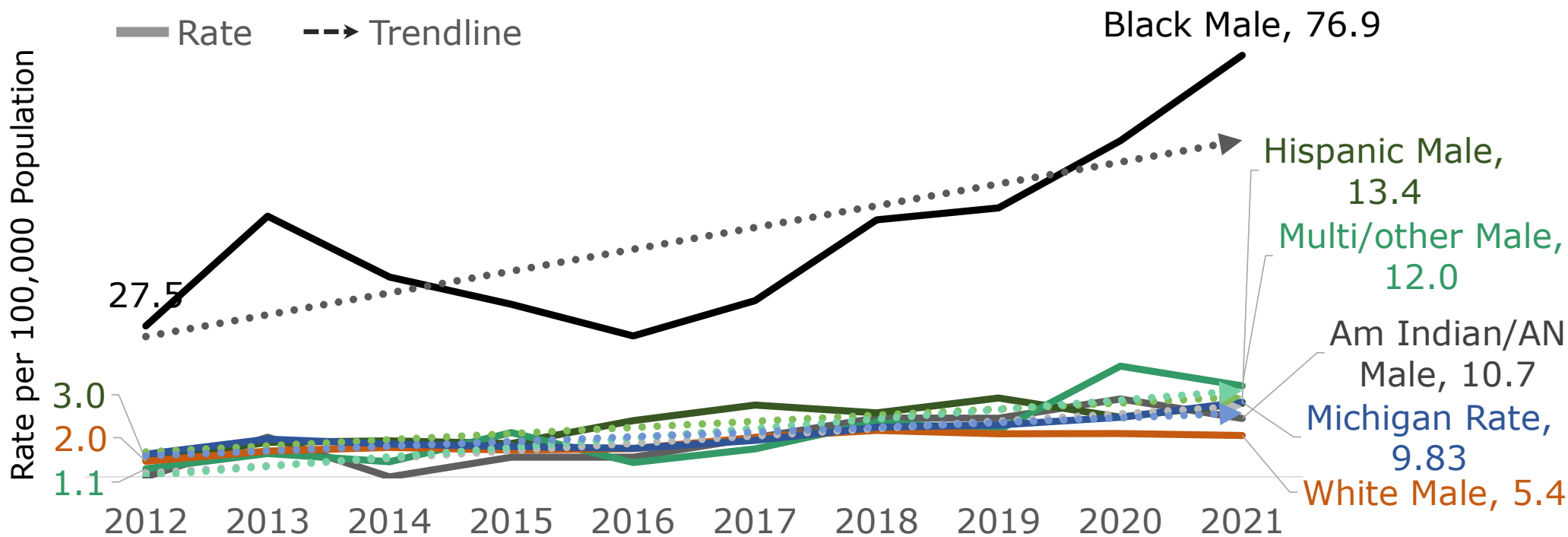
Recent syphilis increases have been noted in nearly all measurable sub-populations.

By age, people under 40 are experiencing the highest average annual increases, and differences in rates by age group are increasing.



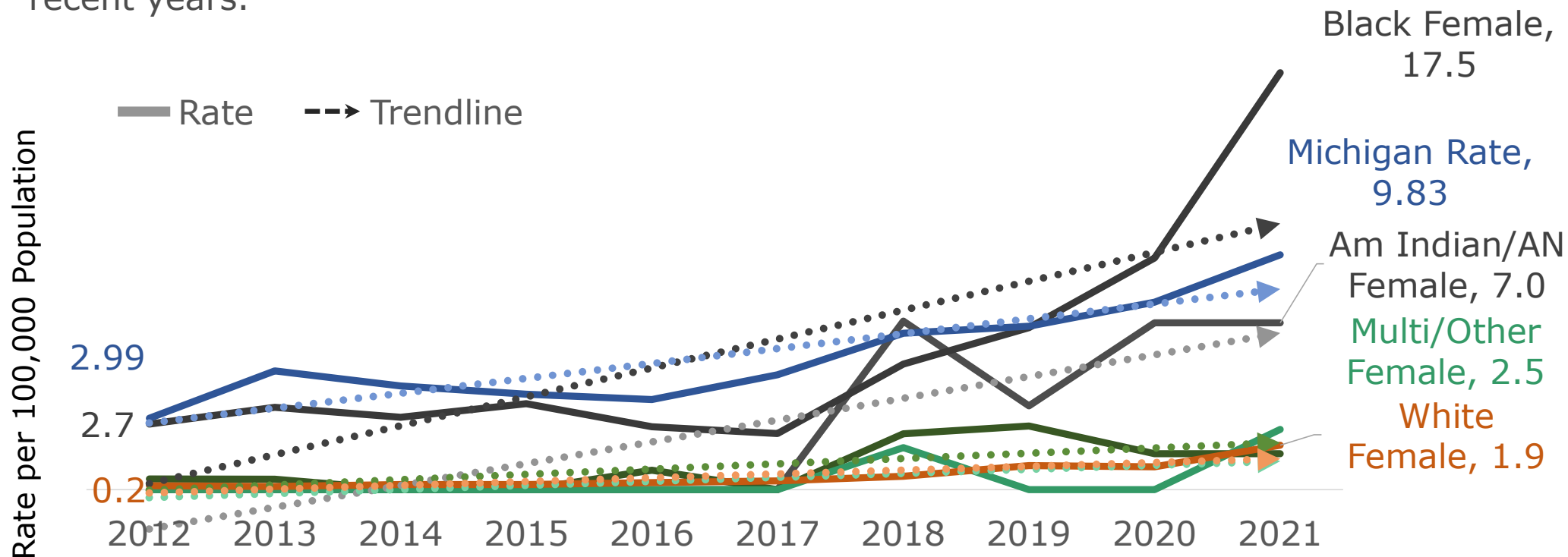
P&S Syphilis Trends – Men

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



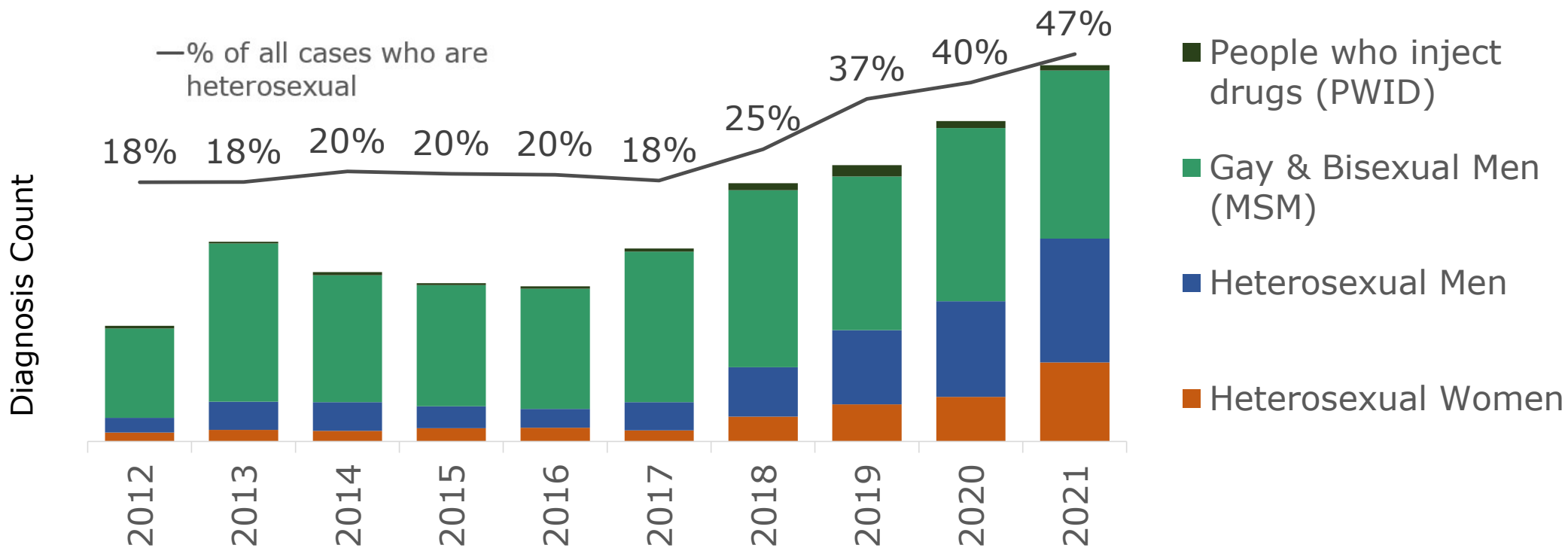
P&S Syphilis Trends – Women

Cases among women have tripled in the past 10 years. Females remain less likely to be diagnosed with syphilis compared to men, but that risk difference is shrinking in recent years.

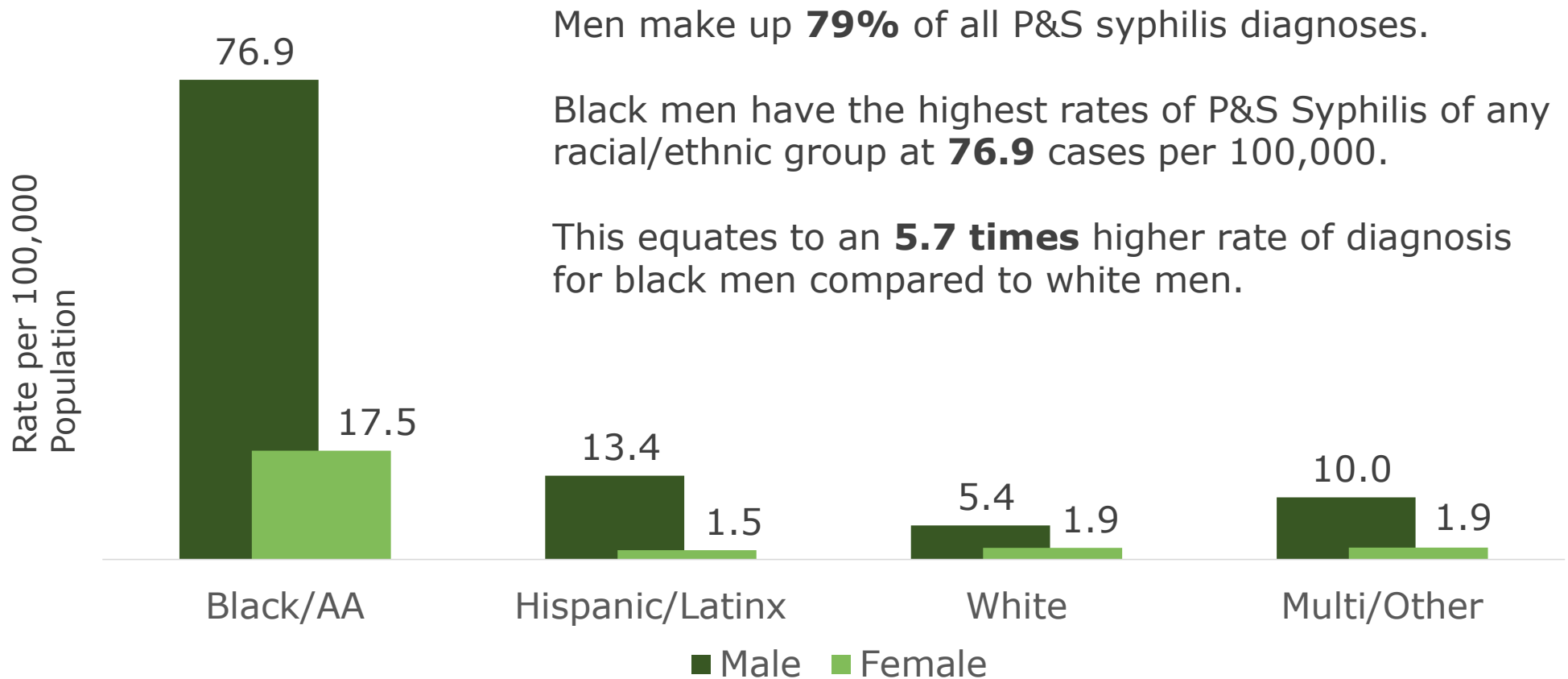


P&S Syphilis Trends – Transmission Risk

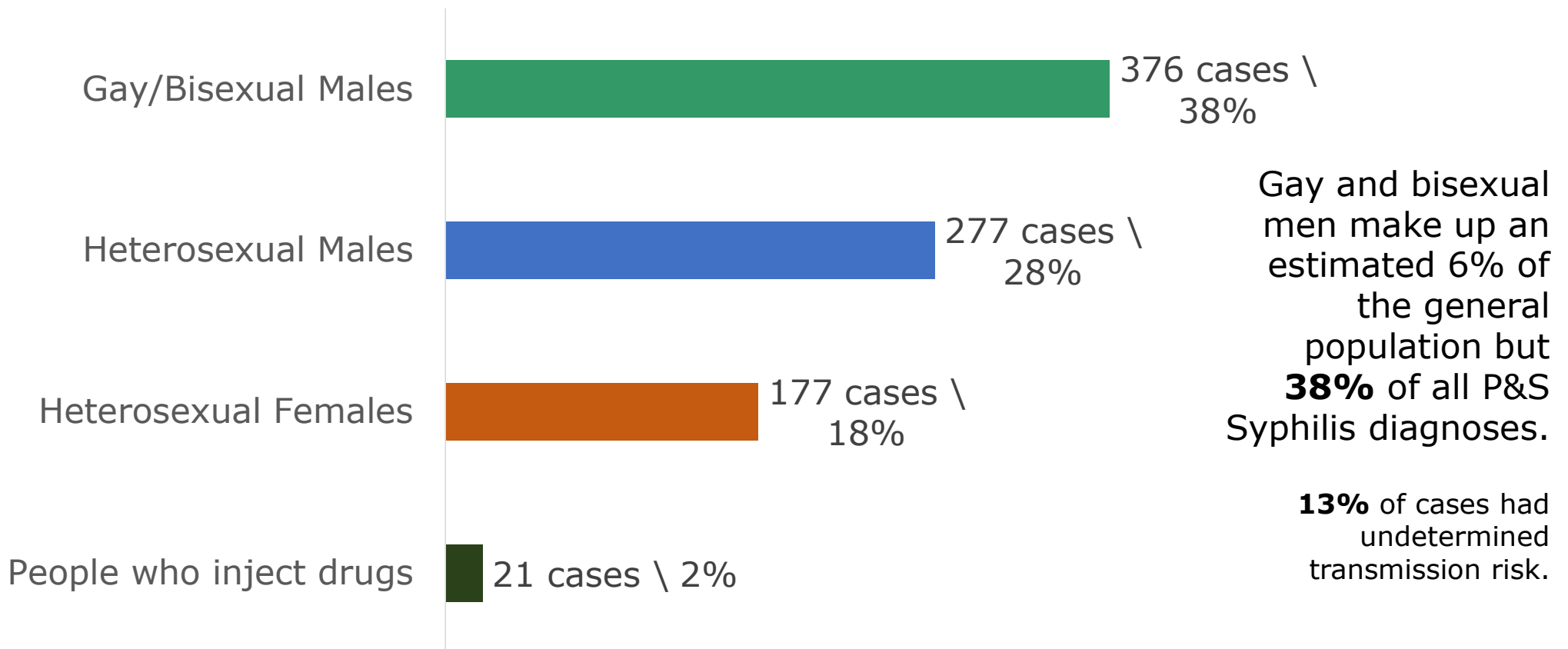
By transmission risk, cases have been increasing most significantly among people who report only heterosexual sex (both males and females). Men who have sex with men remain at the highest risk of syphilis infection.



P&S Syphilis – Priority Populations



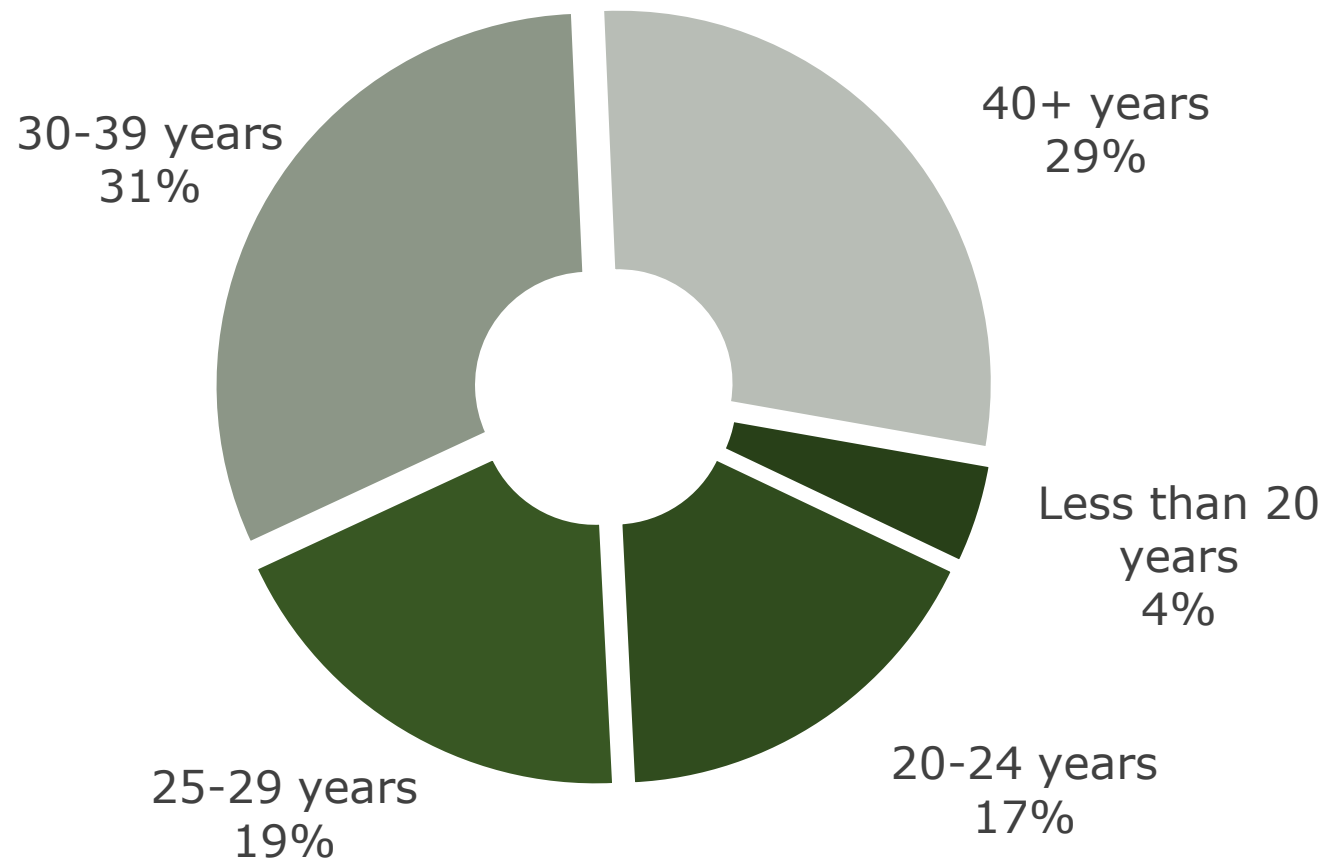
P&S Syphilis – Priority Populations



P&S Syphilis – Priority Populations

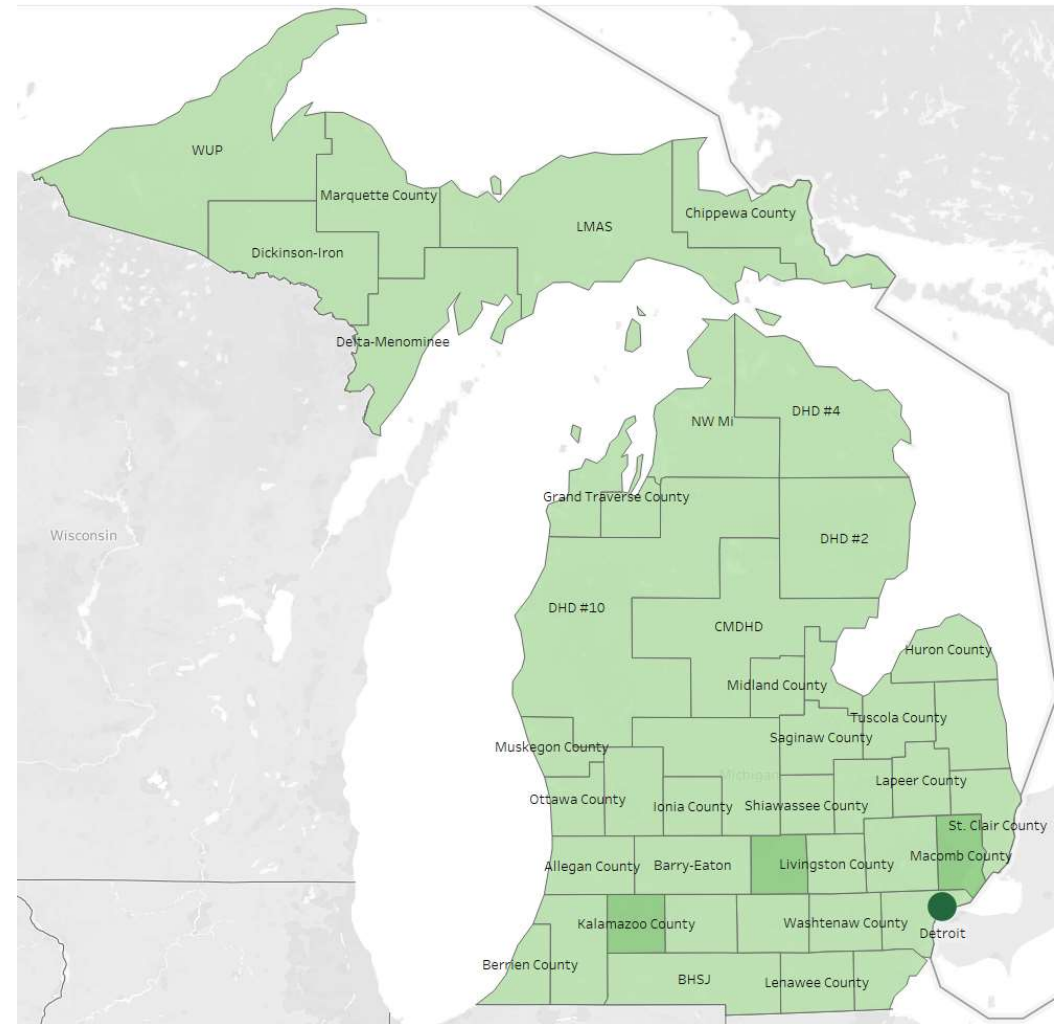
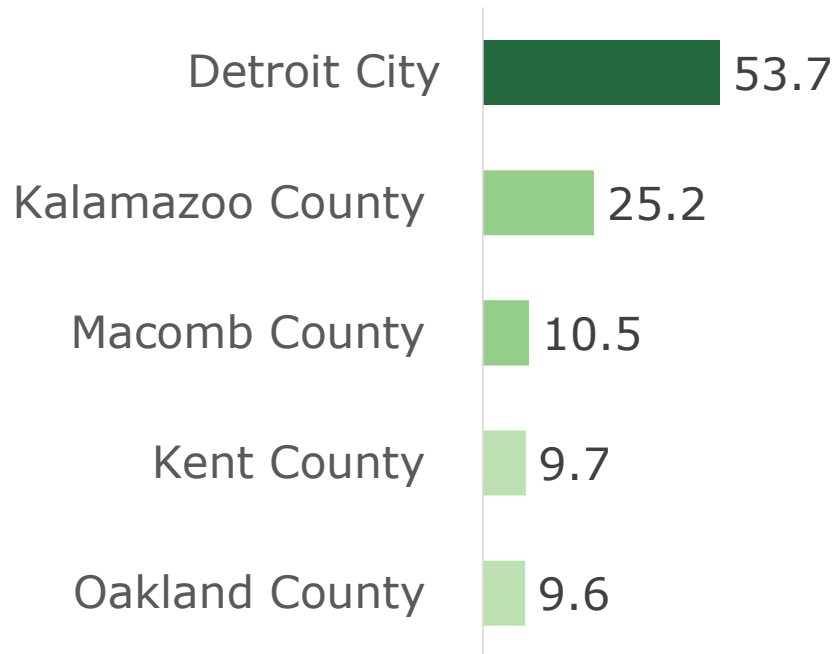
Less than **20 percent** of syphilis cases were diagnosed among patients less than 25 years old.

25-29 year-olds have the highest syphilis diagnosis rate of all age groups.



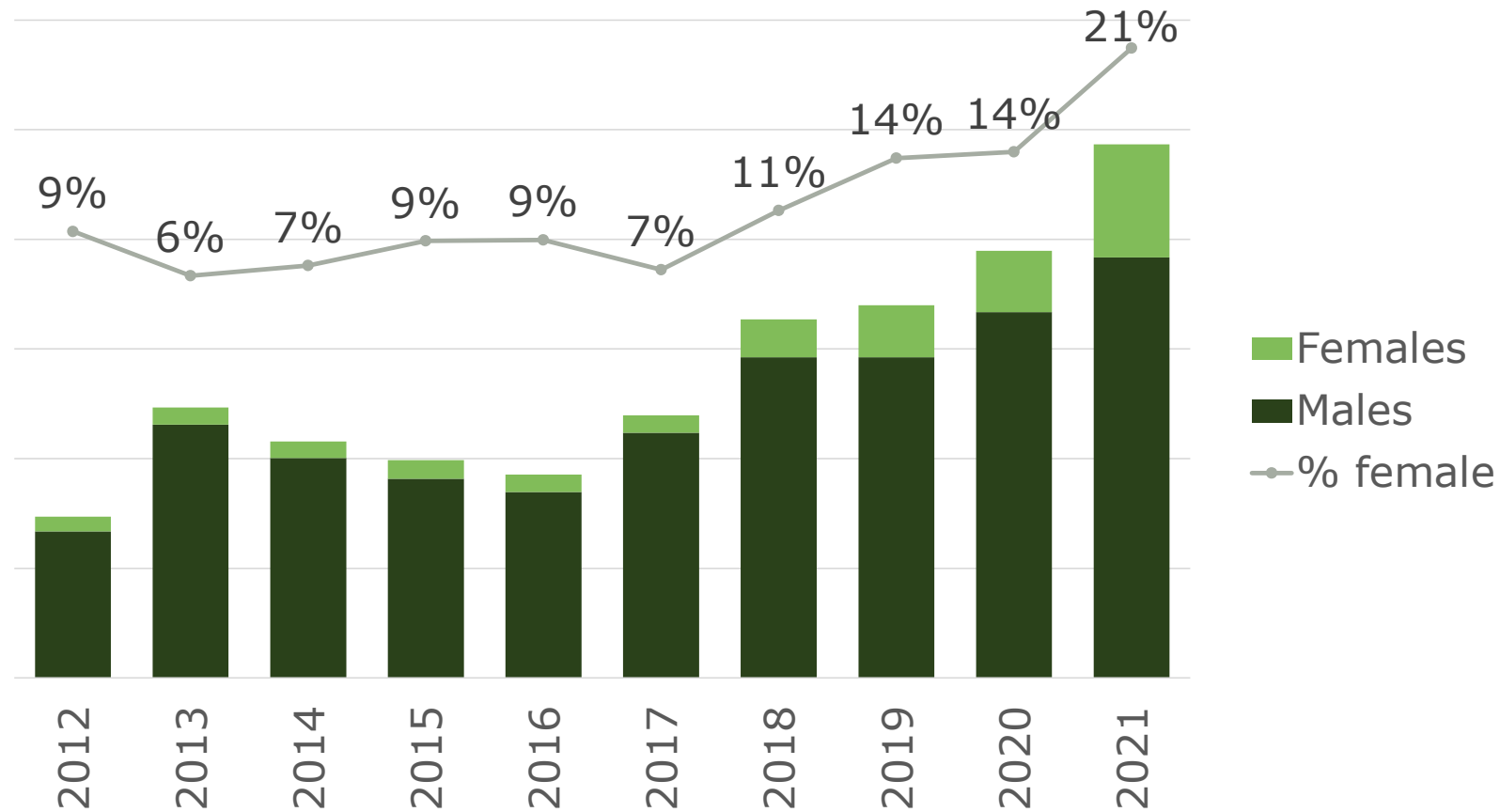
P&S Syphilis – Geographic Distribution

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

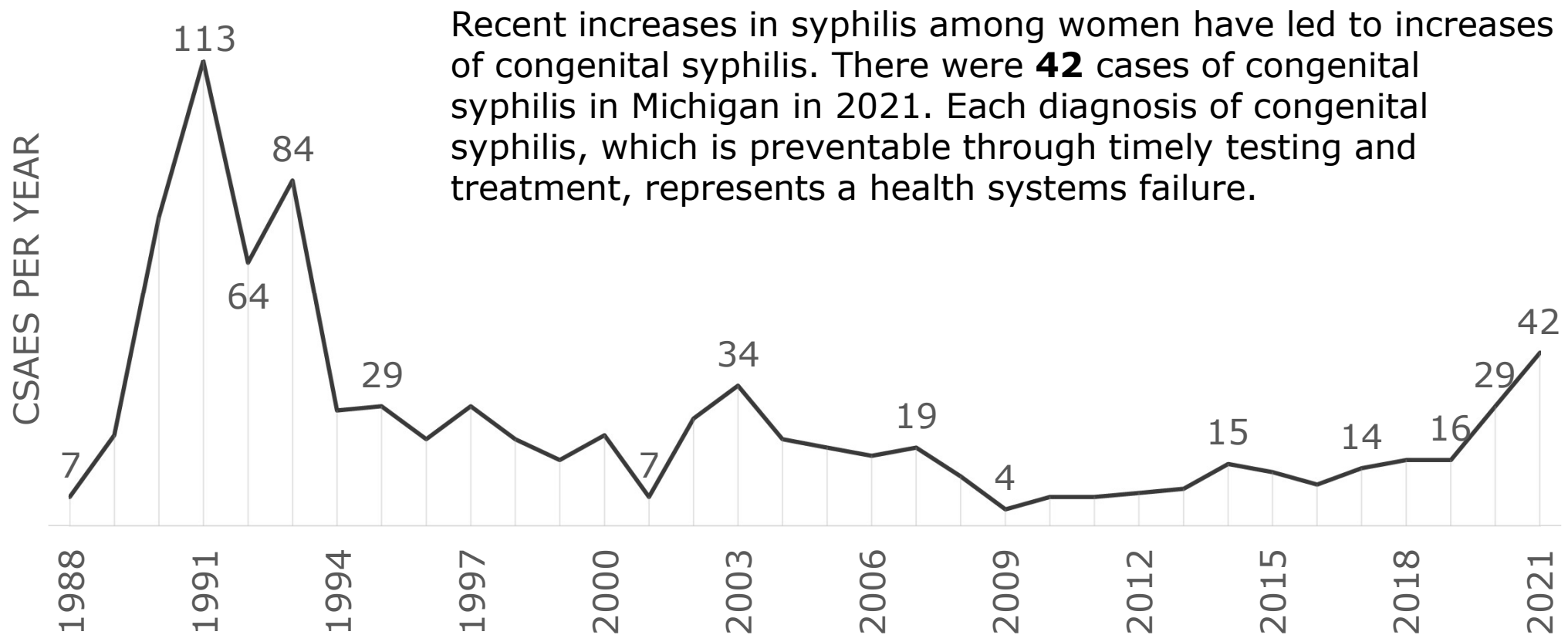


P&S Syphilis and Women

Women of childbearing age (13-45) remain a priority population for public health follow-up as they are at risk of vertical transmission of syphilis to infants during pregnancy and childbirth.



Congenital Syphilis



For questions on using these data or for additional data requests:

www.Michigan.gov/SHOARS