

Syphilis on the Rise: Why it Matters and What to Know Epi Edition

Ashley Hoover, MPH
Northwest Portland Area Indian Health Board
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Bottom Line(s) Up Front



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- **Syphilis is back - Raise your index of suspicion**
- **The epidemiology of syphilis is shifting**

To Be Continued....

- Congenital syphilis is preventable, and people who can become pregnant should be screened and treated
- Diagnosing and staging syphilis can be challenging but is important for appropriate treatment

Current Syndemic



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- **Rising rates of STIs**
 - Clear association with substance use
 - Transactional sex (for drugs, housing, food, etc.)
- **Vulnerable Populations**
 - Youth aged 15-24
 - Pregnant people
 - People involved in the justice system
 - Housing Instability

Syndemic: Substance Use and Sexual Transmission



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- Substance Use: fentanyl and meth use is frequently reported by STI cases
- Holistic and Integrated Approach
 - Provides care and treatment needed at the places where patients “seek” care is needed

STIs & Substance Use



Use of opioids and other substances has been linked to increasing STIs and outbreaks of infectious diseases.



3x
More Likely

Young adults who used an illicit drug* in the past year were 3 times more likely to get an STI.

STIs & Viral Hepatitis

4 in 10

acute hepatitis B cases in the United States are estimated to result from sexual transmission.



Hepatitis B is preventable with a vaccination series that can be started and completed during STI care visits.

Holistic, Coordinated Care Is Critical for Addressing These Overlapping Epidemics

A “no-wrong-door” approach – providing or connecting a person to all the services that meet their needs wherever they seek care – is crucial.


The first step in implementing this approach is increasing access to quality healthcare settings. STD clinics are important spaces for people who are uninsured, need flexible appointments, need low- or no-cost services, or are looking for expert and confidential services.

We must reduce the effect of social and economic conditions that can influence health outcomes - called social determinants of health - which have been documented as key contributors to negative health outcomes, including STI transmission. Strategies to reduce these conditions can include:

- Promoting prevention and care in related systems, including housing, education, and the justice system.
- Providing patients with resources, including housing, food, transportation, and employment.
- Integrating existing programs, such as syringe services, substance use disorder treatment programs, and HIV testing and pre-exposure prophylaxis programs in STD clinics.
- Identifying “outside-the-box” opportunities for collaboration and integration. New solutions could include developing partnerships with pharmacies and retail health clinics or modernizing and streamlining data systems.

Syphilis Is Soaring in the U.S.

Cases have risen by 80 percent since 2018, the C.D.C. reported. But chlamydia remains far more common.

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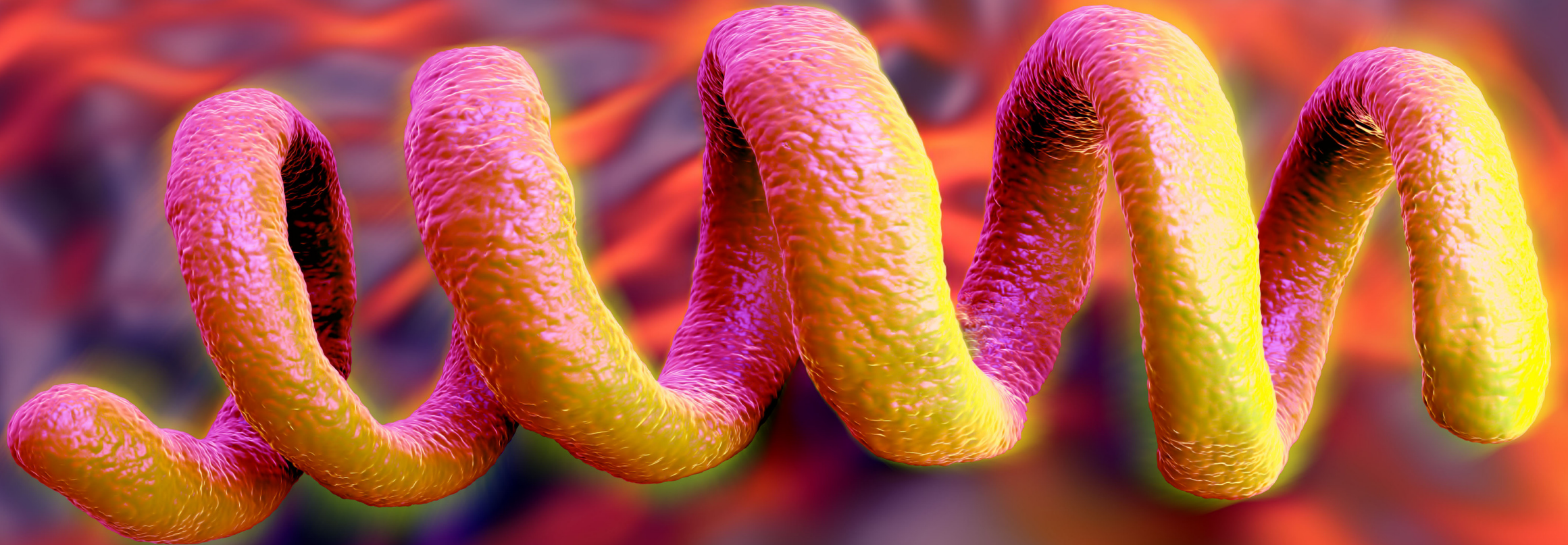


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A transmission electron micrograph of *Treponema pallidum*, the bacterium that causes syphilis. Richard J. Green/Science Source

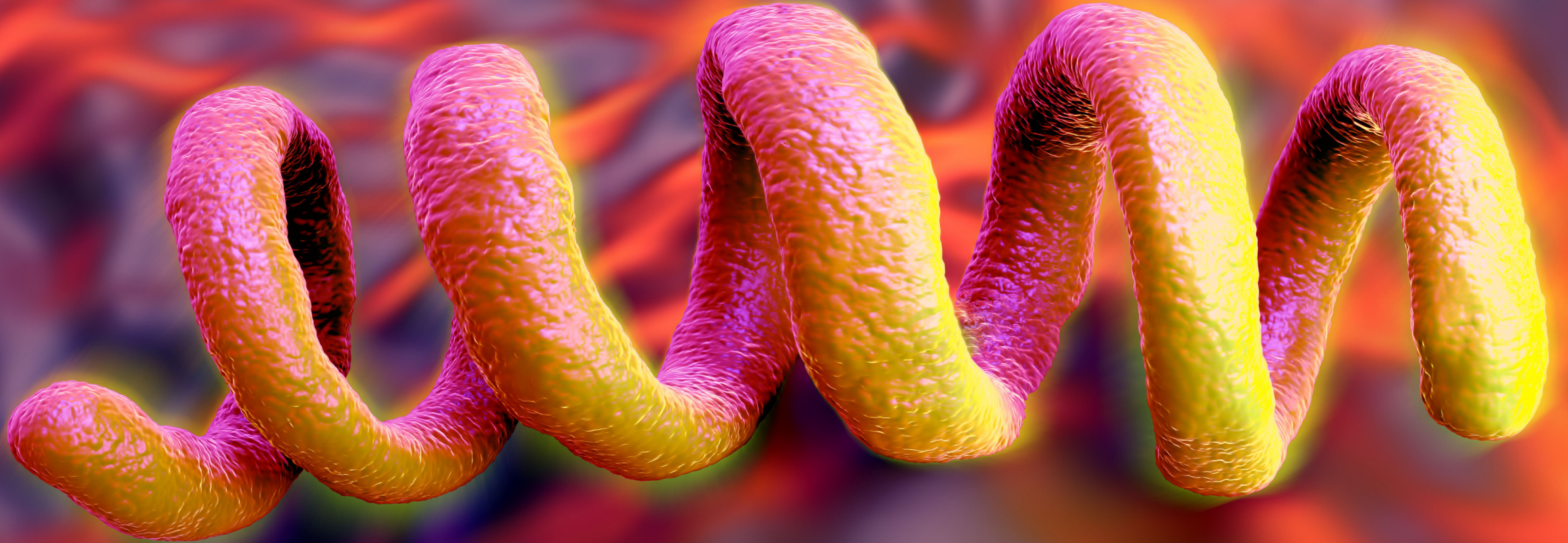
“The Great Pretender”



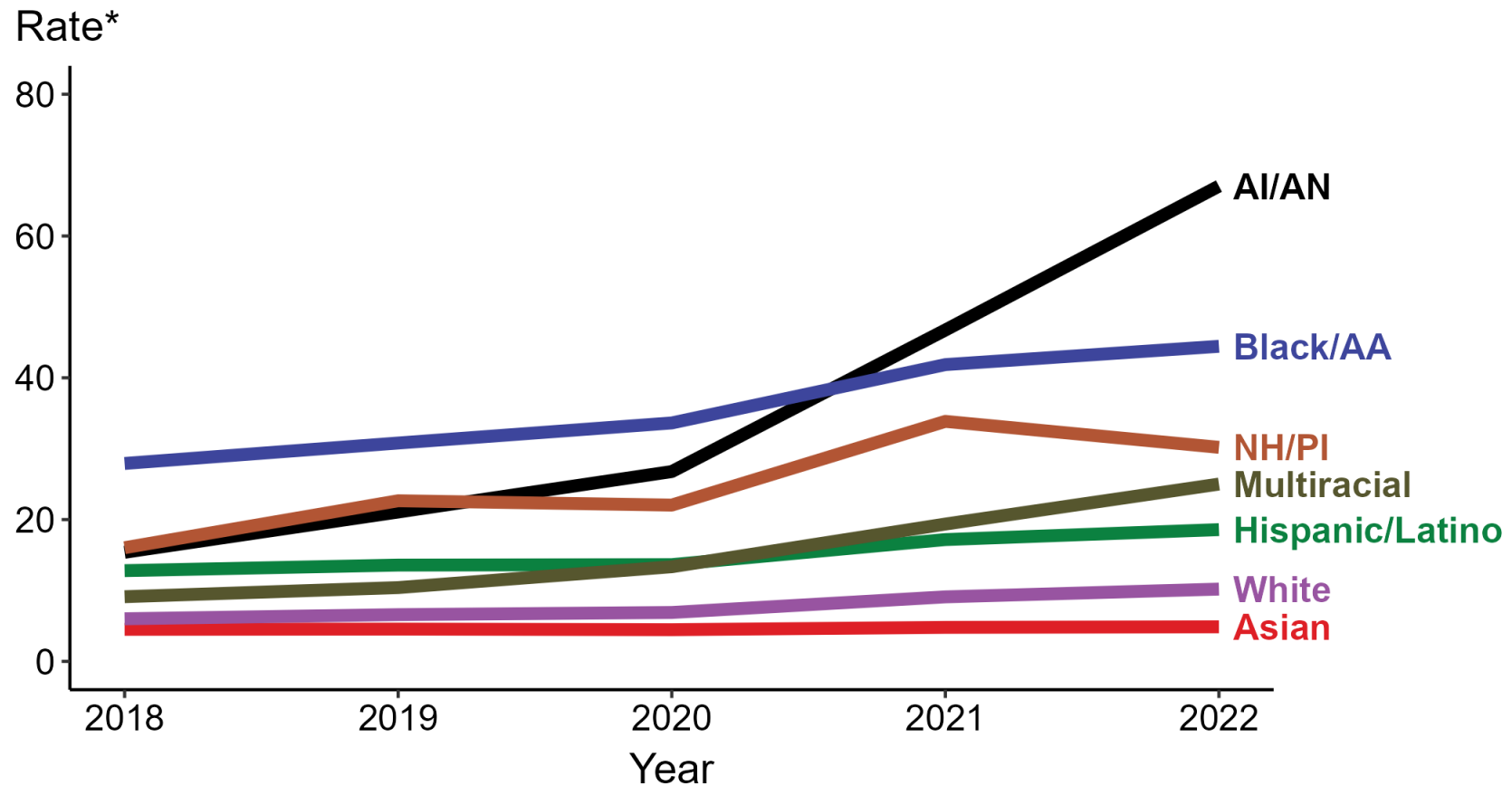
Clinical stages

1. Syphilis goes through several stages.
2. Stages start with primary, then may not progress linearly.
3. Characterized by episodes of active disease interrupted by periods of latency.
4. Signs/symptoms and transmission risks vary by stage.

Syphilis epidemiology is changing



Primary and Secondary Syphilis — Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2018–2022

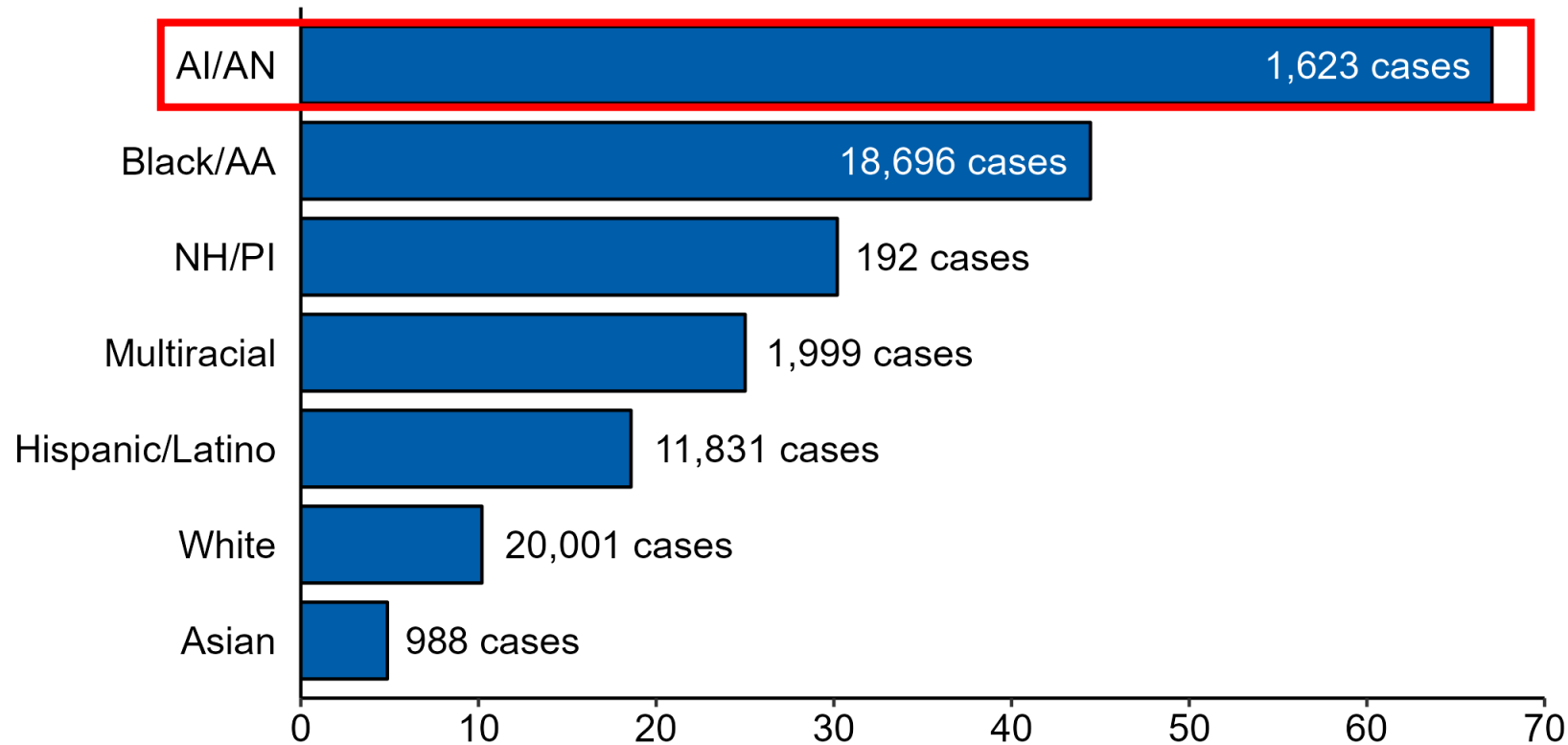


* Per 100,000

ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander



Primary and Secondary Syphilis — Case Counts and Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2022



Primary and Secondary (P&S) Syphilis Rate*

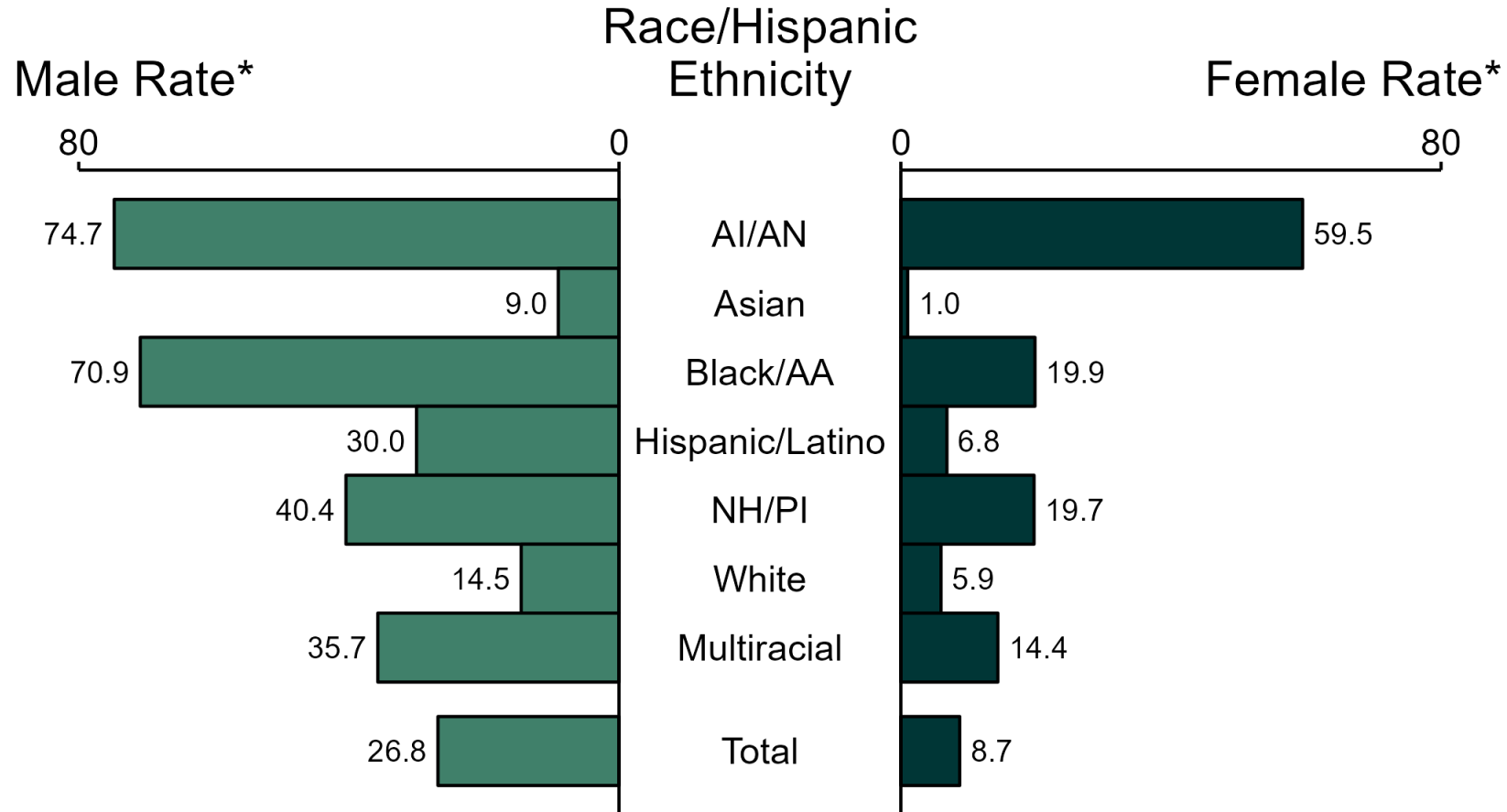
* Per 100,000 population

NOTE: In 2022, a total of 3,686 P&S syphilis cases (6.2%) had missing, unknown, or other race and were not reported to be of Hispanic ethnicity. These cases are not shown in this plot.

ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander



Primary and Secondary Syphilis — Rates of Reported Cases by Race/Hispanic Ethnicity and Sex, United States, 2022



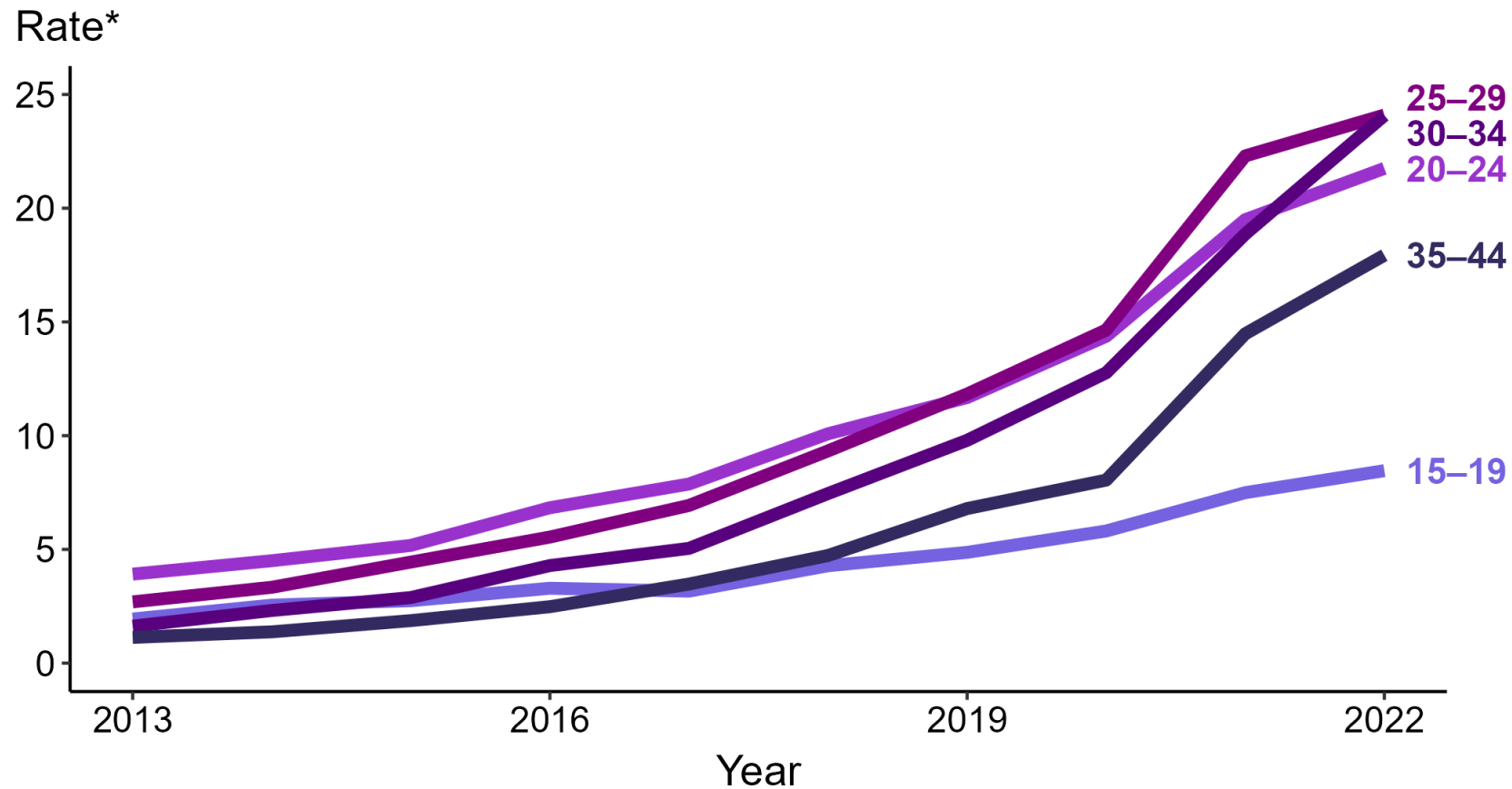
* Per 100,000

ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander

NOTE: Total includes all cases including those with unknown race/Hispanic ethnicity.



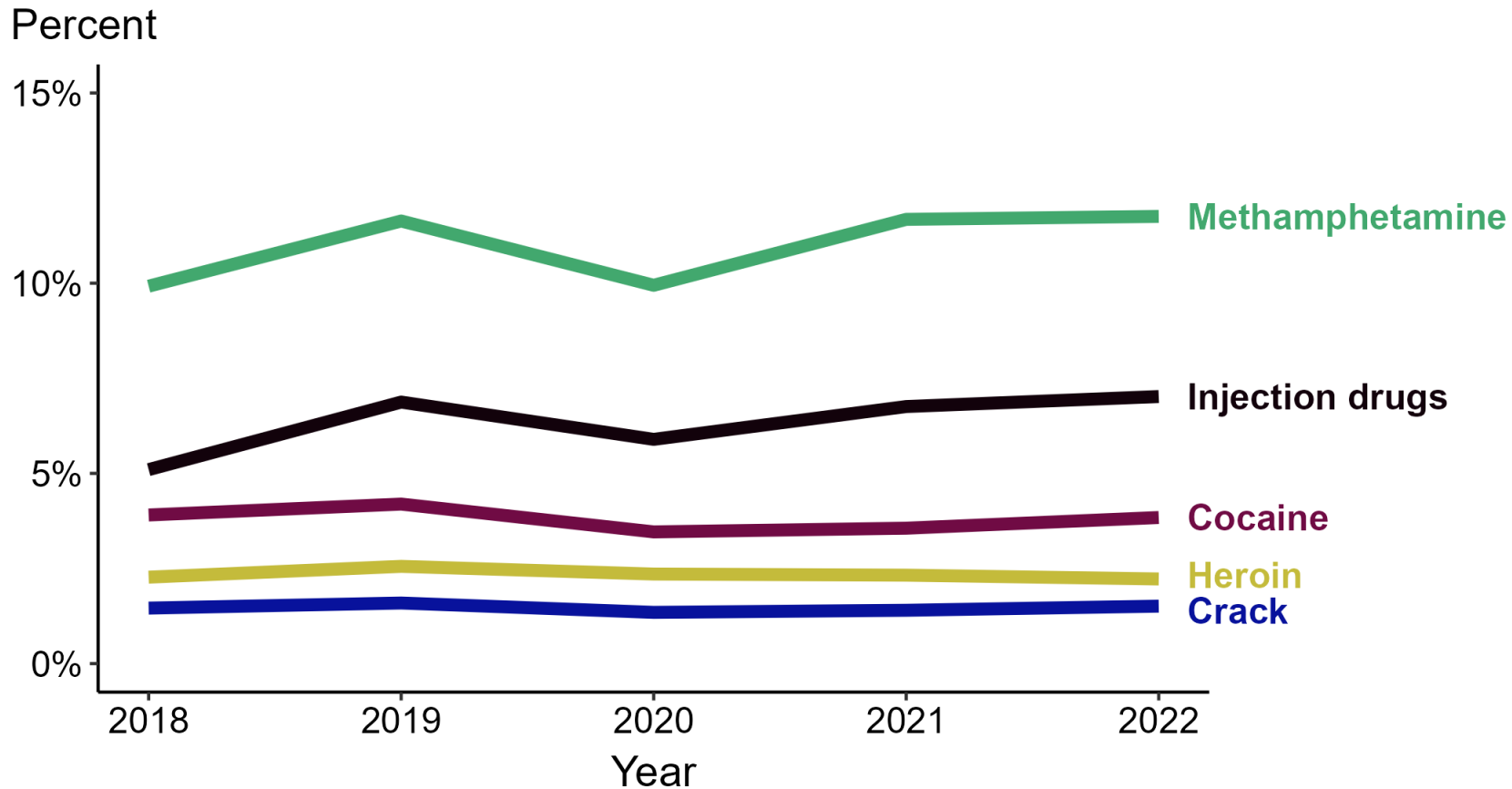
Primary and Secondary Syphilis — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2013–2022



* Per 100,000



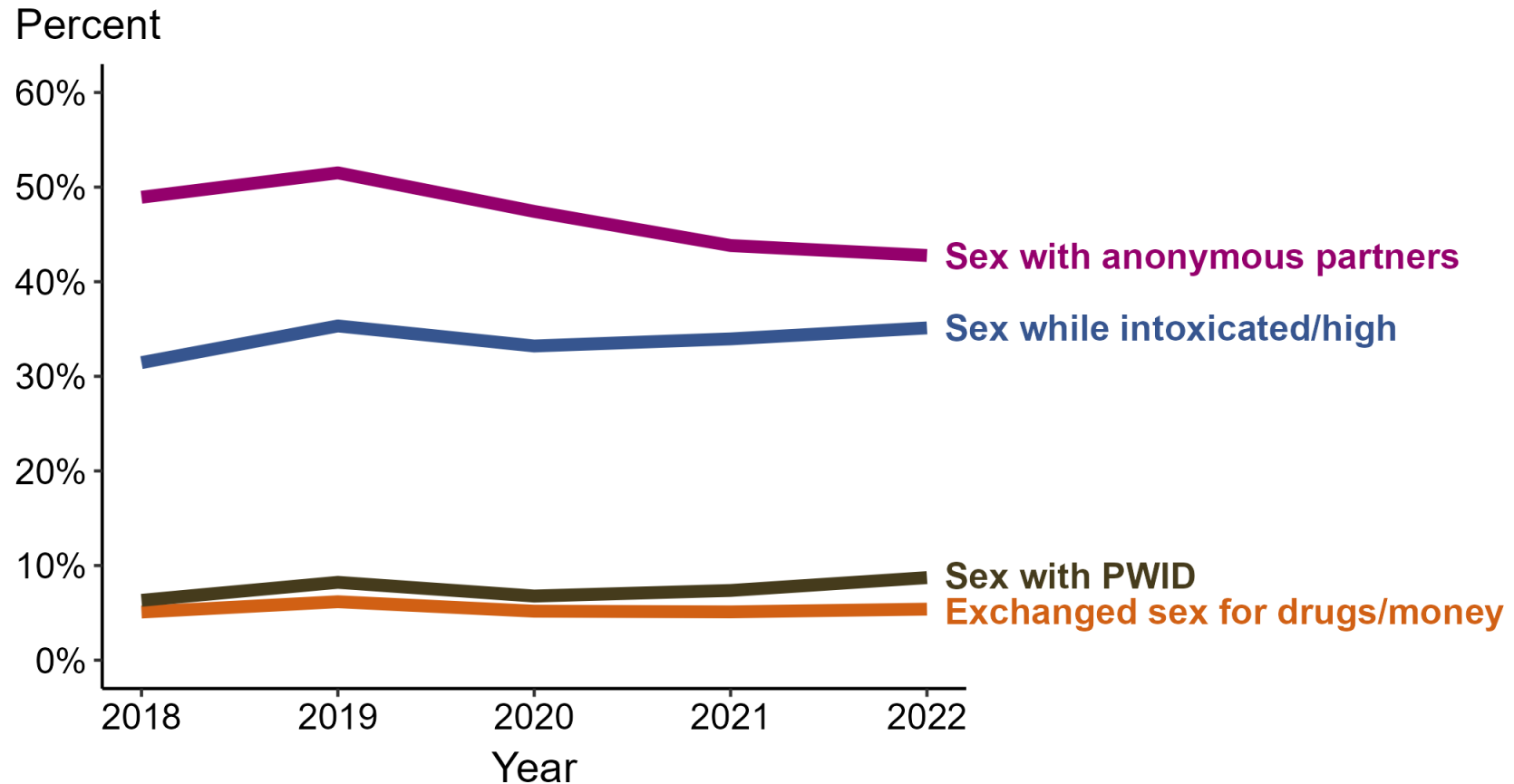
Primary and Secondary Syphilis — Percentage of Cases Reporting Selected Substance Use Behaviors*, United States, 2018–2022



* Proportion reporting injection drug use, methamphetamine use, heroin use, crack use, or cocaine use within the last 12 months calculated among cases with known data (cases with missing or unknown responses were excluded from the denominator).



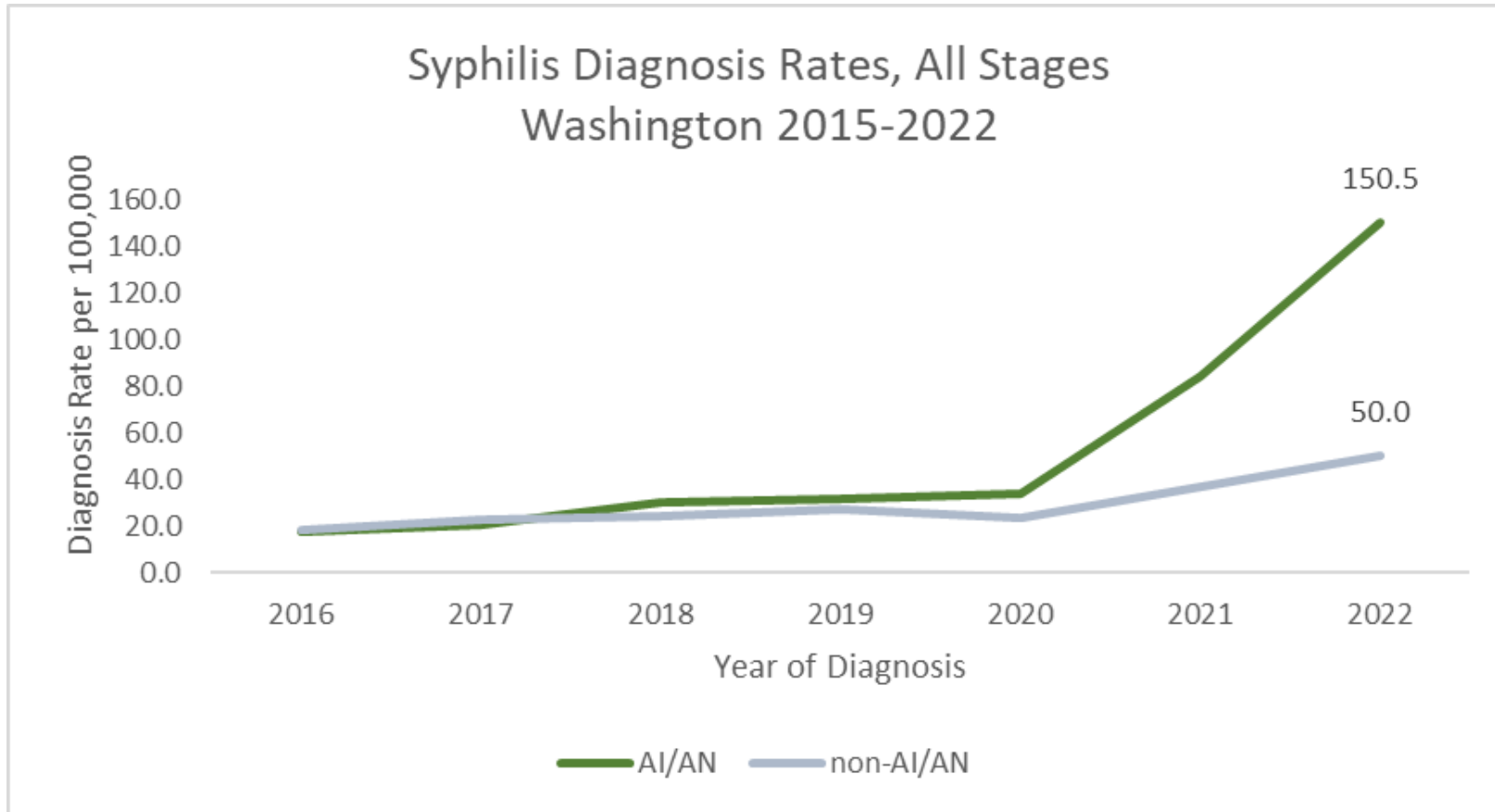
Primary and Secondary Syphilis — Percentage of Cases Reporting Selected Sexual Behaviors*, United States, 2018–2022



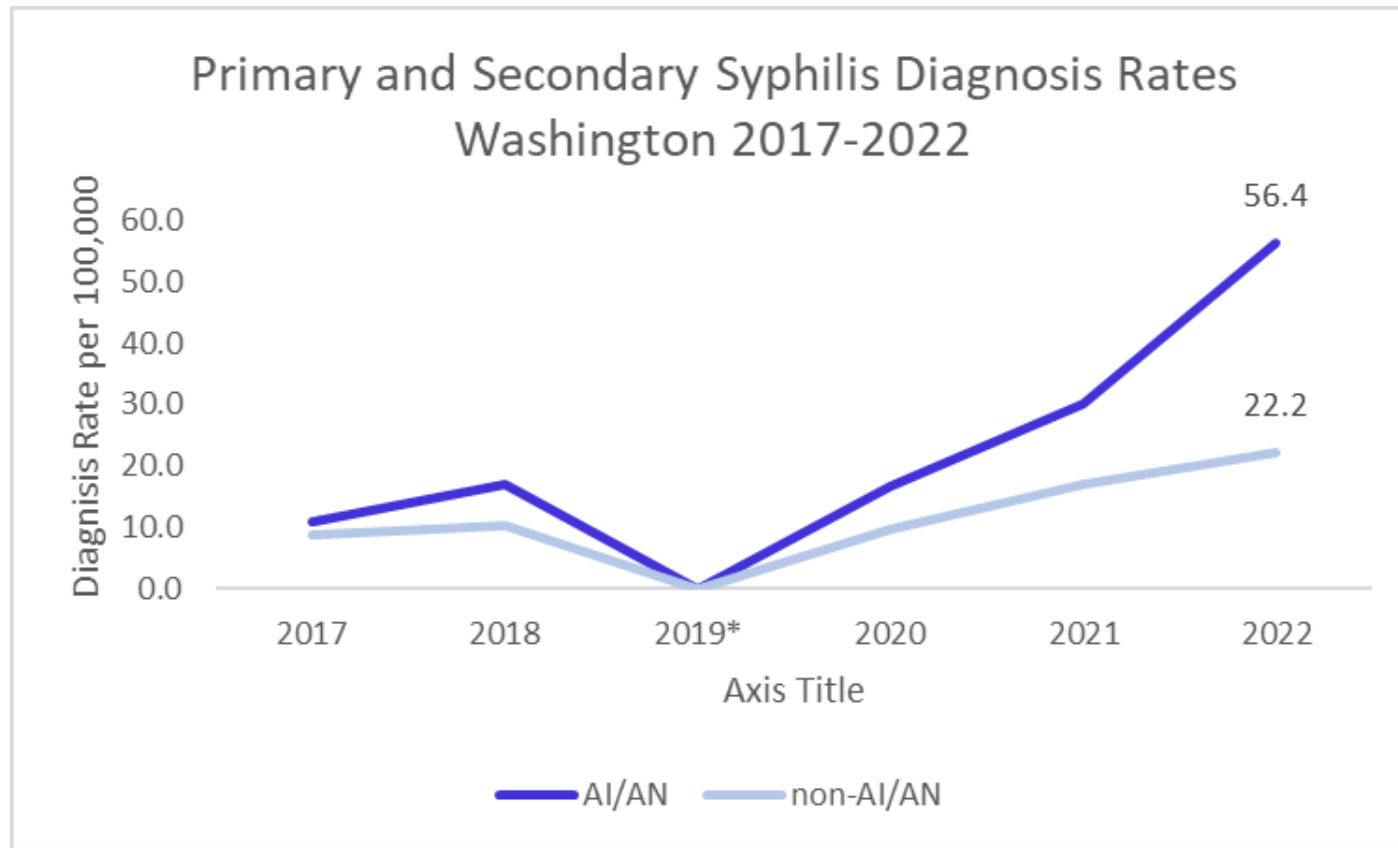
* Proportion reporting sex with PWID, sex with anonymous partners, sex while intoxicated/high on drugs, or exchanging drugs or money for sex within the last 12 months calculated among cases with known data (cases with missing or unknown responses were excluded from the denominator).

ACRONYMS: PWID = Person who injects drugs





Diagnosis rates of syphilis (all stages) were relatively comparable to non-AI/AN between the 2016-2019 timeframe. However, rates of syphilis diagnoses (all stages) for American Indian and Alaska Native people in Washington began to increase in 2020 and as of 2022, the diagnosis rate for AI/AN persons was three times that of non-AI/AN people in Washington.



*2019 data suppressed due to case counts less than 10.

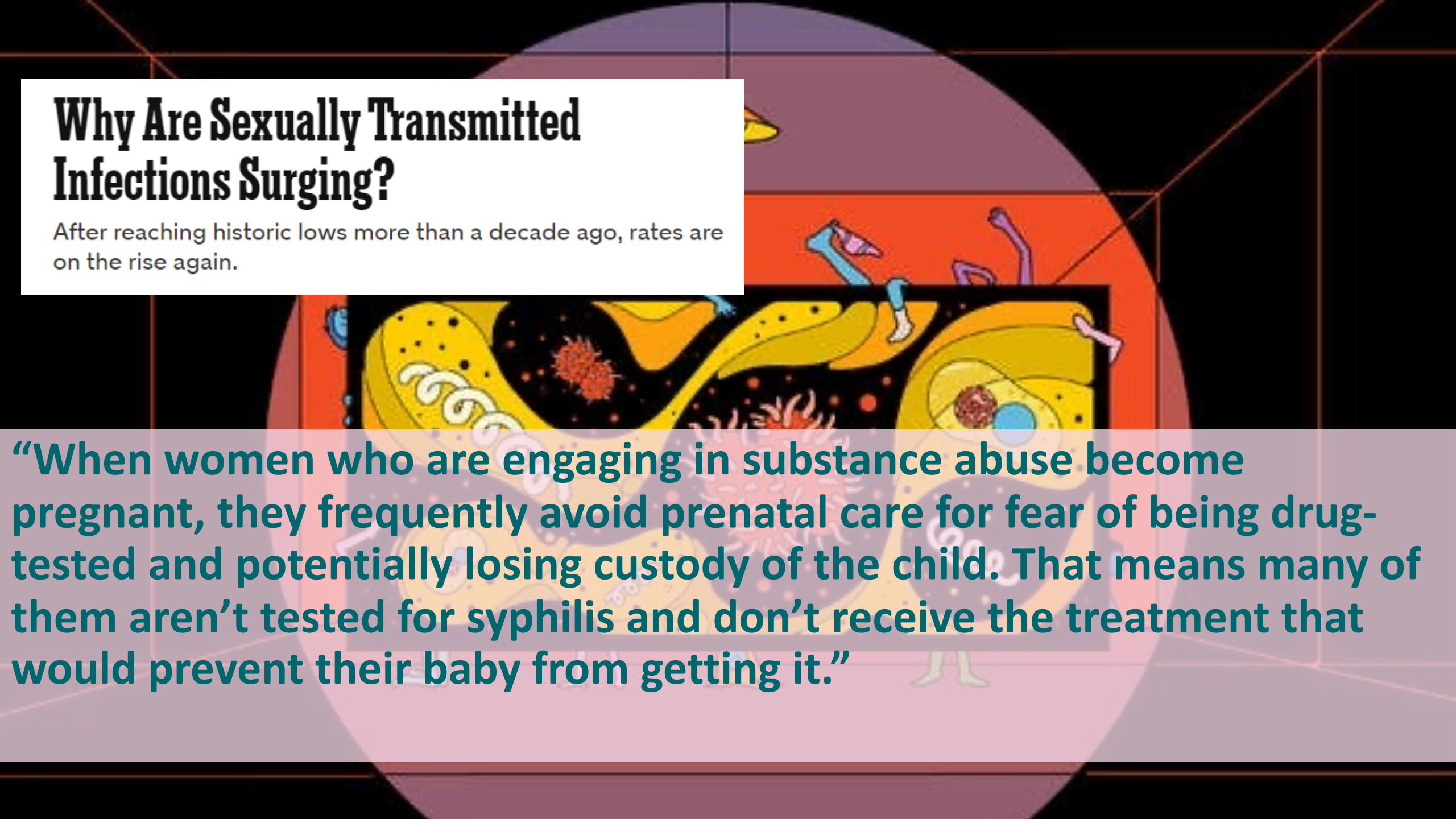
Diagnosis rates of Primary and Secondary syphilis (P&S, the most infectious stages of syphilis) were relatively comparable to non-AI/AN between the 2016-2019 timeframe (Note: 2019 data is suppressed due to counts less than 10). However, rates of P&S diagnoses for American Indian and Alaska Native people in Washington began to surpass non-AI/AN people in 2020 and as of 2022, the diagnosis rate for AI/AN persons was 2.5 times that of non-AI/AN people in Washington.

Congenital syphilis (CS)



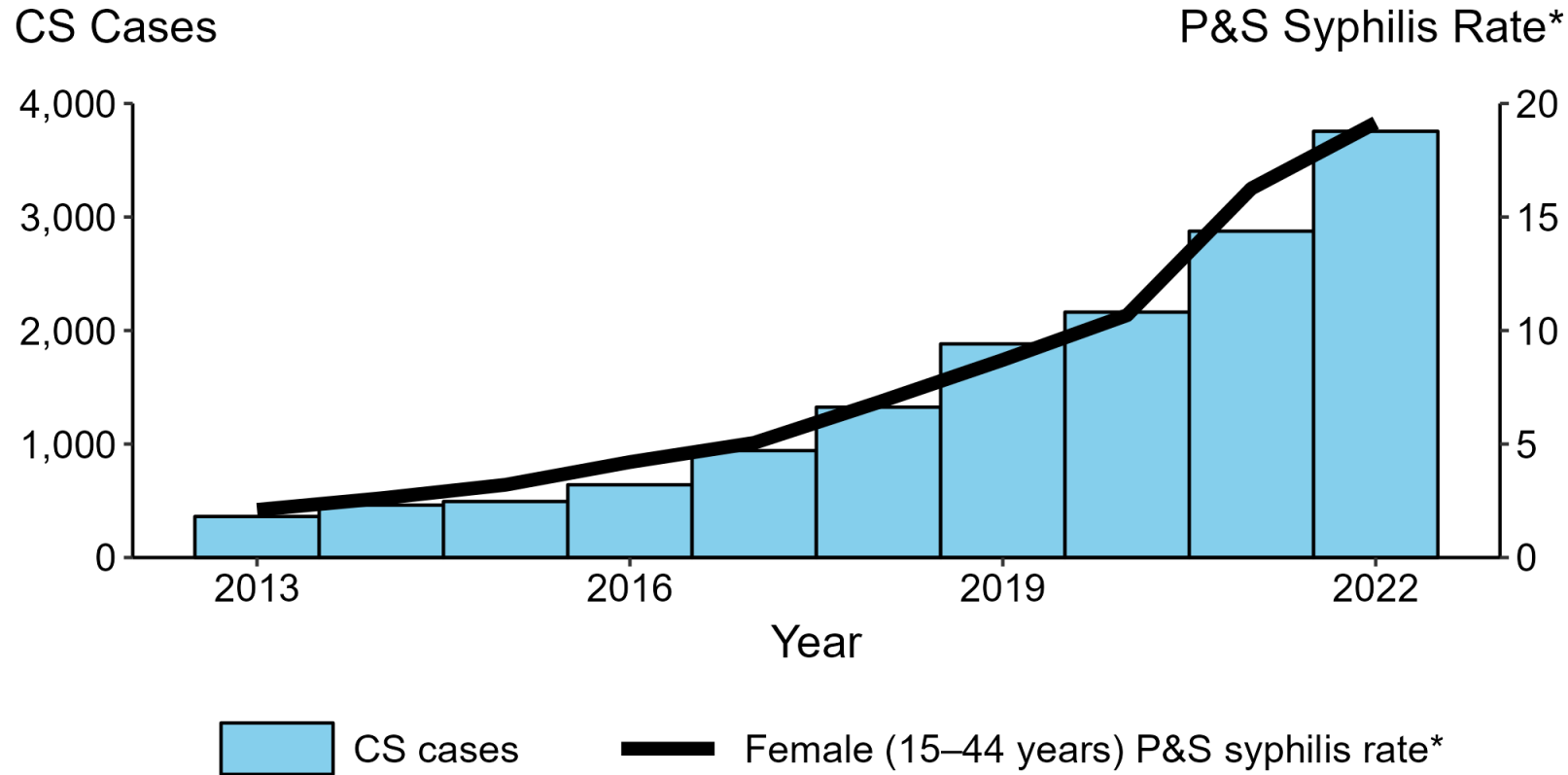
Why Are Sexually Transmitted Infections Surging?

After reaching historic lows more than a decade ago, rates are on the rise again.



“When women who are engaging in substance abuse become pregnant, they frequently avoid prenatal care for fear of being drug-tested and potentially losing custody of the child. That means many of them aren’t tested for syphilis and don’t receive the treatment that would prevent their baby from getting it.”

Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women Aged 15–44 Years, United States, 2013–2022

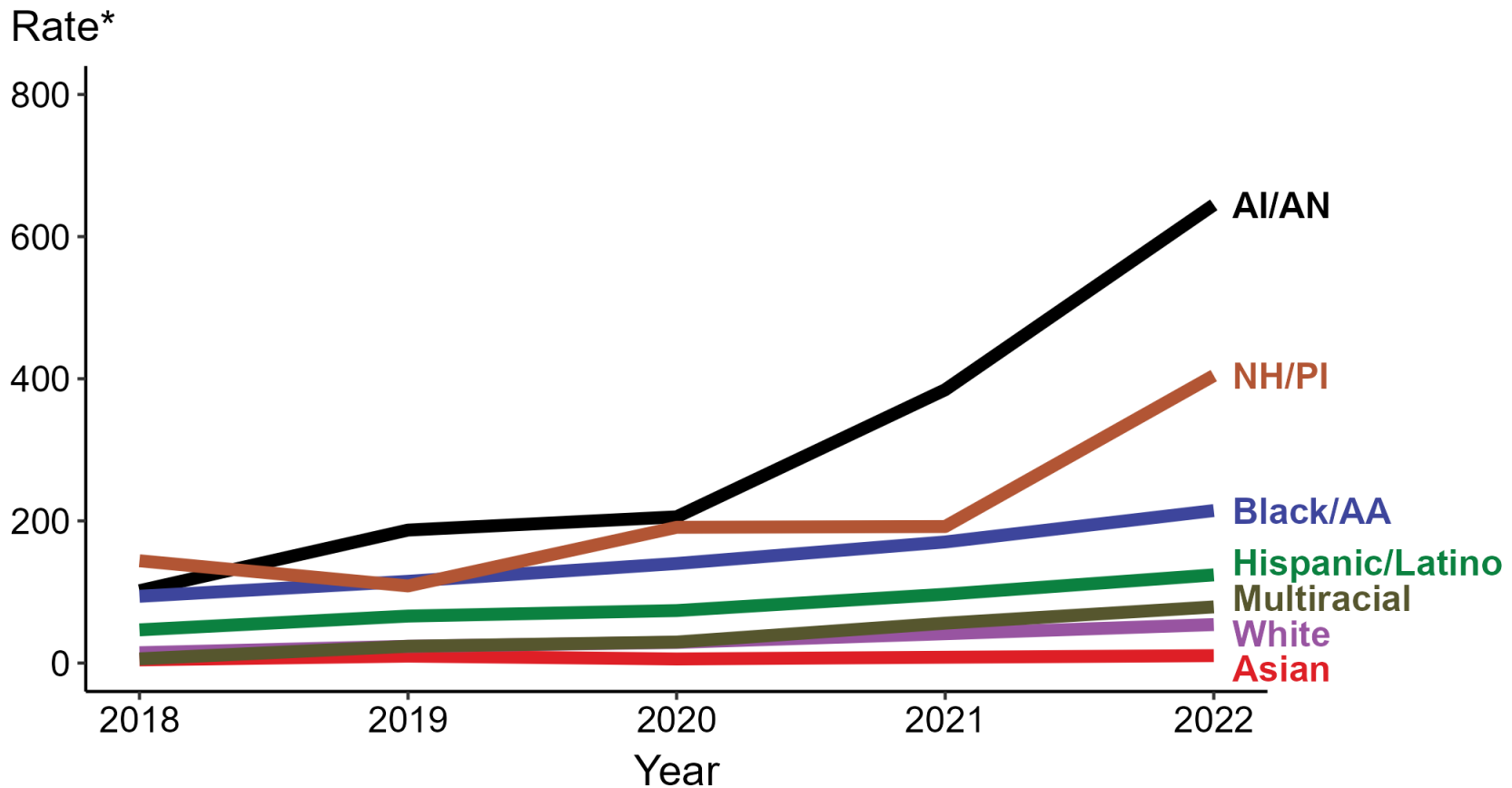


* Per 100,000

ACRONYMS: CS = Congenital syphilis; P&S Syphilis = Primary and secondary syphilis



Congenital Syphilis — Rates of Reported Cases by Year of Birth, Race/Hispanic Ethnicity of Mother, United States, 2018–2022



* Per 100,000 live births

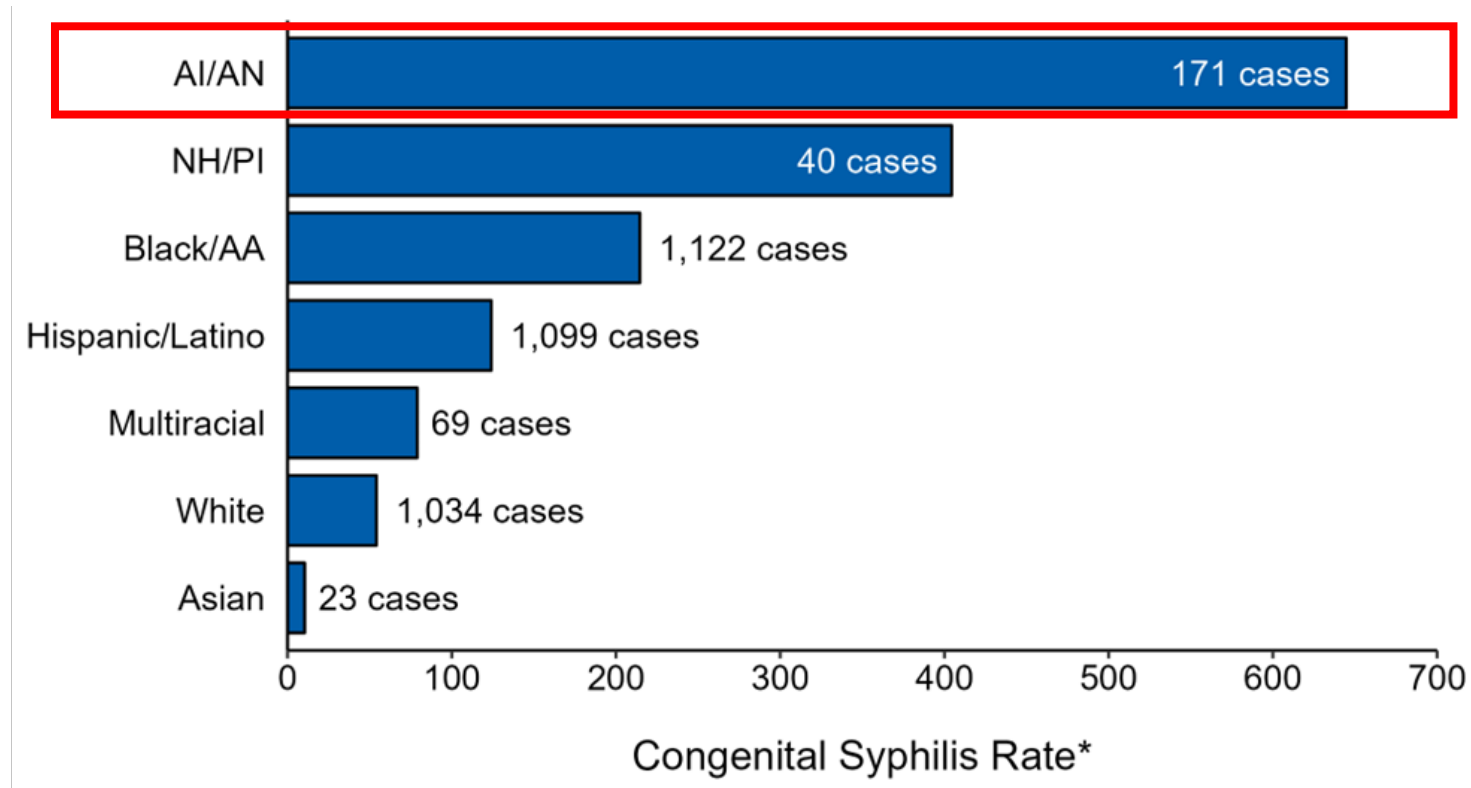
ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander



Congenital Syphilis — Case Counts and Rates of Reported Cases by Race/Hispanic Ethnicity of Mother, US, 2022



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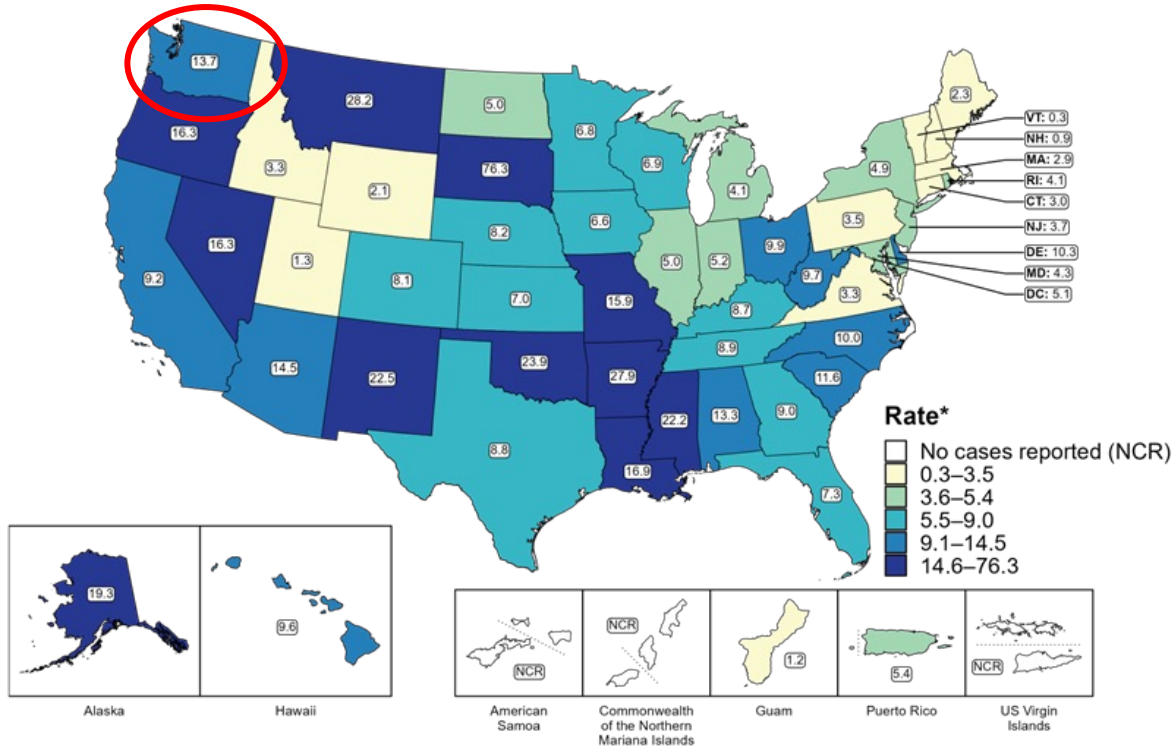


* Per 100,000 live births

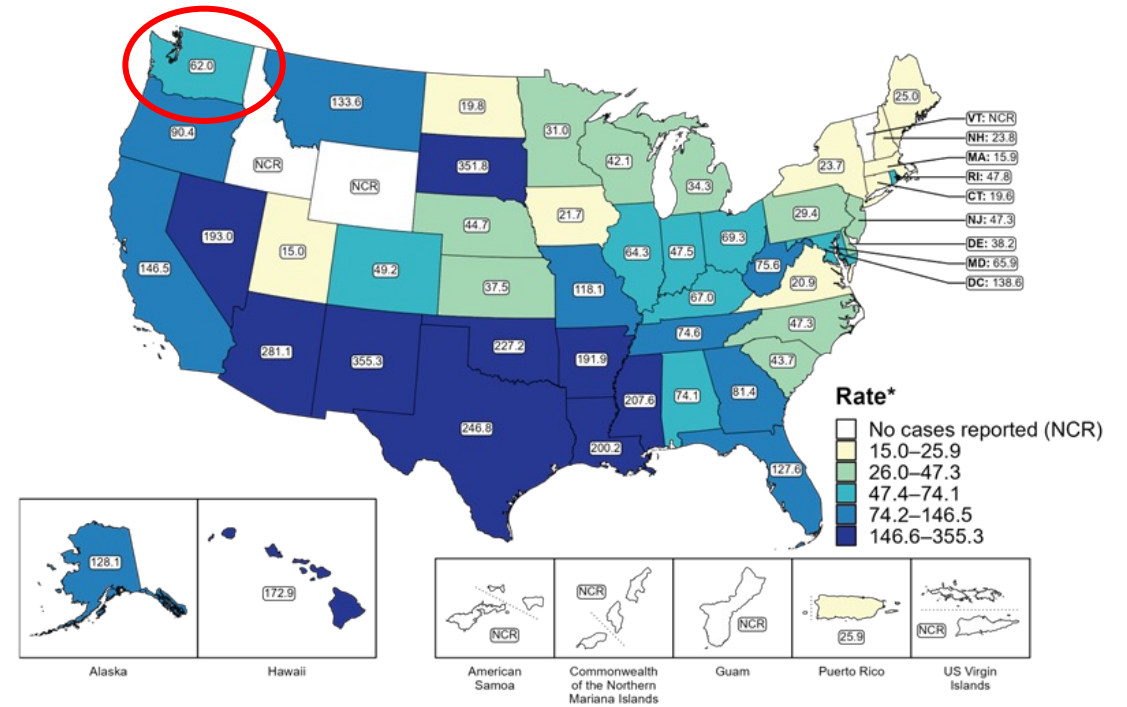
NOTE: In 2022, a total of 197 congenital syphilis cases (5.2%) had missing, unknown, or other race and were not reported to be of Hispanic ethnicity.

ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander

P&S Rates of Reported Cases Among Women
by State, US and Territories, 2022

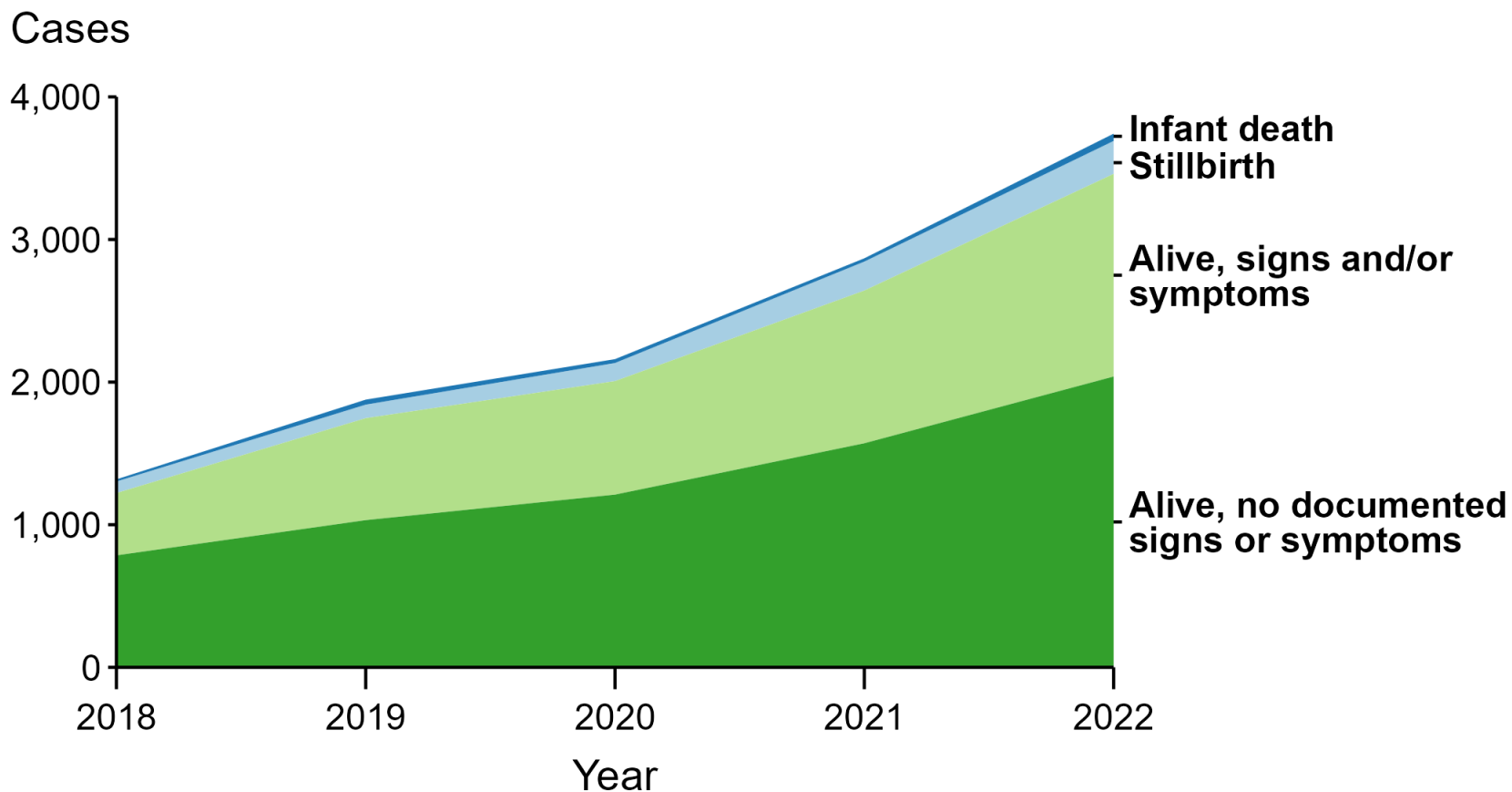


Congenital Syphilis Rates of Reported Cases
by State, US and Territories, 2022



* Per 100,000

Congenital Syphilis — Reported Cases by Vital Status and Clinical Signs and Symptoms* of Infection, United States, 2018–2022

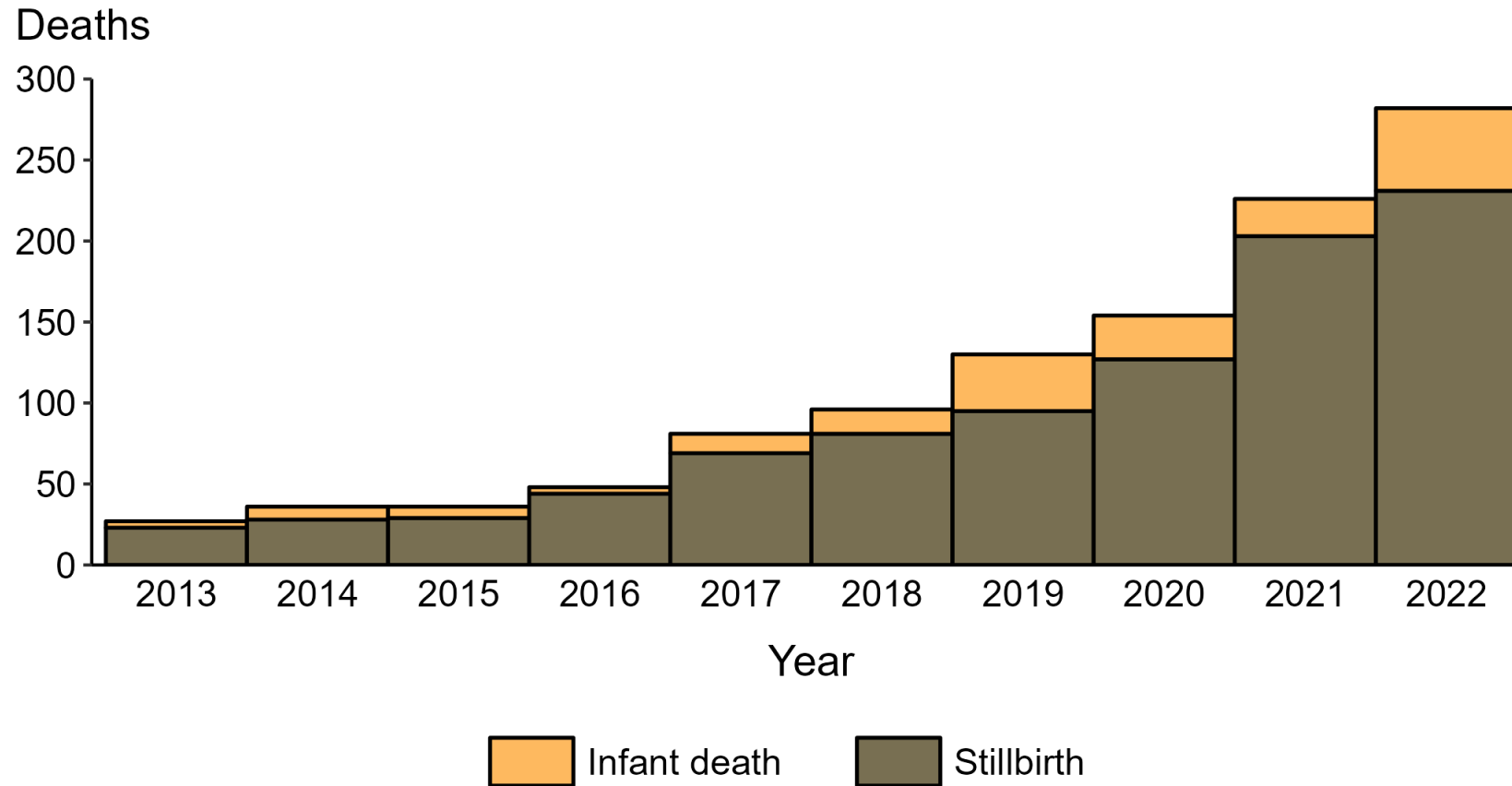


* Infants with signs and/or symptoms of congenital syphilis have documentation of at least one of the following: long bone changes consistent with congenital syphilis, snuffles, condylomata lata, syphilitic skin rash, pseudoparalysis, hepatosplenomegaly, edema, jaundice due to syphilitic hepatitis, reactive CSF-VDRL, elevated CSF WBC or protein values, or evidence of direct detection of *T. pallidum*.

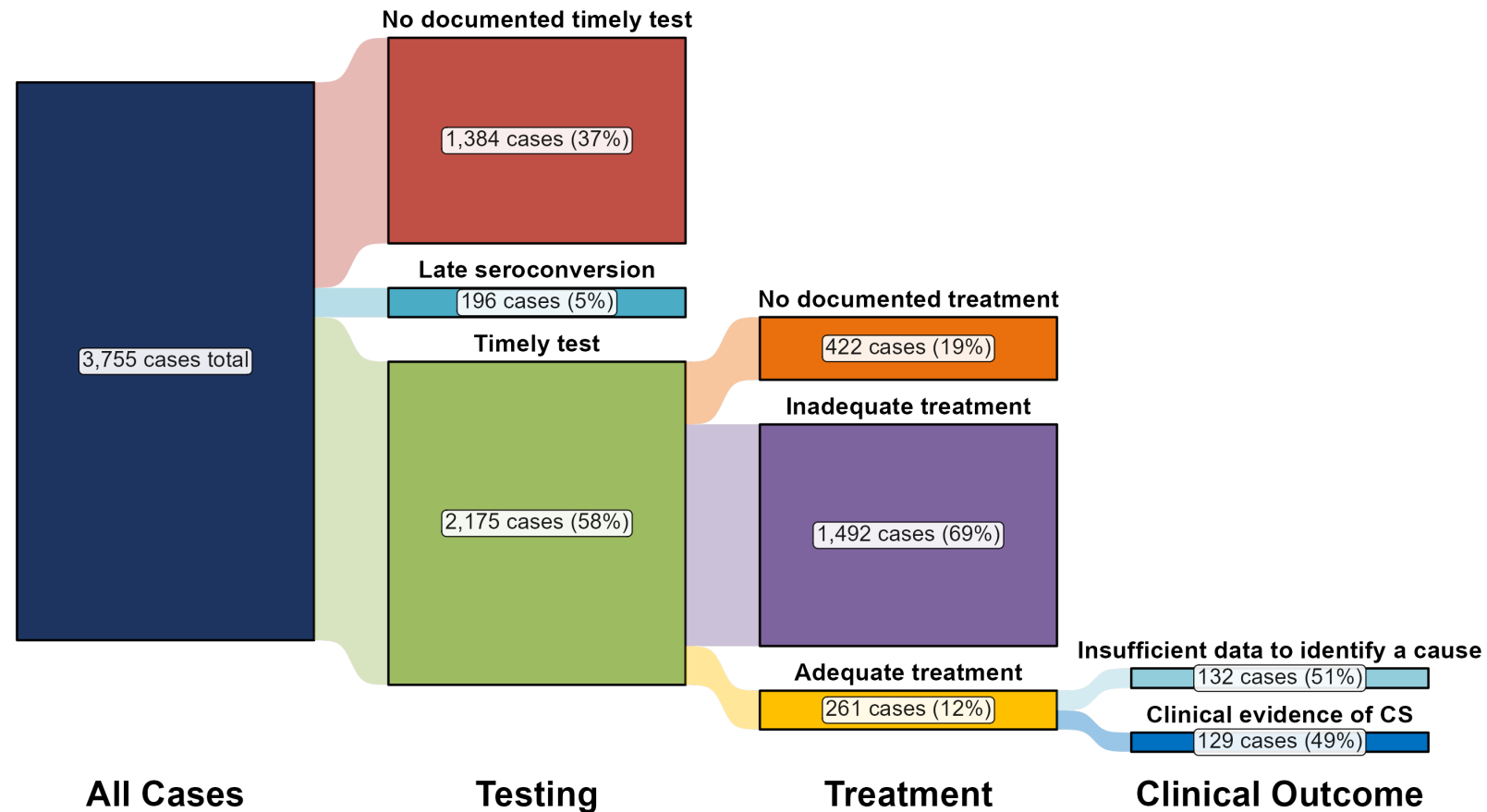
NOTE: Of the 11,999 congenital syphilis cases reported during 2018 to 2022, 33 (0.3%) did not have sufficient information to be categorized.



Congenital Syphilis — Reported Stillbirths and Infant Deaths, United States, 2013–2022



Congenital Syphilis — Distribution of Receipt of Testing and Treatment by Pregnant Persons with a Congenital Syphilis Outcome, United States, 2022



In Summary



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- **Syphilis is back - Raise your index of suspicion**
 - Increase screening efforts
 - Target early diagnosis and treatment
 - Prioritize testing and treatment in highest risk patients, especially people who can get pregnant to prevent congenital syphilis
- **The epidemiology of syphilis is shifting**
 - Think of syphilis outside of the classic risk categories
- **Coordinated, holistic outbreak response is key**
 - We are not alone in these efforts!
 - [Indian Country ECHO](#) is a fantastic place to find additional resources

Thank you!



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Ashley Hoover, MPH

ahoover@npaihb.org