

HIV/STI update: Where do we go from here?

2021 Virtual HIV/HCV/SUD Symposium

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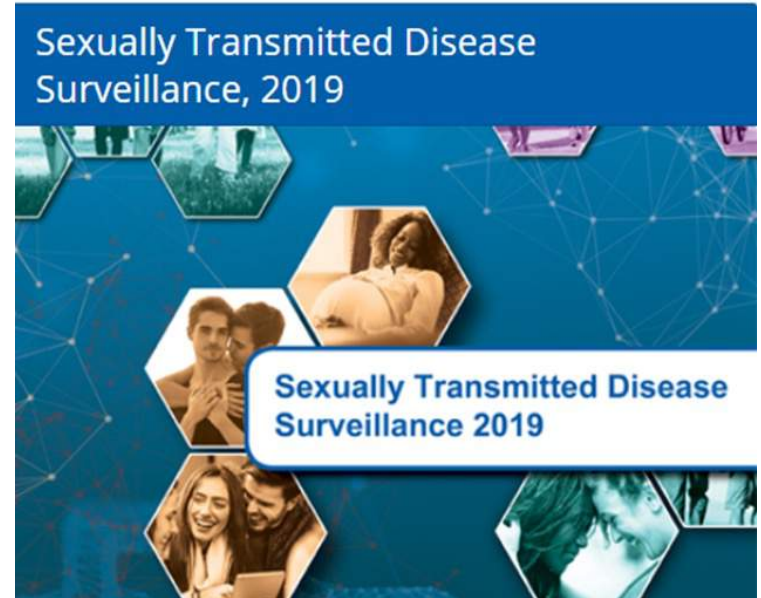
COI Disclosure

- Dr. Hubach has no conflicts of interest

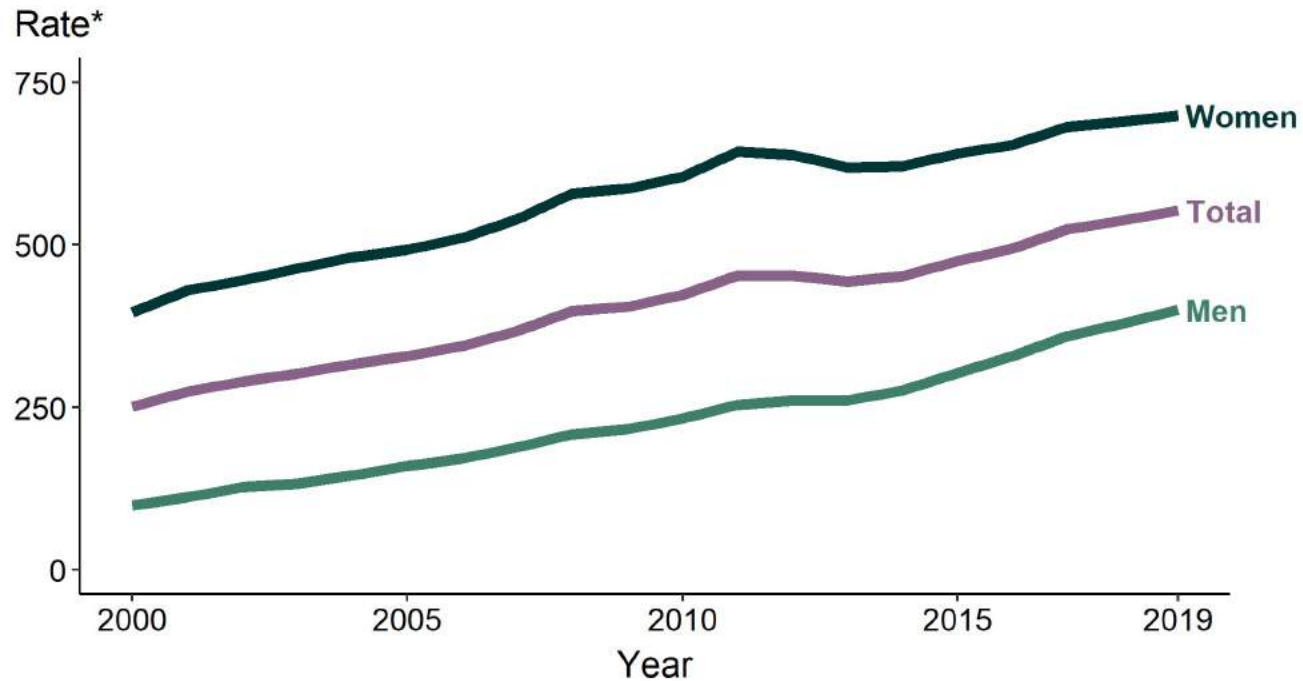
Objectives

- Assess current HIV/STI trends in the United States
- Evaluate disparities within current trends
- Identify opportunities for research and intervention to address HIV/STI disparities

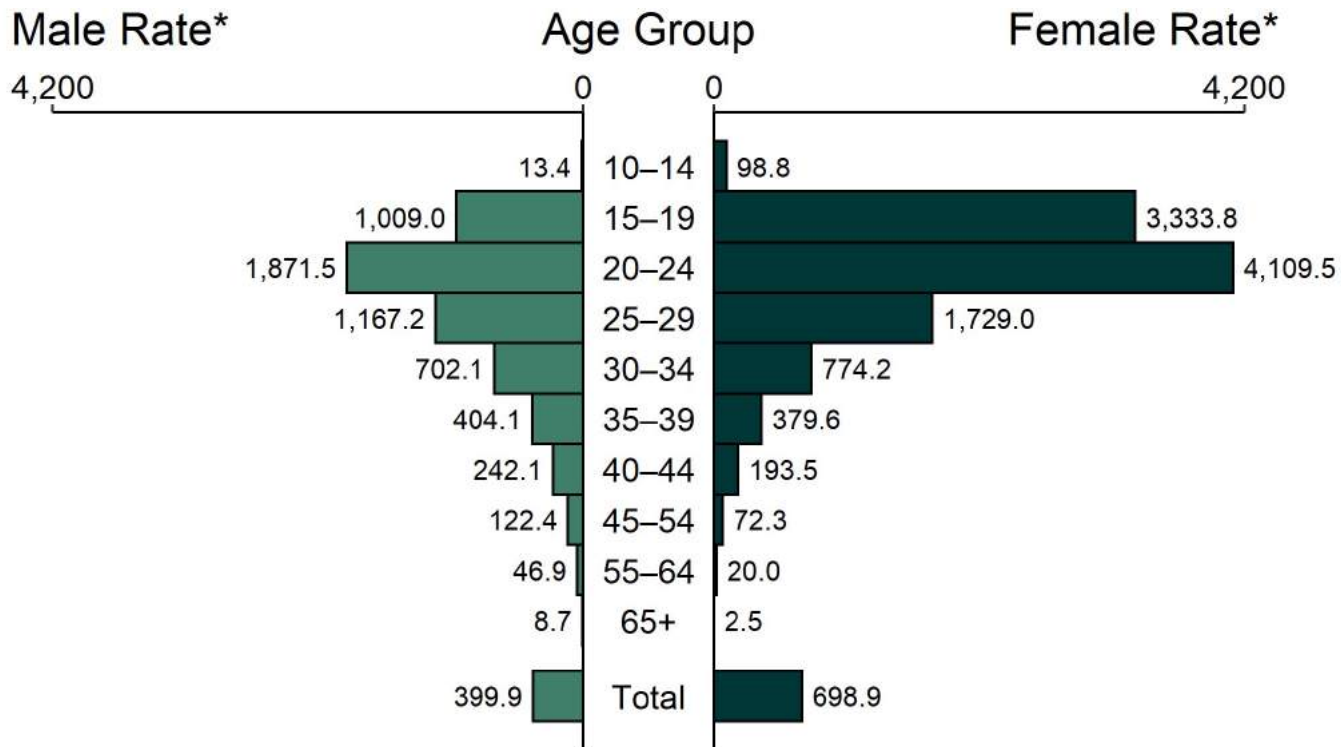
STI Surveillance



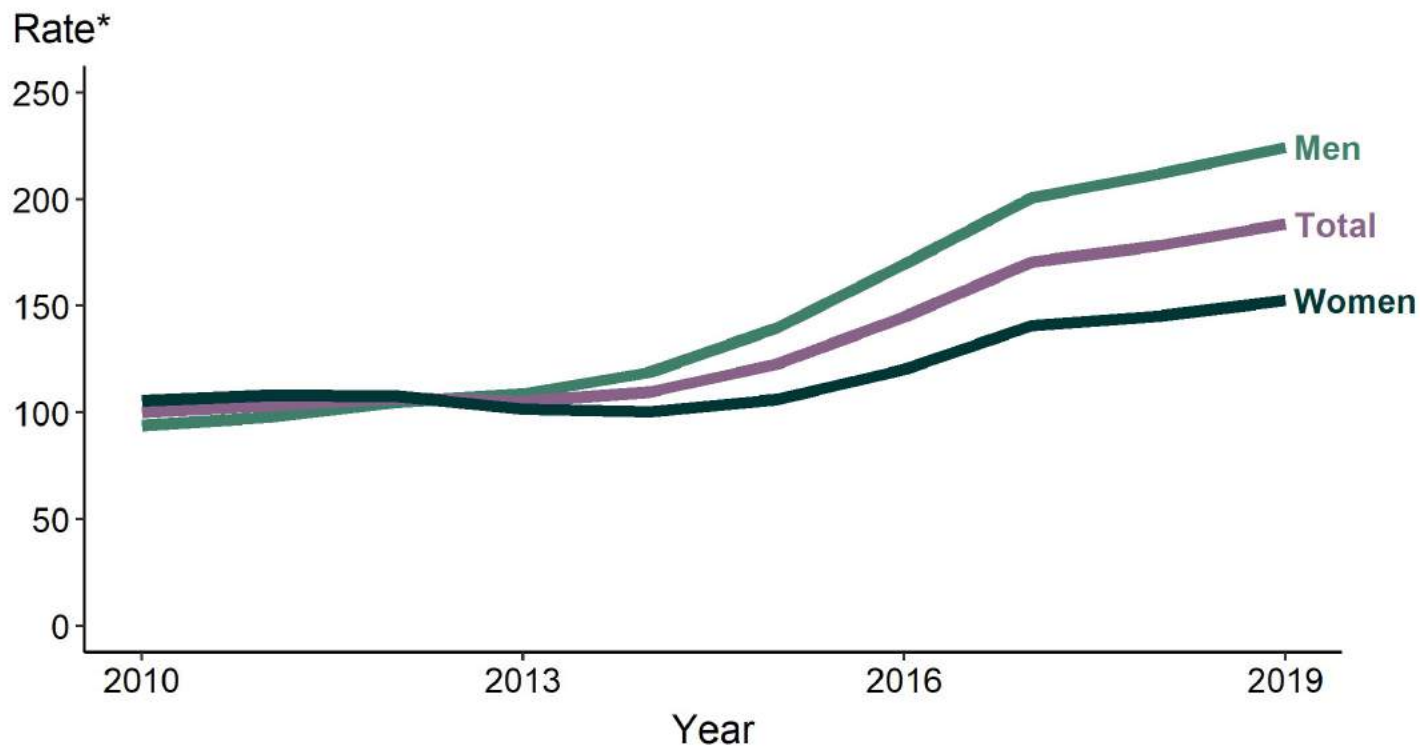
Chlamydia



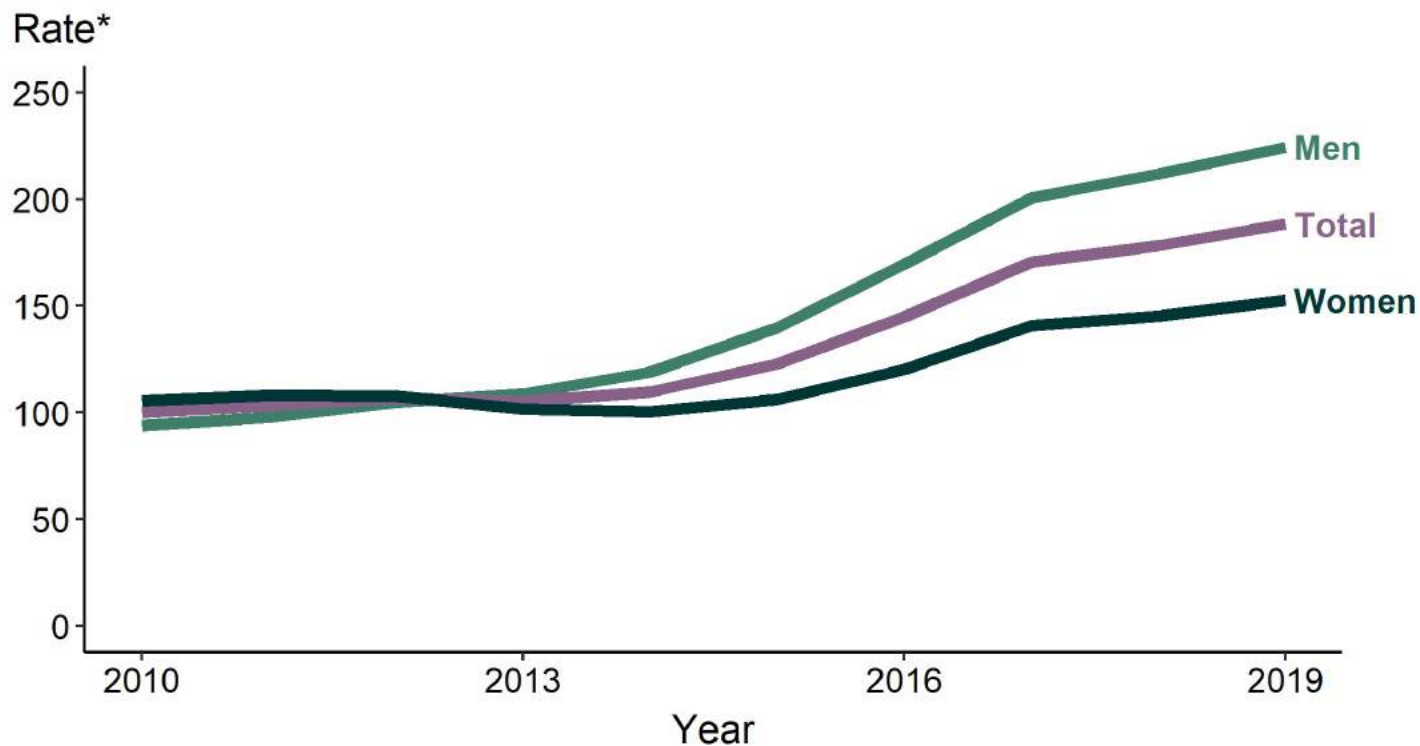
Chlamydia



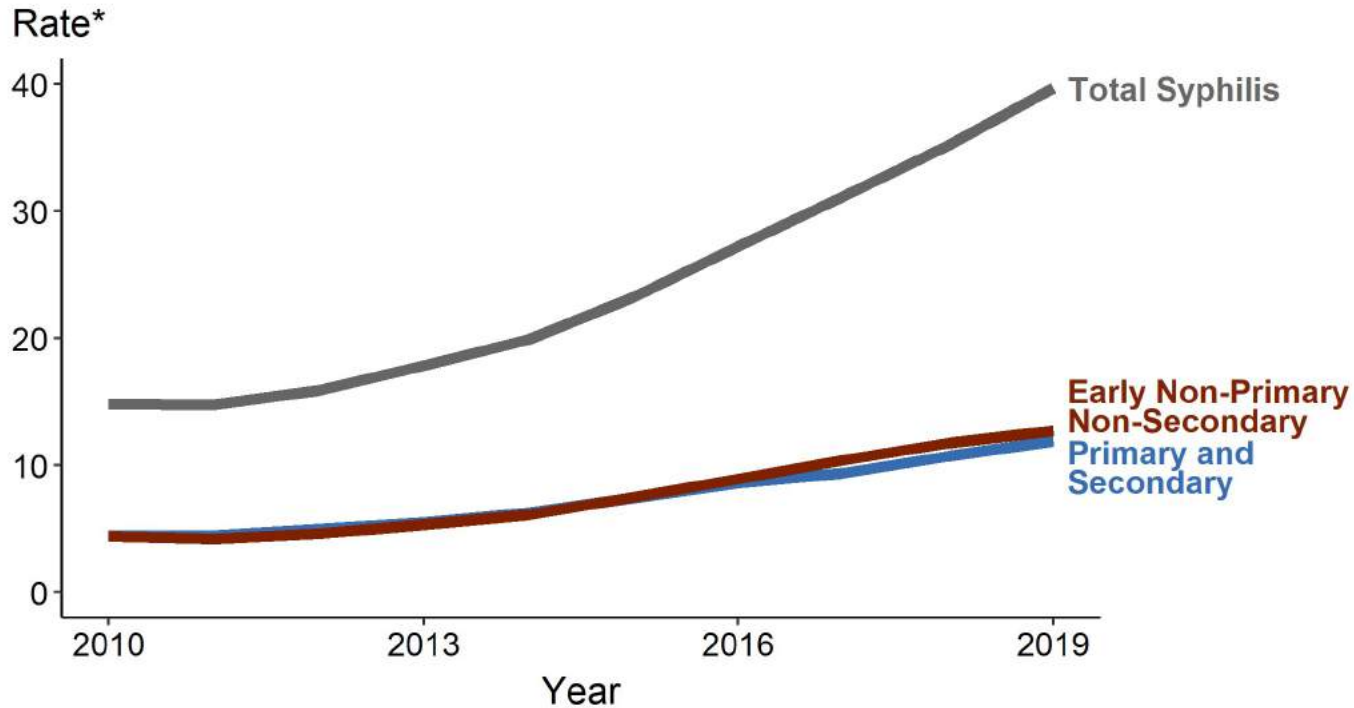
Gonorrhea



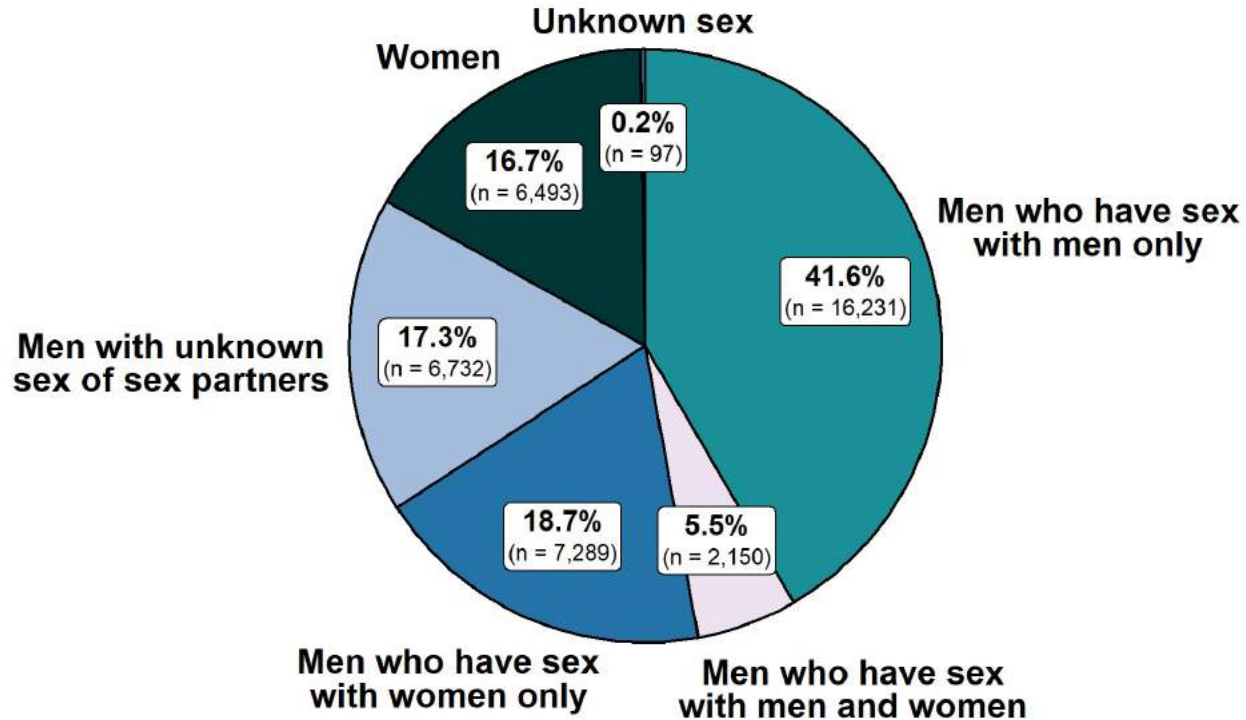
Gonorrhea



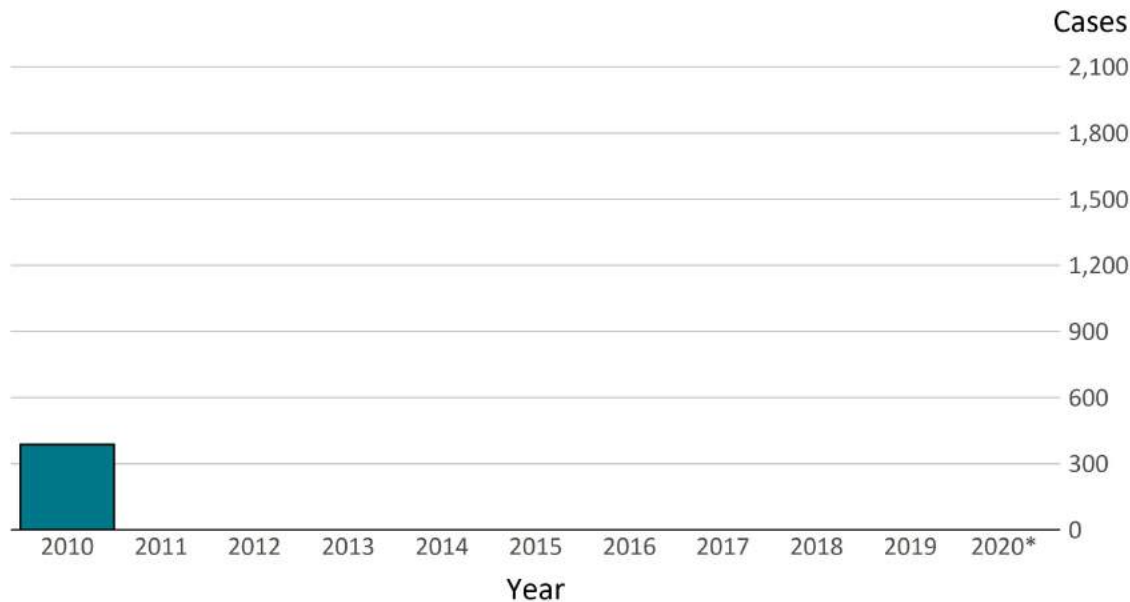
Syphilis



Syphilis



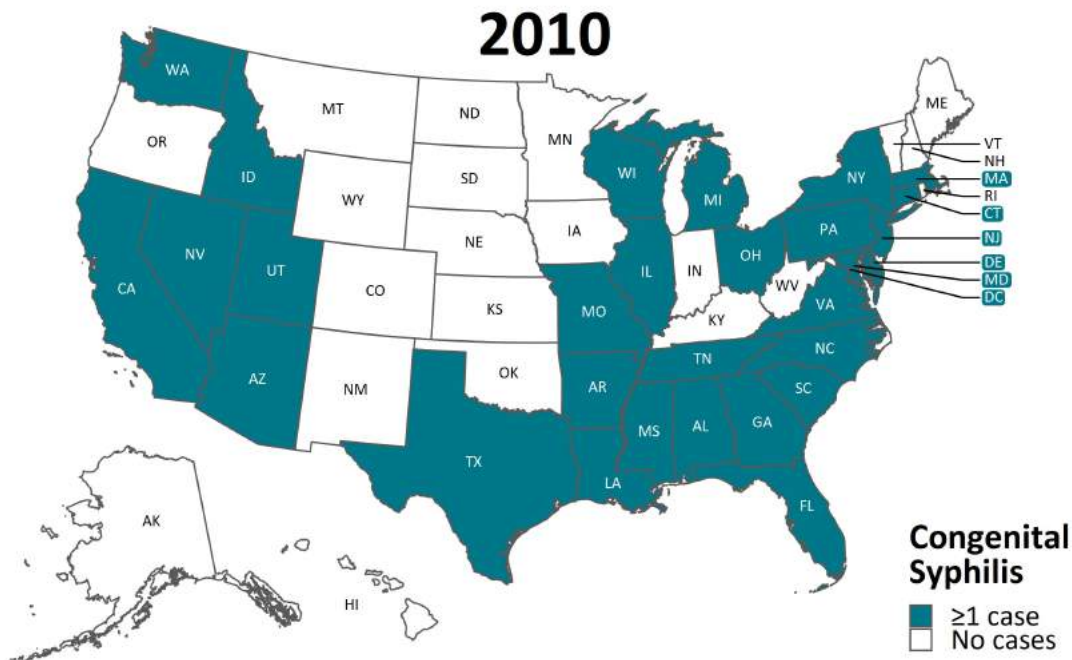
Congenital Syphilis — Reported Cases by Year of Birth, United States, 2010–2020*



* Reported and projected 2020 congenital syphilis data are preliminary as of July 29, 2021.

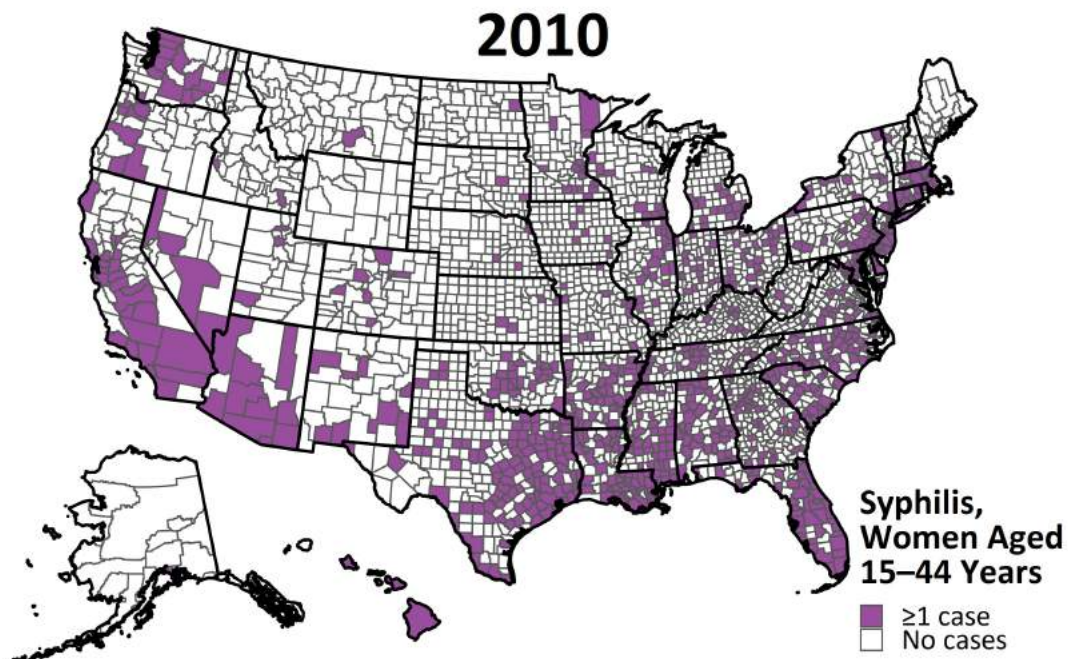
Over the last decade, congenital syphilis has diffused across the nation. By 2019, 43 states and D.C. reported at least one case.

Congenital Syphilis — Reported Cases by State, United States, 2010–2019



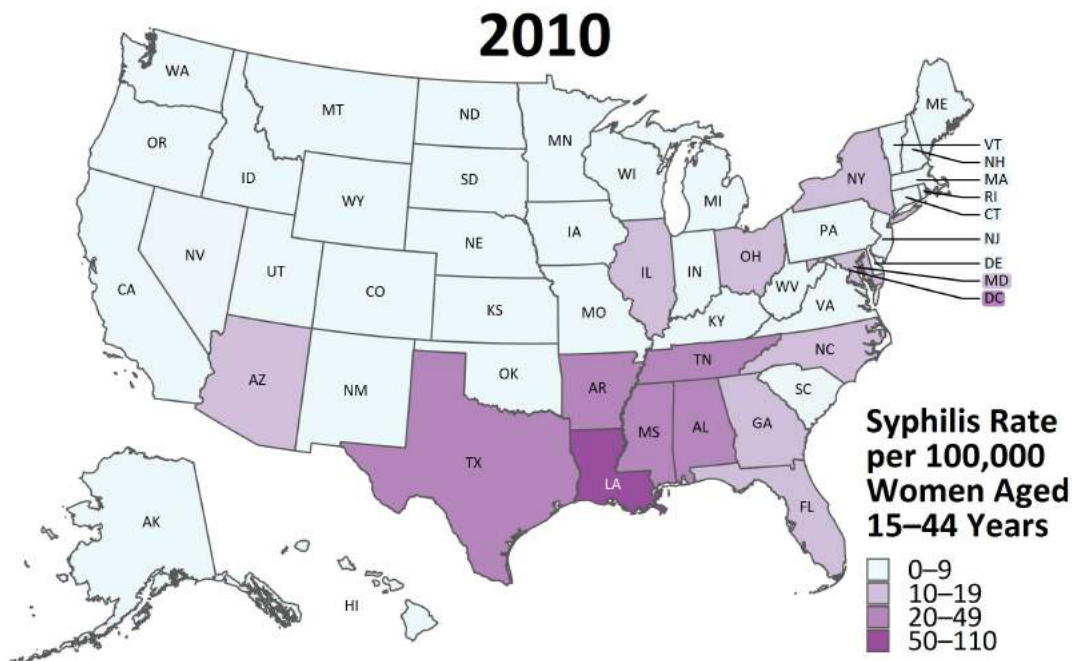
In 2019, half of all counties reported syphilis among women of reproductive age—a doubling over the last decade.

Total Syphilis — Reported Cases Among Women Aged 15–44 Years by County, United States, 2010–2019

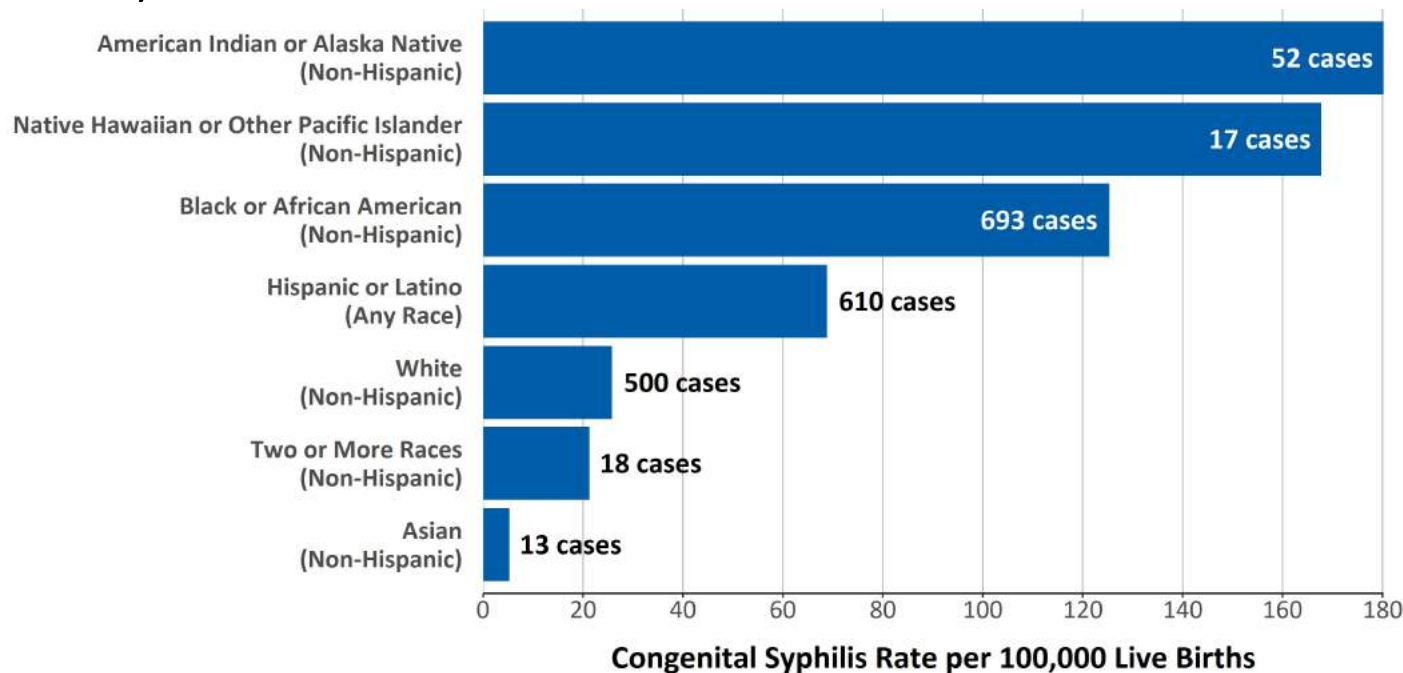


Not only is syphilis diffusing to previously unaffected areas, but rates are also increasing in areas with a history of syphilis among women.

Total Syphilis — Rates of Reported Cases Among Women Aged 15-44 Years by State, United States, 2010–2019



Although 2020 data are preliminary,* racial and ethnic disparities are quite evident and similar to data seen in previous years.

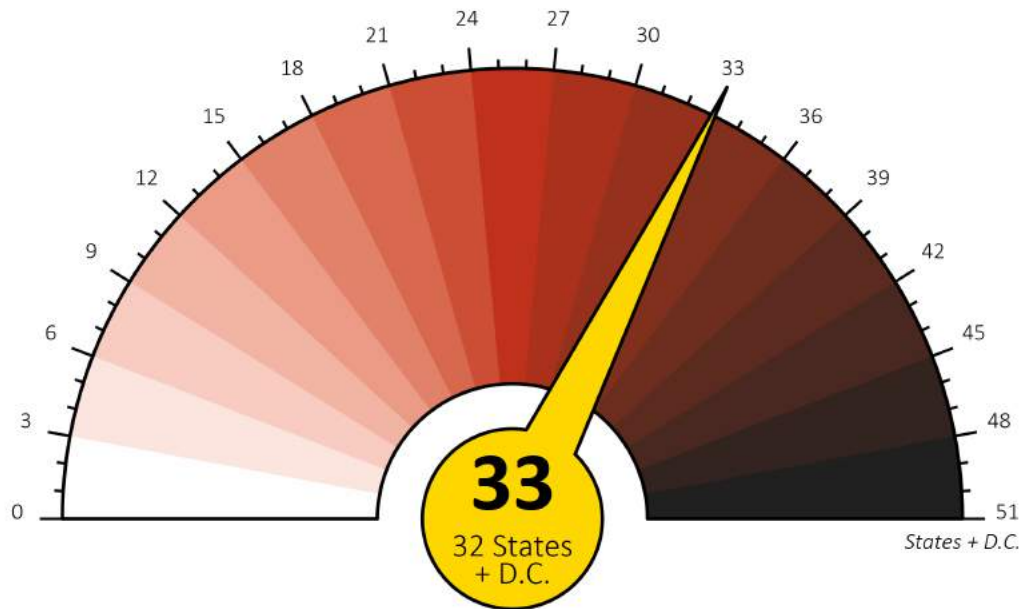


* Reported 2020 congenital syphilis data are preliminary as of July 29, 2021.

Congenital Syphilis — Case Counts and Rates of Reported Cases by Race and Hispanic Ethnicity, United States, 2020*

Based on preliminary 2020 data,* 32 states and D.C. have already reported increases in congenital syphilis over 2019.

Congenital Syphilis
Congenital Syphilis
2019–2020*

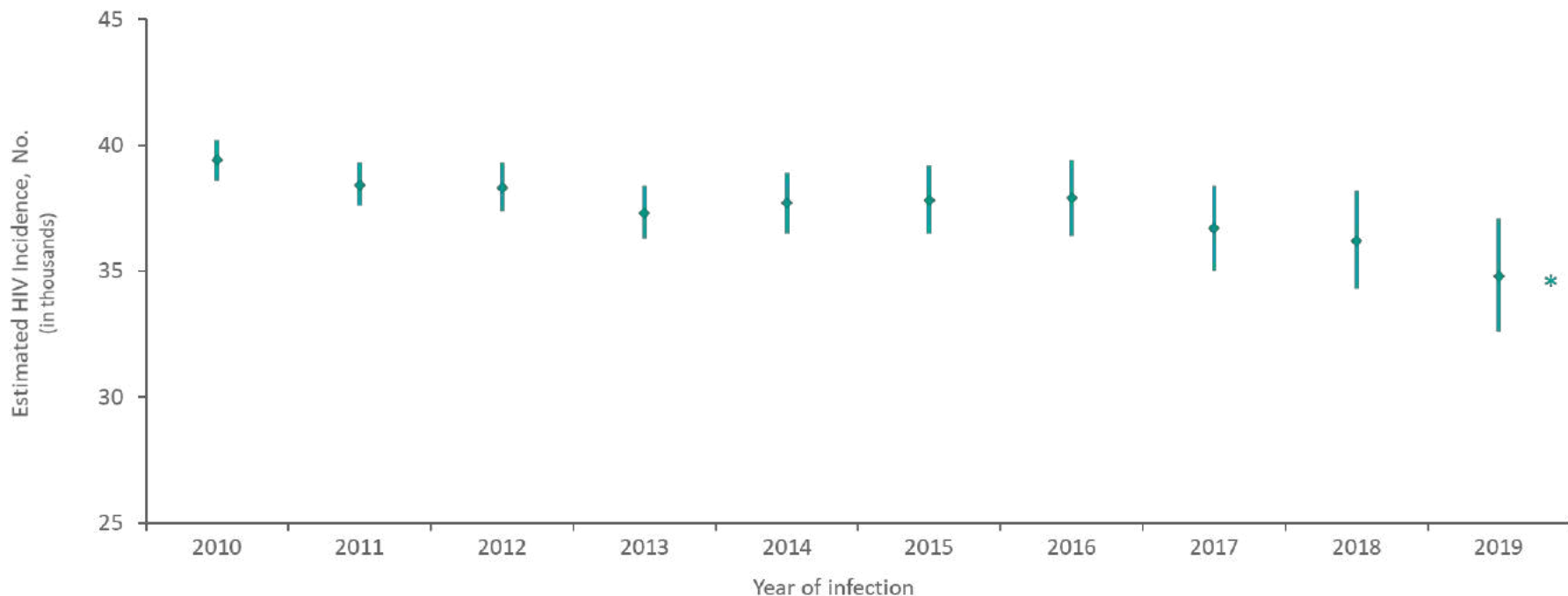


* Reported 2020 congenital syphilis data are preliminary as of July 29, 2021.



HIV Surveillance

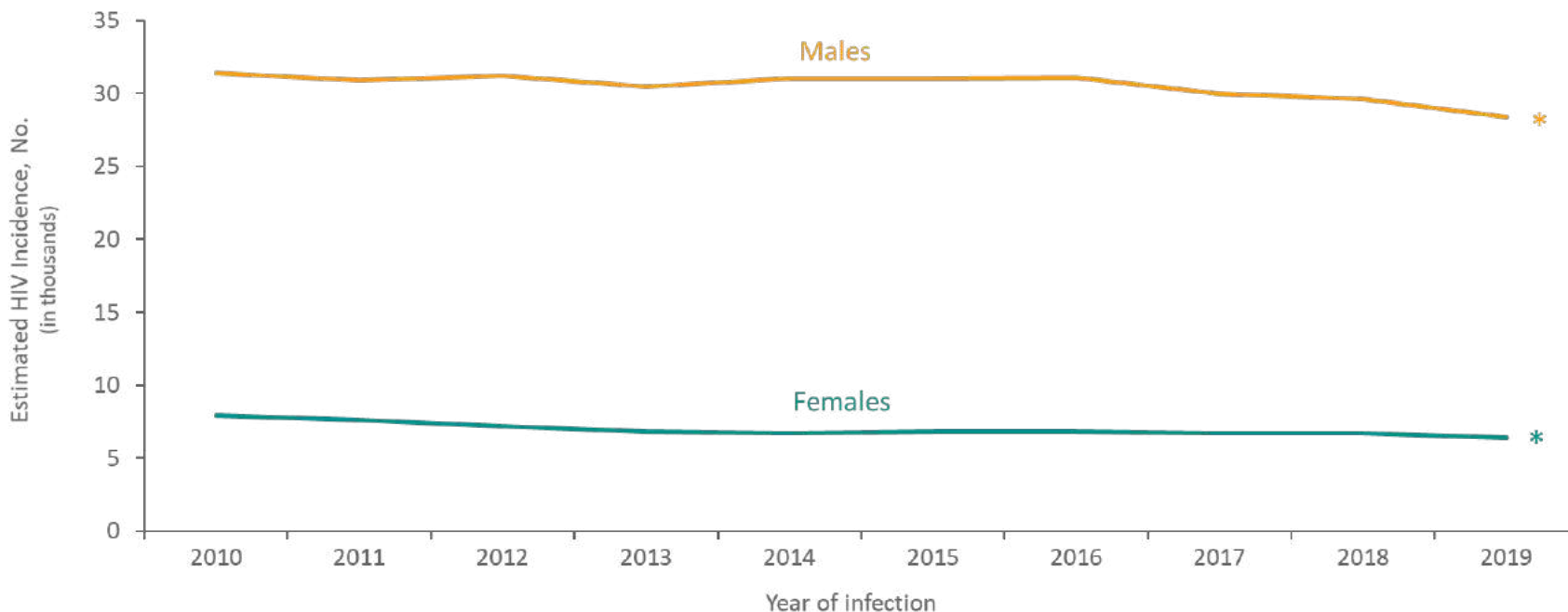
Estimated HIV Incidence among Persons Aged ≥ 13 Years 2010–2019—United States



Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Bars indicate the range of the lower and upper bounds of the 95% confidence intervals for the point estimate.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

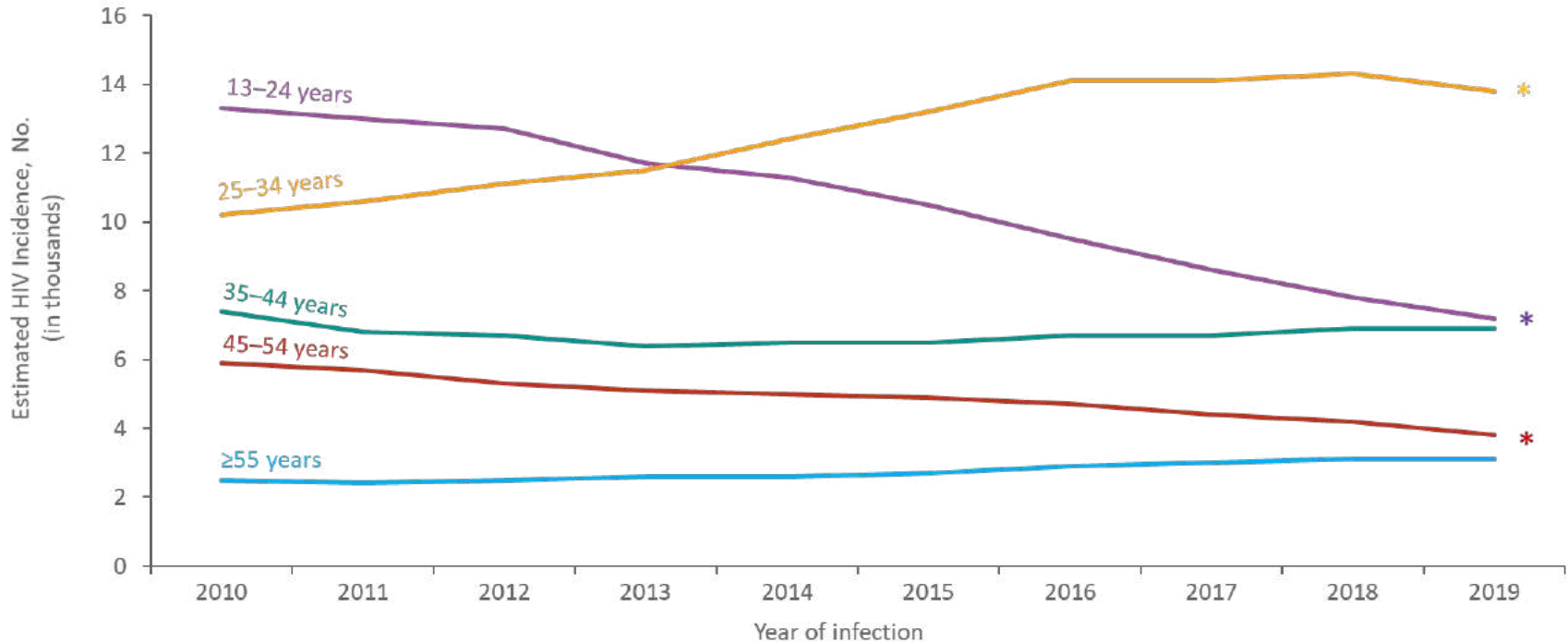
Estimated HIV Incidence among Persons Aged ≥ 13 Years, by Sex at Birth 2010–2019—United States



Note. Estimates were derived from a CD4 depletion model using HIV surveillance data.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

Estimated HIV Incidence among Persons Aged ≥ 13 Years, by Age 2010–2019—United States

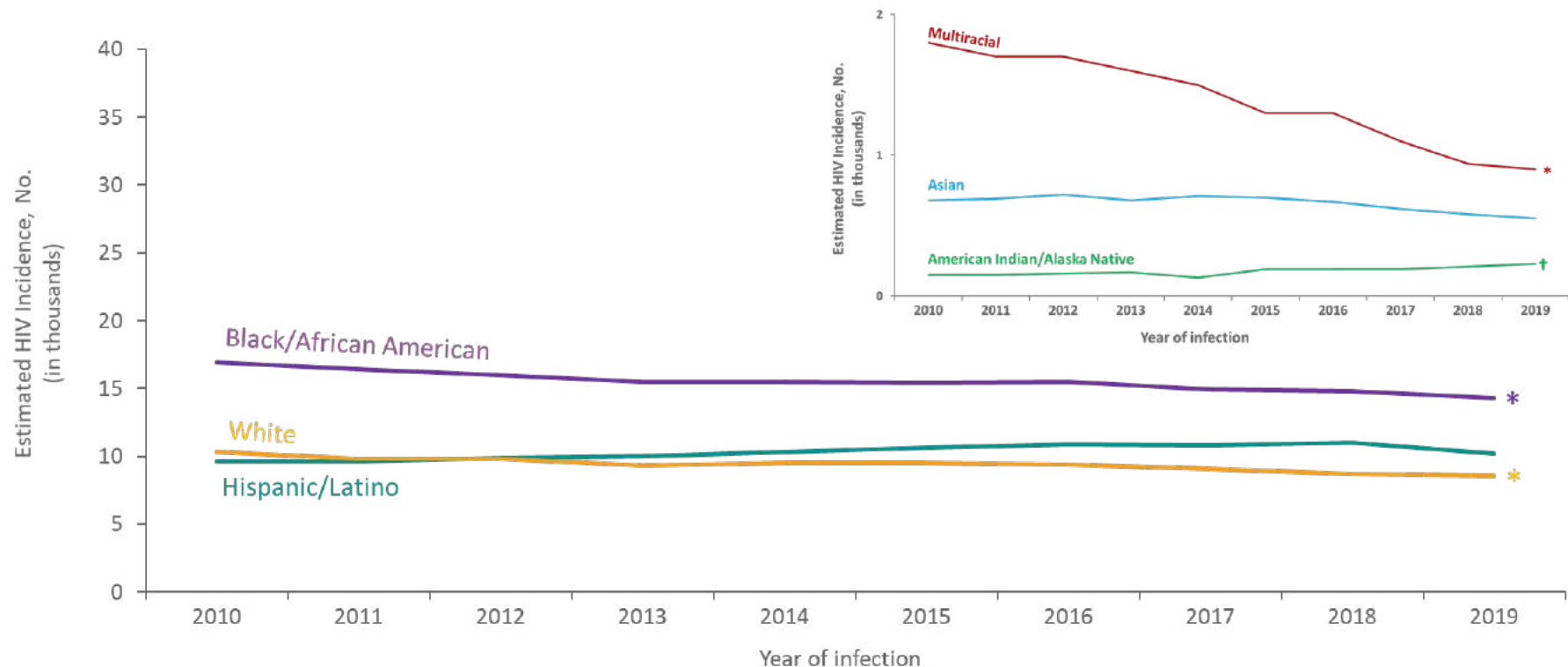


Note. Estimates were derived from a CD4 depletion model using HIV surveillance data.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

Estimated HIV Incidence among Persons Aged ≥ 13 Years, by Race/Ethnicity

2010–2019—United States

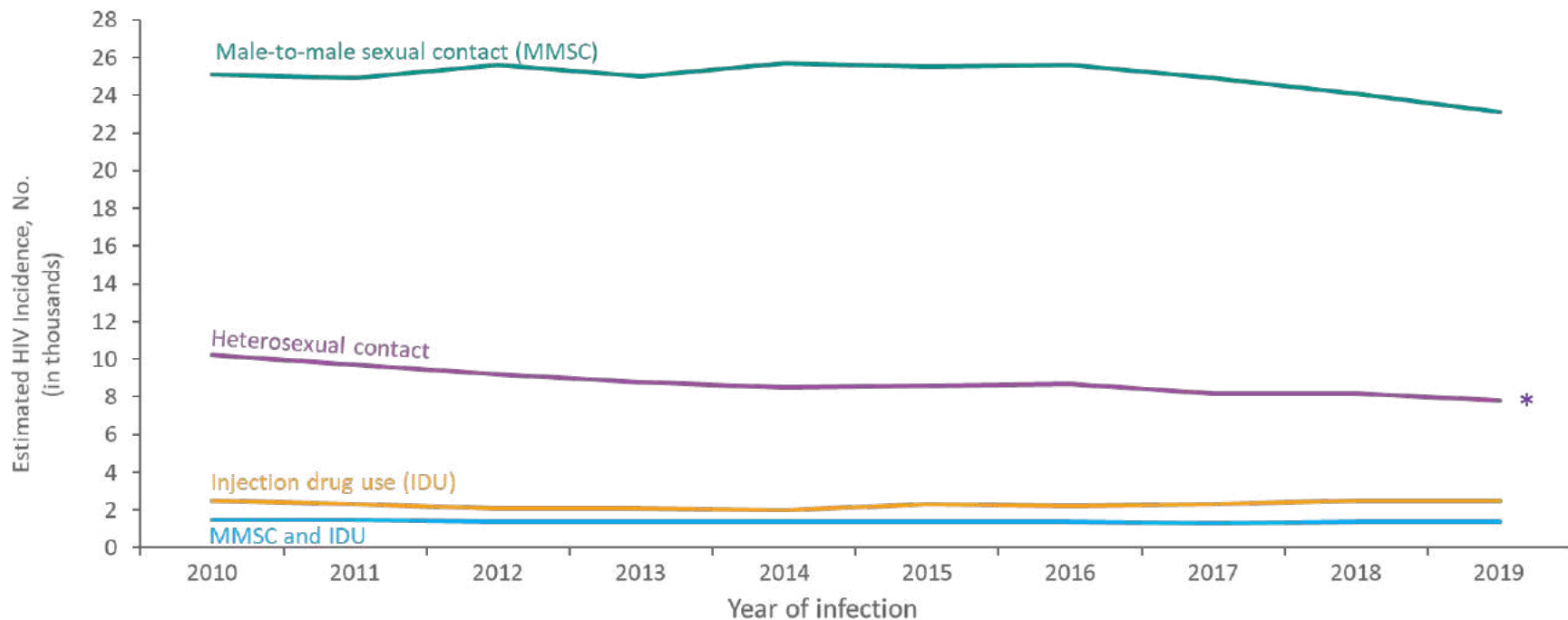


Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Hispanic/Latino persons can be of any race.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

† Estimates should be used with caution; relative standard errors are 30%–50%.

Estimated HIV Incidence among Persons Aged ≥ 13 Years, by Transmission Category 2010–2019—United States

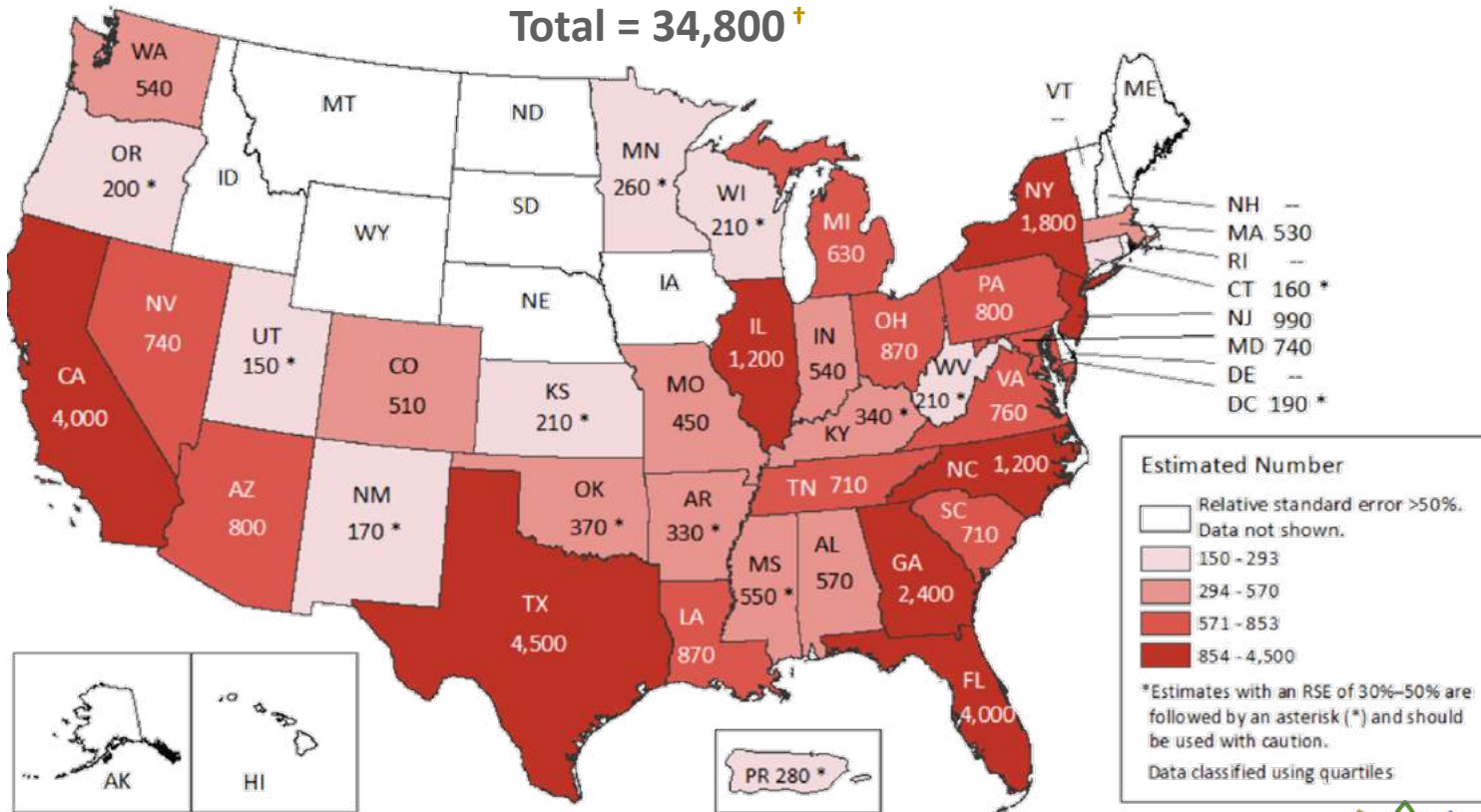


Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Data have been statistically adjusted to account for missing transmission category. Heterosexual contact is with a person known to have, or with a risk factor for, HIV infection.

* Difference from the 2010 estimate was deemed statistically significant ($P < .05$).

Estimated HIV Incidence among Persons Aged ≥13 Years, by Area of Residence 2019— United States and Puerto Rico

Total = 34,800[†]



Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

[†]Total estimate for the United States does not include data for Puerto Rico.

Intervention Opportunities

Ending the Epidemic: A Plan for America

The Initiative will target our resources to the 48 highest burden counties, Washington, D.C., San Juan, Puerto Rico, and 7 states with a substantial rural HIV burden.



Geographical Selection:

Data on burden of HIV in the US shows areas where HIV transmission occurs more frequently. More than 50% of new HIV diagnoses* occurred in only 48 counties, Washington, D.C., and San Juan, Puerto Rico. In addition, 7 states have a substantial rural burden – with over 75 cases and 10% or more of their diagnoses in rural areas.

GOAL:

75%
reduction
in new HIV
infections
in 5 years
and at least
90%
reduction
in 10 years.



HHS will work with each community to establish local teams on the ground to tailor and implement strategies to:



Diagnose all people with HIV as early as possible.

Treat people with HIV rapidly and effectively to reach sustained viral suppression.



Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.



Centers for Disease Control and Prevention

MMWR

Weekly / Vol. 68 / No. 25

Morbidity and Mortality Weekly Report

June 28, 2019

National HIV Testing Day — June 27, 2019

National HIV Testing Day, observed each year on June 27, highlights the importance of testing in detecting, treating, and preventing human immunodeficiency virus (HIV) infection. Early diagnosis is critical to controlling HIV transmission in the United States (1). With the aim of reducing the number of new infections in the United States by 90% in 10 years, the Ending the HIV Epidemic initiative initially will focus

HIV Testing in 50 Local Jurisdictions Accounting for the Majority of New HIV Diagnoses and Seven States with Disproportionate Occurrence of HIV in Rural Areas, 2016–2017

Marc A. Pitasi, MPH¹; Kevin P. Delaney, PhD¹; John T. Brooks, MD¹;
Elizabeth A. DiNenno, PhD¹; Shacara D. Johnson, MSPH¹;
Joseph Prejean, PhD¹

TABLE 2. (Continued) Ever and past-year testing for human immunodeficiency virus (HIV) among adults aged ≥18 years — Behavioral Risk Factor Surveillance System, 50 local jurisdictions and seven states,* 2016–2017

Jurisdiction	No. of respondents [†]	Ever tested for HIV weighted % (95% CI)	Tested in past year for HIV weighted % (95% CI)
Seven states with disproportionate HIV occurrence in rural counties			
Alabama, total	12,098	39.4 (38.3–40.6)	11.0 (10.2–11.8)
Urban counties	7,442	40.8 (39.4–42.3)	12.1 (11.1–13.2)
Rural counties	4,656	36.8 (34.8–38.8)	8.8 (7.6–10.2)
Arkansas, total	9,268	33.7 (31.9–35.6)	9.1 (7.9–10.4)
Urban counties	5,206	35.8 (33.4–38.3)	10.6 (8.9–12.5)
Rural counties	4,062	30.9 (28.3–33.6)	7.1 (5.7–8.8)
Kentucky, total	16,937	33.8 (32.6–34.9)	7.2 (6.6–7.9)
Urban counties	8,887	36.3 (34.7–38.0)	8.0 (7.1–9.0)
Rural counties	8,050	29.9 (28.4–31.4)	6.0 (5.3–6.9)
Mississippi, total	8,984	40.2 (38.7–41.7)	12.7 (11.6–13.9)
Urban counties	4,207	44.3 (42.2–46.5)	14.3 (12.7–16.1)
Rural counties	4,777	35.4 (33.4–37.4)	10.9 (9.5–12.4)
Missouri, total	13,446	34.3 (33.1–35.5)	8.3 (7.5–9.1)
Urban counties	9,031	36.4 (34.8–37.9)	9.3 (8.4–10.4)
Rural counties	4,415	29.1 (27.1–31.3)	5.6 (4.5–6.8)
Oklahoma, total	11,952	29.7 (28.6–30.9)	6.8 (6.2–7.6)
Urban counties	7,365	30.7 (29.2–32.2)	7.4 (6.5–8.4)
Rural counties	4,587	27.8 (26.0–29.7)	5.7 (4.8–6.9)
South Carolina, total	19,983	37.4 (36.4–38.3)	10.6 (9.9–11.3)
Urban counties	14,201	37.7 (36.5–38.8)	10.5 (9.8–11.4)
Rural counties	5,782	36.1 (34.3–38.0)	10.9 (9.6–12.4)

Abbreviation: CI = confidence interval.

* Urban and rural classifications were derived from 2010 U.S. Census. Counties with <50% of the population residing in areas defined as rural were classified as urban counties. Counties with ≥50% of the population residing in areas defined as rural were classified as rural counties. The 50 local jurisdictions (48 counties, the District of Columbia, and San Juan, Puerto Rico) accounted for the majority of new HIV diagnoses, and the seven states (Alabama, Arkansas, Kentucky, Mississippi, Missouri, Oklahoma, and South Carolina) experienced disproportionate occurrence of HIV in rural areas, as identified from HIV diagnoses made during 2016–2017 and reported to the National HIV Surveillance System through June 2018. Diagnosis data from 2017 were considered preliminary.

[†] Number of respondents with “yes” or “no” response to question about ever testing for HIV.

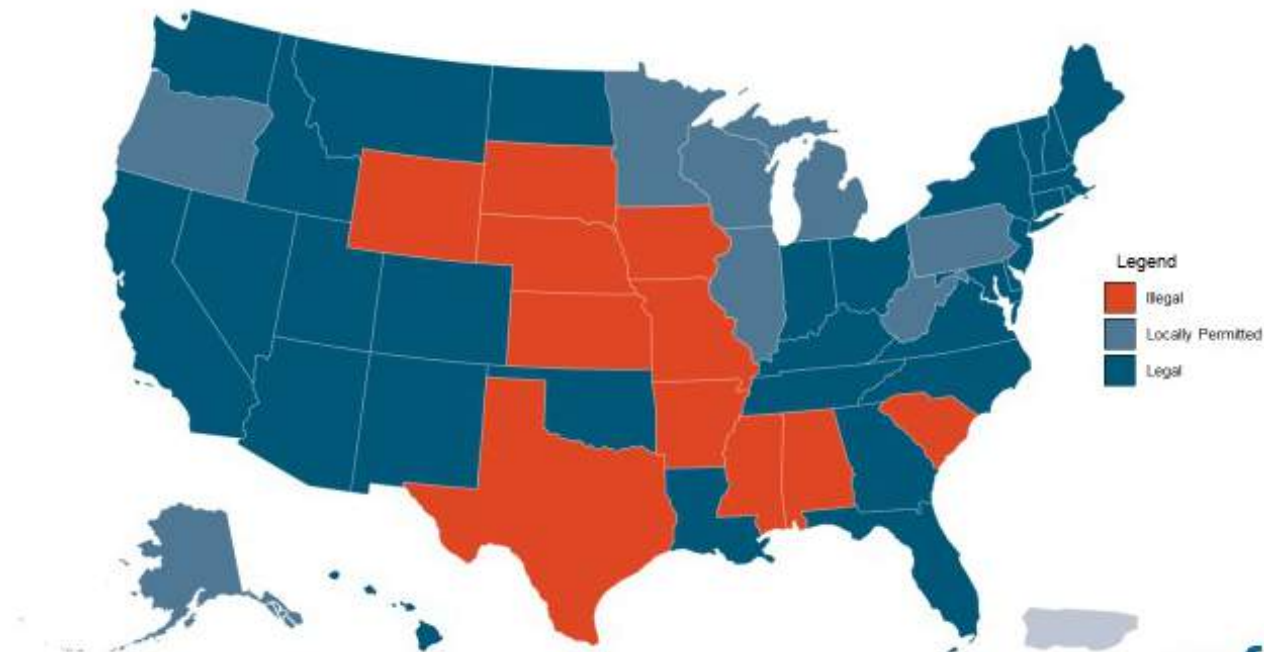
Intervention Opportunities: Policy

- 39 states and the District of Columbia mandate sex education and/or HIV education.
 - 28 states and DC mandate both sex education and HIV education.
 - 2 states only mandate sex education.
 - 9 states only mandate HIV education.
- 30 states and DC mandate that, when provided, sex and HIV education programs meet certain general requirements.
 - 18 states require program content to be medically accurate.

See: <https://www.guttmacher.org/state-policy/explore/sex-and-hiv-education#>

Intervention Opportunities: Policy

Syringe Exchange Program Legality (2021)



Intervention Opportunities: Sexual Health Care

- Physician Training
 - SGM-responsive care
 - Affirming environments
 - Sexual health; increasing screening; normalize testing
- Telehealth/Telemedicine
 - Enhance the care continuum by minimizing known barriers to care
 - PrEP diffusion
- At-home testing; self-sampling

Preferred Methods of HIV and Sexually Transmissible Infection Screening Delivery Among a Rural Sample of Men Who Have Sex with Men

Randolph D. Hubach , Andrew M. O'Neil

Rural College Students' Amenability Toward Using At-Home Human Immunodeficiency Virus and Sexually Transmitted Infection Testing Kits

Hubach, Randolph D. PhD, MPH[†]; Mahaffey, Carlos PharmD, MPH[†]; Rhoads, Kelley PhD[†]; O'Neil, Andrew M. BS, BA[†]; Ernst, Campbell MAT[†]; Bui, Lynn X. BS, BA[†]; Hamrick, Justin MPH[†]; Giano, Zachary PhD^{*}

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THE REAL WORLD OF STD PREVENTION

Sexually Transmitted Diseases: August 2014
doi: 10.1097/OLQ.0000000000001374

Preferred Methods of Sexually Transmitted Infection Service Delivery Among an Urban Sample of Underserved Midwestern Men

Hubach, Randolph D. MPH[†]; Dodge, Brian PhD[†]; Davis, Alissa MA[†]; Smith, Andrew D. MPH[†]; Zimet, Gregory D. PhD[†]; Van Der Pol, Barbara PhD, MPH^{*5}

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Sexually Transmitted Diseases: February 2014 - Volume 41 - Issue 2 - p 129-132
doi: 10.1097/OLQ.0000000000000082

Thank You

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<https://www.sexualhealthresearch.org>

