

Sexually Transmitted Diseases in California

2021 Technical Notes

OVERVIEW OF DATA SOURCES BY SEXUALLY TRANSMITTED INFECTION

DATA SOURCE	Chlamydia	Gonorrhea	Syphilis	Other STI
CASE-BASED SURVEILLANCE	X	X	X	X
ENHANCED CASE-BASED SURVEILLANCE		X	X	
PREVALENCE MONITORING				
Family Planning Clinics	X	X		
Managed Care Organizations	X	X		
ANTIMICROBIAL RESISTANCE SURVEILLANCE		X		

The sexually transmitted disease (STD) surveillance systems operated by California state and local STD control programs are the sources of the data displayed in this publication. **Case-based surveillance** is conducted for the following reportable sexually transmitted infections (STI): chlamydia, gonorrhea, syphilis, and chancroid. Case reports are submitted to local health jurisdictions (LHJ) in the form of laboratory reports and/or reports from healthcare providers. LHJs then submit these data to the California Department of Public Health (CDPH). In 2021, 59 of 61 health jurisdictions used the California Reportable Disease Information Exchange (CalREDIE) system, and two entered their case data into their own locally developed surveillance systems. Jurisdictions that use CalREDIE are referred to as the **California Project Area**. For the CalREDIE data, incidents with resolution statuses of confirmed, probable, suspect, unknown, and missing were included in the case counts for all diseases except congenital syphilis (CS) – if the incident fulfilled the surveillance case definition for their respective disease. For CS, cases were enumerated in line with the CS case classifications of confirmed, stillbirth, or probable.

Rates by county and selected city health jurisdictions were calculated using State of California, Department of Finance, *E-6: Population Estimates and Components of Change by County, July 1, 2010-2021*, Sacramento, California, December 2021. Rates by age, race/ethnicity, and gender were calculated using State of California, Department of Finance, *Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060, Baseline 2021*, Sacramento, California, January 2021. In this report, data were presented by county and for the separate city health jurisdictions of Berkeley, Long Beach, and Pasadena. Data for these cities were displayed separately from their respective county totals as well as with the county totals.

Rates of **congenital syphilis** were calculated using State of California, Department of Finance, Demographic Research Unit, *Historical and Projected Fertility Rates and Births, 1990-2040* (Baseline 2019 Population Projections), Sacramento, California, March 2021, and State of California, Department of Public Health, Center for Health Statistics and Informatics, *Comprehensive Master Birth Files*.

Transgender population estimates used in this report were calculated using the Williams Institute estimates for the State of California (<https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/>). The Williams Institute's transgender population estimates were applied to the 2016 State of California population year data (State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060), providing Transgender population estimates for the 2016 calendar year. To account for population change in California over time, we multiplied the 2016 transgender population estimates by the overall population change ratio from 2016 to the given year. Population change ratios were calculated as (e.g.) the total population 2016 / total population 2017. Transgender population estimates were subtracted from male and female population estimates from each year to derive cisgender male and female population estimates in California. There were limited data available to inform the distribution of transgender men and transgender women within the total transgender population, so we assumed a 1:1 ratio within the total transgender population in California.

Sexual orientation and Gender identity data in tables and graphs were collapsed into female (including transgender women), and male (including transgender men), with the exception of the following data tables: CT-12, GC-12, PS-9, 10, 11, 12, 13, 14, EnPnS-9, 10, 11, 12, 13, 14, TES-9, 10, 11, 12, 13, 14, UDLS-6, UDLS-7, CS-4, and CHN-2, and the new slides which describe syphilis risk among transgender men and women in California. In these, gender identity is reported as male (current gender identity and sex assigned at birth), female (current gender identity and sex assigned at birth), genderqueer or non-binary, transgender female (current gender identity), transgender male (current gender identity) and unknown gender identity (which includes respondents who reported that their identities were not listed or those whose identities were unknown). Sexual orientation data are reported as bisexual, gay/lesbian/same gender loving, heterosexual/straight, orientation not listed, and unknown.

MSM population estimates were from Grey et al., Estimating the Population Sizes of Men Who Have Sex with Men in US States and Counties Using Data From the American Community Survey. 2016. [JMIR Public Health Surveillance](https://publichealth.jmir.org/2016/1/e14/). (<https://publichealth.jmir.org/2016/1/e14/>).

Race and ethnicity data were reported in the following categories: Black/African American (black, non-Hispanic), Hispanic/Latino (Hispanic ethnicity, regardless of race designation), white (white, non-Hispanic), Asian (Asian, non-Hispanic), Native Hawaiian/Other Pacific Islander (Native Hawaiian/Pacific Islander, non-Hispanic), American Indian/Alaska Native (non-Hispanic), multi-race (non-Hispanic), other race

(non-Hispanic), and Not Specified (no race or ethnicity information was available). Missing race/ethnicity data hampers the interpretation of disease burden by race/ethnicity. The observed racial/ethnic disparities in the burden of STIs may reflect true differences in infection rates, or reporting practices of providers that serve different populations, among other factors that influence the completeness of surveillance data.

Enhanced case-based surveillance for syphilis is based on standardized interviews of syphilis cases conducted by disease intervention specialists and/or public health nurses. Enhanced surveillance for gonorrhea occurs via standardized interviews of a random, statewide sample of gonorrhea cases (excluding the County of San Francisco where enhanced gonorrhea surveillance occurs separately) and their medical providers, also conducted by state and LHJ partners. Enhanced case-based surveillance captures a range of demographic, behavioral (e.g., gender of sex partners, venues where sex partners were met, etc.), and clinical (e.g., symptoms, HIV serostatus, anatomic site of infection, etc.) data beyond what are available in case report forms. Among CS cases reported in the California Project Area, state disease investigation specialists review surveillance reports and medical records to perform quality assurance activities regarding data quality and case investigation.

Prevalence monitoring data for chlamydia and gonorrhea in this report were reported to CDPH by family planning and managed care facilities. In 2021, prevalence monitoring data for clients who received family planning services were available from 26 facilities associated with Title X and 714 facilities, served by Quest Diagnostics that participated in the Family PACT program.

Prevalence monitoring for chlamydia and gonorrhea is also conducted in managed care settings. Since 1999, Kaiser Permanente Northern California (KPNC) has participated in electronic data transmissions to CDPH. Through a data transmission protocol that removes patient identity, KPNC has provided chlamydia and gonorrhea testing data for all patients tested at their Northern California facilities.

California also conducts gonococcal drug resistance surveillance as part of the national **Gonococcal Isolate Surveillance Project (GISP)**. Every month, sentinel STD clinics in Los Angeles, Orange, and San Diego counties are asked to submit the first 25 gonococcal isolates from male urethral specimens for antibiotic susceptibility testing. Due to decreasing rates of culture testing for gonorrhea, there may be fewer than 25 isolates per month from a given site.

The regions seen in various slides were defined as follows:

Region	County / City
Northern	Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, and Yuba Counties
Sacramento Area	El Dorado, Placer, Sacramento, and Yolo Counties
San Francisco	San Francisco County

Region	County / City
Bay Area	Alameda, Berkeley (City), Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma Counties
Central Coast	Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura Counties
Central Inland	Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Benito, San Joaquin, Stanislaus, Tulare, and Tuolumne Counties
Los Angeles	Los Angeles County excluding the Cities of Long Beach and Pasadena
Southern	Imperial, Long Beach (City), Orange, Pasadena (City), Riverside, San Bernardino, and San Diego Counties

The source of **preliminary national STD data** presented is the Centers for Disease Control and Prevention, *Sexually Transmitted Disease Surveillance, 2021* Atlanta, Georgia: U.S. Department of Health and Human Services, 2021.

The U.S. Healthy People Year 2030 Goals were from U.S. Department of Health and Human Resources, [Healthy People 2030 Website, Sexually Transmitted Infections](https://health.gov/healthypeople/objectives-and-data/browse-objectives/sexually-transmitted-infections) (https://health.gov/healthypeople/objectives-and-data/browse-objectives/sexually-transmitted-infections).

SMALL NUMBERS CAUTION

To prevent inadvertent or intentional identification of individuals in these data, the STD Control Branch reviews all tables and graphs prior to release, and implements cell suppression procedures in accordance with the [California Health and Human Services Data De-Identification Guidelines](#).

(<https://www.dhcs.ca.gov/dataandstats/Documents/DHCS-DDG-V2.0-120116.pdf>).

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