Sexually Transmitted Diseases in California
2023 Technical Notes

OVERVIEW OF DATA SOURCES BY SEXUALLY TRANSMITTED INFECTION

DATA SOURCE	Chlamydia	Gonorrhea	Syphilis	Chancroid
CASE-BASED SURVEILLANCE	X	X	X	X
ENHANCED CASE-BASED SURVEILLANCE		X	X	

The sexually transmitted disease (STD) surveillance systems operated by California state and local STD control programs are the sources of the data in this report. **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. LHJ then submit these data to the California Department of Public Health (CDPH). In 2023, 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 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, 2020-2023,* Sacramento, California, December 2023, and *E-4 Population Estimates for Cities, Counties, and the State, 2021-2024 with 2020 Census Benchmark,* May 2024. 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, 2020-2070, Baseline 2023*, Sacramento, California, September 2024. 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, 2000-2050* (Baseline 2023 Population Projections), Sacramento, California,

September 2024, 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 men and cisgender women 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.

Gender identity data in tables and graphs were collapsed into the following categories: female (including transgender women), male (including transgender men), other, and unknown (including declined to answer, genderqueer or non-binary, and identity not listed), with the exception of the sexual orientation and gender identity (SOGI) data tables: CT-12, GC-12, PS-9, PS-10, PS-11, PS-12, PS-13, PS-14, EnPnS-9, EnPnS-10, EnPnS-11, EnPnS-12, EnPnS-13, EnPnS-14, TES-9, TES-10, TES-11, TES-12, TES-13, TES-14, UDLS-6, UDLS-7, CS-4, and CHN-2, and in the slides which describe syphilis risk among transgender men and women in California. Gender identity in these slides and tables was displayed in the same way it was collected in the CalREDIE surveillance system: female, male, genderqueer or non-binary, transgender female, transgender male, and unknown (which also includes individuals who reported that their identity was not one of the aforementioned groups). Infections in transgender persons were identified only among cases who indicated their current gender identity was either transgender male, or transgender female, and others whose discrepant sex assigned at birth and current gender identities could be separately verified elsewhere in their case report.

Men who have sex with men (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/).

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/Unknown (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. Note that this report includes some disaggregated detailed race info. We will be updating these tables to include more detailed race disaggregation in future reports.

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) and their medical providers, and 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.

Regions 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
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 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).

SMALL NUMBERS CAUTION

To prevent inadvertent or intentional identification of individuals in these data, the STD Control Branch reviews all data 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-V2.1-010821%20(1).pdf).

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