EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

JUNE 2023

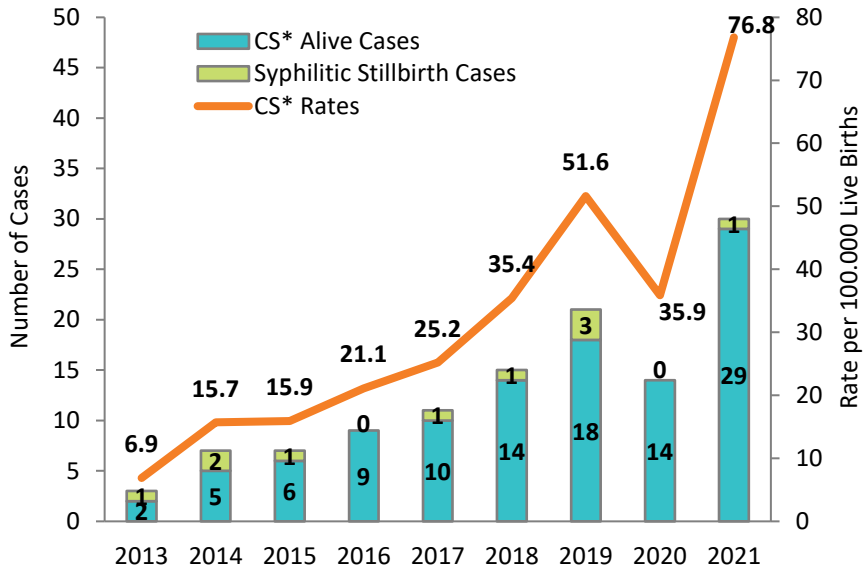
Volume 7, Issue 6: July 17, 2023

CONGENITAL SYPHILIS

Congenital syphilis (CS) is a potentially fatal condition that results from transmission of the spirochete *Treponema pallidum*, subspecies *pallidum* from a pregnant person to a fetus or neonate. Transplacental transmission accounts for most CS cases, although infection may also occur through direct contact with infectious lesions during delivery.

Unlike sexual transmission, which is generally limited to the first twelve months of infection (i.e., the primary, secondary, and early latent stages), any stage of syphilis in pregnancy can result in CS. The risk of CS is highest during the early symptomatic stages of syphilis (i.e., primary and secondary syphilis), when syphilis is acquired during pregnancy, and in late gestation.

Figure 1: Congenital Syphilis Cases and Rates, San Diego County, 2013-2021



*CS: Congenital Syphilis. Rates for congenital syphilis were calculated based on the number of live births and include syphilitic stillbirth.

CS results in hematogenous dissemination of *T. pallidum* that can affect almost any organ, and inflammation of affected organs and vasculature causes most clinical manifestations of disease. The clinical presentation of CS varies from asymptomatic infection at birth, which occurs in 60-90% of live-born neonates, to multiorgan failure or fetal demise (stillbirth). Without treatment, asymptomatic infections can result in symptomatic disease and complications, some permanent, later in life.

Complications of CS during pregnancy include intrauterine growth restriction, low birth weight, prematurity, small size for gestational age, and stillbirth. Early clinical manifestations of CS, which generally occur during the first two years of life, include hepatomegaly, jaundice, nasal discharge ("snuffles"), rash, generalized lymphadenopathy, and skeletal abnormalities. Anemia, thrombocytopenia, neurological abnormalities, and meningitis also may occur. Late complications, which can occur through puberty and into adulthood, include hearing loss, interstitial keratitis, bone or tooth abnormalities (e.g., saber shins, Hutchinson's teeth), neurologic problems, and gummatous disease in the skin or mucous membranes.

CS is preventable through timely diagnosis and treatment of syphilis during pregnancy. Screening for syphilis is recommended by the Centers for Disease Control and Prevention (CDC) and the California Department of Public Health (CDPH) at the first prenatal visit and/or upon confirmation of pregnancy for all pregnant people. CDPH recommends additional screening for syphilis for all pregnant people in California during the third trimester at 28-32 weeks gestation. Screening is also recommended at delivery, except for people at low risk of acquiring syphilis during pregnancy with a negative third trimester screen.

Continued on next page

The Monthly Communicable Disease Surveillance Report is a publication of the County of San Diego Public Health Services Epidemiology and Immunization Services Branch (EISB). EISB identifies, investigates, registers, and evaluates communicable, reportable, and emerging diseases and conditions to protect the health of the community. The purpose of this report is to present trends in communicable disease in San Diego County. To subscribe to this report, visit the Data and Reports page on the Epidemiology Program website (www.sdepi.org) and click on the subscribe link.

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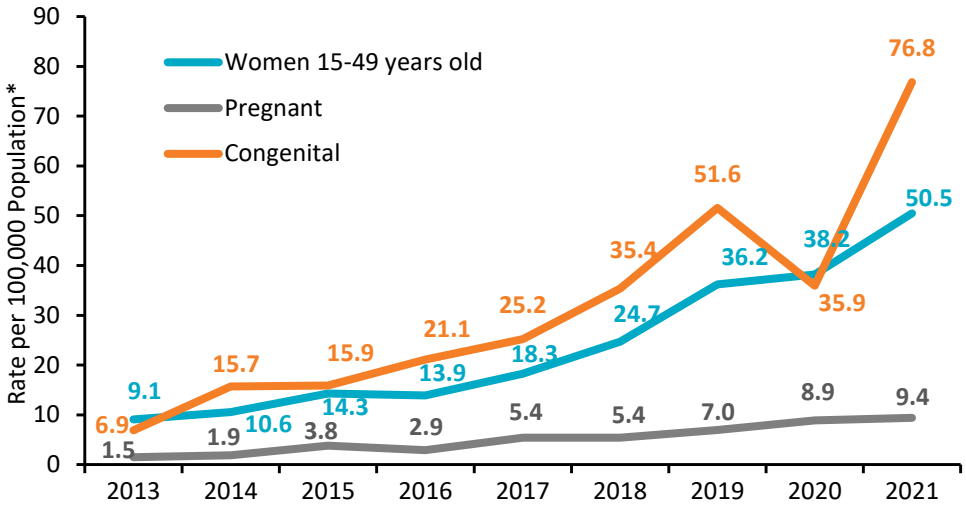
CONGENITAL SYPHILIS, continued

Penicillin is the only antibiotic that has been demonstrated to prevent CS, and pregnant people with syphilis should receive CDC-recommended penicillin-based treatment according to the stage of infection. Pregnant people with penicillin allergy should be desensitized and treated with penicillin. For pregnant people with late latent syphilis or syphilis of unknown duration, there is less flexibility with respect to dosing intervals than for non-pregnant people. Treatment must be restarted if dosing intervals exceed 8 days. To effectively prevent CS, treatment of syphilis in pregnancy should be initiated at least 30 days prior to delivery.

Since 2013, CS cases and syphilitic stillbirths have increased throughout the United States. In 2021, CDC reported 2,855 cases of CS nationwide, including 220 CS-related stillbirths and infant deaths. The national rate of CS in 2021 was 77.9 cases per 100,000 live births, representing a 219.3% increase relative to 2017. These increases have mirrored similar increases in syphilis among women of reproductive age. In San Diego County, a total of 30 cases of CS, including one syphilitic stillbirth, were reported in 2021, with a rate of 76.8 cases per 100,000 live births (a 204.8% increase from 2017, see Figure 1). Increases in syphilis rates among women of childbearing age and pregnant women have also increased from 2013 to 2021 (see Figure 2). Delayed or no prenatal care is the main risk factor for CS.

Figure 2: Rates of Syphilis (All Stages) in Women of Childbearing Age (15-14 years old) and Pregnant Women, and Congenital Syphilis, San Diego County, 2013-2021



Rates for women 15-49 years old and pregnant women were calculated based on population estimates of women 15-49 years of age. Rates for congenital syphilis were calculated based on the number of live births.

Evaluation for CS is based on the identification of syphilis in pregnancy, adequacy of treatment of the pregnant individual, presence of clinical, laboratory, or radiographic evidence of syphilis in the neonate, and comparison of maternal (at delivery) and neonatal RPR or VDRL test titers. Detailed scenario-based guidelines for CS evaluation and treatment are available from CDC.

Resources

- Expanded Syphilis Screening Recommendations for the Prevention of Congenital Syphilis (CDPH)
- Sexually Transmitted Infections Treatment Guidelines (CDC):
  - Syphilis During Pregnancy
  - Congenital Syphilis
- Congenital Syphilis Resources (American Academy of Pediatrics, California 3)

This edition of the report features a guest article from the County of San Diego HIV, STD, and Hepatitis Branch (HSHB). To contact HSHB:

- **(619) 692-8501** – lab/treatment histories and staging/treatment recommendations
- **(619) 609-3245** – clinical consultations for challenging cases

Additional data and past issues of their monthly report are available on their data and statistics website. To subscribe to the report and other STD-related health alerts, email STD@sdcounty.ca.gov with "Join STD" in the subject line.

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Table 1. Select Reportable Diseases		2023			Prior Years		
Disease and Case Inclusion Criteria (C,P,S)		June	May	January – June (YTD)	2022 YTD	Avg YTD, 2020-2022	2022 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	0	0.7	5
Brucellosis	C,P	0	1	1	3	1.7	5
Campylobacteriosis	C,P	116	92	501	428	383.0	955
Chickenpox, Hospitalization or Death	C,P	2	0	3	0	1.0	1
Chikungunya	C,P	0	0	1	1	0.3	2
Coccidioidomycosis	C	20	40	215	221	228.7	426
Cryptosporidiosis	C,P	11	8	52	34	25.0	93
Dengue Virus Infection	C,P	0	0	1	2	1.7	14
Encephalitis, All	C	2	2	10	13	18.3	27
Giardiasis	C,P	14	18	94	98	80.3	191
Hepatitis A, Acute	C	1	5	31	13	11.3	30
Hepatitis B, Acute	C	2	1	6	8	8.0	12
Hepatitis B, Chronic	C,P	49	68	379	481	389.3	904
Hepatitis C, Acute	C,P	0	0	29	49	40.7	88
Hepatitis C, Chronic	C,P	168	136	1,044	1,604	1,801.3	2,943
Legionellosis	C	3	7	51	35	28.3	84
Listeriosis	C	1	1	6	9	5.7	18
Lyme Disease	C,P	1	1	2	4	4.7	7
Malaria	C	0	2	3	6	5.3	11
Measles (Rubeola)	C	0	0	0	0	0.0	0
Meningitis, Aseptic/Viral	C,P,S	6	5	27	35	34.0	75
Meningitis, Bacterial	C,P,S	3	5	18	17	14.3	33
Meningitis, Other/Unknown	C	0	0	8	13	13.3	23
Meningococcal Disease	C,P	0	2	3	1	2.0	2
Mumps	C,P	0	0	0	3	6.3	3
Pertussis	C,P	4	5	45	34	89.7	102
Rabies, Animal	C	0	2	2	1	2.0	3
Rocky Mountain Spotted Fever	C,P	0	0	0	2	1.3	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	55	43	250	237	214.3	680
Shiga toxin-Producing *E. coli* (including O157)	C,P	12	21	78	88	67.7	208
Shigellosis	C,P	26	40	195	176	122.7	527
Typhoid Fever	C,P	1	0	3	11	6.7	13
Vibriosis	C,P	3	1	9	6	7.7	38
West Nile Virus Infection	C,P	0	0	0	0	0.3	3
Yersiniosis	C,P	5	2	25	16	13.7	46
Zika Virus	C,P	0	0	0	1	0.3	1

Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously or subsequently reported counts due to differences in inclusion or grouping criteria, late reporting, or updated case information. Inclusion criteria (C,P,S = Confirmed, Probable, Suspect) based on Council of State and Territorial Epidemiologists/Centers for Disease Control and Prevention (CSTE/CDC) surveillance case criteria. Includes San Diego County resident cases only.

San Diego County Sexually Transmitted Infection Data | San Diego County Tuberculosis Data

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Figure 3. Select Enteric Infections by Month
July 2022 – June 2023

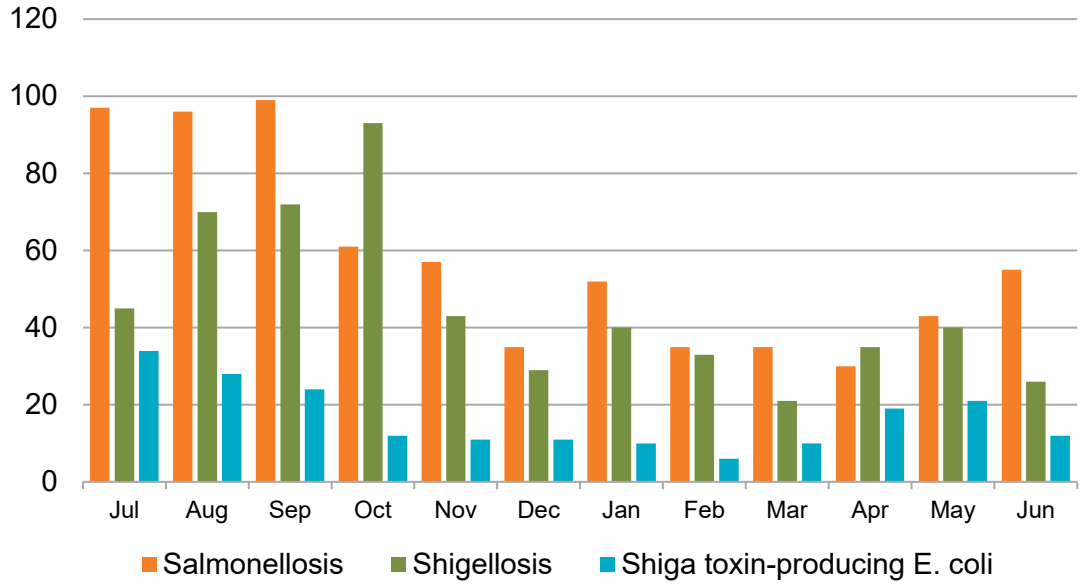

Figure 4. Select Vaccine-Preventable Infections by Month
July 2022 – June 2023

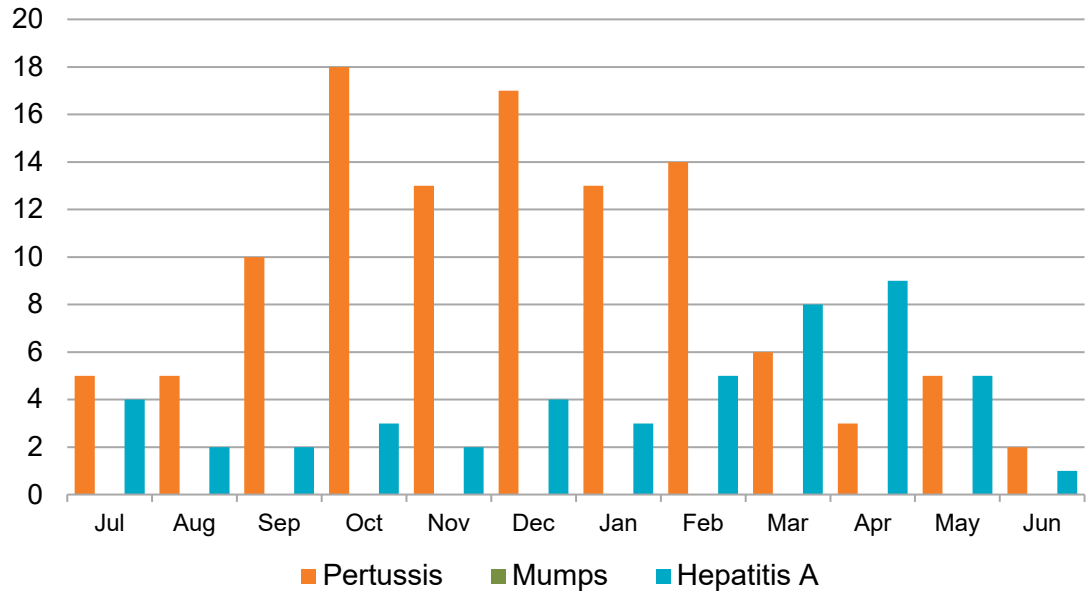

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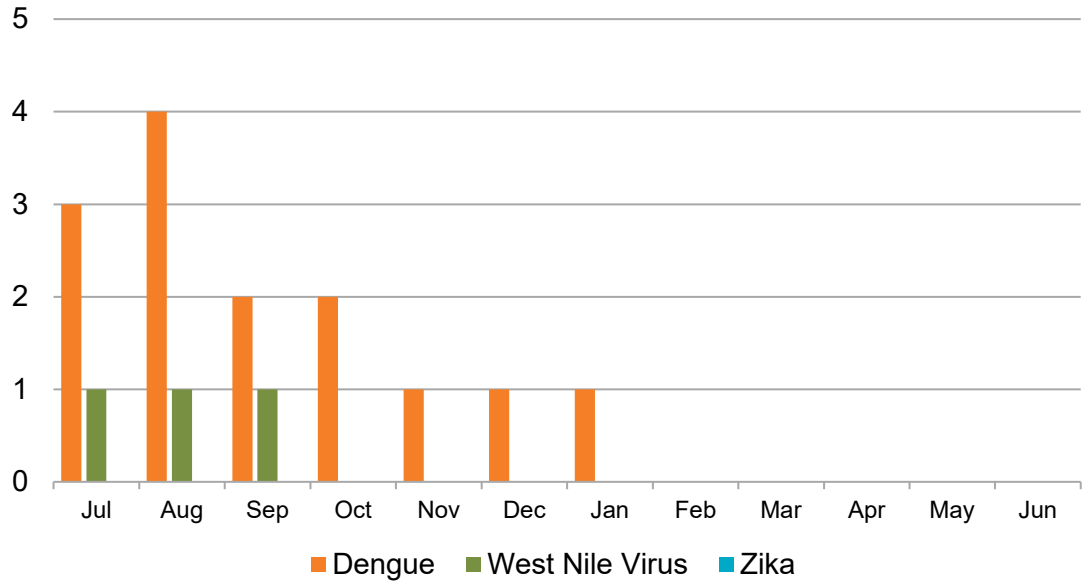
Figure 5. Select Vector-Borne Infections by Month
July 2022 – June 2023



All of the dengue and Zika virus cases are travel-associated. For additional information on Zika cases, see the HHSA Zika Virus webpage. For more information on West Nile virus, see the County West Nile virus webpage. ***Case counts are provisional and subject to change as additional information becomes available.*** Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously or subsequently reported counts due to differences in inclusion or grouping criteria, late reporting, or updated case information. Inclusion criteria (C,P,S = Confirmed, Probable, Suspect) based on Council of State and Territorial Epidemiologists/Centers for Disease Control and Prevention (CSTE/CDC) surveillance case criteria.

Disease Reporting in San Diego County

San Diego County communicable disease surveillance is a collaborative effort among Public Health Services, hospitals, medical providers, laboratories, and the San Diego Health Connect Health Information Exchange (HIE). The data presented in this report are the result of this effort.

Reporting is crucial for disease surveillance and detection of disease outbreaks. Under the California Code of Regulations, Title 17 (Sections 2500, 2505, and 2508), public health professionals, medical providers, laboratories, schools, and others are mandated to report more than 80 diseases or conditions to San Diego County Health and Human Services Agency.

To report a communicable disease, contact the Epidemiology Program by phone at (619) 692-8499 or download and print a Confidential Morbidity Report form and fax it to (858) 715-6458. For urgent matters on evenings, weekends or holidays, dial (858) 565-5255 and ask for the Epidemiology Program duty officer. For more information, including a complete list of reportable diseases and conditions in California, visit the Epidemiology Program website, www.sdepi.org.

Tuberculosis, sexually transmitted infections, and HIV disease are covered by other programs within Public Health Services. For information about reporting and data related to these conditions, search for the relevant program on the Public Health Services website, http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs.html.