EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

SEPTEMBER 2025

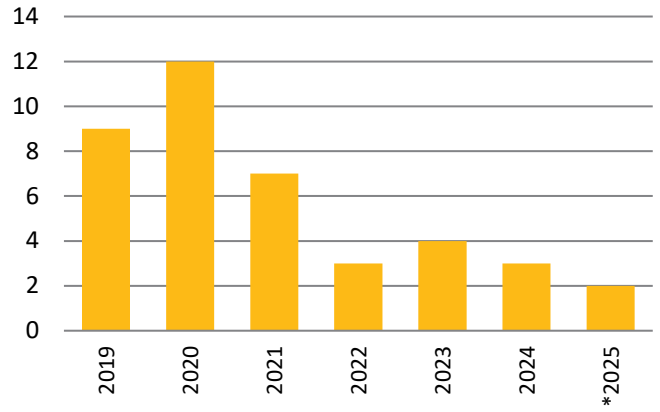
Volume 9, Issue 9: October 15, 2025

CLOSTRIDIUM SORDELLII INFECTION

Clostridium sordellii (Paeniclostridium sordellii) bacteria are a part of the normal vaginal flora in approximately 0.5-10% of people with vaginas and can be found in the soil and the gastrointestinal tracts of a small percent of humans and animals. Infections, which are rare but potentially fatal, occur when the bacteria enter the body through wounds, surgical sites, or the reproductive tract, and cause a range of health issues, including pneumonia, endocarditis, arthritis, omphalitis, peritonitis, myonecrosis, necrotizing fasciitis, bacteremia, and sepsis.

Signs and symptoms of *C. sordellii* infection include nausea, vomiting, diarrhea, lethargy, influenza-like symptoms, abdominal pain, and infection site pain. Patients are usually afebrile. Symptoms can progress to severe disease within hours due to hemorrhagic exotoxins, causing death in 70% of cases, even among previously healthy individuals.

Figure 1. *Clostridium sordellii* Infection Cases, San Diego County, 2019-2025* (N=40)

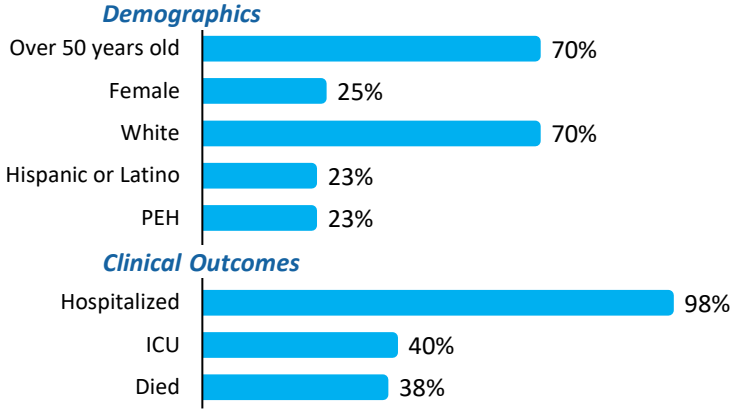


*2025 data are year-to-date; current as of 10/15/2025. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

An unknown number of infections are associated with a clinically-unique toxic shock syndrome that leads to a high mortality rate—some studies suggest that *C. sordellii* Toxic Shock Syndrome (CSTS) is the cause of 1 in 200 deaths among young women of childbearing age. Signs and symptoms of CSTS include, often in the absence of fever, rapid development of generalized and massive tissue edema, pleural, pericardial, or peritoneal effusions from capillary leak, hemoconcentration, refractory hypotension, tachycardia, and leukemoid reactions (at least one white blood cell measurement of >50,000 cells/mm³).

Transmission of *C. sordellii* is unknown, but risk factors include pregnancy that resulted in a live birth, miscarriage, or abortion, recent gynecological procedures, recent trauma or surgery, intravenous drug use, immunosuppression or immunocompromising conditions, and malignancy.

Figure 2. Select Characteristics of San Diego County *Clostridium sordellii* Infection Cases, 2019-2025*



*2025 data are year-to-date; current as of 10/15/2025. Data are provisional and subject to change as additional information becomes available. Information was acquired through medical record review.

C. sordellii infection is not a nationally notifiable disease, nor is reporting mandated by California, however, it was made locally reportable in San Diego County in 2019. The County of San Diego has investigated 40 cases of *C. sordellii* infection since 2019 (Figure 1). Ten (25%) were female, 28 (70%) were over the age of 50 years, 28 (70%) were White, 9 (23%) were Hispanic or Latino, and 9 (23%) were people experiencing homelessness (PEH). Thirty-nine (98%) were hospitalized, 16 (40%) were admitted to the ICU, and 15 (38%) cases died (Figure 2).

Continued on next page

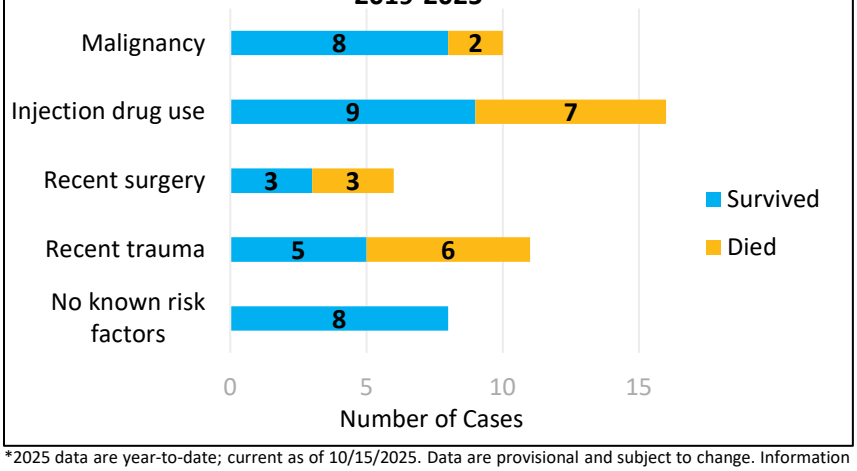
The Monthly Communicable Disease Surveillance Report is a publication of the County of San Diego Public Health Services Epidemiology and Immunization Services Branch (EISB). EISB identifies, investigates, registers, and evaluates communicable, reportable, and emerging diseases and conditions to protect 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.

CLOSTRIDIUM SORDELLII INFECTION, continued

While pregnant people are acknowledged as the highest risk population for *C. sordellii* infection and complications, San Diego County has not had any reported cases of *C. sordellii* infection related to pregnancy or gynecological procedures between 2019-2025.

Of the 40 cases in San Diego County, 10 (25%) were associated with malignancy. The case-fatality rate in this group was 20%. Sixteen (40%) of the *C. sordellii* infections occurred in injection drug users, and 44% of these cases died. Eleven (28%) *C. sordellii* infections occurred after trauma and 6 (15%) infections occurred after recent surgery (Figure 3). Case-fatality among those with recent trauma and recent surgery was 55% and 50%, respectively.

Figure 3. Risk Factors Among *Clostridium sordellii* Infection Cases by Survival, San Diego County, 2019-2025*



*2025 data are year-to-date; current as of 10/15/2025. Data are provisional and subject to change. Information was acquired through medical record review. Cases may have more than one risk factor.

Of note, 3 of the 16 injection drug users were linked to a deadly outbreak of necrotizing fasciitis among 10 people in San Diego County in 2019, associated with the injection of black tar heroin (BTH). Fifty percent of cases reported skin-popping BTH. Seven of the 10 cases linked to this outbreak died.

Complications of *C. sordellii* infection among San Diego County cases from 2019-2025 include 23 (58%) with abscesses, 22 (55%) with tissue edema, 19 (48%) with cellulitis, 13 (33%) with pleural, pericardial, peritoneal, and joint effusions, 11 (28%) with necrotizing fasciitis, and 11 (28%) with necrosis of skin, tissue, bowels, or bone.

Of the 39 cases with complete blood counts, 32 (82%) had leukocytosis and 6 (15%) had a leukemoid reaction. Of those with leukemoid reactions, the fatality rate was 83%. Two cases met the criteria for *C. sordellii* toxic shock syndrome and both died. Of cases with onset information who died, 11 of 13 (85%) died within 2-10 days of onset. Specimen culture sources of San Diego County cases from 2019-2025 included 10 from blood (25%), 25 from tissue or wounds (62%), and 5 from body fluid (13%). Twenty-seven (68%) cultures were polymicrobial.

Treatment of *C. sordellii* infections should begin with initial empiric broad-spectrum parenteral antimicrobial therapy that covers beta-lactamase-producing anaerobes until *C. sordellii* infection is confirmed and definitive treatment can be initiated. For wound and necrotizing infections, tissue debridement and limb amputation may be necessary. Prevention of *C. sordellii* infection includes harm-reduction techniques for injection drug users and education about the risks associated with BTH use and skin-popping methods. Pregnant people undergoing childbirth, miscarriage, or abortion and their medical team should be aware of the signs and symptoms of *C. sordellii* infection. Research is ongoing to understand the prevalence of *C. sordellii,* especially among women. The true incidence of *C. sordellii* infection is unknown both locally and nationally due to difficulty speciating clostridial pathogens and underreporting.

Resources

- Centers for Disease Control and Prevention (CDC) *Clostridium sordellii* website

Suggested citation: Poranski M, Kollitz J, Nelson JA. *Clostridium sordellii* Infection. County of San Diego Monthly Communicable Disease Report 2025; 9(9):1-2.

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Table 1. Select Reportable Diseases

Disease and Case Inclusion Criteria (C,P,S)		2025 Sept.	2025 August	2025 January-Sept. (YTD)	Prior Years 2024 YTD	Prior Years Avg YTD, 2022-2024	Prior Years 2024 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	3	4	2.7	5
Brucellosis	C,P	0	0	0	1	2.7	1
Campylobacteriosis	C,P	130	113	854	877	821.3	1,127
Candida auris	C	13	15	125	103	69.0	150
Chickenpox, Hospitalization or Death	C,P	0	0	1	3	3.7	3
Chikungunya	C,P	0	0	0	2	1.3	2
Coccidioidomycosis	C	52	49	543	474	380.0	649
Cryptosporidiosis	C,P	27	12	112	108	92.7	129
Dengue Virus Infection	C,P	0	1	12	38	22.0	64
Encephalitis, All	C	0	1	21	37	27.0	49
Giardiasis	C,P	13	19	179	188	172.0	244
Hepatitis A, Acute	C	2	1	7	9	21.7	17
Hepatitis B, Acute	C	0	2	13	12	11.3	18
Hepatitis B, Chronic	C,P	41	62	513	445	535.7	623
Hepatitis C, Acute	C,P	0	4	62	80	77.3	94
Hepatitis C, Chronic	C,P	138	108	1,166	1,477	1,860.3	1,880
Legionellosis	C	4	3	49	55	61.7	83
Listeriosis	C	1	0	6	8	12.0	10
Lyme Disease	C,P	0	1	5	5	6.7	6
Malaria	C	0	2	11	14	10.3	19
Measles (Rubeola)	C	0	1	1	4	1.3	4
Meningitis, Aseptic/Viral	C,P,S	4	3	51	86	61.3	106
Meningitis, Bacterial	C,P,S	3	4	32	31	29.0	44
Meningitis, Other/Unknown	C	1	2	24	23	19.0	25
Meningococcal Disease	C,P	0	2	9	4	3.0	5
Mumps	C,P	0	2	6	1	1.3	2
Pertussis	C,P	18	6	261	520	217.0	729
Rabies, Animal	C	5	5	18	6	5.3	13
Rocky Mountain Spotted Fever	C,P	0	0	1	3	2.7	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	74	101	707	580	525.3	747
Shiga toxin-Producing *E. coli* (including O157)	C,P	30	15	199	217	186.3	262
Shigellosis	C,P	48	39	301	376	362.7	471
Typhoid Fever	C,P	0	0	1	4	7.0	4
Vibriosis	C,P	8	3	38	49	37.3	53
West Nile Virus Infection	C,P	0	0	0	2	1.7	2
Yersiniosis	C,P	10	15	126	113	70.3	136
Zika Virus	C,P	0	0	2	1	0.7	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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SEPTEMBER 2025

Volume 9, Issue 9: October 15, 2025

Figure 4. Select Enteric Infections by Month
October 2024 – September 2025

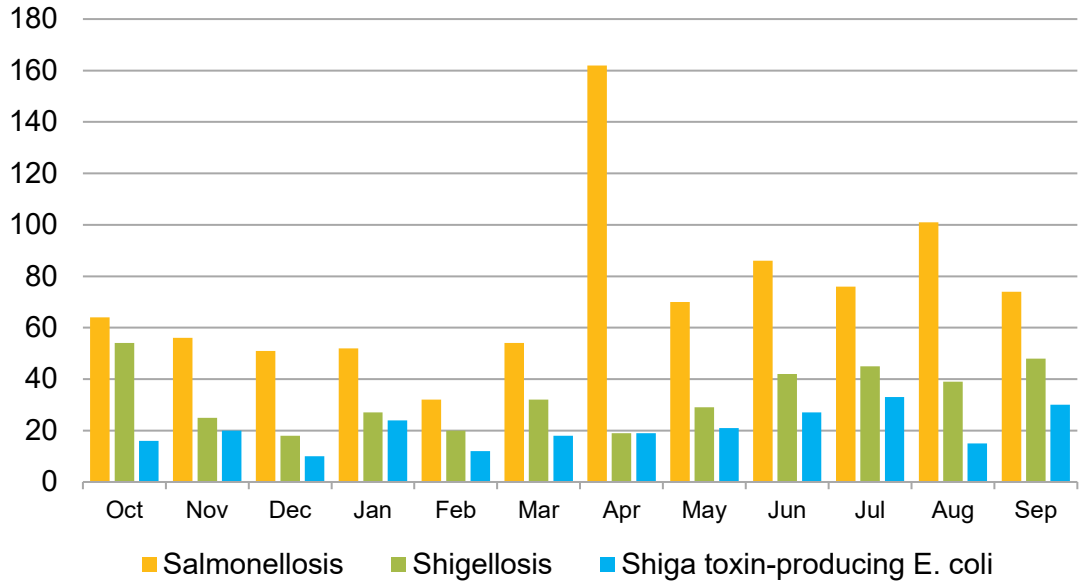

Figure 5. Select Vaccine-Preventable Infections by Month
October 2024 – September 2025

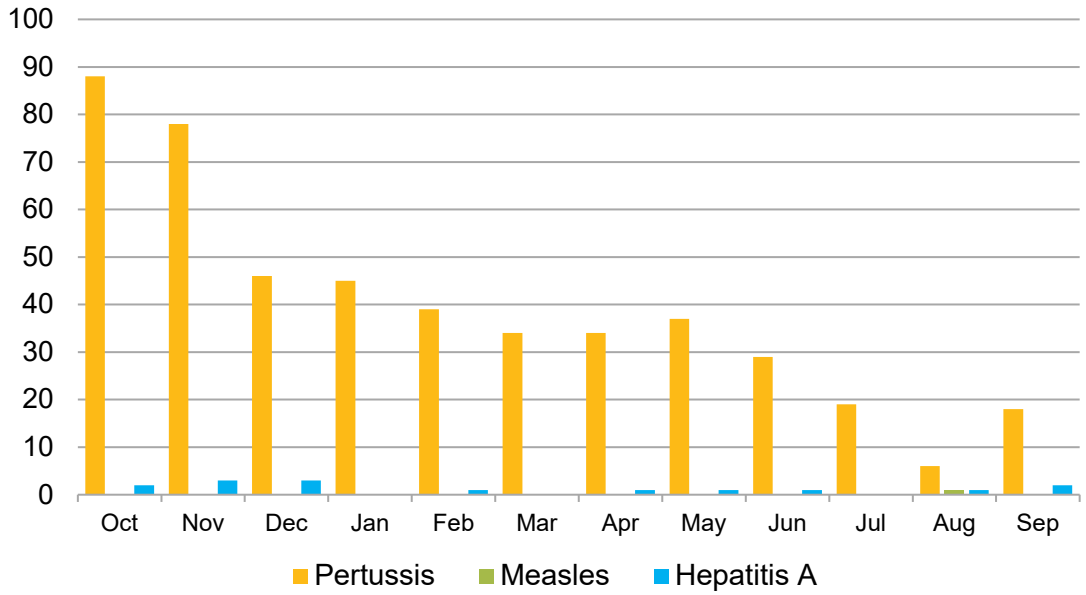

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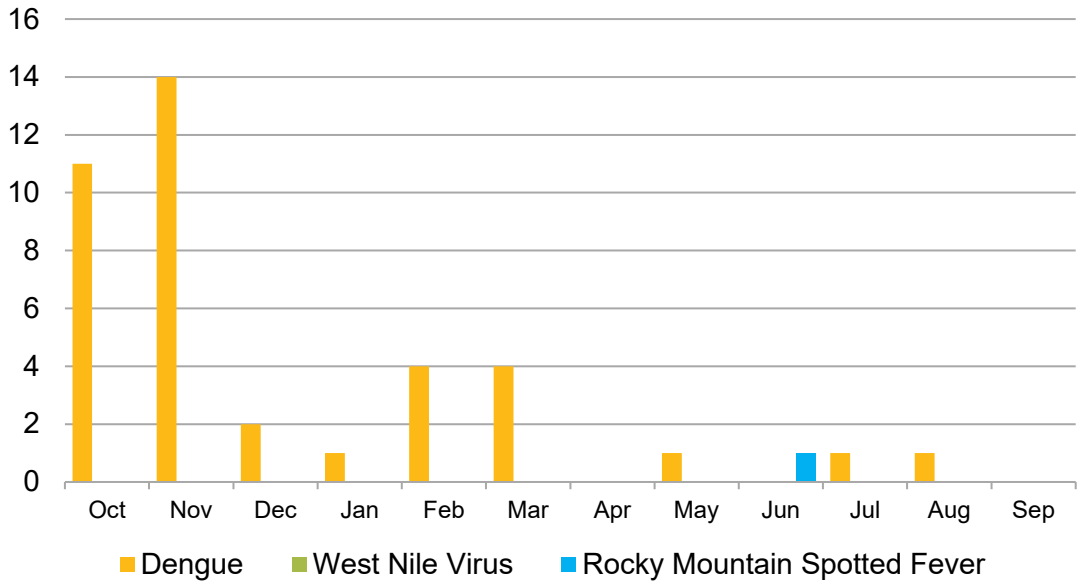
Figure 6. Select Vector-Borne Infections by Month
October 2024 – September 2025



See the County disease-specific webpages, for more information on West Nile virus and Dengue.
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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.