

CYCLOSPORIASIS

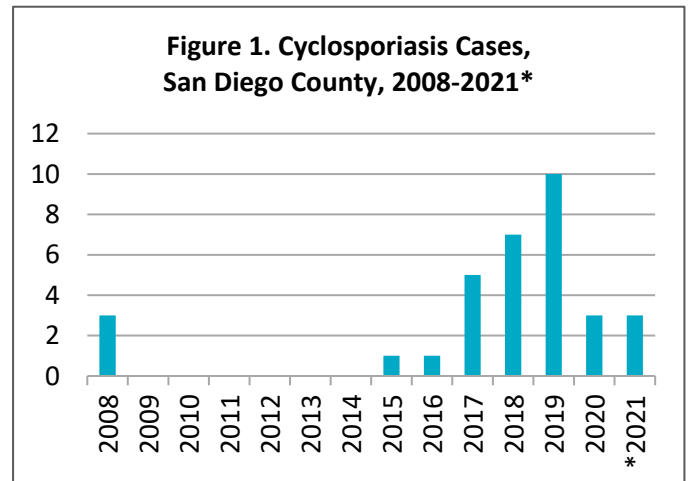
Cyclosporiasis is an intestinal infection caused by the protozoan parasite *Cyclospora cayetanensis*. Common symptoms, which usually begin one week after exposure, include watery diarrhea, abdominal cramps, nausea, bloating, gas, weight loss, and fatigue. Untreated, symptoms may last for days to a month or more in the immunocompetent, often appearing to improve only to relapse. Those who are immunocompromised may be more susceptible to infection and may experience prolonged diarrhea. Trimethoprim-sulfamethoxazole is the only proven effective treatment.

Cyclosporiasis is endemic in many tropical and subtropical countries. It is transmitted through ingesting infective oocysts in fecally contaminated water or food, primarily fresh produce.

Cyclospora is resistant to routine chemical disinfection and sanitation methods such as chlorination. Oocysts are not immediately infective when shed in stool, requiring a one to two week maturation period in favorable conditions outside the human body before they are infective. Direct fecal-oral transmission from person-to-person is unlikely.

C. cayetanensis was first identified in the early 1990s and has been nationally notifiable in the United States (U.S.) since 1999. Increases in [domestically acquired cases](#) of cyclosporiasis are often observed in the U.S. during the spring and summer months. Although many cases cannot be directly linked to an outbreak, [several outbreaks](#) have been identified in recent years, frequently associated with imported fresh produce such as berries, [fresh herbs](#), and [salad mixes](#). Efforts are underway to develop [molecular detection](#) techniques and other [strategies](#) designed to make it easier to identify outbreaks and sources of contamination and reduce the burden of illness.

National case reports increased from 56 cases in 1999 to 4,703 cases in 2019. In California, 89 cases were reported in 2019. In San Diego County, there were three cases associated with a [multijurisdictional outbreak in 2008](#), then no additional reported cases until 2015. There have been three cases reported so far in 2021.



*2021 data are year-to-date; current as of 9/15/2021. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

Table 1. Cyclosporiasis Cases, California and U.S., 2014-2019

	California	U.S.
2014	3	398
2015	15	644
2016	22	537
2017	64	1,194
2018	172	3,519
2019	89	4,703

The median age of all San Diego County case-patients was 42 years; 52% were female. Among the 26 of 30 cases since 2015 for whom a travel history was available, 17 had traveled to Mexico, two to the Philippines, three to other states, one to Europe, and three had not traveled outside the county.

Cyclosporiasis has typically been [difficult to diagnose](#), and likely remains underdiagnosed. *Cyclospora* testing by microscopy is usually not done unless explicitly requested, even when testing for other parasites. In addition, shedding can be intermittent and at low levels. Recent increases in cases may be attributable to increased use of culture-independent diagnostic tests (CIDT), though not all CIDT panels include a target for *Cyclospora*.

Resources

- [Centers for Disease Control and Prevention \(CDC\) Cyclosporiasis website](#)
- [California Department of Public Health \(CDPH\) Cyclosporiasis website](#)

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 works to identify, investigate, register, and evaluate 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 [Statistics and Reports](#) page on the Epidemiology Program website (www.sdepi.org) and click on the subscribe link.

MONTHLY COMMUNICABLE DISEASE REPORT

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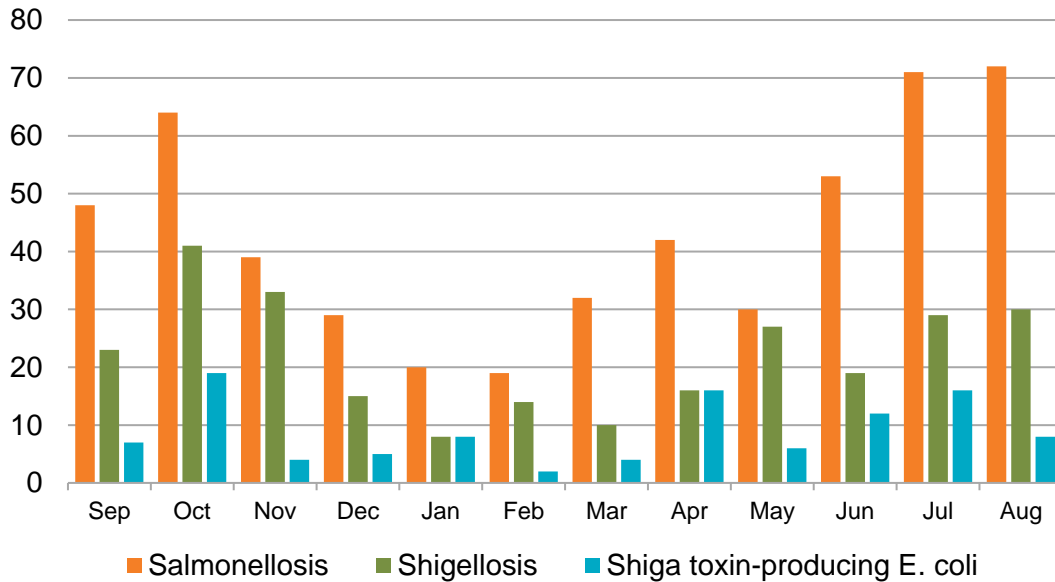


Table 2. Select Reportable Diseases		2021			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2020 YTD	Avg YTD, Prior 3 Years	2020 Total
Disease and Case Inclusion Criteria (C,P,S)							
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	1	0	3.3	2
Brucellosis	C,P	0	0	3	0	1.0	0
Campylobacteriosis	C,P	89	100	603	460	577.0	646
Chickenpox, Hospitalization or Death	C,P	0	0	3	0	0.7	0
Chikungunya	C,P	0	0	0	1	2.7	1
Coccidioidomycosis	C	0	0	224	351	265.7	540
Cryptosporidiosis	C,P	6	2	30	23	46.3	29
Dengue Virus Infection	C,P	0	0	1	2	7.0	5
Encephalitis, All	C	0	1	16	24	29.3	35
Giardiasis	C,P	8	17	87	103	144.0	146
Hepatitis A, Acute	C	1	0	8	13	18.0	15
Hepatitis B, Acute	C	0	0	11	5	5.7	8
Hepatitis B, Chronic	C,P	77	75	549	448	544.7	656
Hepatitis C, Acute	C,P	4	3	30	23	25.3	25
Hepatitis C, Chronic	C,P	229	289	2,173	2,573	2,830.3	3,826
Legionellosis	C	2	2	34	27	33.3	49
Listeriosis	C	1	1	4	12	11.7	21
Lyme Disease	C,P	0	0	3	4	6.7	6
Malaria	C	0	2	5	6	5.3	7
Measles (Rubeola)	C	0	0	0	0	0.7	0
Meningitis, Aseptic/Viral	C,P,S	1	3	29	52	89.7	73
Meningitis, Bacterial	C,P,S	0	2	11	18	24.3	20
Meningitis, Other/Unknown	C	0	0	7	22	20.3	28
Meningococcal Disease	C,P	0	0	1	4	6.0	4
Mumps	C,P	0	1	1	16	19.7	16
Pertussis	C,P,S	3	2	29	212	387.3	220
Rabies, Animal	C	1	1	4	4	5.3	8
Rocky Mountain Spotted Fever	C,P	0	0	2	3	1.3	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	72	71	339	309	415.3	489
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	8	16	72	73	124.0	108
Shigellosis	C,P	30	29	153	128	192.7	240
Typhoid Fever	C,P	1	1	9	2	3.0	4
Vibriosis	C,P	12	18	38	25	36.3	39
West Nile Virus Infection	C,P	0	0	0	1	1.3	1
Yersiniosis	C,P	5	1	18	22	25.7	29
Zika Virus	C,P	0	0	0	0	3.7	0

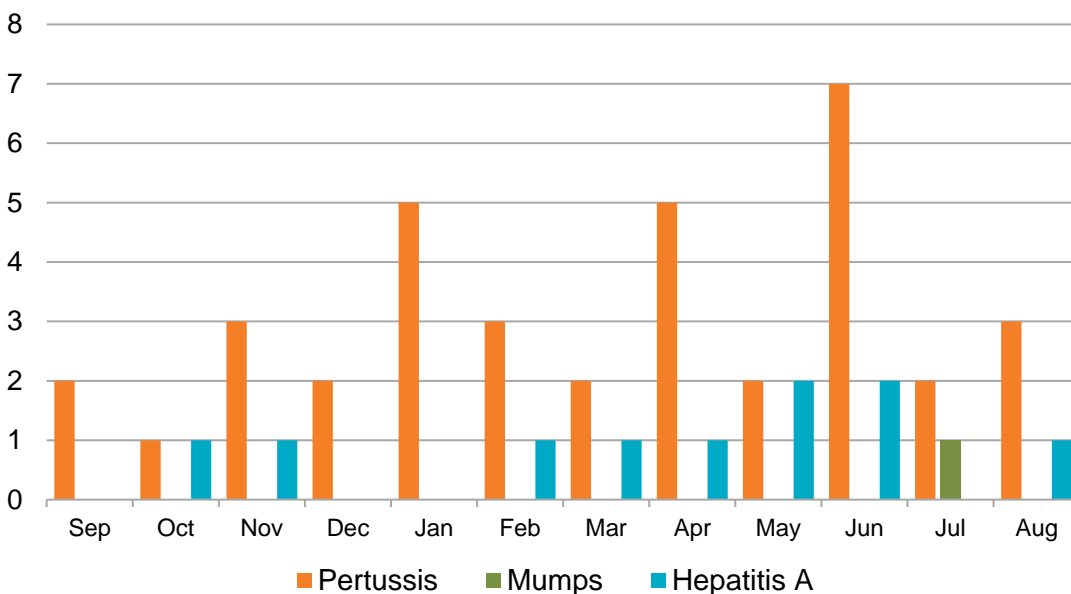
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously 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.



**Figure 2. Select Enteric Infections by Month
September 2020 – August 2021**

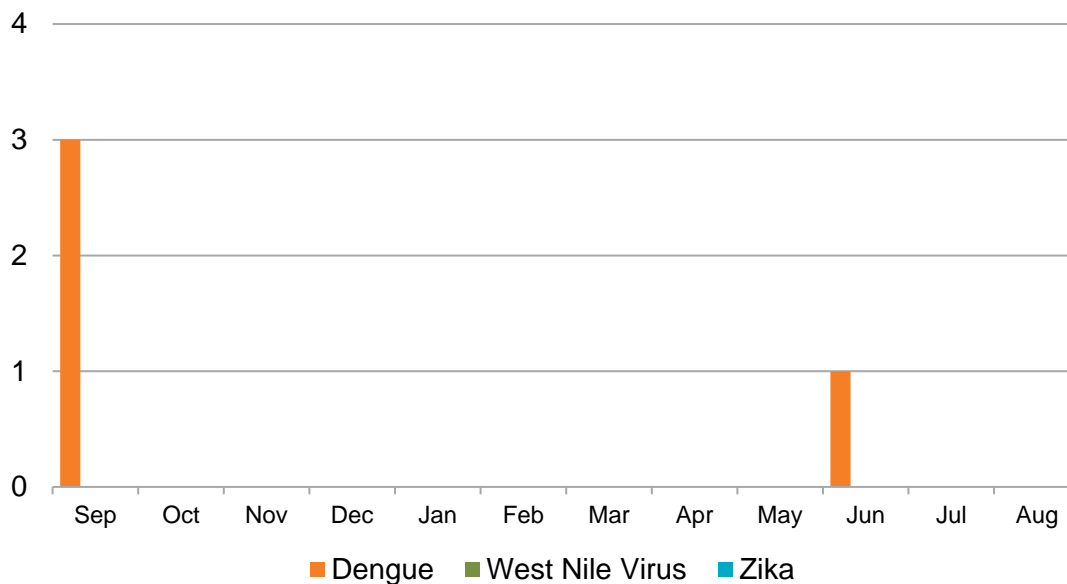


**Figure 3. Select Vaccine-Preventable Infections by Month
September 2020 – August 2021**



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**Figure 4. Select Vector-Borne Infections by Month
September 2020 – August 2021**



All of the dengue and Zika virus cases are travel-associated. For additional information on Zika cases, see the [HHS Agency 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>.