

CYSTICERCOSIS

Cysticercosis and neurocysticercosis are parasitic infections of the periphery and central nervous system (CNS) caused by larval cysts of the pork tapeworm *Taenia solium*. These parasites are found worldwide; prevalence is highest in areas with poor sanitation, fecal contamination of water and food supplies, and where cattle and swine livestock are tended. Transmission occurs fecal-orally, starting with ingestion of *Taenia* eggs or larvae from contaminated feces or water. Undercooked pork may also contain mature cysts capable of developing into an adult tapeworm, if ingested, and living asymptotically within the intestines of humans who are obligate hosts (a separate condition deemed taeniasis). Fecal-oral autoinfection may then occur when such an adult tapeworm lays eggs that yield migratory larvae. Given the often-asymptomatic nature of taeniasis, it is often detected during immigrant and refugee screening in San Diego County.

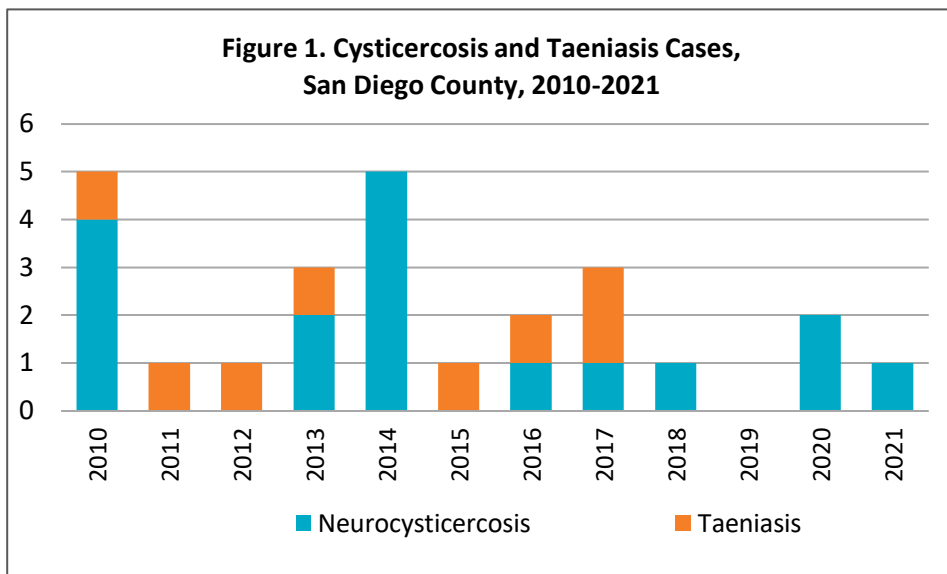
Symptoms of cysticercosis occur when larvae form cysts (cysticerci) in the body and vary widely based on location, number of cysts, and host response. Incubation may take months or even years. Neurocysticercosis occurs when cysts are formed in the brain or central nervous system, and most commonly presents with seizures, hydrocephalus, or other focal neurological symptoms—mimicking meningitis or stroke in many cases. In fact, neurocysticercosis is the most common infectious cause of epilepsy worldwide.

Along with consideration of appropriate epidemiologic risk factors, the diagnosis of neurocysticercosis is achieved radiographically with advanced neuroimaging (CT or MRI)—revealing cystic, often calcified CNS lesions. If the anterior end of a maturing tapeworm (scolex) is not visible within the cysticercus on cross-sectional imaging, diagnosis can be aided by serological studies offered by the CDC. However, these are of lower sensitivity when only one cyst is identified. Treatment is multidisciplinary, often involving combinations of antiparasitic medication, corticosteroids, seizure prophylaxis, and neurosurgical resection. Albendazole and praziquantel are two common antiparasitic medications used in the treatment of neurocysticercosis. Given that most symptomatic disease is mediated by the host inflammatory response, rather than the cysts themselves, initiation of therapy could coincide with acute worsening of neurological symptoms and seizures. Thus, treatment should be done carefully and within a hospitalized setting where additional clinical support and resources are available.

Resources

- [CDC Cysticercosis website](#) / [CDC Taeniasis website](#)
- [CDPH Taeniasis and Cysticercosis website](#)

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2021 data are current as of 1/18/2022. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years. The only cysticercosis cases reported during this period were neurocysticercosis.

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.

MONTHLY COMMUNICABLE DISEASE REPORT

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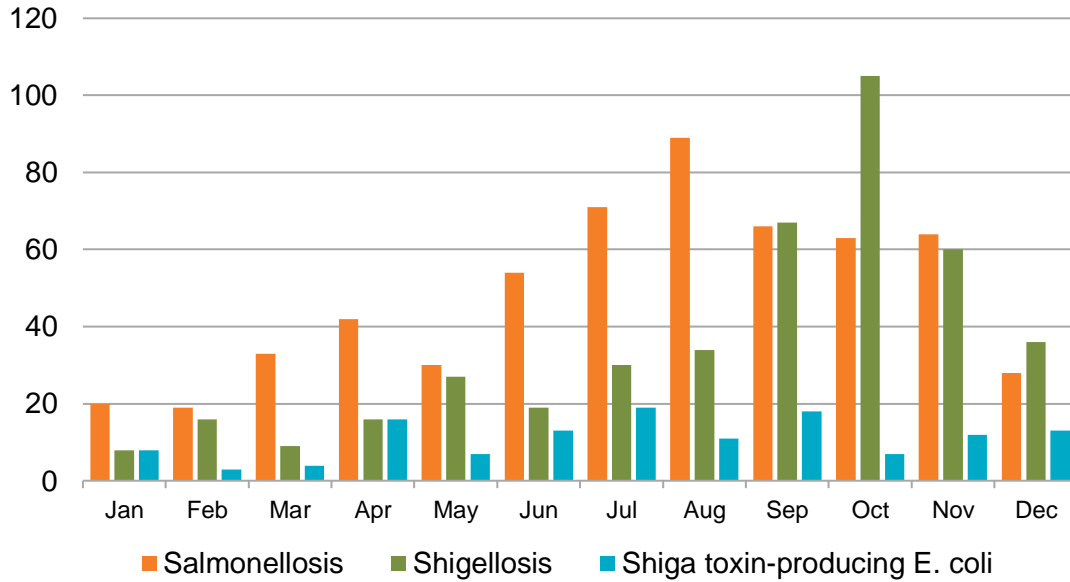


Table 1. Select Reportable Diseases		2021			Prior Years	
		Current Month	Prior Month	2021 Total	Average Prior 3 Years	2020 Total
Disease and Case Inclusion Criteria (C,P,S)						
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	2	5.0	2
Brucellosis	C,P	0	0	3	1.0	0
Campylobacteriosis	C,P	53	75	881	826.0	646
Chickenpox, Hospitalization or Death	C,P	0	0	3	2.0	0
Chikungunya	C,P	0	1	2	4.0	1
Coccidioidomycosis	C	9	32	452	417.3	540
Cryptosporidiosis	C,P	4	5	53	72.7	29
Dengue Virus Infection	C,P	0	1	3	14.7	5
Encephalitis, All	C	1	2	30	49.3	35
Giardiasis	C,P	12	11	157	199.0	146
Hepatitis A, Acute	C	0	0	10	21.7	15
Hepatitis B, Acute	C	0	0	15	8.3	8
Hepatitis B, Chronic	C,P	77	71	816	810.0	656
Hepatitis C, Acute	C,P	0	2	54	34.7	25
Hepatitis C, Chronic	C,P	7	203	3,249	4,106.7	3,826
Legionellosis	C	6	8	60	56.0	49
Listeriosis	C	2	0	8	15.3	21
Lyme Disease	C,P	0	0	3	9.0	6
Malaria	C	0	0	8	7.7	7
Measles (Rubeola)	C	0	0	0	0.7	0
Meningitis, Aseptic/Viral	C,P,S	1	2	46	135.0	73
Meningitis, Bacterial	C,P,S	1	0	18	30.7	20
Meningitis, Other/Unknown	C	0	0	23	25.0	28
Meningococcal Disease	C,P	0	0	1	7.7	4
Mumps	C,P	1	0	2	30.3	16
Pertussis	C,P,S	4	9	65	569.3	220
Rabies, Animal	C	0	0	4	7.3	8
Rocky Mountain Spotted Fever	C,P	0	0	2	2.0	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	28	64	579	646.7	489
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	13	12	131	179.0	108
Shigellosis	C,P	36	60	427	354.7	240
Typhoid Fever	C,P	0	0	9	5.0	4
Vibriosis	C,P	2	2	51	52.3	39
West Nile Virus Infection	C,P	0	0	3	2.0	1
Yersiniosis	C,P	1	1	19	36.0	29
Zika Virus	C,P	0	0	0	5.3	0

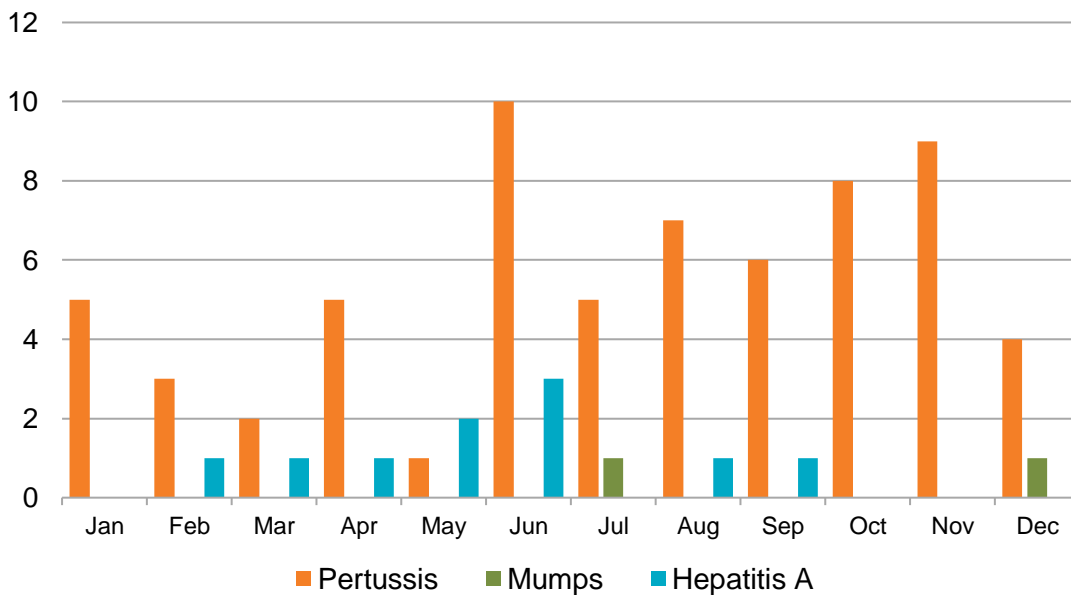
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously 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
January 2021 – December 2021**

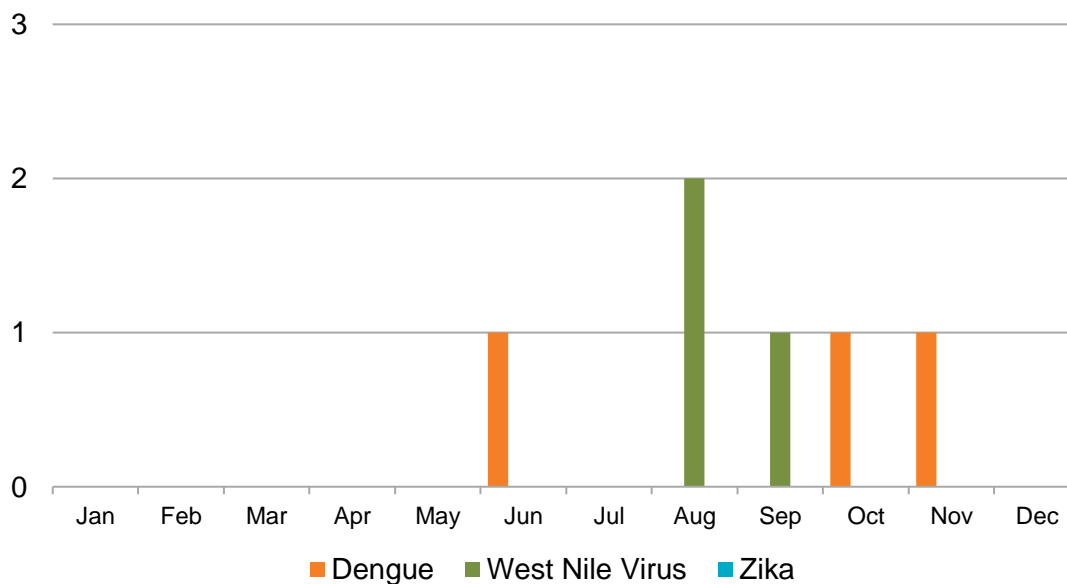


**Figure 3. Select Vaccine-Preventable Infections by Month
January 2021 – December 2021**



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**Figure 4. Select Vector-Borne Infections by Month
January 2021 – December 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>.