

BOTULISM

Botulism is a rare, but severe neuroparalytic illness caused by botulinum toxin, which is produced by *Clostridium botulinum* and sometimes other types of *Clostridium* bacteria. The toxin attacks the nerves, starting with the cranial nerves then descending symmetrically. Common symptoms include double or blurred vision, drooping eyelids, difficulty swallowing, slurred speech, and muscle weakness. Although botulism can be fatal due to respiratory failure, deaths are less common since the advent of antitoxin and improved medical care.

There are five main types of botulism: foodborne, wound, infant, adult intestinal toxemia, and iatrogenic. In 2015, there were 213 confirmed and probable cases of botulism reported in the United States: 45 foodborne, 23 wound, 141 infant, and 4 unknown. In California, 50 confirmed cases were reported in 2015: 1 foodborne, 11 wound, 36 infant, and 2 other or unknown.

Foodborne
2000-2017*
4 Female | 2 Male
Median Age 58
*year-to-date

Foodborne botulism occurs when preformed botulinum toxin is ingested in contaminated food, often improperly canned or preserved homemade food. Symptoms, which may also include gastrointestinal manifestations, usually appear within 12-72 hours after ingesting the toxin. Since 2000, there have been six cases of foodborne botulism reported in San Diego County. Two were associated with home-canned tuna, two were likely associated with commercially-canned chili that was part of a nationwide recall, and one was associated with an improperly-stored commercial product.

Wound botulism occurs when bacterial spores contaminate a wound and produce toxin, with symptoms usually manifesting four to 14 days later. Wound botulism is most common among injection drug users, particularly those who skin or muscle pop black tar heroin. There have been 17 reported cases of wound botulism in San Diego County since 2000. The majority of these cases, including a cluster of five in 2010 and a cluster of two in 2014, were in black tar heroin users. Two cases were related to fractures suffered in accidents.

Wound
2000-2017*
4 Female | 13 Male
Median Age 40
*year-to-date

Federal Resources

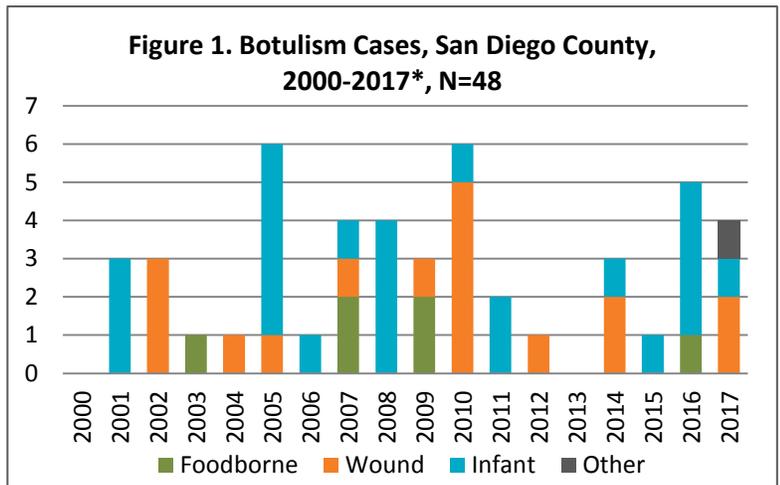
- [Centers for Disease Control and Prevention \(CDC\) Botulism website](#)
- [CDC National Botulism Surveillance website](#)

State Resources

- [California Department of Public Health \(CDPH\) Botulism website](#)
- [CDPH Infant Botulism Treatment and Prevention Program website](#)

Intestinal botulism, both infant and adult toxemia, follows ingestion of botulinum spores, which then produce toxin in the colon. Botulinum spores are ubiquitous in soil and dust. Adults infected in this way usually have health conditions that make them more susceptible. It is unclear why some infants are more likely to become colonized. Symptoms of infant botulism include lethargy, poor feeding, constipation, and weak cry. There have been 24 reported cases of infant botulism in San Diego County since 2000.

One recent San Diego County botulism case was iatrogenic, where infection follows injection of botulinum toxin for cosmetic or medical reasons.



*2017 data are year-to-date; current as of 10/16/2017. Includes laboratory-confirmed and probable epidemiologically-linked cases. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

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, send an email to EpiDiv.HHSA@sdcounty.ca.gov.



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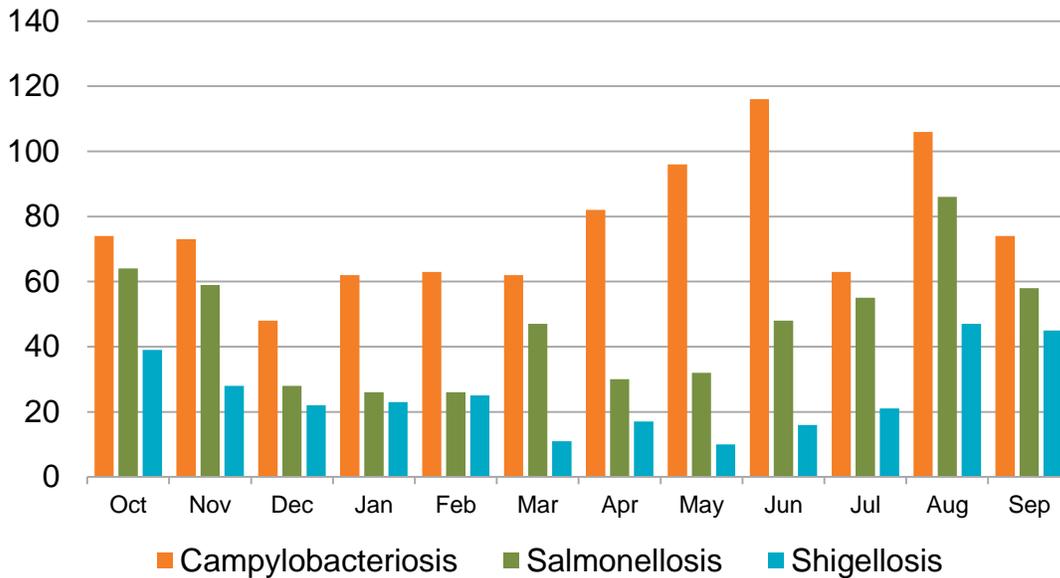


| Table 1. Select Reportable Diseases | | 2017 | | | Prior Years | | |
|---|-------|---------------|-------------|--------------------|-------------|--------------------|------------|
| | | Current Month | Prior Month | Year-to-Date (YTD) | 2016 YTD | Avg YTD, 2014-2016 | 2016 Total |
| Disease and Case Inclusion Criteria (C,P,S) | | | | | | | |
| Amebiasis | C | 0 | 0 | 8 | 4 | 27.7 | 5 |
| Botulism (Foodborne, Infant, Wound, Other) | C | 1 | 0 | 4 | 4 | 1.7 | 5 |
| Brucellosis | C | 0 | 1 | 4 | 3 | 1.3 | 4 |
| Campylobacteriosis | C | 74 | 106 | 724 | 593 | 567.0 | 787 |
| Chickenpox, Hospitalization or Death | C,P | 1 | 0 | 2 | 2 | 1.7 | 3 |
| Chikungunya | C,P | 0 | 0 | 1 | 2 | 4.0 | 6 |
| Coccidioidomycosis | C,P | 21 | 23 | 142 | 107 | 105.7 | 158 |
| Cryptosporidiosis | C,P | 3 | 5 | 37 | 26 | 24.0 | 35 |
| Dengue Virus Infection | C | 0 | 1 | 10 | 15 | 8.3 | 23 |
| Encephalitis, All | C,P | 0 | 1 | 24 | 56 | 54.3 | 71 |
| Giardiasis | C,P | 16 | 26 | 250 | 271 | 222.0 | 398 |
| Hepatitis A, Acute | C | 73 | 93 | 504 | 20 | 14.3 | 26 |
| Hepatitis B, Acute | C,P | 2 | 0 | 12 | 3 | 7.0 | 3 |
| Hepatitis B, Chronic | C | 83 | 71 | 665 | 644 | 668.3 | 865 |
| Hepatitis C, Acute | C,P | 0 | 0 | 3 | 0 | 0.3 | 1 |
| Hepatitis C, Chronic | C,P | 308 | 327 | 2164 | 2032 | 2128.7 | 2581 |
| Legionellosis | C | 1 | 1 | 33 | 34 | 32.7 | 53 |
| Listeriosis | C,P | 1 | 2 | 13 | 17 | 12.7 | 22 |
| Lyme Disease | C | 0 | 0 | 4 | 7 | 9.0 | 10 |
| Malaria | C | 1 | 1 | 4 | 8 | 7.0 | 12 |
| Measles (Rubeola) | C,P | 0 | 0 | 2 | 0 | 4.0 | 0 |
| Meningitis, Aseptic/Viral | C | 13 | 23 | 95 | 107 | 172.0 | 140 |
| Meningitis, Bacterial | C | 0 | 2 | 17 | 39 | 27.0 | 54 |
| Meningitis, Other/Unknown | C,P,S | 1 | 1 | 14 | 25 | 28.7 | 29 |
| Meningococcal Infection | C,P | 0 | 1 | 2 | 0 | 3.0 | 2 |
| Mumps | C,P | 0 | 4 | 12 | 18 | 6.7 | 23 |
| Pertussis | C,P,S | 35 | 57 | 764 | 276 | 881.0 | 412 |
| Rabies, Animal | C | 2 | 1 | 14 | 6 | 4.7 | 7 |
| Rocky Mountain Spotted Fever | C,P | 0 | 0 | 2 | 1 | 2.0 | 2 |
| Salmonellosis (Non-Typhoid/Non-Paratyphoid) | C,P | 58 | 86 | 408 | 385 | 413.3 | 535 |
| Shiga toxin-Positive Feces (without culture confirmation) | C,P | 1 | 4 | 16 | 13 | 7.0 | 15 |
| Shiga toxin-Producing E. coli (including O157) | C,P | 0 | 4 | 19 | 39 | 34.3 | 60 |
| Shigellosis | C,P | 45 | 47 | 215 | 155 | 133.7 | 243 |
| Typhoid Fever | C,P | 0 | 0 | 2 | 2 | 3.0 | 6 |
| Vibriosis | C,P | 2 | 12 | 37 | 28 | 32.3 | 30 |
| West Nile Virus Infection | C,P | 0 | 0 | 1 | 19 | 19.3 | 22 |
| Yersiniosis | C,P | 0 | 7 | 44 | 7 | 9.0 | 15 |
| Zika Virus | C,P | 1 | 1 | 11 | 62 | 21.3 | 83 |

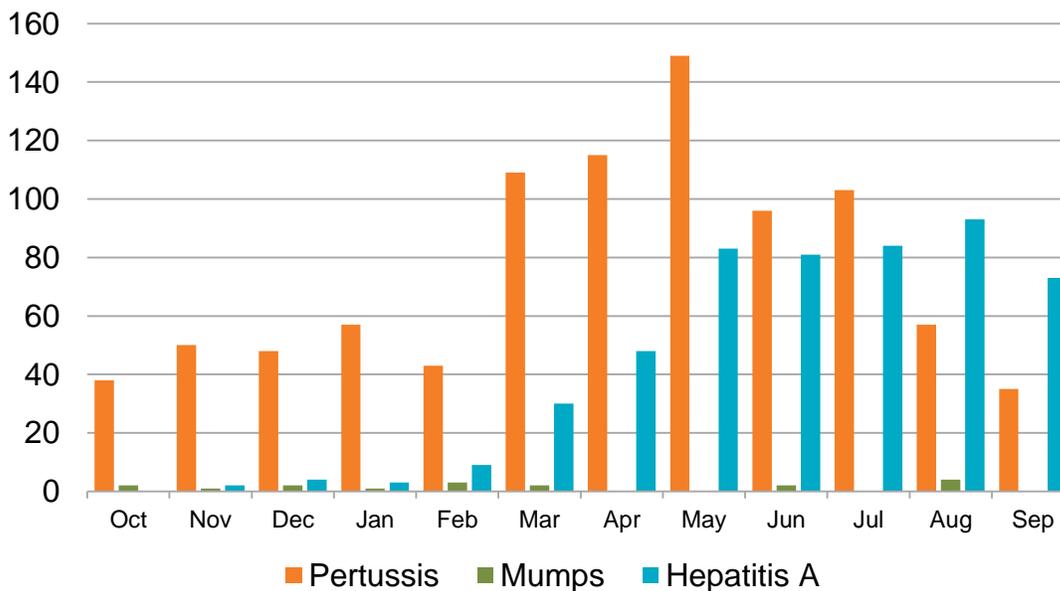
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously 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
October 2016 – September 2017**

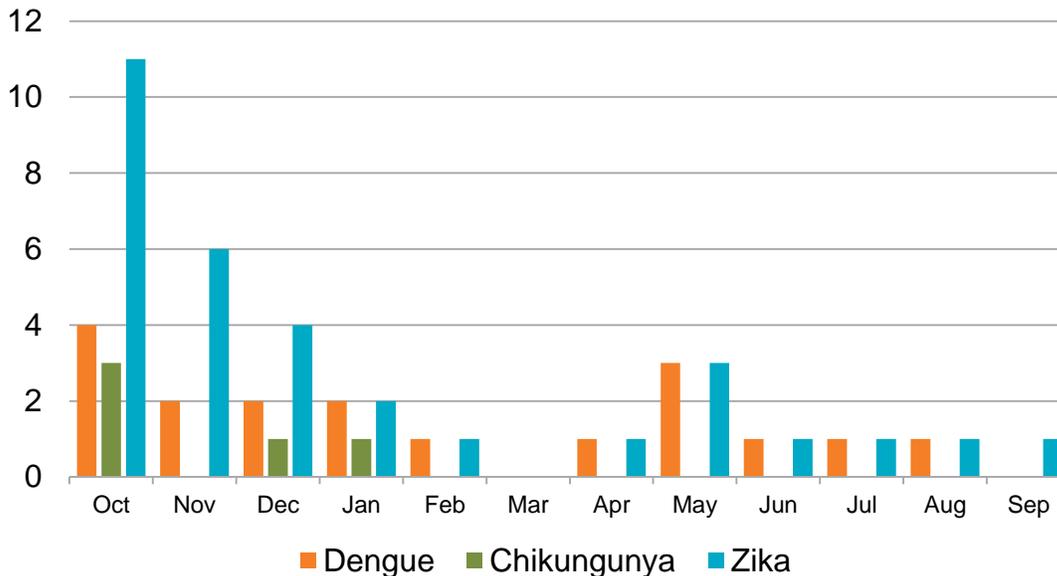


**Figure 3. Select Vaccine-Preventable Infections by Month
October 2016 – September 2017**



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**Figure 4. Select Vector-Borne Infections by Month
October 2016 – September 2017**



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

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>.