

### MUMPS

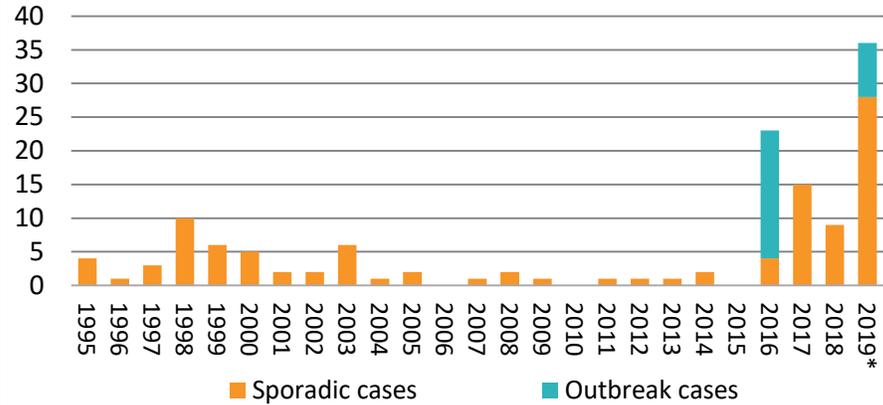
Mumps is an acute illness caused by mumps virus, and is spread by direct contact with saliva or respiratory droplets from sneezing, coughing, or talking. Early signs and symptoms can include fever, headache, muscle aches, tiredness, and loss of appetite. Most people will have swelling of one or more of the salivary glands, especially the parotid gland (parotitis). Symptoms may appear from 12 to 25 days after exposure to mumps virus, usually between 16 and 18 days. Mumps does not cause all cases of infectious parotitis, but it is the only cause of epidemic parotitis. Mumps virus may also cause nonspecific or primarily respiratory symptoms, or no symptoms at all. When a person is ill with mumps, they may be infectious from two days before to five days after the onset of parotitis. It is recommended that persons ill with mumps limit contact with others during this infectious period.

Mumps complications include inflammation of the testicles (orchitis) or ovaries (oophoritis), mastitis, meningitis, encephalitis, pancreatitis, and hearing loss. Complications can occur in the absence of parotitis and occur less frequently in vaccinated patients. Some complications of mumps are known to occur more frequently among adults than children. Orchitis occurs in 20-30% of unvaccinated and 6-7% of vaccinated postpubertal male mumps patients.

Mumps cases have declined by over 99% in the United States (U.S.) since the introduction of two doses of the mumps vaccine in 1989. However, since 2015, approximately 150 outbreaks (16,000 cases) have been reported across the country, the largest (about 3,000 cases) occurring in [Arkansas in 2017](#). Mumps outbreaks still occur in vaccinated populations, particularly among individuals in close contact, but vaccination can limit their size, spread, and duration. The Centers for Disease Control and Prevention (CDC) maintains a [mumps outbreak webpage](#) with updated information on outbreaks and national case counts.

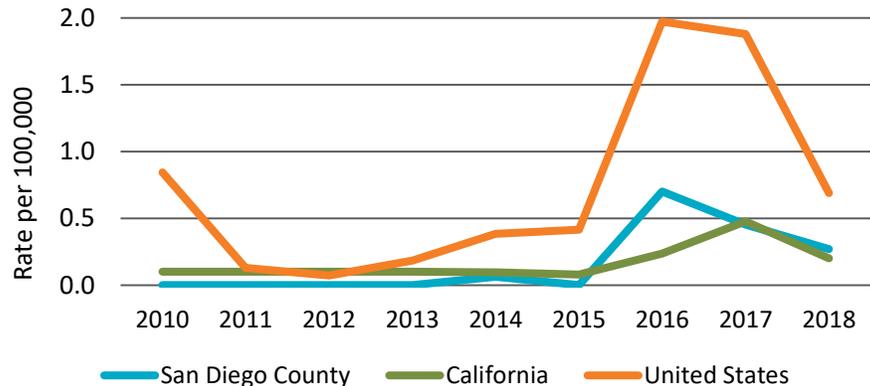
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**Figure 1. Mumps Cases, San Diego County 1995-2019\***



\*2019 data are year-to-date; current as of 9/16/2019. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

**Figure 2. Mumps Incidence, San Diego County, California, and United States, 2010-2018**



Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years. US and CA 2018 data are preliminary and are from [MMWR Notifiable Diseases and Mortality Tables](#).

*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](mailto:EpiDiv.HHSA@sdcounty.ca.gov).*

### MUMPS, continued

Between September 1, 2018 and August 22, 2019, 898 mumps cases have been [reported](#) in adults detained by U.S. Immigration and Customs Enforcement (ICE) in 57 facilities across 19 states. Outbreaks are ongoing in 15 facilities in seven states, including eight cases detected to date at Otay Mesa Detention Center (OMDC) in San Diego County. Previous mumps outbreaks in San Diego County occurred in 2016, when a total of 19 mumps cases were reported in two separate outbreaks at two local universities.

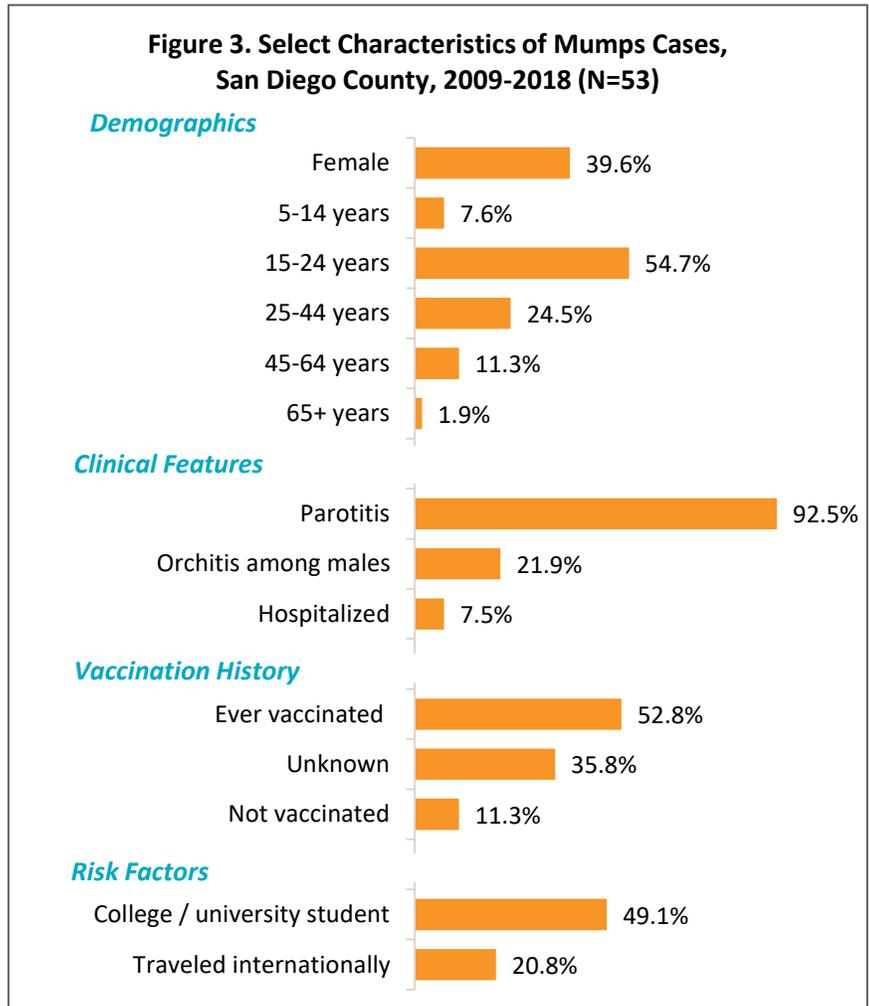
From 2009 to 2018, there were 53 cases of mumps reported in San Diego County. The majority of these cases occurred within the last several years. Parotitis was a symptom in over 90% of cases. Most of the cases were male, with 22% experiencing orchitis. Few cases were hospitalized, and there were no reported deaths. Over one in five cases traveled internationally, and nearly half were college students. The highest proportion of mumps cases were 15 to 24 years of age. While a large percentage of cases did not know their vaccination status or were not vaccinated, over half reported receiving at least one dose of mumps vaccine.

The number of mumps cases to date in 2019 in San Diego County (36 cases) is the highest in over 25 years. Orange County recently [reported](#) an increase in mumps cases in young adults. Reported infectious parotitis cases have been increasing in [Baja California](#) this year as well; as of August 24, 2019, 465 cases have been reported. Collectively, these reports indicate that mumps is circulating widely in the California border region.

Vaccination helps prevent mumps and mumps complications. Mumps vaccine was first introduced in the United States in 1967. Two doses of mumps vaccine, included in the [MMR and MMRV vaccines](#), are recommended at 12 to 15 months of age and at 4 to 6 years of age. Prior to foreign travel, children aged 6 to 11 months should receive one dose of the mumps vaccine. One dose is 78% effective, and two doses are 88% effective. The vaccine is safe, lessens disease symptoms in vaccinated individuals, and also protects against measles and rubella.

#### Resources

- [Centers for Disease Control and Prevention mumps website](#)
- [Epidemiology and Prevention of Vaccine-Preventable Diseases – Mumps \(the Pink Book\)](#)
- [California Department of Public Health mumps website](#)
- [San Diego Immunization Program](#)



Grouped by CDC disease years. Denominators are cases with available information for each variable. Data are provisional and subject to change.

# MONTHLY COMMUNICABLE DISEASE REPORT

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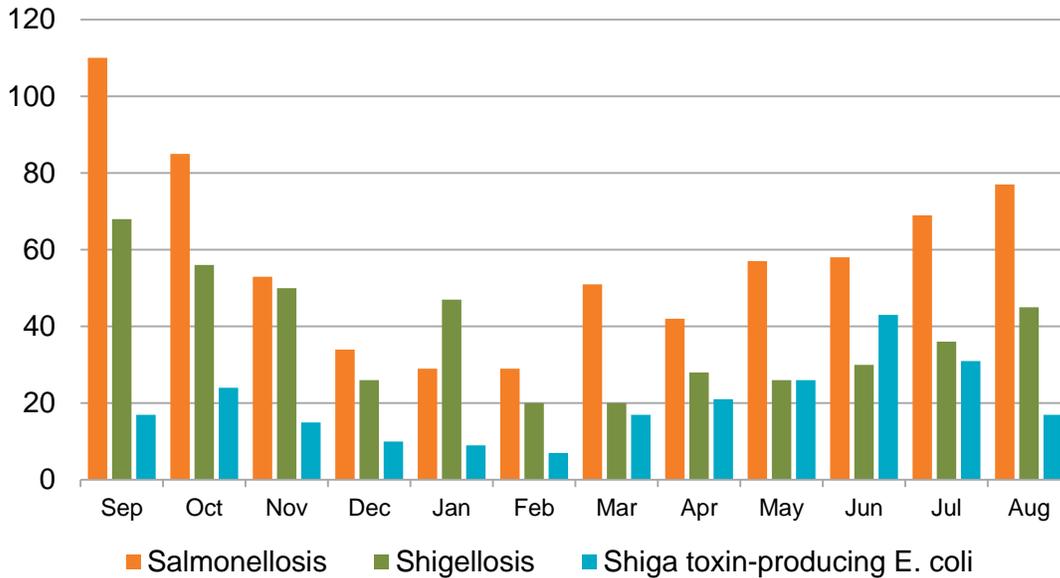


Table 1. Select Reportable Diseases		2019			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2018 YTD	Avg YTD, Prior 3 Years	2018 Total
Disease and Case Inclusion Criteria (C,P,S)							
Amebiasis	C	0	1	7	7	6.0	10
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	10	5.7	11
Brucellosis	C,P	0	0	1	2	2.7	2
Campylobacteriosis	C,P	82	100	653	568	577.0	828
Chickenpox, Hospitalization or Death	C,P	0	0	2	0	1.0	4
Chikungunya	C,P	1	1	2	5	2.7	5
Coccidioidomycosis	C	28	24	226	187	142.0	276
Cryptosporidiosis	C,P	12	17	59	55	37.3	90
Dengue Virus Infection	C,P	4	1	10	5	8.0	9
Encephalitis, All	C	2	2	25	33	39.0	66
Giardiasis	C,P	17	14	148	168	214.0	229
Hepatitis A, Acute	C	1	1	12	30	155.0	35
Hepatitis B, Acute	C	2	1	6	6	6.3	9
Hepatitis B, Chronic	C,P	68	102	662	574	575.3	867
Hepatitis C, Acute	C,P	1	5	34	1	1.7	2
Hepatitis C, Chronic	C,P	250	356	2,605	2,981	2,286.3	4,167
Legionellosis	C	7	3	37	28	34.3	54
Listeriosis	C	3	0	8	13	13.0	14
Lyme Disease	C,P	0	1	1	11	13.0	14
Malaria	C	1	1	4	5	5.3	8
Measles (Rubeola)	C	1	1	2	0	0.7	0
Meningitis, Aseptic/Viral	C,P,S	20	17	108	102	101.3	140
Meningitis, Bacterial	C,P,S	1	5	21	31	31.3	37
Meningitis, Other/Unknown	C	1	1	15	13	20.3	17
Meningococcal Disease	C,P	0	0	6	8	3.0	11
Mumps	C,P	10	7	36	6	11.0	9
Pertussis	C,P,S	43	77	444	484	486.3	656
Rabies, Animal	C	1	2	6	6	7.0	7
Rocky Mountain Spotted Fever	C,P	0	0	0	1	1.0	1
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	77	69	412	510	399.0	787
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	17	31	171	109	57.3	174
Shigellosis	C,P	45	36	252	193	164.3	391
Typhoid Fever	C,P	0	0	6	1	1.7	4
Vibriosis	C,P	8	8	35	42	34.0	58
West Nile Virus Infection	C,P	1	1	3	0	5.3	2
Yersiniosis	C,P	4	3	34	18	21.7	26
Zika Virus	C,P	1	1	5	5	22.3	7

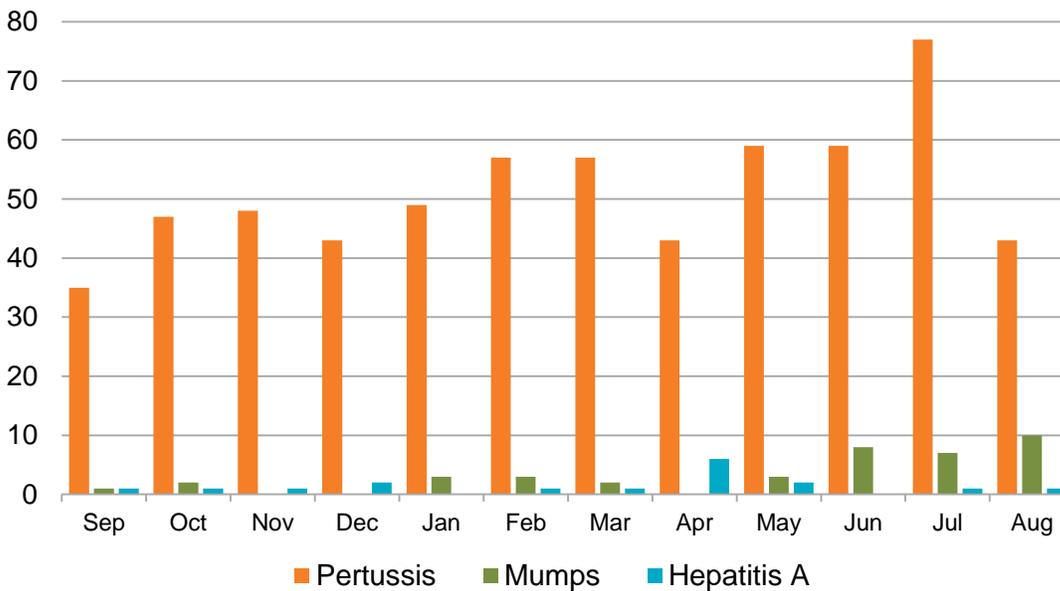
**Case counts are provisional and subject to change as additional information becomes available.** Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from 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 4. Select Enteric Infections by Month  
September 2018 – August 2019**

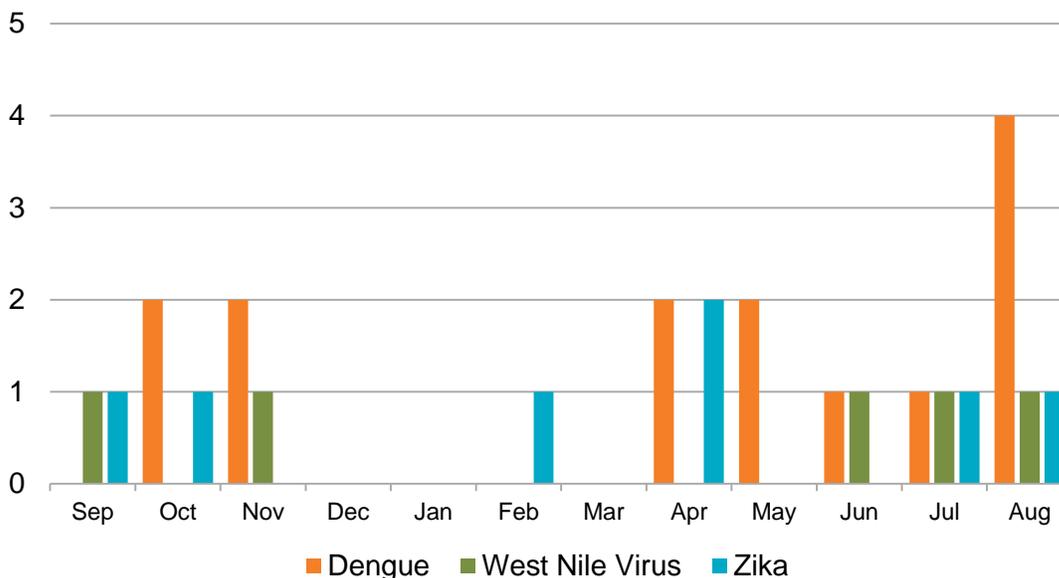


**Figure 5. Select Vaccine-Preventable Infections by Month  
September 2018 – August 2019**



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**Figure 6. Select Vector-Borne Infections by Month  
September 2018 – August 2019**



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](http://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>.