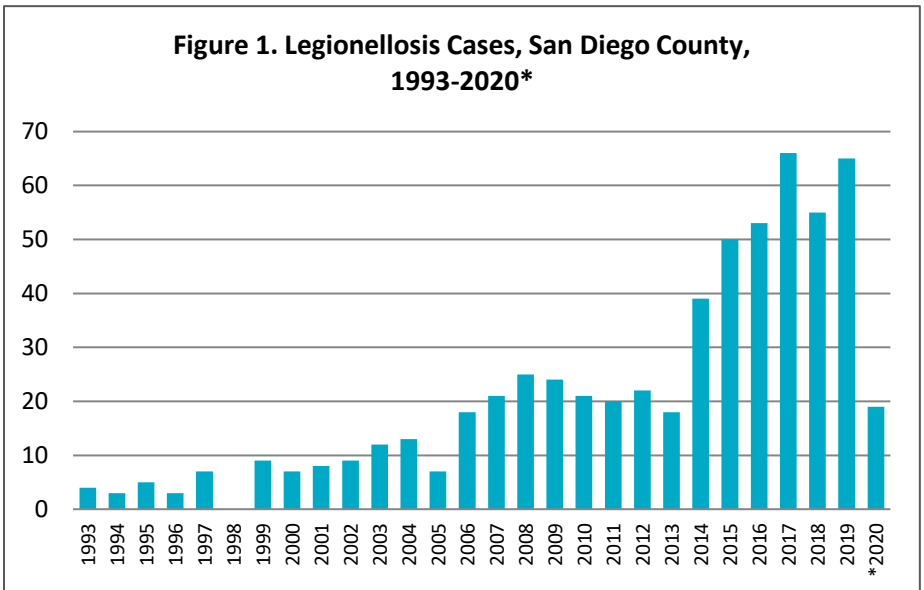


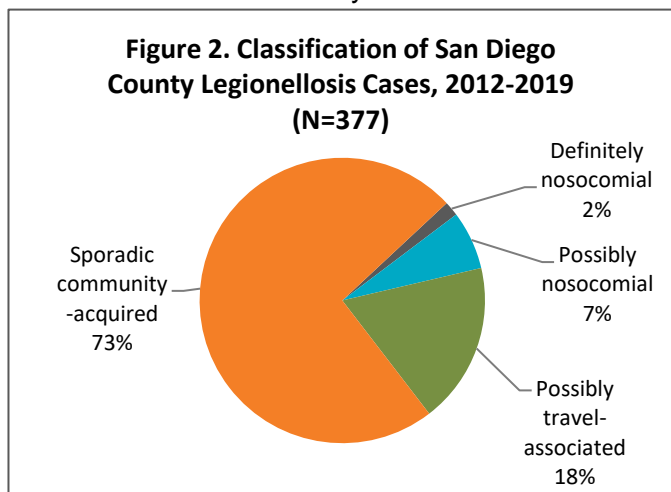
### LEGIONELLOSIS

Legionellosis is a respiratory infection caused by multiple species of *Legionella* bacteria. It manifests as two clinically distinct syndromes. Legionnaires' disease is characterized by pneumonia, with a presentation similar to other types of pneumonia, including cough, shortness of breath, fever, and myalgia. Other symptoms experienced by some patients with Legionnaires' disease include headache, diarrhea, nausea, and confusion. Pontiac fever is a milder infection that is self-limiting, with fever and myalgia, but not pneumonia. Pontiac fever is rarely detected outside of an outbreak and the vast majority of legionellosis cases identified are Legionnaires' disease.



\*2020 data are year-to-date; current as of 9/8/2020. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

Incidence of legionellosis has increased steadily since 2000, though it is still believed to be underdiagnosed. In 2018, 9,933 cases were reported in the United States, compared to 1,127 cases in 2000. In California, there were 453 reported legionellosis cases in 2018. The highest annual totals in San Diego County were from 2017 to 2019. *Legionella* bacteria are commonly found in natural freshwater environments and soil; they become a health risk when they proliferate in human-made water systems, ranging from home showers to hot tubs and decorative fountains to the large, complex water systems used to heat and cool buildings such as hospitals and hotels. People become infected when they inhale aerosolized water droplets from these sources.



Excludes cases (15/377) with missing information. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

Only a small proportion of those exposed to *Legionella* get sick. Those at increased risk for illness include: persons 50 years or older (88% of 2012-2019 San Diego County cases); current or former smokers (63% of 2012-2019 San Diego County cases); those with underlying health conditions such as chronic lung disease, diabetes, and kidney or liver failure; and those with compromised immune systems.

Health departments investigate reports of legionellosis to attempt to determine a source of infection. Because the bacteria are ubiquitous, the source for the majority of cases cannot be definitively identified. Most cases are considered to be sporadic community-acquired infections (73% of San Diego County cases in 2012-2019). When specific criteria related to

*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 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).

## LEGIONELLOSIS, continued

continuous hospital stays during their exposure period are met, cases may be classified as definitely nosocomial. Other cases with healthcare exposures may be considered possibly nosocomial, and cases where persons have spent a night away from their own home are usually considered possible travel-associated cases.

The source of infection is often only determined in the context of an outbreak. In fact, the disease was first identified and named in 1976 after an outbreak of pneumonia among attendees of an American Legion convention in Philadelphia—a meeting that included many older, susceptible persons convening in a hotel with a cooling system later found to harbor the bacteria.

Outbreaks, along with greater awareness and testing, may be contributing to the increased reported incidence of legionellosis. Since 2000, the highest number of [outbreaks in the U.S.](#) have been reported in New York (54), Florida (51), Ohio (41), and Pennsylvania (36). Recent outbreaks include a [prison outbreak in Florida](#) and 13 cases in [Elmira, NY, associated with a cooling tower](#). There have been two outbreaks, each involving two cases, identified in San Diego County in the past three years, one associated with a hotel and the other a vacation rental.

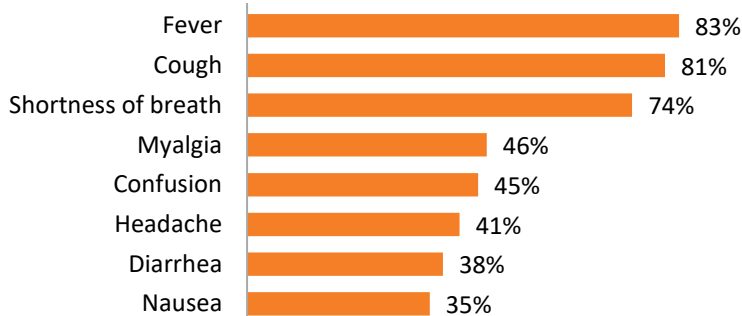
Most San Diego cases (95% of those with species identified) were due to *L. pneumophila*, the most common of the 48 species of *Legionella*, but also the only one detected by the

**Figure 3. Select Characteristics of San Diego County Legionellosis Cases, 2012-2019 (N=377)**

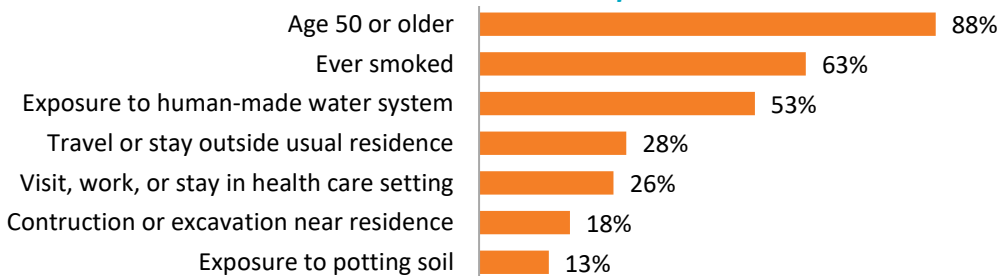
### Clinical Outcomes



### Symptoms Experienced by Those with Pneumonia



### Risk Factors and Possible Exposures



Cases with missing information excluded for each characteristic. Denominators range from 257-365 for all cases and 275-341 for cases with pneumonia. Possible exposures are not confirmed sources of illness. Water systems include: water storage, heating, or cooling systems; hot tubs, saunas, or swimming pools; misters; sprinklers; drinking fountains; decorative fountains; evaporative coolers; and humidifiers. Health care settings include hospitals, dental offices, and long-term care facilities. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

commonly-used urine antigen test. Other species identified in San Diego County cases between 2012-2019 are *L. bozemanii* and *L. micdadei*. Prolonged shutdown or reduced operation of a building, such as during the COVID-19 pandemic, may increase the risk for spread of *Legionella* in water systems. CDC has updated their [guidance](#) for reopening buildings after shutdown.

### Resources

- [Centers for Disease Control and Prevention \(CDC\) Legionellosis website](#)
- [CDC website on Guidelines, Standards, and Laws related to Legionellosis](#)
- [Environmental Protection Agency Legionella website](#)
- [California Department of Public Health \(CDPH\) Legionellosis website](#)

# MONTHLY COMMUNICABLE DISEASE REPORT

AUGUST 2020

Volume 4, Issue 8: September 15, 2020

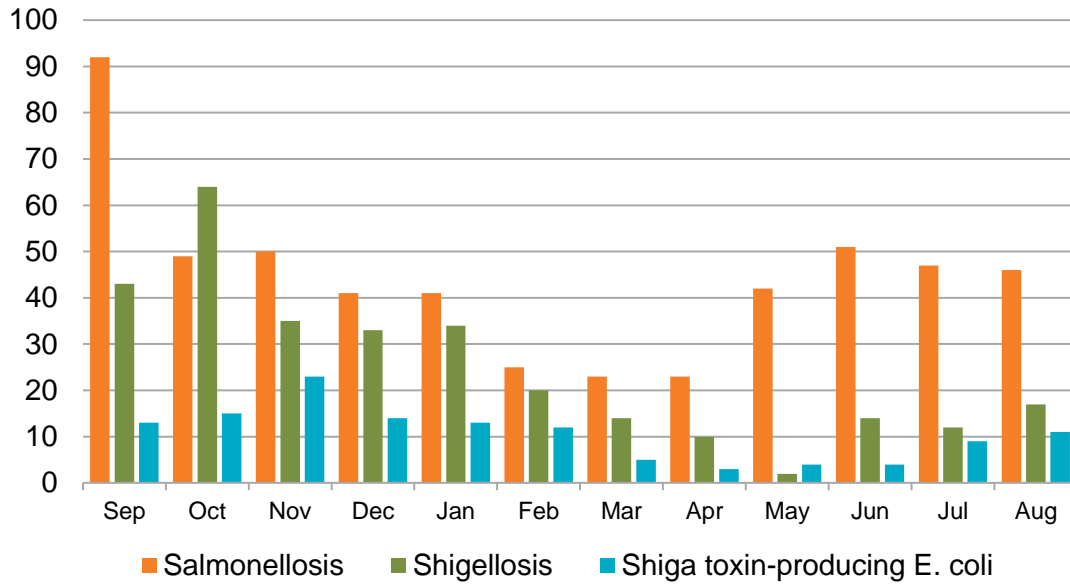


Table 3. Select Reportable Diseases		2020			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2019 YTD	Avg YTD, Prior 3 Years	2019 Total
Disease and Case Inclusion Criteria (C,P,S)							
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	0	4.3	2
Brucellosis	C,P	0	0	0	1	2.3	1
Campylobacteriosis	C,P	54	84	411	703	641.0	997
Chickenpox, Hospitalization or Death	C,P	0	0	0	2	1.0	2
Chikungunya	C,P	0	0	1	2	3.0	6
Coccidioidomycosis	C	1	0	15	274	203.7	460
Cryptosporidiosis	C,P	4	1	23	61	50.3	99
Dengue Virus Infection	C,P	1	0	3	14	9.3	31
Encephalitis, All	C	1	0	12	30	31.3	45
Giardiasis	C,P	12	13	98	160	188.7	219
Hepatitis A, Acute	C	0	0	13	11	152.3	15
Hepatitis B, Acute	C	0	0	3	6	7.3	7
Hepatitis B, Chronic	C,P	49	60	435	618	587.0	904
Hepatitis C, Acute	C,P	0	0	23	52	19.0	76
Hepatitis C, Chronic	C,P	218	226	1,907	2,944	2,623.3	4,293
Legionellosis	C	2	1	19	45	39.7	65
Listeriosis	C	3	2	10	10	11.7	11
Lyme Disease	C,P	0	0	1	4	11.0	4
Malaria	C	0	0	6	5	4.7	7
Measles (Rubeola)	C	0	0	0	2	1.3	2
Meningitis, Aseptic/Viral	C,P,S	4	8	40	115	109.0	188
Meningitis, Bacterial	C,P,S	3	2	17	24	27.7	35
Meningitis, Other/Unknown	C	1	2	5	25	20.7	29
Meningococcal Disease	C,P	0	0	4	6	5.0	8
Mumps	C,P	0	0	16	37	18.3	66
Pertussis	C,P,S	0	1	212	465	560.3	822
Rabies, Animal	C	0	1	4	6	8.0	7
Rocky Mountain Spotted Fever	C,P	1	1	3	0	0.7	2
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	46	47	298	425	429.3	656
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	11	9	61	190	110.7	255
Shigellosis	C,P	17	12	123	257	209.0	429
Typhoid Fever	C,P	0	0	2	6	3.0	7
Vibriosis	C,P	7	3	19	40	40.7	58
West Nile Virus Infection	C,P	0	0	1	3	1.3	3
Yersiniosis	C,P	6	3	21	37	32.0	53
Zika Virus	C,P	0	0	0	6	8.0	9

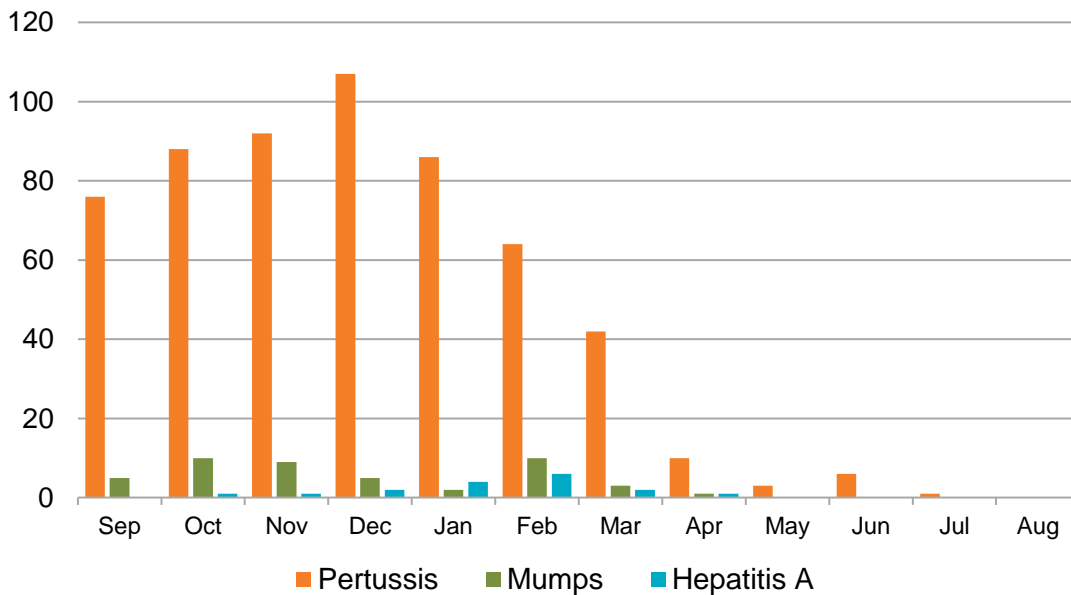
**Case counts are provisional and subject to change as additional information becomes available.** Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from 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 3. Select Enteric Infections by Month  
September 2019 – August 2020**

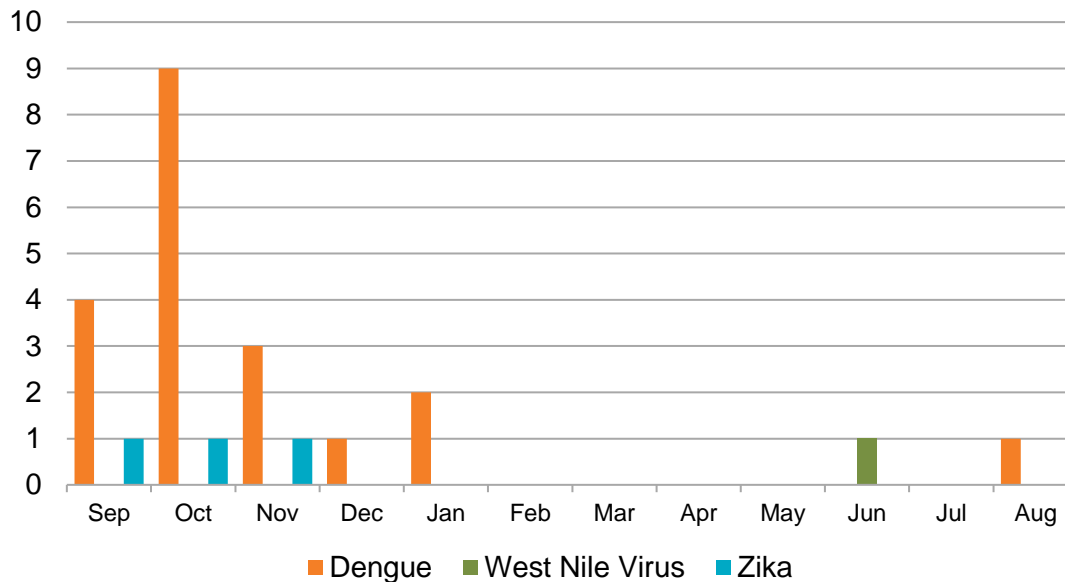


**Figure 4. Select Vaccine-Preventable Infections by Month  
September 2019 – August 2020**



**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 5. Select Vector-Borne Infections by Month  
September 2019 – August 2020**



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>.