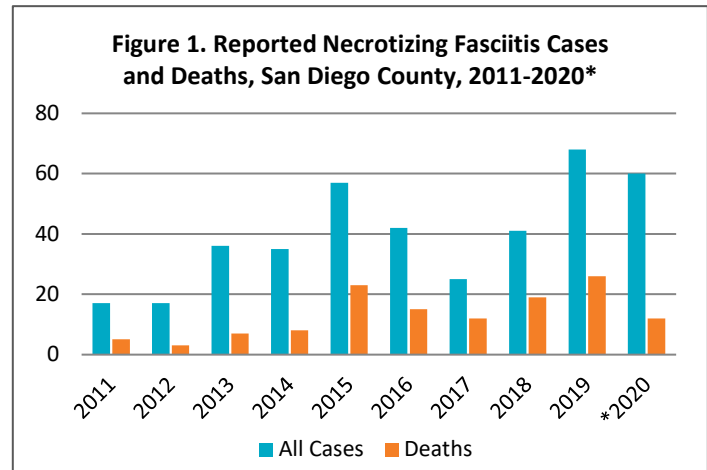


NECROTIZING FASCIITIS

Necrotizing fasciitis (NF) is a severe infection of the skin and deeper soft tissues that is characterized clinically by fulminant tissue destruction, systemic signs of toxicity, and high mortality. NF can be caused by many different bacteria, and occasionally by fungi.

There are two bacterial forms of NF. Type I NF is a mixed infection caused by aerobic and anaerobic bacteria. Risk factors include diabetes, peripheral vascular disease, immune compromise, and recent surgery. Type II NF is generally mono-microbial, most commonly caused by group A *Streptococcus* (GAS) or *Staphylococcus aureus*, and can occur in any age group among healthy individuals with no past medical history. Predisposing factors include a history of skin injury, such as cut or burn, blunt trauma, recent surgery, childbirth, injection drug use, or varicella infection.

NF is not a nationally notifiable condition so comprehensive national statistics are not available. The Centers for Disease Control and Prevention (CDC) estimates that there are 700-1200 cases of NF due to GAS each year, though this is likely an underestimate. In 2011, the Public Health Officer made NF [locally reportable](#) in San Diego County. Since 2011, NF case counts have ranged from 17-68 per year, with 60 cases reported to date in 2020.



*2020 data are year to date; current as of 11/6/2020. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

Table 1. Common Organisms Detected in Monomicrobial and Polymicrobial Necrotizing Fasciitis Cases, 2011-2019

Total Cases=398	Type I. Poly-microbial	Type II. Mono-microbial	Total
Cases with available information on organism(s) identified	108	126	234
Select Common Organisms*			
<i>Streptococcus</i>	61	53	114
<i>Staphylococcus</i>	47	37	84
<i>E. Coli</i>	18	4	22
<i>Enterococcus</i>	16	3	19
<i>Klebsiella</i>	11	7	18
<i>Bacteroides</i>	15	0	15
<i>Clostridium</i>	5	8	13
<i>Prevotella</i>	11	0	11

*Cases with polymicrobial infections may be included in the count for more than one organism. Includes only cases with information on organisms detected. In other cases, there may have been no organism identified or the information may be unavailable. Only commonly detected organisms are listed; many other organisms have been detected, particularly in combination. Data are subject to change as additional information becomes available. Current as of 11/6/2020.

More of these infections were in men (63%). The median age of case-patients was 54 years (range 0-95 years).

There have been 130 deaths due to NF among San Diego County residents since 2011. Fatal cases may be overrepresented in the counts; although fatalities are not uncommon, the Epidemiology and Immunization Services Branch (EISB) detects NF deaths through periodic searches of death certificates. Providers may not realize that NF is locally reportable; underreporting is likely common.

Streptococcus (group A and other types) remains the most frequently detected organism in San Diego County NF cases. In 2019, EISB [identified](#) a highly lethal cluster of myonecrosis and NF due to *Clostridium sordellii*. This group predominantly experienced homelessness; all patients used black tar heroin, 50% reported “skin popping,” and 70% died.

Resources:

- [Centers for Disease Control and Prevention \(CDC\) Necrotizing Fasciitis website](#)
- [CDC Active Bacterial Core surveillance \(ABCs\) 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, send an email to EpiDiv.HHSA@sdcounty.ca.gov.



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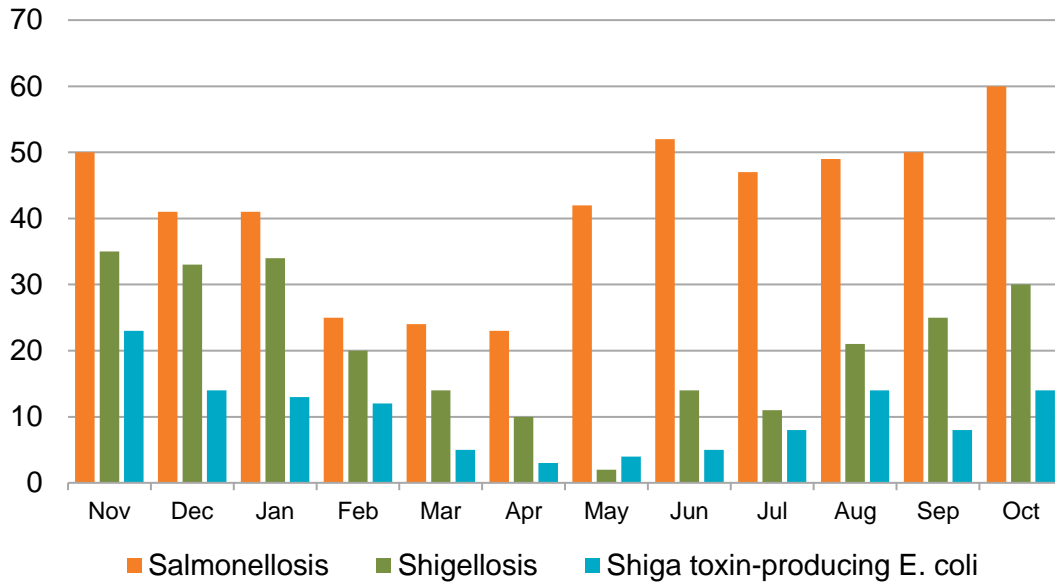


Table 2. Select Reportable Diseases		2020			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2019 YTD	Avg YTD, Prior 3 Years	2019 Total
Disease and Case Inclusion Criteria (C,P,S)							
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	1	5.3	2
Brucellosis	C,P	0	0	0	1	2.7	1
Campylobacteriosis	C,P	61	53	526	880	800.0	997
Chickenpox, Hospitalization or Death	C,P	0	0	0	2	1.7	2
Chikungunya	C,P	0	0	1	3	3.3	6
Coccidioidomycosis	C	0	1	16	377	280.3	460
Cryptosporidiosis	C,P	1	5	29	85	69.7	99
Dengue Virus Infection	C,P	1	2	5	27	15.3	31
Encephalitis, All	C	3	1	17	40	42.3	45
Giardiasis	C,P	11	11	127	193	227.0	219
Hepatitis A, Acute	C	0	0	13	12	195.3	15
Hepatitis B, Acute	C	0	1	6	6	9.0	7
Hepatitis B, Chronic	C,P	55	50	546	786	742.7	904
Hepatitis C, Acute	C,P	1	1	25	70	25.3	76
Hepatitis C, Chronic	C,P	202	223	2,323	3,658	3,282.0	4,293
Legionellosis	C	7	1	27	54	50.0	65
Listeriosis	C	3	0	13	10	12.7	11
Lyme Disease	C,P	0	0	1	4	12.7	4
Malaria	C	0	0	6	6	6.3	7
Measles (Rubeola)	C	0	0	0	2	1.3	2
Meningitis, Aseptic/Viral	C,P,S	4	1	45	165	146.7	188
Meningitis, Bacterial	C,P,S	0	0	18	29	32.0	35
Meningitis, Other/Unknown	C	0	0	5	28	23.3	29
Meningococcal Disease	C,P	0	0	4	6	6.0	8
Mumps	C,P	0	0	16	52	25.0	66
Pertussis	C,P,S	0	1	214	629	701.0	822
Rabies, Animal	C	1	2	7	7	9.7	7
Rocky Mountain Spotted Fever	C,P	0	0	3	2	1.7	2
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	60	50	413	566	582.3	656
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	14	8	86	218	210.0	255
Shigellosis	C,P	30	25	181	364	317.3	429
Typhoid Fever	C,P	0	2	4	6	3.3	7
Vibriosis	C,P	2	3	29	51	51.0	58
West Nile Virus Infection	C,P	0	0	1	3	2.0	3
Yersiniosis	C,P	1	1	23	44	37.3	53
Zika Virus	C,P	0	0	0	8	10.7	9

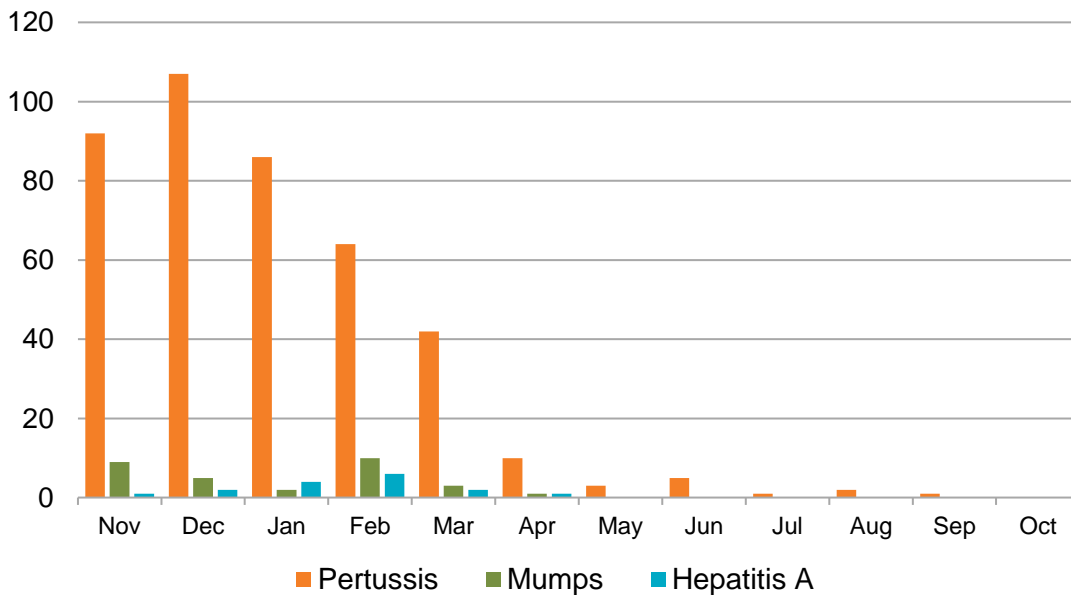
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously 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 2. Select Enteric Infections by Month
November 2019 – October 2020**

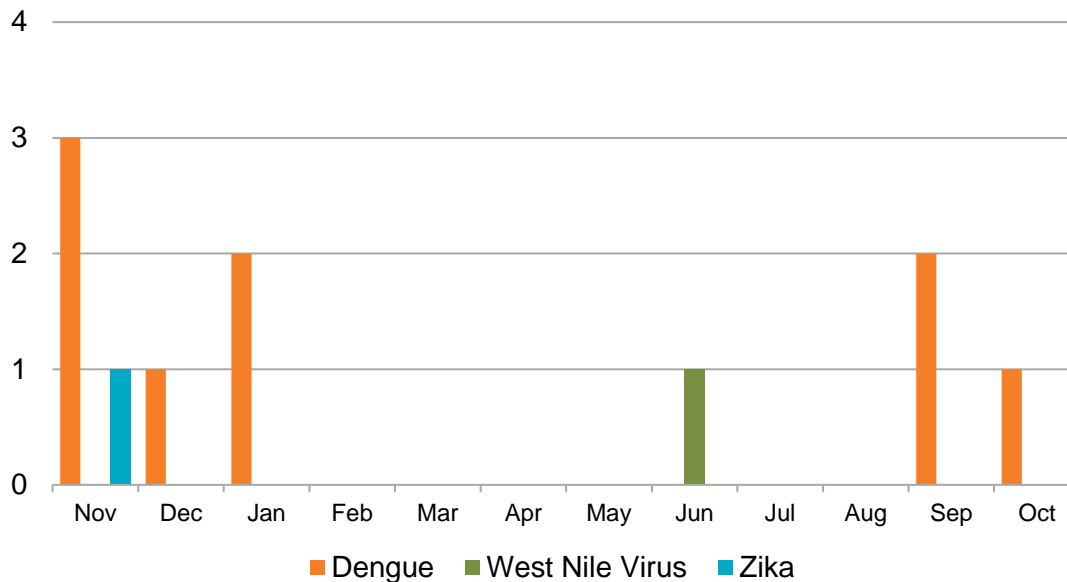


**Figure 3. Select Vaccine-Preventable Infections by Month
November 2019 – October 2020**



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 4. Select Vector-Borne Infections by Month
November 2019 – October 2020**



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>.