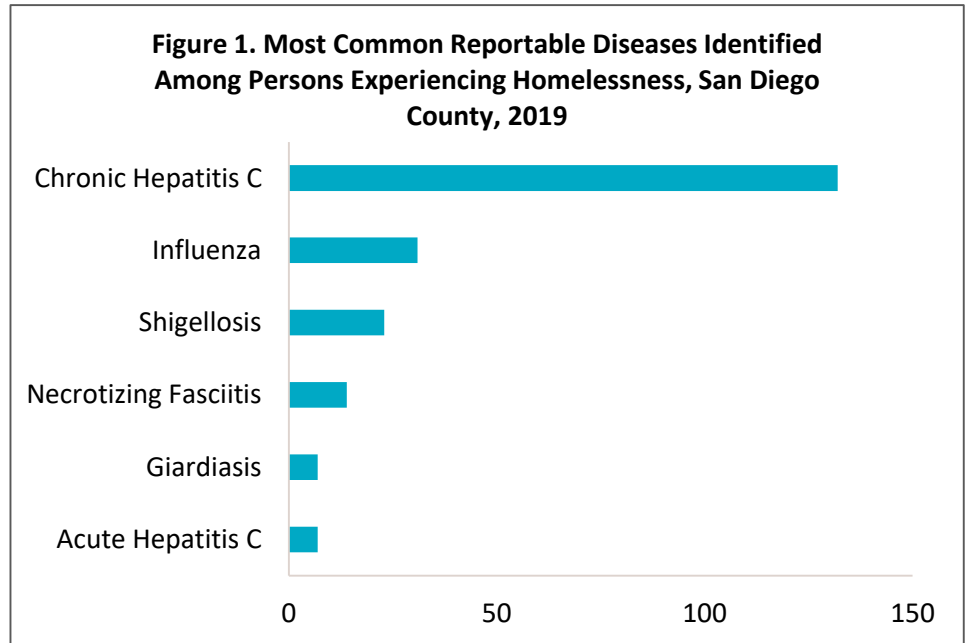


HOMELESSNESS AND COMMUNICABLE DISEASE

Homelessness is an important public health problem. Unstable and potentially unsanitary living conditions increase the risk of many infectious illnesses among persons experiencing homelessness (PEH), and associations between homelessness and several infectious diseases including hepatitis C, HIV, and tuberculosis are well established. In recent years, outbreaks and clusters of other diseases, including Hepatitis A and shigellosis, have occurred among this population in San Diego County and elsewhere in the United States. During 2017–2018, a large, unprecedented [hepatitis A outbreak](#) associated with homelessness and intravenous drug use occurred in San Diego County, resulting in nearly 600 cases and 20 deaths. Outbreak response efforts, including vaccination and sanitation, brought the outbreak under control, and it was declared over in October 2018. In other jurisdictions across the country, larger [outbreaks](#) in similar populations are ongoing. On February 6, 2020, [San Bernardino County](#) announced an outbreak of hepatitis A that is predominantly affecting persons who use drugs or are experiencing homelessness.

San Diego County has a large population of PEH. The San Diego Regional Taskforce on the Homeless [2019 Point-in-Time Count](#) reported 8,102 (4,476 unsheltered and 3,626 sheltered) PEH in the county. The number of persons who experience homelessness over the course of a year is likely higher. PEH may experience living conditions that increase risk of transmission for infectious diseases. Inadequate availability of toilet and handwashing facilities increases risk of diseases transmitted via the fecal-oral route, including hepatitis A, shigellosis, and other enteric diseases. Crowded shelters or facilities with inadequate ventilation may increase the risk for respiratory diseases, including tuberculosis and influenza. Unsanitary living conditions and inability to wash clothing increases the risk of wound infections, scabies, and body lice (the vector associated with bartonellosis). Some members of this population may also engage in risky sexual and injection drug use behaviors, which increases risk of bloodborne and sexually transmitted diseases, particularly hepatitis B, hepatitis C, and HIV.

Housing status was previously routinely documented by the County of San Diego Epidemiology and Immunization Services Branch (EISB) for some reportable diseases; however, in 2019, following the hepatitis A outbreak, EISB expanded the systematic collection of housing status to all investigated reportable disease cases to identify cases among PEH.



Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease year.

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 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 [Statistics and Reports](#) page on the Epidemiology Program website (www.sdepi.org) and click on the subscribe link.

HOMELESSNESS AND COMMUNICABLE DISEASE, continued

Cases among PEH were identified during case investigation phone interviews if case-patients self-reported being unstably housed or experiencing homelessness during their exposure or symptomatic period. Additional cases were identified if homelessness was noted in medical records, particularly for cases of diseases not routinely interviewed, including influenza and chronic hepatitis C. Housing accommodation type information was also collected from patients who reported experiencing unstable housing or homelessness during phone interviews.

In 2019, 247 cases were identified among PEH. The median age of PEH with reported infectious disease was 41 (range 1–84), and 76% were male. Of 181 with reported race, 68% were white, 14% were black or African American, 2% were Asian, and 15% reported other or multiple races. Among those with reported ethnicity, 27% were Hispanic.

The most common reportable diseases among PEH were chronic hepatitis C (132, 53% of the identified cases), influenza (31, 13%), shigellosis (23, 9%), necrotizing fasciitis (14, 6%), giardiasis (7, 3%), and acute hepatitis C (7, 3%). Experiencing homelessness was most prevalent among cases of necrotizing fasciitis (14/61, 23%), acute hepatitis C (7/55, 13%), hepatitis A (1/13, 8%), bacterial meningitis (2/30, 7%), and cryptosporidiosis (6/97, 6%).

Of 144 cases with housing type information, 40% of case-patients were unsheltered, 35% reported staying in shelters, 13% reported couch-surfing, 4% reported living in vehicles, and 13% reported other housing accommodations.

The identified 2019 cases likely greatly underestimate the true burden of infectious disease among PEH since this population may be less likely to seek medical care or may lack access to health care and if diagnosed, may be harder to reach for phone interviews. Additionally, individuals may decline to disclose this sensitive information. Despite its limitations, systematically documenting housing status may provide a useful sentinel for emerging

issues and early outbreak detection and allow for characterization of infectious disease trends in this vulnerable population.

Select Characteristics of Cases Among PEH

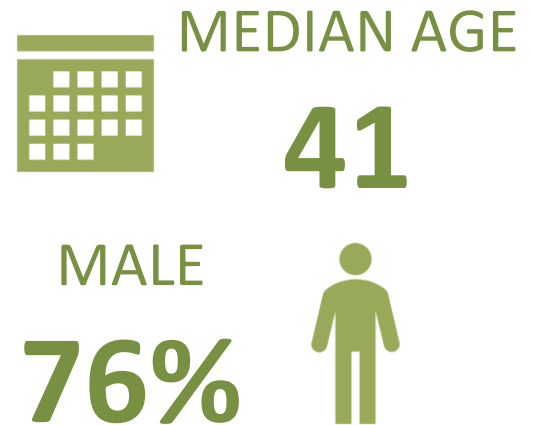
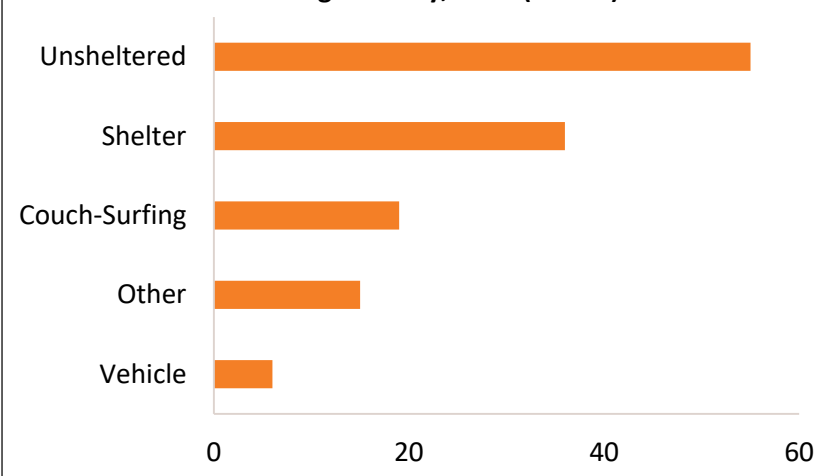


Figure 2. Housing Accommodation Type Reported by Patients Experiencing Homelessness, San Diego County, 2019 (N=144)



Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease year.

Resources

- [Centers for Disease Control and Prevention \(CDC\) Preventing and Controlling Emerging and Reemerging Transmissible Diseases in the Homeless](#)
- [CDC TB in the Homeless Population](#)
- [Regional Task Force on the Homeless San Diego Website](#)
- [Homelessness and Hepatitis A—San Diego County, 2016–2018](#)
- [County of San Diego Housing & Community Development Services, Ending Homelessness Website](#)

MONTHLY COMMUNICABLE DISEASE REPORT

JANUARY 2020

Volume 4, Issue 1: February 18, 2020

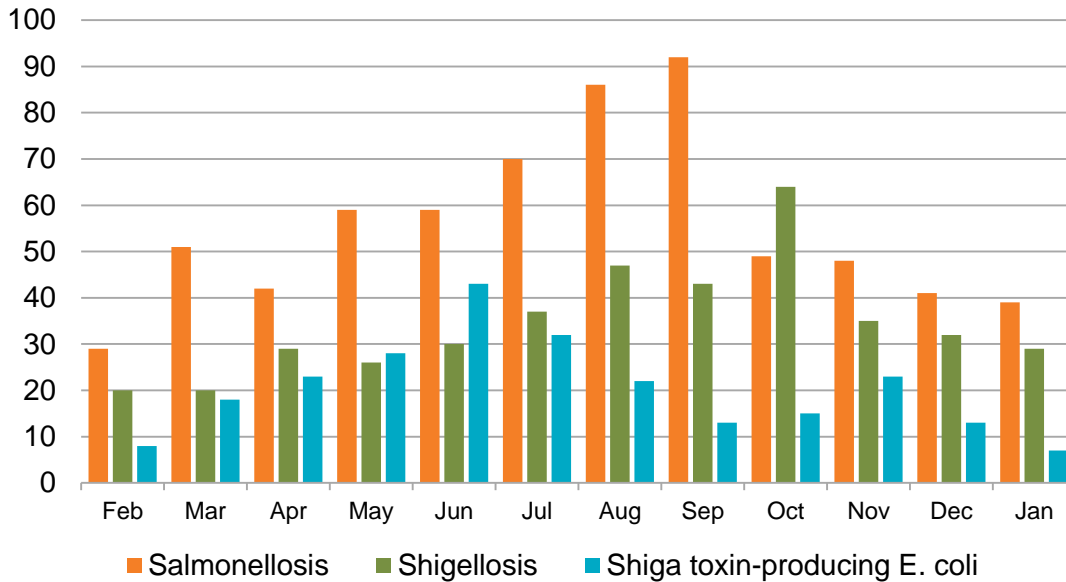


Table 1. Select Reportable Diseases		2020			Prior Years		
		Current Month	Prior Month	Year-to-Date (YTD)	2019 YTD	Avg YTD, Prior 3 Years	2019 Total
Disease and Case Inclusion Criteria (C,P,S)							
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	1	0	0	1.0	2
Brucellosis	C,P	0	0	0	0	0.0	1
Campylobacteriosis	C,P	69	57	69	68	57.7	996
Chickenpox, Hospitalization or Death	C,P	0	0	0	1	0.3	2
Chikungunya	C,P	0	0	0	0	0.3	3
Coccidioidomycosis	C	6	26	6	44	32.0	389
Cryptosporidiosis	C,P	3	4	3	7	4.0	98
Dengue Virus Infection	C,P	1	1	1	0	1.0	29
Encephalitis, All	C	3	1	3	3	3.7	41
Giardiasis	C,P	9	10	9	21	27.3	218
Hepatitis A, Acute	C	4	2	4	0	2.7	15
Hepatitis B, Acute	C	0	1	0	1	1.0	7
Hepatitis B, Chronic	C,P	39	57	39	68	71.7	904
Hepatitis C, Acute	C,P	3	2	3	4	1.3	76
Hepatitis C, Chronic	C,P	370	314	370	358	302.7	4,175
Legionellosis	C	3	3	3	3	5.7	61
Listeriosis	C	0	0	0	1	1.0	9
Lyme Disease	C,P	0	0	0	0	1.0	4
Malaria	C	2	1	2	0	0.0	7
Measles (Rubeola)	C	0	0	0	0	0.0	2
Meningitis, Aseptic/Viral	C,P,S	5	10	5	7	6.7	182
Meningitis, Bacterial	C,P,S	3	3	3	5	4.7	34
Meningitis, Other/Unknown	C	1	1	1	3	2.3	26
Meningococcal Disease	C,P	1	1	1	2	1.7	8
Mumps	C,P	1	5	1	3	2.3	66
Pertussis	C,P,S	65	102	65	48	65.7	815
Rabies, Animal	C	1	0	1	0	0.3	7
Rocky Mountain Spotted Fever	C,P	0	0	0	0	0.3	1
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	39	41	39	29	34.0	654
Shiga toxin-Producing <i>E. coli</i> (including O157)	C,P	7	13	7	9	5.3	244
Shigellosis	C,P	29	32	29	47	30.7	427
Typhoid Fever	C,P	1	1	1	4	1.7	7
Vibriosis	C,P	1	4	1	4	2.7	58
West Nile Virus Infection	C,P	0	0	0	0	0.0	3
Yersiniosis	C,P	1	6	1	3	1.3	53
Zika Virus	C,P	0	0	0	0	1.0	8

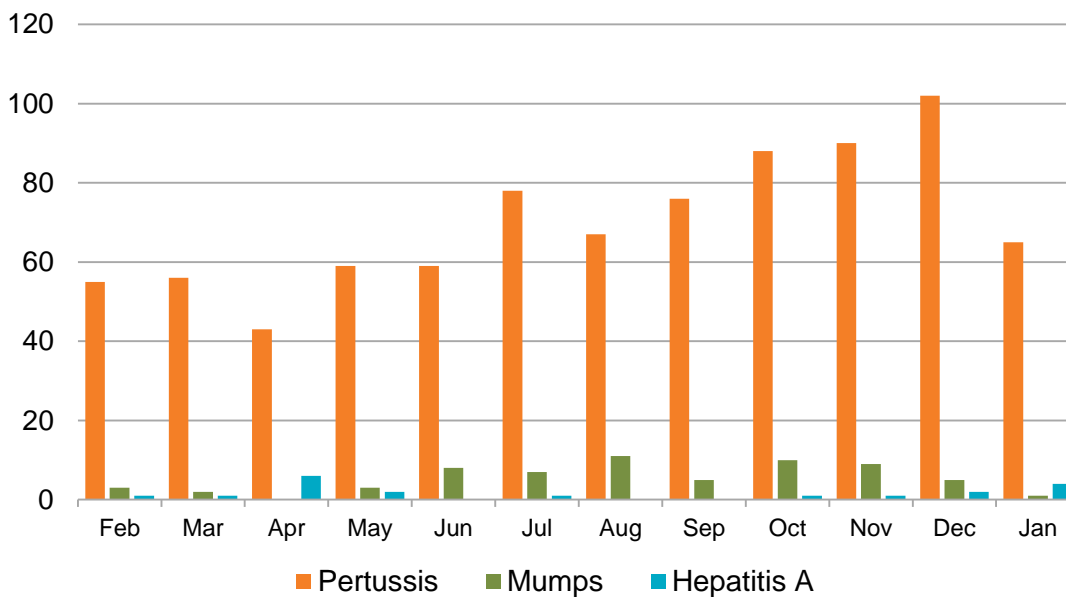
Case counts are provisional and subject to change as additional information becomes available. Cases are grouped into calendar months and calendar years on the basis of the earliest of the following dates: onset, lab specimen collection, diagnosis, death, and report received. Counts may differ from previously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

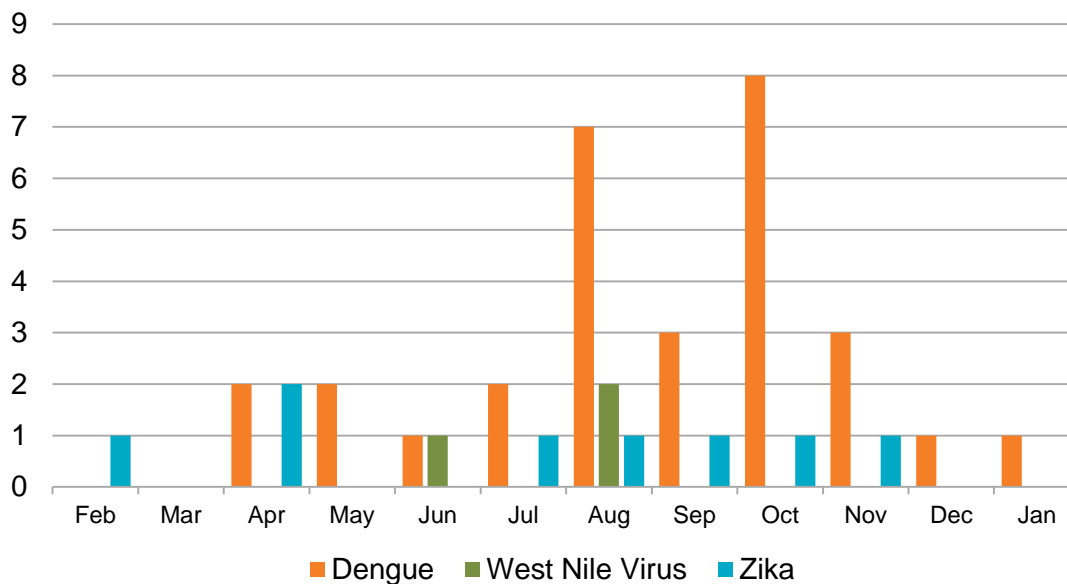


**Figure 5. Select Vaccine-Preventable Infections by Month
February 2019 – January 2020**



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 6. Select Vector-Borne Infections by Month
February 2019 – January 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.

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>.