EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

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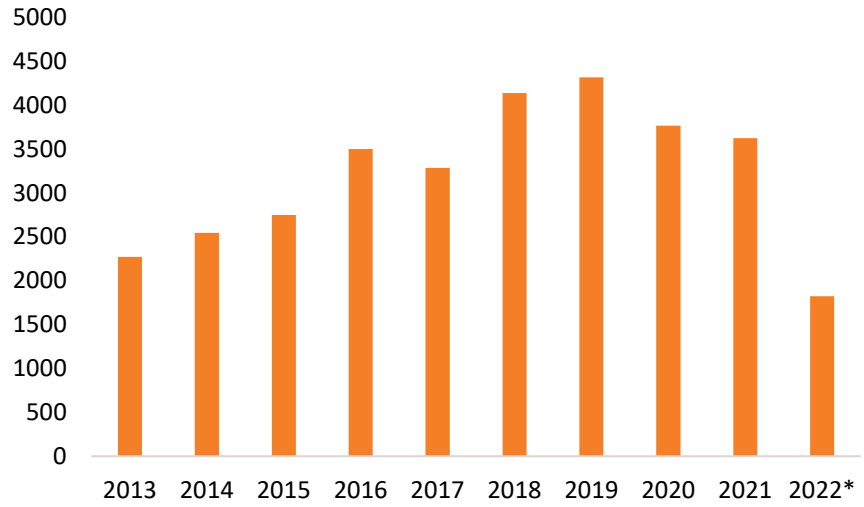
HEPATITIS C

Hepatitis C is an acute or chronic liver infection in humans caused by the hepatitis C virus (HCV). Currently, HCV is most often spread through sharing of needles and other equipment used to inject drugs. Most people have no symptoms with acute infection. When symptoms do occur, they present within six months after exposure and may consist of mild abdominal pain, nausea, vomiting, diarrhea, fever, loss of appetite and headache. Less frequent symptoms include jaundice (yellowing of the eyes or skin), clay-colored stools, and dark colored urine.

Figure 1. Newly Reported Cases of Chronic Hepatitis C, San Diego County, 2010-2022*



*2022 data are year-to-date; current as of 7/11/2022. Note that the decline in newly reported cases in 2020-21 may be the result of decreased testing during the COVID-19 pandemic. Includes confirmed and probable cases following CDC/CSTE case criteria. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease year.

Some people infected with HCV will clear the virus spontaneously, but up to 80% become chronically infected. Chronic HCV infection is often without symptoms for many years, but it can eventually result in cirrhosis, liver cancer, and death.

Fortunately, treatment is available; the U.S. Food and Drug Administration approved direct acting antivirals (DAAs) in 2011 to treat HCV infection. DAA treatment is extremely effective and well tolerated by patients, and essentially cures hepatitis C for most patients. Since those who are cured no longer carry the virus, they can no longer transmit the virus to others, thus reducing the spread of the disease.

HCV causes a large burden of morbidity in the United States and in San Diego County. Using data from 2013-2016, the Centers for Disease Control and Prevention (CDC) estimated that 2.4 million adults in the United States had chronic HCV infection. A San Diego County study estimated that there were nearly 55,400 adults with a history of HCV infection in San Diego County in 2018. Newly reported cases of chronic HCV infection in San Diego County have ranged from 2,300 to 4,500 per year in the last decade, but many cases remain undiagnosed.

In 2018, the County of San Diego and a diverse set of local public and private stakeholders were motivated by examples from San Francisco and New York City and followed guidance from the World Health Organization to create the *Eliminate Hepatitis C San Diego County Initiative*. The initiative is committed to eliminating hepatitis C as a public health threat in San Diego County by 2030, with the two primary goals of decreasing incidence of chronic HCV infection by 80% and reducing mortality caused by HCV infection by 65%. The initiative aims to promote awareness of HCV, increase proper screening of high-risk individuals, reduce barriers to treatment by linking those affected to care, and implement effective prevention strategies where needed to prevent new infections.

Screening high-risk populations is key to prevention efforts by ensuring that those most likely to have infection

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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 Data and Reports page on the Epidemiology Program website (www.sdepi.org) and click on the subscribe link.

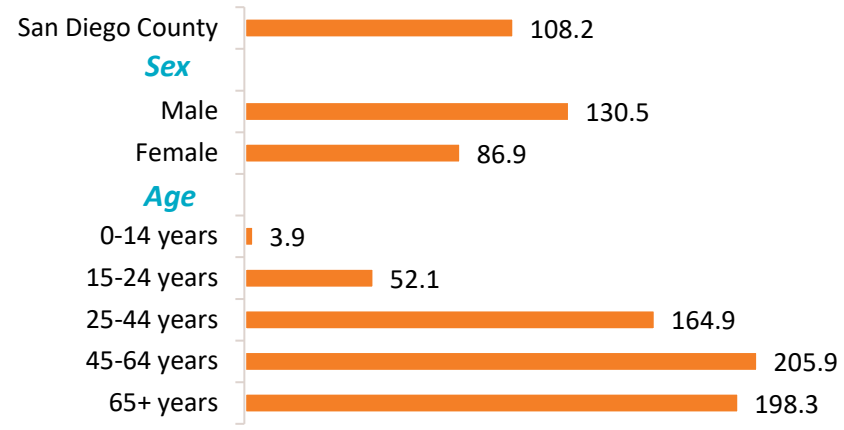
HEPATITIS C, continued

receive timely treatment. According to current CDC recommendations, which were updated in 2020, all adults should be tested at least once in their lifetime and pregnant women should be testing during each pregnancy. One-time testing, regardless of age, is suggested for persons infected with HIV, persons with select medical conditions, prior recipients of transfusions or organ transplants, health care personnel after exposures, and children born to mothers with HCV. Routine periodic testing is recommended for people with ongoing risk factors such as injection drug use or hemodialysis. Anyone with positive serology should be further tested to determine if virus is present. This would identify active infection and the need for and type of treatment.

Timely and accurate surveillance is necessary to monitor progress toward the initiative goals. Unfortunately, accurate hepatitis C surveillance is problematic. Because most people with acute and chronic HCV infections experience no or few symptoms, many cases are untested and not diagnosed. In addition, differentiating acute cases from chronic cases requires review of multiple sets of medical records and laboratory results. Most public health jurisdictions in the United States do not have the resources to investigate these cases, resulting in incomplete and inconsistent data. Although the number of acute HCV infection cases reported nationally was 5,479 in 2019, CDC estimates the true number to be closer to 57,500.

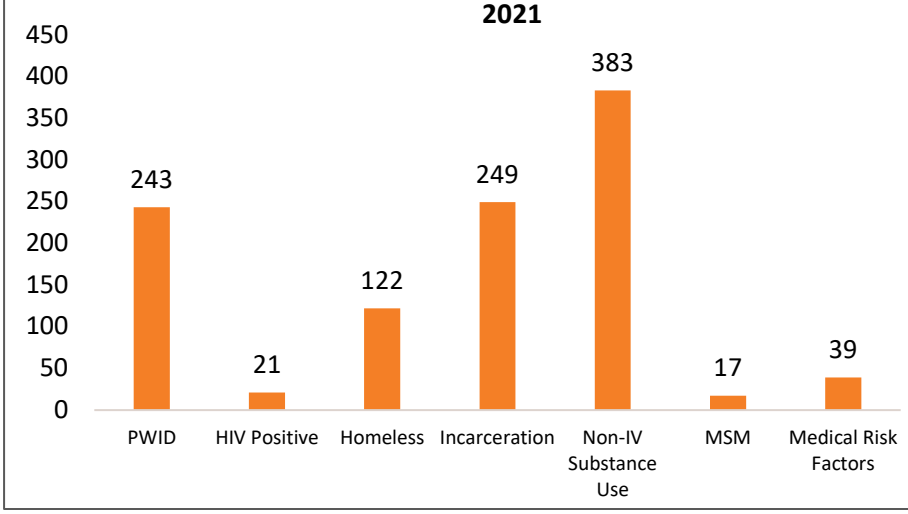
In February 2019, the County enhanced surveillance of incoming newly-reported positive HCV laboratory reports. As a result, the County increased identification of acute cases from 2-3 a year prior to 2019 to 75 acute cases in 2021. Through enhanced surveillance, the County also tracks risk factors for a subset of chronic cases, finding that the most common risk factors are injection drug use, non-injection substance use, and incarceration.

Figure 2. Rate of Newly Reported Chronic Hepatitis C Cases by Sex and Age, San Diego County, 2021



Rates per 100,000 population. SANDAG population estimates for 2019, vintage June 2020. Data are provisional and subject to change as new information becomes available.

Figure 3. Risk Factors for Newly Reported Chronic Hepatitis C Cases in San Diego County, 2021



Includes cases reviewed through enhanced surveillance efforts. Cases may have more than one risk factor.
MSM: Men who have sex with men; PWID: People who inject Drugs. Medical Risk Factors: Surgery, transfusions, organ transplants, dental work, dialysis, foreign procedures.. Data are provisional and subject to change as more information becomes available.

Resources

- CDC Hepatitis C website
- CDPH Office of Viral Hepatitis Prevention website
- American Liver Foundation website

Suggested citation: Johnson M, McGaugh G, Nelson J, Tweeten S. Hepatitis C. County of San Diego Monthly Communicable Disease Report 2022; 6(6):1-2.

Table 1. Select Reportable Diseases		2022			Prior Years		
Disease and Case Inclusion Criteria (C,P,S)		Current Month	Prior Month	Year-to-Date (YTD)	2021 YTD	Avg YTD, 2019-2021	2021 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	0	0	2	0.7	3
Brucellosis	C,P	0	0	2	2	1.0	3
Campylobacteriosis	C,P	95	106	421	415	402.0	904
Chickenpox, Hospitalization or Death	C,P	0	0	0	3	1.7	3
Chikungunya	C,P	0	0	1	0	0.0	2
Coccidioidomycosis	C	18	40	197	254	239.3	510
Cryptosporidiosis	C,P	11	6	32	22	23.3	53
Dengue Virus Infection	C,P	0	1	2	1	2.7	2
Encephalitis, All	C	1	2	8	21	21.7	36
Giardiasis	C,P	10	28	87	64	86.7	167
Hepatitis A, Acute	C	2	1	15	8	10.3	10
Hepatitis B, Acute	C	0	0	8	11	6.3	16
Hepatitis B, Chronic	C,P	92	69	482	368	376.3	810
Hepatitis C, Acute	C,P	1	5	41	49	36.3	74
Hepatitis C, Chronic	C,P	249	269	1,622	1,958	2,002.7	3,581
Legionellosis	C	8	3	33	30	27.7	63
Listeriosis	C	4	2	8	2	5.0	8
Lyme Disease	C,P	3	0	4	7	4.3	14
Malaria	C	1	1	6	4	4.0	8
Measles (Rubeola)	C	0	0	0	0	0.0	0
Meningitis, Aseptic/Viral	C,P,S	2	4	27	29	46.7	48
Meningitis, Bacterial	C,P,S	2	3	16	12	14.3	22
Meningitis, Other/Unknown	C	0	1	4	13	16.3	34
Meningococcal Disease	C,P	1	0	1	1	3.7	1
Mumps	C,P	1	1	3	0	11.7	2
Pertussis	C,P,S	0	6	30	26	185.0	69
Rabies, Animal	C	0	0	1	2	2.7	4
Rocky Mountain Spotted Fever	C,P	0	0	0	2	1.0	2
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	46	54	231	198	225.0	583
Shiga toxin-Producing *E. coli* (including O157)	C,P	5	9	72	53	78.7	138
Shigellosis	C,P	33	38	170	95	121.0	432
Typhoid Fever	C,P	1	0	11	7	5.0	10
Vibriosis	C,P	2	0	5	8	12.3	51
West Nile Virus Infection	C,P	0	0	0	0	0.7	3
Yersiniosis	C,P	5	6	21	13	18.0	22
Zika Virus	C,P	0	0	0	0	1.0	0

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
July 2021 – June 2022

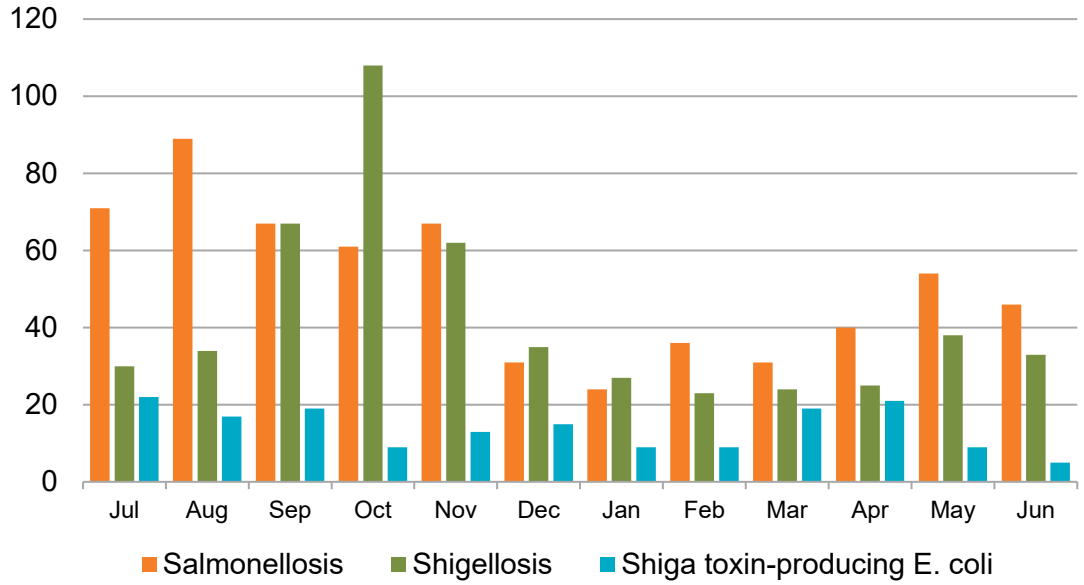


Figure 5. Select Vaccine-Preventable Infections by Month
July 2021 – June 2022

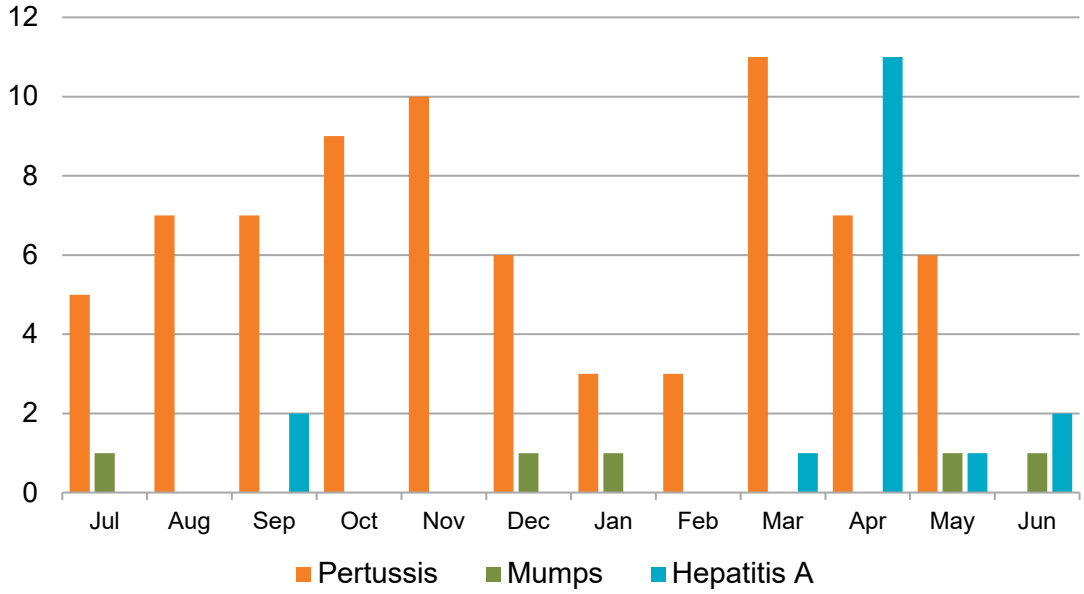


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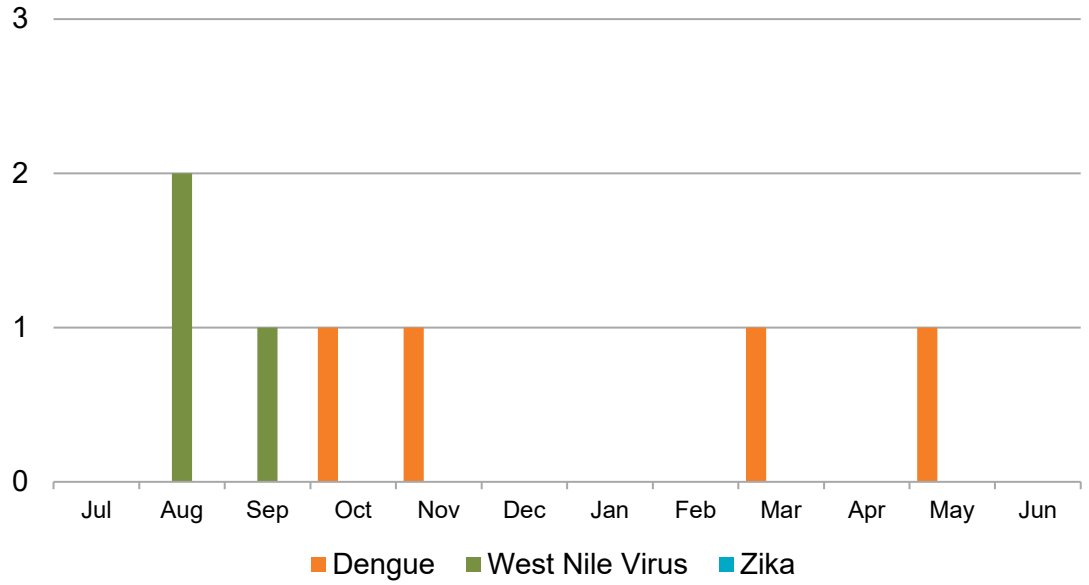
Figure 6. Select Vector-Borne Infections by Month
July 2021 – June 2022



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.