EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

JUNE 2025

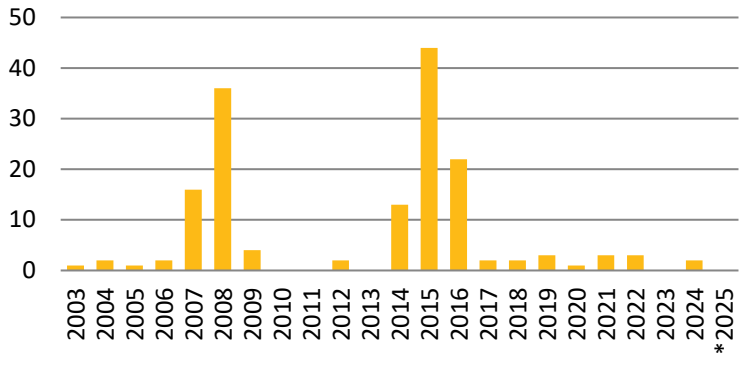
Volume 9, Issue 6: July 15, 2025

WEST NILE VIRUS

West Nile virus (WNV) is a flavivirus primarily spread via the bite of infected *Culex* mosquitos, which are widespread in California. The main reservoir of the virus is birds; mosquitos become infected after feeding on infected birds, then transmit the virus to humans and other mammals when feeding on them.

Originally discovered in Africa, WNV can now be found throughout much of the world. It was first detected in North America in 1999 in New York City, and has since spread across the continent, becoming a frequent cause of arboviral (arthropod-borne virus) disease in the United States. California recorded its first WNV detections in 2003.

Figure 1. West Nile Virus Infection Cases, San Diego County, 2003-2025*



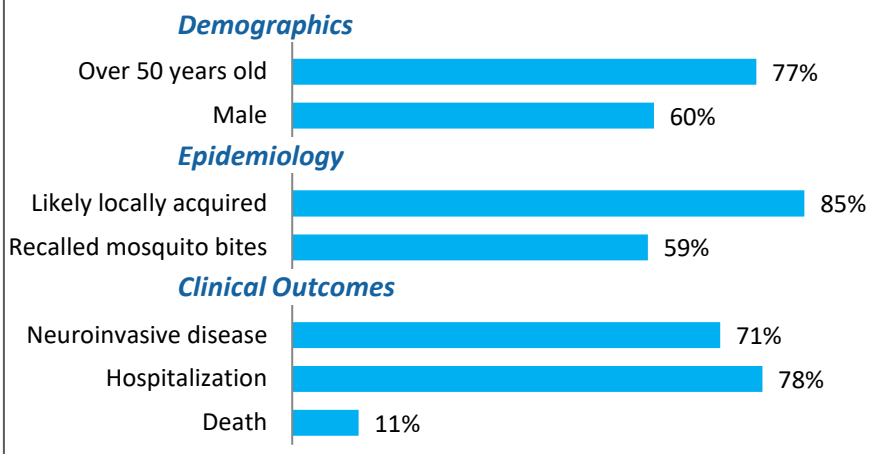
2025 data are year-to-date; data current as of 7/15/2025. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

Seasonal outbreaks of WNV infection occur each year, but vary by location, related to factors such as the weather, mosquito populations, and numbers of birds harboring the virus. The nationwide case counts were highest in 2003 and 2012. In contrast, California cases peaked with over 800 human cases in 2005 and 2014, and San Diego County had peak years for both human cases and detections in birds and mosquito pools in 2008 and 2015.

San Diego County and 20 other counties are seeing increased West Nile virus activity to date in 2025. Although there have not been any human cases in San Diego County yet this year, there have been seven positive birds and more positive mosquitos than in recent years, prompting some targeted pesticide treatments.

It is estimated that 70-80% of those infected with WNV are asymptomatic. Public health authorities usually learn about these infections due to screening of blood donors, which was instituted in 2003, to reduce the risk of transfusion-associated WNV infection. Between 2015-2024, four cases of asymptomatic WNV infection were detected in San Diego County blood donors (5% of the 82 total cases).

Figure 2. Select Characteristics of San Diego County West Nile Virus Infection Cases, 2015-2024



Proportions among those with available data. If an interview was not completed or if there was potential exposure both in San Diego County and elsewhere, a determination on where the infection was acquired may not have been made. Data are provisional and subject to change.

Approximately 20% of WNV infections result in relatively mild illness, with symptoms including fever, headaches, and body aches. Because people may not seek medical care or get tested for these infections, they are usually not identified. Although fewer than one percent of people infected with WNV develop neuroinvasive disease, these are the cases most

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

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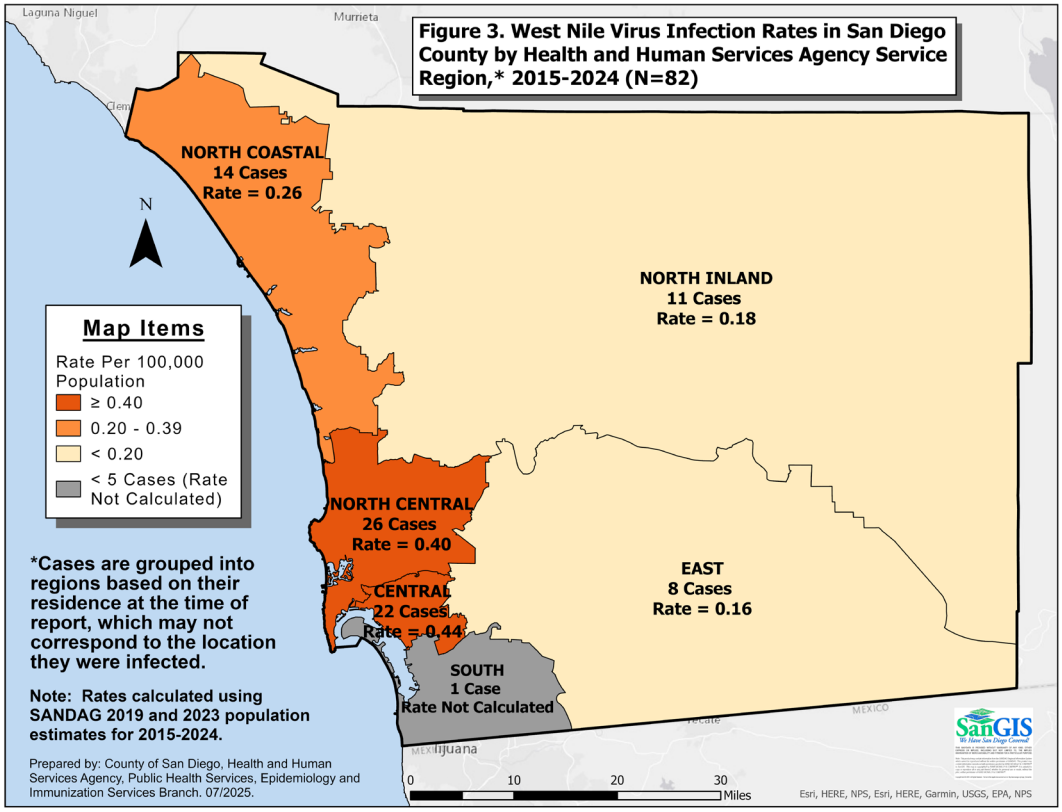
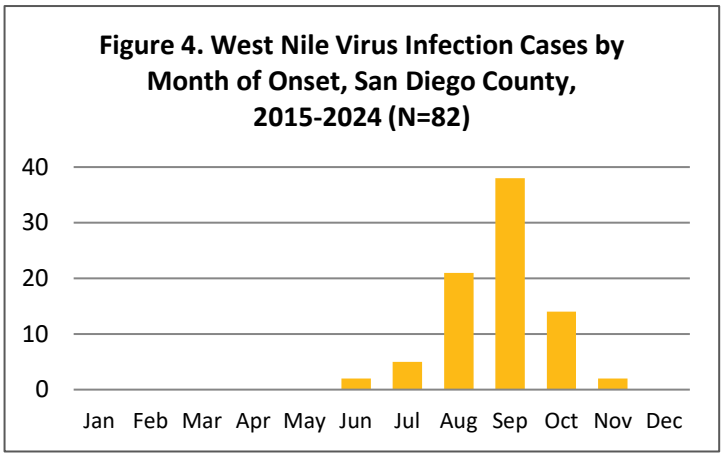
WEST NILE VIRUS, continued

frequently identified and reported. Neuroinvasive disease includes encephalitis (inflammation of the brain), meningitis (inflammation of the membranes surrounding the brain and spinal cord), and acute flaccid paralysis. Among the 82 cases reported in San Diego County between 2015-2024, 71% had neuroinvasive disease.

During the same period, 78% of cases in San Diego County were hospitalized and there were nine fatalities. Severe illness is a greater risk for the older population, which is reflected in the fact that 77% of San Diego County cases were over the age of 50 years.



WNV is well-established in San Diego County and transmission has occurred throughout the region. Almost all WNV is transmitted via mosquito bites. It is unsurprising, then, that WNV infections in the county occur almost exclusively during the warmer months of July-October, corresponding to peak mosquito season. However, only about 60% of local cases during 2015-2024 could recall a mosquito bite. Patients with compatible symptoms should be evaluated for WNV infection even if they do not report a history of mosquito bites. St. Louis Encephalitis virus (SLEV) is another mosquito-borne virus that can cause illnesses similar to the clinical presentations of WNV. The last human SLEV case in San Diego was reported in 2019. Two California counties have detected SLEV in mosquito samples this year.



If case was asymptomatic or onset date was unavailable, specimen collection date was used.
Data are provisional and subject to change.

Federal Resources

- Centers for Disease Control and Prevention (CDC) West Nile Virus website
- CDC West Nile Virus Data and Maps website
- CDC: Guidelines for West Nile Virus Surveillance and Control
- CDC: Diagnostic Testing Algorithm for Suspected West Nile Virus Disease

State and Local Resources

- California West Nile Virus website
- California Department of Public Health (CDPH) Vector-Borne Disease Section website
- County of San Diego Epidemiology Unit West Nile Virus website
- County of San Diego Department of Environmental Health Fight the Bite website

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Table 1. Select Reportable Diseases

Disease and Case Inclusion Criteria (C,P,S)		2025 June	2025 May	2025 January - June (YTD)	Prior Years 2024 YTD	Prior Years Avg YTD, 2022-2024	Prior Years 2024 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	1	3	3	1.0	5
Brucellosis	C,P	0	0	0	1	1.7	1
Campylobacteriosis	C,P	107	79	476	565	498.7	1,127
Candida auris	C	15	15	90	60	35.0	151
Chickenpox, Hospitalization or Death	C,P	1	0	1	2	1.7	3
Chikungunya	C,P	0	0	0	0	0.3	2
Coccidioidomycosis	C	68	70	374	306	244.3	649
Cryptosporidiosis	C,P	10	6	48	67	51.7	129
Dengue Virus Infection	C,P	0	1	9	13	5.7	64
Encephalitis, All	C	0	2	14	20	16.0	49
Giardiasis	C,P	11	17	119	126	109.3	244
Hepatitis A, Acute	C	2	0	4	7	17.3	17
Hepatitis B, Acute	C	0	0	10	9	8.0	18
Hepatitis B, Chronic	C,P	30	49	298	347	390.3	728
Hepatitis C, Acute	C,P	0	2	16	64	57.7	94
Hepatitis C, Chronic	C,P	135	153	853	917	1,216.7	1,879
Legionellosis	C	6	4	35	34	40.3	83
Listeriosis	C	1	0	3	2	5.7	10
Lyme Disease	C,P	0	1	1	4	3.0	6
Malaria	C	1	1	3	7	5.3	19
Measles (Rubeola)	C	0	0	0	3	1.0	4
Meningitis, Aseptic/Viral	C,P,S	6	5	28	58	40.7	106
Meningitis, Bacterial	C,P,S	3	4	21	24	20.3	44
Meningitis, Other/Unknown	C	2	4	9	16	12.7	24
Meningococcal Disease	C,P	2	2	7	4	2.7	5
Mumps	C,P	0	0	1	1	1.3	2
Pertussis	C,P	24	37	213	351	144.3	729
Rabies, Animal	C	0	1	2	0	1.3	13
Rocky Mountain Spotted Fever	C,P	1	0	2	2	1.3	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	83	67	450	280	256.7	747
Shiga toxin-Producing *E. coli* (including O157)	C,P	16	22	111	125	103.7	262
Shigellosis	C,P	40	28	166	236	202.0	471
Typhoid Fever	C,P	0	0	1	3	5.7	4
Vibriosis	C,P	5	3	19	17	10.7	53
West Nile Virus Infection	C,P	0	0	0	0	0.0	2
Yersiniosis	C,P	14	8	76	79	44.7	135
Zika Virus	C,P	0	0	0	0	0.3	1

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. Includes San Diego County resident cases only.

San Diego County Sexually Transmitted Infection Data | San Diego County Tuberculosis Data

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Figure 5. Select Enteric Infections by Month
July 2024 – June 2025

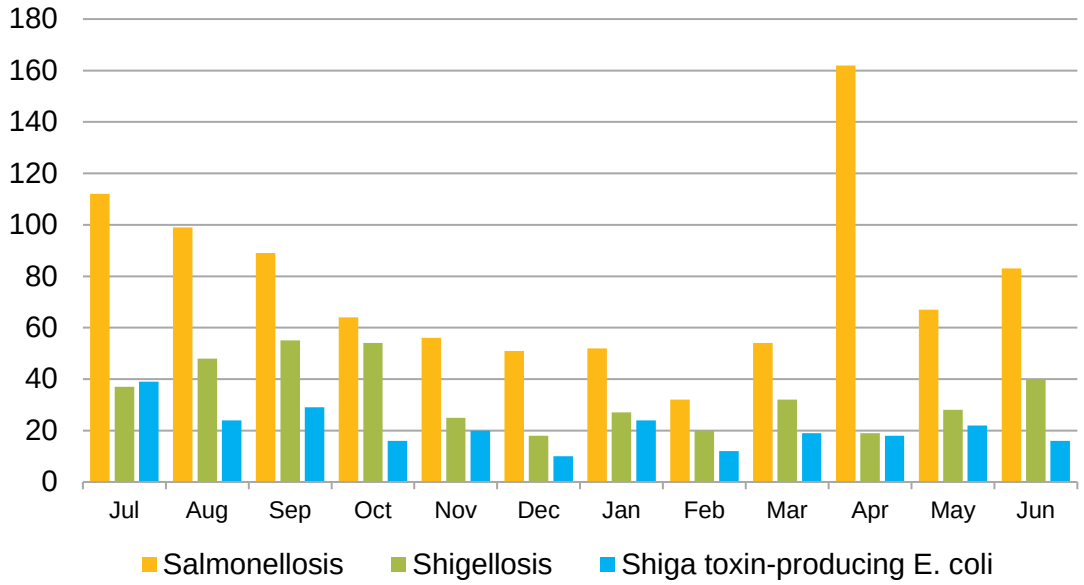

Figure 6. Select Vaccine-Preventable Infections by Month
July 2024 – June 2025

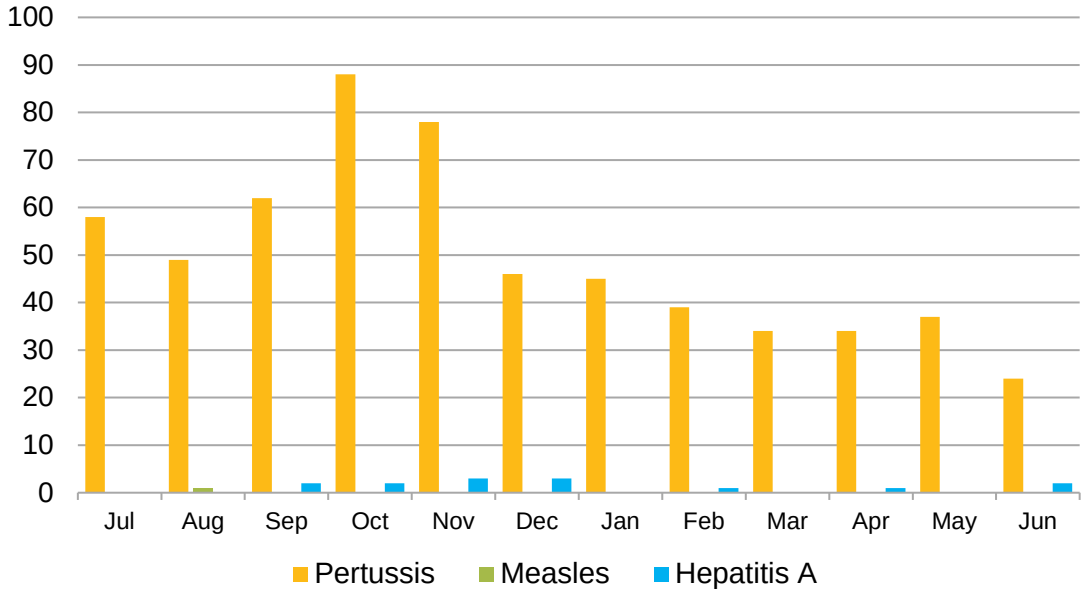

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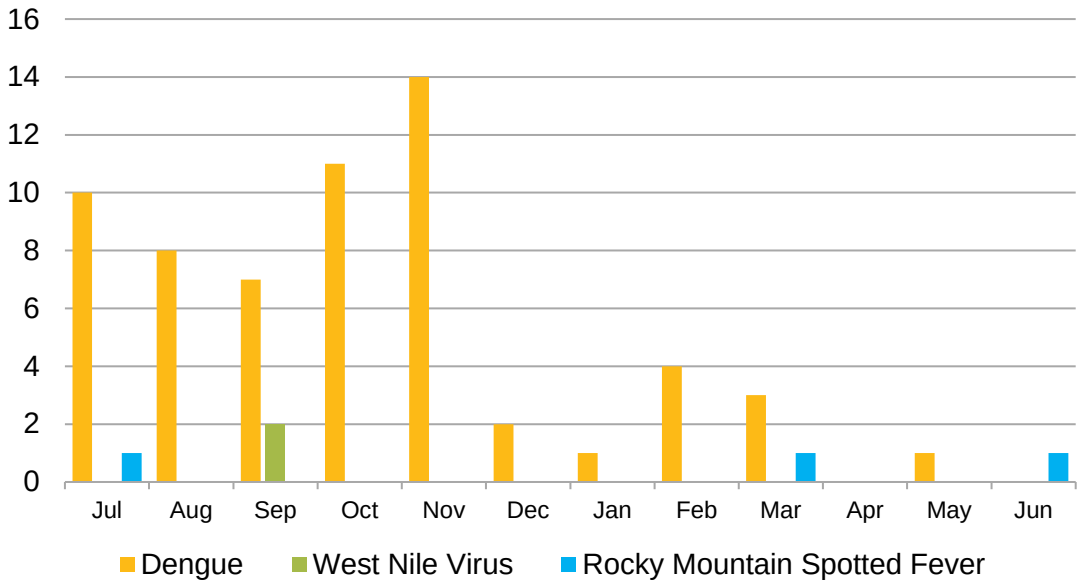
Figure 7. Select Vector-Borne Infections by Month
July 2024 – June 2025



See the County disease-specific webpages, for more information on West Nile virus and Dengue.
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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.