EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

MONTHLY COMMUNICABLE DISEASE REPORT

MAY 2025

Volume 9, Issue 5: June 16, 2025

POLIO

Epidemiology

Poliomyelitis, commonly known as polio, is an infectious disease caused by poliovirus, an infection spread through contact with fecal matter or respiratory secretions. Humans are the only natural reservoir for the disease, with young children being primarily affected. Polio was once a major public health threat in the United States (US) with large outbreaks in the 1940's and early 1950's, peaking in 1952 with more than 21,000 paralytic cases.[1] Incidence declined rapidly with the introduction of the inactivated polio vaccine (IPV) in 1955 and the oral poliovirus (OPV) in 1961. The last case of wild-type poliovirus reported in the US occurred in 1979, and in 1994, the Americas were certified polio-free (Figure 1). However, there have been rare cases of vaccine-associated paralytic poliomyelitis (VAPP), most recently in a 20-year-old unvaccinated man in Rockland County, New York.[2]

In San Diego County, there has not been a polio case, wild-type or VAPP, in the last thirty years. However, vaccine coverage has been decreasing over the last 15 years, from 94.7% in 2009 to 86.4% in 2021 (Figure 2).

Clinical Manifestations

Approximately 25% of infected individuals experience symptoms, following an incubation period of 3 to 6 days.[3] Symptoms include fever, headache, nausea, fatigue, vomiting, pain, and stiffness of the neck and are self-resolving after 2-5 days. Fewer than 1% of infected individuals will develop paralytic poliomyelitis, which targets the spinal cord leading to asymmetric paralysis of the arms and/or legs. Symptoms typically occur 7 to 21 days after infection

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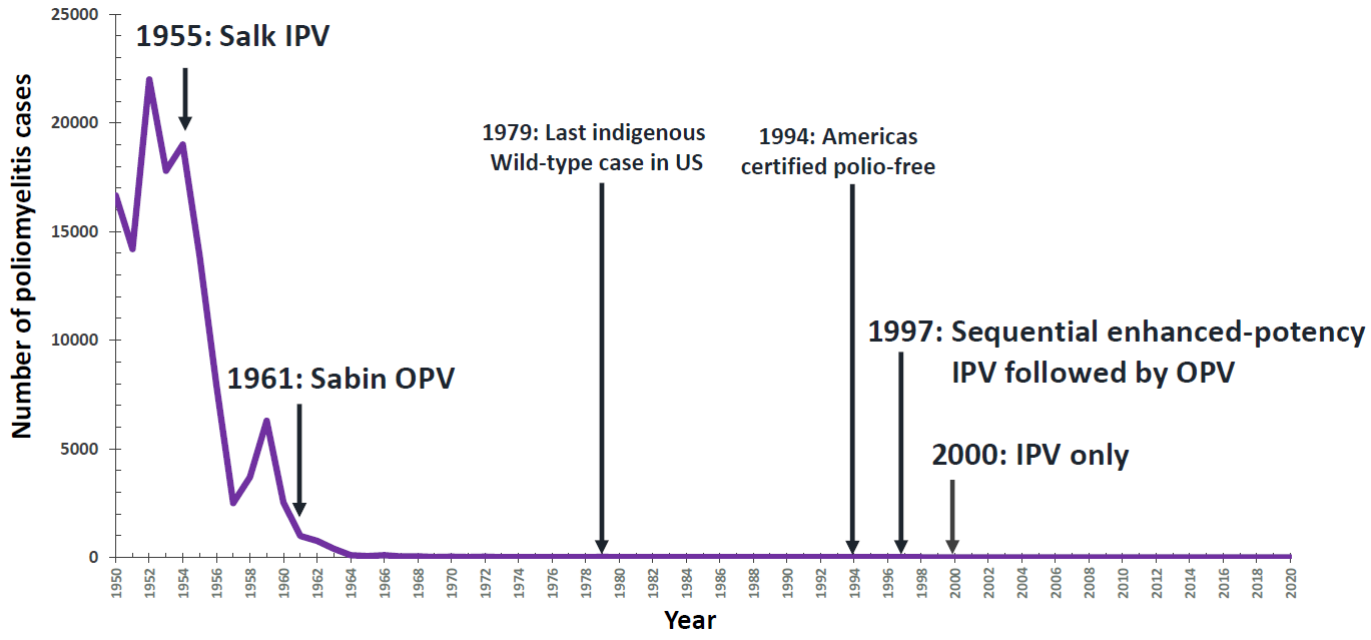
Figure 1. Paralytic Polio Infections, United States, 1950-2020



Source: Kidd, Sarah (2023). Adult polio vaccination. 20230201. Slide set for United States Advisory Committee on Immunization Practices. ACIP Polio Vaccination Work Group.

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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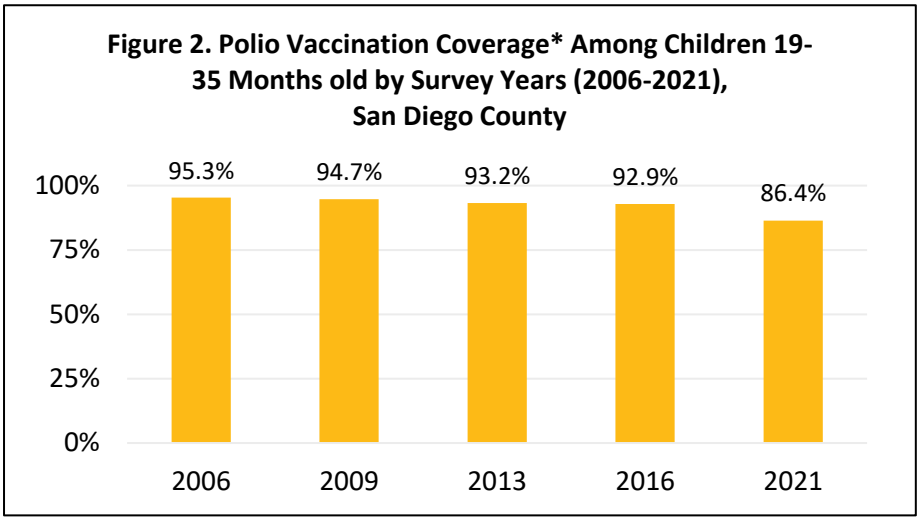
POLIO, continued

and include severe muscle weakness, flaccid paralysis, loss of reflexes, and severe muscle aches and spasm.[3] Five to ten percent of paralytic poliomyelitis patients die from paralysis of respiratory muscles and approximately 60% have residual paresis.[4]



*Polio vaccination coverage is defined by a child receiving at least 3 doses of the polio vaccine. Data source is the Random Digit Dialing survey for San Diego County.
Data are provisional and subject to change as additional information becomes available.

Diagnosis

Polio is diagnosed through viral cultures of stool and throat swabs (cerebrospinal fluid cultures are less sensitive), which should be obtained as early as possible in the disease course, ideally within 14 days of symptom onset.[4] A suspected case of polio should immediately be reported to the state health department and is considered a public health emergency.[3] Once poliovirus is isolated, molecular testing can be used to distinguish wild-type strains from vaccine-associated strains to help guide public health responses.

Treatment/Prevention

There is no FDA-approved antiviral treatment for polio; thus, management of symptoms to prevent complications is the mainstay of treatment.[4] The cornerstone of prevention is vaccination following a 4-dose trivalent IPV schedule for all children at ages 2, 4, 6-18 months, and 4-6 years. The vaccine is highly effective, with 95% of recipients positive for detectable antibodies in the blood after 2 doses and over 99% of recipients after 3 doses.[4] For immigrants, refugees, and international adoptees, CDC vaccine recommendations should be met to ensure adequate protection.[3]

Resources

- Centers for Disease Control and Prevention polio website
- Epidemiology and Prevention of Vaccine-Preventable Diseases – Poliomyelitis (the Pink Book)
- California Department of Public Health polio website
- San Diego Immunization Program

References

1. Estivariz, C. F., Link-Gelles, R., & Shimabukuro, T. (2024, May 1). *Chapter 18: Poliomyelitis*. Centers for Disease Control and Prevention.
2. Rai, A., Uwishema, O., Uweis, L., El Saleh, R., Arab, S., Abbass, M., Wellington, J., Musabirema, F., Adanur, I., & Patrick Onyeaka, C. V. (2022). Polio returns to the USA: An epidemiological alert. *Annals of Medicine & Surgery*, *82*.
3. Centers for Disease Control and Prevention. (2024, May 9). *About polio in the United States*.
4. Committee on Infectious Diseases, American Academy of Pediatrics. (2024). Poliomyelitis. In D. W. Kimberlin, R. Banerjee, E. D. Barnett, R. Lynfield, & M. H. Sawyer (Eds.), *Red book: 2024–2027 Report of the committee on infectious diseases* (pp. 682-689). American Academy of Pediatrics.

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Table 1. Select Reportable Diseases

Disease and Case Inclusion Criteria (C,P,S)		2025 May	2025 April	2025 January - May (YTD)	Prior Years 2024 YTD	Prior Years Avg YTD, 2022-2024	Prior Years 2024 Total
Botulism (Foodborne, Infant, Wound, Other)	C,P	0	1	2	2	0.7	5
Brucellosis	C,P	0	0	0	1	1.3	1
Campylobacteriosis	C,P	79	90	369	457	388.7	1,127
Candida auris	C	16	9	76	50	28.0	151
Chickenpox, Hospitalization or Death	C,P	0	0	0	2	1.0	3
Chikungunya	C,P	0	0	0	0	0.3	2
Coccidioidomycosis	C	73	57	319	253	203.7	649
Cryptosporidiosis	C,P	4	7	36	55	39.7	129
Dengue Virus Infection	C,P	1	0	10	12	5.0	64
Encephalitis, All	C	2	3	14	18	14.0	49
Giardiasis	C,P	10	20	100	100	88.3	244
Hepatitis A, Acute	C	0	1	2	7	16.3	17
Hepatitis B, Acute	C	0	0	10	9	7.3	17
Hepatitis B, Chronic	C,P	36	45	249	296	327.3	727
Hepatitis C, Acute	C,P	1	3	13	46	47.0	94
Hepatitis C, Chronic	C,P	178	142	755	789	1,024.3	1,879
Legionellosis	C	5	7	29	27	33.3	83
Listeriosis	C	0	0	2	2	4.0	10
Lyme Disease	C,P	0	0	0	3	2.0	6
Malaria	C	1	0	2	6	4.7	19
Measles (Rubeola)	C	0	0	0	3	1.0	4
Meningitis, Aseptic/Viral	C,P,S	3	4	20	36	29.7	106
Meningitis, Bacterial	C,P,S	3	3	17	21	17.3	44
Meningitis, Other/Unknown	C	1	2	4	13	10.3	24
Meningococcal Disease	C,P	2	1	5	4	2.3	5
Mumps	C,P	0	0	2	1	1.0	2
Pertussis	C,P	28	32	177	291	121.7	728
Rabies, Animal	C	1	0	2	0	1.0	13
Rocky Mountain Spotted Fever	C,P	0	0	0	0	0.0	3
Salmonellosis (Non-Typhoid/Non-Paratyphoid)	C,P	67	162	367	227	204.0	748
Shiga toxin-Producing *E. coli* (including O157)	C,P	15	18	87	99	83.3	261
Shigellosis	C,P	27	19	124	197	166.7	470
Typhoid Fever	C,P	0	0	1	2	4.7	4
Vibriosis	C,P	3	1	13	13	7.7	53
West Nile Virus Infection	C,P	0	0	0	0	0.0	2
Yersiniosis	C,P	8	16	62	70	36.7	135
Zika Virus	C,P	0	0	0	0	0.0	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 3. Select Enteric Infections by Month
June 2024 – May 2025

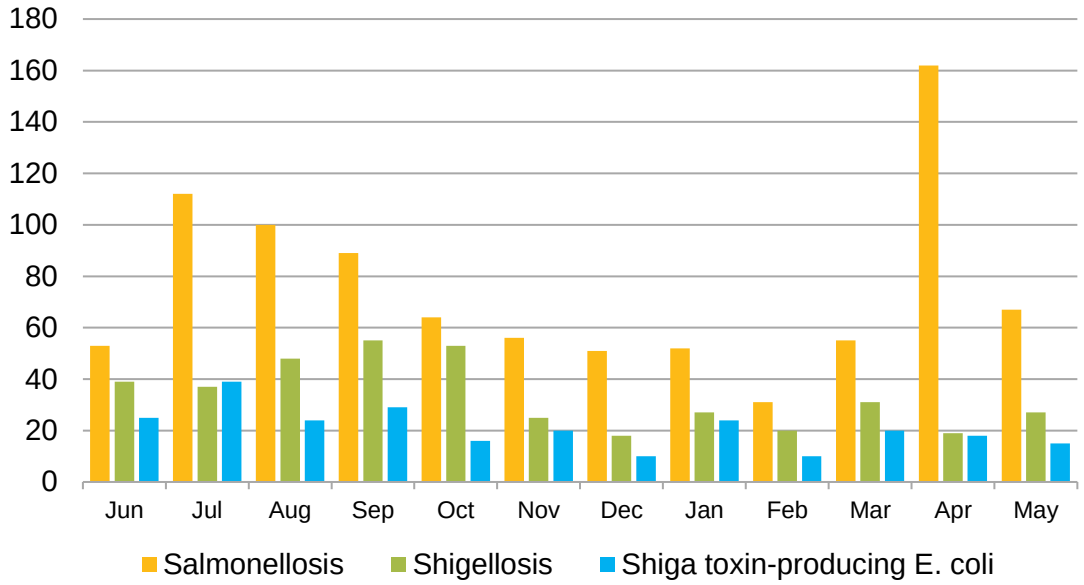

Figure 4. Select Vaccine-Preventable Infections by Month
June 2024 – May 2025

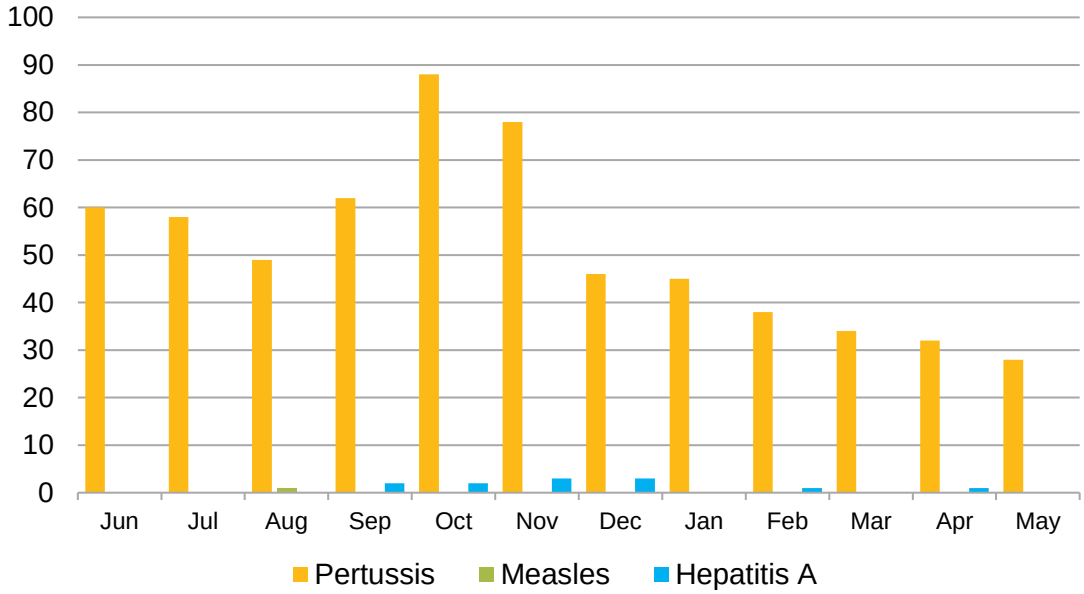

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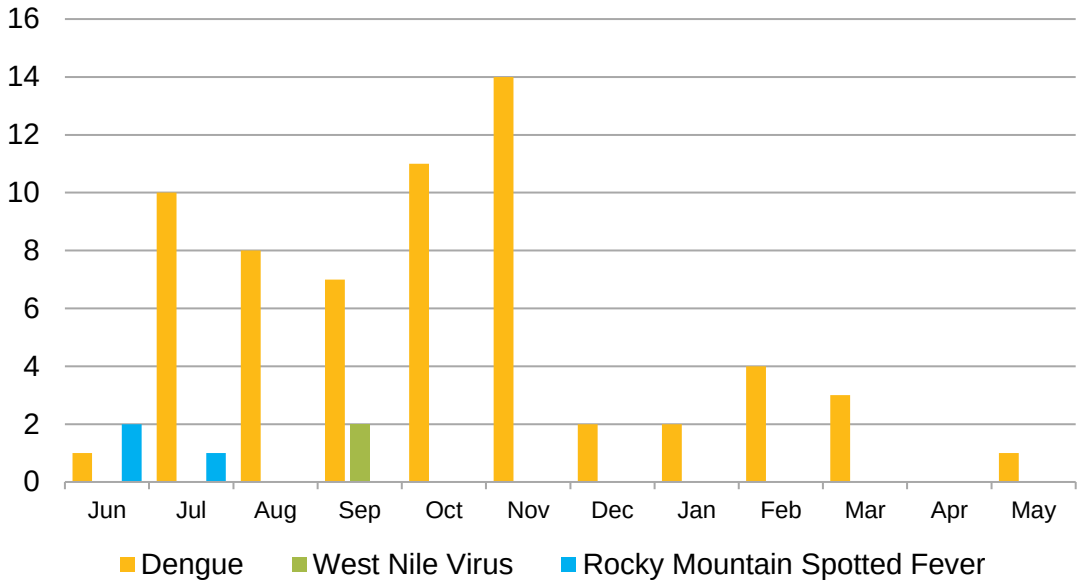
Figure 5. Select Vector-Borne Infections by Month
June 2024 – May 2025



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