EPIDEMIOLOGY AND IMMUNIZATION SERVICES BRANCH

# MONTHLY COMMUNICABLE DISEASE REPORT

MAY 2024

Volume 8, Issue 5: June 21, 2024

## MENINGOCOCCAL DISEASE

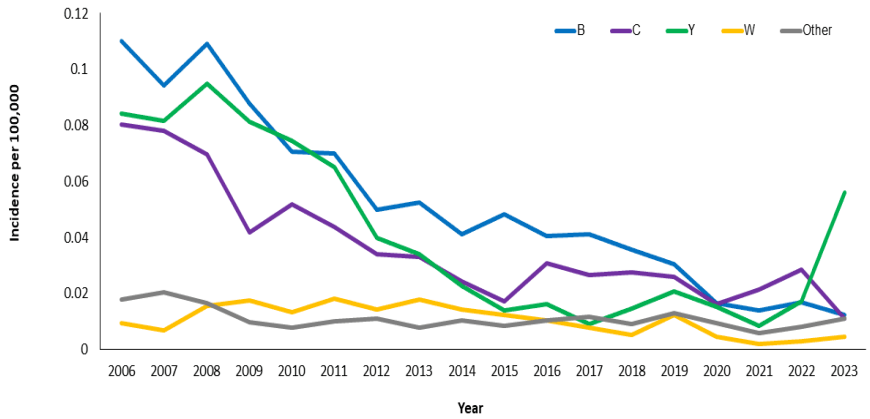
Invasive meningococcal disease (IMD) is a rare but serious vaccine-preventable illness caused by *Neisseria meningitidis* bacteria. The case fatality rate for IMD is 10-15%. Approximately 20% of survivors suffer long-term disabilities such as brain damage, deafness, and loss of limbs. The most common clinical presentations of IMD are meningitis, when the bacteria infect the lining of the brain and spinal cord, and meningococcemia, when the bacteria infect the bloodstream.

Symptoms of meningitis often include sudden onset of fever, headache, stiff neck, and altered mental status, while symptoms of meningococcemia may include cold hands and feet, diarrhea or nausea, fatigue, fever and chills, and a dark purple rash (purpura).

IMD cases in the United States (U.S.) have increased sharply since 2021, exceeding pre-pandemic levels. In 2023, there were 422 confirmed and probable cases reported nationwide, the largest number of cases reported since 2014.

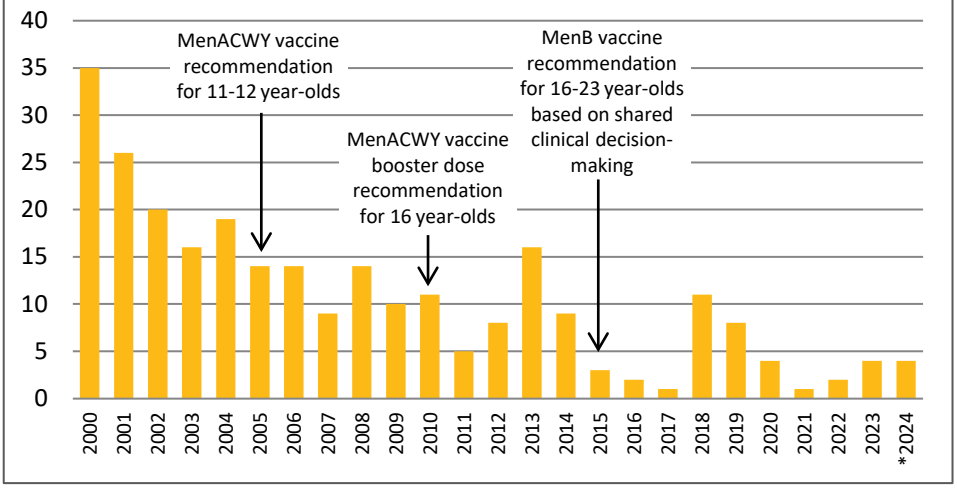
While serogroups B, C, and Y are responsible for most IMD cases in the U.S., a significant increase in serogroup Y *Neisseria meningitidis* has driven the national increase in cases (Figure 1) and prompted a Centers for Disease Control and Prevention (CDC) health advisory on March 28, 2024. Recent serogroup Y cases have disproportionately affected African Americans, people with HIV, and people 30-60 years of age.

**Figure 1. Trends in Meningococcal Disease Incidence by Serogroup, United States, 2006-2023***




Source: NNDSS data with additional serogroup data from Active Bacterial Core surveillance (ABCs) and state health departments.
*2022 and 2023 data are preliminary.
Courtesy of Centers for Disease Control and Prevention, https://www.cdc.gov/meningococcal/php/surveillance/index.html. Accessed 5/23/2024.

**Figure 2. Meningococcal Disease Cases, San Diego County, 2000-2024***




*2024 data are year-to-date; current as of 6/1/2024. Data are provisional and subject to change as additional information becomes available. Grouped by CDC disease years.

In San Diego County, IMD cases have declined from 35 in 2000 (1.2 per 100,000 population) to four in 2023 (0.1

*Continued on next page*

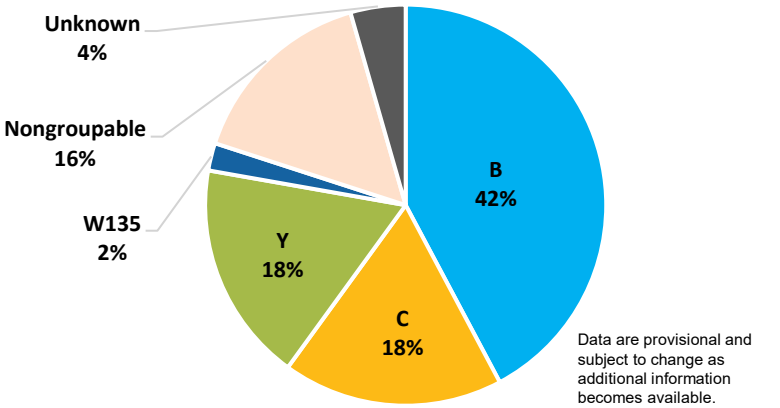
*The Monthly Communicable Disease Surveillance Report is a publication of the County of San Diego Public Health Services Epidemiology and Immunization Services Branch (EISB). EISB identifies, investigates, registers, and evaluates communicable, reportable, and emerging diseases and conditions to protect 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.*

# MENINGOCOCCAL DISEASE, continued

per 100,000 population) (Figure 2). Seven of 65 San Diego County cases (11%) since 2013 have been fatal.

From 2014-2023, serogroups B and C have been responsible for 60% of cases in San Diego County, with 18% caused by serogroup Y (Figure 3). The Advisory Committee on Immunization Practices (ACIP) recommends that adolescents aged 11 to 12 years receive a meningococcal conjugate vaccine which protects against serogroups A, C, W, and Y. A booster dose is recommended at age 16 years. Serogroup B vaccine has been licensed in the U.S. since 2014 and may also be given to those at risk, preferably to adolescents aged 16-18 years.

**Figure 3. Meningococcal Disease Cases by Serogroup, San Diego County, 2014-2023 (N=45)**




Meningococcal bacteria are transmitted person to person via respiratory and throat secretions shared during close contact. About one in ten people carry the bacteria in their nasal passages with no symptoms of disease. In a small percentage of people, the bacteria invade a normally sterile site (e.g., blood, cerebral spinal fluid) and cause illness. A preceding upper respiratory infection may be a contributing factor.

Rates of IMD are highest among children under one year of age, adolescents and young adults between the ages of 16 and 23 years, and adults 65 years and older. Those at increased risk for IMD include household and close contacts of persons with IMD; first year college students living in residence halls, military recruits, and others living in close quarters; and persons with certain medical conditions.

Although IMD is not as infectious as other respiratory infections, close contacts of persons with IMD are at increased risk and should receive post-exposure prophylaxis (PEP). Ciprofloxacin has historically been the antibiotic of choice for PEP of close contacts. However, ciprofloxacin-resistant IMD cases have increased nationally since 2019. Multiple counties in northern and southern California have recently met CDC criteria for changes in PEP for close contacts of IMD cases.

On May 20, 2024, the County of San Diego Public Health Services released a CAHAN Alert advising that ciprofloxacin be discontinued as PEP for IMD close contacts, and that rifampin, ceftriaxone, or azithromycin be prescribed for PEP instead. This recommendation remains in effect for at least 24 months, at which time resistance patterns will be reassessed. Healthcare providers are encouraged to order antimicrobial sensitivity testing (AST) on isolates of *Neisseria meningitidis* from sterile body sites to monitor resistance patterns.

Also on May 20, 2024, a CDC health advisory was issued regarding 12 cases of IMD reported since April 2024, that were linked to travel to the Kingdom of Saudi Arabia (KSA) for Umrah, an Islamic pilgrimage to Mecca that can be performed at any time of year. Healthcare providers are encouraged to recommend MenACWY conjugate vaccine for people aged one year and older who are considering travel to KSA to perform Umrah or Hajj, an annual Islamic pilgrimage taking place this year from June 14-19, 2024.

### Resources

- Centers for Disease Control and Prevention (CDC) Meningococcal Disease website
- Epidemiology and Prevention of Vaccine-Preventable Diseases (the Pink Book)
- California Department of Public Health (CDPH) Meningococcal Disease website
- County of San Diego Meningococcal Disease fact sheet

Suggested citation: Hopkins J, Henry T, Nelson J. Meningococcal Disease. County of San Diego Monthly Communicable Disease Report 2024; 8(5):1-2.

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**Table 1. Select Reportable Diseases**

| Disease and Case Inclusion Criteria (C,P,S) | | 2024 May | 2024 April | 2024 YTD | Prior Years 2023 YTD | Prior Years Avg YTD, 2021-2023 | Prior Years 2023 Total |
|---|---|---|---|---|---|---|---|
| Botulism (Foodborne, Infant, Wound, Other) | C,P | 0 | 0 | 1 | 0 | 0.7 | 1 |
| Brucellosis | C,P | 0 | 1 | 1 | 1 | 1.7 | 3 |
| Campylobacteriosis | C,P | 121 | 90 | 456 | 378 | 342.3 | 1,122 |
| *Candida auris* | C | 11 | 11 | 52 | 27 | 11.7 | 97 |
| Chickenpox, Hospitalization or Death | C,P | 0 | 1 | 2 | 1 | 1.3 | 7 |
| Chikungunya | C,P | 0 | 0 | 0 | 0 | 0.3 | 0 |
| Coccidioidomycosis | C | 4 | 41 | 163 | 202 | 186.0 | 481 |
| Cryptosporidiosis | C,P | 9 | 7 | 50 | 41 | 26.3 | 131 |
| Dengue Virus Infection | C,P | 4 | 2 | 12 | 1 | 1.0 | 26 |
| Encephalitis, All | C | 3 | 1 | 12 | 12 | 14.0 | 33 |
| Giardiasis | C,P | 15 | 16 | 89 | 85 | 73.7 | 237 |
| Hepatitis A, Acute | C | 0 | 1 | 7 | 30 | 15.7 | 45 |
| Hepatitis B, Acute | C | 0 | 2 | 3 | 5 | 7.7 | 13 |
| Hepatitis B, Chronic | C,P | 36 | 52 | 245 | 335 | 334.3 | 770 |
| Hepatitis C, Acute | C,P | 8 | 11 | 42 | 51 | 46.7 | 112 |
| Hepatitis C, Chronic | C,P | 177 | 140 | 808 | 937 | 1,292.0 | 2,176 |
| Legionellosis | C | 3 | 5 | 23 | 47 | 32.7 | 94 |
| Listeriosis | C | 0 | 0 | 2 | 5 | 3.3 | 11 |
| Lyme Disease | C,P | 0 | 1 | 2 | 1 | 1.7 | 12 |
| Malaria | C | 1 | 0 | 6 | 3 | 3.7 | 16 |
| Measles (Rubeola) | C | 1 | 0 | 3 | 0 | 0.0 | 0 |
| Meningitis, Aseptic/Viral | C,P,S | 8 | 5 | 26 | 26 | 27.0 | 63 |
| Meningitis, Bacterial | C,P,S | 2 | 6 | 21 | 16 | 13.7 | 42 |
| Meningitis, Other/Unknown | C | 1 | 3 | 11 | 9 | 9.3 | 25 |
| Meningococcal Disease | C,P | 0 | 1 | 4 | 3 | 1.3 | 4 |
| Mumps | C,P | 0 | 0 | 1 | 0 | 0.7 | 0 |
| Pertussis | C,P | 56 | 72 | 271 | 44 | 30.3 | 329 |
| Rabies, Animal | C | 0 | 0 | 0 | 2 | 1.3 | 8 |
| Rocky Mountain Spotted Fever | C,P | 0 | 1 | 1 | 0 | 0.3 | 4 |
| Salmonellosis (Non-Typhoid/Non-Paratyphoid) | C,P | 60 | 42 | 222 | 196 | 176.3 | 685 |
| Shiga toxin-Producing *E. coli* (including O157) | C,P | 13 | 12 | 77 | 77 | 67.7 | 264 |
| Shigellosis | C,P | 43 | 27 | 191 | 168 | 127.7 | 523 |
| Typhoid Fever | C,P | 0 | 0 | 2 | 2 | 6.0 | 7 |
| Vibriosis | C,P | 2 | 2 | 10 | 7 | 5.3 | 45 |
| West Nile Virus Infection | C,P | 0 | 0 | 0 | 0 | 0.0 | 0 |
| Yersiniosis | C,P | 17 | 11 | 65 | 30 | 16.7 | 84 |
| Zika Virus | C,P | 1 | 0 | 1 | 0 | 0.0 | 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. Includes San Diego County resident cases only.

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

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**Figure 4. Select Enteric Infections by Month**
**June 2023 – May 2024**

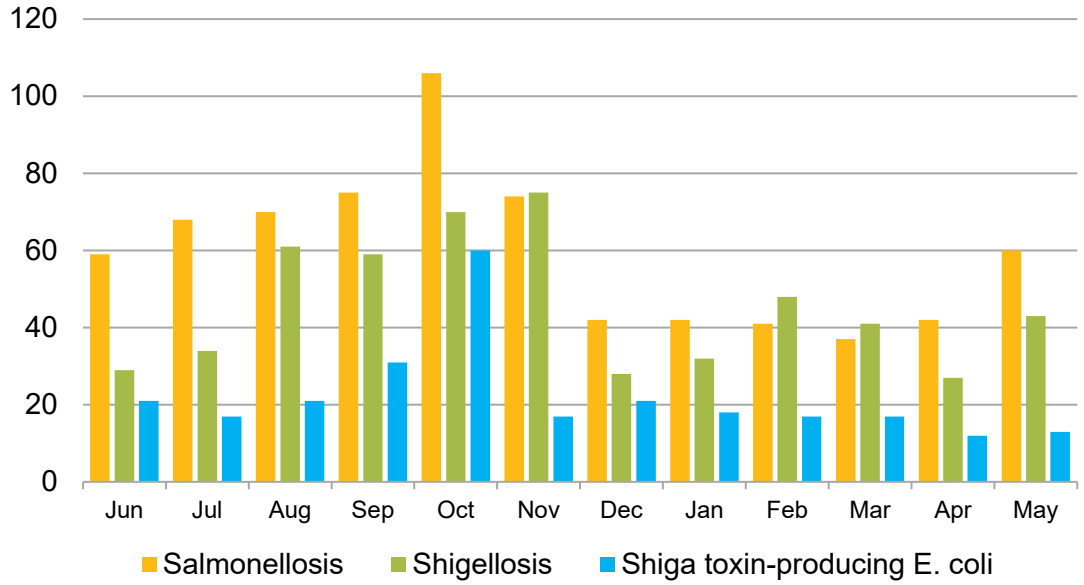
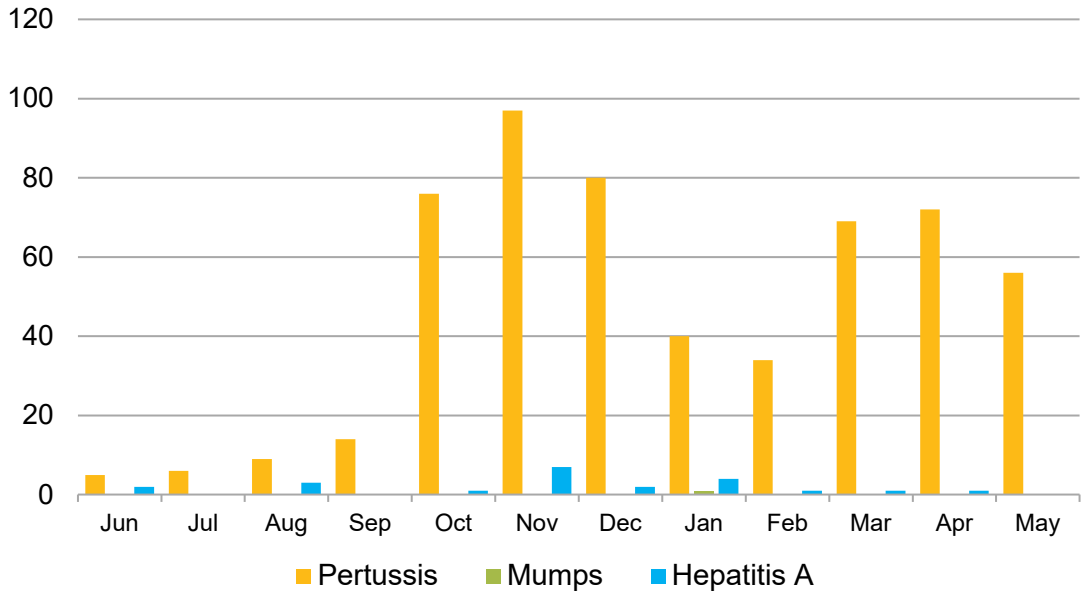



**Figure 5. Select Vaccine-Preventable Infections by Month**
**June 2023 – May 2024**




***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.

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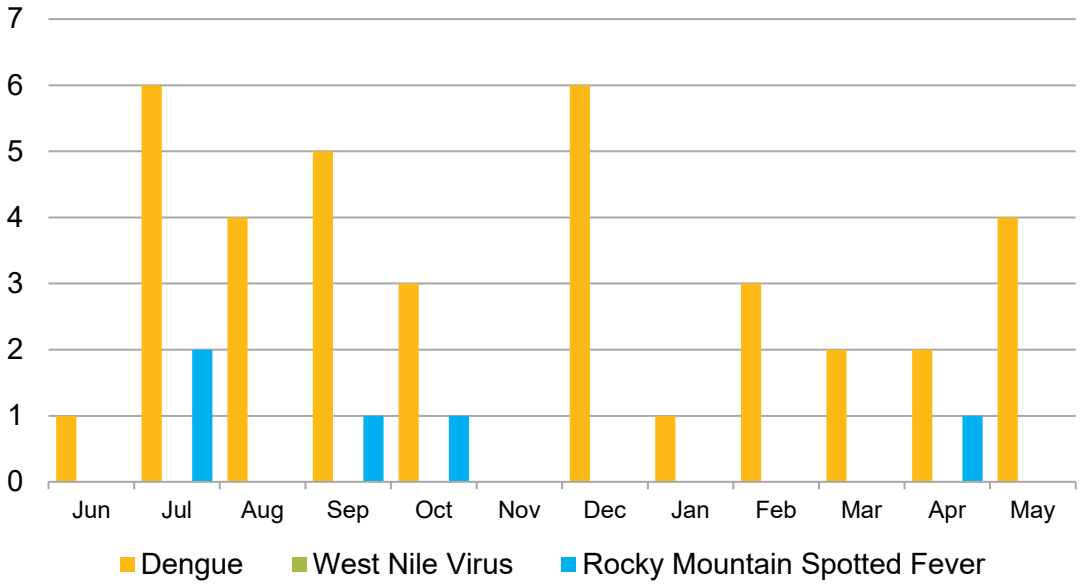
**Figure 6. Select Vector-Borne Infections by Month**
**June 2023 – May 2024**




All of the dengue cases are travel-associated. 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.