

This is an official
CDC Health Advisory

Distributed via Health Alert Network
March 28, 2024, 2:30 PM
10574-CAD-03-28-2024-MENIN

Increase in Invasive Serogroup Y Meningococcal Disease in the United States

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to alert healthcare providers to an increase in invasive meningococcal disease, mainly attributable to *Neisseria meningitidis* serogroup Y (Figure). In 2023, 422 cases were reported in the United States, the highest annual number of cases reported since 2014. As of March 25, 2024, 143 cases have been reported to CDC for the current calendar year, an increase of 62 cases over the 81 reported as of this date in 2023. A specific meningococcal strain, sequence type (ST) 1466, is responsible for most (101 of 148, 68%) serogroup Y cases with available sequence type data that were reported across the United States in 2023. Cases caused by this strain are disproportionately occurring in people ages 30–60 years (65%), Black or African American people (63%), and people with HIV (15%). In addition, most cases of invasive meningococcal disease caused by ST-1466 in 2023 had a clinical presentation other than meningitis: 64% presented with bacteremia, and at least 4% presented with septic arthritis. Of 94 patients with known outcomes, 17 (18%) died; this case-fatality rate is higher than the historical case-fatality rate of 11% reported for serogroup Y cases in 2017–2021. **Healthcare providers should 1) have a heightened suspicion for meningococcal disease, particularly among populations disproportionately affected by the current increase, 2) be aware that patients may present without symptoms typical of meningitis, and 3) ensure that all people recommended for meningococcal vaccination, including people with HIV, are up to date for meningococcal vaccines.**

Background

[Meningococcal disease](#), caused by the bacterium *Neisseria meningitidis*, is a rare but severe illness with a case-fatality rate of 10–15% even with appropriate antibiotic treatment. Meningococcal disease most often presents as meningitis, with symptoms that may include fever, headache, stiff neck, nausea, vomiting, photophobia, or altered mental status; or as meningococcal bloodstream infection, with symptoms that may include fever and chills, fatigue, vomiting, cold hands and feet, severe aches and pains, rapid breathing, diarrhea, or, in later stages, a dark purple rash. While initial symptoms of meningococcal disease can at first be non-specific, they worsen rapidly, and the disease can become lifethreatening within hours. Immediate [antibiotic treatment](#) for meningococcal disease is critical. Survivors may experience long-term effects such as deafness or amputations of the extremities.

Of the six *N. meningitidis* serogroups — A, B, C, W, X, and Y — responsible for most meningococcal disease worldwide, the four serogroups B, C, W, and Y circulate in the United States. Vaccines against serogroups A, C, W, Y (MenACWY) and serogroup B (MenB) are available in the United States.

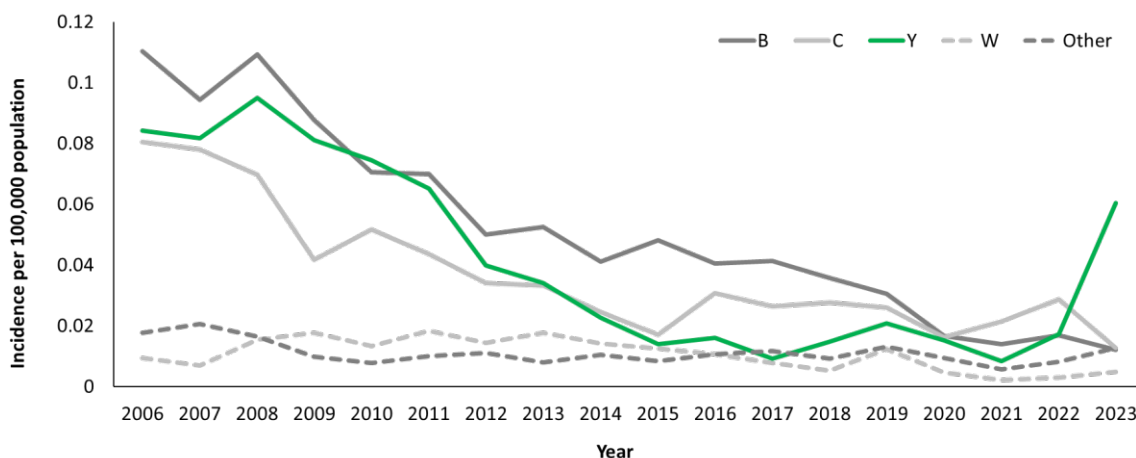
[MenACWY vaccines are routinely recommended](#) for adolescents and for people with other risk factors or underlying medical conditions, including HIV.

Across the United States, 101 ST-1466 cases were reported in 2023. This number is expected to increase with additional laboratory testing data. Cases of invasive meningococcal disease caused by this strain occurred in both males (65%) and females (35%) and disproportionately occurred in people ages 30–60 years (65%), Black or African American people (63%), and people with HIV (15%). In addition, most cases of invasive meningococcal disease caused by ST-1466 had a clinical presentation other than meningitis: 64% presented with bacteremia, and at least 4% presented with septic arthritis. Of 94 patients with known outcomes, 17 (18%) died; this case-fatality rate is higher than the historical case-fatality rate of 11% reported for serogroup Y cases in 2017–2021.

The serogroup Y ST-1466 strain has contributed to [previously reported increases](#) in meningococcal disease in people with HIV. Based on updated surveillance data, 24 ST-1466 cases have now been reported in people with HIV in 2022–2023; only four were previously vaccinated with MenACWY and none were up to date on recommended doses. To date, no other ST-1466 cases have been identified in people who previously received MenACWY vaccine.

Serogroup Y ST-1466 isolates tested to date have been susceptible to all first-line antibiotics recommended for treatment and prophylaxis. This strain is distinct from [ciprofloxacin-resistant serogroup Y strains that are also circulating in the United States](#) and that are disproportionately affecting Hispanic individuals.

Figure: Trends in meningococcal disease incidence per 100,000 population, by serogroup—United States, 2006–2023. Incidence of *Neisseria meningitidis* serogroup Y is shown in green. Source: National Notifiable Diseases Surveillance System, with additional serogroup data from Active Bacterial Core surveillance (ABCs) and state health departments. 2022 and 2023 data are preliminary.



Recommendations for Public Health Departments

- Ensure healthcare providers are aware of the increasing burden of invasive meningococcal disease, particularly among people ages 30–60 years and Black or African American people.
- Continue submitting all meningococcal isolates to CDC for whole-genome sequencing and antimicrobial susceptibility testing.
- Contact CDC at meningnet@cdc.gov with any questions or concerns about increasing meningococcal disease cases in their jurisdiction or [outbreak](#) investigation or control measures.

Recommendations for Healthcare Providers

- Maintain a heightened suspicion for invasive meningococcal disease and start immediate [antibiotic treatment](#) for persons with suspected meningococcal disease. Blood and cerebrospinal fluid (CSF) cultures are indicated for patients with suspected meningococcal disease [1].
- Recognize that invasive meningococcal disease may affect people of any age or demographic group.
 - Current increases in disease are disproportionately affecting people ages 30–60 years, Black or African American people, and people with HIV.
- Be aware that patients with invasive meningococcal disease may present with bloodstream infection or septic arthritis and **without** symptoms typical of meningitis (e.g., headache, stiff neck).
- Ensure that all people [recommended for meningococcal vaccination](#) are up to date for meningococcal vaccines.
 - All 11–12 year-olds should receive a MenACWY vaccine. Since protection wanes, CDC recommends a booster dose at age 16 years.
 - For people at increased risk due to medical conditions (e.g., with HIV), recommended vaccination includes a 2-dose primary MenACWY series with booster doses every 3–5 years, depending on age.
- Immediately notify [state, tribal, local, or territorial health departments](#) about any suspect or confirmed cases of invasive meningococcal disease.
- Consult with your state or local health department for any questions about meningococcal disease treatment or contact prophylaxis, including any changes based on local meningococcal resistance patterns.

Recommendations for the Public

- Seek medical attention immediately if you or your child develops [symptoms of meningococcal disease](#):
 - Symptoms of meningitis may include fever, headache, stiff neck, nausea, vomiting, photophobia, or altered mental status.
 - Symptoms of meningococcal bloodstream infection may include fever and chills, fatigue, vomiting, cold hands and feet, severe aches and pains, rapid breathing, diarrhea, or, in later stages, a dark purple rash.
 - While symptoms of meningococcal disease can at first be nonspecific, they worsen rapidly, and the disease can become life-threatening within hours.
- Talk to your healthcare provider about [meningococcal vaccines](#) that may be recommended for you and your household or family members, including any recommended booster doses.

For More Information

- Health departments
 - [Meningococcal Disease Surveillance | CDC](#)
 - [Meningococcal Disease | Manual for the Surveillance of Vaccine-Preventable Diseases | CDC](#)
 - [Meningococcal Disease Outbreaks and Public Health Response | CDC](#)
 - [Selection of Antibiotics as Prophylaxis for Close Contacts of Patients with Meningococcal Disease in Areas with Ciprofloxacin Resistance — United States, 2024](#)
- Healthcare providers
 - [Clinical information | Meningococcal Disease | CDC](#)
 - [Meningococcal Vaccination: Information for Healthcare Professionals | CDC](#)
- Everyone
 - [Signs and Symptoms | Meningococcal Disease | CDC](#)
 - [Meningococcal Vaccination | CDC](#)
 - Visit [CDC-INFO](#) or call CDC-INFO at 1-800-232-4636

References

1. American Academy of Pediatrics. Summaries of infectious diseases: meningococcal infections. [Section 3]. In: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, eds. Red book: 2021–2024 report of the Committee on Infectious Diseases. Itasca, IL: American Academy of Pediatrics; 2021:519–32.
2. Mbaeyi SA, Bozio CH, Duffy J, et al. Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020. *MMWR Recomm Rep* 2020;69(No. RR-9):1–41. DOI: <http://dx.doi.org/10.15585/mmwr.rr6909a1>
3. Rubis AB, Howie RL, Marasini D, Sharma S, Marjuki H, McNamara LA. Notes from the Field: Increase in Meningococcal Disease Among Persons with HIV — United States, 2022. *MMWR Morb Mortal Wkly Rep* 2023;72:663–664. DOI: <http://dx.doi.org/10.15585/mmwr.mm7224a4>

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

DHEC contact information for reportable diseases and reporting requirements

Reporting of **Meningococcal Disease** is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2024 List of Reportable Conditions available at: <https://scdhec.gov/sites/default/files/Library/CR-005869.pdf>

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2024			
Mail or call reports to the Epidemiology Office in each Public Health Region			
MAIL TO:			
Lowcountry 3685 Rivers Avenue, Suite 201 N. Charleston, SC 29405 Fax: (843) 953-0051	Midlands 2000 Hampton Street Columbia, SC 29204 Fax: (803) 251-3170	Pee Dee 1931 Industrial Park Road Conway, SC 29526 Fax: (843) 915-6506	Upstate 352 Halton Road Greenville, SC 29607 Fax: (864) 282-4373
CALL TO:			
Lowcountry Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg Office: (843) 441-1091 Nights/Weekends: (843) 441-1091	Midlands Aiken, Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexington, Newberry, Richland, Saluda, York Office: (888) 801-1046 Nights/Weekends: (888) 801-1046	Pee Dee Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg Office: (843) 915-8886 Nights/Weekends: (843) 409-0695	Upstate Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union Office: (864) 372-3133 Nights/Weekends: (864) 423-6648
For information on reportable conditions, see https://www.scdhec.gov/ReportableConditions		<u>DHEC Bureau of Communicable Disease Prevention & Control</u> Division of Acute Disease Epidemiology 2100 Bull St • Columbia, SC 29201 Phone: (803) 898-0861 • Fax: (803) 898-0897 Nights / Weekends: 1-888-847-0902	

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service	Provides general information that is not necessarily considered to be of an emergent nature.