



Date: September 28, 2018
To: CAHAN San Diego Participants
From: Public Health Services, Epidemiology Program

Invasive Meningococcal Disease Outbreak at San Diego State University

This health alert informs CAHAN participants about San Diego State University (SDSU) undergraduate students diagnosed with serogroup B invasive meningococcal disease (IMD) this year. **The San Diego County Public Health Officer recommends that all unimmunized undergraduate students enrolled at SDSU and less than 24 years of age get vaccinated with one of the two available meningococcal B (MenB) vaccines.**

Situation

On September 3, 2018, a female undergraduate student who lived in a traditional residence hall at SDSU became symptomatic with meningococemia subsequently determined to be due to *Neisseria meningitidis*, serogroup B. In addition to known close contacts, a large number of SDSU students were provided chemoprophylaxis due to possible exposure during sorority recruitment activities that occurred during the individual's potential infectious period.

On September 25, a male undergraduate who lived in a different SDSU residence hall became symptomatic with meningitis and a petechial rash determined today by polymerase chain reaction testing at the California Department of Public Health (CDPH) to be due to *N. meningitidis*, serogroup B. Known close contacts of this patient have been provided antibiotic prophylaxis. There is no indication for mass chemoprophylaxis due to potential exposure to this case. This patient has no known connection with the previous case.

Of note, a female SDSU undergraduate on summer break and living close to campus was diagnosed in early June with meningococemia, also due to serogroup B. This patient had no known connections to the other cases above. None of the three cases had been immunized with one of the available serogroup B meningococcal vaccines, and all had been immunized with quadrivalent meningococcal vaccine, which provides protection against serogroups A, C, W-135 and Y.

Based on [guidance](#) from the Centers for Disease Control and Prevention (CDC), these three cases occurring in the SDSU undergraduate population, in just over a three month period, have been determined to be an outbreak by the County Public Health Officer.

Background

Figure 1, on page three of this alert, shows the reported cases of meningococcal disease in San Diego County residents since 1993. The ten cases reported so far in 2018 are the largest since 2013, when an increased number of cases occurred in [Southern California](#) and [Tijuana](#) due to *N. meningitidis*, serogroup C. Serogroup C has also caused an increased number of cases in Southern California in recent years in [men who have sex with men](#). Serogroup B has been found in 36% of cases since 2008, and serogroup B accounts for six of the ten cases reported in 2018. Serogroup B disease has been the cause of 11 U.S. [university/college outbreaks](#) since 2008, including two in California: one at the [University of California Santa Barbara](#), in 2013, and one at [Santa Clara University](#), in 2016.

Four vaccines are currently available to prevent IMD: two that provide protection against serogroup B disease (MenB) and two quadrivalent vaccines that provide protection against serogroups A, C, W-135, and Y. The quadrivalent vaccine is routinely recommended for adolescents and young adults, while the MenB vaccine may be given to individuals based on provider risk assessment. See [attachment](#) to this alert for MenB vaccine details, including billing codes.

Actions Requested of Healthcare Providers

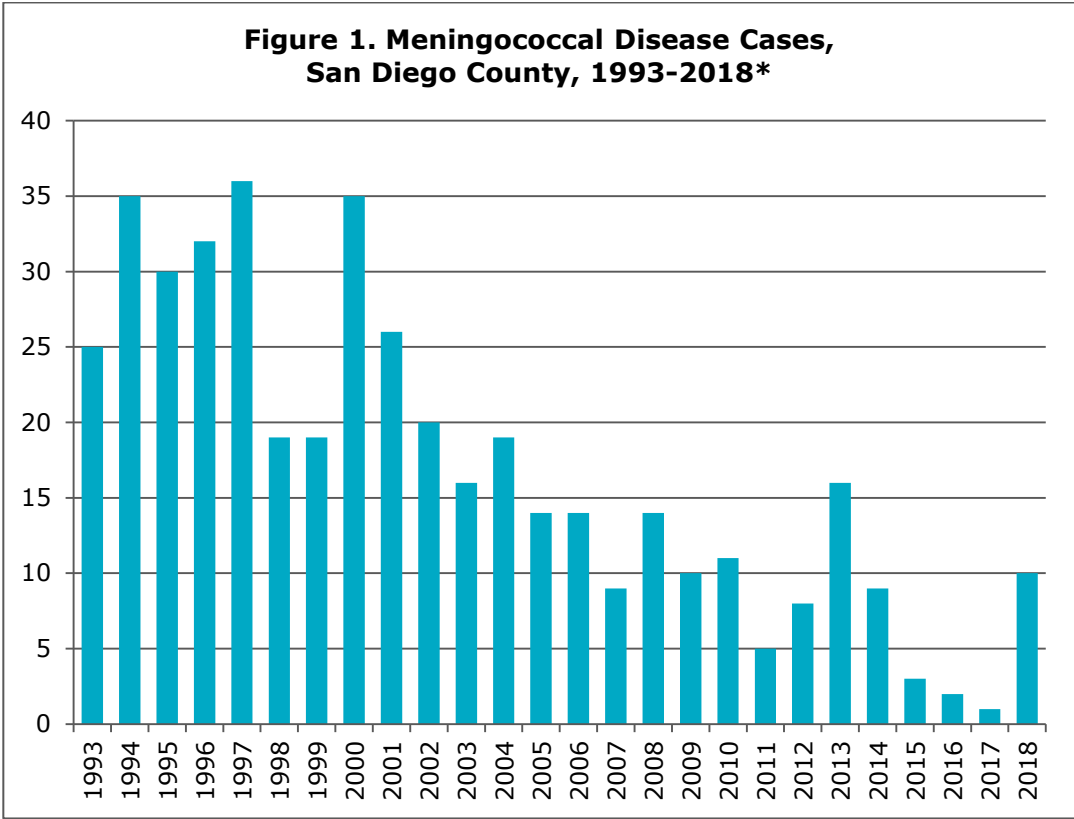
- 1. Provide MenB vaccination to all undergraduate students enrolled at SDSU and less than 24 years of age who have not been previously immunized.** This local recommendation is made due to the increased number of cases at SDSU. There is no brand preference between the available vaccines (Bexsero® and Trumenba®), but the same brand should be used for all doses in the series. If Trumenba® is used, the three-dose series (0, 1-2, 6 months) should be given in order to provide earlier protection and maximize the immune response.
- 2. Provide vaccination to provide protection against meningococcal disease for individuals who are not SDSU undergraduates under 24 years of age according to [published guidelines](#) from the Advisory Committee on Immunization Practices (ACIP).** SDSU graduate students, open university students, staff, faculty and visitors are not currently recommended to get MenB vaccine, unless they are at risk for meningococcal disease as [defined](#) by ACIP.
- 3. Maintain a high index of suspicion for IMD** when evaluating patients with fever and petechial or purpuric rash and other signs and symptoms of meningococcal meningitis or septicemia (meningococemia).
- 4. Immediately report suspected IMD cases by telephone to the [Epidemiology Program](#).** Healthcare providers should immediately report [clinically suspect cases](#) and not wait for culture results. Laboratories should immediately report gram-negative diplococci from any sterile site (e.g., blood, CSF, pericardial fluid, synovial fluid), as well as confirmation of *N. meningitidis* from any culture source. The Epidemiology Program can be contacted by calling 619-692-8499 during normal business hours (Monday-Friday 8 AM-5 PM), or 858-565-5255 after hours, on weekends, and County-observed holidays.
- 5. Remember that PCR testing can be more sensitive in detecting *N. meningitidis*** than routine cultures, especially if specimens are collected after antibiotic administration. CSF is sterile as soon as 15 minutes after parenteral antibiotic administration (and likely to occur soon after oral antibiotic therapy). PCR testing can be arranged for clinically compatible cases by contacting the Epidemiology Program, especially for patients being evaluated after antibiotic administration. More information about [laboratory testing](#) for IMD may be found at the [CDPH Meningococcal Disease website](#).
- 6. Ensure timely and appropriate antibiotic coverage when prescribing meningococcal post-exposure prophylaxis (PEP) for close contacts of a case.** PEP should be implemented as soon as possible, regardless of immunization status, ideally within 24 hours of case identification or strong clinical suspicion. Detailed information on prophylaxis may be found in the recently updated [CDPH Meningococcal Quicksheet](#).

More information for clinicians on meningococcal disease may be found at the [CDC Meningococcal Disease website](#).

Thank you for your participation.

CAHAN San Diego

County of San Diego, Health & Human Services Agency
Epidemiology and Immunization Services Branch
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E-mail: cahan@sdcounty.ca.gov
Secure Website: <http://cahan.ca.gov>
Public-Access Website: <http://www.cahansandiego.com>



* - Cases in 2018 are year to date.

Prepared by County of San Diego, Health & Human Services Agency,
Public Health Services, Epidemiology and Immunization Services Branch, 9/27/18



Vaccine Fact Sheet

MenB

Brand Name and Manufacturer	Bexsero® Novartis (MenB-4C)	Trumenba® Pfizer (MenB-FHbp)
Protects Against	Invasive meningococcal disease caused by <i>Neisseria meningitidis</i> serogroup B	Invasive meningococcal disease caused by <i>Neisseria meningitidis</i> serogroup B
Routine ACIP Schedule for Persons Not at High Risk	Persons 16 through 23 years may be vaccinated Preferred age is 16 through 18 years of age Two (2) dose series: 0 and 1- 6 month schedule	Persons 16 through 23 years may be vaccinated Preferred age is 16 through 18 years of age Two (2) dose series: 0 and 6 month schedule
Minimum Intervals	4 week minimum interval between dose 1 and 2	8 week minimum interval between dose 1 and 2, 16 week minimum interval between dose 1 and 3
Approved for use in	Persons aged 10 through 25 years old	Persons aged 10 through 25 years old
Administration	Intramuscular (IM) injection	Intramuscular (IM) injection
Packaging	Vaccine is packaged as 10 single-dose 0.5mL syringes Or package of 1 syringe per carton.	Vaccine is packaged as 10 single-dose 0.5mL syringes Or package of 5 single-dose 0.5mL syringes
Storage	Refrigerate between 36°F and 46°F (2°C to 8°C) DO NOT FREEZE	Refrigerate between 36°F and 46°F (2°C to 8°C) DO NOT FREEZE
Full ACIP Recommendations	http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6441a3.htm http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6422a3.htm	http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6441a3.htm http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6422a3.htm
VFC Letter	http://eziz.org/assets/docs/vfcletter_2015_8_MenB.pdf	http://eziz.org/assets/docs/vfcletter_2015_8_MenB.pdf
Billing Codes	CHDP code: M1 CPT code for vaccine: 90620 CPT code for administration: 90640 Medi-Cal Fee-For-Service (FFS) administration for VFC-supplied vaccine: 90620-SL (for ages 16 through 18 years); 90620-SL and -SK for high risk persons 10 through 15 years). ICD-10-CM code (encounter for immunization): Z23	CHDP code: M4 CPT code for vaccine: 90621 CPT code for administration: 90640 Medi-Cal Fee-For-Service (FFS) administration for VFC-supplied vaccine: 90621 with SL modifier (for ages 16 through 18 years); 90621 with both SL and SK modifiers for high risk persons 10 through 15 years). ICD-10-CM code (encounter for immunization): Z23
Comments	<ul style="list-style-type: none"> Licensed in 2015 Does not protect against Meningococcal serogroups A, C, Y, and W-135 Recommended for high-risk persons 10 years and older. See ACIP recommendations For routine recommendations, refer to Meningococcal Vaccines—Routine Risk For recommendations for high-risk patients, refer to Meningococcal Vaccines—High Risk Populations The same vaccine brand must be used for all doses in the series 	<ul style="list-style-type: none"> Licensed in 2014 Does not protect against Meningococcal serogroups A, C, Y, and W-135 Recommended for high-risk persons 10 years and older. See ACIP recommendations For routine recommendations, refer to Meningococcal Vaccines—Routine Risk For recommendations for high-risk patients, refer to Meningococcal Vaccines—High Risk Populations The same vaccine brand must be used for all doses in the series