

Meningococcal Disease

Agent: *Neisseria meningitidis* (bacteria)

Mode of Transmission: Transmission occurs through contact with respiratory droplets from the nose or throat of an infected person (e.g., through coughing or kissing).

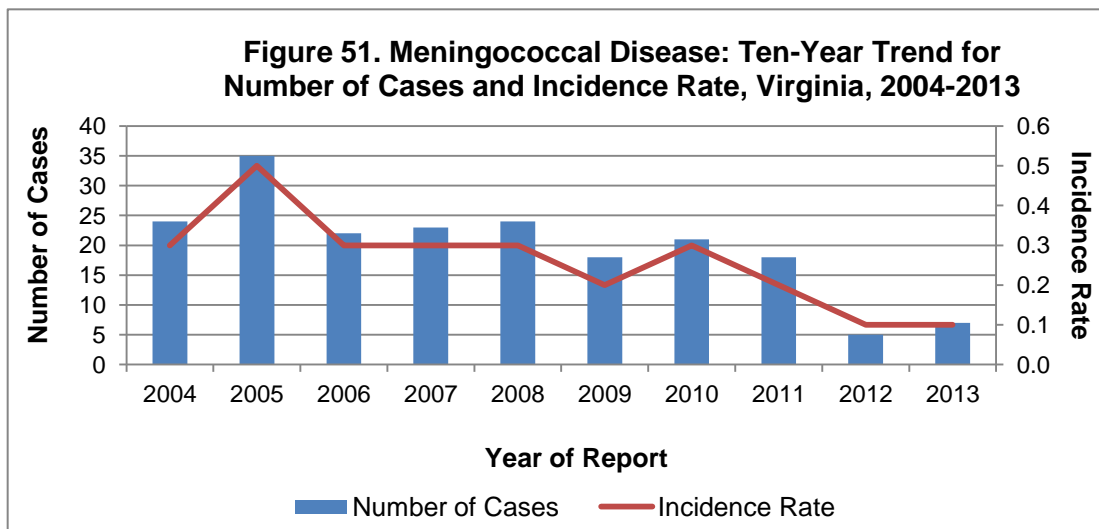
Signs/Symptoms: Meningitis is the most common presentation of invasive disease and includes sudden onset of fever, headache, and stiff neck, and often nausea, vomiting, sensitivity to light, and confusion. A rash may be present. A bloodstream infection may also occur (without meningitis), leading to abrupt onset of fever and a rash; it is often associated with shock and multi-organ failure. Less commonly, meningococcal disease can lead to pneumonia, arthritis, middle ear infections, or inflammation of the epiglottis.

Prevention: In the United States, there are two vaccines licensed to provide protection against meningococcal disease. The vaccines are protective against four of the five serogroups that cause disease (A, C, Y, and W-135, but not B). A serogroup B meningococcal vaccine that is licensed for use in Europe, Canada, and Australia was used in the United States recently to help control two meningococcal disease outbreaks; the FDA allowed the use of the vaccine under Investigational New Drug applications.

Other Important Information: Crowding, exposure to tobacco smoke, and preceding upper respiratory tract infections increase the risk of disease. Individuals with certain medical conditions, such as complement component deficiency (immunodeficiency disorders) and asplenia (no spleen), are also at increased risk for disease. Five to ten percent of people carry *N. meningitidis* in their nose without having any symptoms of disease; those who develop the disease are usually infected by a carrier who does not have symptoms.

Meningococcal Disease: 2013 Data Summary	
Number of Cases:	7
5-Year Average Number of Cases:	17.2
% Change from 5-Year Average:	-59%
Incidence Rate per 100,000:	0.1

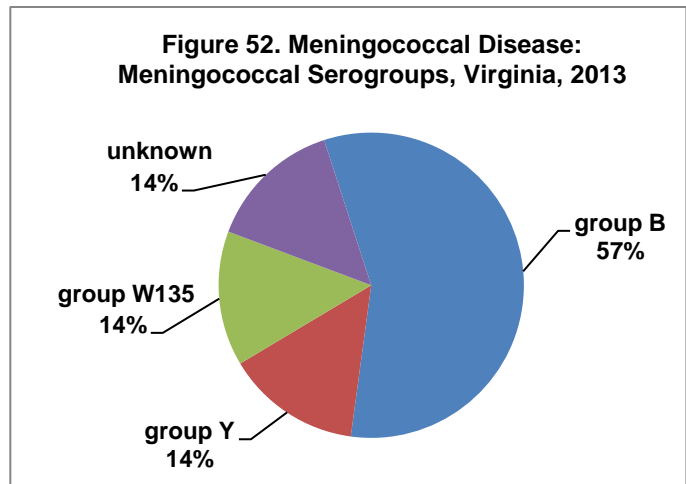
During 2013, seven cases of meningococcal disease were reported in Virginia, with a statewide incidence rate of 0.1 per 100,000 (Figure 51). This is second only to the five cases reported in 2012, which were the fewest cases recorded since 1915 when Virginia first began tracking and



documenting this condition. The seven cases reported in 2013 represent a 59% decrease from the five-year average of 17.2 cases per year. Nationwide, in 2012 (the most recent year of available data), 551 cases of meningococcal disease were reported (incidence rate of 0.2 per 100,000).

In Virginia, the 30-39 year age group had two cases and an incidence rate of 0.2 per 100,000. The remaining cases were distributed across the following age groups, with one case each: less than one year, 1-9 years, 10-19 years, 40-49 years, and 50-59 years. Race was reported for six of the seven cases and all occurred in the white population (0.1 per 100,000). Five cases occurred in males (0.1 per 100,000), and two cases occurred in females (0.05 per 100,000). By region, four cases occurred in the north (0.2 per 100,000), two cases in the northwest (0.2 per 100,000), and one case in the southwest (0.1 per 100,000). No cases were reported from the central or eastern regions (see map below). While cases occurred throughout the year, the highest proportions were observed during the first and fourth quarters.

Serogroup was identified as group B for the majority of cases (four cases, 57%). One case each (14%) was reported as serogroup W135, serogroup Y, and unknown serogroup (Figure 52). There was no indication that either of the cases reported with serogroup W135 or Y had received the meningococcal vaccine. No outbreaks or deaths attributed to meningococcal disease were reported in 2013 in Virginia.



Meningococcal Disease Incidence Rate by Locality Virginia, 2013

