

Meningococcal Disease

Agent: *Neisseria meningitidis* (bacteria)

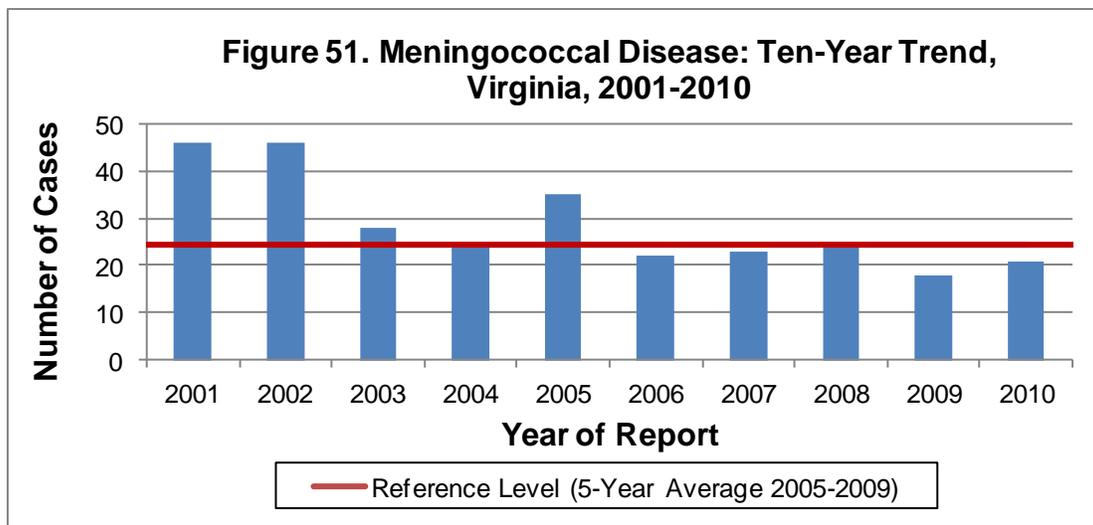
Mode of Transmission: Transmission occurs through contact with respiratory droplets from the nose or throat of infected people (e.g., through coughing or kissing).

Signs/Symptoms: Sudden onset of fever, headache, stiff neck, vomiting, and sensitivity to light. A rash may also be present.

Prevention: Vaccination with recommended meningococcal vaccine. The three most commonly occurring serogroups of meningococcal bacteria in the U.S. are B, C, and Y. There is currently no licensed vaccine that protects against serogroup B in the U.S.

Other Important Information: Crowding, exposure to tobacco smoke, and coexisting respiratory tract infections increase the risk of disease. Five to ten percent of people carry *N. meningitidis* in their nose without having any symptoms of disease; those who develop disease are usually infected by a carrier who does not have symptoms.

During 2010, 21 cases of meningococcal disease were reported in Virginia. This represents 17% more cases than the 18 cases reported in 2009, but a 14% decrease from the five-year average of 24.4 cases per year (Figure 51).



The 20-29 year age group had the highest number of cases (6 cases, 0.5 per 100,000), but the highest rate occurred among infants (1 case, 0.9 per 100,000). Incidence rates among the remaining age groups ranged from 0.1 to 0.5 per 100,000. Rates were the same for the white and “other” race populations (0.3 per 100,000), and were slightly lower in the black population (0.1 per 100,000). Incidence among males (0.4 per 100,000) was twice the rate for females (0.2 per 100,000). By region, the highest incidence rate was observed in the northwest (0.5 per 100,000), with rates in the other regions ranging from 0.1 to 0.3 per 100,000. Almost half the cases (48%) occurred in the first quarter of the year, following the typical pattern for this disease of higher incidence in the winter and spring.

Of the fourteen cases for which a serogroup was identified, nine were group B, one was group C, and four were group Y (Figure 52). Of the five cases reported with serogroup C or Y, there was no indication of vaccination being administered for this condition. Among 2010 cases, four deaths were reported in individuals whose infections developed into meningitis. The fatalities occurred in two males and two females. The females were in the 20-29 and 60 year and over age groups, while the males were in the 30-39 and 50-59 year age groups. One outbreak attributed to meningococcal disease was reported in 2010. The outbreak occurred in the northwest region and involved four individuals attending a private gathering.

