

## Campylobacteriosis

Agent: *Campylobacter* species (bacteria)

Mode of Transmission: Ingestion of undercooked meat, particularly poultry; ingestion of contaminated food, water, or raw milk; and direct contact with fecal material from infected animals or people.

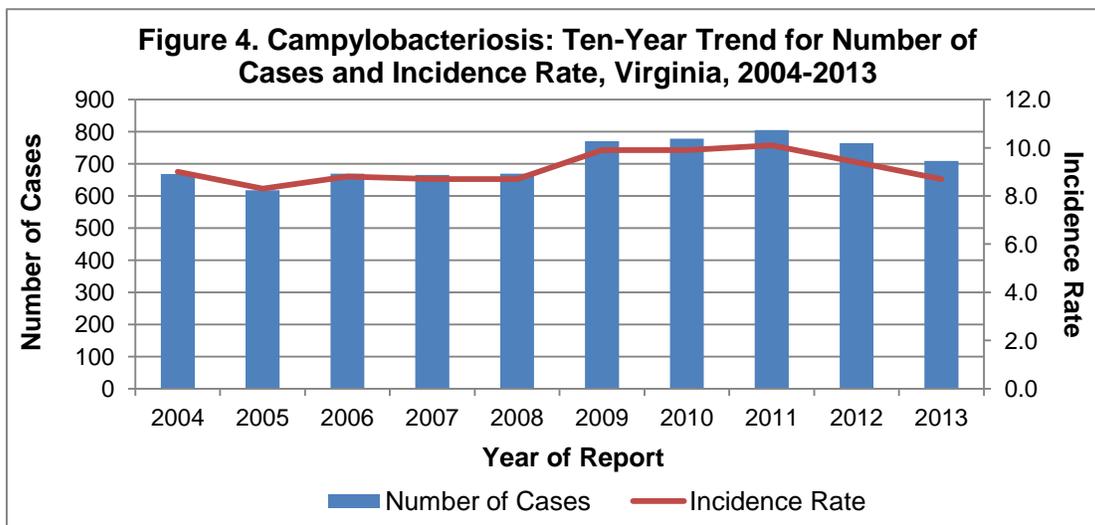
Signs/Symptoms: Include diarrhea (frequently with bloody stools), abdominal pain, malaise, fever, nausea, or vomiting. In neonates and young infants, bloody diarrhea without fever may be the only manifestation of illness. Many infections are asymptomatic. Rarely, complications can develop, including reactive arthritis, febrile convulsions, or Guillain-Barré Syndrome; bacteremia can occur in children.

Prevention: Hands should be washed carefully after using the bathroom, after changing diapers or cleaning a child who has used the bathroom, after handling animals or their feces, and before preparing and eating food. Pasteurization of milk and chlorination of water supplies are also important. All foods containing eggs and meats, particularly poultry, should be cooked thoroughly.

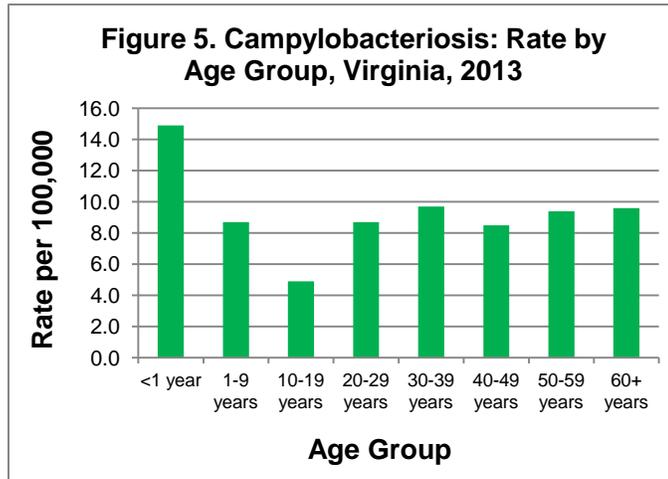
Other important information: In 2012, a change was implemented to the case definition for campylobacteriosis. This change requires a positive lab culture for case confirmation. Given the increasing popularity of non-culture based testing methods, fewer cases of campylobacteriosis may be confirmed after 2012.

<b>Campylobacteriosis: 2013 Data Summary</b>	
Number of Cases:	709
5-Year Average Number of Cases:	757.2
% Change from 5-Year Average:	-6%
Incidence Rate per 100,000:	8.7

There were 709 cases of campylobacteriosis reported in Virginia in 2013. This is a 7% decrease from the 764 cases reported in 2012, and a 6% decrease from the five-year average of 757.2 cases per year (Figure 4).



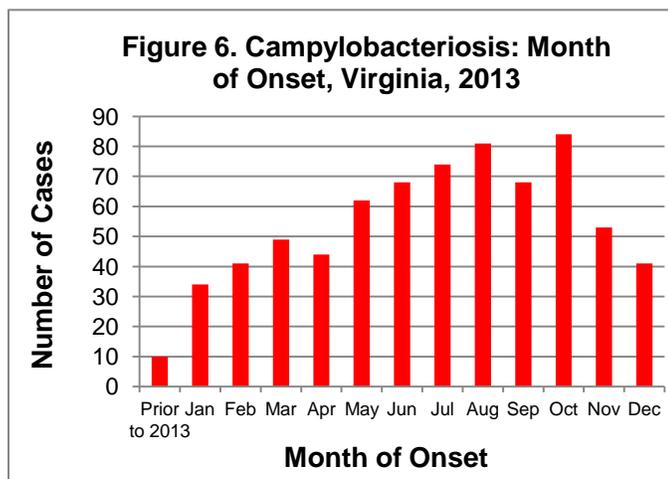
Nationally, rates of *Campylobacter* infection are highest in children younger than four years of age. In Virginia, the highest rates have consistently been seen in the less than one year age group. This remained true in 2013, with an incidence rate of 14.9 per 100,000 in this age group (Figure 5). Historically, the 10-19 year age group has had the lowest incidence rate of all age groups; this pattern remained unchanged for 2013, with a rate of 4.9 cases per 100,000 among 10-19 year olds. Incidence rates for the other age groups ranged from 8.5 to 9.7 per 100,000.



Race information was missing or unknown for 53% of reported cases. For cases with race information available, incidence in the white population (5.0 per 100,000) was more than twice the rate in the “other” race population (2.4 per 100,000), and more than three times the rate in the black population (1.5 per 100,000). During 2013, the incidence rate among males was higher than among females (9.8 and 7.5 per 100,000, respectively), consistent with observations from previous years.

By region, the highest incidence of campylobacteriosis occurred in the northern region (10.6 per 100,000), followed by the northwest region (9.2 per 100,000). Rates were similar in the central and southwest regions (8.4 and 8.0 per 100,000, respectively). The lowest rate occurred in the eastern region (6.5 per 100,000). The northern region experienced a slight increase in incidence compared to 2012 (3%), while rates in the other regions decreased. Although the incidence of campylobacteriosis varies widely by locality, localities with the highest incidence rates tend to cluster together (see map below).

While cases occurred throughout the year, disease onset was reported most frequently during the warmer months (Figure 6). A single outbreak of *Campylobacter* was reported during 2013. The outbreak resulted in 14 cases of campylobacteriosis and occurred among patrons of a restaurant in the northern region. Among Virginia residents, one death attributable to campylobacteriosis was reported in 2013. The death occurred in an adult female from the northern region.



# Campylobacteriosis Incidence Rate by Locality Virginia, 2013

