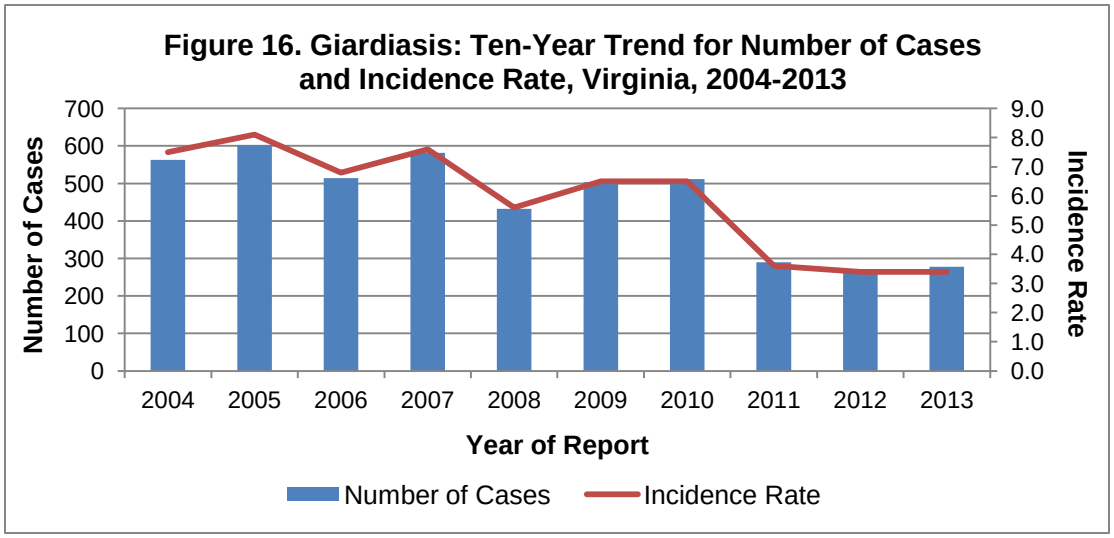
Giardiasis

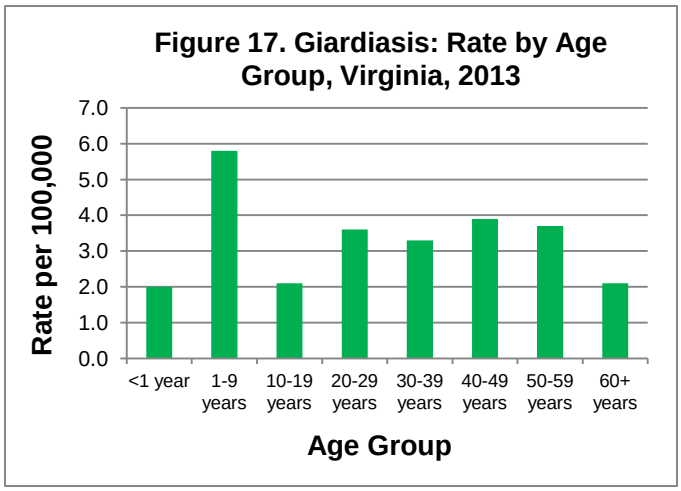
Agent: *Giardia intestinalis* (parasite)
Mode of Transmission: Person-to-person transmission by hand-to-mouth transfer of cysts from the feces of an infected person. Localized outbreaks are more often due to ingestion of cysts in fecally-contaminated drinking and recreational water (e.g., lakes, rivers, springs, ponds, and streams) than from fecally-contaminated food.
Signs/Symptoms: Symptoms may include diarrhea, abdominal pain, bloating, nausea and vomiting. A person may be asymptomatic or develop chronic illness.
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. Recreational water or untreated water from shallow wells, lakes, rivers, springs, ponds or streams should not be consumed. Persons with diarrhea should not swim at recreational water venues.

Giardiasis: 2013 Data Summary	
Number of Cases:	278
5-Year Average Number of Cases:	401.8
% Change from 5-Year Average:	-31%
Incidence Rate per 100,000:	3.4

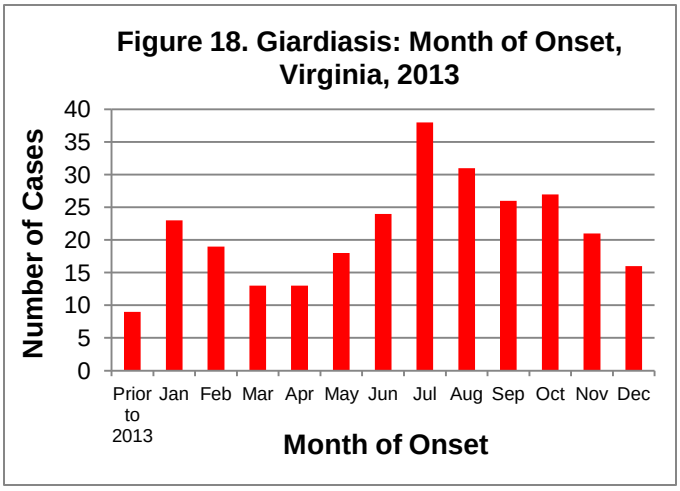
During 2013, 278 cases of giardiasis were reported in Virginia. This is very similar to the 272 cases reported in 2012 but much lower than the 5-year average of 401.8 cases per year. When examining giardiasis cases over a ten year period (Figure 16), it is evident that the 2011-2013 disease pattern is very different from that seen in 2004-2010. The lower average annual number of cases for 2011-2013 can be attributed to a change in the surveillance case definition. Prior to 2011, surveillance case counts included anyone with a positive laboratory result for *Giardia*. Beginning in 2011, documentation of clinically compatible illness was required in addition to a positive laboratory result for a case to be counted for public health surveillance purposes.



The 1-9 year age group had a much higher incidence rate for giardiasis than any other age group (5.8 per 100,000). The incidence rate in the other age groups ranged from 2.0 to 3.9 per 100,000 (Figure 17). Race was not reported for 58% of giardiasis cases in 2013. Among those cases with information on race, the rate was higher in the "other" race group (2.1 per 100,000) than in the white population (1.4 per 100,000) or the black population (1.1 per 100,000). A higher rate was seen among males (4.5 per 100,000) than females (2.3 per 100,000).



With 129 cases, the northern region experienced the largest proportion of cases and highest incidence rate (5.5 per 100,000). Rates in the other regions ranged from 1.7 to 3.6 per 100,000. The map of incidence rates by locality, presented below, illustrates that the western localities in Virginia were more affected by this disease than the eastern localities, which reflects an ongoing pattern for this condition. Cases occurred throughout the year, with higher rates in the warmer months (Figure 18).



While the source of exposure for sporadic cases cannot usually be determined, 109 (39%) of the persons reported with giardiasis in 2013 had traveled prior to illness onset, 102 (37%) reported contact with an animal, 59 (21%) had recreational water exposure, 40 (14%) knew of similarly ill persons, and 18 (6%) had consumed untreated water. One outbreak of giardiasis was reported in 2013. It involved four residents from the central region whose illness was associated with water exposures at an out-of-state summer camp.

Giardiasis Incidence Rate by Locality
Virginia, 2013