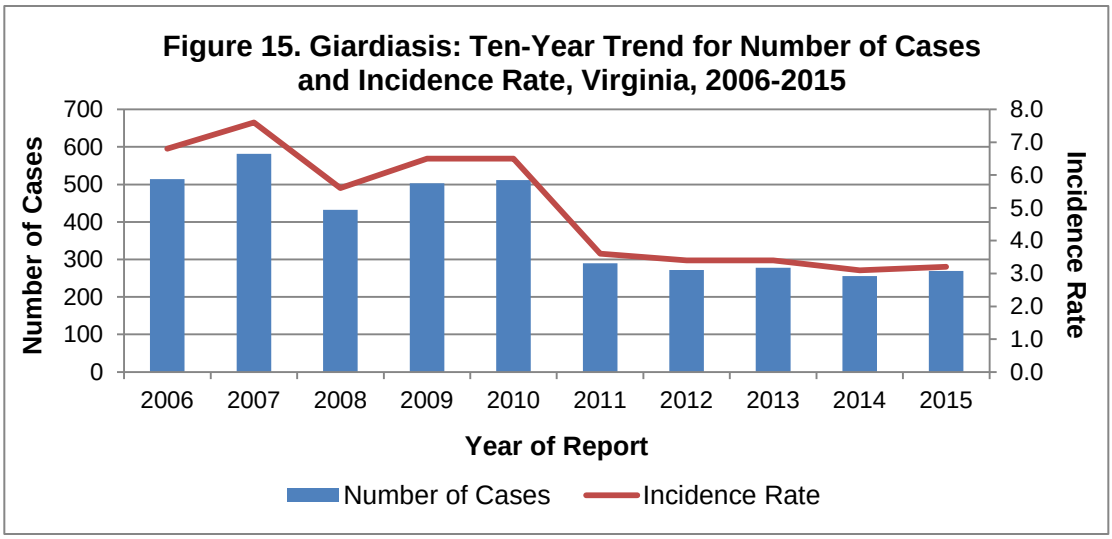
Giardiasis

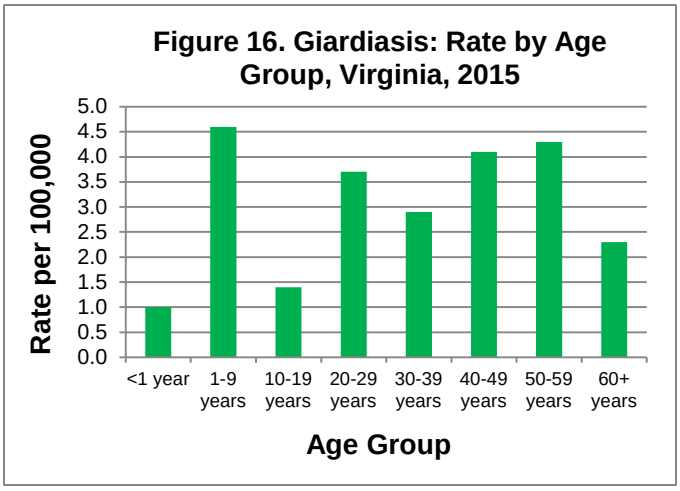
Agent: *Giardia intestinalis* (parasite)
Mode of Transmission: Person-to-person transmission by hand-to-mouth transfer of cysts from the feces of an infected person. Localized outbreaks are more often due to ingestion of cysts in fecally-contaminated drinking and recreational water (e.g., lakes, rivers, 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: 2015 Data Summary	
Number of Cases:	269
5-Year Average Number of Cases:	321.6
% Change from 5-Year Average:	-16%
Incidence Rate per 100,000:	3.2

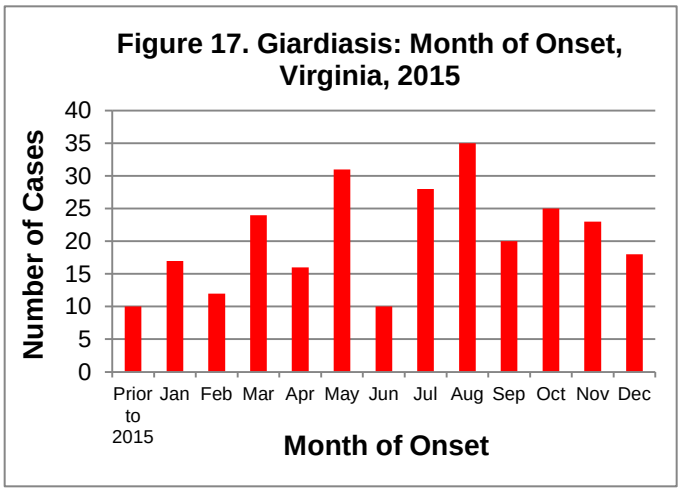
In 2015, 269 cases of giardiasis were reported in Virginia. This represents a 5% increase from the 256 cases reported in 2014, and a 16% decrease from the previous 5-year average of 321.6 cases per year. Including 2015 data, the number of giardiasis cases in Virginia has been fairly stable for the last five years, averaging 273 cases per year. When compared to the 5-year span from 2006 to 2010, this is 46% lower than the average of 509 cases per year reported from that time span (Figure 15). The lower number of reported cases from 2011-2015 can be attributed to a change in the national surveillance case definition. Prior to 2011, only a positive laboratory result for *Giardia* was required for inclusion in case counts. Beginning in 2011, documentation of clinically compatible illness was required in addition to a positive laboratory result to be considered a case for surveillance purposes.

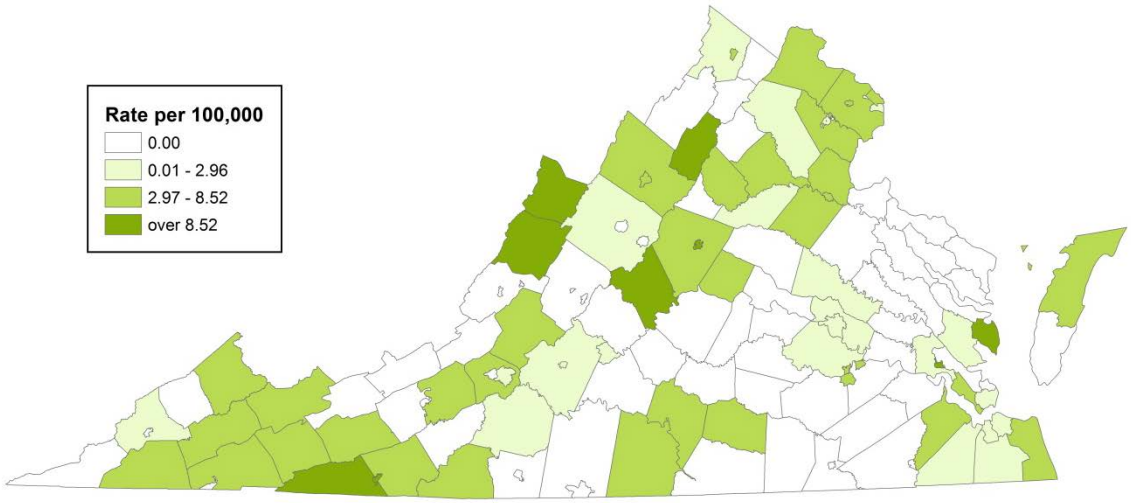


By age, the highest incidence rate (4.6 per 100,000) occurred in the 1-9 year age group, closely followed by a rate of 4.3 per 100,000 in persons aged 50-59 years and 4.1 in those aged 40-49 years (Figure 16). Race was not reported for 48% of giardiasis cases in 2015. Among cases with a known race, little difference was seen in the incidence rates for the various race groups (1.8 per 100,000 in the white population, 1.7 in the "other" race population, and 1.3 in the black population). A much higher incidence rate was seen among males (4.6 per 100,000) than females (1.9 per 100,000).



As in 2014, the northern region experienced the largest number of cases (116 cases) and the highest incidence rate (4.8 per 100,000), followed by a rate of 3.8 per 100,000 in the northwest region. The rate was the lowest (1.6 per 100,000) in the central region. Rates by locality can be seen in the map below. Cases occurred throughout the year, with a higher proportion (31%) of cases reported during the warmer months of the third quarter (Figure 17). During the third quarter, 88 cases were reported compared to 53-66 cases in each of the other quarters of the year.



While the source of exposure for sporadic cases cannot usually be determined, 94 (35%) of the persons with giardiasis in 2015 reported travel prior to illness onset, 90 (33%) reported contact with an animal, 62 (23%) reported recreational water exposure, 35 (13%) knew of similarly ill persons, and 31 (12%) reported consuming untreated water.

Giardiasis Incidence Rate by Locality
Virginia, 2015