

## **Giardiasis**

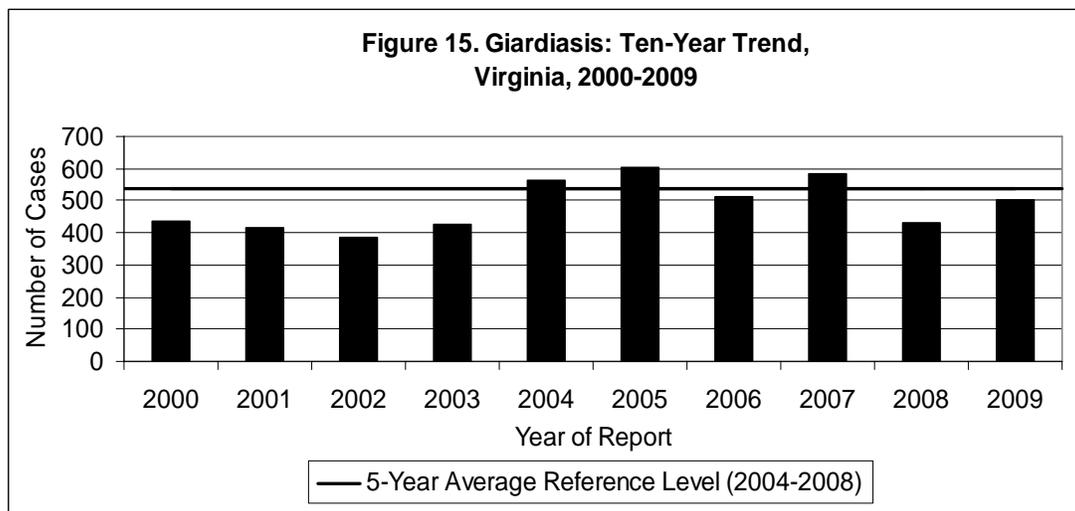
Agent: *Giardia lamblia* (parasite)

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.

During 2009, 503 cases of giardiasis were reported in Virginia. This is a 16% increase from the 432 cases reported in 2008, but is 6% lower than the five-year average of 538.6 cases per year (Figure 15). An investigation conducted by VDH in 2007 indicated that the increase in cases observed during 2004 through 2007 was at least partly attributed to infections identified through screening of refugees who had recently arrived in the United States. Among the cases reported in 2009, 34% were documented as being acquired outside the country.



In 2009, 28% of cases occurred in the 1-9 year age group, and most of these (over 60%) occurred in pre-school aged children. The incidence rate in the 1-9 year age group (15.4 cases per 100,000) was more than twice the rate in any other age group (3.5 to 6.1 per 100,000) a (Figure 16). This elevated incidence of giardiasis in the 1-9 year age group is a consistent pattern in Virginia and is observed nationally. Of the 146 reported cases of giardiasis in children less than ten years of age, 104 (71%) were refugees or listed as having acquired the disease outside the country. Race was not reported for 62% of the cases, but among those with a reported race, rates were higher in the “other” populations

(7.1 per 100,000) than among the black or white populations (2.3 and 2.1 per 100,000, respectively). A higher rate was seen in the male population (7.5 per 100,000) than in the female population (5.3 per 100,000).

By region, the highest incidence rates were seen in the northern and northwest regions (8.5 and 8.1 per 100,000, respectively). Rates in the other regions ranged from 4.0 to 6.4 per 100,000. Illness onset peaked during July through October, with 43% of cases occurring during these four months (Figure 17).

