Cyclosporiasis

Cyclosporiasis is a Class B Disease and must be reported to the state within one business day.

Cyclospora cayetanensis is a microscopic unicellular protozoan previously referred to as a cyanobacteria-like or coccidia-like body (CLB). It is the causative agent of cyclosporiasis, a parasitic infection causing watery diarrhea or other symptoms, such as weight loss, stomach cramps, gastrointestinal pain, bloating, and flatulence. Vomiting, headache, and fever may also be present. The incubation period is typically about one week following ingestion of the parasite. While symptoms may resolve without treatment, relapses are common if the infection is not appropriately managed. Asymptomatic infections can also occur.

Cyclospora is found worldwide and is endemic in parts of the Caribbean, Central and South America, South and Southeast Asia, the Middle East, and Africa. Travelers to these regions are at higher risk of infection, although cases can and do occur in the United States and other countries. Infection occurs when *sporulated oocysts* are ingested, most commonly through contaminated food or water. Outbreaks are typically linked to the consumption of food or water contaminated with feces. Because the oocysts require several days to weeks in the environment to become infectious, person-to-person transmission is unlikely. In countries with temperate climates, most cases tend to occur during the spring and summer months.

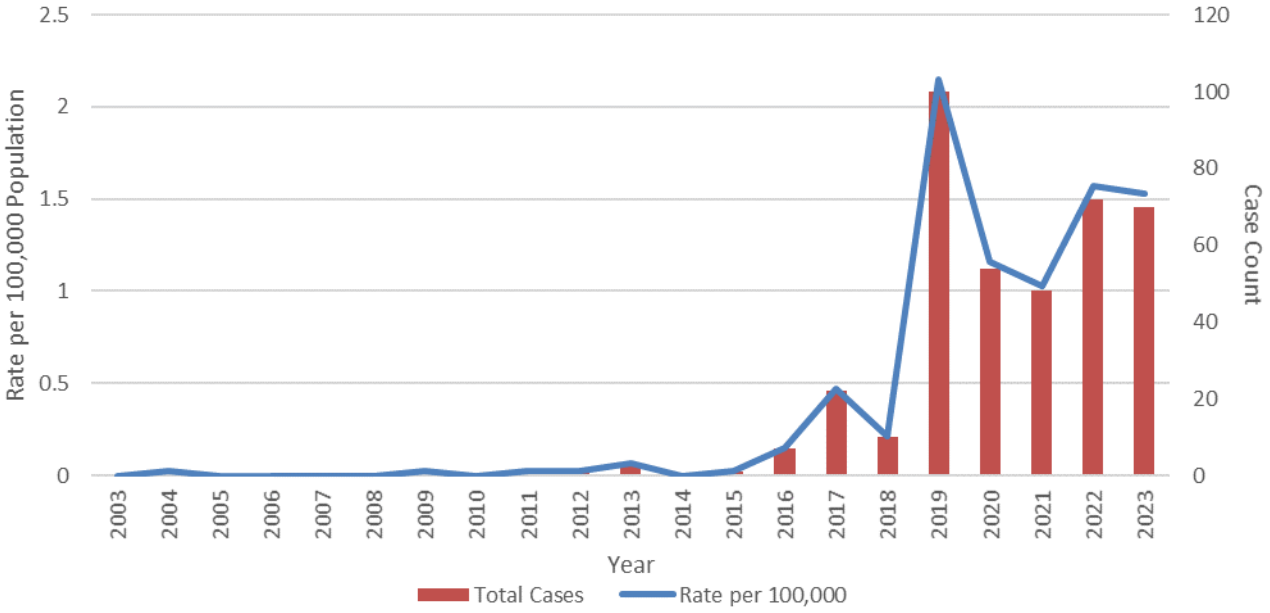
Prevention involves avoiding food and water that may have been contaminated with feces. Travelers should be aware that that treatment of water or food by routine chemical disinfection methods in unlikely to kill *Cyclospora*.

The first human cases in the U.S. were reported in 1979. Due to increased awareness of the organism and improved laboratory diagnosis, the number of reported cases increased dramatically in the 1980s. Several outbreaks within the past decade originating from contaminated raspberries, mesclun lettuce, and basil, have contributed to public concern.

Incidence Rate and Cases of Cylclosporiasis

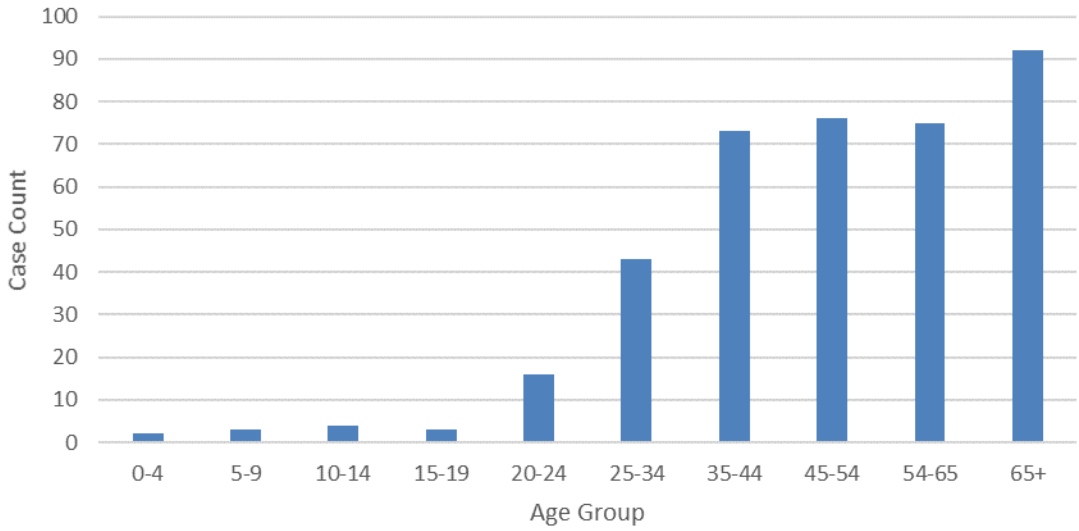
Beginning in 2017, the number of cases have dramatically increased from previous years. This increase is attributed to a changed in laboratory technology. In recent years, there has been an increase in panel tests for gastrointestinal illnesses, so individuals are being diagnosed far more frequently than in the past. Over the last 20 years, there have been 1 to 101 cases reported annually, with 73 cases being reported in 2023. (Figure 1). The annual incidence rates in Louisiana range from .02 to 2.17 cases per 100,000 population.

Figure 1: Cyclosporiasis Incidence Rates and Cases - Louisiana, 2003-2023



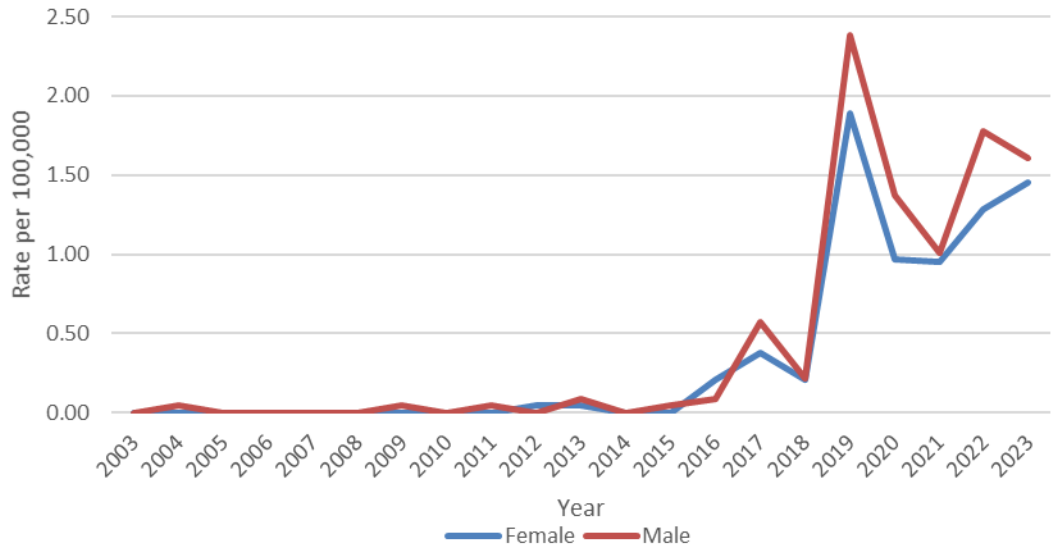
Cyclosporiasis incidence in Louisiana increases with age, with the highest case counts reported among individuals ages 65 and older (Figure 2).

Figure 2: Cyclosporiasis 10 Year Incidence Rates by Age Group - Louisiana, 2012-2023



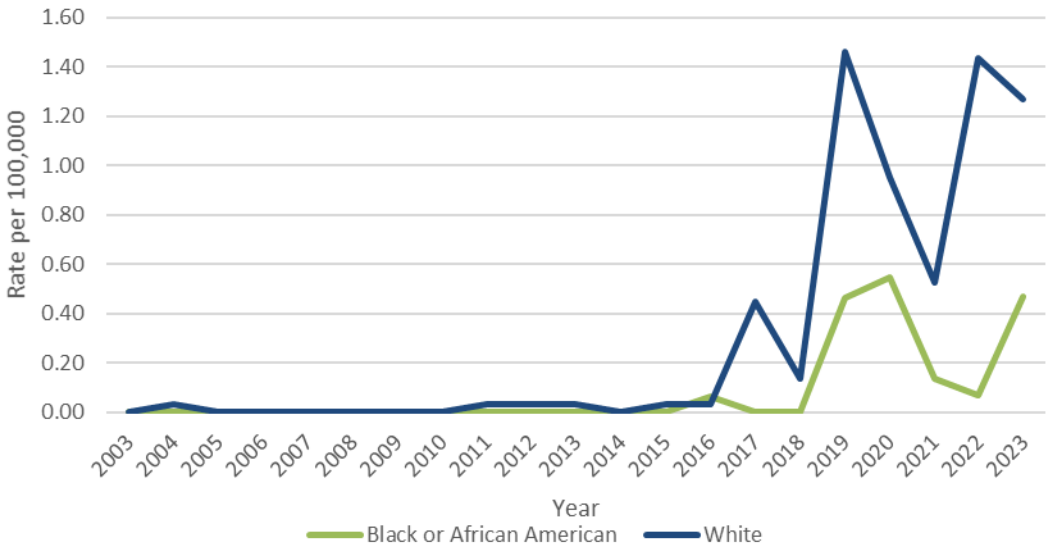
Historically, females and males have exhibited similar trends in case rates over time. However, in 2023, there seems to be an upward trend in cases among females compared to males (Figure 3).

Figure 3: Cyclosporiasis Incidence Rates by Sex - Louisiana, 2003-2023



Nationally, incidence rates are higher in individuals who identify as White compared to those who identify as Black or African American; Louisiana shows the same racial distribution (Figure 4).

Figure 4: Cyclosporiasis Incidence Rates by Race - Louisiana, 2003-2023



In the U.S., a seasonal peak in case reports occurs during the summer months. Common exposures among domestically acquired cases include fresh produce, including basil, cilantro, mesclun lettuce, raspberries, and snow peas. Additionally, international travel remains a common exposure.

Figure 5: Cyclosporiasis Cases by Month - Louisiana, 1990-2023