Campylobacter

Campylobacteriosis is a Class C Disease. It must be reported to the state within five business days.

Campylobacter is the most common bacterial cause of diarrheal illness in the United States. It is caused by the bacteria *Campylobacter jejuni* and less commonly, *C. coli.*

Epidemiology

The most common reservoirs for *Campylobacter* are poultry and cattle, with more than half of the raw chicken in the U.S. market containing the bacteria. Water or milk may be a source for sporadic cases or outbreaks. Most cases of campylobacteriosis are associated with handling of raw poultry or eating raw or undercooked poultry meat. A main source of cross-contamination of raw or lightly cooked foods is the use of cutting boards that have not been cleaned thoroughly after cutting poultry or meat.

Other animals (puppies, kittens, other pets, swine, sheep, rodents and birds) can also be infected. Some people acquire their infections from contact with the infected stool of an ill dog or cat. It is estimated that approximately 5% of human cases originate from contact with pets, particularly dogs and cats. In a 1985-published survey carried out in Baton Rouge, Louisiana, the prevalence of *Campylobacter* among cats was estimated at 1%.

The organism is not usually spread from person-to-person, but person-to-person contact can result in illness if the infected person is a small child, or is producing a large volume of diarrhea. Although many cases of *Campylobacter* infection are asymptomatic, symptoms can include diarrhea, abdominal pain, malaise, fever, nausea and vomiting.

Campylobacteriosis is estimated to affect over 1.5 million persons every year, with most cases going undiagnosed or unreported. In 2017, there were approximately 20 cases for each 100,000 persons in the U.S. population reported to the Centers for Disease Control and Prevention (CDC). In Louisiana, the reported incidence is about 17 cases per 100,000 persons. Virtually all cases occur as isolated, sporadic events, rather than as a part of outbreaks. Although campylobacteriosis does not commonly cause death, it has been estimated that approximately 76 persons with *Campylobacter* infections die each year.

Incidence

Reporting of *Campylobacter* began in Louisiana in 1988. The year with the highest number of reported cases was 2019 (Figures 1 and 2). The recent steep rise in cases is largely due to the increased availability of culture independent diagnostic tests (CIDTs). These new tests allow for easier and more frequent testing, increasing the number of detected cases. However, since these tests are not as reliable as culture tests, the cases are classified as “probable” when they are performed without a confirmatory test. It is likely that the number of detected cases will continue to rise in the coming years as these CIDTs are more frequently used.

Figure 1: Campylobacter Incidence Rates - Louisiana, 1990-2021

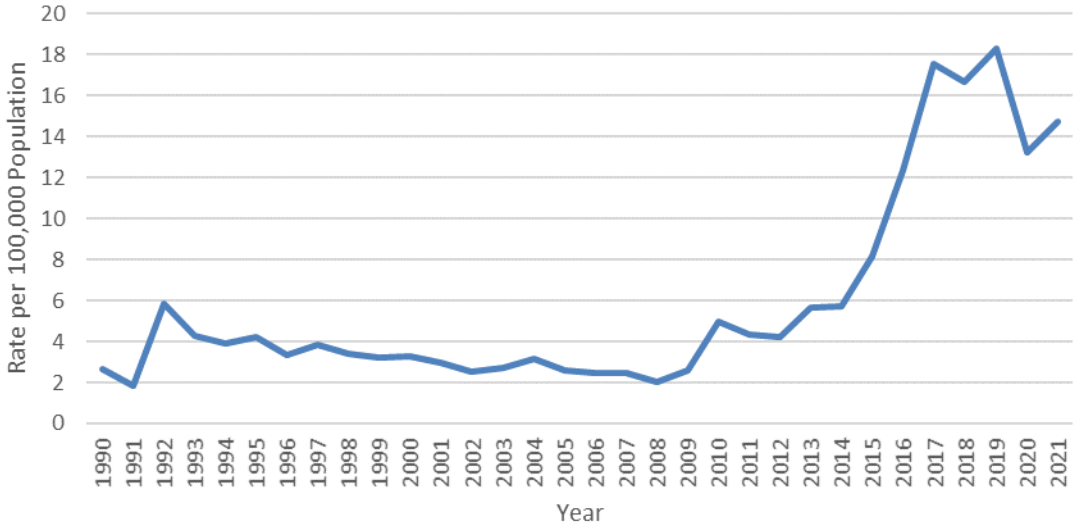
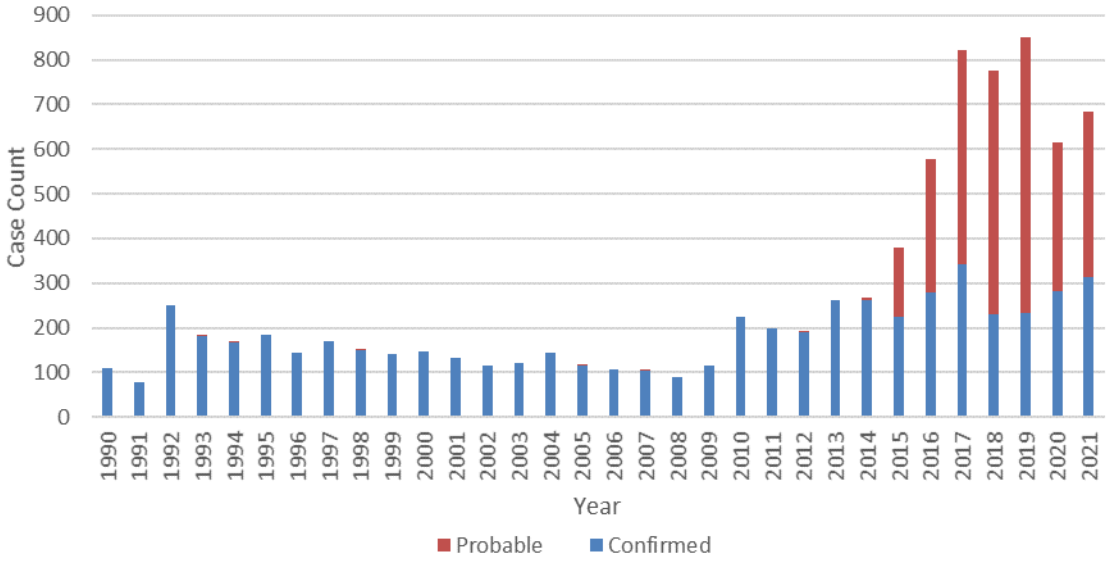
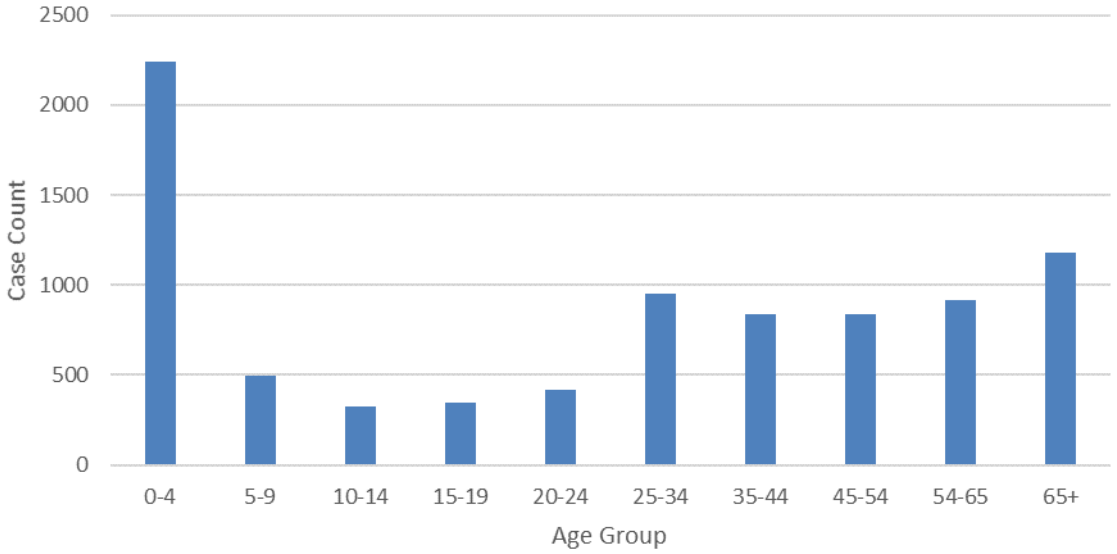


Figure 2: Campylobacter Cases: Confirmed and Probable – Louisiana, 1990-2021



The age group distribution is similar to that of most enteric diseases, with the highest rates in infants and young children (Figure 3).

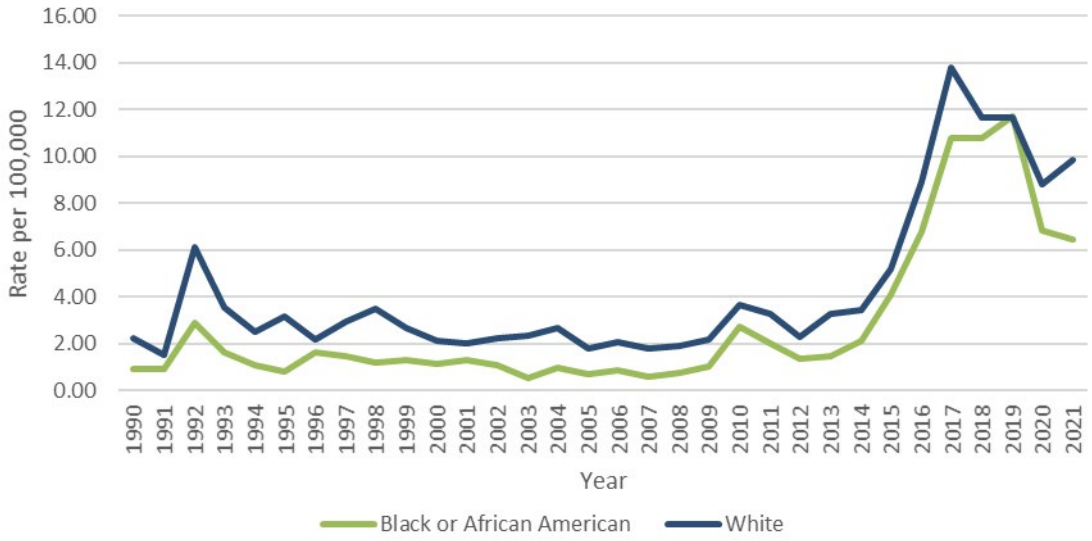
Figure 3: Campylobacter incidence rates by age - Louisiana, 1990-2021



The highest rates are observed among infants, an age group that is not thought of as routinely being exposed to poultry meat. These cases result from cross-contamination when infants are fed. High infant rates are partially attributable to reporting bias, i.e., infants with diarrhea are more likely to be brought to medical care and more likely to have stool cultures done than older children or adults. A slight increase in rates is also seen among the elderly.

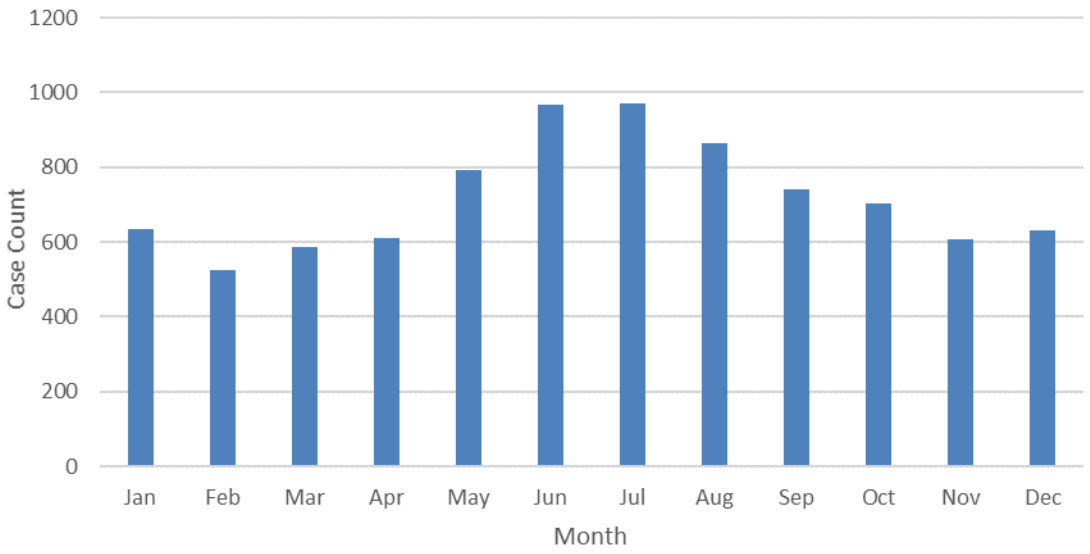
The distribution by race shows slightly higher rates among Whites than among African-Americans (Figure 4).

Figure 4: *Campylobacter* incidence rates by race - Louisiana, 1990-2021



Campylobacter has a clear seasonal distribution, with an increased number of cases reported during the summer months (Figure 5).

Figure 5: *Campylobacter* average annual cases by seasonal distribution - Louisiana, 1990-2021



The geographical distribution of *Campylobacter* in Louisiana reflects the reporting of *Campylobacter* cases and not the true distribution of cases (Table).

Table: *Campylobacter* 10-Year Incidence Rate by Parish - Louisiana, 2012-2021

Parish	Incidence Rate 2012-2021	Parish	Incidence Rate 2012-2021
Acadia	33.54	Madison	5.34
Allen	9.58	Morehouse	13.09
Ascension	9.63	Natchitoches	8.03
Assumption	6.27	Orleans	5.93
Avoyelles	11.82	Ouachita	9.08
Beauregard	12.26	Plaquemines	2.14
Bienville	9.59	Pointe Coupee	4.57
Bossier	9.11	Rapides	14.35
Caddo	7.50	Red River	9.43
Calcasieu	16.16	Richland	20.08
Caldwell	25.21	Sabine	16.46
Cameron	4.59	Saint Bernard	2.23
Catahoula	15.44	Saint Charles	1.90
Claiborne	5.06	Saint Helena	10.42
Concordia	3.04	Saint James	2.37
De Soto	5.53	Saint John the Baptist	3.47
East Baton Rouge	9.26	Saint Landry	22.98
East Carroll	17.89	Saint Martin	28.64
East Feliciana	11.29	Saint Mary	10.33
Evangeline	16.47	Saint Tammany	6.66
Franklin	14.84	Tangipahoa	7.97
Grant	16.58	Tensas	6.55
Iberia	50.17	Terrebonne	8.69
Iberville	11.11	Union	13.09
Jackson	27.27	Vermilion	23.67
Jefferson	3.22	Vernon	7.92
Jefferson Davis	37.98	Washington	11.03
La Salle	1.26	Webster	8.44
Lafayette	83.54	West Baton Rouge	8.09
Lafourche	22.17	West Carroll	20.18
Lincoln	6.33	West Feliciana	7.13
Livingston	11.42	Winn	13.23