Leptospirosis

Leptospirosis is a Class C disease which includes diseases or conditions of significant public health concern. Class C diseases should be reported to the Office of Public Health (OPH) by the end of the workweek after the existence of a case, suspected case, or a positive laboratory result is known.

Leptospirosis is a zoonotic disease of worldwide distribution, caused by bacteria of the genus *Leptospira*. Infections result in a wide range of symptoms; however, some infected persons may have no symptoms at all. The agent is not a potential bio-weapon, but the symptoms may mimic those of hemorrhagic fevers.

The *Leptospira* bacteria are spread through the urine of infected animals, including cattle, pigs, horses, dogs, rodents and wild animals. Humans can become infected through direct contact with urine of infected animals or through contact with water, soil or food contaminated with urine of infected animals. The bacteria can survive in the environment for weeks to months. Bacteria enter the body through skin or mucous membranes, and drinking contaminated water can also cause infection. Outbreaks are usually caused by exposure to contaminated water, such as floodwaters. The infection is rarely spread person-to-person.

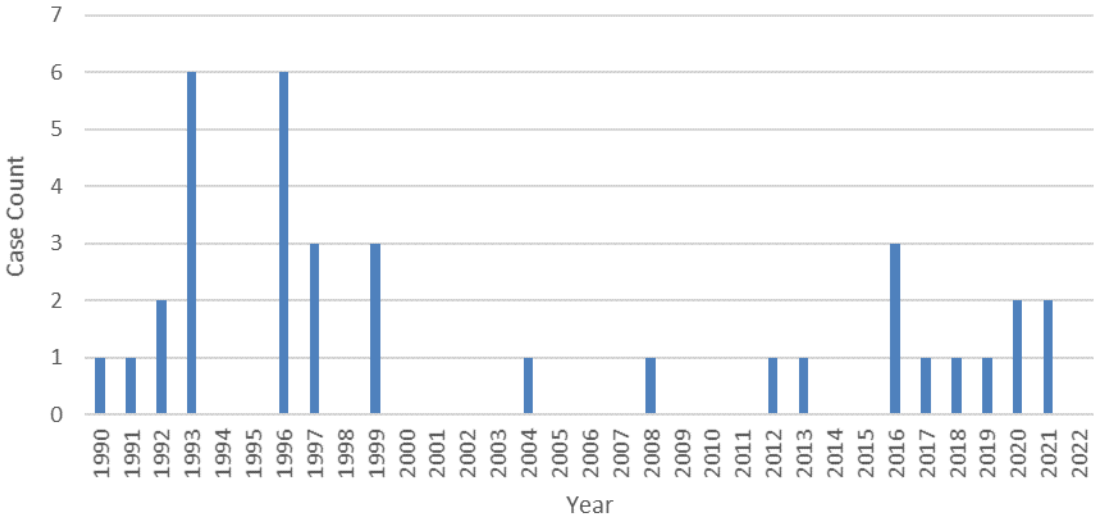
Leptospirosis is commonly seen as an occupational hazard for people who work outdoors or with animals. About 80% of feral hogs sampled in Louisiana were positive for leptospirosis, with 12% having active infections. The disease has been associated with swimming and other activities in contaminated lakes and rivers, and is therefore a recreational hazard for campers and those participating in outdoor sports, particularly in tropical or temperate climates. The incidence of infection among urban children also appears to be increasing, according to the Centers for Disease Control and Prevention (CDC).

Leptospirosis can cause a wide range of symptoms including high fever, headache, chills, muscle aches, vomiting, jaundice, red eyes, abdominal pain, diarrhea and rash. The incubation period is two days to four weeks, and illness usually begins abruptly with fever and other symptoms. The disease often occurs in two phases, with the second phase being more severe. Illness lasts from a few days to three weeks or longer and, without treatment, can lead to kidney damage, meningitis, liver failure, respiratory distress, and even death. Leptospirosis is treated with antibiotics and should be given early in the course of disease.

Prevalence

The prevalence of Leptospirosis is low with less than ten cases reported a year (Figure 1). The peaks and valleys indicate that infections are sporadic, occurring as outbreaks.

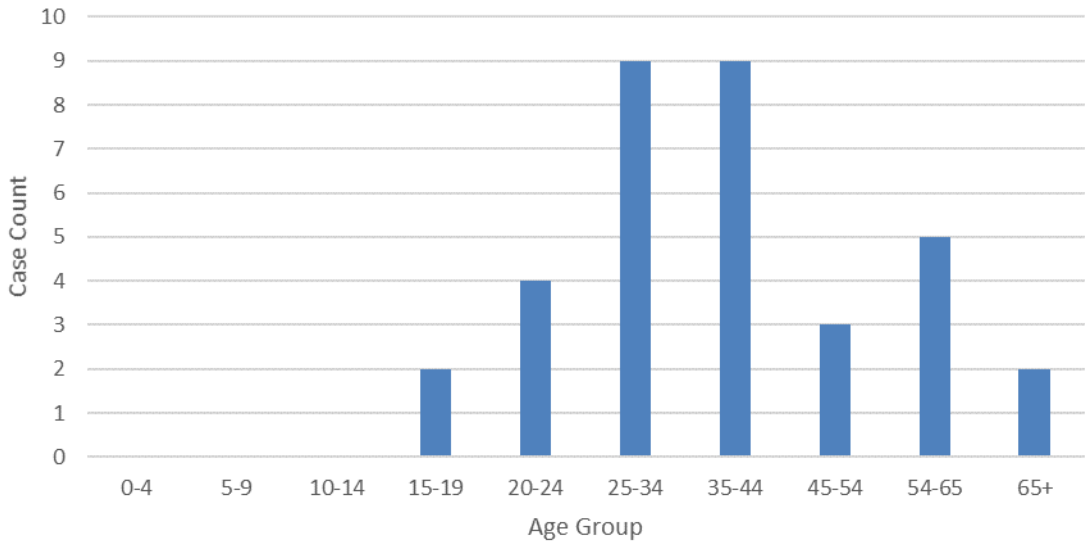
Figure 1: Leptospirosis Case Count - Louisiana, 1990 - 2022



Age Distribution

The highest number of reported Leptospirosis cases occur most often in the 25 to 44-year-old age group (Figure 2).

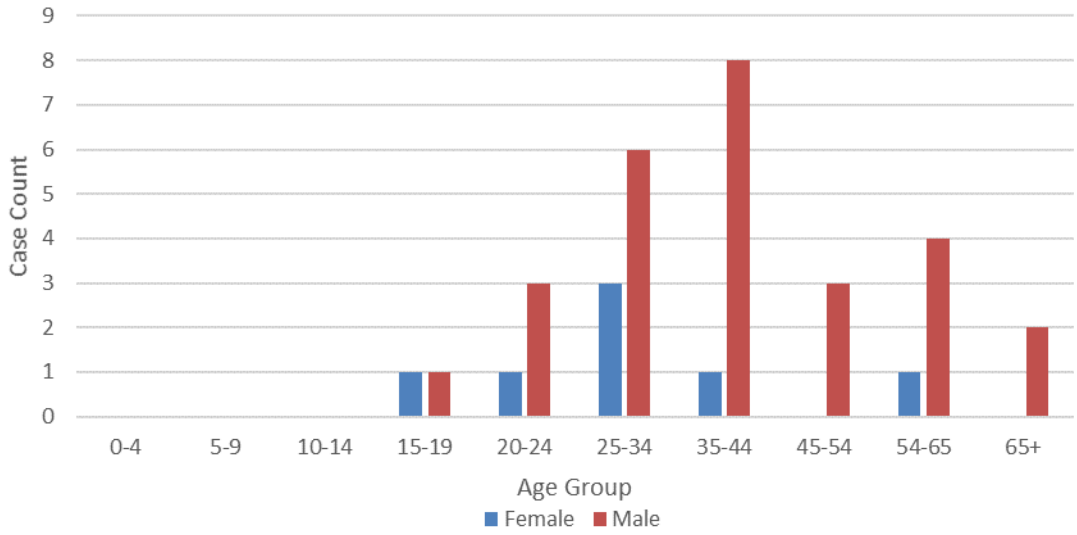
Figure 2: Leptospirosis Cases by Age Group - Louisiana, 1990-2022



Sex Distribution

The majority of leptospirosis cases in Louisiana occur among males (Figure 3).

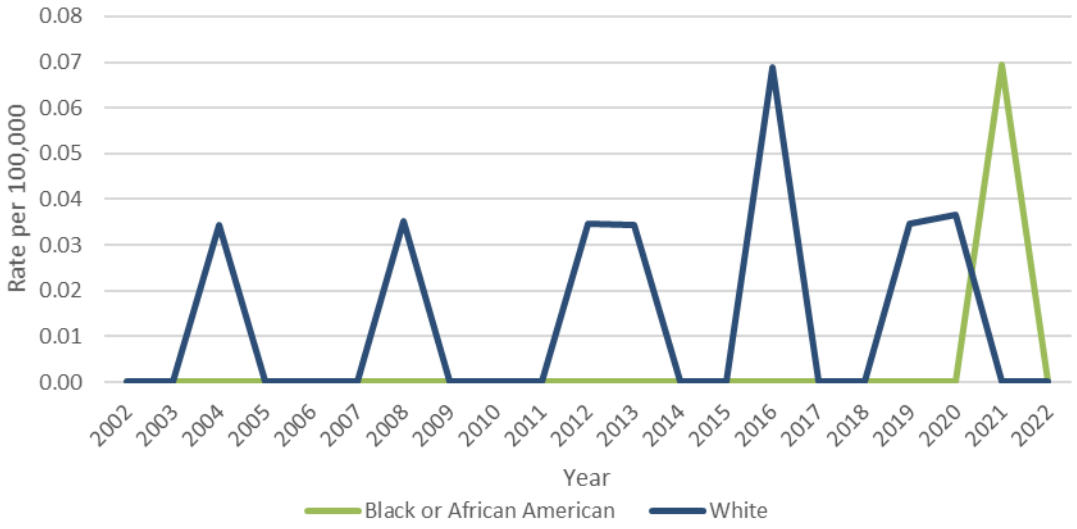
Figure 3: Leptospirosis Case Count by Sex and Age - Louisiana, 1990-2022



Racial Distribution

The majority of leptospirosis cases in Louisiana occur among Whites; however, race is not always reported (Figure 4).

Figure 4: Leptospirosis Incidence by Race, Louisiana 1990 - 2022



Geographic Distribution

The geographic distribution of leptospirosis cases in Louisiana includes both urban rural parishes (Table).

Table: Leptospirosis 10 Year Incidence Rate - Louisiana, 2013-2022

Parish	10 Year Incidence	Parish	10 Year Incidence
ACADIA	0.00	MADISON	0.00
ALLEN	0.00	MOREHOUSE	0.00
ASCENSION	0.00	NATCHITOCHES	0.00
ASSUMPTION	0.00	ORLEANS	0.16
AVOYELLES	0.00	OUACHITA	0.00
BEAUREGARD	0.00	PLAQUEMINES	0.00
BIENVILLE	0.00	POINTE COUPEE	0.00
BOSSIER	0.00	RAPIDES	0.00
CADDO	0.00	RED RIVER	0.00
CALCASIEU	0.00	RICHLAND	0.00
CALDWELL	0.00	SABINE	0.00
CAMERON	0.00	ST. BERNARD	0.00
CATAHOULA	0.00	ST. CHARLES	0.00
CLAIBORNE	0.00	ST. HELENA	0.00
CONCORDIA	0.00	ST. JAMES	0.00
DESOTO	0.00	ST. JOHN	0.00
EAST BATON	0.02	ST. LANDRY	0.00
EAST CARROLL	0.00	ST. MARTIN	0.00
EAST FELICIANA	0.00	ST. MARY	0.19
EVANGELINE	0.00	ST. TAMMANY	0.00
FRANKLIN	0.00	TANGIPAHOA	0.08
GRANT	0.00	TENSAS	0.00
IBERIA	0.00	TERREBONNE	0.00
IBERVILLE	0.00	UNION	0.00
JACKSON	0.00	VERMILION	0.00
JEFFERSON	0.00	VERNON	0.00
JEFF. DAVIS	0.00	WASHINGTON	0.00
LA SALLE	0.00	WEBSTER	0.00
LAFAYETTE	0.00	WEST BATON	0.00
LAFOURCHE	0.67	WEST CARROLL	0.00
LINCOLN	0.00	WEST FELICIANA	0.00
LIVINGSTON	0.07	WINN	0.00

Seasonality

No seasonal distribution of Leptospirosis infections is present in Louisiana, with infections occurring year round (Figure 5).

Figure 5: Leptospirosis Cases by Month, Louisiana 1990 – 2022