

Streptococcal Invasive Disease, Group A

Invasive Disease caused by Streptococcus Group A is a Class C Disease and must be reported to the state within five business days.

Group A Streptococcal (GAS) infections are often identified as causing non-invasive disease such as strep throat or skin infections. However, GAS infections can also cause severe disease and even death in some individuals, especially when the infection becomes invasive. Hosts that are either young, old, or have an underlying medical condition such as diabetes or an immunocompromising disease are at greater risk of streptococcal infections becoming invasive.

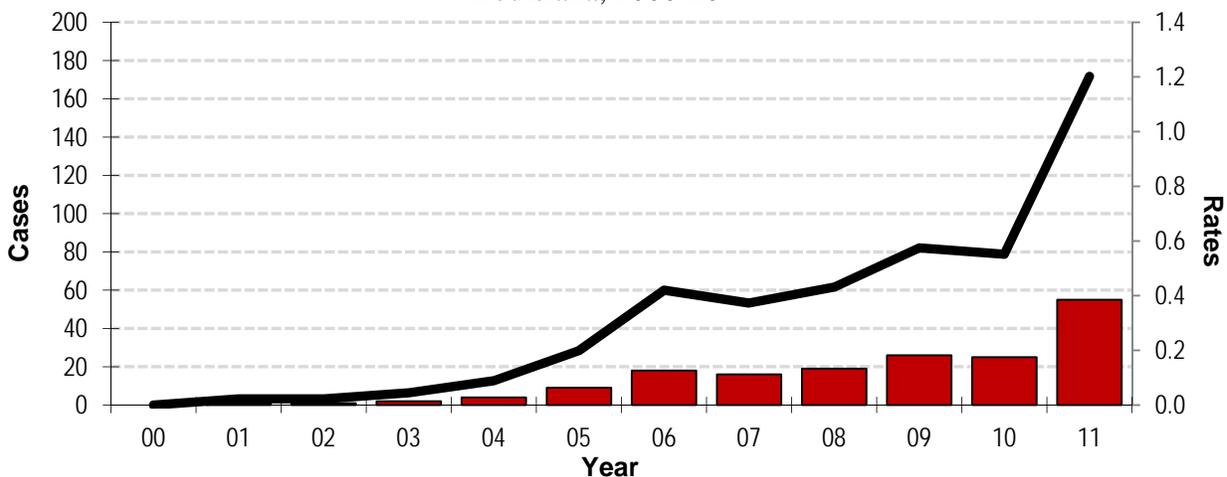
Invasive GAS infections occur when the bacteria get past the defenses of the person who is infected. This may occur when a person has sores or other breaks in the skin that allow the bacteria to get into the tissue, or when the person's ability to fight off the infection is decreased because of chronic illness, or an illness that affects the immune system. Also, some virulent strains of GAS are more likely to cause severe disease than others.

Invasive Group A streptococcal infections may manifest as any of several clinical syndromes, including pneumonia, bacteremia in association with cutaneous infection (e.g., cellulitis, erysipelas, or infection of a surgical or nonsurgical wound), deep soft-tissue infection (e.g., myositis or necrotizing fasciitis), meningitis, peritonitis, osteomyelitis, septic arthritis, postpartum sepsis (i.e., puerperal fever), neonatal sepsis and nonfocal bacteremia.

Case, Rates and Trends

Reported cases of Invasive Group A Strep have been increasing steadily since 2000 in Louisiana. However, U.S. rates have been stable for the past seven years. Despite the increases, Louisiana's reported Invasive Strep A rates have remained lower than national rates which are approximately 3.2 to 3.9 per 100,000 population. The largest yearly increase in Louisiana occurred in 2011 when the number of cases went from 25 in 2010 to 55 in 2011. The 2011 rate increased by 118%, from 0.55 per 100,000 in 2010 to 1.2 per 100,000 in 2011 (Figure 1).

Figure 1: Reported Cases and Incidence Rates of Invasive Group A Strep
Louisiana, 2000-2011



The steady rise in the number of reported invasive GAS cases is shown in the Table as well as increases in the case numbers by parish compared to the previous ten-year average.

Table: Reported Invasive Group A Strep Cases and Average Cases by Parish Louisiana, 2001-2011

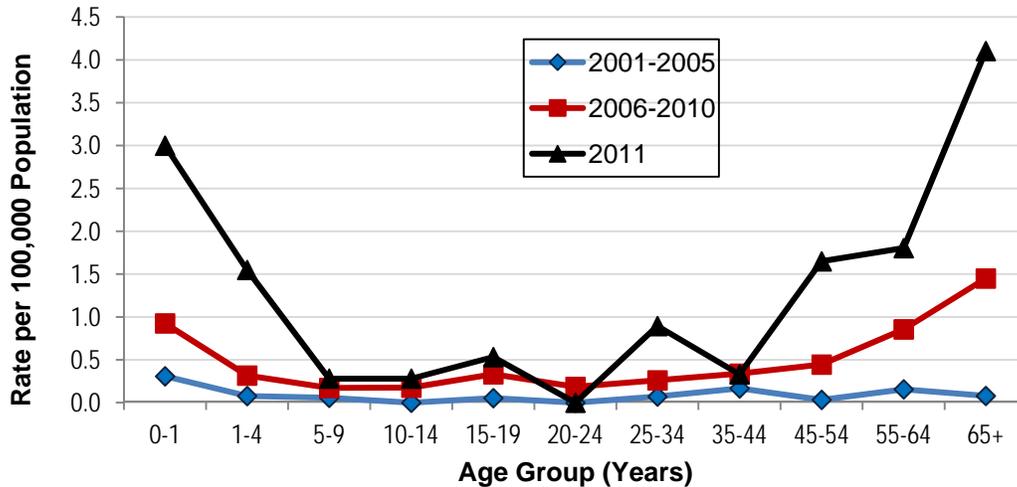
Parish	2001-2010	2011	Parish	2001-2010	2011
Acadia	0	1	Madison	0	0
Allen	0	0	Morehouse	0	0
Ascension	0	4	Natchitoches	0	0
Assumption	0	0	Orleans	1	3
Avoyelles	0	0	Ouachita	0	4
Beauregard	0	0	Plaquemines	0	0
Bienville	0	0	Pointe Coupee	0	0
Bossier	0	1	Rapides	0	0
Caddo	2	6	Red river	0	0
Calcasieu	1	0	Richland	0	0
Caldwell	0	0	Sabine	0	1
Cameron	0	0	St Bernard	0	1
Catahoula	0	0	St Charles	0	1
Claiborne	0	0	St Helena	0	0
Concordia	0	1	St James	0	0
De Soto	0	0	St John	0	0
East Baton Rouge	3	9	St Landry	0	1
East Carroll	0	0	St Martin	0	1
East Feliciana	0	0	St Mary	0	0
Evangeline	0	1	St Tammany	0	2
Franklin	0	0	Tangipahoa	0	4
Grant	0	0	Tensas	0	0
Iberia	0	0	Terrebonne	0	1
Iberville	0	0	Union	0	0
Jackson	0	1	Vermilion	0	0
Jefferson	1	7	Vernon	0	0
Jefferson Davis	0	0	Washington	0	1
LaSalle	0	0	Webster	0	0
Lafayette	0	1	West Baton Rouge	0	2
Lafourche	0	0	West Carroll	0	0
Lincoln	0	0	West Feliciana	0	0
Livingston	1	1	Winn	0	0
			Louisiana	12	55

Age Group, Sex and Race Distribution

There is no significant difference between males and females for invasive GAS infections.

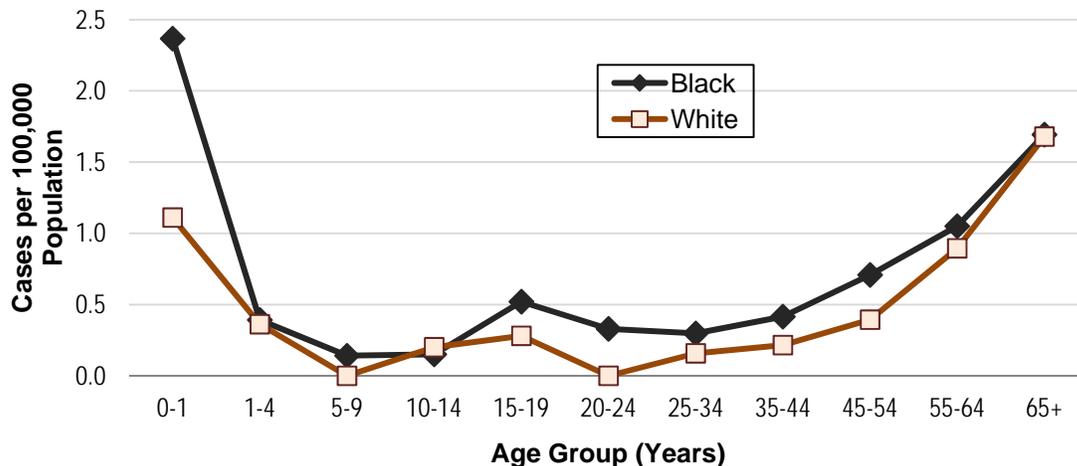
The age group distribution shows that Invasive Group A Strep in Louisiana has mostly affected infants and adults who were aged 65 years and older (Figure 2).

Figure 2: Reported Average and Annual Incidence Rates of Invasive Group A Strep by Age Group - Louisiana, 2001-2011



The distribution by race shows that five-year rates of invasive GAS infections are much higher among Black infants. Overall, Black children and adults have slightly higher rates of infection than Whites with the exception of the ten to 14-year old age group. Rates among the elderly are virtually the same for both races. Out of 141 cases, 33 were reported with unknown race and 108 were reported as Black or White (Figure 3).

Figure 3: Five-year Average Incidence Rates of Invasive Group A Strep Infection by Race and Age Group - Louisiana, 2007-2011



Seasonality

There was no significant seasonal variation among reported cases of invasive GAS infections in Louisiana.

Figure 4: Reported Invasive Strep A Cases by Month of the Year – Louisiana, 2002-2011

