

## 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 diseases such as pharyngitis or skin infections. However, some virulent strains of GAS are more likely to cause severe disease than others. GAS infections can cause severe disease and even death in some individuals, especially when the infection becomes invasive. Hosts that are young, old, or immunocompromised are at greater risk of streptococcal infections becoming invasive.

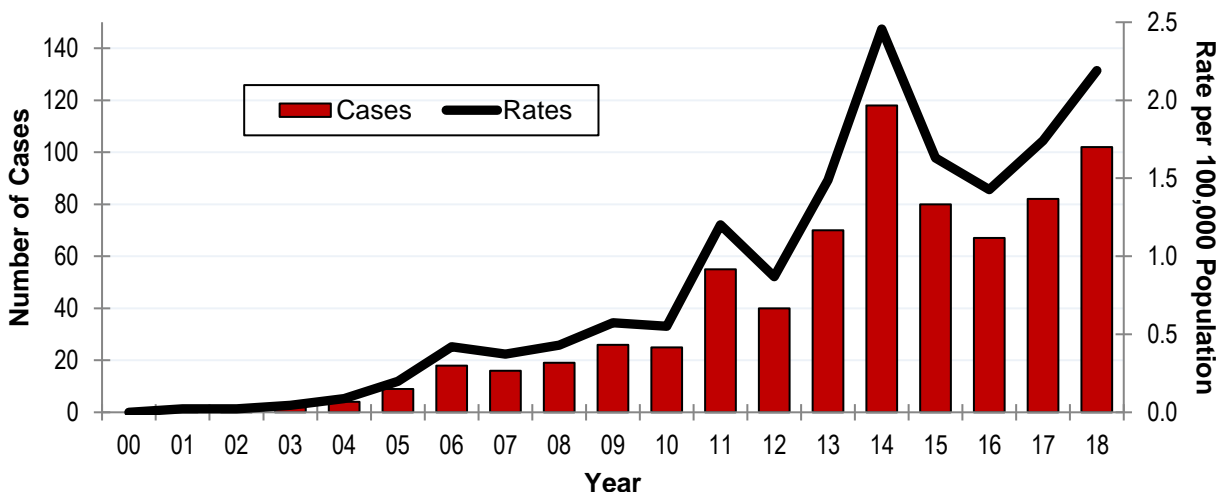
Invasive GAS infections occur when the bacteria get past the defenses of the host. This may occur when a person has sores or other breaks in the skin that allow the bacteria to get into the tissue, or when the person's ability to fight off the infection is decreased because of chronic illness or from being immunocompromised.

Invasive GAS infections may manifest as any of several clinical syndromes including pneumonia, bacteremia in association with cutaneous infection, deep soft-tissue infection (e.g. necrotizing fasciitis), meningitis, peritonitis, osteomyelitis, septic arthritis, postpartum sepsis (i.e., puerperal fever), neonatal sepsis, and non-focal bacteremia. Recently, GAS has developed drug resistance to clindamycin, tetracycline, and macrolides including erythromycin and azithromycin. Invasive GAS is estimated to cause between 1,100 and 1,600 deaths in the U. S. each year.

### Case, Rates, and Trends

Reported cases of invasive GAS infections had been increasing steadily since 2000 in Louisiana. There was an especially large increase in cases in 2014 and then a subsequent decline. Louisiana's reported invasive GAS rate has remained lower than national rate which was reported as 4.8 cases per 100,000 population in 2015 (Figure 1, Table).

**Figure 1:** Reported Cases and Incidence Rates of Invasive Group A Strep Louisiana, 2000-2018



**Table: Average Reported Invasive Group A Strep Rates by Parish  
Louisiana, 2000-2018**

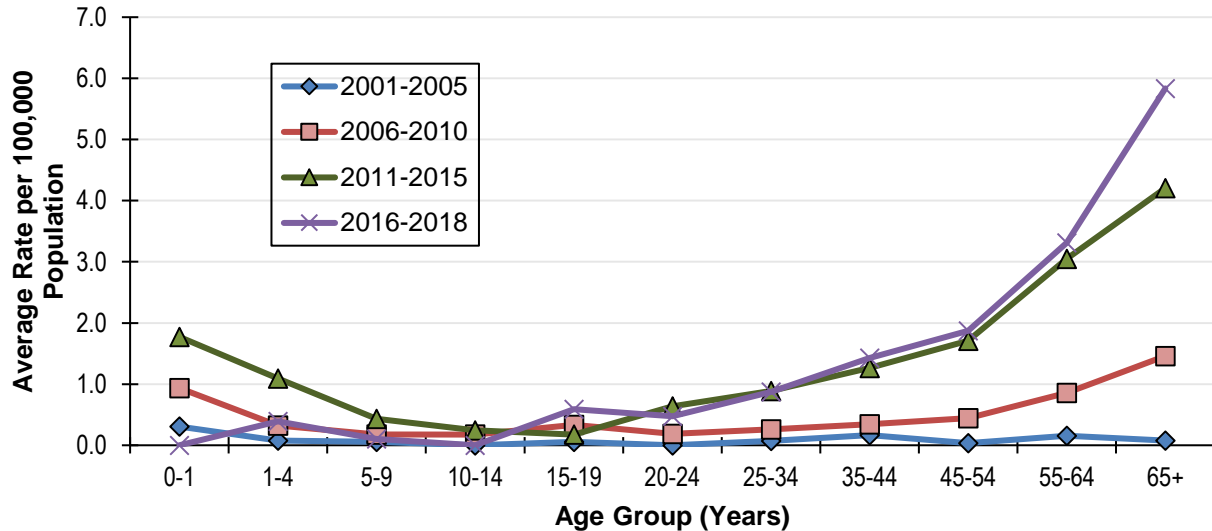
Parish	2000-2009	2010-2018	Parish	2000-2009	2010-2018
Acadia	0.00	2.13	Madison	0.00	0.88
Allen	0.00	0.87	Morehouse	0.00	0.00
Ascension	0.17	2.56	Natchitoches	0.00	0.00
Assumption	0.00	2.31	Orleans	0.14	0.94
Avoyelles	0.00	1.04	Ouachita	0.21	1.63
Beauregard	0.33	0.00	Plaquemines	0.39	0.91
Bienville	0.63	0.00	Pointe Coupee	1.33	2.36
Bossier	0.35	0.68	Rapides	0.00	2.12
Caddo	0.44	1.27	Red river	0.00	0.00
Calcasieu	0.36	0.74	Richland	0.00	1.56
Caldwell	0.00	4.27	Sabine	0.44	1.80
Cameron	0.00	0.00	St Bernard	0.15	1.26
Catahoula	0.00	0.00	St Charles	0.24	2.55
Claiborne	0.00	0.00	St Helena	0.00	0.98
Concordia	0.00	2.58	St James	0.00	0.98
De Soto	0.40	0.41	St John	0.25	0.72
East Baton Rouge	0.82	2.94	St Landry	0.12	1.04
East Carroll	0.00	0.00	St Martin	0.00	2.13
East Feliciana	0.00	2.68	St Mary	0.00	0.97
Evangeline	0.00	0.95	St Tammany	0.21	1.60
Franklin	0.00	1.53	Tangipahoa	0.12	2.56
Grant	0.00	1.51	Tensas	1.41	0.00
Iberia	0.15	0.45	Terrebonne	0.41	1.58
Iberville	0.00	1.61	Union	0.48	0.48
Jackson	0.00	3.33	Vermilion	0.00	1.53
Jefferson	0.09	1.38	Vernon	0.00	0.59
Jefferson Davis	0.00	0.34	Washington	0.23	1.39
LaSalle	0.00	1.47	Webster	0.00	0.78
Lafayette	0.00	1.64	West Baton	0.52	6.11
Lafourche	0.00	1.14	West Carroll	0.00	0.92
Lincoln	0.00	0.71	West Feliciana	0.00	2.86
Livingston	0.71	2.14	Winn	0.00	0.69

### Age Group, Sex and Race Distribution

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

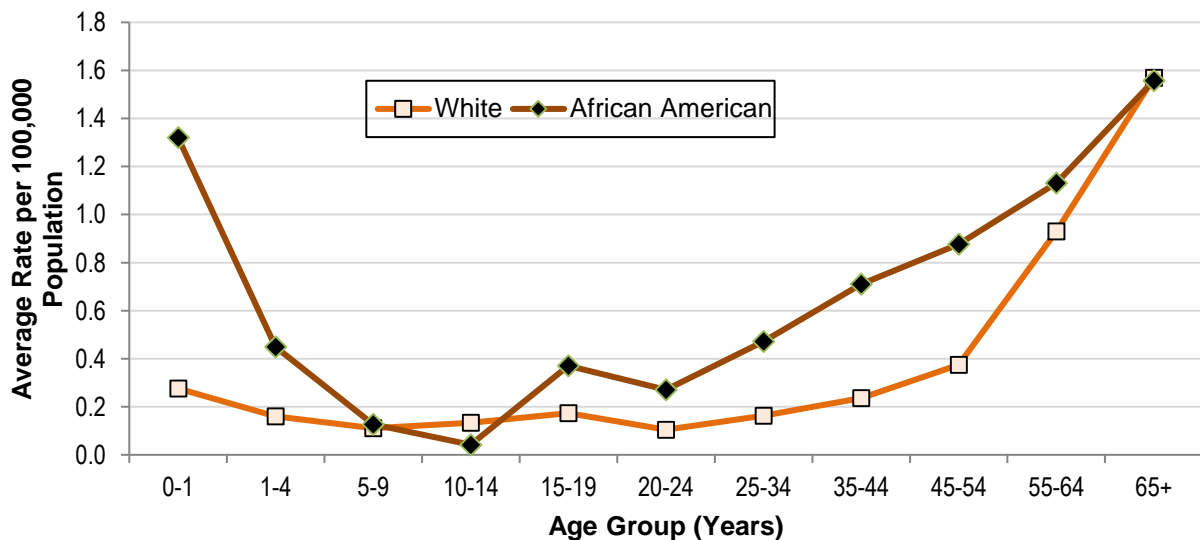
The age group distribution shows that invasive GAS in Louisiana has mostly affected infants and adults aged 65 years and older (Figure 2).

**Figure 2:** Reported Average Annual Incidence Rates of Invasive Group A Strep by Age Group Louisiana, 2001-2018



The distribution by race shows that the rate of invasive GAS infections in children younger than five years of age is much higher among African-American children. Overall, African-American children and adults have slightly higher rates of infection than Whites with the exception of the 10 to 14-year old age group and adults aged 65 years and older. Out of 735 cases since 2000, 42% were reported with unknown/other race, 24% were reported as Black, 34% were reported as White (Figure 3).

**Figure 3:** Average Incidence Rates of Invasive Group A Strep Infection by Race and Age Group - Louisiana, 2000-2018



There was no significant seasonal variation among reported cases of invasive GAS infections in Louisiana (Figure 4).

**Figure 4:** Average Reported Invasive Strep A Cases by Month of the Year Louisiana, 2000-2018

