

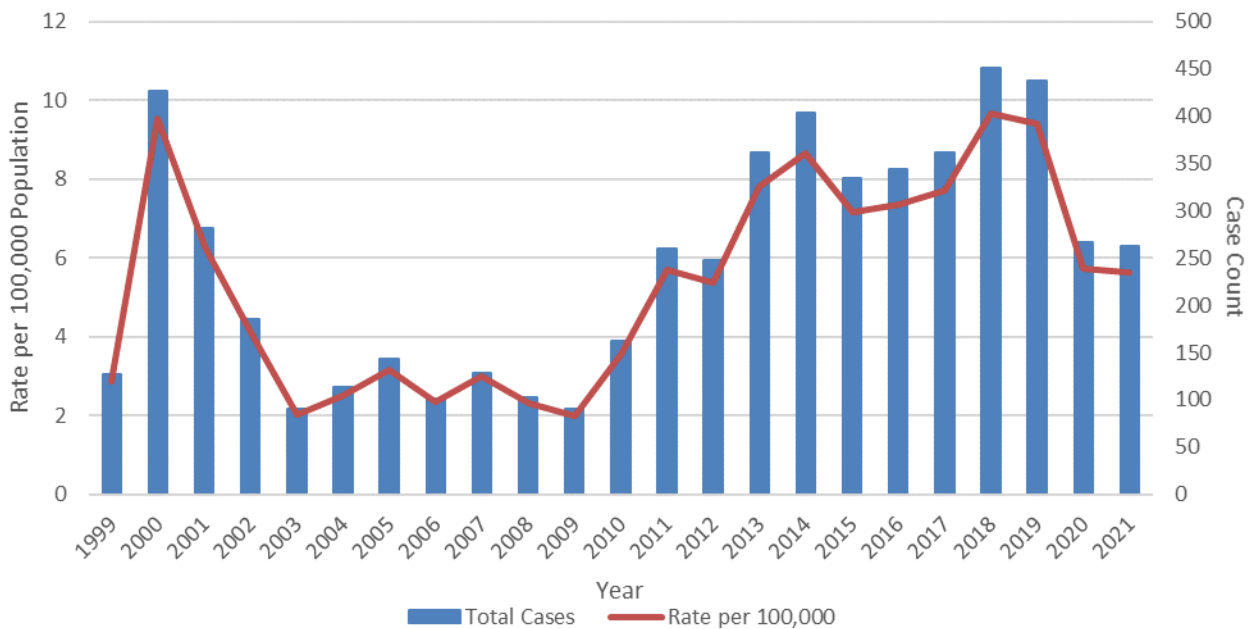
Invasive Pneumococcal Disease

Streptococcus pneumoniae invasive disease is a Class C Disease and must be reported to the Office of Public Health within 5 business days.

Incidence

Invasive pneumococcal disease (IPD) is caused by a gram-positive bacteria called *Streptococcus pneumoniae*. Pneumococci are common inhabitants of the respiratory track of healthy people, especially children. Although carriage does not necessarily lead to disease, it is an important precursor for IPD. There are more than 100 known serotypes of *S. pneumoniae*, but only a minority of serotypes produce the majority of pneumococcal infections. The most serious clinical syndromes of pneumococcal disease are pneumonia, bacteremia, and meningitis.

Figure 1: Incidence of Invasive Pneumococcal Disease
Louisiana, 1999-2021



Vaccine

Two kinds of vaccines are approved for use in the United States that help protect against pneumococcal disease: pneumococcal conjugate vaccines and pneumococcal polysaccharide vaccine. These vaccines protect against many, but not all serotypes of *S. pneumoniae*.

Vaccination is recommended for all children under 2 years old, adults 65 years or older, and older children and adults who are at increased risk for pneumococcal disease. Conditions and other factors that increase the risk for invasive pneumococcal disease include: alcoholism, cerebrospinal fluid leak, chronic heart, lung, liver, or renal disease, cigarette smoking, cochlear implant, decreased immune function from disease or medications, diabetes, and functional or anatomic asplenia, including sickle cell disease.

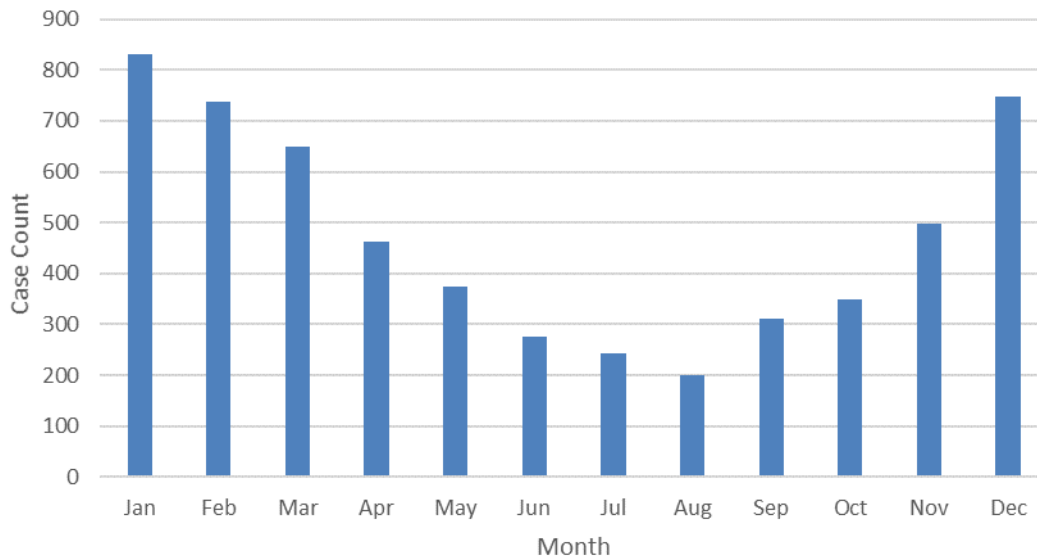
Current pneumococcal vaccine recommendations can be found here:

<https://www.cdc.gov/vaccines/vpd/pneumo/hcp/recommendations.html>.

Seasonality

Pneumococcal infections are more common during the winter and in early spring when other respiratory diseases, such as influenza, are more prevalent.

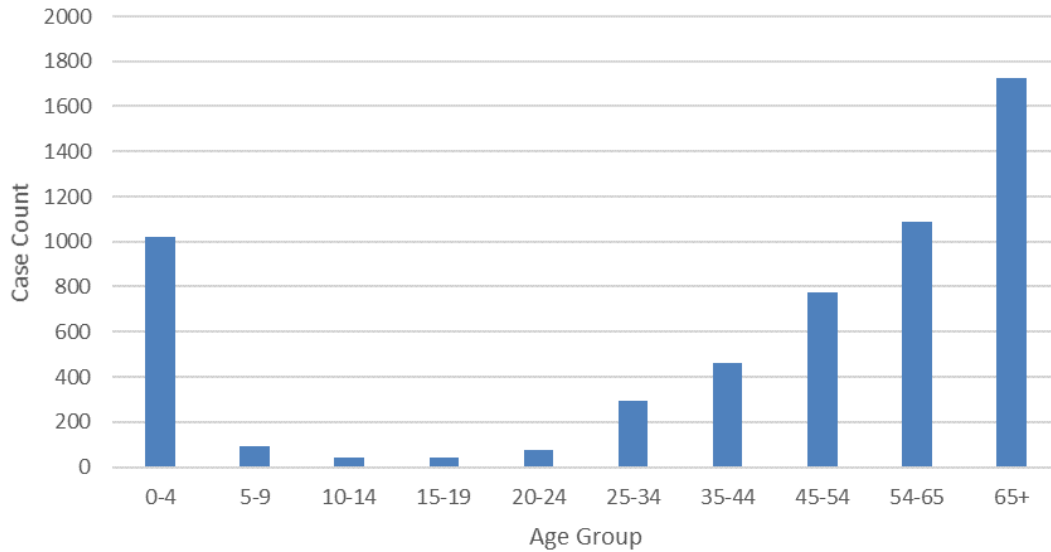
Figure 2: Incidence of Reported Invasive Pneumococcal Disease – by Month
Louisiana, 1990-2021



Age

Invasive pneumococcal disease is most common in children under the age of 4 and older individuals.

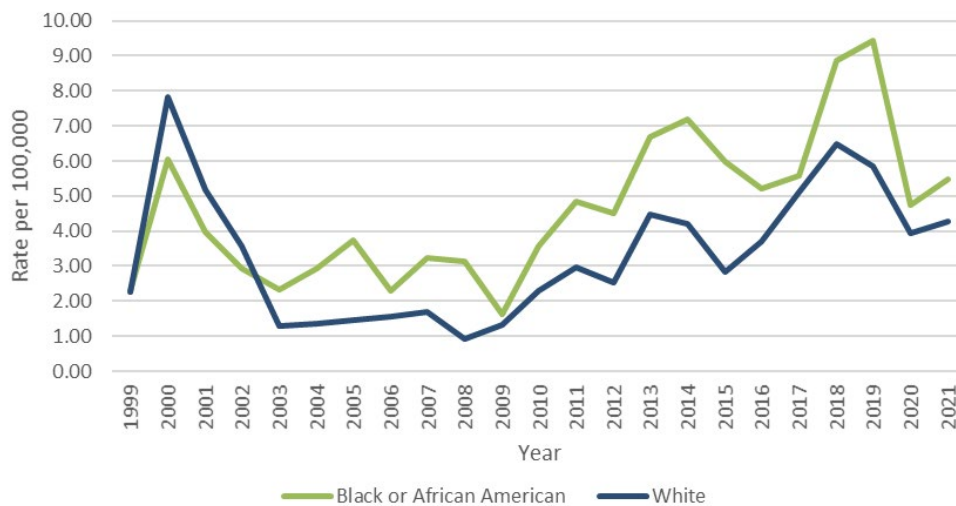
Figure 3: Incidence of Reported Invasive Pneumococcal Disease - by Age Louisiana, 1990-2021



Race

Experts do not know why, but children of certain racial and ethnic groups have increased rates of disease including Alaska Native people, African American people, and certain American Indian people. In Louisiana, on average, incidence rates among African-American individuals are higher than incidence rates among White individuals. (Figure 5).

Figure 4: Invasive Pneumococcal Disease - All Ages – Rates by Race - Louisiana, 1999-2021



Sex

In Louisiana, on average, IPD incidence rates among men are slightly higher than incidence rates among women since 1990. (Figure 6).

Figure 5: *Streptococcus pneumoniae* Invasive Disease - All Ages – Rates by Sex Louisiana, 1999-2021

