

## Pneumococcal Disease

*Invasive Pneumococcal disease in children older than five years of age and invasive pneumococcal disease due to drug resistant Streptococcus pneumoniae (DRSP) are both reportable diseases. These are Class C Diseases and must be reported to the state within five business days.*

### Pneumococcal Disease

The pneumococcus or *Streptococcus pneumoniae* is the cause of a large number of infections and disease. Most of these infections are not reportable. Estimates by extrapolation from national estimates adjusted for Louisiana can be seen in Table 1.

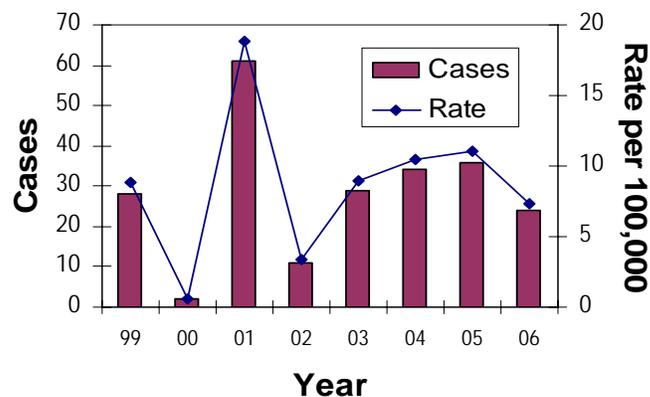
Table 1: Mortality for pneumococcal disease - Louisiana, 2006

Disease	US Cases	Louisiana Cases	Louisiana Mortality
Otitis media	7,000,000	120,000	0 (0%)
Pneumonia	500,000	8,500	420 (5%)
Bacteremia	50,000	850	180 (20%)
Meningitis	3,000	50	15 (30%)

### Pneumococcal invasive disease

Pneumococcal invasive disease in children less than five years of age became reportable in 1999 in order to evaluate vaccine efficacy. This condition seems to be largely under-reported (Figure 1).

Figure 1: Cases and rates for pneumococcal disease - Louisiana, 1999 - 2006

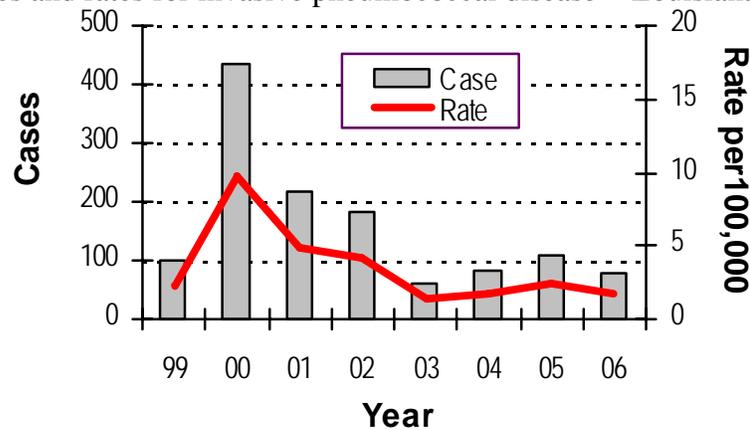


**Invasive pneumococcal disease due to drug resistant *Streptococcus pneumoniae* (DRSP)**

Invasive pneumococcal disease due to drug resistant *Streptococcus pneumoniae* (DRSP)

became reportable in 1999. Estimating that the number of DRSP invasive disease comprises about 850 cases of bacteremia and fifty cases of meningitis (not including 8,500 cases of pneumonia for which an etiologic diagnosis is rarely confirmed), one would expect about 900 pneumococcal invasive disease of any age. Given that forty percent of pneumococcal strains are DRSP, this would amount to 360 cases a year. The number reported is usually lower than expected. (Figure 2)

Figure 2: Cases and rates for invasive pneumococcal disease - Louisiana, 1999- 2006



### Active surveillance for drug resistant *Streptococcus pneumoniae* (DRSP)

The current active surveillance system includes only aggregate laboratory-based data from sentinel reporting sites. The Infectious Epidemiology Program’s Disease Surveillance Specialists and Surveillance Epidemiologists identify the primary laboratory contact person in each acute care facility within their assigned regions and actively recruit new hospital lab reporting sites to participate in this surveillance activity.

The resistance rate for DRSP increased significantly between 1999 and 2006. Since interest was in resistance as either present or not present, the resistant and intermediately-resistant variables were combined to get one variable for resistance. (Figure 3)

Figure 3: Proportion of *S. pneumoniae* isolates, resistant to penicillin and other antibiotics (DRSP) Louisiana, 1999 - 2006

