

## **STREPTOCOCCUS PNEUMONIAE, Drug-Resistant Invasive Disease**

*Streptococcus pneumoniae* (pneumococci) causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis). Pneumococci are a frequent cause of sinusitis and pneumonia.

### **Laboratory Criteria for Diagnosis**

- Isolation of *S. pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid), **and**
- “Nonsusceptible” isolate (i.e., intermediate- or high-level resistance of the *S. pneumoniae* isolate to at least one antimicrobial agent currently approved for use in treating pneumococcal infection as defined by the National Committee for Clinical Laboratory Standards).

### **Case Classification**

*Confirmed:* A clinically compatible case that is laboratory confirmed.

*Probable:* A clinically compatible case caused by laboratory-confirmed culture of *S. pneumoniae* identified as “nonsusceptible” (i.e., an oxacillin zone size of <20 mm) when oxacillin screening is the only method of antimicrobial susceptibility testing performed.

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### **Epidemiology**

Kentucky 2002	Rate per 100,000	U.S. Rate (2001) per 100,000
Cases 19	0.5	2.11

#### Cases by Gender

Female	9	0.4
Male	10	0.5

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### ***S. pneumoniae* Incidence by Age Groups in Kentucky, 2002**

Age in years	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
# Cases	7	1	1	0	1	2	1	4	2
Rate per 100,000	1.3	0.2	0.2	0.0	0.2	0.4	0.3	1.7	1.6

The Lincoln Trail District experienced the highest incidence of 1.6 cases per 100,000, followed by the Lake Cumberland District with a rate of 1.5 cases per 100,000.