



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Streptococcus pneumoniae, 2009



ABCs Areas

California (San Francisco County and children < 5 years in Alameda and Contra Costa counties); Colorado (5 county Denver area); Connecticut; Georgia (20 county Atlanta area); Maryland (6 county Baltimore area); Minnesota; New Mexico; New York (15 county Rochester and Albany areas and children <5 years in Erie county); Oregon (3 county Portland area); Tennessee (11 urban counties)

ABCs Population

The surveillance areas represent 29,206,528 persons.
Source: National Center for Health Statistics bridged-race vintage 2009 postcensal file

ABCs Case Definition

Invasive pneumococcal disease: isolation of *Streptococcus pneumoniae* from normally sterile site in resident of a surveillance area in 2009.

ABCs Methodology

ABCs personnel routinely contacted all microbiology laboratories serving acute care hospitals in their area to identify cases. Standardized case report forms that include information on demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Pneumococcal isolates were collected and sent to reference laboratories for susceptibility testing using CLSI methods and serotyping. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

Rates of invasive pneumococcal disease were calculated using population estimates for 2009. For national estimates, race- and age-specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the 2009 U.S. population. Cases with unknown race were distributed by area based on reported race distribution for known cases within the eight age categories.

Reported ABCs Profiles

Race	No. (Rate*)
White	2,905 (12.8)
Black	998 (21.6)
Other	263 (14.4)

Unknown race (n=665) distributed amongst known

* Cases per 100,000 population for ABCs areas

Citation

Centers for Disease Control and Prevention. 2010. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, *Streptococcus pneumoniae*, 2009. Available via the Internet:

<http://www.cdc.gov/abc/reports-findings/survreports/spneu09.pdf>

Age (years)	Cases		Deaths	
	No.	(Rate*)	No.	(Rate*)
< 1	165	(37.1)	4	(0.90)
1	144	(32.1)	1	(0.22)
2-4	182	(13.6)	1	(0.07)
5-17	176	(3.5)	4	(0.08)
18-34	291	(4.2)	14	(0.20)
35-49	753	(11.8)	52	(0.82)
50-64	1,138	(21.2)	139	(2.59)
≥ 65	1,317	(38.7)	223	(6.56)
Total	4,166	(14.3)	438	(1.50)

* Cases or deaths per 100,000 population for ABCs areas

Syndrome	No.	(%*)
Meningitis	201	(4.8)
Bacteremia without focus	801	(19.2)
Pneumonia with bacteremia	2,932	(70.4)

* Percent of cases

Antibiotic Susceptibility	S* %	I† %	R‡ %
Penicillin	89.8	5.2	5.0
Cefotaxime	91.9	6.2	1.9
Erythromycin	74.9	0.21	24.9
TMP/Sulfa	77.0	7.3	15.7
Tetracycline	85.2	0.16	14.6
Levofloxacin	99.7	0.0	0.35
Vancomycin	100.0	0.0	0.0

Based on reference lab testing of 3,743 isolates

* Susceptible; † Intermediate; ‡ Resistant based on year 2009 CLSI definitions

National Estimates of Invasive Disease

Cases: 44,000 (14.3/100,000)
Deaths: 5,000 (1.6/100,000)

Healthy People 2010 Update

Objective: Decrease the incidence of invasive pneumococcal infections to 46 per 100,000 persons less than 5 years of age and to 42 per 100,000 persons aged 65 and older.

Age (year)	2010 Objective	2009 Rate*
< 5	46/100,000	21.1/100,000
≥ 65	42/100,000	38.7/100,000

* Cases per 100,000 U.S. population < 5 years or ≥ 65 years

For more information, visit our web site:

<http://www.cdc.gov/abc/>