

**Cases, Rates and Case Fatality of Invasive Pneumococcal Disease by Age Group:
Denver Metropolitan Area[^] and Colorado, 2011**

AGE GROUP (years)	Cases (Rates)				Deaths	
	EIP[^] No.	(EIP Rate*)	State No.	(State rate*)	State No.	(% of cases)
<1	6	(8.8)	11	(8.3)	1	(9.1)
1	2	(1.9)	3	(1.4)	0	.
2-4	13	(3.8)	24	(3.5)	1	(4.2)
5-17	13	(4.2)	22	(3.2)	0	.
18-34	18	(4.7)	40	(5.4)	0	.
35-49	39	(7.2)	78	(7.3)	4	(5.1)
50-64	87	(18.5)	157	(15.7)	6	(3.8)
65+	77	(29.7)	148	(25.6)	10	(6.8)
Total	255	(10.2)	484	(9.5)	22	(4.5)

**Rates are per 100,000 population and based upon 2011-based population estimates, State Demography Office - DOLA*

[^]Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties

**Rates of Invasive Pneumococcal Disease by County:
Denver Metropolitan Area[^], 2011**

<i>COUNTY OF RESIDENCE</i>	Cases	
	No.	(Rate*)
ADAMS	46	(10.2)
ARAPAHOE	60	(10.3)
DENVER	92	(14.8)
DOUGLAS	15	(5.1)
JEFFERSON	42	(7.8)

**Rates are per 100,000 population and based upon 2011-based population estimates, State
Demography Office - DOLA*

[^]Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties

**Sterile Sites from which *Streptococcus pneumoniae* was Isolated:
Denver Metropolitan Area^, 2011**

<i>SITE OF ISOLATION</i>	No.*	(% of cases)
Blood	239	(93.7)
Pleural fluid	12	(4.7)
CSF	11	(4.3)
Joint fluid	3	(1.2)
Peritoneal fluid	2	(0.8)
Pericardial fluid	1	(0.4)
Wound	1	(0.4)

**SP was isolated from one site in 237 cases and multiple sites in 18 cases (Total cases=255)*

SP was isolated only from blood in 222 cases (87.1%)

^Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties

Clinical Syndromes Associated with Invasive Pneumococcal Disease: Denver Metropolitan Area[^], 2011

<i>CLINICAL SYNDROME</i>	No.*	(% of cases)
Bacteremic pneumonia	187	(73.3)
Bacteremia only	29	(11.4)
Meningitis	16	(6.3)
Empyema	14	(5.5)
Otitis media	6	(2.4)
Septic arthritis	4	(1.6)
Endocarditis	4	(1.6)
Epiglottitis	3	(1.2)
Abscess	3	(1.2)
Peritonitis	3	(1.2)
Cellulitis	1	(0.4)
Pericarditis	1	(0.4)
Osteomyelitis	1	(0.4)

**Some cases had more than one syndrome (Total cases=255)*

[^]Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties

Underlying Conditions Associated with Invasive Pneumococcal Disease: Denver Metropolitan Area[^], 2011

UNDERLYING CONDITION	No.*	(% of cases)
Current Smoker	67	(26.3)
Emphysema/COPD	56	(22.0)
Diabetes	34	(13.3)
Asthma	26	(10.2)
Alcohol Abuse	26	(10.2)
Atherosclerotic Cardiovascular Disease	21	(8.2)
Heart Failure/CHF	16	(6.3)
Immunosuppressive Therapy	15	(5.9)
HIV	14	(5.5)
Obesity	13	(5.1)
AIDS	8	(3.1)
Renal Failure/Dialysis	7	(2.7)
Cirrhosis/Liver Failure	7	(2.7)
Cerebral Vascular Accident/Stroke	6	(2.4)
Multiple Myeloma	5	(2.0)
Leukemia	5	(2.0)
Systemic Lupus Erythematosus	4	(1.6)
Immunoglobulin Deficiency	2	(0.8)
Hodgkin"s Disease	2	(0.8)
Intravenous Drug Use	2	(0.8)
Splenectomy/Asplenia	1	(0.4)
Nephrotic Syndrome	1	(0.4)
Complement deficiency	1	(0.4)
Deaf/Hearing loss	1	(0.4)

**100 cases had more than one underlying condition*

48 (18.8%) had no underlying conditions; 3 cases were unknown (Total cases=255)

^Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties

Invasive Pneumococcal Disease Serotypes: Denver Metropolitan Area[^], 2011

<i>Serotype</i>	No.*	(% of isolates)
07F	18	(29.0)
003	9	(14.5)
19A	8	(12.9)
22F	5	(8.0)
09N	4	(6.4)
06C	4	(6.4)
33F	2	(3.2)
12F	2	(3.2)
09V	2	(3.2)
35B	2	(3.2)
15B	1	(1.6)
008	1	(1.6)
038	1	(1.6)
11A	1	(1.6)
23A	1	(1.6)
15A	1	(1.6)
Total	62	(100.0)

**Based upon reference lab testing of 62 (24.3%) isolates (Total cases=255)*

Testing performed by the Centers for Disease Control and Prevention: Atlanta, GA

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