

**Cases, Rates and Case Fatality of Invasive Pneumococcal Disease by Age Group:
Denver Metropolitan Area^ and Colorado, 2012**

AGE GROUP (years)	Cases (Rates)				Deaths	
	EIP^ No.	(EIP Rate*)	State No.	(State rate*)	State No.	(% of cases)
<1	5	(7.4)	11	(8.3)	0	.
1	4	(3.8)	8	(3.9)	0	.
2-4	5	(1.4)	16	(2.3)	0	.
5-17	7	(2.2)	18	(2.6)	2	(11.1)
18-34	18	(4.6)	37	(5.0)	2	(5.4)
35-49	36	(6.6)	72	(6.8)	2	(2.8)
50-64	70	(14.6)	131	(12.8)	8	(6.1)
65+	80	(29.0)	148	(24.0)	7	(4.7)
Total	225	(8.9)	442	(8.5)	21	(4.8)

Statewide includes 53 probable case

**Rates are per 100,000 population and based upon 2009-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[^], 2012***

<i>COUNTY OF RESIDENCE</i>	Cases	
	No.	(Rate*)
ADAMS	41	(8.9)
ARAPAHOE	40	(6.7)
DENVER	93	(14.7)
DOUGLAS	7	(2.3)
JEFFERSON	45	(8.2)

Statewide includes 53 probable case

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Office - DOLA***

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

***Sterile Sites from which Streptococcus pneumoniae was Isolated:
Denver Metropolitan Area[^], 2012***

<i>SITE OF ISOLATION</i>	No.*	(% of cases)
Blood	215	(95.1)
CSF	4	(1.8)
Pleural fluid	4	(1.8)
Joint	3	(1.3)
Peritoneal fluid	2	(0.9)
17	2	(0.9)
Bone	1	(0.4)

Statewide includes 53 probable case

****SP was isolated from one site in 219 cases and multiple sites in 7 cases (Total cases=226)***

SP was isolated only from blood in 210 cases (92.9%)

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

***Clinical Syndromes Associated with Invasive Pneumococcal Disease:
Denver Metropolitan Area[^], 2012***

<i>CLINICAL SYNDROME</i>	No.*	(% of cases)
Bacteremic pneumonia	163	(72.1)
Bacteremia only	38	(16.8)
Empyema	8	(3.5)
Meningitis	5	(2.2)
Otitis media	5	(2.2)
Septic arthritis	4	(1.8)
Peritonitis	3	(1.3)
Osteomyelitis	3	(1.3)
Endocarditis	3	(1.3)
Cellulitis	2	(0.9)
Abscess	2	(0.9)

Statewide includes 53 probable case

****Some cases had more than one syndrome (Total cases=226)***

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***Underlying Conditions Associated with Invasive Pneumococcal Disease:
Denver Metropolitan Area[^], 2012***

<i>UNDERLYIN G CONDITION</i>	No.*	(% of cases)
Current Smoker	66	(29.2)
Emphysema/ COPD	45	(19.9)
Diabetes	44	(19.5)
Alcohol Abuse	37	(16.4)
Atherosclerot ic Cardiovascul ar Disease	23	(10.2)
Immunosupp ressive Therapy	21	(9.3)
Asthma	18	(8.0)
Cirrhosis/ Liver Failure	15	(6.6)
Obesity	13	(5.8)
Cerebral Vascular Accident/ Stroke	10	(4.4)
Leukemia	9	(4.0)
HIV	9	(4.0)
Heart Failure/CHF	8	(3.5)
Renal Failure/ Dialysis	7	(3.1)
Multiple Myeloma	3	(1.3)
Hodgkin''s Disease	3	(1.3)
AIDS	3	(1.3)

(Continued)

Statewide includes 53 probable case

****104 cases had more than one underlying condition***

41 (18.1%) had no underlying conditions; 2 cases were unknown (Total cases=226)

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***Underlying Conditions Associated with Invasive Pneumococcal Disease:
Denver Metropolitan Area[^], 2012***

<i>UNDERLYIN G CONDITION</i>	No.*	(% of cases)
Intravenous Drug Use	3	(1.3)
Systemic Lupus Erythematos us	2	(0.9)
Immunoglob ulin Deficiency	1	(0.4)

Statewide includes 53 probable case

****104 cases had more than one underlying condition***

41 (18.1%) had no underlying conditions; 2 cases were unknown (Total cases=226)

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

***Invasive Pneumococcal Disease Serotypes:
Denver Metropolitan Area[^], 2012***

<i>Serotype</i>	No.*	(% of isolates)
003	25	(12.3)
22F	25	(12.3)
07F	18	(8.9)
19A	16	(7.9)
06C	16	(7.9)
09N	11	(5.4)
008	10	(4.9)
33F	8	(3.9)
11A	8	(3.9)
35B	7	(3.4)
004	7	(3.4)
12F	6	(2.9)
15B	5	(2.4)
10A	5	(2.4)
23A	4	(1.9)
15A	4	(1.9)
15C	3	(1.4)
19F	3	(1.4)
35F	2	(0.9)
038	2	(0.9)
23B	2	(0.9)
17F	2	(0.9)
031	2	(0.9)
034	2	(0.9)
005	1	(0.4)
07C	1	(0.4)
001	1	(0.4)
09V	1	(0.4)

(Continued)

Statewide includes 53 probable case

****Based upon reference lab testing of 202 (89.4%) isolates (Total cases=226)***

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

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***Invasive Pneumococcal Disease Serotypes:
Denver Metropolitan Area[^], 2012***

<i>Serotype</i>	No.*	(% of isolates)
020	1	(0.4)
037	1	(0.4)
09L	1	(0.4)
35A	1	(0.4)
06A	1	(0.4)
Total	202	(100.0)

Statewide includes 53 probable case

****Based upon reference lab testing of 202 (89.4%) isolates (Total cases=226)***

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

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