

**Cases, Rates and Case Fatality of Invasive Pneumococcal Disease by Age Group:  
Denver Metropolitan Area^ and Colorado, 2013**

<b>AGE GROUP (years)</b>	<b>Cases (Rates)</b>				<b>Deaths</b>	
	<b>EIP^ No.</b>	<b>(EIP Rate*)</b>	<b>State No.</b>	<b>(State rate*)</b>	<b>State No.</b>	<b>(% of cases)</b>
<1	4	(5.9)	10	(7.6)	0	.
1	.	.	2	(1.0)	0	.
2-4	4	(1.1)	13	(1.8)	0	.
5-17	5	(1.6)	13	(1.9)	0	.
18-34	18	(4.6)	38	(5.1)	0	.
35-49	39	(7.1)	77	(7.2)	4	(5.2)
50-64	110	(22.9)	191	(18.7)	16	(8.4)
65+	84	(30.5)	164	(26.6)	11	(6.7)
<b>Total</b>	264	(10.4)	508	(9.8)	31	(6.1)

**\*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<sup>^</sup>, 2013***

<b><i>COUNTY OF RESIDENCE</i></b>	<b>Cases</b>	
	<b>No.</b>	<b>(Rate*)</b>
<b>ADAMS</b>	52	(11.3)
<b>ARAPAHOE</b>	43	(7.2)
<b>DENVER</b>	104	(16.4)
<b>DOUGLAS</b>	11	(3.7)
<b>JEFFERSON</b>	54	(9.9)

***\*Rates are per 100,000 population and based upon 2009-based population estimates, State Demography Office - DOLA***

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Sterile Sites from which Streptococcus pneumoniae was Isolated:  
Denver Metropolitan Area<sup>^</sup>, 2013***

<b><i>SITE OF ISOLATION</i></b>	<b>No.*</b>	<b>(% of cases)</b>
Blood	247	(93.6)
CSF	12	(4.5)
Pleural fluid	5	(1.9)
Joint	3	(1.1)
Peritoneal fluid	2	(0.8)
16	1	(0.4)

***\*SP was isolated from one site in 253 cases and multiple sites in 11 cases (Total cases=264)***

***SP was isolated only from blood in 236 cases (89.4%)***

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Clinical Syndromes Associated with Invasive Pneumococcal Disease:  
Denver Metropolitan Area<sup>^</sup>, 2013***

<b><i>CLINICAL SYNDROME</i></b>	<b>No.*</b>	<b>(% of cases)</b>
Bacteremic pneumonia	188	(71.2)
Bacteremia only	46	(17.4)
Meningitis	13	(4.9)
Empyema	12	(4.5)
Peritonitis	4	(1.5)
Septic arthritis	4	(1.5)
Otitis media	3	(1.1)
Cellulitis	2	(0.8)
Endocarditis	2	(0.8)
Abscess	1	(0.4)
Puerperal sepsis	1	(0.4)

***\*Some cases had more than one syndrome (Total cases=264)***

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Underlying Conditions Associated with Invasive Pneumococcal Disease:  
Denver Metropolitan Area<sup>^</sup>, 2013***

<b><i>UNDERLYIN G CONDITION</i></b>	<b>No.*</b>	<b>(% of cases)</b>
Current Smoker	102	(38.6)
Emphysema/ COPD	59	(22.3)
Diabetes	43	(16.3)
Asthma	18	(6.8)
HIV	17	(6.4)
Atherosclerotic Cardiovascular Disease	15	(5.7)
Immunosuppressive Therapy	13	(4.9)
Heart Failure/CHF	11	(4.2)
Obesity	11	(4.2)
AIDS	10	(3.8)
Cirrhosis/ Liver Failure	10	(3.8)
Cerebral Vascular Accident/ Stroke	9	(3.4)
Hodgkin's Disease	7	(2.7)
Leukemia	6	(2.3)
Renal Failure/ Dialysis	5	(1.9)
Systemic Lupus Erythematosus	3	(1.1)
Splenectomy/ Asplenia	2	(0.8)

(Continued)

***\*97 cases had more than one underlying condition***

***25 (9.5%) had no underlying conditions; 7 cases were unknown (Total cases=264)***

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Underlying Conditions Associated with Invasive Pneumococcal Disease:  
Denver Metropolitan Area<sup>^</sup>, 2013***

<b><i>UNDERLYIN G CONDITION</i></b>	<b>No.*</b>	<b>(% of cases)</b>
Multiple Myeloma	1	(0.4)
CSF Leak	1	(0.4)

***\*97 cases had more than one underlying condition***

***25 (9.5%) had no underlying conditions; 7 cases were unknown (Total cases=264)***

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Invasive Pneumococcal Disease Serotypes:  
Denver Metropolitan Area<sup>^</sup>, 2013***

<i>Serotype</i>	No.*	(% of isolates)
003	24	(17.1)
22F	17	(12.1)
12F	14	(10.0)
07F	11	(7.8)
09N	8	(5.7)
008	7	(5.0)
35B	7	(5.0)
06C	7	(5.0)
19A	6	(4.2)
33F	6	(4.2)
004	5	(3.5)
11A	4	(2.8)
35F	4	(2.8)
23A	4	(2.8)
15A	3	(2.1)
07C	3	(2.1)
17F	2	(1.4)
020	2	(1.4)
15B	2	(1.4)
15C	1	(0.7)
NT	1	(0.7)
10A	1	(0.7)
09V	1	(0.7)
<b>Total</b>	140	(100.0)

***\*Based upon reference lab testing of 140 (53%) isolates (Total cases=264)***

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

***<sup>^</sup>Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***