

**Rates and Case Fatality Percents of Invasive Pneumococcal Disease by  
Age Group:  
Denver Metropolitan Area<sup>^</sup>, 2005**

<i>AGE GROUP (years)</i>	<b>Cases</b>		<b>Deaths</b>	
	<b>No.</b>	<b>(Rate*)</b>	<b>No.</b>	<b>(% of cases)</b>
<=1	26	(35.8)	0	.
2-4	10	(9.2)	0	.
5-14	5	(1.5)	0	.
15-24	11	(3.4)	0	.
25-34	13	(3.9)	0	.
35-49	77	(13.8)	2	(2.5)
50-64	71	(18.1)	14	(19.7)
65+	72	(34.6)	22	(30.5)
<b>Total</b>	<b>285</b>	<b>(12.4)</b>	<b>38</b>	<b>(13.3)</b>

*\*Rates are computed using 2005-based population estimates, State Demography Office - DOLA  
^Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties*

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## Rates of Invasive Pneumococcal Disease by County: Denver Metropolitan Area<sup>^</sup>, 2005

<i>COUNTY OF RESIDENCE</i>	<i>Cases</i>	
	<i>No.</i>	<i>(Rate*)</i>
ADAMS	60	(14.7)
ARAPAHOE	53	(9.9)
DENVER	111	(19.4)
DOUGLAS	9	(3.5)
JEFFERSON	52	(9.7)

*\*Rates are computed using 2005-based population estimates, State Demography Office - DOLA  
^Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties*

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**Sterile Sites from which Invasive Streptococcus pneumoniae was  
Isolated:  
Denver Metropolitan Area<sup>^</sup>, 2005**

<i>SITE OF ISOLATION</i>	<i>No.*</i>	<i>(% of cases)</i>
Blood	268	(94.0)
CSF	14	(4.9)
Peritoneal fluid	6	(2.1)
Pleural fluid	5	(1.7)
Joint	2	(0.7)

*\*SP was isolated from one site in 273 cases and multiple sites in 12 cases (Total cases=285)  
SP was isolated only from blood in 256 cases (89.8%)*

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

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## **Syndromes Associated with Invasive Pneumococcal Disease: Denver Metropolitan Area<sup>^</sup>, 2005**

<b><i>CLINICAL SYNDROME</i></b>	<b>No.*</b>	<b>(% of cases)</b>
Bacteremic pneumonia	210	(73.6)
Bacteremia only	46	(16.1)
Meningitis	18	(6.3)
Peritonitis	8	(2.8)
Empyema	4	(1.4)
Otitis media	3	(1.0)
Septic arthritis	3	(1.0)
Abscess	1	(0.3)
Osteomyelitis	1	(0.3)
Endocarditis	1	(0.3)

***\*Some cases had more than one syndrome (Total cases=285)***

***<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>, 2005

<i><b>UNDERLYING CONDITION</b></i>	<b>No.*</b>	<b>(% of cases)</b>
Current Smoker	110	(38.5)
Alcohol Abuse	55	(19.2)
Emphysema/COPD	44	(15.4)
Diabetes	32	(11.2)
Asthma	25	(8.7)
HIV	18	(6.3)
Immunosuppressive Therapy	17	(5.9)
Atherosclerotic Cardiovascular Disease	15	(5.2)
Cirrhosis/Liver Failure	12	(4.2)
Heart Failure/CHF	12	(4.2)
AIDS	11	(3.8)
Intravenous Drug Use	11	(3.8)
Cerebral Vascular Accident/Stroke	8	(2.8)
Renal Failure/Dialysis	7	(2.4)
Leukemia	5	(1.7)
Multiple Myeloma	4	(1.4)
Splenectomy/Asplenia	4	(1.4)
Obesity	3	(1.0)
Systemic Lupus Erythematosus	1	(0.3)
Nephrotic Syndrome	1	(0.3)

*\*122 cases had more than one underlying condition*

*59 (20.7%) had no underlying conditions; 2 cases were unknown (Total cases=285)*

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



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## Invasive Pneumococcal Disease Serotypes: Denver Metropolitan Area<sup>^</sup>, 2005

<i>Serotype</i>	No.*	(% of isolates)
19A	37	(14.6)
003	34	(13.4)
22F	21	(8.3)
12F	16	(6.3)
008	14	(5.5)
004	11	(4.3)
07F	11	(4.3)
09V	10	(3.9)
11A	7	(2.7)
09N	7	(2.7)
18C	7	(2.7)
19F	6	(2.3)
15C	6	(2.3)
23F	6	(2.3)
23A	5	(1.9)
33F	5	(1.9)
031	5	(1.9)
15B	5	(1.9)
06B	4	(1.5)
06A	4	(1.5)
10A	4	(1.5)
35B	4	(1.5)
15A	3	(1.1)
020	3	(1.1)

014	3	(1.1)
038	3	(1.1)
17F	2	(0.7)
07C	2	(0.7)
16F	2	(0.7)
35F	2	(0.7)
013	1	(0.3)
NT	1	(0.3)
23B	1	(0.3)
034	1	(0.3)
Total	253	(100.0)

***\*Based upon reference lab testing of 253 isolates (Total cases=285)***

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

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



## Antibiotic Susceptibility of Invasive Pneumococcal Disease Isolates Denver Metropolitan Area<sup>^</sup>, 2005

Streptococcus pneumoniae	No.	Antibiotic Susceptibility*		
		S	I	R
		%	%	%
<b>ANTIBIOTIC</b>				
Amoxicillin	254	99.2	0.0	0.8
Cefotaxime	254	98.0	1.2	0.8
Ceftriaxone	254	98.8	0.4	0.8
Cefuroxime	254	90.6	0.0	9.4
Chloramphenicol	254	97.2	0.0	2.8
Clindamycin	254	96.1	0.0	3.9
Erythromycin	254	87.4	0.0	12.6
Levofloxacin	254	98.8	0.0	1.2
Linezolid	254	100.0	0.0	0.0
Meropenem	254	91.7	6.7	1.6
Penicillin	254	79.5	12.6	7.9
Rifampin	254	99.6	0.0	0.4
Synercid	254	100.0	0.0	0.0
TMP/Sulfa	254	81.5	6.7	11.8
Telithromycin	254	100.0	0.0	0.0
Tetracycline	254	93.7	0.0	6.3
Vancomycin	254	100.0	0.0	0.0

**S=Susceptible; I=Intermediate; R=Resistant**

**\*Based upon reference lab testing of 254 isolates (Total cases=285)**

**Testing performed by the University of Texas Health Science Center at San Antonio**

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