

**Cases, Rates and Case Fatality of Invasive Haemophilus influenzae Disease
in Five-County Denver Metropolitan Area^ by Age Group, 2012**

Haemophilus influenzae	Cases (Rate)		Deaths	
	No.	(Rate)	No.	(% of cases)
Age Group (years)				
<1	1	(3.0)	0	.
1	.	.	0	.
2-4	.	.	0	.
5-17	1	(0.2)	0	.
18-34	2	(0.3)	0	.
35-49	1	(0.1)	0	.
50-64	12	(2.4)	2	(16.6)
65+	17	(6.1)	2	(11.7)
Total	34	(1.3)	4	(11.7)

*Rates are computed using 2012-based population estimates, State Demography Office - DOLA
^ Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties*

***Rates of Invasive Haemophilus influenzae Disease by County
Denver Metropolitan Area[^], 2012***

Haemophilus influenzae	Cases (Rate)	
	No.	(Rate)
ADAMS	8	(1.7)
ARAPAHOE	9	(1.5)
DENVER	11	(1.7)
DOUGLAS	2	(0.6)
JEFFERSON	4	(0.7)

***Rates are computed using 2012-based population estimates, State Demography Office - DOLA
[^] Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***

***Sites from which Invasive Haemophilus influenzae was Isolated
Denver Metropolitan Area[^], 2012***

Site of Isolation	No.*	(% of cases)
Blood	33	(97.0)
CSF	1	(2.9)
Peritoneal fluid	1	(2.9)
Joint	1	(2.9)

****Not mutually exclusive; H. influenzae was isolated from one site in 32 cases and multiple sites in 2 cases (Total cases=34)***

H. influenzae was isolated only from blood in 31 cases (91.2%)

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

***Syndromes Associated with Invasive Haemophilus influenzae Disease, by Age Group
Denver Metropolitan Area[^], 2012***

Clinical Syndrome		No.*	(% of cases)
Age Group (years)			
<=17	Meningitis	1	(50.0)
	Pneumonia	1	(50.0)
18-49	Pneumonia	1	(33.3)
	Bacteremia only	1	(33.3)
	Septic shock	1	(33.3)
50+	Pneumonia	16	(55.1)
	Bacteremia only	9	(31.0)
	Septic shock	2	(6.8)
	Epiglottitis	2	(6.8)
	Unknown	2	(6.8)
	Peritonitis	1	(3.4)
	Septic arthritis	1	(3.4)

**** Some cases had more than one syndrome***

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

***Underlying Conditions Associated with Invasive Haemophilus influenzae Disease
Denver Metropolitan Area[^], 2012***

Underlying Condition		No.*	(% of cases)
Age Group (years)			
<=17	None	1	(50.0)
18-49	None	1	(33.3)
	Atherosclerotic Cardiovascular Disease	1	(33.3)
	CVA/Stroke	1	(33.3)
	Heart failure/CHF	1	(33.3)
	Organ malignancy	1	(33.3)
	Lupus	1	(33.3)
50+	None	5	(17.2)
	Atherosclerotic Cardiovascular Disease	5	(17.2)
	Heart failure/CHF	3	(10.3)
	Organ malignancy	2	(6.8)
	Emphysema/COPD	8	(27.5)
	Immunosuppressive therapy	4	(13.7)
	Current smoker	2	(6.8)
	Diabetes	2	(6.8)
	Unknown	1	(3.4)

(Continued)

0% of cases in the <=17 age group, 33% of cases in the 18-49 age group, and 38% of cases in the 50+ age group had >1 underlying condition

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

***Underlying Conditions Associated with Invasive Haemophilus influenzae Disease
Denver Metropolitan Area[^], 2012***

Underlying Condition		No.*	(% of cases)
Age Group (years)			
50+	Alcohol abuse	1	(3.4)
	Asthma	1	(3.4)
	Cirrhosis/liver failure	1	(3.4)
	Hodgkins disease	1	(3.4)
	Leukemia	1	(3.4)
	Multiple myeloma	1	(3.4)
	Renal Failure/Dialysis	1	(3.4)
	Organ transplant	1	(3.4)
	Splenectomy/asplenia	1	(3.4)

0% of cases in the <=17 age group, 33% of cases in the 18-49 age group, and 38% of cases in the 50+ age group had >1 underlying condition

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

***Invasive Haemophilus influenzae Disease Serotypes
Denver Metropolitan Area[^], 2012***

Haemophilus influenzae	No.	(% of isolates)
Type		
NT	19	(63.3)
F	7	(23.3)
A	2	(6.6)
E	1	(3.3)
B	1	(3.3)
Total	30	(100.0)

***Based upon reference lab testing of 30 isolates (Total cases=34)
Testing performed by the Centers for Disease Control and Prevention, Atlanta, GA
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