

***Cases, Rates and Case Fatality of Invasive Haemophilus influenzae Disease
in Five-County Denver Metropolitan Area^ by Age Group, 2011***

Haemophilus influenzae	Cases (Rate)		Deaths	
	No.	(Rate)	No.	(% of cases)
Age Group (years)				
<1	.	.	0	.
1	1	(2.9)	0	.
2-4	.	.	0	.
5-17	3	(0.6)	0	.
18-34	5	(0.8)	0	.
35-49	2	(0.3)	0	.
50-64	8	(1.7)	1	(12.5)
65+	9	(3.4)	1	(11.1)
Total	28	(1.1)	2	(7.1)

***Rates are computed using 2011-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[^], 2011***

Haemophilus influenzae	Cases (Rate)	
	No.	(Rate)
ADAMS	5	(1.1)
ARAPAHOE	6	(1.0)
DENVER	10	(1.6)
DOUGLAS	1	(0.3)
JEFFERSON	6	(1.1)

***Rates are computed using 2011-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[^], 2011***

Site of Isolation	No.*	(% of cases)
Blood	26	(92.8)
CSF	1	(3.5)
Pleural fluid	1	(3.5)
Joint	1	(3.5)
Internal body site	1	(3.5)

****Not mutually exclusive; H. influenzae was isolated from one site in 26 cases and multiple sites in 2 cases (Total cases=28)***

H. influenzae was isolated only from blood in 24 cases (85.7%)

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

***Syndromes Associated with Invasive Haemophilus influenzae Disease, by Age Group
Denver Metropolitan Area[^], 2011***

Clinical Syndrome		No.*	(% of cases)
Age Group (years)			
<=17	Bacteremia only	2	(50.0)
	Meningitis	1	(25.0)
	Other syndrome	1	(25.0)
18-49	Bacteremia only	1	(14.2)
	Pneumonia	2	(28.5)
	Septic abortion	2	(28.5)
	Otitis media	1	(14.2)
	Chorioamnionitis	1	(14.2)
	Empyema	1	(14.2)
50+	Bacteremia only	5	(29.4)
	Meningitis	1	(5.8)
	Other syndrome	1	(5.8)
	Pneumonia	7	(41.1)
	Empyema	1	(5.8)
	Epiglottitis	2	(11.7)
	Peritonitis	1	(5.8)

(Continued)

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

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

*Syndromes Associated with Invasive Haemophilus influenzae Disease, by Age Group
Denver Metropolitan Area[^], 2011*

Clinical Syndrome		No.*	(% of cases)
Age Group (years)			
50+	Septic arthritis	1	(5.8)
	Endocarditis	1	(5.8)

** 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[^], 2011***

Underlying Condition		No.*	(% of cases)
Age Group (years)			
<=17	None	4	(100.0)
18-49	None	3	(42.8)
	Asthma	1	(14.2)
	Atherosclerotic Cardiovascular Disease	1	(14.2)
	Current smoker	1	(14.2)
	Diabetes	1	(14.2)
	Heart failure/CHF	1	(14.2)
	Lupus	1	(14.2)
50+	None	1	(5.8)
	Atherosclerotic Cardiovascular Disease	2	(11.7)
	Current smoker	6	(35.2)
	Diabetes	2	(11.7)
	Heart failure/CHF	1	(5.8)
	Emphysema/COPD	6	(35.2)
	Alcohol abuse	3	(17.6)
	CVA/Stroke	2	(11.7)

(Continued)

0% of cases in the <=17 age group, 14% of cases in the 18-49 age group, and 47% 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[^], 2011***

Underlying Condition		No.*	(% of cases)
Age Group (years)			
50+	Cirrhosis/liver failure	2	(11.7)
	AIDS	1	(5.8)
	Hodgkins disease	1	(5.8)
	IV drug use	1	(5.8)
	Organ malignancy	1	(5.8)
	Organ transplant	1	(5.8)

0% of cases in the <=17 age group, 14% of cases in the 18-49 age group, and 47% 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[^], 2011***

Haemophilus influenzae	No.	(% of isolates)
Type		
NT	15	(53.5)
F	9	(32.1)
A	2	(7.1)
E	2	(7.1)
Total	28	(100.0)

***Based upon reference lab testing of 28 isolates (Total cases=28)
Testing performed by the Centers for Disease Control and Prevention, Atlanta, GA
[^]Emerging Infections Program area: Adams, Arapahoe, Denver, Douglas, and Jefferson counties***