



Active Bacterial Core Surveillance (ABCs) Report

Emerging Infections Program Network

Haemophilus influenzae, 2014



ABCs Areas

California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia; Maryland; Minnesota; New Mexico; New York (15 county Rochester and Albany areas); Oregon; Tennessee (20 urban counties)

ABCs Population

The surveillance areas represent 43,528,246 persons.
Source: National Center for Health Statistics bridged-race vintage 2014 postcensal file

ABCs Case Definition

Invasive *Haemophilus influenzae* (Hi) disease: isolation of Hi from normally sterile site in a resident of a surveillance area in 2014.

ABCs Methodology

ABCs personnel routinely contacted all microbiology laboratories serving acute care hospitals in their area to identify cases. Standardized case report forms that include information on demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Serotyping was done on Hi isolates at CDC and state laboratories. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

All rates of invasive Hi disease were calculated using population estimates for 2014 from the bridged-race vintage 2014 postcensal file. For national estimates, race- and age-specific rates of disease were applied from the aggregate surveillance areas to the race- and age-specific distribution of the 2014 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.[¶]

Reported ABCs Profiles

| Race | No. | (Rate [*]) |
|-------|-----|----------------------|
| White | 550 | (1.7) |
| Black | 116 | (1.5) |
| Other | 40 | (1.1) |
| Total | 706 | (1.6) |

* Per 100,000 population for ABCs areas

¶ Surveillance Note

Missing race (n=84) data were multiply imputed using sequential regression imputation methods.

| Syndrome | Cases | | Deaths | |
|---------------------------|-------|-------------------|--------|----------------------|
| | No. | (% [*]) | No. | (Rate [†]) |
| Meningitis | 45 | (6.4) | 1 | (2.2) |
| Bacteremia without focus | 161 | (22.8) | 25 | (15.5) |
| Pneumonia with bacteremia | 423 | (59.9) | 72 | (17.0) |

* Percent of cases

† Deaths per 100 cases with known outcome

| Age (years) | Serotype | | | |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | b | Non-b | Non-Type [†] | Unknown |
| | No. (Rate [*]) | No. (Rate [*]) | No. (Rate [*]) | No. (Rate [*]) |
| < 1 | 3 (0.57) | 12 (2.27) | 39 (7.37) | 3 (0.57) |
| 1 | 1 (0.19) | 10 (1.88) | 3 (0.56) | 0 (0.00) |
| 2-4 | 1 (0.06) | 12 (0.74) | 7 (0.43) | 2 (0.12) |
| 5-17 | 1 (0.01) | 8 (0.11) | 15 (0.21) | 1 (0.01) |
| 18-34 | 1 (0.01) | 10 (0.10) | 31 (0.30) | 6 (0.06) |
| 35-49 | 0 (0.00) | 13 (0.15) | 25 (0.29) | 10 (0.12) |
| 50-64 | 3 (0.03) | 49 (0.57) | 64 (0.74) | 12 (0.14) |
| 65-74 | 1 (0.03) | 27 (0.77) | 91 (2.59) | 11 (0.31) |
| 75-84 | 0 (0.00) | 16 (0.93) | 96 (5.56) | 15 (0.87) |
| ≥85 | 1 (0.13) | 12 (1.51) | 86(10.84) | 8 (1.01) |
| Total | 12 (0.03) | 169 (0.39) | 457 (1.05) | 68 (0.16) |

* Per 100,000 population for ABCs areas

† Non-typeable isolates

National Estimates of Invasive Disease

Cases: 5,300 (1.66/100,000)

Deaths: 800 (0.25/100,000)

Healthy People 2020 Update

Invasive *Haemophilus influenzae* type b disease

Objective: Decrease the incidence of invasive *Haemophilus influenzae* type b disease to 0.27 cases per 100,000 persons less than 5 years of age

| Age (year) | 2020 Objective | 2014 Rate [*] |
|------------|----------------|------------------------|
| < 5 | 0.27/100,000 | 0.19/100,000 |

* Per 100,000 U.S. population < 5 years

For more information, visit our web site:

<http://www.cdc.gov/abcs>

Citation

Centers for Disease Control and Prevention. 2014. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, *Haemophilus influenzae* 2014. Available via the internet: <http://www.cdc.gov/abcs/reports-findings/survreports/hi14.pdf>