

# 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)   |

<sup>\*</sup> Per 100,000 population for ABCs areas

#### ¶ Surveillance Note

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

|                           | Ca  | ses               | De  | eaths                |
|---------------------------|-----|-------------------|-----|----------------------|
| Syndrome                  | No. | (% <sup>*</sup> ) | No. | (Rate <sup>†</sup> ) |
| 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)               |

<sup>\*</sup> Percent of cases

#### Serotype

|                | В           | Non-B       | Non-Type <sup>†</sup> | Unknown     |
|----------------|-------------|-------------|-----------------------|-------------|
| Age<br>(years) | 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)   |

<sup>\*</sup> Per 100,000 population for ABCs areas

#### **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 | <b>2014</b> Rate <sup>*</sup> |
|------------|----------------|-------------------------------|
| < 5        | 0.27/100,000   | 0.19/100,000                  |

<sup>\*</sup> Per 100,000 U.S. population < 5 years

#### For more information, visit our web site:

http://www.cdc.gov/abcs

#### Citation

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<sup>†</sup> Deaths per 100 cases with known outcome

<sup>†</sup> Non-typeable isolates