



Infectious Disease Epidemiology Report

Haemophilus influenzae, Maine 2009



Background

The Infectious Disease Epidemiology program of the Maine Center for Disease Control and Prevention monitors the incidence of invasive *Haemophilus influenzae* (*H. influenzae*) through mandatory reporting by health care providers, clinical laboratories and other public health partners. This report summarizes surveillance data on cases of invasive *H. influenzae* from 2009.

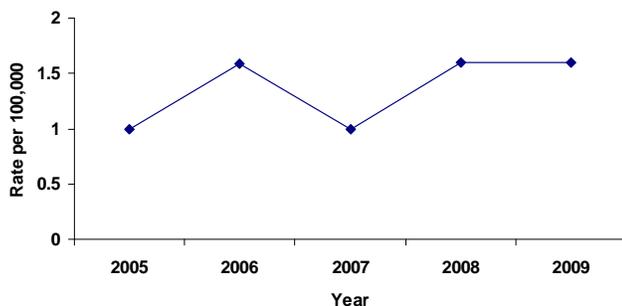
Methods

Cases of invasive *H. influenzae* disease were defined as persons with isolation of *H. influenzae* from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid). Standardized case report forms were completed for each reported case in 2009. Serotyping was performed on *H. influenzae* isolates at the Maine Health and Environmental Testing Laboratory (HETL). Rates were calculated using 2009 U.S census population.

Results

A total of 21 cases of invasive *H. influenzae* were reported in 2009. 3 cases were serotype B. The 2009 rate of *H. influenzae* in Maine was 1.6 cases per 100,000 populations, the same rate as 2008 (Figure 1). The majority of non serotype B was in adults over 45 (71.4%).

Figure 1: Rate of *H. influenzae* by year -Maine 2005-09



Of the 21 invasive *H. influenzae* cases reported in 2009, 2 (9.5%) cases were clinically diagnosed with bacteremia and pneumonia; 4 (19.1%) with bacteremia only, 8 (38.1%) with pneumonia, and 1 (4.8%) with meningitis. Seven deaths were associated with invasive *H. influenzae* disease in 2009.

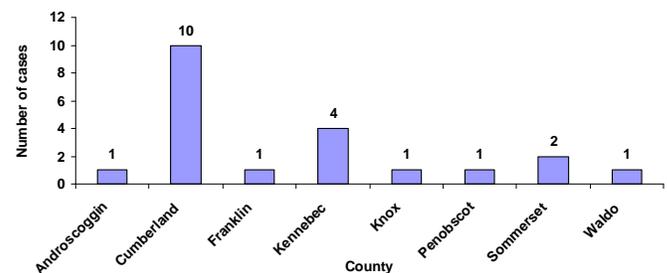
Two cases of invasive *H. influenzae* type B disease were reported in children under 5 in 2009. One case was fully immunized. (Table 1).

Table 1: Invasive *H. influenzae* by age and serotype – Maine, 2009

Age	Serotype							
	B		Non-B		Non-Type		Unknown	
Years	No.	%	No.	%	No.	%	No.	%
<5	2	66.7	1	16.7	0	0	0	0
5-18	0	0	1	16.7	1	10	0	0
18-34	1	33.3	0	0	0	0	0	0
35-44	0	0	0	0	0	0	0	0
45-64	0	0	2	33.3	2	20	1	50
≥65	0	0	2	33.3	7	70	1	50
Total	3	100	6	100	10	100	2	100

Invasive *H. influenzae* disease was identified among residents of all but seven Maine counties. (Figure 2).

Figure 2: Invasive *H. Influenzae* by county- Maine, 2009



Discussion

During 2009, invasive *H. influenzae* disease was found among both children and older adults in

* Data available as of 2/25/2010
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Maine. One case of invasive *H. influenzae* type B (HiB) disease was reported among a child that had been fully immunized. Infants and unvaccinated household and day care contacts of known HiB are at higher risk for HiB since the bacteria is spread from person to person from airborne droplets when an infected person coughs or sneezes.

Treatment with antibiotics is recommended for all household members of someone diagnosed with Hib disease only if there is at least one unvaccinated child under 4 years of age or a child or adult with a weak immune system lives in the home. Preventive treatment for non-vaccinated daycare center contacts of known Hib cases may also be recommended.

In 1984, at the peak of HiB nationally, 20,000 children became ill. Nationwide, routine use of the HiB conjugate vaccine has increased since 1990, resulting in a decreased incidence of invasive HiB disease to 0.3 per 100,000 children. Maintaining high vaccination rates, particularly among children in child-care settings, is important to prevent HiB. Non-serotype B infections occur primarily among the elderly and adults with weak immune systems. There are no vaccines for use against non-serotype B disease.

All cases of *H. influenzae* should be reported to Maine CDC by phone 1-800-821-5821 or by fax to 1-800-293-7534. Additional information about *H. influenzae* can be found at:

- Maine CDC 1-800-821-5821
<http://www.maine.gov/dhhs/boh/ddc/epi/airborne/haemophilus.shtml>
- Federal CDC
<http://www.cdc.gov/vaccines/vpd-vac/hib/default.htm>