



Infectious Disease Epidemiology Report

Haemophilus influenzae, Maine 2012



Background

The Infectious Disease Epidemiology Program of the Maine Center for Disease Control and Prevention (Maine CDC) monitors the incidence of invasive *Haemophilus influenzae* (*H. influenzae*) through mandatory reporting by healthcare providers, clinical laboratories, and other public health partners. This report summarizes surveillance data on cases of invasive *H. influenzae* from 2012.

Haemophilus influenzae disease is caused by *Haemophilus influenzae* bacteria. It can be spread from person to person through droplets in the air when a person who is infected sneezes or coughs. The bacteria can cause meningitis and infections in joints, lungs, and blood.

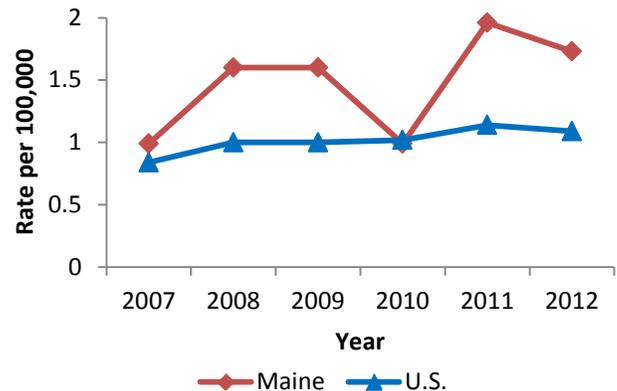
Methods

Cases of invasive *H. influenzae* are defined as persons with isolation of *H. influenzae* from a normally sterile site (e.g. blood or cerebrospinal fluid or, less commonly, joint, pleural, or pericardial fluid). Standardized case report forms were completed for each case in 2012. Serotyping was performed on *H. influenzae* isolates at Maine's Health and Environmental Testing Laboratory (HETL). Rates were calculated using 2012 US census population estimates.

Results

A total of 23 cases of invasive *H. influenzae* were reported in Maine in 2012. This is three fewer cases than were reported in 2011. The 2012 rate of *H. influenzae* in Maine was 1.7 cases per 100,000 population which is a decrease from 2.0 in 2011 (Figure 1). The 2012 US rate was 1.1 cases per 100,000 population.

Figure 1: Rate of invasive *H. influenzae* by year – Maine, 2007-2012



The age range of all cases was 6 days to 93 years, and the median age was 66 years. Three cases were *H. influenzae* serotype b (Hib) (Table 1). There were no cases of Hib in children.

Table 1: Number of invasive *H. influenzae* cases by age and serotype – Maine, 2012

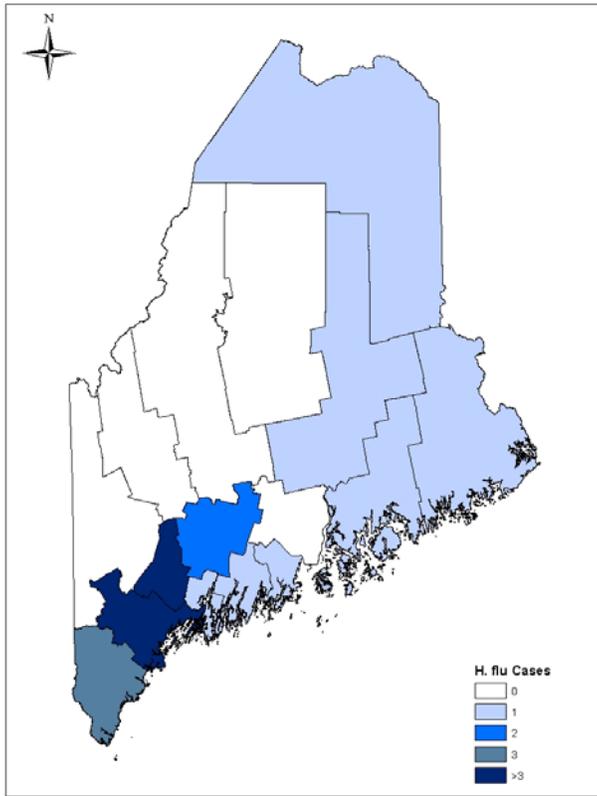
Age (years)	Serotype				Total
	B	Non-B	Non-Typeable	Unknown*	
<5	0	1	1	0	2
5-17	0	0	0	0	0
18-34	0	0	1	0	1
35-44	0	1	0	0	1
45-64	1	3	2	0	6
≥65	2	6	4	1	13
Total	3	11	8	1	23

*Unknown due to sample not being sent to HETL for testing.

Of the 23 invasive *H. influenzae* cases reported in 2012, 9 had bacteremia, 17 had pneumonia, 2 had meningitis, and 1 had sepsis. Four deaths were associated with invasive *H. influenzae* disease in 2012.

Invasive *H. influenzae* disease was identified among residents in 11 of 16 Maine counties (Figure 2).

Figure 2: Invasive *H. influenzae* cases – Maine, 2012 (N=23)



- Persons older than 59 months of age who have high-risk conditions including sickle cell disease, HIV/AIDS, asplenia, bone marrow transplant, or are immune compromised.

Hib vaccine is not recommended for healthy persons older than 59 months of age.

Maintaining high vaccination rates, particularly among children in child care settings, is important to prevent Hib. There are no vaccines for use against non-serotype b disease.

All cases of invasive *H. influenzae* disease in Maine must be reported by calling 1-800-821-5821, or by faxing reports to 1-800-293-7534. For more information, contact your healthcare provider or local health center.

Additional information about *H. influenzae* can be found at:

- Maine CDC
<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/haemophilus.shtml>
- Federal CDC
<http://www.cdc.gov/vaccines/vpd-vac/hib/default.htm>

Discussion

H. influenzae serotype b is vaccine preventable. In 2012, there were no Hib cases identified in infants or young children in Maine. Unvaccinated household and child care contacts of a known Hib case are at higher risk for disease because the bacteria are spread from person to person by airborne droplets through coughing or sneezing.

Prophylaxis with antibiotics is recommended for all household members and close contacts 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 in the home.

A vaccine against Hib is available in the United States and is recommended for the following individuals:

- All infants beginning at 2 months of age.