



Infectious Disease Epidemiology Report

Pertussis, 2010

Background

The Infectious Disease Epidemiology Program of the Maine Center for Disease Control and Prevention monitors the incidence of pertussis through mandatory reporting by health care providers, clinical laboratories and other public health partners. This report summarizes 2010 surveillance data on cases of pertussis disease.

Methods

Pertussis is defined as a cough illness lasting at least two weeks with one of the following: paroxysms of coughing, inspiratory “whoop,” or post-tussive vomiting in addition to laboratory confirmation or epi-linkage to a lab confirmed case. Standardized case reports were completed for all cases and were documented in Maine CDC’s surveillance system.

Results

A total of 53 cases of pertussis were reported in 2010. Of these, one (1.9%) was hospitalized. The 2010 rate of pertussis in Maine was 4.0 cases per 100,000 persons, a decrease from 2009 (Figure 1).

Figure 1: Rate of pertussis- Maine and US 2005-10



Of the 53 cases of pertussis reported in 2010, the majority of cases occurred among children and adolescents aged 5-19 years (69.8%). One case (1.9%) was identified in a child less than 1 year of age (Table 1).

Table 1: Cases of Pertussis by Age – Maine, 2010

Age	No.	%
Less than 6 months	0	0
6 mo – 11 mo	1	1.9
1-6 yr	11	20.8
7-10 yr	14	26.4
11 - 19 yr	11	20.8
20 -29 yr	3	5.7
30 -39 yr	5	9.4
40 - 49 yr	4	7.6
50 - 59 yr	2	3.8
≥60 yr	2	3.8
Total	53	100

Almost all of pertussis cases reported having paroxysmal cough (Table 2). A large proportion of cases also reported post tussive vomiting.

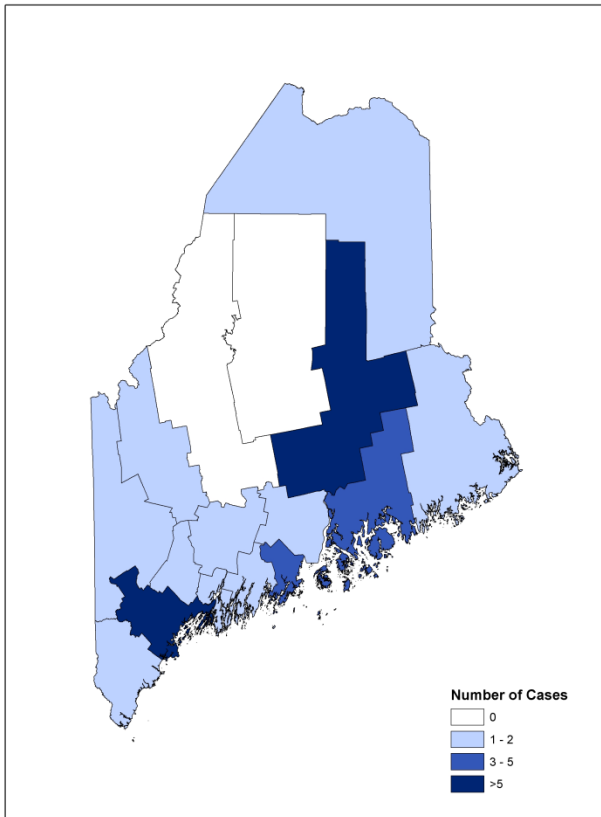
Table 2: Pertussis Disease by Symptoms* – Maine, 2010

Symptoms	No.	%
Paroxysmal cough	51	96.2
Post tussive vomiting	36	67.9
Whoop	19	35.9

* Cases may have had more than one symptom

Pertussis cases were identified among residents of fourteen Maine counties in 2010 (Figure 2).

Figure 2: Pertussis Disease by County - Maine, 2011



Maine had two pertussis outbreaks in two counties; Hancock and Penobscot.

Discussion

Early treatment of pertussis is very important. If treatment for pertussis is started early in the course of illness, symptoms may be lessened. This is particularly important for infants. Whenever possible, a nasopharyngeal (NP) swab or aspirate should be obtained from all persons with suspected pertussis.

- For infants aged <1 year with suspected pertussis, collect a specimen and then treat immediately with recommended antibiotics while awaiting results.

Health care providers are encouraged to promote the use of pertussis vaccines. There are two pertussis vaccines (DTaP and Tdap). Both vaccines are given in combination with tetanus and diphtheria. Tdap is recommended only for a single dose across all age groups

- Children under age 7 should get 5 DTaP shots. These are routinely given at ages 2, 4, 6, 12-15 months and 4-6 years.
- Children 7 through 10 years of age who are not fully vaccinated against pertussis should receive a single dose of Tdap to provide protection against pertussis.
- Tdap vaccine can be given to all persons aged 11–64 years
 - Adolescents should get 1 shot of Tdap at 11-12 years.
 - Adolescents 13-18 years old should receive Tdap at their next patient encounter or sooner if they will have close contact with infants.
 - Adults should receive Tdap in place of the tetanus booster especially if they have close contact with infants, such as childcare and healthcare personnel and parents.
- For all adults 65 and older a dose of Tdap may be given in persons who have not received a Tdap
- Women who might become pregnant should receive a single Tdap vaccine before becoming pregnant.
 - Pregnant women can receive Tdap during the third or late second trimester.
 - Tdap can be given immediately after the baby is born.
- Tdap vaccine should be given to healthcare workers who have direct patient contact.

Pertussis should be reported to Maine CDC by calling 1-800-821-5821 or faxing to 1-800-293-7534. For more information contact your healthcare provider or local health center.

Additional information about Pertussis disease can be found at:

- Maine CDC
<http://www.mainepublichealth.gov>
- Federal CDC
<http://www.cdc.gov/features/pertussis>
<http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>