



Infectious Disease Epidemiology Report

Varicella, 2010

Background

The Infectious Disease Epidemiology Program of the Maine Center for Disease Control and Prevention monitors the incidence of varicella infection (chicken pox) through mandatory reporting by health care providers, clinical laboratories and other public health partners. Varicella is spread by coughing and sneezing, direct contact, and aerosolization of the virus from skin lesions. This report summarizes 2010 surveillance data on cases of varicella.

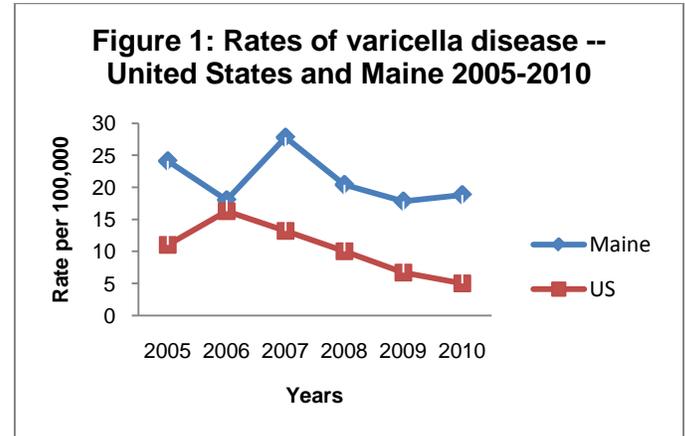
Methods

Varicella disease is defined as isolation of *varicella zoster virus* from a clinical specimen or a clinically confirmed report of a diffuse maculopapulovesicular rash. Laboratory confirmation is only available for a small percent of varicella cases as a majority of cases are clinically diagnosed.

Investigations are conducted on varicella cases in schools or childcare centers. Disease control measures are recommended during the investigation may include exclusion of students without proof of immunity to varicella. All varicella cases are documented in the Maine CDC surveillance system.

Results

A total of 247 cases of varicella were reported in 2010. Of these, 175 (72%) were reported from schools and child care centers. The rate of varicella cases in Maine in 2010 was 18.8 cases per 100,000 population (Figure 1). In 2009, the US rate of varicella cases was 5.0 cases per 100,000. Nationally only 36 states report varicella surveillance data to federal CDC.



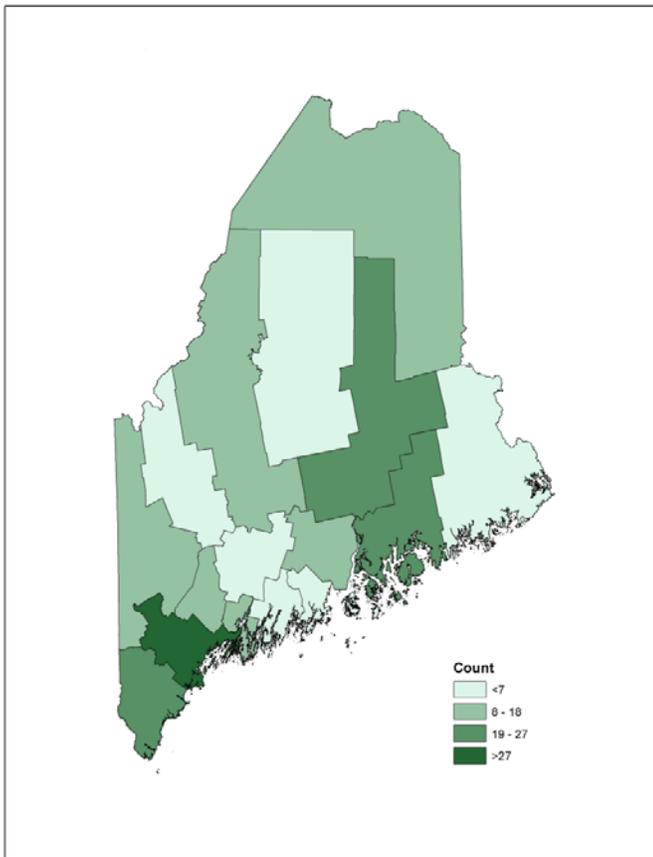
Of the 247 cases of varicella reported in 2010, 218 (88%) were identified in children less than 20 years of age (Table 1). Only 26 (11%) of all varicella cases are laboratory confirmed.

Table 1: Varicella cases by age– Maine, 2010

Age Years	Cases	
	#	%
<1	10	4
1-4	27	10.9
5-9	82	33.2
10-14	76	30.8
15-19	23	9.3
20-49	11	4.5
>= 50	5	2
Unknown	13	5.3
Total	247	100

While varicella was identified among residents of all Maine counties in 2010 (Figure 2), the highest numbers of reported varicella cases were in Cumberland and York counties. Out of the 247 varicella cases reported in 2010, vaccination status was known for 165 cases, of which, 118 (71.5%) had received one (or more) dose of varicella vaccine.

Figure 2: Varicella cases by county- Maine 2010



Discussion

Maine CDC conducts routine surveillance for varicella cases with an emphasis on cases involving children enrolled in school or child care centers. Varicella is a notifiable disease. Maine CDC investigates all reported varicella cases that occur in schools and child care centers. Surveillance data suggest that the rate of varicella infections in Maine remain stable, while the national rate (among the 36 states that report) is decreasing.

The Advisory Committee on Immunization Practices recommends that children receive two doses of varicella vaccine, with the first dose administered at age 12-15 months and the second dose at age 4-6 years. Other persons for whom varicella vaccine is recommended include:

- Adolescents and adults 13 years of age or older who do not have evidence of varicella immunity. Persons 13 years of age and older should receive two doses of varicella vaccine separated by at least 4 weeks.

- Susceptible adults at high risk for exposure or transmission:
 - Teachers
 - Child care employees
 - Staff members in institutional settings
 - Health care workers
 - Family contacts of immunocompromised persons
 - International travelers
 - Non pregnant women of childbearing age

As of 2007, all Maine students are required to have one dose of varicella vaccine for school enrollment. Students who do not show proof of disease immunity or vaccine history and choose not to vaccinate must sign an exemption form stating the guardian has a medical, religious or philosophical reason for refusing vaccine. Students who do not have proof of varicella immunity will be excluded from school for 16 days from the onset of symptoms of the last identified case.

Varicella 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 varicella disease can be found at:

- Maine CDC
<http://www.mainepublichealth.gov>
- Federal CDC
http://www.cdc.gov/ncidod/diseases/list_varicel.htm