



# Infectious Disease Epidemiology Report

## Varicella, 2014



### Background

Varicella is a very contagious disease caused by the varicella-zoster virus. It causes a blister-like rash, itching, tiredness, and fever. Varicella can be serious, especially in babies, adults, and people with weakened immune systems. Varicella is spread in the air through coughing or sneezing. It can also be spread by touching or breathing in the virus particles that come from the blisters.

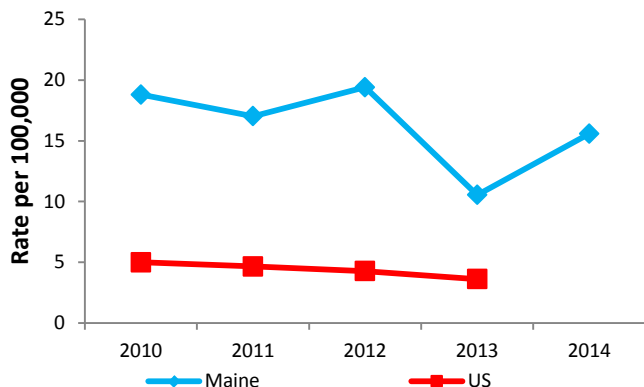
### Methods

Varicella disease is defined as isolation of varicella-zoster virus from a clinical specimen or a clinically confirmed report of a diffuse maculopapulovesicular rash. Maine CDC conducts investigations for all reported varicella cases in schools and childcare centers. All other varicella cases are documented in Maine CDC's surveillance system.

### Results

A total of 207 cases of varicella were reported in 2014. Of these, 56 (27.1%) were reported in schools or childcare centers. The rate of Maine varicella cases in 2014 was 15.5 cases per 100,000 persons (Figure 1). Nationally, only 36 states report varicella surveillance data to federal CDC.

**Figure 1. Rates of varicella disease- Maine and the United States, 2010-2014**



Of the 207 cases of varicella reported in 2014, 95 cases (45.9%) were identified in individuals less than 20 years of age (Table 1). The age range was from

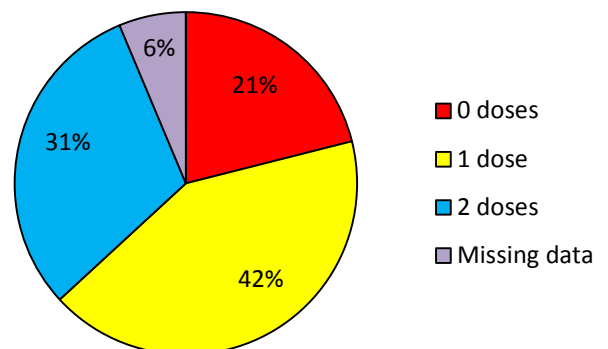
11 months to 95 years with the median age of 24 years. 106 cases (51.2%) were male, and 101 cases (48.8%) were female.

**Table 1: Varicella disease by age– Maine, 2014**

Age	Cases	
	#	%
Years		
0-4	30	14.5
5-9	21	10.1
10-14	23	11.1
15-19	21	10.1
20-34	14	6.8
35-49	24	11.6
>= 50	74	35.8
Total	207	100

Out of 207 Maine varicella cases reported in 2014, 71 (34.3%) cases had documentation of varicella vaccine. Of the 95 cases under 20 years old, 40 (42.1%) received one vaccine dose, 29 (30.5%) received two vaccine doses, and 20 (21.1) were unvaccinated. Two cases had documentation of vaccination but unknown doses, and vaccination records were not available for 4 cases (4.2%) (Figure 2).

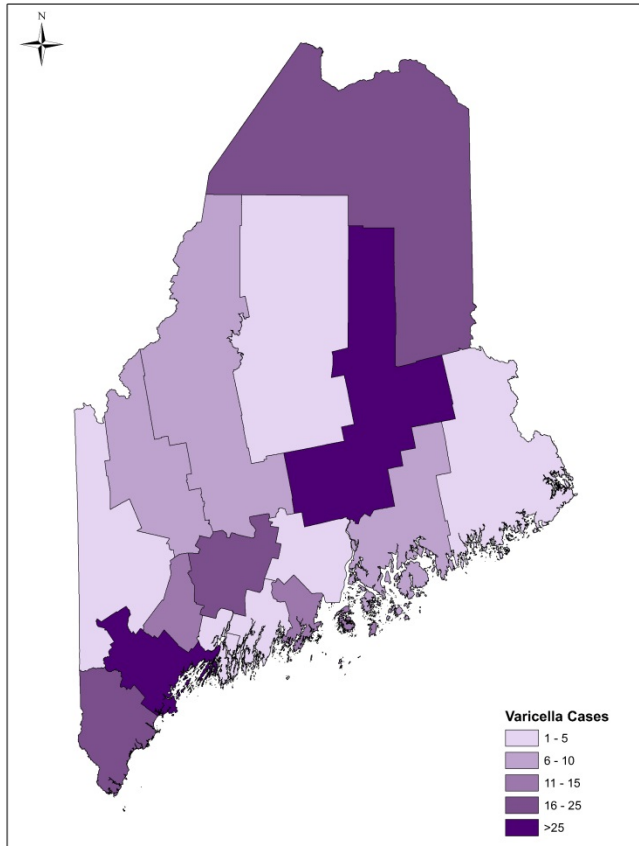
**Figure 2. Varicella vaccination data in individual cases under 20 years old – Maine, 2014**



Two schools experienced outbreaks of varicella (3 or more cases) during 2014, and a total of 44 schools and daycares reported at least one case.

Varicella was identified among residents in all 16 Maine counties in 2014 (Figure 2), with the highest numbers of cases in Penobscot and Cumberland counties. Patient address was available for all cases.

**Figure 2: Varicella disease by county- Maine 2014**



## Discussion

Maine CDC conducts routine surveillance on all varicella cases with an emphasis on cases involving children enrolled in school or childcare centers. Varicella is a notifiable disease, and the majority of varicella case reports come from schools. National surveillance data is limited since 14 states do not report varicella cases.

All Maine children are required to have one dose of varicella vaccine for school or daycare enrollment. Parents of students who do not show proof of disease immunity or vaccine history and choose not to get their child vaccinated must sign an exemption letter stating the guardian has a medical, religious, or philosophical reason for refusing vaccine. Children who do not have proof of varicella immunity will be excluded from school or daycare

for 16 days from the onset of symptoms of the last identified case.

The Advisory Committee for Immunization Practices (ACIP) recommends the following persons receive varicella vaccine:

- First dose: 12 through 15 months of age
- Second dose: 4-6 years of age
- Catch up series for children
  - 2 doses at least 3 months apart for 7-12 years
  - 2 doses at least 4 weeks apart for 13-18 years
- Susceptible adults at high risk for exposure or transmission:
  - Teachers
  - Child care employees
  - Staff members in institutional settings
  - Healthcare workers
  - Family contacts of immunocompromised persons
  - International travelers
  - Non-pregnant women of childbearing age

The shingles vaccine is approved by FDA for people aged 50 years and older. CDC recommends a one-time vaccination for people 60 years and older to prevent shingles.

All cases of varicella 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 Varicella disease can be found at:

- Maine CDC  
<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vaccine/varicella.shtml>
- Federal CDC  
<http://www.cdc.gov/chickenpox/>