



Infectious Disease Epidemiology Report

Voluntary Reporting of Influenza Testing - Maine, 2012-2013



Synopsis

Influenza is a viral illness that typically occurs during the winter months. Illness is characterized by the abrupt onset of constitutional and respiratory signs and symptoms, such as fever, muscle aches, headache, severe malaise, non-productive cough, sore throat, and runny nose. Influenza is spread from person to person primarily by coughing and sneezing. The 2012-2013 influenza season ran from September 30, 2012 to September 28, 2013. Maine CDC released weekly reports from September 30, 2012 to May 18, 2013 which is when the majority of activity occurred.

Methods

Maine does not require seasonal influenza infection to be reported (novel influenza is considered a reportable disease). However, many outpatient offices, laboratories, and hospitals report positive tests. These tests have varying sensitivity and specificity depending on the prevalence of influenza in the area and which test is used. Serology results (titers) are not included in this report because it is impossible to differentiate between disease and vaccine response without clinical information. Every positive test is entered into Maine's surveillance system to identify trends and characterize influenza burden.

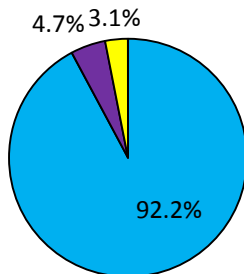
Results

During the 2012-13 season, a total of 843 positive influenza tests were reported to Maine CDC.

Influenza Type

Many rapid tests are able to distinguish between influenza types A and B. Influenza was classified as type A, type B, or not typed. For the 2012-13 season, 777 (92.2%) patients tested positive for type A, 40 (4.7%) patients tested positive for type B, and 26 (3.1%) patient tests did not differentiate between types.

Positive Influenza Tests by Type – Maine, 2012-13

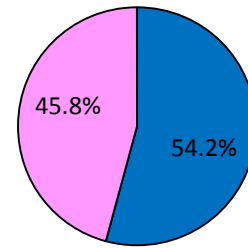


■ Influenza A ■ Influenza B ■ Influenza (unsubtyped)

Gender

For the 2012-13 influenza season, gender data were available for all patients; 386 (45.8%) of the patients with positive tests were female, and 457 (54.2%) of the patients with positive tests were male.

Positive Influenza Tests by Gender – Maine, 2012-13

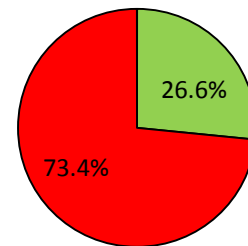


■ Male ■ Female

Pediatric Burden of Disease

All positive influenza reports included the patient's date of birth which was used to calculate age. Patients were categorized as pediatric (under 18 years) or adult (18 years or older). For the 2012-13 influenza season, 224 (26.6%) of the patients were pediatric, and 619 (73.4%) patients were adult.

Positive Influenza Tests by Age Group – Maine, 2012-13



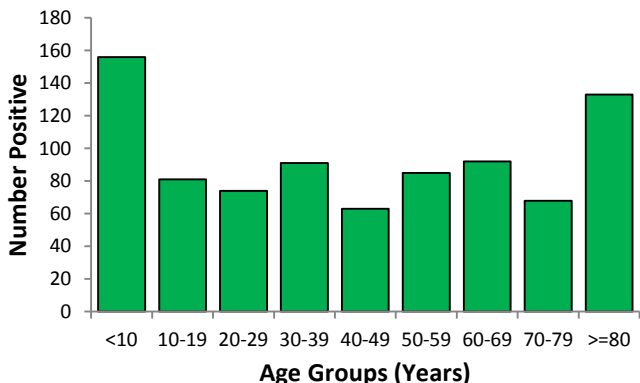
■ Pediatric ■ Adult

Age Distribution

Using the age calculated from the date of birth, the data were categorized into age groups by decade, starting with less than 10 years and increasing to greater than 80 years. The youngest person reported with influenza during the 2012-13 season was 5 days old and the oldest was 99 years. The mean age among reported patients positive for influenza was 44 years.

Voluntary Reporting of Influenza Testing – Maine, 2012-2013

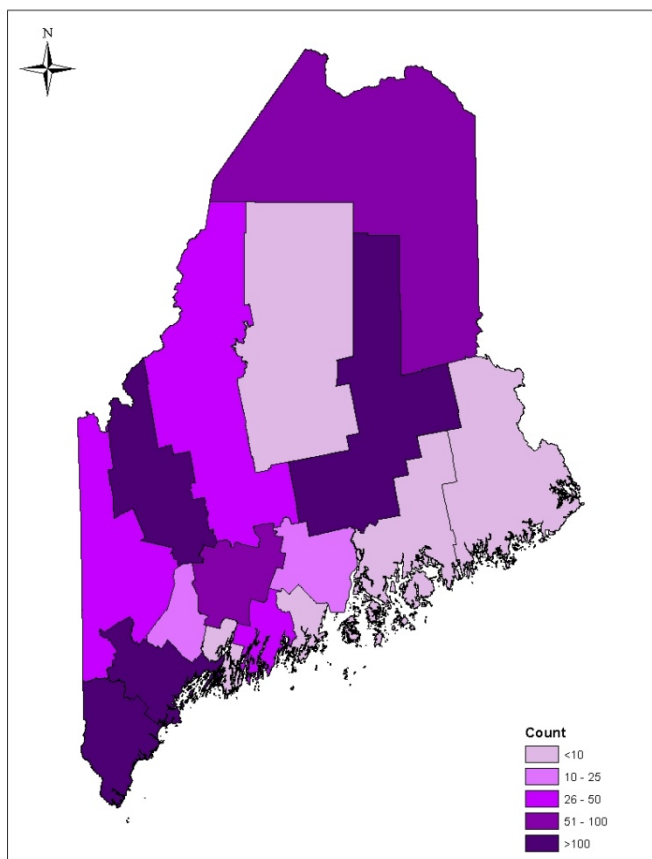
Positive Influenza Tests by Age – Maine, 2012-13



Geographic Distribution

Most of the influenza reports included the city of patient's residence. For those that did not have a city listed, the city from the reporting source was used. Using this method, city and county data were available for all patients. Influenza was reported in all 16 counties.

Positive Influenza Tests by County – Maine, 2012-13

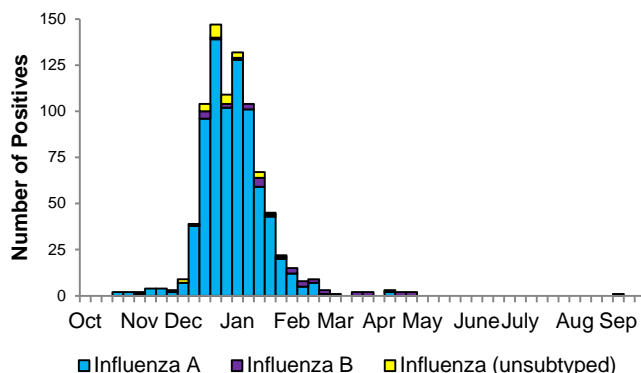


Time Frame

Positive rapid tests were first reported to Maine CDC in October 2012. The positive tests reported to Maine CDC peaked in the last week of December (147 tests reported).

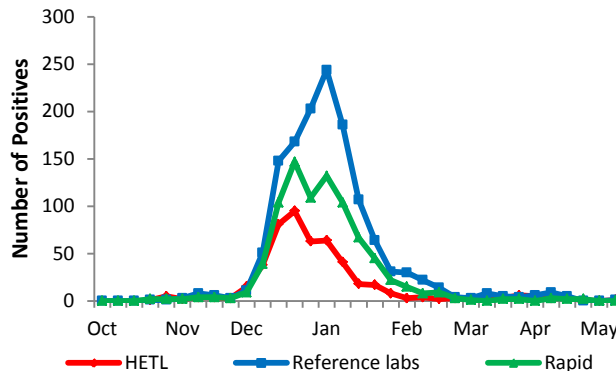
No positive tests were reported June – August, one positive influenza A test was reported in September 2013.

Positive Influenza Tests by Type– Maine, 2012-13



The findings of voluntary test surveillance matched well to the trends identified through other laboratory surveillance methods (reference labs, HETL)

Three Reporting Methods for Influenza – Maine, 2012-13



Discussion

In this sample of positive lab tests from the 2012-13 influenza season in Maine, influenza A was reported more than influenza B. Overall, influenza was reported in more adults than pediatric patients. The most commonly reported age group was <10 years, which is younger than previous years. Cumberland and York counties reported the most cases of influenza with 152 and 160 respectively. Influenza laboratory activity during the 2012-13 season peaked in December and January.

Although rapid test results have limitations, they demonstrate the burden of disease by age group, gender, geographical location, and time of year.