



Infectious Disease Epidemiology Report



Influenza, Maine – 2008 - 2009

Synopsis

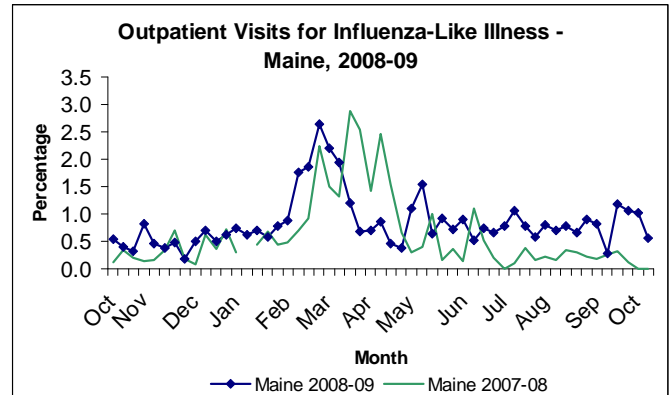
Influenza is a viral illness that typically occurs during the winter months. Characterized by the abrupt onset of constitutional and respiratory signs and symptoms, such as fever, muscle aches, headache, severe malaise, non-productive cough, sore throat, and runny nose, influenza is spread from person to person primarily by coughing and sneezing. Influenza-like illness (ILI) is a term used to describe illness that presents with the typical signs and symptoms of influenza, but that has not been confirmed as influenza by laboratory test. ILI is defined as fever greater than or equal to 100°F (37.8°C) and cough and/or sore throat in the absence of a known cause other than influenza.

Methods

The purpose of influenza surveillance is to inform influenza prevention and control policy. During the 2008-09 influenza season, the Maine Center for Disease Control and Prevention (Maine CDC) conducted influenza surveillance in collaboration with multiple public and private agencies. Thirteen health care providers, three laboratories, four hospitals, and three city vital records offices reported weekly surveillance data from September 28, 2007 to October 3, 2009.

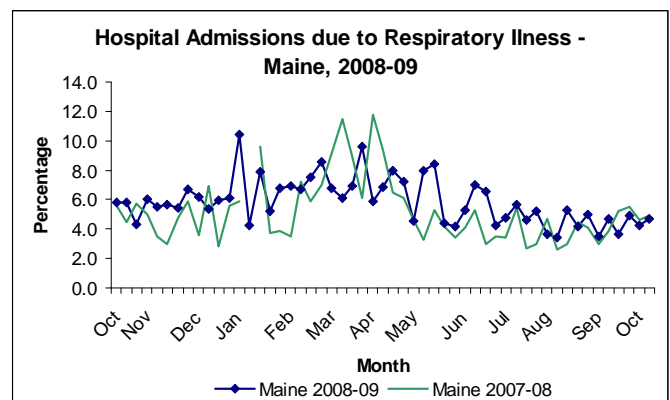
Outpatient Influenza-like illness

Outpatient ILI data were collected through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), a collaborative effort between the federal CDC, Maine CDC, and local health care providers. During the 2008-09 season, 13 health care providers reported the number of patients seen in their practices and the number of those patients with ILI by age group on a weekly basis. Outpatient ILI visits peaked in February. This was similar to what was reported from regional ILINet providers.



Hospital inpatients

Inpatient surveillance for respiratory illness admissions in Maine was conducted in collaboration with four hospitals. During the 2008-09 season, three hospitals reported the number of patients admitted to the hospital and the number of those patients admitted for influenza or pneumonia using admitting diagnoses. One hospital reported the number of patients admitted to the hospital from the emergency department and the number of those patients admitted for respiratory illness using chief complaint. Hospital admissions for influenza, pneumonia, or respiratory illness were highest in January and again in March.

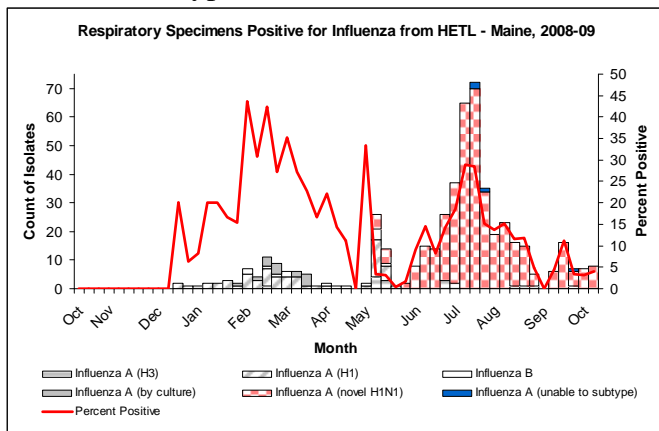


Laboratory Reporting

Maine CDC's Health and Environmental Testing Laboratory (HETL) worked collaboratively with hospitals and private laboratories to collect

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specimens for respiratory virus testing and influenza positive isolate subtyping. HETL reported the number of specimens received for respiratory virus testing and the number positive for influenza A (H1), A (H3), A (subtype unknown), novel A (H1N1) and influenza B by specimen collection date. During the 2008-09 season, 4,989 respiratory specimens were tested by HETL for influenza by culture and/or PCR. Of the specimens tested for influenza, 505 (10.1%) were positive for influenza (60 for influenza A [H1], 18 for influenza A [H3], 15 for influenza A [subtype unknown], 393 for influenza A [novel H1N1], 4 for influenza A [unable to subtype], and 15 for influenza B).



Two reference laboratories in Maine also participated in 2008-09 influenza surveillance activities. These laboratories submitted weekly reports of laboratory-confirmed influenza by culture or reverse-transcriptase polymerase chain reaction (RT-PCR) and number of specimens tested. During the 2008-09 season, 2,622 respiratory specimens were submitted for viral testing to these laboratories. Of these, 325 (12.4%) specimens were positive for influenza (275 for influenza A and 50 for influenza B).

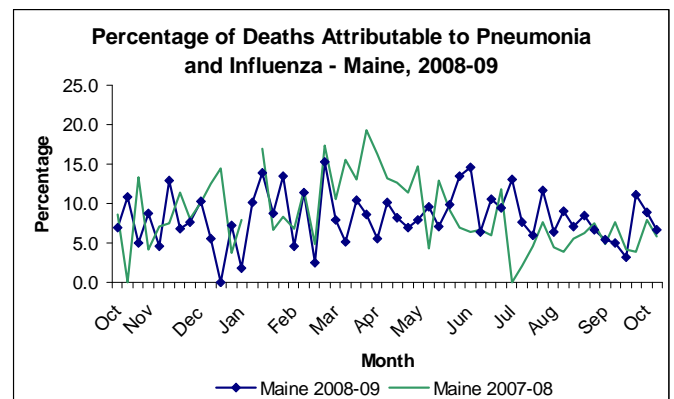
Outbreaks

Outbreaks of influenza or influenza-like illness are reportable by law in Maine. During the 2008-09 season, a total of 74 outbreaks of influenza were reported in Maine. Of these outbreaks, 20 were reported in long-term care facilities, 2 in acute care facilities, 17 in K-12 schools, 1 in a residential school or university, 1 in health care workers, 2 in

other institutions and 31 in summer camps. Outbreaks occurred in all regions of the state.

Death Certificates

The vital statistics offices of three Maine cities, Portland, Lewiston and Bangor, reported the number of death certificates in which pneumonia and influenza were mentioned as the primary or secondary cause of death. Data reported represent deaths that occurred in the reporting area, not the residence of the deceased. During the 2008-09 season, a total of 3,131 deaths were reported by three vital records offices. Of these, 262 (8.4%) were attributed to pneumonia or influenza. Pneumonia and influenza-attributable deaths peaked during mid-March. No influenza-associated pediatric deaths were reported in Maine during the 2008-09 season.



Discussion

The 2008-09 influenza season was markedly different than previous seasons due to the emergence of the pandemic strain of Influenza A/H1. This pandemic strain caused illness and outbreaks throughout the summer, when influenza is not normally seen.

References

<http://www.maine.gov/dhhs/boh/Influenza.htm>
<http://www.cdc.gov/flu/>