



H1N1 Update – Novel Type A Influenza (H1N1) in Boston Schools May 21, 2009

SUMMARY As of May 21, 2009, 43 cases of novel type A influenza (H1N1) infection have been identified in Boston. In addition, several schools in Boston have reported unusually high rates of absenteeism since the end of last week. Several Boston schools have been temporarily closed in an effort to prevent new infections and limit illness. This update provides interim guidance for healthcare providers in Boston regarding recent clusters of illness identified in Boston schools and in the community.

Update

As of May 21, 2009, 43 cases of laboratory confirmed novel influenza A (H1N1) have been identified in Boston residents. In Massachusetts, 235 cases have been confirmed by laboratory testing, and the total number of cases in the United States is currently 5,764.

BPHC closely monitors visits to Boston emergency departments for influenza-like illness (ILI) and other respiratory conditions. From April 26 to May 2, the total number of visits increased sharply, primarily among school-age children and young adults. During the week ending May 16, overall visits began to slowly decline, although activity remains well above baseline for this time period. In addition, age-specific trends show that ILI visits among school-age children have continued to rise (Figure 1). Although the overall increase in emergency department visits may be in part due to media attention and health seeking behavior, it is likely that the burden of illness due to influenza is increasing, especially among school-age children.

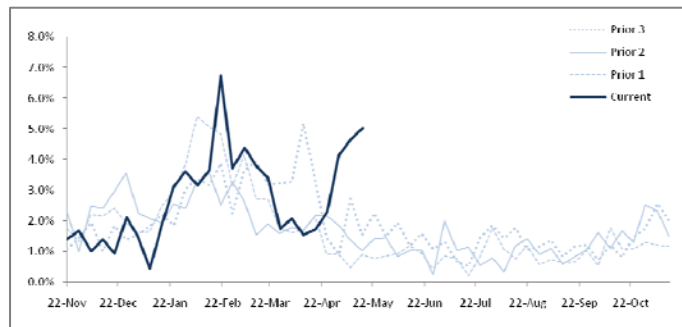


Figure 1. Percent of visits to Boston emergency departments for Influenza-like Illness among children and adolescents (Ages 5-17 years). Current activity is compared to prior years during the same time 12 month period.

On May 18, 2009, BPHC began investigating reports of unusually high and sustained absenteeism due to ILI in several Boston schools. Investigations to date have identified absentee rates substantially higher than those typically observed during peak seasonal influenza time periods. A recent survey of absent students at one school identified 71% with symptoms consistent with influenza. BPHC has recommended temporary closure of three schools due to high rates of illness to prevent new infections within the school. Additional school closures may occur, with decisions made on a case by case basis.

In addition to the temporary school closures, BPHC recommends that students, staff, and their family members from affected schools monitor their own health for any symptoms consistent with influenza. At this point it is highly likely that novel influenza A (H1N1) is circulating in schools and within the community, whether or not there is a laboratory confirmed case in a specific setting. Everyone should be encouraged to practice good hand hygiene and cough etiquette, and to stay home when ill.

Surveillance and Prevention in Boston Schools and Child Care Settings

The following recommendations apply to all schools in Boston, regardless of whether or not they are experiencing higher than usual rates of absenteeism. They are designed to help prevent the spread of ILI in school and child-care settings.

- Emphasize to students and parents, the importance of proper hand washing and cough etiquette in preventing the spread of diseases. Educational materials, posters, etc. are available on the BPHC or MDPH websites, www.bphc.org/swineflu, or www.mass.gov/dph/swineflu.
- Inform parents and caregivers that they should assess all family members (and especially all school-age children) for symptoms of influenza before sending them to school. ILI may include fever plus cough, sore throat or runny nose. It may also include other symptoms, such as vomiting or diarrhea.
- All school staff should monitor themselves for symptoms of influenza before reporting to work, and should stay home if they are symptomatic.
- Students or staff with ILI should be promptly isolated and sent home. All such students and staff should stay out of school for at least 7 days even if their symptoms resolve sooner. Students and faculty who are still sick at 7 days should continue to stay home from school until at least 24 hours after they have completely recovered.
- School nurses and student health centers should report higher than normal absenteeism to the Boston Public Health Commission at (617) 534-5611.

Symptoms and Contagiousness

The symptoms of novel influenza A (H1N1) in the United States have been similar to routine seasonal influenza, and include fever, cough, sore throat, headache, chills, myalgias, and fatigue. The incubation period is estimated to range from 1-7 days, and more likely 1-4 days.

Specimen Collection & Laboratory Testing

Individuals with mild ILI, defined as fever (>100°F) with cough or sore throat, may not require laboratory confirmation. Few data are available on the sensitivity and specificity of rapid flu testing with novel H1N1 influenza. Specimens for testing should be submitted to MDPH's William A. Hinton State Laboratory Institute (HSLI) for the following groups:

- Those with flu-like febrile respiratory illness or sepsis-like syndrome requiring hospitalization
- Those at high risk of complications with influenza, including:
 - Children less than 2 years old;
 - Persons aged 65 years or older;
 - Adults and children who have immunosuppression (including immunosuppression caused by medications or by HIV);
 - Adults and children who have chronic pulmonary, cardiovascular, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders;
 - Pregnant women;
 - Children and adolescents (less than 18 years) who are receiving long-term aspirin therapy who might be at risk for experiencing Reye syndrome after influenza virus infection;

For information on how to collect and submit specimens for testing, please review the MDPH Interim Guidance for Testing and Antiviral Treatment. www.mass.gov/dph/swineflu

Treatment & Prophylaxis

Treatment with oseltamvir or zanamivir should be reserved for individuals with severe influenza or with conditions that may place them at high risk for complications from influenza. In addition, anyone experiencing ILI symptoms should refrain from public activities for seven days from the onset of illness or for 24 hours after symptoms have resolved — whichever is longer.

Prophylaxis is recommended for household contacts of an individual with:

- Probable or confirmed novel influenza A (H1N1) OR
- Influenza-like illness who is a student or staff member at a school closed due to influenza

Who meet one of the following criteria:

- The contact is at higher risk for complication of influenza (see list above) OR
- The contact is a health care worker

Prophylaxis should be considered for:

- Occupational exposure:
 - Health care workers exposed to the respiratory secretions of probable or confirmed cases of novel H1N1 influenza A without use of recommended precautions.

Infection Control

The Boston Public Health Commission and the Massachusetts Department of Public Health recommend the use of standard and droplet precautions in the care of patients with suspected, probable or confirmed novel influenza A H1N1. These precautions should apply in inpatient, ambulatory care and emergency department settings. Fit tested N95 respirators should be used for aerosol inducing procedures. These precautions should be accompanied by policies and procedures consistent with respiratory hygiene/cough etiquette for reducing the risk of respiratory virus transmission in reception, transport, and other circumstances in healthcare and other settings.

Other Resources

Additional guidelines, materials on 'flu care at home', fact sheets, and symptom checklists are available on the BPHC (www.bphc.org/h1n1fluguidance) and MDPH (www.mass.gov/dph/swineflu) websites.

All cases of influenza diagnosed in Boston and confirmed by any laboratory test should be reported to the Boston Public Health Commission. Reports can be made by calling the BPHC Communicable Disease Control Division at (617) 534-5611 or faxing a case report form (available at www.bphc.org/cdc) to (617) 534-5905.