

BOSTON PUBLIC HEALTH COMMISSION • INFECTIOUS DISEASE BUREAU

Communicable Disease Control Division

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H1N1 Update – Novel Type A Influenza (H1N1) June 16, 2009

SUMMARY

As of June 16, 2009, 449 cases of novel type A (H1N1) influenza infection have been laboratory confirmed in Boston. At this time the incidence of H1N1 influenza appears to be declining, although mild influenza-like illness (ILI) continues at levels well above baseline for this time of year, and severe hospitalized cases continue to be reported. This update describes cases of H1N1 influenza identified to date, ILI activity in Boston, and interim guidance from the Boston Public Health Commission (BPHC) for healthcare providers.

Update

As of June 16, 2009, 449 cases of novel type A (H1N1) influenza have been laboratory confirmed in Boston. In Massachusetts, there are over 1,150 confirmed cases, and in the United States, over 17,000. Table 1 describes confirmed H1N1 influenza cases in Boston to date. Of the 449 cases in Boston, 62 (14%) have been hospitalized with a length of stay greater than 24 hours; 17 were admitted to an ICU and 5 were placed on mechanical ventilation. Age ranges from 0 to 71 years of age, and the median age is 13 years. 288 (64%) are under 18 years of age, 85 (19%) are under age 5, and 415 (92%) are under age 45; only 34 cases (8%) have been over age 45. One death has been reported in a 30 year old individual, and an investigation is ongoing.

Table 1. Cumulative Summary of Confirmed H1N1 Influenza cases in Boston, by age and in total

Age			Gender		At Risk Groups		Hospital Care				Deaths
Age group	N	(%)	Male	Female	HCW	Pregnant	Hospitalized	(%)	ICU	Ventilated	N
0-4	85	19%	56	29	0	0	18	21%	3	1	0
5-17	203	45%	111	92	0	1	20	10%	10	1	0
18-44	127	28%	43	84	27	15	14	11%	4	3	1
45-64	29	7%	11	18	2	0	7	24%	0	0	0
65+	5	1%	1	4	0	0	3	60%	0	0	0
Total	449	~	222 (49%)	227 (51%)	29	16	62	14%	17	5	1

^{*}Hospitalization defined as length of stay greater than 24 hours

At this time overall levels of influenza-like illness in Boston appear to be declining. Although most cases of influenza-like illness are not laboratory confirmed for H1N1 influenza (per MDPH and BPHC recommendations for testing), visits to emergency departments (EDs) in Boston, reported influenza A cases, and other indicators have shown declining activity over the past week (Figure 1). During the week ending June 13, ED visits for influenza like illness decreased across all ages, most significantly among school age children and children less than 5, the age groups predominantly affected by H1N1 influenza to date.

Although community transmission appears to have peaked and is now declining, ED visits remain well above baseline for this time of year, and cases of severe illness in hospitalized persons continue to be reported. In addition, BPHC continues to evaluate Boston schools reporting high and sustained rates of student absenteeism due to influenza-like illness, and temporary school closures are recommended on a case-by-case basis. BPHC recommends that students, staff, and their family members from affected schools monitor their own health for any symptoms consistent with influenza, and stay home when ill.

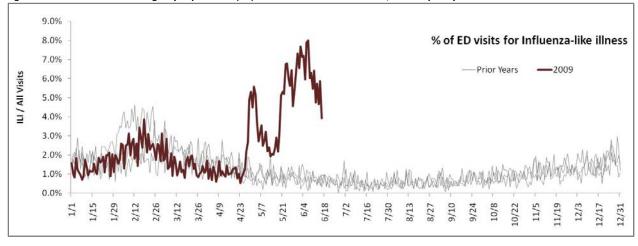


Figure 1. Percent of Boston emergency department (ED) visits for Influenza-like Illness, 2009 vs prior years

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, usually 1-4 days.

Treatment & Prophylaxis

The influenza A (H1N1) virus is susceptible to the prescription antiviral drugs oseltamivir and zanamivir. BPHC continues to recommend that treatment with oseltamvir or zanamivir be reserved for individuals with severe influenza or with conditions that may place them at high risk for complications from influenza. BPHC also recommends that 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.

Early prophylaxis is <u>recommended</u> for household contacts of an individual with probable or confirmed novel influenza A (H1N1) OR who has influenza-like illness and is a student or staff member at a school **closed** due to influenza, who meet one of the following criteria: 1) The contact is at higher risk for complication of influenza (Table 2), or 2) the contact is a health care worker.

In addition, prophylaxis <u>should be considered</u> for health care workers exposed to the respiratory secretions of probable or confirmed cases of novel H1N1 influenza A without use of recommended precautions.

Table 2. Persons considered at higher risk complications with influenza

- 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 (including asthma), 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

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

BOSTON PUBLIC HEALTH COMMISSION - INFECTIOUS DISEASE BUREAU

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.

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; a negative rapid flu test does not rule out a diagnosis of influenza. Specimens for testing can be submitted to MDPH's William A. Hinton State Laboratory Institute (HSLI) for persons with flu-like febrile respiratory illness or sepsis-like syndrome requiring hospitalization, or persons at high risk of complications (Table 2, above) with influenza. For information on how to collect and submit specimens for testing at the state laboratory, please review the MDPH Interim Guidance for Testing and Antiviral Treatment: www.mass.gov/dph/swineflu. Several commercial laboratories also now offer testing for H1N1 influenza.

Reporting and 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. For national information from the Centers for Disease Control and Prevention, visits www.cdc.gov/h1n1flu.

All cases of influenza diagnosed in Boston that are 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.