



SITUATION REPORT • MASSACHUSETTS H1N1 RESPONSE

WEEK ENDING - 10/23/09

Epidemiology, Surveillance and Laboratory

Sentinel Provider Surveillance: Influenza-like illness activity

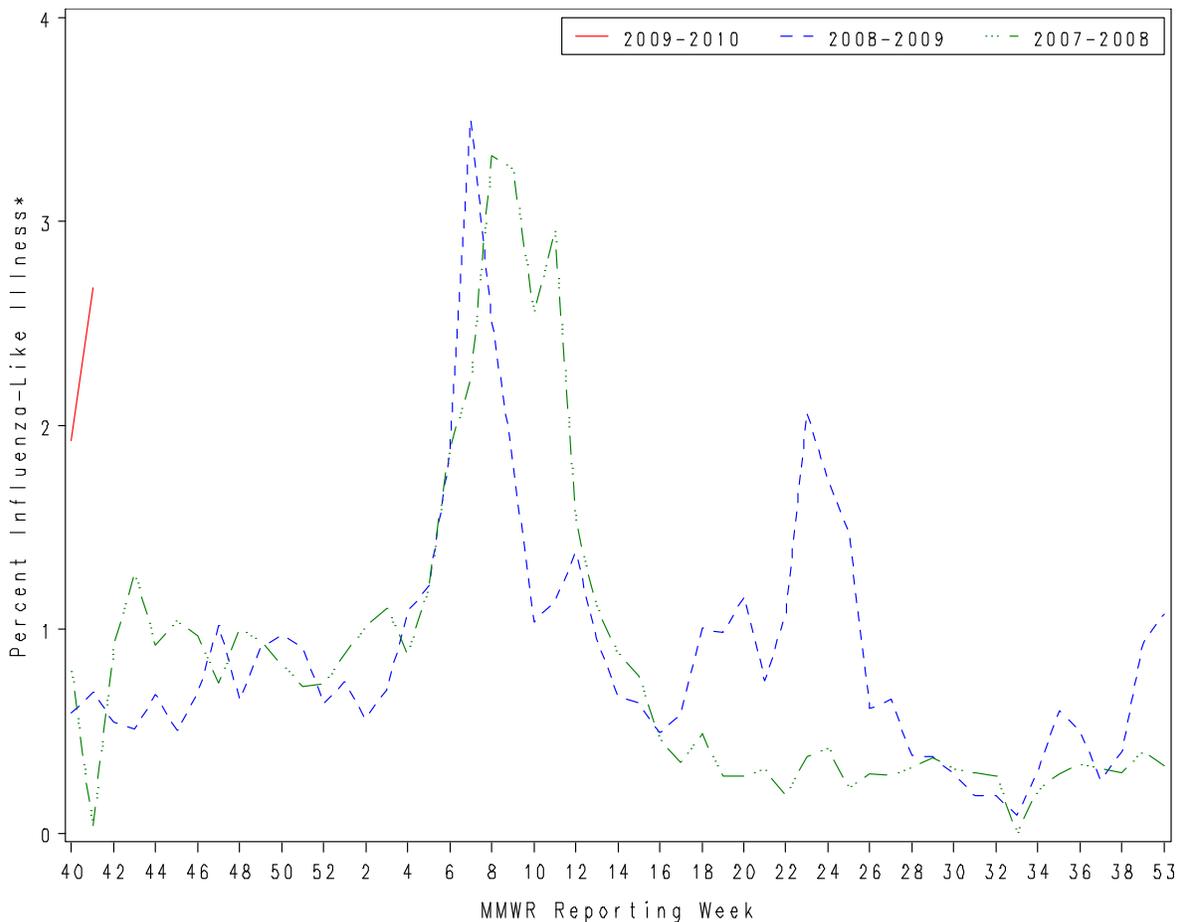
Week 41 activity level: Widespread

Provider offices across the US report the amount of influenza-like illness (ILI) they see in their patients each week during regular flu season. These doctors' offices are called 'sentinel sites'. Here we present Massachusetts sentinel site data. Please note that the data do not represent confirmed influenza cases, only those with ILI. ILI is defined as fever above 100.0² in addition to either cough or sore throat. ILI is a marker of influenza and is used throughout the regular flu season to monitor influenza since most people are not tested. Figure 1 shows a continuous, dramatic increase in ILI activity over the past few weeks in excess of what was seen at the same time the last two years. The 2009-2010 flu season began last week and is represented by the short, red line.

¹ <http://www.cdc.gov/h1n1flu/update.htm>

² Per CDC definition for influenza-like illness: <http://www.cdc.gov/h1n1flu/casedef.htm>

Figure 1: Percentage of ILI visits reported by sentinel provider sites



*Influenza-like illness (ILI, defined by fever >100F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites.

Table 1 below shows a geographical distribution of reported ILI in Massachusetts. Sentinel sites in Boston and the Central, Northeast, and Western regions of the state are experiencing highly elevated levels of ILI activity. Inner metro Boston is reporting slightly elevated ILI activity.

Table 1: Percent ILI reported weekly by Massachusetts sentinel sites

	2009-2010			2008-2009		
	%ILI	Report. Sites	Total enroll.	%ILI	Report. Sites	Total enroll.
Boston	2.77	3	7	0.00	2	5
Central	2.29	5	12	0.55	7	8
Inner Metro Boston	1.47	2	9	0.37	3	2
Northeast	4.03	6	12	0.31	7	9
Outer Metro Boston	0.42	6	4	4.27	2	2
Southeast	0.00	1	6	0.13	3	6
West	4.37	6	9	0.38	8	10

Automated Epidemiologic Geotemporal Integrated Surveillance System (AEGIS) Flu Data

The AEGIS System is the syndromic surveillance system for MDPH, and performs automated, real-time surveillance for infectious disease outbreaks. As an adaptation of the AEGIS surveillance system, AEGIS Flu is designed to provide early warning of influenza epidemics and pandemics. With special focus on demographic and spatial patterns of illness, AEGIS Flu provides automated, real-time surveillance of influenza rates, location, and spread. Emergency department (ED) ILI data are collected from 19 hospitals in Massachusetts. Visits from emergency departments can be affected by several factors, including how worried people are about the flu, whether people can see their own doctor, media announcements, etc. The data are most useful for following trends over several days or weeks. In Figure 2 below, we can see current rates of total visits to emergency departments in MA due to flu-like symptoms compared to historical trends. Similar to Massachusetts Sentinel Site data, AEGIS data suggests a continuous increase in influenza-like illness over the recent weeks.

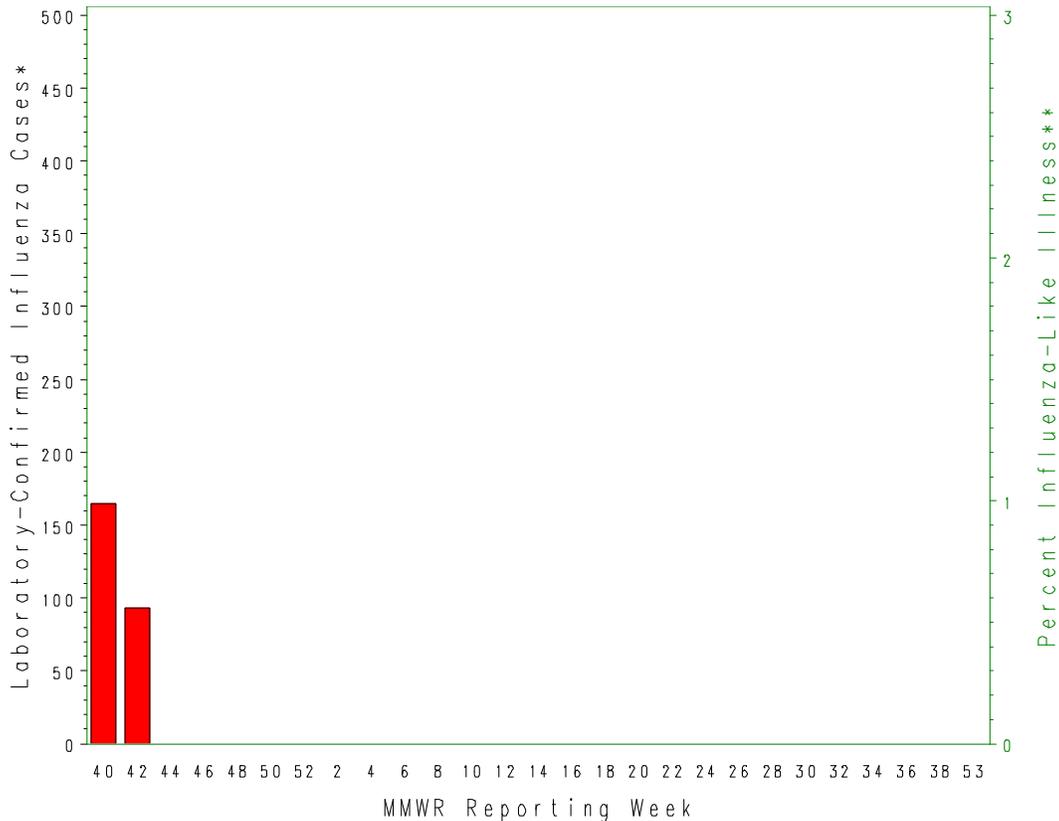


Figure 2: Percentage of Total Visits to MA Emergency Departments Due to Flu-Like Symptoms

Laboratory testing for influenza

The William A. Hinton State Laboratory Institute has been doing confirmatory testing of H1N1 since mid-April, which is typically the late part of the influenza season. The number of 'confirmed' cases does not reflect the overall incidence of H1N1 flu. The majority of cases are not tested. This is true during seasonal flu as well. Below are two tables reflecting current laboratory data.

**Figure 3: Laboratory-confirmed Influenza Cases and Influenza-like Illness
Massachusetts, October 4, 2009 - October 22, 2009**



*Influenza cases confirmed via viral culture, PCR or rapid test by specimen collection date.

**Influenza-like illness (ILI, defined as fever >100F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites by CDC week date. [Because there is so little ILI data for the 09-10 flu season to date, it is not visible on this figure.]

Figure 4 summarizes the testing conducted at the HSLI since April 19, 2009. HSLI discontinued testing for influenza type B as of May 24, after no positive specimens were seen for two weeks. On October 1, 2009, testing for influenza B was re-started in preparation for the regular influenza season; no influenza B results have been reported. There have been no positive specimens for seasonal influenza A since early June. 29% of all specimens tested at the HSLI since October 4, 2009 have been novel influenza A (H1N1) 2009 virus. Complete strain surveillance testing for influenza A/H1, A/H3, B and influenza A (H1N1) 2009 virus was reinstated beginning the first week of October.

Figure 4: Influenza positive tests reported to CDC by HSLI, April-October 2009

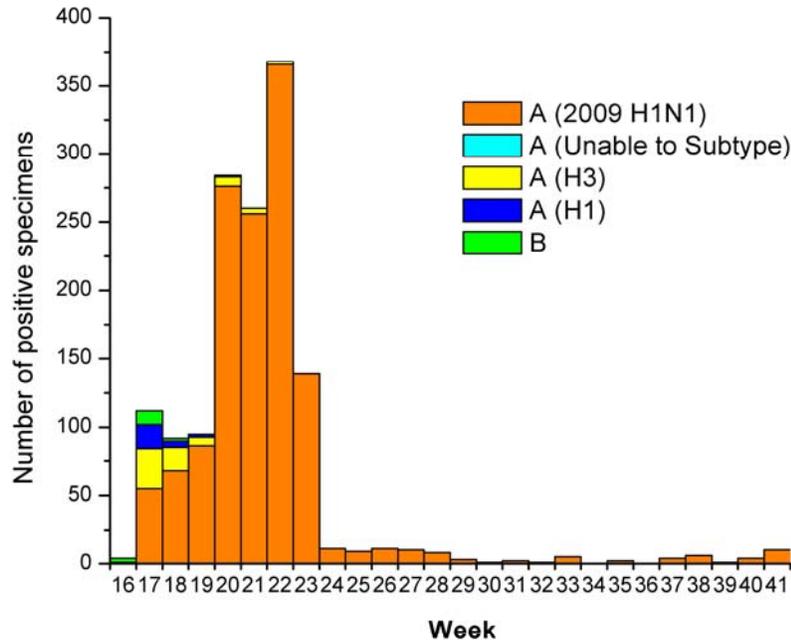


Table 2: Weekly Summary of HSLI Influenza Surveillance Test Results

2009-2010 Season: Influenza Surveillance William A. Hinton State Laboratory Institute								
MMWR Week: (Specimen Collected)	Seasonal Influenza A H1/N1	Seasonal Influenza A H3/N2	Influenza B	Swine-Origin Influenza A H1N1	Negative for Influenza	% Swine-Origin Influenza A H1N1	% Seasonal Influenza	Total Tested
40 (10/4-10/10/09)	0	0	0	4	16	20	0	20
41 (10/11-10/17/09)	0	0	0	10	23	36	0	28
Total	0	0	0	14	39	29	0	48

2009 H1N1 influenza

As of October 22, 2009, 1436 confirmed cases of H1N1 have been reported throughout Massachusetts since April of 2009. The 2009-2010 influenza season officially started on October 4, 2009. Table 3 below represents H1N1 cases that have been confirmed in MA since October 4, 2009; the final column of this table is the number of cases of seasonal and influenza of unknown type, also since October 4. Table 4 shows the cumulative H1N1 cases that have been confirmed in MA since April 26, 2009. Both tables are updated weekly. It is important to note that the vast majority of persons with influenza-like illness are not tested. Of those that are tested, only a small percentage of

tests are subtyped to determine whether they have H1N1 or another type of seasonal influenza. At this point in the season, most of the cases in the “seasonal and untyped” column are likely H1N1.

The Centers for Disease Control and Prevention (CDC) is no longer reporting the national total of confirmed cases of H1N1 and is instead focusing on hospitalized cases and deaths. Nationally, influenza-like illness (ILI) continues to increase with the majority of states now reporting widespread activity. Please visit the CDC's website for up-to-date information (www.cdc.gov/h1n1).

Table 3. Confirmed Influenza cases in Massachusetts, October 4, 2009 - October 22, 2009

	Age group (N)	Pregnant (N)	Hospitalized (N)	Deaths (N)	Seasonal and Untyped Influenza by Age Group (N)
0-4 years	2	0	2	0	36
5-12 years	7	1	2	0	124
13-18 years	4	0	0	0	97
19-25 years	3	0	0	0	56
26-44 years	5	0	1	0	52
45-64 years	2	0	2	0	47
65+ years	0	0	0	0	11
Unknown	0	0	0	0	3
TOTAL	23	1	7	0	426

Table 4. Confirmed H1N1 cases in Massachusetts, April 26, 2009 - October 22, 2009

	Age group (N)	Age group (%)	Female (%)	Pregnant (N)	Hospitalized (N)	Hospitalized (%)	Deaths (N)
0-4 years	203	14.1	38.42	0	37	18.23	0
5-12 years	401	27.9	41.40	1	34	8.48	0
13-18 years	295	20.5	48.14	6	19	6.44	1
19-25 years	144	10	63.89	18	17	11.81	2
26-44 years	232	16.2	67.67	30	32	13.79	3
45-64 years	143	9.96	63.64	0	36	25.17	5
65+ years	17	1.18	70.59	0	9	52.94	1
Unknown	1	0.07	0	0	0	0	0
TOTAL	1436	~~	51.39	55	184	12.81	12

As shown in Table 4 above, school-aged individuals (5-18 years) have been primarily affected by H1N1; nearly 63% of cases are age 18 or younger. The median age of cases is 14 and cases ranged from 0 to 84 years. To date, males and females have been equally impacted by H1N1. Overall, 184 cases have been hospitalized (13%), which is similar to the national hospitalization rate of 11% as of July 10, and 12 cases have died. Of the 12 deaths, 9 had underlying conditions.

The immunization epidemiologists received and responded to 397 calls related to influenza from Oct. 16 - 22, 2009 (compared to 187 last week). Commonly received questions are similar to those for the last few weeks and include the following: the general public looking for H1N1 vaccine (some are looking specifically for thimerosal-free vaccine); individuals from high-risk groups who are having difficulty getting H1N1 vaccine (some of these callers believe the wrong people are getting the vaccine first); the general public looking for seasonal flu vaccine; questions from provider offices and others regarding spacing/timing of seasonal and H1N1 vaccines; clinicians inquiring about submitting specimens for testing.

The current ILI activity level in MA, based on the sentinel provider system, has increased and is now “widespread.” The activity for the previous four weeks in MA was “regional.” In addition to the increased level of ILI activity via our sentinel surveillance system, there are several other indications that influenza activity is increasing in Massachusetts. For example, the Division of Epidemiology and Immunization has received several reports of ILI clusters in school and the Hinton State Laboratory is receiving an increased number of specimens for H1N1 testing.

Vaccination

H1N1 Influenza Vaccination Program Update 10/22/09

Reporting of Doses Administered: The system for reporting of doses administered went live on Friday, October 9. The link is <http://www.mass.gov/flu/h1n1reporting>. Our current reporting period is October 11 – October 17. On Tuesday, October 20, we reported to the CDC that a total of 51,879 doses were reported to us as being administered during this period.

Allocation: The 7th and 8th vaccine orders were placed to the CDC. Below are the amounts allocated under each dose:

	Date	0.5 ml Pre-filled syringe	Multi-dose Vaccine	LAIV (Nasal Spray)	Total
Order 7	10/19/09	10,400	14,000		24,400
Order 8	10/20/09			18,200	18,200
Total		10,400	14,000	18,200	42,600

In order to reach the priority populations of pregnant women, health care workers and youth (including high risk youth), allocation has prioritized ob-gyn, pediatric, family and multi-specialty practices. In addition, all registered hospitals and community health centers have been prioritized to receive vaccine. This week, the H1N1 Vaccine Program began allocating limited quantities of vaccine to Local Boards of Health (LBOHs).

In total, Massachusetts has received approximately 270,000 doses of H1N1 vaccine in all formulations, or between 5% and 10% of the doses we expect to receive overall.

Registration: As of 10/21/09, 2,416 sites registered as primary sites to receive H1N1 vaccine. These primary sites registered an additional 1,807 secondary sites for a total of 4,223 sites across the Commonwealth.

Help Desk Information: Since the Help Desk went live in late August, the staff has recorded the handling of 1,969 calls. This is a slight undercount, as time often does not permit tracking all of the calls received.

If you have questions about registering or reporting, please contact the MDPH H1N1 Vaccine Program Help Desk:

- Help Desk phone number: 888-578-5585
- Help Desk email address: MDPHH1N1Registration@state.ma.us
- Registration website: <http://www.mass.gov/dph/h1n1registration>
- Reporting website: <http://www.mass.gov/flu/h1n1reporting>

For a list of public seasonal and H1N1 flu vaccination clinics in Massachusetts, go to: <http://flu.masspro.org>, or call 211.

Treatment-Related (health care utilization, coordination with hospitals and providers)

Below are some treatment related documents from CDC.

Update: Updated Interim Recommendations -- HIV-Infected Adults and Adolescents: Considerations for Clinicians Regarding 2009 H1N1 Influenza

This update provides new information about vaccination and treatment of HIV-infected adults and adolescents affected by 2009 H1N1 influenza.

New Antiviral Safety Information Web Page

This page will be updated periodically with new antiviral safety-related information as it becomes available. Includes: information on new warnings regarding administration of Relenza (zanamivir) Inhalation Solution by nebulizer.

CDC Health Alert Network (HAN) Info Service Message: Recommendations for Early Empiric Antiviral Treatment in Persons with Suspected Influenza who are at Increased Risk of Developing Severe Disease

The 2009 pandemic H1N1 influenza virus continues to be the dominant influenza virus in circulation in the U.S. The benefit of antiviral treatment is greatest when it is initiated as early as possible in the clinical course.

Questions and Answers: Opening and Mixing Tamiflu Capsules with Liquids if Child Cannot Swallow Capsules

This document contains questions and answers about how to open and mix Tamiflu capsules if a child cannot swallow capsules. Tamiflu capsules may be opened and mixed with sweetened liquids, such as regular or sugar-free chocolate syrup and given that way.

School Closures

Grafton High School – Closed 10/23 through 10/27

Public Information

DPH Communications continued activities on our **FluFacts: What You Need to Know** public information campaign:

- The second round of Flu Facts: What You Need to Know TV commercials are now airing
- We have taped a 5 minute PSA with Commissioner Auerbach addressing the vaccine supply situation. We will post the video to our website later this week and will send it to cable access stations across the state early next week.
- Cable access stations will also receive next week the pre-taped 30 minute TV show addressing a variety of flu related topics
- We are revising the current radio spots to more accurately reflect the changing situation and they will be made available for stations in the coming weeks
- We continue to receive substantial orders for FluFacts materials. The numbers, as of October 22nd, are summarized in the chart below:

Wallet size	Requested as of Oct. 22	Posters	Requested as of Oct. 22
English	161,956	English	6,601
Spanish	32,322	Spanish	1,629
Portuguese	17,659	Portuguese	871
Chinese	3,050	Chinese	266
Vietnamese	4,693	Vietnamese	253
Haitian Creole	5,765	Haitian Creole	362

We have posted two letters from Commissioner Auerbach on our website. The [first](#) addresses the incorrect media reports stating that the Department of Public Health intends to make the H1N1 vaccine available to prison inmates before it is available to members of the general public. The [second](#) letter speaks to the current vaccine supply situation in the Commonwealth.

Lastly, we continue to update the [H1N1 blog](#) and [twitter](#) accounts on a regular basis.

Mass211 received 402 calls this week which is up significantly from the 186 calls received last week. The vast majority of calls were questions about vaccine availability and specifically clinic locations for both seasonal and H1N1 vaccine. Other calls were related to:

- The availability of Thimerisol free vaccine
- Availability of vaccine for caregivers of newborns
- If children are eligible for flu-mist
- When should ill health care workers return to work
- When will vaccine be available
- What are the symptoms of the flu
- Questions about seniors getting H1N1 vaccine
- What are the side effects of the vaccine

Updates to Policies and Guidance Documents

DPH posted numerous materials to www.mass.gov/flu including:

- A [letter](#) from Commissioner Auerbach regarding the H1N1 vaccine and prisons
- A [letter](#) from Commissioner Auerbach concerning the current vaccine supply situation in the state
- An [FAQ document](#) for parents of children with complex medical needs
- Both a [video](#) and [written transcript](#) of the second “Weekly Conference Calls with Public Health” held Wednesday, October 14th
- The H1N1 Flu Injectable Only Vaccine Consent Form in both [Portuguese](#) and [Spanish](#)
- The H1N1 Flu Injectable and Nasal Spray Vaccine Consent Form in both [Portuguese](#) and [Spanish](#)
- A [Vaccine Comparison Chart](#) for patients to help them determine if they need the seasonal or H1N1 vaccine
- A Letter to Parents of Children in early Education and Childcare Settings in [Chinese](#) and [Haitian Creole](#)

- An FAQ for Parents About Flu in Childcare Settings in [Chinese](#) and [Haitian Creole](#)
- A [Revised FAQ](#) on Laboratory Specimen Collection and Submission for Clinicians
- A revised Flu Facts materials [order form](#)