



Update on Seasonal Influenza

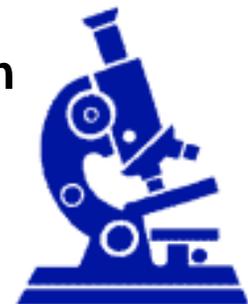
Massachusetts Public Health Council

September 17, 2014

Kevin Cranston, MDiv
Director, Bureau of Infectious Disease

Larry Madoff, MD
Director, Division of Epidemiology and Immunization

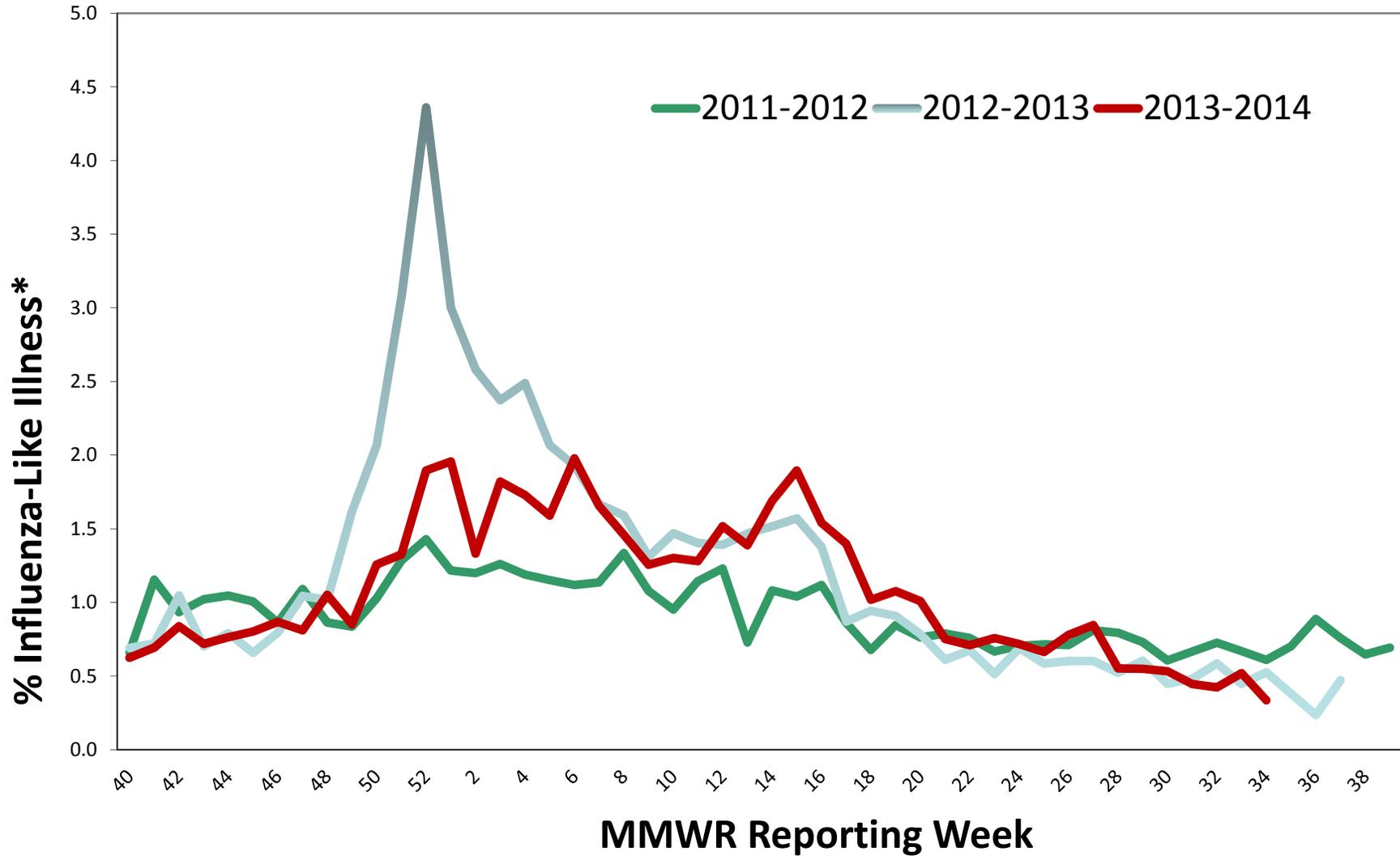
Pejman Talebian, MA, MPH
Director, Immunization Program



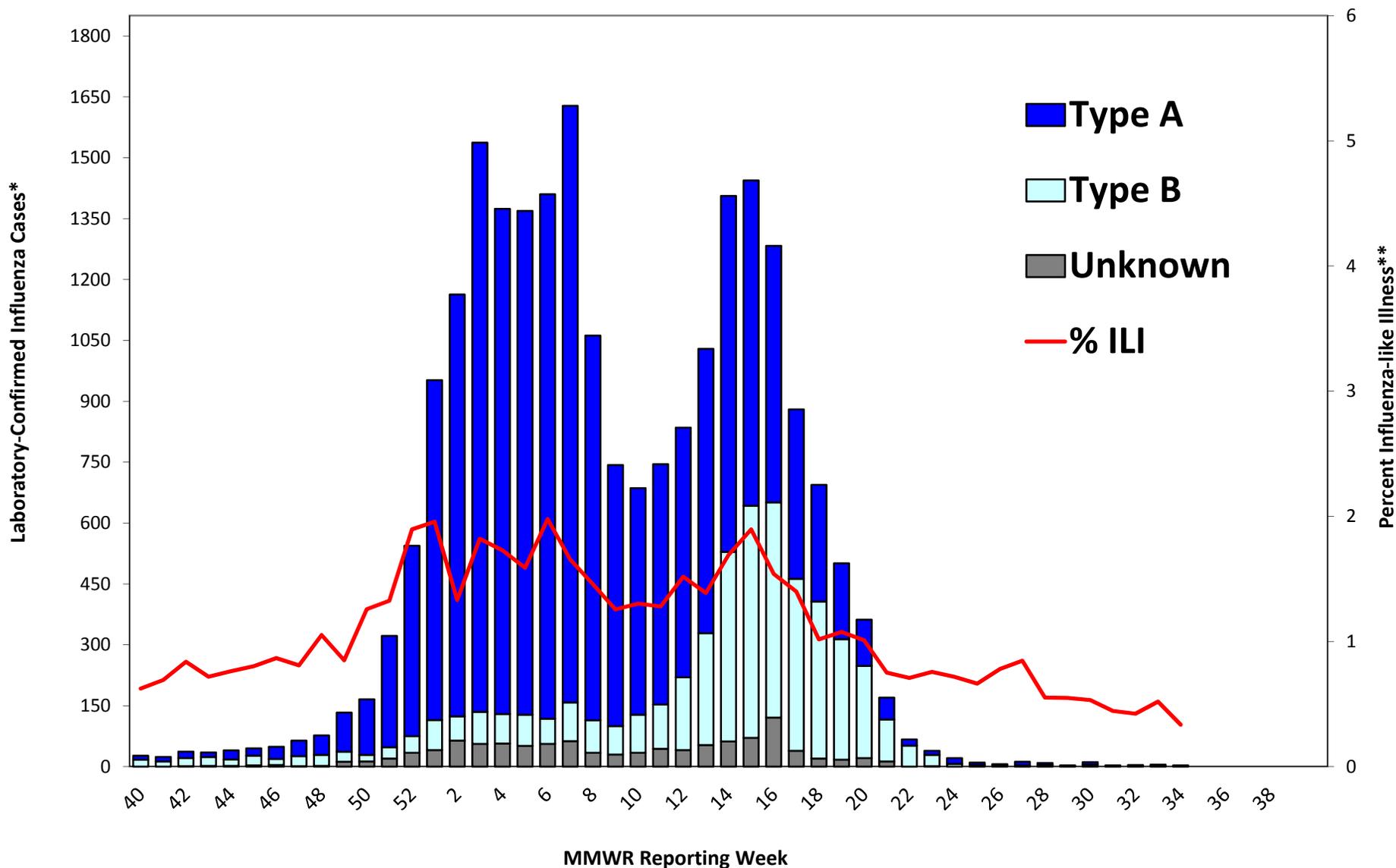
National Influenza Activity Summary 2013-2014 Season

- **H1N1 predominant for first time since 2009**
- **Nearly all of flu viruses sent to CDC for typing were similar to vaccine strains (good match)**
- **Moderately severe season**
 - **Highest rates of influenza disease and hospitalization among the elderly, but relatively high rates of disease among younger adults.**
 - **Hospitalization rates among those 50-64 years were significantly higher than in all years since the 2009 pandemic**
- **Relatively early flu season for 2nd year in a row**
- **Vaccine effectiveness ~52% overall**

Influenza-like Illness in Massachusetts



Massachusetts Laboratory-Confirmed Influenza Cases and Influenza-like Illness, 2013 - 2014

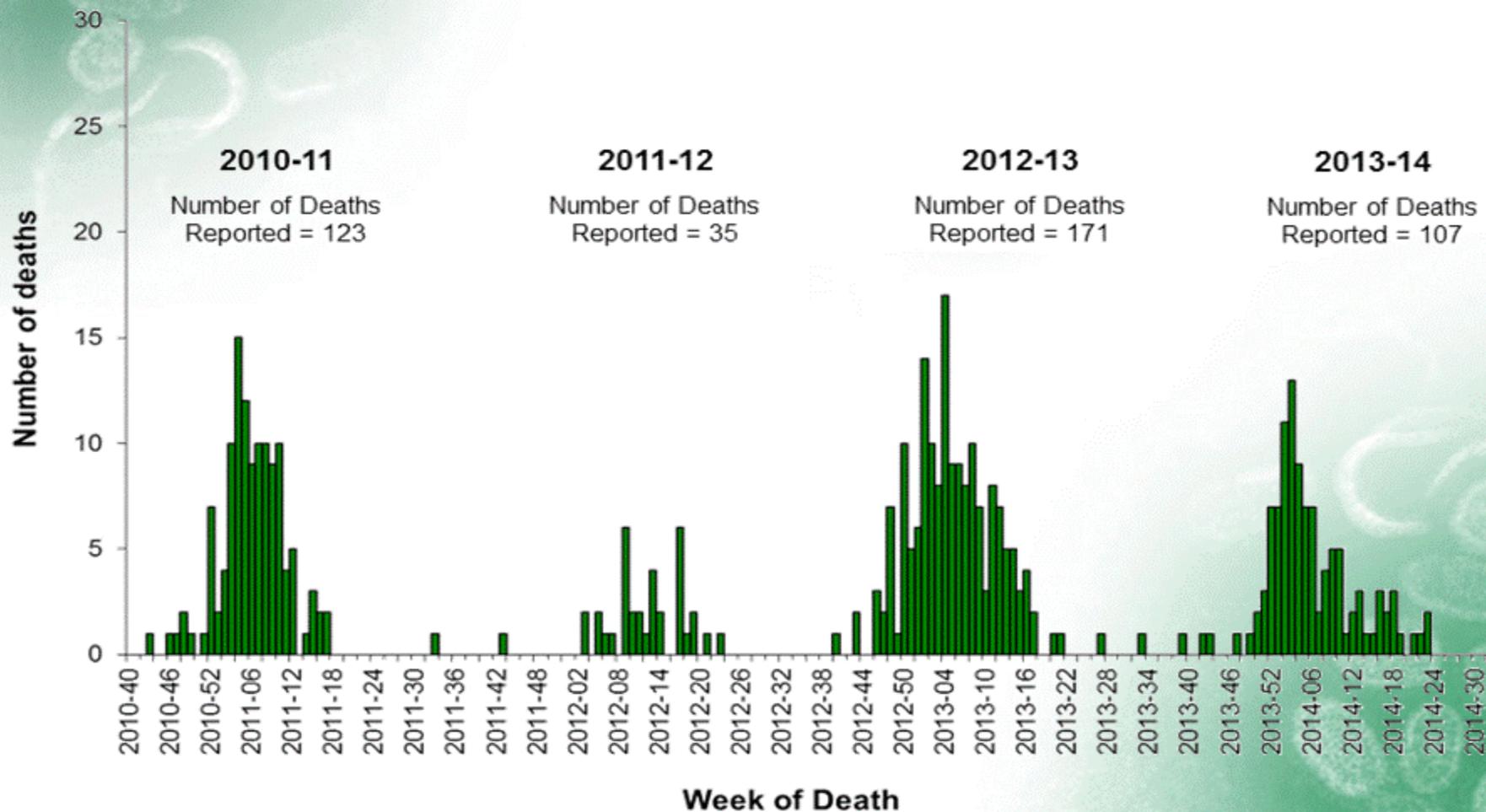


FLUVIEW



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Number of Influenza-Associated Pediatric Deaths by Week of Death: 2010-11 season to present



Pediatric Influenza-Related Deaths, 2013-2014

- In Massachusetts:
 - 2 pediatric influenza-related deaths
 - Ages: < 1 yr & 6 yrs.
 - Both unvaccinated (one too young)
 - Both found unresponsive at home
 - Underlying health issues included developmental delay, premature birth, autism, and seizure disorder.
- In US:
 - 107 pediatric deaths (as of August 16, 2014).

Influenza-like Illness (ILI) Clusters 2013-2014

- **119** clusters reported in Long-Term Care Facilities (LTCFs) as of August 23, 2014.
- Three clusters in residential group homes and day programs were a reminder that medically fragile populations (including autism, developmental delay and neuromuscular disorders) are at increased risk for complications
 - Annual vaccination of staff and residents.
 - Proactive outbreak control response plan
 - Notify DPH and appropriate agencies ASAP
 - Importance of rapid, coordinated response for treatment and antiviral prophylaxis when ILI occurs

Influenza Vaccine Formulations, 2014-2015

- Inactivated influenza vaccine, quadrivalent (IIV4)
 - standard dose
- Inactivated influenza vaccine, trivalent (IIV3)
 - IIV3 – standard dose
 - IIV3 – intradermal
 - IIV3 - high dose
- Cell culture-based inactivated influenza vaccine, trivalent (ccIIV3)
- Recombinant influenza vaccine, trivalent (RIV3)
- Live attenuated influenza vaccine, quadrivalent (LAIV4)



Vaccine Strain Selection for 2014-15

For 2014-15, composition is the **same for all 4 vaccine strains** as for the 2013-14 Northern Hemisphere vaccine.

- Trivalent vaccines will contain:
 - A/California/7/2009 (H1N1)pdm09-like virus;
 - A/Texas/50/2012 (H3N2)-like virus;
 - B/Massachusetts/2/2012-like virus (Yamagata lineage)
- Quadrivalent vaccines will also contain:
 - B/Brisbane/60/2008-like virus (Victoria lineage)



Flu Recommendations 2014 – 2015

- Influenza vaccine for everyone \geq 6 months:
- LAIV for healthy, non-pregnant people 2 – 49 yrs
- All HCP get flu vaccine ASAP
- Begin vaccinating as soon as vaccine is available
- Continue to offer influenza vaccine in December, especially to healthcare personnel and those at high risk of complications
- Continue to vaccinate throughout influenza season (October-March)



Influenza Vaccine Availability

- Nationally, 154-160 million doses are projected to be distributed by the end of the 2014-15 season. (135 million doses of vaccine were distributed last season)
- DPH distributed more than 835,000 doses of pediatric and adult vaccine to clinical providers and public sites last season and anticipates distributing 820,000 doses this season.
- To date, DPH has distributed 51% of this season's doses.
- Overall good vaccine supply projected nationally and in MA. Some delays now in availability of some products.
- Commercial vaccinators, health departments and private providers began to receive vaccine in July and August.

DPH's Core Public Health Readiness

- **DPH actively monitors influenza activity as part of the national surveillance system:**
 - Conducts enhanced surveillance via MAVEN
 - Sentinel clinical sites provide information about influenza-like illness among presenting patients
 - Number of hospitalized patients with confirmed flu
 - Deaths among persons with confirmed flu (pediatric, pregnant women)
 - Unusual or unusually severe flu cases reportable; clusters in LTCFs
 - Also monitors immunization rates in the general public and among healthcare personnel
- **DPH assists facilities with outbreaks and clusters with:**
 - Surge capacity and hospital readiness
 - Vaccine and medication available
 - Infection control policies and practices
 - Surveillance and outbreak control to prevent spread
- **DPH distributes print and online materials:**
 - Information on core prevention practices
 - Fact sheets on influenza
 - Posters caring for persons with influenza at home
 - Public information materials on the flu vaccine

MA Public Clinic Billing Project

- For 10% fee, CHCF at Commonwealth Medicine electronically bills the participating plans and distributes payments to public providers
- Cities and towns can bill contracted plans for the:
 - Administration of state-supplied flu vaccine to individuals ages ≥ 6 months
 - Program has expanded in adults to include cost of purchasing and administering all recommended vaccines to adults
 - 10 private health plans and MassHealth participate
 - ~177 public sector providers across the state participate, representing 212 out of 351 towns in MA
- > \$1.1 million reimbursed to communities last season



Influenza Vaccine Availability Tracking System (IVATS)

Assists providers wishing to privately purchase influenza vaccine by identifying available doses of influenza vaccine by formulation and distributor throughout the season.

Available at: <http://www.izsummitpartners.org/ivats/>

Distributor or Manufacturer			Influenza Vaccine Product in Stock													
Date updated	Name of distributor	Where to place order (Please note that some distributors and manufacturers may have return policies; ask at the time of your order.)	Cell Therapies		GlasSwithKline		Protein Sciences	Medimmune Vaccines	Novartis Vaccines			Sanofi Pasteur				
			Fluarix (IV3)	Fluarix (IV3 & IV4)	FluAval (IV3 & IV4)	Flublok (IV3)	FluMist (LAIV)	Fluarix (IV3)	Fluarix (IV3)	Fluzone (IV3 & IV4)	Fluzone (IV3)	Fluzone Intradermal (IV3)	Fluzone High-Dose (IV3)			
			Single dose syringe (0.5 mL)	Multi-dose vial (5.0 mL)	Single dose syringe (0.5 mL)	Multi-dose vial (5.0 mL)	Single-dose vial (0.5 mL)	Single dose nasal sprayer	Single dose syringe (0.5 mL)	Multi-dose vial (5.0 mL)	Single dose syringe (0.5 mL)	Single dose syringe (0.5 mL)	Single dose syringe (0.25 mL)	Multi-dose vial (5.0 mL)	Single-dose vial (0.5 mL)	Single dose syringe (0.5 mL)
1/27/2014	AKO Pharmaceuticals	471-226-286 www.gulfcoast.com	IV3	IV3	IV3			IV3	IV3	IV3		IV3				
1/20/2014	Advent Biologics	888-369-7700 ext 271 www.adventbiologics.com	IV3	IV3	IV3	IV4		IV3			IV3	IV3				
1/27/2014	Boehringer-Ingelheim	888-362-2711 www.boehringer.com					LAIV4		IV3	IV3					IV3	IV3
1/14/2014	Chiron Medical Inc.	418-289-2880 chiron@chironmedical.com							IV3			IV3				
1/27/2014	EMV Enterprises	888-845-1477 www.emv.com					IV3	LAIV4		IV3	IV3	IV3/IV4	IV3		IV3	IV3
1/27/2014	Henry Schein, Inc.	888-772-6166													IV3	IV3
1/14/2014	McKesson	877-625-4538 flumist@mcckesson.com				IV4		LAIV4	IV3	IV3	IV3	IV3/IV4	IV3		IV3	IV3
1/27/2014	Medica Start, Inc.	888-243-6268 info@medicastart.com											IV3		IV3	
1/27/2014	Henry Medical	888-234-3464 www.henrymedical.com/FL						LAIV4			IV3					IV3
1/29/2014	Novartis	888-851-0846 www.novartis.com/medusa														
1/15/2014	Novartis	888-622-2860 www.novartis.com										IV4	IV3		IV3	IV3
1/28/2014	Sepracor Medical	888-710-2715 www.sepracor.com										IV3			IV3	IV3
1/22/2014	VistaRx Corporation	888-382-3915 www.vistavax.com				IV3										

Note: All information is provided by distributors and manufacturers on a voluntary basis and is not intended to endorse or promote any distributor's (or manufacturer's) product over another.
 IV3 = trivalent inactivated influenza vaccine; IV3/IV4 = cell culture based trivalent inactivated influenza vaccine; IV4 = quadrivalent inactivated influenza vaccine; LAIV4 = quadrivalent live attenuated influenza vaccine; IV3/IV4 = trivalent recombinant hemagglutinin influenza vaccine.



DPH Flu Website

Influenza



www.mass.gov/flu

Protecting, Preparing, and Caring - for Yourself and Others

Basic flu educational materials free for download and ordering, as well as tips on how to protect yourself and loved ones from catching the flu virus and information on how to care for people who are sick with flu.

Information for Specific Groups

Healthcare and Public Health Professionals, School and Childcare Professionals, Pregnant Women, Parents, and Employers will find more detailed information and guidance about flu here.

[Surveillance Data on Flu](#)

[School-Based Flu Vaccination Clinics](#)

1-stop shopping for flu clinic resources

Audio and Video Resources

Listen to our podcasts on a variety of flu topics and read our blog for up to date flu information.

Check out our **FluFacts blog**

Información **en español** para la gripe

Related Links

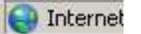
[Handwashing Resources](#)

[CDC Flu](#)

[Get my flu shot](#)

Publications

[Flu Vaccine for Everyone](#) 3MB



Flu Clinic Website MA Health Officers Association (MHOA)



*Planning a Clinic?
MyLocalClinic
can help
Become an
Organizer*



Pregnancy Risk Assessment Monitoring System (PRAMS, 2009-2010)

Vaccine	MA	U.S.
Seasonal flu	68%	47%
pH1N1	58%	40%



- MA rates were amongst the highest of 29 participating states and fewer disparities among pH1N1 coverage.
- DPH targeted education and equity campaign might have contributed to high rates and decreased disparities.
- Flu for Everyone! A Guide for Reaching Diverse Populations cited in MMWR as a key DPH resource.



Flu Vaccine for Everyone!

A Guide to Reaching and Engaging Diverse Communities

Massachusetts Department of Public Health—Office of Health Equity



www.mass.gov/dph/flu

Flu Vaccine for Everyone!

A Guide to Reaching and Engaging Diverse Communities

- Addresses common beliefs and experiences regarding flu vaccine among various communities
- Provides resources and guidance on engaging a range of cultural and linguistic groups via:
 - Community-based organizations and ethnic groups
 - Faith-based organizations
 - Schools
 - Workplaces
 - Homelessness programs
 - Local media

Flu Educational Resources for General Public Audiences

Massachusetts Department of Public Health

- Go to the MA Health Promotion Clearinghouse at: <https://massclearinghouse.ehs.state.ma.us/>
- Click on “Influenza” for the following free items:
- Flu Care at Home Booklet
 - Comprehensive Version
 - Low Literacy Version
- Flu Facts Poster
- Flu Fact Brochure
- Available in multiple languages. You can download or place an order via phone, fax or online for copies.

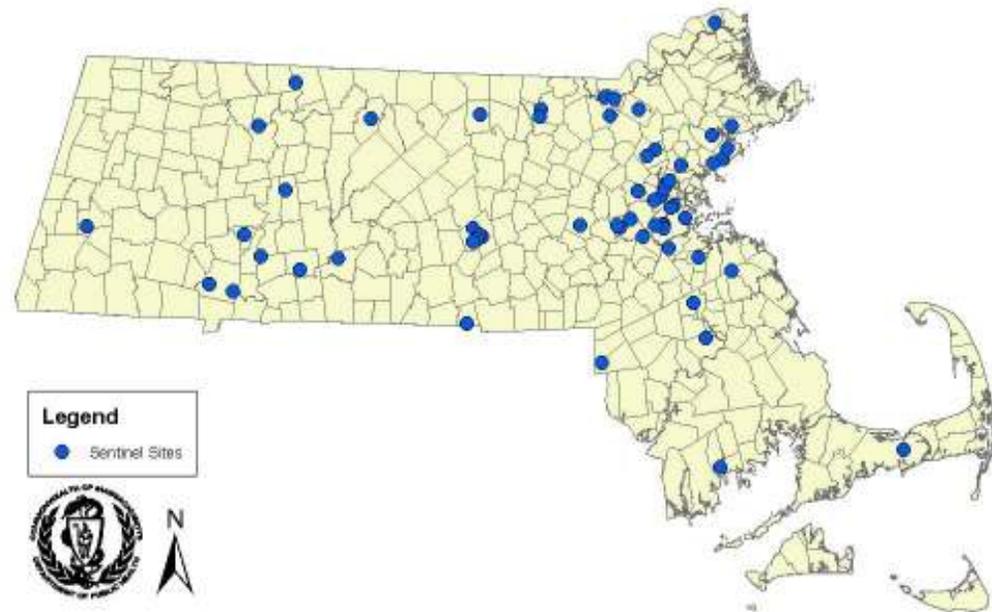


Centers for Disease Control and Prevention

- Go to: www.cdc.gov/flu/freeresources/
- CDC has a variety of free resources that are available as print materials, video/audio tools and web tool such as electronic greeting cards
- You can download print materials; select items can be ordered online for copies. Print materials also available in Spanish and other languages



Monitoring seasonal and emerging diseases: Influenza surveillance at the Hinton State Laboratory Institute



**The Bureau of
Laboratory Sciences
tests for influenza A &
B and subtypes the
strains in the
community**

Benefits of Influenza Virologic Surveillance

- **Defining the start of the influenza season**
 - Rapid antigen testing, esp. first rapid positive samples starting in October
- **Diagnosing influenza or other respiratory infections**
 - Diagnostic PCR tests as part of “respiratory panel” of tests
 - Identify seasonal potential novel types/subtypes
 - Negatives tested for adenovirus, respiratory syncytial virus, parainfluenza, coronaviruses metapneumovirus, rhinovirus/enterovirus
- **Monitoring trends in influenza antiviral resistance**
 - Surveillance of resistance reported weekly
 - Coordinated with CDC
- **Rapidly identifying novel influenza or other viral infections**
 - Labs uses CDC diagnostic panel to detect novel infections
 - Supplements commercially available tests
 - Surveillance for H3N2v and avian influenza H7N9 potentially linked to travel history or animal exposures



Thank you!

