CDC’S Recommendations for Prevention and Control of Seasonal Influenza

On August 15, the CDC published the MMWR titled *Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2014–15 Influenza Season* (www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a3.htm).

This report updates the 2013 ACIP recommendations for the 2014-15 influenza season and includes:

1) the antigenic composition of U.S. seasonal influenza vaccines;

2) vaccine dose considerations for children aged 6 months - 8 years; and

3) a preference for the use, when immediately available, of LAIV for healthy children aged 2 - 8 years, to be implemented as feasible for the 2014-15 season but not later than the 2015-16 season. For this upcoming season, U.S.-licensed influenza vaccines will contain the same vaccine virus strains as those in the 2013-14 vaccine.

For information regarding issues related to influenza vaccination not addressed in this report, review the 2013 ACIP seasonal influenza recommendations report (www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm).

(continued on page 2)
Vaccine Formulation and Composition
(continued from page 1)

The 2014-2015 U.S. trivalent influenza vaccines will contain:
- A/California/7/2009 (H1N1)-like virus,
- A/Texas/50/2012 (H3N2)-like virus, and
- B/Massachusetts/2/2012-like (Yamagata lineage) virus.

Quadrivalent vaccines will also include an additional vaccine virus: B/Brisbane/60/2008-like (Victoria lineage) virus.

Various influenza vaccine products are anticipated to be available during the 2014-15 season. Complete product information is available at: [http://www.cdc.gov/flu/protect/vaccine/vaccines.htm](http://www.cdc.gov/flu/protect/vaccine/vaccines.htm)

Preferential Recommendation for LAIV for Children 2-8 Years

CDC has stated a preferential recommendation for the use of LAIV in healthy children 2-8 years old who have no contraindications or precautions. This preference should be implemented as feasible for the 2014-15 season but no later than the 2015-16 season.

ACIP reviewed the evidence pertaining to the relative efficacy of LAIV and IIV for healthy children, and concluded that LAIV is more efficacious than IIV against laboratory-confirmed influenza among younger children (based on studies including children aged 6-71 months).

Risks were assessed (including fever, wheezing, and serious adverse events) and appear to be similar for LAIV and IIV.

If LAIV is not immediately available, IIV should be used. Vaccination should not be delayed to procure LAIV.

LAIV Effectiveness Update November 2014

New data from the U.S. Influenza Vaccine Effectiveness (Flu VE) Network unexpectedly showed no measureable effectiveness for LAIV against influenza A (H1N1) among children studied during the 2013-14 influenza season. At this time, the ACIP and CDC have not changed the current influenza vaccination recommendations. This determination was based on the early season surveillance showing substantially more circulation of influenza A (H3N2) and B viruses and very little circulating influenza A (H1N1) and the good protection provided by LAIV against these circulating strains. More information is available at: [http://www.cdc.gov/flu/news/nasal-spray-effectiveness.htm](http://www.cdc.gov/flu/news/nasal-spray-effectiveness.htm)

The Pediatric Population and Influenza Vaccine Dosing

Children aged 6 months - 8 years require 2 doses of influenza vaccine (administered 4 or more weeks apart) during their first season of vaccination to optimize immune response. In addition, children in this age range who have never previously received vaccine containing the 2009 influenza A (H1N1) pandemic virus strain will need 2 doses of influenza vaccine due to the antigenic novelty of that strain. Continued on Page 3
The Pediatric Population and Influenza Vaccine Dosing
(Continued from page 2)

ACIP recommends two approaches to determine the necessary doses for the 2014-15 season:

1. The primary approach considers only doses of seasonal influenza vaccine received since July 1, 2010. The 2009 influenza A (H1N1) pandemic antigen was included in all seasonal influenza vaccines since the 2010-11 season. Because the strains contained in the 2014-15 seasonal influenza vaccines are identical to those contained in the 2013-14 vaccines, only 1 dose is required for any child 6 months - 8 years old who previously received 1 or more doses of 2013-14 seasonal influenza vaccine.

Children who received a total of at least 2 doses of seasonal influenza vaccine since July 1, 2010 will need only 1 dose of the 2014-15 seasonal influenza vaccine.

Children receiving vaccine for the first time this season, who have unknown influenza vaccination history, or who received only 1 dose of seasonal influenza vaccine prior to the 2013-14 season, will need 2 doses of the 2014-15 seasonal influenza vaccine.

2. An alternative approach may be used where adequate vaccination history from before the 2010-11 season is available. A full description of the alternative approach is available in the MMWR publication for interested providers.


Influenza Vaccine Administration in the Egg-Allergic Population

With the exceptions of trivalent recombinant influenza vaccine (RIV3; FluBlok®, [Protein Sciences]) and cell culture-based inactivated influenza vaccine (ccIIV3; Flucelvax®, [Novartis]), currently available influenza vaccines are prepared by propagation of virus in embryonated chicken eggs. Detailed recommendations for patients with a history of egg allergy have remained the same as last year and can be found in the MMWR guidance, Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2014–15 Influenza Season (www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a3.htm).

Key points to consider when vaccinating a person with a history of egg allergy:

- Egg-allergic people who experience mild reactions to egg, specifically those who have experienced only hives, can and should receive either IIV, ccIIV3 or RIV.
Influenza Vaccine Administration in the Egg-Allergic Population
Continued from page 3

- Persons who report having had reactions to egg involving such symptoms as angioedema, respiratory distress, lightheadedness, or recurrent emesis; or who required epinephrine or another emergency medical intervention, may receive RIV3, if aged 18-49 years and there are no other contraindications. If RIV3 is not available or the recipient is not within the indicated age range, such persons should be referred to a physician with expertise in the management of allergic conditions for further risk assessment before receipt of vaccine.
- For individuals who have no known history of exposure to egg, but who are suspected of being egg-allergic on the basis of previously performed allergy testing, consultation with a physician with expertise in the management of allergic conditions should be obtained prior to vaccination. Alternatively, RIV3 may be administered if the recipient is aged 18-49 years.

See attachment on page 12 of this newsletter for the algorithm to use with persons who an report egg allergy.

Seasonal Influenza Vaccine Should Be Given Now to Pregnant, Post-Partum Women

In September, the American Congress of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice Opinion updated their committee opinion document based on new safety data. This opinion continues to support CDC's recommendation to give influenza vaccination to all women who will be pregnant at any time during the influenza season.

Influenza vaccination is an essential element of preconception, prenatal, and postpartum care because pregnant and post-partum women are at an increased risk of serious illness due to influenza. While rates of vaccination among pregnant women have increased over time, the rates still aren’t high enough. During October 2013 - January 2014, vaccination coverage rates were at 52.2% for pregnant women in the US, similar to the preceding influenza season. It is particularly important that women who are or will be pregnant during the influenza season receive an inactivated influenza vaccine as soon as it is available.

Additionally, a study recently published in the New England Journal of Medicine (NEJM), found that influenza vaccine was immunogenic in HIV-uninfected and HIV-infected pregnant women and provided partial protection against confirmed influenza in both groups of women and in infants of HIV un-infected mothers. A similar trend was observed among infants of HIV-infected mothers, however it didn’t reach statistical significance.

Did You Know?

You can’t get influenza from the influenza vaccine!
It takes about two weeks after vaccination for antibodies to develop in the body and provide protection against influenza virus infection.
Seasonal Influenza Vaccine Should Be Given Now to Pregnant, Post-Partum Women

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To read the ACOG Committee Opinion, *Influenza Vaccination During Pregnancy*, visit: www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Influenza-Vaccination-During-Pregnancy.


To read the NEJM article *Influenza Vaccination of Pregnant Women and Protection of Their Infants*, visit: www.nejm.org/doi/full/10.1056/NEJMoa1401480. The abstract is free but a subscription to NEJM is needed to view the full article.

To read the MMWR, *Influenza Vaccination Coverage Among Pregnant Women – United States, 2013-14 Influenza Season* please visit: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6337a3.htm?s_cid=mm6337a3_e

Influenza Vaccination Coverage Among Health Care Personnel

Vaccination of health care personnel (HCP) against influenza has been shown to reduce illness and absenteeism and to reduce transmission of influenza to HCP, their families, and their patients. ACIP and the Healthcare Infection Control Practices Advisory Committee recommend that all HCP be vaccinated annually against influenza.

Effective July 2013, the New York State Public Health and Health Planning Council (PHHPC) adopted the *Prevention of Influenza Transmission by Healthcare and Residential Facility and Agency Personnel* regulation (a.k.a. Flu Mask Regulation). Facilities developed policies and procedures to implement this requirement and provided a report to the NYSDOH on the influenza vaccination status of their personnel.

Facilities reported a significant increase in influenza vaccine coverage for HCP in 2013-14, with an overall rate of 88% compared to 54% in 2012-13. To view the HCP influenza vaccination rates for individual facilities, visit the dataset “Influenza Vaccination Rates for Health Care Personnel: Beginning 2012-13” available in Health Data NY at: https://health.data.ny.gov/Health/Influenza-Vaccination-Rates-for-Health-Care-Person/jpkp-z76p
Live Attenuated Influenza Vaccine Administered Beyond Expiration Date

Influenza vaccine typically becomes widely available beginning in late summer or early fall. IIV has a standard expiration date of June 30 for any given influenza season (July 1 through June 30 of the following year). In contrast, after release for distribution, LAIV generally has an 18-week shelf life. Because of this relatively short shelf life, LAIV might be more likely than IIV to be mistakenly administered after its expiration date.

Health care providers need to implement measures to avoid administering expired LAIV, especially from November and onward, when this error appears to be more common. Although the data do not indicate that administration of expired LAIV poses a health risk, revaccination with a valid dose is advised.

To read Notes from the Field: Reports of Expired Live Attenuated Influenza Vaccine Being Administered — United States, 2007–2014, visit: www.cdc.gov/mmwr/preview/mmwrhtml/mm6335a3.htm?s_cid=mm6335a3_e.

Administer Vaccines as Recommended!

A study published in May in the Journal of the Pediatric Infectious Diseases Society (JPIDS) assessed the safety of trivalent live attenuated influenza vaccine (LAIV3) among children found in VAERS between 2005 and 2012. The authors did not find any new or unexpected adverse event patterns. However, they did find that LAIV3 was still being given to persons for whom the vaccine is not recommended (e.g., persons with a history of asthma or reactive airway disease/wheezing), suggesting that ongoing monitoring and education in this area is needed.

During the study period, VAERS received 2,619 LAIV3 reports in children aged 2-18 years. Fever was the most commonly reported symptom after LAIV3 vaccination. During this time, approximately 50 million doses of LAIV3 were distributed in the United States for use in children and adults. Ongoing assessment of the safety of LAIV continues as more children are vaccinated annually with the recently approved quadrivalent live attenuated influenza vaccine (LAIV4).

To read the article abstract, Post-licensure Surveillance of Trivalent Live Attenuated Influenza Vaccine in Children Aged 2-18 Years, Vaccine Adverse Event Reporting System (VAERS), United States, July 2005- June 2012, visit: http://jpids.oxfordjournals.org/content/early/2014/05/07/jpids.piu034.abstract. A subscription to JPIDS is needed.

Fluzone High-Dose Influenza Vaccine Immune Response Studied

Data from clinical trials comparing Fluzone to Fluzone High-Dose among persons aged 65 years or older indicate that a stronger immune response (i.e., higher antibody levels) occurs after vaccination with Fluzone High-Dose®. Whether or not the improved immune response leads to greater protection has been the topic on ongoing research. Continued on page 7
Fluzone High-Dose Influenza Vaccine Immune Response Studied

Continued from page 6

A study published in the New England Journal of Medicine (NEJM) in August indicated that the high-dose vaccine was 24.2% more effective in preventing flu in adults 65 years of age and older relative to a standard-dose vaccine. (The confidence interval for this result was 9.7% to 36.5%).

The CDC and ACIP have not expressed a preference for any flu vaccine indicated for people 65 years of age and older. CDC recommends flu vaccination as the first and most important step in protecting against the flu.

To read the NEJM article, Efficacy of High-Dose versus Standard-Dose Influenza Vaccine in Older Adults, visit: http://www.nejm.org/doi/full/10.1056/NEJMoa1315727?query=featured_home. A subscription is needed.

For more information on Fluzone High-Dose seasonal influenza vaccine visit: www.cdc.gov/flu/protect/vaccine/qa_fluzone.htm.

2014-2015 Preservative-Free Influenza Seasonal Vaccine Supply Determination As Required by Public Health Law §2112

New York State Public Health Law (PHL) §2112 prohibits the administration of vaccines containing more than trace amounts of thimerosal, a mercury-containing preservative, to children less than 3 years of age and women who know they are pregnant, with certain exceptions.

The Commissioner of Health has determined that for the 2014-2015 influenza season there will be an adequate supply of thimerosal-free seasonal influenza vaccine for vaccination of pregnant women and children under the age of 3 years. Therefore, health care providers (physicians, nurse practitioners, physician assistants, nurse midwives) providing influenza vaccinations to pregnant women and children under 3 years of age, should purchase sufficient supplies of seasonal influenza vaccine that comply with PHL §2112.

For more information please see the PHL§2112 advisory, released on October 10, 2014, which can be found on the NYSDOH website at https://www.health.ny.gov/diseases/communicable/influenza/seasonal/providers/commissioner_declaration_phl_2112.htm

NYSDOH Looking for Providers for Its Influenza Surveillance Network

The NYSDOH is recruiting providers to participate in the Outpatient Influenza-like Illness Surveillance Network (ILINet). In collaboration with CDC, ILINet providers are part of a national network of more than 3,000 health care providers who conduct surveillance for influenza-like illness (ILI).

ILINet is the primary source of outpatient surveillance in NYS and nationally.

Continued on page 8
ILINet providers do two things:

- Each week, ILINet providers report to CDC the total number of patients visits, and, of those patients, the total number of patients presenting with ILI by age group.
- ILINet providers submit patient specimens to the NYSDOH Wadsworth Virology Laboratory for virus testing and subtyping. All shipping supplies and testing fees are covered by the program.

Data and specimen submissions from ILINet providers are vital components of influenza surveillance in NYS and nationally. The information obtained is used to guide prevention and control activities, vaccine strain selection, antiviral resistance testing, and patient care.

Providers (physicians, physician assistants, nurses and nurse practitioners) of any specialty and practice type are invited to enroll. ILINet providers receive feedback on the data submitted; summaries of regional, statewide and national influenza data; and free subscriptions to CDC's Morbidity and Mortality Weekly Report and Emerging Infectious Diseases Journal.

For more information about the ILINet Surveillance program contact:

**NYSDOH Program Coordinator**
Donna Gowie, 518-473-4439, donna.gowie@health.ny.gov

In New York City:
**New York City Department of Health and Mental Health Program Coordinator**
Beth Nivin, 347-396-2616, bniwin@health.nyc.gov.

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**DID YOU KNOW?**

It’s important to get an influenza vaccine every year, even if the viruses in the vaccine have not changed for the current season.
Seasonal Influenza Resources for Providers

NYSDOH, Seasonal Influenza Information for Health Care Providers
www.health.ny.gov/diseases/communicable/influenza/seasonal/providers/

NYSDOH Immunization Update webinars are available for viewing at your convenience:
1. Influenza Vaccine for the 2013-2015 Season: What You Need to Know
2. Influenza Vaccine Production: From Egg to Cell Culture and Beyond
www.health.ny.gov/prevention/immunization/providers/webinar_series.htm

CDC, Seasonal Influenza Information for Health Professionals
www.cdc.gov/flu/professionals/index.htm

CDC, Patient and Provider Education Free Resources: www.cdc.gov/flu/freeresources/

CDC, Vaccine Information Statements: www.cdc.gov/vaccines/pubs/vis/default.htm#flu

Immunization Action Coalition (IAC), Influenza educational resources: www.immunize.org/influenza/

American Academy of Pediatrics, Just for Pediatricians
www2.aap.org/immunization/pediatricians/pediatricians.html

American Congress of Obstetricians and Gynecologists, Immunization for Women—Immunization Information for OB/GYNs and Their Patients www.immunizationforwomen.org/

Vaccine Adverse Event Reporting System (VAERS): Report all significant health events that may have been related to a dose of vaccine, particularly those that lead to hospitalization, disability, or death.
http://vaers.hhs.gov

Seasonal Influenza Vaccine Safety Data: www.cdc.gov/flu/professionals/vaccination/vaccine_safety.htm

Seasonal Influenza Resources for Patients

NYSDOH, Seasonal Influenza www.health.ny.gov/diseases/communicable/influenza/seasonal/

CDC, What you Should Know for the 2014-2015 Influenza Season

CDC, Patient and Provider Education Free Resources www.cdc.gov/flu/freeresources/
Did you know?

How do you define the flu season?

**Flu prevention:** Administer influenza vaccine as soon as it arrives and until the vaccine expires; even well into the spring months.

**Flu disease season:** Commonly starts in the late fall months and can continue into late spring. Each year is different!

**Flu vaccine for hospital patients:** Must be offered September 1 through April 1 to persons aged 65 years and older and to parents and caregivers of newborns in the NICU. Facilities can continue to offer vaccine beyond that date.

**Flu vaccine for HCP:** Vaccinate early and continue to vaccinate until vaccine expires.

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**NYSDOH Bureau of Immunization**

Phone: 518-473-4437   email: immunize@health.state.ny.us  

For further information, please contact your local health department or your regional NYSDOH Bureau of Immunization:

**Western Regional Office**  
Buffalo/Rochester: 716-847-4503

**Central New York Regional Office**  
Syracuse: 315-477-8164

**Capital District Regional Office**  
518-473-4437

**Metropolitan Area Regional Office**  
New Rochelle: 914-654-7149  
Central Islip: 631-851-3096  
Monticello: 845-794-5627

Providers and facilities in New York City should contact the New York City Department of Health and Mental Hygiene at 347-396-2400.

Email the NYSDOH Bureau of Immunization to receive this e-newsletter directly if you did not.
Guide for Determining the Number of Doses of Influenza Vaccine to Give to Children Age 6 Months Through 8 Years During The 2014–2015 Influenza Season

Did the child receive at least 1 dose of influenza vaccine for the 2013–14 season?  

**YES** → Give 1 dose of 2014–15 influenza vaccine this season.

**NO/DON’T KNOW**

Did the child receive a total of at least 2 doses of seasonal influenza vaccine since July 1, 2010?  

**YES** → Give 1 dose of 2014–15 influenza vaccine this season.

**NO/DON’T KNOW**

Did the child receive a total of at least 2 doses of seasonal influenza vaccine before July 1, 2010, and at least 1 dose of monovalent 2009 H1N1 vaccine?  

**YES** → Give 1 dose of 2014–15 influenza vaccine this season.

**NO/DON’T KNOW**

Did the child receive at least 1 dose of seasonal influenza vaccine before July 1, 2010, and at least 1 dose of seasonal vaccine since July 1, 2010?  

**YES** → Give 1 dose of 2014–15 influenza vaccine this season.

**NO/DON’T KNOW**

Give 2 doses of 2014–15 influenza vaccine this season, spaced at least 4 weeks apart.

Reference
Recommendations Regarding Influenza Vaccination of Persons Who Report Allergy to Eggs, ACIP United States, 2014-2015 Influenza Season

Reference