



**CDC**

# INFLUENZA

## E-Brief

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U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

## 2015-2016 INFLUENZA SEASON UPDATE

Influenza (the flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness, and at times can lead to death. Some people, including older people, young children, and people with certain health conditions, are at a higher risk for serious flu complications. The best way to prevent the flu is by getting **vaccinated** each year.

The 2015-2016 flu vaccine will protect against the three influenza viruses that surveillance suggests will be most common during the season.

Trivalent vaccines in the United States contain an A/California/7/2009 (H1N1)pdm09-like virus, an A/Switzerland/9715293/2013 (H3N2)-like virus, and a B/Phuket/3073/2013-like (B/Yamagata lineage) virus. It is recommended that quadrivalent vaccines, which have two influenza B viruses, contain the viruses recommended for the trivalent vaccines, as well as a B/Brisbane/60/2008-like (B/Victoria lineage) virus.

This represents a change in the influenza A (H3) and influenza B (Yamagata lineage) components compared with the composition of the 2014-15 influenza vaccine. These vaccine recommendations were based on several factors, including global influenza virologic and epidemiologic surveillance, genetic characterization, antigenic characterization, antiviral resistance, and the candidate vaccine viruses that are available for production. Vaccine manufacturers estimate a production level of between 166 - 173 million doses of vaccine will be prepared for this year's flu season.

**THE U.S. DEPARTMENT  
OF HEALTH AND HUMAN  
SERVICES HAS A  
WEBSITE DEVOTED  
TO INFLUENZA.**

**For additional information,  
visit [www.flu.gov](http://www.flu.gov)**

A number of different private sector vaccine manufacturers produce flu vaccine for use in the United States. This season both trivalent (three component) and quadrivalent (four component) influenza vaccines will be available. Different routes of administration are available for flu vaccines, including intramuscular, intradermal, jet injector and nasal spray vaccine.

### THIS SEASON:

- Intramuscular (IM) vaccines will be available in both trivalent and quadrivalent formulations. (High dose vaccines, which are IM vaccines, will all be trivalent this season.)
- For people who are 18 through 64 years old, a jet injector can be used for delivery of one particular trivalent flu vaccine (AFLURIA® by bioCSL Inc.).
- Nasal spray vaccines will all be quadrivalent this season.
- Intradermal vaccine will all be quadrivalent.

## 2014-2015 INFLUENZA SEASON SUMMARY

CDC reported in the June 5, 2015 [Morbidity and Mortality Weekly Report \(MMWR\)](#) that the 2014-15 influenza season was moderately severe overall and especially severe in adults aged  $\geq 65$  years, with predominant circulation of antigenically and genetically drifted influenza A (H3N2) viruses. Influenza activity peaked during late December, with influenza A (H3N2) viruses predominant early in the season through the week ending February 21, 2015 (week 7). Influenza B became the predominant virus starting week 8 (the week ending February 28, 2015). The majority of influenza A (H3N2) viruses sent to CDC for antigenic and/or genetic characterization were different from the influenza A (H3N2) component of the 2014-15 Northern Hemisphere seasonal vaccines (A/Texas/50/2012).

The 2014-2015 influenza activity was similar to the 2012-13 season, which was the most recent influenza A (H3N2)-predominant season, but with higher rates of influenza-associated hospitalizations among adults aged  $\geq 65$  years. The cumulative rate of influenza-associated hospitalizations among this age group was 319.2 per 100,000 population, exceeding the cumulative total of 183.2 per 100,000 population for the 2012-13 season, which had previously been the highest recorded rate of laboratory-confirmed, influenza-associated hospitalizations since this type of surveillance began in 2005. Among children aged  $< 5$  years, the cumulative hospitalization rate (57.1 per 100,000 population) was slightly less than that observed during the 2012-13 season (66.2 per 100,000 population). Older adults also accounted for the majority of deaths attributed to pneumonia and influenza (P&I) this season. Approximately 79.0% of the P&I deaths this season have occurred in adults aged  $\geq 65$  years, which is similar to what was observed during the 2012-13 influenza season (79.5%).

## RECOMMENDATIONS ON THE CONTROL AND PREVENTION OF INFLUENZA

Recommendations for the 2015-2016 season will be made available in a Morbidity and Mortality Weekly Report (MMWR). During the 2014-2015 flu season, CDC recommended use of the nasal spray vaccine (LAIV) for healthy children 2 through 8 years of age, when it was immediately available and if the child had no contraindications or precautions to that vaccine. However, on February 26, 2015, the Advisory Committee on Immunization Practices (ACIP) did not renew the preferential recommendation for LAIV for the 2015-2016 season. The preferential recommendation was originally approved on June 25, 2014, after a [review of data](#) from several influenza seasons suggested that the nasal spray vaccine could offer better protection than the flu shot for children in this age group. The decision not to renew the preferential recommendation was made based on new data from more recent seasons which have not confirmed superior effectiveness of LAIV observed in earlier studies. ACIP recommends that children 6 months and older get an annual influenza vaccine with no preference stated for either the nasal spray vaccine or the flu shot. The ACIP recommendations must be approved by the CDC Director at which point they are published in the MMWR and become CDC policy.

## WHAT ARE ANTIVIRAL DRUGS?

Antiviral drugs are prescription drugs that can be used to treat flu illness. People at high risk of serious flu complications (such as children younger than 2 years, adults 65 and older, pregnant women, and people with certain medical conditions) and people who are very sick with flu (such as those hospitalized because of flu) **should** get antiviral drugs. Some other people **can** be treated with antivirals at their health care professional's discretion. Treating high risk people or people who are very sick with flu with antiviral drugs is very important. Studies show that prompt treatment with antiviral drugs can prevent serious flu complications. Prompt treatment can mean the difference between having a milder illness versus very serious illness that could result in a hospital stay.

Treatment with antivirals works best when begun within 48 hours of getting sick, but can still be beneficial when given later in the course of illness. Antiviral drugs are effective across all age-and risk groups. Studies show that antiviral drugs are under-prescribed for people who are at high risk of complications who get flu. This season, three FDA-approved influenza antiviral drugs are recommended for use in the United States: oseltamivir, zanamivir and peramivir.



**The best way to prevent the flu is by getting vaccinated each year.**

### ***Where can I get a flu vaccine?***

Flu vaccine shipments began in August 2015 and will continue throughout the fall until all vaccine is distributed. Doctors and nurses are encouraged to begin vaccinating their patients as soon as flu vaccine is available in their area. See your doctor or nurse to get the flu vaccine, or seek out other locations where vaccine is being offered. The following flu clinic locator is a useful tool for finding vaccine in your area. <http://www.flu.gov/widgets/vaccinelocator.html>

## QUESTIONS AND ANSWERS ABOUT THE 2015-2016 FLU SEASON

### **What sort of flu season is expected this year?**

Flu seasons are unpredictable in a number of ways. Although epidemics of flu happen every year, the timing, severity, and length of the epidemic depends on many factors, including what influenza viruses are spreading and whether they match the viruses in the vaccine. Flu activity most commonly peaks in the U.S. in January or February; however, seasonal flu activity can begin as early as October and continue to occur as late as May.

### **What should I do to prepare for this flu season?**

CDC recommends a yearly [flu vaccine](#) for everyone 6 months of age and older as the first and most important step in protecting against this disease. While there are many different flu viruses, the flu vaccine is designed to protect against the three main flu strains that are expected to widely circulate during this flu season. Getting the flu vaccine as soon as it becomes available each year is always a good idea, and the protection you get from vaccination will last throughout the flu season.

In addition, you can take [everyday preventive steps](#) like staying away from sick people and washing your hands to reduce the spread of germs. If you are sick with flu, stay home from work or school to prevent spreading influenza to others.

### **When should I get the 2015-2016 influenza vaccine?**

CDC recommends that people get vaccinated against influenza as soon as vaccine becomes available in their community, but vaccination can take place at any time throughout the influenza season. Influenza seasons are unpredictable, and can begin as early as October. It takes about two weeks after vaccination for antibodies to develop in the body and provide protection against influenza virus infection, therefore, CDC recommends people be vaccinated as soon as vaccine becomes available to ensure that as many people as possible are protected before influenza season begins.

### **What is CDC doing to monitor vaccine effectiveness for the 2015-2016 season?**

CDC carries out and collaborates with other partners to assess how well flu vaccines work. During the 2015-2016 season, CDC is planning multiple studies on the effectiveness of both the flu shot and the nasal-spray flu vaccine. These studies will measure vaccine effectiveness in preventing laboratory confirmed influenza among persons aged 6 months and older.

### **How are the viruses selected to make flu vaccine?**

The influenza (flu) viruses selected for inclusion in the seasonal flu vaccines are updated each year based on which influenza virus strains are circulating, how they are spreading, and how well current vaccine strains protect against newly identified strains. The influenza viruses in the seasonal flu vaccine are selected each year on surveillance-based forecasts about what viruses are most likely to cause illness in the coming season. World Health Organization (WHO) recommends specific vaccine viruses for inclusion in influenza vaccines, but then each individual country makes their own decision for which strains should be included in influenza vaccines licensed in their country. In the United States, the U.S. Food and Drug Administration (FDA) determines which vaccine viruses will be used in U.S.—licensed vaccines.

