

CDC Influenza E-Brief

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In This Issue

2011–2012 Influenza season Kick-Off E-brief	1
Frequently Asked Questions about the 2012–2013 Influenza Season.....	1
Influenza Vaccine.....	2
Situation Update on Influenza A (H3N2) Variant Viruses (“H3N2v”).....	3
Federal Agencies Work Together To Respond to H3N2v Outbreak	3
CDC Partners with American Academy of Pediatrics, Families Fighting Flu, Family Voices to Raise Awareness of Flu Risk For Children with Neurologic Disorders:	4
2012 Pandemic Flu Exercise.....	4
Final State-Level 2011–12 Influenza Vaccination Coverage Estimates Available Online by FluVaxView	4
InFLUential News, August 2012 Newsletter	5
CommunityFlu 2.0 — Updated	5
Influenza Resources.....	5



2012–2013 Influenza Season E-brief

Influenza (the flu) is a contagious respiratory illness caused by influenza viruses. It can become mild to severe illness and at times can lead to death. Some people, including older people, young children, and people with certain health conditions (see below), are at a higher risk for serious flu complications. CDC recommends that everyone 6 months and older get a **flu vaccine each** year. Getting a flu vaccine is the first and most important step in protecting against this serious disease. Access the CDC’s website page for the 2012–13 Influenza season [here](#).

The 2012–2013 flu vaccine will protect against the three influenza viruses that surveillance suggests will be most common during the season. This includes an influenza A (H1N1) virus, an influenza A (H3N2) virus, and an influenza B virus.

For the 2012–2013 season, manufacturers have projected that they will produce between 146 million and 149 million doses of flu vaccine. For the 2011–2012 season, it was estimated that 132 million doses of flu vaccine were distributed in the United States.

Frequently Asked Questions about the 2012–2013 Influenza Season

Who should get vaccinated this season?

Everyone who is at least 6 months of age should get a flu vaccine this season. While everyone should get a flu vaccine each flu season, it’s especially important that certain people get vaccinated either because they are at high risk of having serious flu-related complications or because they live with or care for people at high risk for developing flu-related complications. High risk groups include:

- Pregnant women
- Children younger than 5, but especially children younger than 2 years old
- People 50 years of age and older
- People of any age with certain chronic medical conditions
- People who live in nursing homes and other long-term care facilities

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www.cdc.gov/washington/flu_ebrief.html

National Center for Immunization and Respiratory Diseases
Influenza Division



- People who live with or care for those at high risk for complications from flu, including:
 - Health care workers
 - Household contacts of persons at high risk for complications from the flu
 - Household contacts and out of home caregivers of children less than 6 months of age (these children are too young to be vaccinated).

Click [here](#) for more information regarding high risk persons.

When should I get vaccinated?

CDC recommends that people get vaccinated against influenza as soon as 2012–2013 flu season vaccine becomes available in their community. 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 the flu.

Flu vaccine is produced by private manufacturers, so availability depends on when production is completed. If everything goes as indicated by manufacturers, shipments are likely to begin in August and continue throughout September and October until all vaccine is distributed.

Doctors and nurses are encouraged to begin vaccinating their patients as soon as flu vaccine is available in their areas.

Where can I get a flu vaccine?

Click [here](#) for a list of flu clinics near you that offer the vaccine.

Flu vaccines are offered in many locations, including doctor's offices, clinics, health departments, pharmacies and college health centers, as well as by many employers, and even in some schools. Even if you don't have a regular doctor

or nurse, you can get a flu vaccine at a health department, pharmacy, urgent care clinic, and often at your school, college health center, or workplace.

Why do I need a flu vaccine every year?

A flu vaccine is needed every year because flu viruses are constantly changing. It is not unusual for new flu viruses to appear each year. The flu vaccine is formulated each year to keep up with the flu viruses as they change. Multiple studies conducted over different seasons and across vaccine types and influenza virus subtypes have shown that the body's immunity to influenza viruses (acquired either through natural infection or vaccination) declines over time. Getting vaccinated each year provides the best protection against influenza throughout flu season.

Is there treatment if I get sick with the flu?

Yes. If you get sick, there are drugs that can treat flu illness. They are called antiviral drugs and they can make your illness milder and help you feel better faster. They also can prevent serious flu-related complications, like pneumonia. For more information about antiviral drugs, visit [Treatment \(Antiviral Drugs\)](#).

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, whether they match the viruses in the vaccine, and how many people get the vaccine.

When will flu activity begin and when will it peak?

The timing of flu is very unpredictable and can vary from season to season. 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. The 2011–2012 season began late and was relatively mild compared with previous seasons (see [2011–2012 Flu Season Draws to a Close](#) for more information). It is not possible to predict how mild or severe the 2012–2013 season will be.

Will new flu viruses circulate this season?

Flu viruses are constantly changing so it is not unusual for new flu viruses to appear each year. For more information about

how flu viruses change, visit [How the Flu Virus Can Change](#).

Influenza Vaccine

What kind of vaccines will be available in the United States for 2012–2013?

A number of different manufacturers produce trivalent (three component) influenza vaccines for the U.S. market, including intramuscular (IM), intradermal, and nasal spray vaccines. See [Key Facts About Seasonal Flu Vaccine](#) for more information about the different types of vaccine available in the United States. While some manufacturers are planning to produce a quadrivalent (four component) vaccine in the future, quadrivalent vaccines are not expected to be available for the 2012–2013 season.

Who produces influenza vaccine for the United States?

Influenza vaccine for the United States is produced by a number of different vaccine manufacturers and licensed by the Food and Drug Administration. The CDC does not produce flu vaccine. Find a list of influenza vaccine manufacturers [here](#).

What flu viruses does the vaccine protect against?

Flu vaccines are designed to protect against three influenza viruses that experts predict will be the most common during the upcoming season. Three kinds of influenza viruses commonly circulate among people today: influenza B viruses,

influenza A (H1N1) viruses, and influenza A (H3N2) viruses. Each year, one flu virus of each kind is used to produce seasonal influenza vaccine.

The 2012–2013 influenza vaccine is made from the following three viruses:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Victoria/361/2011 (H3N2)-like virus;
- a B/Wisconsin/1/2010-like virus (from the B/Yamagata lineage of viruses).

While the H1N1 virus is the same as the 2011–2012 recommendation, the recommended influenza H3N2 and B vaccine viruses are different from those recommended for the Northern Hemisphere for the 2011–2012 influenza vaccine.

More information about influenza vaccines is available at [Preventing Seasonal Flu With Vaccination](#).

How long does a flu vaccine protect me from getting the flu?

Multiple studies conducted over different seasons and across vaccine types and influenza virus subtypes have shown that the body's immunity to influenza viruses declines over time. The decline in antibodies is influenced by several factors, including the antigen used in the vaccine, and the person's general health (for example, certain chronic health conditions may have an impact on immunity). When most healthy people with regular immune systems are vaccinated, their bodies produce antibodies and they are protected throughout the flu season, even as antibody levels decline over time. People with weakened immune systems may not generate the same amount of antibodies after vaccination; further, their antibody levels may drop more quickly when compared to healthy people.

For everyone, getting vaccinated each year provides the best protection against influenza throughout flu season. It's important to get a flu vaccine every year, even if you got vaccinated the season before and the viruses in the vaccine have not changed for the current season.

I have heard of people who don't get vaccinated against influenza in September or October because they want it to "last" through the entire influenza season. Should people wait until later in the influenza season to be vaccinated?

CDC recommends that influenza vaccination begin as soon as vaccine becomes available in the community and continue throughout the flu season. It takes about two weeks after vaccination for antibodies to develop in the body and provide protection against influenza, and influenza seasons can begin



as early as October. Therefore, CDC recommends that vaccination begin as soon as vaccine becomes available to ensure that as many people as possible are protected before flu season begins.

Situation Update on Influenza A (H3N2) Variant Viruses ("H3N2v")

In the United States, since July 2012, 305 cases in humans found in 10 states have been lab-confirmed with infection from H3N2v variant viruses (as of September 21, 2012). The [outbreaks of H3N2 variant viruses](#) have been found to contain the matrix (M) gene from the 2009 H1N1 pandemic virus. Investigations into H3N2v cases indicate that the main risk factor for infection is prolonged exposure to pigs, mostly in fair settings. Found in U.S. pigs in 2010 and humans in July 2011, this virus appears to spread more easily from pigs to people than other variant viruses. Though limited person-to-person spread with this virus has occurred, no sustained community spread of H3N2v has been detected at this time. Associated illness so far has been mostly mild with symptoms similar to seasonal flu and most cases have occurred in children who have little immunity against this virus. Like seasonal flu, however, serious illness, resulting in hospitalization and death is possible. People at high risk of serious complications from H3N2v include children younger than 5, people with certain chronic conditions like asthma, diabetes, heart disease, weakened immune systems, pregnant women and people 65 years and older. These people are urged to avoid pigs and pig arenas at fairs this season. CDC is working with states to respond to these outbreaks and continues to monitor the situation closely.

For more general information please click [here](#). For a case count since August, 2011, please click [here](#).

Federal Agencies Work Together To Respond to H3N2v Outbreak:

CDC, the US Department of Agriculture (USDA) and public and animal health partners at the state and local levels are working to investigate and respond to cases of human infections with H3N2v influenza. CDC continues to coordinate its work on human health closely with that of the USDA's Animal and Plant Health Inspection Service's (APHIS) swine influenza virus surveillance program. CDC and USDA are also collaborating on outreach at fairs, particularly on communication with 4-H'ers around the nation through USDA's National Institute for Food and Agriculture (NIFA). CDC has provided information for the general public about H3N2v, and has worked closely with NIFA and other federal and non-federal partners to target outreach to people at greater risk for infection or complications from this novel influenza virus. CDC has worked with its agriculture partners on communications for fair managers and exhibitors, webinars for 4-H state leads and creation and distribution of continually updated H3N2v "key points" for partner groups.

Key Finding: Neurologic Disorders among Pediatric Deaths Associated with the 2009 Pandemic Influenza

Pediatrics has published a new study that found that a large percentage of children dying from flu-related causes have neurologic disorders. Flu is particularly dangerous for people who may have trouble with muscle function, lung function or difficulty coughing, swallowing or clearing fluids from their airways. Children with neurologic disorders are also at high risk of developing influenza-associated complications such as pneumonia or acute respiratory distress syndrome (ARDS). Find more information about the study here: [CDC's website](#), and the [full article](#).

CDC Partners with American Academy of Pediatrics, Families Fighting Flu, Family Voices to Raise Awareness of Flu Risk For Children with Neurologic Disorders

CDC is partnering with the American Academy of Pediatrics, Families Fighting Flu, Family Voices, and other stakeholders on a nationwide initiative to raise awareness about the risk flu poses to children with neurologic disorders. The goal of the initiative is to protect more children from flu through increased influenza vaccination and the appropriate use of influenza antiviral drugs. On September 18, 2012, CDC hosted a live Twitter chat (#CDCFluChat) on this subject. Experts from CDC's Influenza Division in the National Center for Immunization and Respiratory Diseases (NCIRD) and the National Center for Birth Defects and Developmental Disabilities (NCBDDD) discussed the importance of influenza vaccination for prevention and prompt administration of antiviral drugs for treatment when influenza infection is suspected or confirmed in these vulnerable children. The chat resulted in up to 9,529,624 impressions. A clinician education course on this topic is being offered on September 27, 2012. Find the full press release [here](#).

2012 Pandemic Flu Exercise

From September 11–13, 2012, CDC conducted a pandemic influenza functional exercise in cooperation with other federal agencies, various state/local health departments, and public health partners. The purpose of this exercise was to test new plans developed since the 2009 H1N1 pandemic including the use of modeling to guide the response, refinements to guidance on school closures as a means to reduce transmission of a pandemic influenza virus, plans for the use and prioritization of vaccine, and improvements to budget formulation and execution during a pandemic.

CDC exercised its pandemic influenza plan in response to a mock pandemic scenario where approximately 100 cases of H5N1 influenza (70 in the United States) were detected among

participants at an international influenza conference abroad. CDC's Emergency Operations Center was activated each day from 7 AM to 7 PM, and approximately 420 participants responded to fictional requests /events created for the exercise in real time.

Joining CDC in the exercise were representatives from the Departments of Health and Human Services, Defense, Agriculture, Commerce, Justice, and the FBI. Local and state officials taking part in the exercise included representatives from the states of Georgia, Vermont, Maryland, Connecticut, Oregon and Washington. Other participating public health partners included the Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), the Council of State and Territorial Epidemiologists (CSTE), and the Association of Public Health Laboratories (APHL), each served as players, controllers, and observers in the exercise.

Federal, state and local partners contributed to the success of the exercise, providing valuable support and insight as CDC continues to refine and evaluate its capability to respond to a severe influenza pandemic. CDC staff organized, developed, and coordinated the exercise over several months to ensure its success and to gain invaluable experience for evaluating progress and identifying gaps for immediate action and future exercises.

Final State-Level 2011–12 Influenza Vaccination Coverage Estimates Available Online by FluVaxView

State-level influenza vaccination coverage for the 2011–12 flu season can be found [here](#), and includes estimates of the cumulative percentage of persons vaccinated by the end of each month, from August 2011 through May 2012, for each state, U.S. Department of Health and Human Services [region](#), and the United States overall. Analyses were conducted using Behavioral Risk Factor Surveillance System data for adults aged 18 years and up and National Immunization Survey data for children aged 6 months – 17 years. Estimates are provided by age group and race/ethnicity. These estimates are presented by an online summary [report](#). This [posting](#) updates the national preliminary estimates from the March 2012 National Immunization Survey and National Flu Survey.

InFLUential News, August 2012 Newsletter

The National Influenza Vaccination Disparities Partnership is a national multi-sector campaign, spearheaded by local influential partners who promote the importance of vaccination uptake among underserved populations. The partnership and this newsletter are supported by the CDC. Read their current newsletter by clicking [here](#).

CommunityFlu 2.0 — Updated

CommunityFlu is a software program that simulates the spread of influenza and the impact of a variety of potential interventions through a model community (e.g., vaccinations, school closings, wearing of face masks, patient and household isolation/self quarantine). CommunityFlu also calculates the cost, in terms of workdays lost, of influenza and the associated interventions. For more information and to download the program, click [here](#).

Influenza Resources

Recent highlights from the Morbidity and Mortality Weekly Report (MMWR): click [here](#).

Notes from the Field: Outbreak of Influenza A (H3N2) Virus Among Persons and Swine at a County Fair — Indiana, July 2012 (July 27, 2012 / 61(29);561-561)

During July 12–16, 2012, the Indiana State Department of Health and the Indiana Board of Animal Health identified respiratory illness among swine and persons at a county fair held July 8–14. On July 16, specimens were collected from four persons with respiratory illness; two had become ill on July 12 and sought care at an emergency department, and two were identified as part of the subsequent public health investigation. All four persons were swine exhibitors or family members of swine exhibitors and

had close contact with swine. On July 18, reverse transcription–polymerase chain reaction testing at the Indiana State Department of Health laboratory identified suspected influenza A (H3N2) variant (H3N2v) virus* in all four specimens. On July 21, partial genome sequencing at CDC confirmed H3N2v virus with the influenza A (H1N1)pdm09 virus M gene; the viruses detected in the four specimens are similar to 12 viruses detected in 2011 and one detected earlier this year (1). None of the four persons were hospitalized, and all have fully recovered.

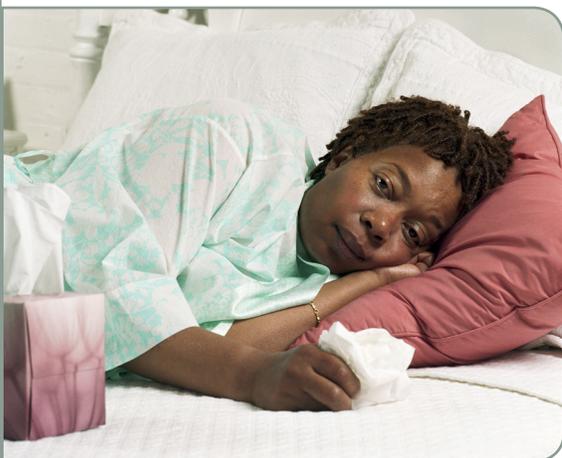
All respiratory specimens collected from a sample of 12 swine at the fair were positive for influenza A (H3N2) virus. The specimens were forwarded to the National Veterinary Services Laboratories of the U.S. Department of Agriculture for additional testing. Preliminary genetic analysis has shown a very high level of similarity between the gene sequences of H3N2v viruses from humans and the H3N2 viruses from swine.

Although human-to-human transmission of H3N2v has been limited in previous outbreaks (1), these viruses could change to transmit efficiently among humans. Clinicians who suspect influenza in persons with recent exposure to swine should obtain a nasopharyngeal swab or aspirate from the patient, place the swab or aspirate in viral transport medium, and contact their state or local health department to arrange transport and request a

timely diagnosis at a state public health laboratory (1). Clinicians should consider antiviral treatment with oral oseltamivir or inhaled zanamivir in suspected cases (2). Persons who raise swine or come into close contact with swine at fairs or other venues should be aware of the potential risk for influenza transmission between swine and humans. To reduce this risk, preventive measures such as practicing frequent hand hygiene and respiratory etiquette are recommended. Persons also should avoid close contact with animals that look or act ill, when possible, and if experiencing influenza-like illness themselves, should avoid contact with swine. Additional guidelines on prevention of influenza transmission between humans and swine are available [here](#).

Including the cases in this report, 17 infections with H3N2v virus with the influenza A (H1N1)pdm09 virus M gene have been reported since August 2011. Novel influenza A virus infection in humans is a nationally notifiable disease (3) and a reportable disease under International Health Regulations (4). State public health laboratories should contact CDC and send all suspected novel influenza A specimens for confirmatory testing. Additional information about H3N2v is available [here](#).

Click [here](#) for the full article.



Free Influenza materials for your State!

This season's flu materials include messaging to address the 2012–13 flu recommendations. All materials are **free for download** at www.cdc.gov/flu/freeresources/

Test Your Knowledge at The Flu I.Q.

www.flu.gov/individualfamily/about/index.html#fluquiz