

HHS/CDC NIVW Webinar: 2009 H1N1 Influenza and its Impact on People with Chronic Medical Conditions: Questions and Answers

The January 12, 2010 National Influenza Vaccination Week Webinar featured Dr. Nicole Lurie with the US Department of Health and Human Services; Dr. Anthony Fiore with Centers for Disease Control and Prevention; Dr. Otis Webb Brawley with American Cancer Society; Christine Tobin with American Diabetes Association; and Mary Partridge with the American Lung Association. During the webinar, the presenters answered questions from participants. This document contains additional questions and answers that followed this webinar.

1. Is the 2009 H1N1 vaccination recommended for everyone?

CDC recommends influenza vaccination as the first and most important step in protecting against the flu. CDC is now encouraging everyone 6 months of age and older to get vaccinated against 2009 H1N1, including people 65 years and older. While less common than with seasonal flu, severe illnesses and deaths from 2009 H1N1 have occurred in every age group, including people 65 and older. Vaccination of people with certain health conditions is especially important because they are more likely to get serious flu-related complications. Health conditions that increase the risk of being hospitalized from 2009 H1N1 include lung disease like asthma or chronic obstructive pulmonary disease (COPD), diabetes, heart, or neurologic disease, and pregnancy.

<http://www.cdc.gov/h1n1flu/vaccination/general.htm>

2. Why are people choosing not to get the 2009 H1N1 vaccine?

There are various possible reasons why people are choosing not to get vaccinated at this point. It's possible people may not perceive there to be an ongoing risk from 2009 H1N1 or it's possible that people may not recognize that they are themselves candidates for vaccination. Also, initially there were limited supplies of 2009 H1N1 vaccines so not every physician's office had vaccine available at the time when people might have initially attempted to get vaccinated.

One study found that while some people acknowledge that they might get a mild case of 2009 H1N1, they'd rather deal with the illness than get vaccinated. Participants in this study also were concerned about vaccine safety issues. Some were concerned that because the virus is "new," the vaccine is being rushed into production. To reassure people on these last two points, CDC, FDA, and other vaccine experts have emphasized that the 2009 H1N1 vaccines are being made in the same way, by the same manufacturers, and in the same facilities as seasonal influenza vaccines.

One of the purposes of National Influenza Vaccination Week was to raise awareness about the value of ongoing vaccination beyond the holidays as flu viruses may

continue to circulate into May. The hope is that interest in being vaccinated will be stimulated once again, among both providers and patients who are at risk for complications of flu.

3. For those who have had 2009 H1N1 infection already, are they protected or do they need to be vaccinated still?

Getting infected with any influenza virus, including 2009 H1N1, causes the body to develop immune resistance to that virus so it's not likely that a person would be infected with the identical influenza virus more than once. However, people with weakened immune systems and rarely other persons who are not immune suppressed might not develop full immunity after infection and might be more likely to get infected with the same influenza virus more than once. It's also possible that a person could have a positive test result for flu infection more than once in an influenza season. Additionally, most people who have had flu-like illness in recent months won't know for certain whether they had 2009 H1N1 or another respiratory virus. For these reasons, people who have had flu-like illness should get vaccinated against 2009 H1N1.

4. Are 2009 H1N1 viruses expected to be active through the summer?

There are uncertainties surrounding the rest of this flu season, including the possibility of the circulation of seasonal influenza viruses and ongoing circulation of 2009 H1N1 viruses. In past pandemics, flu activity has occurred in waves and it's possible that the United States could experience another wave of flu activity this winter or early spring. In addition, sporadic cases of influenza – including 2009 H1N1 -- can also occur in the summer.

5. Can a person with cold symptoms get the 2009 H1N1 vaccine?

Yes. A person with a mild cold or other illness does not need to wait. However, people who are moderately or severely ill, might be advised to wait until their symptoms improve before getting vaccinated.

6. Is it ever contraindicated to give the seasonal flu vaccine and 2009 H1N1 vaccine at the same time?

The seasonal nasal spray vaccine and the 2009 H1N1 nasal spray vaccine should not be given at the same time. This is because the nasal spray vaccines might not be as effective if given together. However, it is fine to receive the 2009 H1N1 nasal spray at the same time as the seasonal influenza (flu) shot, or the seasonal flu nasal spray at the same time as the 2009 H1N1 flu shot vaccine.

7. What is known about adverse effects due to the vaccinations thus far?

Throughout the 2009 H1N1 vaccination program, vaccine safety has been closely monitored. In December, 2009, CDC published a review of vaccine safety results for the 2009 H1N1 vaccines. Safety results were reviewed from 3,783 reports received through the U.S. Vaccine Adverse Event Reporting System (VAERS) and electronic data from 438,376 persons vaccinated in managed-care organizations in the Vaccine Safety Datalink (VSD), a large, population-based database with administrative and diagnostic data, in the first 2 months of reporting (as of November 24). VAERS data indicated 82 adverse event reports per 1 million H1N1 vaccine doses distributed, compared with 47 reports per 1 million seasonal influenza vaccine doses distributed. However, no substantial differences between H1N1 and seasonal influenza vaccines were noted in the proportion or types of serious adverse events reported. No increase in any adverse events under surveillance has been seen in VSD data.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e1204a1.htm>

8. A few weeks ago, several news agencies reported that you should not take Tylenol or Advil to manage post immunization discomfort. The premise offered was that it interfered with the body's ability to make antibodies. Is this true?

Neither CDC nor ACIP have formal recommendations on management of post-immunization discomfort from influenza vaccination, which in most cases is mild. However, the General Recommendations on Immunization contains a section entitled "Methods for Alleviating Discomfort and Pain Associated with Vaccination." This section indicates that several methods may be used to help patients cope with vaccination pain, including pre-treatment of the surface of the skin and the use of acetaminophen or ibuprofen. The active ingredients in these medications -- acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs) -- should not interfere with the body's ability to make antibodies to the flu virus(es) in the vaccine.

The Food and Drug Administration advises consumers to follow directions when using common pain and fever reducers. The active ingredients, acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs), are safe and effective when the labeling directions or the advice from a health care professional is followed. Using more than recommended can cause serious injury. The recent study being reported on the news showed that antibody levels were somewhat lower among persons who took acetaminophen compared to those who took nothing after vaccination, but the reductions were not enough to be of concern that vaccination won't work if acetaminophen is given.

9. Are there any specific data regarding people with epilepsy related to influenza morbidity/mortality?

People with epilepsy are in a "high risk" group and are considered more likely to get flu complications that result in being hospitalized and occasionally result in death. Pneumonia, bronchitis, sinus infections and ear infections are examples of flu-

related complications. The flu can also make chronic health problems, such as epilepsy, worse.

10. What is the estimated prevalence of Americans living with any chronic medical conditions?

In 2005, 133 million Americans – almost 1 out of every 2 adults – had at least one chronic illness.

<http://www.cdc.gov/chronicdisease/overview/index.htm>

11. What is the risk from LAIV for those with chronic health conditions?

FDA has indicated that the safety of LAIV has not been established in persons with underlying medical conditions that confer a higher risk for influenza complications.

<http://www.cdc.gov/flu/professionals/acip/recommendations.htm>

Because the safety or effectiveness of LAIV has not been established in persons with underlying medical conditions that confer a higher risk for influenza complications, these persons should be vaccinated only with TIV.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr58e0724a1.htm>

Limited data assessing the safety of LAIV use for certain groups at higher risk for influenza-related complications are available. In one study LAIV was well-tolerated among adults aged 65 years and older with chronic medical conditions. These findings suggest that persons at risk for influenza complications who have inadvertent exposure to LAIV would not have significant adverse events or prolonged viral shedding. Persons who have contact with persons at higher risk for influenza-related complications may receive LAIV.

<http://www.cdc.gov/flu/professionals/acip/adverseLAIV.htm>

12. How does obesity pose an increased risk of complications with regards to Flu?

Obesity has been noted as an underlying medical condition in some hospitalized 2009 H1N1 patients. Although the importance of obesity as a contributing factor to 2009 H1N1 complications is currently unknown, many obese persons have other known underlying diseases that put them at risk for flu complications. Extremely obese patients have a higher prevalence of co-morbid conditions that confer higher risk for influenza complications, including chronic heart, lung, liver, and metabolic diseases.

In a subset of 268 patients hospitalized with 2009 H1N1 early on during the outbreak, the body mass index (BMI) of 227 patients was calculated. Obesity was noted in about 15% of these patients and morbid obesity was noted in about 8% of

these patients. In this same study, a striking prevalence of obesity in the intensive care patients evaluated in this report was noted.

Reference: Ogden CL, Carroll MD, McDowell MA, Flegal KM. Obesity among adults in the United States—no change since 2003–2004. NCHS data brief no 1. Hyattsville, MD: National Center for Health Statistics; 2007. Available from: <http://www.cdc.gov/nchs/data/databriefs/db01.pdf>

13. Can someone undergoing radiation and/or chemotherapy be vaccinated against H1N1?

Yes. Immunosuppressed persons aged 6 months and older are recommended to receive both inactivated seasonal influenza vaccine and inactivated 2009 H1N1 monovalent influenza vaccine; this includes people receiving chemotherapy treatment for cancer. In addition, persons aged 6 months and older who are household contacts of severely immunosuppressed persons are recommended for annual inactivated seasonal influenza vaccination.

Although influenza vaccination is the best way to prevent influenza, influenza vaccination may be poorly immunogenic in severely immunosuppressed patients. Therefore, antiviral chemoprophylaxis of 2009 H1N1 can be considered for severely immunosuppressed patients. If possible, vaccinate before immune suppressing treatment starts.

14. Are cancer patients who have finished treatment with chemotherapy or radiation within the past 6 months still at high risk for complications from influenza? If so, why?

Experts believe that people who have been treated for cancer within the past six months are at higher risk for serious flu-related complications if they become ill with flu because their immune systems are likely suppressed. Certainly, people who have been treated for leukemia and lymphoma have compromised immune systems for the rest of their lives. People who have cancer treatments, especially chemotherapies, may have a compromised immune system for the rest of their lives as well.

Anyone who has been treated for cancer -- especially within the previous six months -- should be especially careful in terms of preventing both 2009 H1N1 and seasonal influenza. Vaccination with a flu shot is especially important for these people. People who have weakened immune systems should not receive the live attenuated flu vaccine.

15. It can be difficult to promote the H1N1 vaccine if other medical providers do not encourage vaccination. There have been reports from people with diabetes that they were told by their doctors not to get vaccinated because “they are not at risk.” Is this being addressed in some way?

The 2009 H1N1 vaccine is now available to anyone who wishes to receive it, however CDC continues to encourage 2009 H1N1 vaccination to pregnant women, people who live with or care for children younger than 6 months of age, health care and emergency medical services personnel, anyone 6 months through 24 years of age, and people ages of 25 through 64 years of age with certain chronic health conditions or compromised immune systems, including diabetes.

High risk conditions include but are not limited to diabetes, neurologic conditions, asthma, kidney or liver disorders, cancer, and many others. As always, those with high risk conditions are at a higher risk of developing flu complications, such as pneumonia, bronchitis, and sinus and ear infections.

Surveillance data clearly show that persons with underlying medical conditions are at risk for both seasonal and 2009 H1N1 complications, and this has been shown all over the world. It is incorrect to state that persons who have chronic medical conditions are not at higher risk, regardless of various clinician viewpoints and how they embrace the importance of flu vaccination within these groups.

<http://www.flu.gov/myths/index.html>

16. What is the risk for hospitalization and mortality among those with co-morbidities, such as asthma and COPD?

Research indicates that persons with asthma or COPD are at higher risk of complications from both seasonal flu and from 2009 H1N1 Influenza.

More than 80 percent of adults and about 60 percent of children who have been hospitalized with 2009 H1N1 influenza have had one or more medical conditions previously recognized as placing people at “high risk” of serious seasonal flu-related complications. This includes pregnancy, diabetes, heart disease, asthma, and kidney disease.

<http://www.cdc.gov/H1N1flu/qa.htm>

In one study, asthma and chronic lung disease were the most common underlying conditions among patients hospitalized with 2009 H1N1.

There is no evidence that people with asthma are more susceptible to influenza—they’re not more likely to get infected. However, they are more likely to get a more severe infection when they do get infected. Influenza infection is associated with very severe asthma exacerbations leading to ICU admission and resulting health issues that do not respond well to usual treatment.

Once a person is hospitalized, the risk of ending up in the ICU is the same for persons with asthma and not with asthma. However, since so many persons with asthma come to the hospital in the first place, asthma is still the number one co-morbidity associated with ICU admissions.

http://emergency.cdc.gov/coca/summaries/pdf/111009_H1N1_Influenza_and_Asthma_interim.pdf

Reference: Hospitalized Patients with 2009 H1N1 Influenza in the United States, April–June 2009; N Engl J Med 2009;361:1935-44