



## PREVENTION OPPORTUNITIES UNDER THE BIG SKY

### INFLUENZA VACCINE 2011-2012: MONTANANS SHOULD GET VACCINATED

Influenza is a highly infectious respiratory disease that can cause serious illness for persons of any age; it can be prevented by annual vaccination. When the match between the vaccine and circulating strains of influenza virus is optimal, vaccination can decrease the risk of acquiring influenza by more than 70% in healthy adults.<sup>1</sup> This issue of *Montana Public Health* describes the 2011–2012 influenza vaccine and who should get it.

**The 2011–2012 Influenza Vaccine** The 2011–2012 seasonal influenza vaccine is a trivalent vaccine and should protect against A/California/7/2009 (H1N1), A/Perth/16/2009 (H3N2), and B/Brisbane/60/2008-like viruses. While these are the same viruses that were in the 2010–2011 influenza vaccine, vaccine-related immunity can decline from year to year and vaccine administered last season might not prevent infection this season. Annual influenza vaccination is recommended for *optimal* protection.<sup>2</sup>

**Types of vaccine available: TIV and LAIV** Trivalent inactivated vaccine (TIV) is administered intramuscularly and approved for use in persons aged  $\geq 6$  months, including those with high-risk medical conditions and pregnant women. Different formulations of this vaccine are available from various manufacturers and the minimum approved age for administration varies among formulations. Consult the package insert to ensure the chosen vaccine is suitable for your patient.

In 2010, a “high-dose” TIV product containing four times as much antigen as a standard dose was introduced for persons aged  $\geq 65$  years. This product is also available this year. Whether or not use of this product provides greater protection against influenza illness is not known.

In 2011, an intradermal influenza vaccine was approved for use in persons aged 18–64 years. The intradermal vaccine contains a lower dose of antigen compared with other influenza vaccine formulations but provides a similar immune response. Using a pre-filled syringe, this vaccine is administered into the dermal layer of the skin with a much smaller needle.

Finally, live attenuated trivalent influenza virus vaccine (LAIV) is available for healthy, non-pregnant persons aged 2–49 years. For these persons, there is no preferential recommendation for any of the indicated influenza vaccine formulations. However, clinicians should note for each specific vaccine the indications for use and contraindications on the product’s package insert.

**Who should be vaccinated?** The Centers for Disease Control and Prevention (CDC) recommends routine influenza vaccination for all persons aged  $\geq 6$  months. Annual “universal” influenza vaccination recommendations were first established in 2010 to expand protection against influenza to more persons. Whereas one dose of influenza vaccine is adequate for most persons, young children not previously vaccinated against influenza require two doses of influenza vaccine administered four weeks apart for full protection. Specifically for the 2011–2012 season, children aged 6 months–8 years will require two influenza vaccine doses spaced four weeks apart with the following exception. Those children aged 6 months–8 years who received at least one dose of the 2010–2011 influenza vaccine will need only a single dose of the 2011–2012 vaccine.

While the universal recommendations encourage influenza vaccination for all persons aged  $\geq 6$  months, efforts to reach persons at-risk for influenza-related complications (Table) are strongly encouraged. Additionally, health care personnel, including volunteers, should be vaccinated against influenza.

#### Table. Conditions and persons associated with a higher risk for influenza-related complications

##### Conditions

- Asthma
- Cancer
- Diabetes
- HIV/AIDS
- Pregnancy

##### Persons

- Aged  $\geq 65$  years
- Aged  $< 5$  years, but especially aged  $< 2$  years
- American Indians, Alaska Natives

Vaccinating health care workers not only protects the worker, but also other health care workers, patients, family members, and other close contacts.<sup>3</sup>

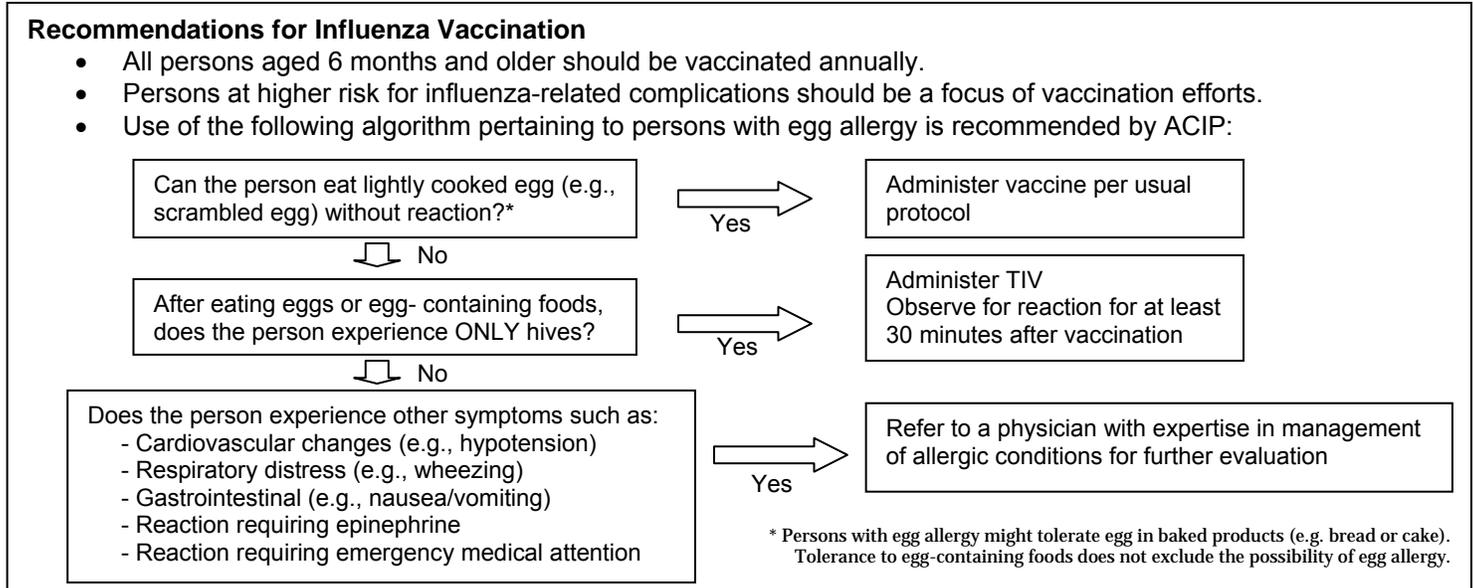
**When should influenza vaccine be given?** Influenza vaccination can be offered as soon as vaccine becomes available. To avoid missed opportunities for

vaccination, health care providers should offer vaccination during routine health care visits or during hospitalizations, and continue offering the vaccine throughout the season which typically occurs October–May, in the northern hemisphere.

**Permissive recommendation for persons with egg allergies** New for the 2011–2012 season is a more permissive influenza vaccination recommendation for persons with egg allergies. Based on a review of several recent studies, administration of TIV vaccine has been tolerated by those with egg allergies and is not associated with serious vaccine-related adverse events. The Advisory Committee on Immunization Practices (ACIP) now recommends that persons who experienced only hives (and not other more severe

reactions) from consuming eggs can receive TIV vaccine intramuscularly as long as they are treated by a health care provider familiar with the potential clinical reactions caused by egg allergies and can be observed by a healthcare professional for at least 30 minutes after receiving each dose. In contrast, LAIV vaccine should not be used in these patients.<sup>2</sup>

Persons with more severe reactions from ingesting eggs or a previous severe reaction to influenza vaccination should not be given influenza vaccine before having a risk assessment performed. Please use the algorithm provided below when considering influenza vaccine for patients who report an egg allergy.



For more information, contact the DPHHS Immunization Program at 406-444-5580.

References:

1. Centers for Disease Control and Prevention. Prevention and control of influenza with vaccines. MMWR 2010; 59(RR-8): 14, 49, 51.
2. Centers for Disease Control and Prevention. Prevention and control of influenza. MMWR 2011; 60: 1128-1132.
3. DPHHS/PHSD. Influenza vaccination for healthcare workers—are you up to date? Montana Public Health 2011; 6(10): 1-2.

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