



## PREVENTION OPPORTUNITIES UNDER THE BIG SKY

### INFLUENZA VACCINE 2008-2009: MONTANANS SHOULD GET VACCINATED

Influenza is a highly infectious respiratory disease, can cause serious illness for people of any age, but can be prevented by vaccination. When there is an optimal match between the vaccine and circulating strains of influenza virus, vaccination can decrease the chance of getting influenza by more than 70% in health adults. This issue of *Montana Public Health* describes the 2008-2009 vaccine and who should get it.

**The 2008-2009 Influenza Vaccine** This year's vaccine contains three strains of influenza virus. All three vaccine virus strains in the 2008-2009 vaccine were changed compared to the virus strains in the 2007-2008 vaccine. Five manufacturers produce FDA-approved vaccine; four provided an inactivated virus vaccine that is administered intramuscularly while the fifth provides a live attenuated vaccine this is administered intranasally.<sup>1</sup> (Table 1)

**Who should be vaccinated?** Anyone older than six months of age should be vaccinated. (Table 2) The Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) guidelines for 2008-2009 recommend immunization of all children age 6 months through 18 years. This recommendation is based on evidence that influenza vaccine is **effective and safe for school-aged children (who were added to the ACIP recommendation this year)**, evidence that influenza has substantial adverse effects in school-aged children as well as their contacts, and the desire that a simplified recommendation for all school-aged children and adolescents will lead to improved vaccine coverage levels. There is also evidence that immunization of children will reduce influenza in their household contacts.

It is important for health care workers to be immunized against influenza. This not only protects the immunized worker, but also other health care workers as well as patients, family members and other close contacts of the worker. Only 61% of health care personnel in Montana long-term care facilities reported being vaccinated in 2007.<sup>2</sup>

**When should influenza vaccine be given?**

Vaccination should begin as soon as vaccine is received, and continued into 2009. In the U.S. outbreaks of influenza usually occur in the winter but can occur in other seasons, too. (Figure)

**Table 1: FDA-approved influenza vaccines, 2008-2009**

Trade Name (manufacturer) <sup>(a)</sup>	Presentation	Age Group (doses)
<i>(Inactivated)</i>		
Fluzone® (sanofi pasteur)	0.25 mL prefilled syringe	6-35 mo (1or 2) <sup>(b)</sup>
	0.5 mL prefilled syringe	≥36 mo (1or 2) <sup>(b)</sup>
	0.5 mL vial	≥36 mo (1or 2) <sup>(b)</sup>
	5.0 mL multi-dose vial	≥6 mo (1or 2) <sup>(b)</sup>
Fluvirin® (Novartis)	5.0 mL multi-dose vial	≥4 yr (1or 2) <sup>(b)</sup>
	0.5 mL prefilled syringe	≥4 yr (1or 2) <sup>(b)</sup>
Fluarix® (GlaxoSmithKline)	0.5 mL prefilled syringe	≥18 yr (1)
FluLaval™ (GlaxoSmithKline)	5.0 mL multi-dose vial	≥18 yr (1)
Afluria® (CSL Biotherapies)	0.5 mL prefilled syringe	≥18 yr (1)
	5.0 mL multi-dose vial	≥18 yr (1)
<i>(Live, attenuated)</i>		
FluMist® (MedImmune)	0.2 mL sprayer	2-49 yr <sup>(c)</sup> (1or 2) <sup>(b)</sup>

(a) Use of brand name does not imply endorsement by DPHHS

(b) Two doses administered at least 1 mo apart are recommended for children 6mo to <9yr who are receiving influenza vaccine for the first time. Children <9yr who received only one dose of influenza vaccine in a previous influenza season should receive two doses the following year.

(c) Not recommended for persons with certain chronic medical conditions, for pregnant women, or for children 2 through 4 years with asthma or wheezing episode within past 12 months.

**Table 2. Who should receive influenza vaccine:**

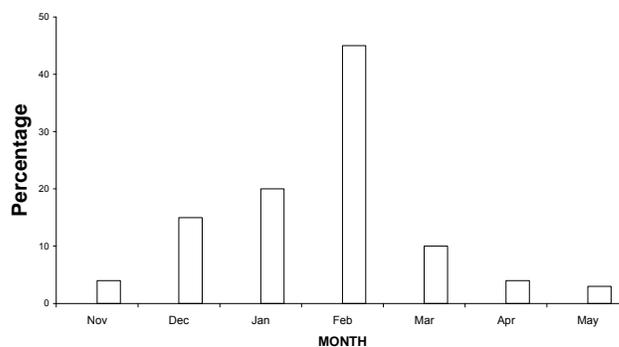
- All children and adolescents 6 months through 18 years
- All pregnant women (at any stage of pregnancy)
- All people age 50 and older
- All people aged 5 to 49, particularly those with chronic medical conditions\*
- All residents of long-term care facilities
- All caregivers and household contacts of persons with chronic medical conditions or children under 5 years
- All health care workers
- Anyone who wishes to be vaccinated

\* For a list of these chronic medical conditions, see reference 1.

## A good time to offer pneumococcal vaccine

Influenza-related deaths result from complications of influenza such as pneumonia, and from exacerbations of underlying medical conditions. Invasive pneumococcal disease is a major reason for pneumonia, especially in persons  $\geq 65$ . An adult pneumococcal vaccine is available. It protects against 23 subtypes of pneumococcus, 88% of the antigens identified in invasive pneumococcal disease. This vaccine is recommended for persons 65 and older, and for persons 2 to 64 with certain high risk conditions.<sup>3</sup> This vaccine should be offered to persons in these categories at any time during the year, including influenza season.

Figure. Peak influenza activity in the United States, 1976-77 through 2007-08, by month



### RECOMMENDATIONS:\*

- Offer influenza vaccination to persons  $\geq 6$  months of age.
- Encourage health care workers to be vaccinated with influenza vaccine
- Offer pneumococcal vaccine to persons 65 and older who have not been previously vaccinated, and to persons with immune system diseases who have not been previously vaccinated.

\*For complete ACIP recommendations, see reference 1.

For more information, contact the Immunization Section, 406-444-5580.

#### References:

1. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2008. MMWR 2008; 57:1-60. Available at: <http://www.cdc.gov/mmwr/PDF/rr/rr5707.pdf>
2. Immunization Section, DPHHS. Survey of health care personnel in Montana long term care facilities. 2007.
3. CDC. Prevention of Pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997; 46(RR-08): 1-24. Available at: <http://www.cdc.gov/mmwr/PDF/rr/rr4608.pdf>

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