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# Flu vaccination rates: How can you do better?

## Offer the vaccine to anyone who wants it, both before and during flu season, stresses the CDC

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Each year, the flu causes an average of about 36,000 excess deaths and over 200,000 hospitalizations in the US.[1,2] Much of this morbidity and mortality is preventable, yet each year, a large proportion of those for whom the vaccine is recommended go unvaccinated (**TABLE 1**).

### Improving rates among health care workers

The recommendations of the Centers for Disease Control and Prevention (CDC) for the 2007–2008 influenza season include a new recommendation that targets health care worker vaccination rates.[3] Because of the low rate of vaccination of health care workers, and the potential impact of higher coverage on both worker and patient safety, the CDC now recommends that the level of vaccination coverage be used as one measure of a facility's patient safety quality program. The CDC also recommends the implementation of policies to encourage acceptance of the vaccine, such as requiring those caregivers who refuse immunization to sign waivers.

### Improving rates among patients

To improve vaccination levels among patients, the CDC recommends:

- using reminder/recall systems
- using standing order programs
- administering the vaccine before and during the influenza season to patients during routine health care visits.

For more on improving vaccination coverage, see **"Tips to help improve vaccination rates"** on page 828.

### Offer the vaccine to anyone who wants it

While the groups for whom vaccine is recommended are the same as last year (**TABLE 2**), this year the CDC is emphasizing the importance of:

- **offering the vaccine** to anyone who wants to reduce their risk of contracting influenza or transmitting the virus to others.
- **continuing to offer vaccine** to those susceptible throughout the flu season.

A minor change from last year's recommendations involves children who are 6 months through 8 years of age who receive only 1 dose of vaccine their first year of vaccination. The CDC now recommends that these children receive 2 doses the next year. If they receive only 1 dose 2 years in a row, the CDC recommends only a single dose annually thereafter.

CONTINUED

IN THIS ARTICLE

TABLE 1

**High-risk groups who went unvaccinated with influenza vaccine (2005)**

| POPULATION GROUP | PROPORTION UNVACCINATED |
|---|---|
| Household contacts of those at high risk | 83%–91% |
| Pregnant women | 84% |
| Patients, ages 50–64 years | 77% |
| Patients, ages 6–23 months | 67% |
| Those with high-risk medical conditions | 66%–82% |
| Health care workers | 64% |
| Patients, ages ≥65 years | 40% |

TABLE 2

**Who should receive the influenza vaccine?**

**Anyone who wants to reduce their risk of contracting the flu or transmitting the virus to others**

**People at high risk for complications from the flu, including:**

- Children 6–59 months of age
- Pregnant women
- People 50 years of age and older
- People who live in nursing homes and other long-term care facilities
- People younger than age 18 on chronic aspirin therapy
- People of any age with the following chronic medical conditions:
  - Chronic heart disease
  - Chronic lung disease (including asthma)
  - Diabetes
  - Renal disease
  - Hepatic disorders
  - Hematological disorders
  - Immune deficiencies
  - Neurological disorders that compromise respiratory function or secretion clearing

**People who live with, or care for, those at high risk of complications from the flu, including:**

- Household contacts of those at high risk for complications from the flu (see above)
- Household contacts and caregivers of children younger than 6 months of age (these children are too young to be vaccinated)
- Healthcare workers

## The 2 vaccines: How they differ

The same 2 vaccine types are available this year as last: trivalent influenza vaccine (TIV) and live attenuated influenza vaccine (LAIV). The vaccines include the same viral strain antigens and either can be used annually unless contraindicated (**TABLE 3**).

The major differences between the 2 vaccine types are:

- LAIV is administered as an intranasal spray while TIV requires an intramuscular injection
- LAIV is approved only for healthy people who are 5 to 49 years of age, whereas TIV is approved for anyone over the age of 6 months
- The interval between 2 doses in children under 9 years of age is 4 weeks for TIV and 6 to 10 weeks for LAIV
- LAIV should not be administered to family members or close contacts of those who are immunosuppressed and require a protective environment, while TIV can be used in this situation
- LAIV, being a live virus vaccine, should be administered simultaneously with, or 4 weeks after, the administration of other live virus vaccines. TIV is not a live virus vaccine, and its timing in relation to other live virus vaccines is not an issue.

## Antiviral options remain the same

Once again this year, the CDC does not recommend the use of adamantane antivirals for prophylaxis or treatment of influenza, leaving the 2 neuraminidase inhibitors, oseltamivir (Tamiflu) and zanamivir (Relenza), for these purposes. Treating flu patients with these antivirals shortens the duration of symptoms and may reduce viral shedding.

The earlier the treatment is started, the better the results. There appears to be no—or only minimal—benefit for those with uncomplicated influenza if the treatment is started more than 2 days after the onset of illness.

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## Tips to help improve vaccination rates

The Task Force on Community Preventive Services (an independent group, whose members are appointed by the director of the CDC) indicates that there is evidence to support the use of the following methods for improving vaccination rates:[4]

- Provider reminders, including notations, stickers, or other prompts in clients' charts that notify staff when a client is due for certain vaccinations, including the influenza vaccine
- A recall system to notify patients when vaccines are due, using telephone messages or mailings. (E-mail messages are not mentioned but should also work)
- Standing orders for adults that allow staff to administer vaccines without the patient seeing the physician
- Assessing provider performance in delivering vaccinations and supplying this data to the provider
- Decreasing out-of-pocket costs for vaccinations.

TABLE 3

**Contraindications and precautions for influenza vaccines**

| | |
|---|---|
| **TIV** trivalent influenza vaccine | • Anaphylactic hypersensitivity to eggs or other vaccine component<br>• Moderate to severe febrile illness (postpone until well)<br>• Guillain-Barré syndrome within 6 weeks of a previous dose of TIV (precaution) |
| **LAIV** live attenuated influenza vaccine | • Anaphylactic hypersensitivity to eggs or other vaccine component<br>• <5 years of age or ≥50 years of age<br>• Medical conditions that are an indication for routine influenza vaccination<br>• Children or adolescents taking aspirin (because of the risk of Reye syndrome)<br>• History of Guillain-Barré syndrome<br>• Pregnancy |

### Consider antiviral prophylaxis for these patients

The CDC recommends that antiviral prophylaxis be considered for those who are susceptible, residing in an area with circulating influenza virus, and who:

- have not been vaccinated or were recently vaccinated (since it takes 2 weeks for immunity to develop after vaccination)
- are unvaccinated and providing care for high-risk individuals
- have a contraindication to the vaccine
- have immune deficiencies and may not respond adequately to the vaccine.

The CDC also recommends prophylaxis for all residents and staff in a long-term care facility where influenza is circulating, without regard to vaccine status. More complete information on indications, dose and duration of antivirals for prophylaxis, and treatment can be found in this year's CDC recommendations.[3]

## Another flu season approaches

The good news for the coming year is that the government expects that the supply of vaccine will exceed 100 million doses. This should be sufficient, unless unforeseen production problems arise.

Each year millions of doses of influenza vaccine go unused and are discarded. By following the CDC's recommendations, and those of the Task Force on Community Preventive Services[4] (top left), each of us can improve vaccination coverage in our area and minimize the number of hospitalizations and deaths from the flu. ■

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