Vaccinate to Stop Flu

Every year, influenza (flu) causes approximately 200,000 hospitalizations and 3,000-49,000 deaths in the United States. Cough etiquette and hand hygiene are always advised as general measures to prevent disease transmission but vaccine remains the best way to prevent the flu.

Get vaccinated to protect yourself and your community

Since 2010, flu vaccine has been recommended for everyone 6 months and older. Vaccine for the 2011-12 flu season contains the same antigens as last year: A/California/7/2009 (H1N1)-like, A/Perth/16/2009 (H3N2)-like, and B/Brisbane/60/2008-like antigens. Even for those vaccinated last year, another dose is recommended this season to boost immunity. To permit time for production of protective antibodies, vaccination should be given before onset of flu activity in the community. Vaccine should be offered as soon as possible and throughout the flu season.

Children 6 months through 8 years old usually require two doses of flu vaccine to stimulate a satisfactory immune response. Since the current flu vaccine is unchanged from last year, children younger than 9 years old who received a dose last year require only one dose this year to be adequately immunized. However, children who did not receive vaccine in the 2010-11 flu season will require two doses of flu vaccine given at least four weeks apart. Recommendations regarding the number of doses for this age group may change for subsequent seasons as vaccine antigens change.

The flu vaccine is most effective in young, healthy adults and older children. Based on laboratory-confirmed infections, flu vaccine that is well-matched to circulating strains is about 50-70% effective against
illness in healthy adults under 65 years. Vaccine is typically less effective in older people and those with chronic medical conditions, but is still beneficial given the high risk of complications in these groups.

**Protect yourself -- Protect others**

Flu vaccine not only benefits the recipient, vaccination can also help prevent flu in contacts and decrease risk to vulnerable groups in the community who either cannot be vaccinated or may not respond to the vaccine. Vaccinating children helps decrease flu transmission in their communities. Vaccinating pregnant women helps prevent disease and hospitalizations in their infants under 6 months of age. However, data from the National Immunization Survey (NIS) and Behavioral Risk Factor Surveillance System (BRFSS) estimate that only 42.6% of Washington residents older than 6 months of age were vaccinated for flu during the 2010-2011 season.

Despite data showing that pregnant women are at increased risk for morbidity and mortality from flu, and recommendations by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices and the American College of Obstetrics and Gynecology that all women pregnant during flu season receive flu vaccine, only 62% of pregnant women were offered flu vaccine by their health care provider and only 49% of pregnant women reported receiving flu vaccine in the United States during the 2010-11 flu season. Compared to unvaccinated pregnant women, those who received a vaccine were more likely to have been offered the vaccine by a healthcare provider (71% vs. 14%), to have received flu vaccine in a previous season (84% vs. 21%), to be older age (52% vs. 44%), and to have higher educational attainment (67% vs. 43%). Medical associations and public health agencies should encourage healthcare providers to recommend and offer flu vaccination to their pregnant patients. Additional work is needed to remove barriers for administering flu vaccination as part of routine
prenatal care. Messages to women emphasizing the safety and effectiveness of maternal flu vaccination are necessary to maximize protection of pregnant patients and their newborns.

**Physician, Vaccinate Thyself!**

Health care providers (HCP) should receive flu vaccine to protect themselves and their patients, particularly those at risk for severe flu complications. CDC reported that vaccination coverage nationwide among HCP was 63% during the 2010-11 flu season. Factors associated with higher rates of flu coverage among HCP include: working at a facility where vaccination was required (98.1% vs. 58%), receiving a personal reminder from the employer (70% vs. 60%), vaccination availability at no cost (68% vs. 41%), and vaccination availability for more than one day (69% vs. 41%).

Personal attitudes about flu vaccination also influence vaccination rates, so educating HCP about the benefits may increase their acceptance of flu vaccine. Vaccination coverage among HCP is a measure of patient safety and should be tracked to estimate progress toward the *Healthy People 2020* target of 90%. Centers for Medicaid & Medicare Services may require hospitals to report HCP flu vaccination coverage as part of its Hospital Inpatient Quality Reporting Program beginning in 2013. In September 2011, the Washington State Hospital Association reported that 86% of Washington hospital workers were vaccinated against flu. Washington State’s hospital worker flu immunization rate is 15% above the national average. This shows good progress on making HCP flu vaccination the standard of care that patients expect.

Organizations that support mandatory flu vaccination of health care providers include:

- American Academy of Pediatrics
- American College of Physicians
- American Hospital Association
- American Medical Directors Association
- American Pharmacists Association
- American Public Health Association
- Association for Professionals in Infection Control and Epidemiology
- Infectious Diseases Society of America
- National Foundation for Infectious Diseases
- National Patient Safety Foundation
- Society for Healthcare Epidemiology of America
- US Department of Defense
Flu Vaccine Formulations

In addition to the previous formulations of intramuscular trivalent inactivated flu vaccine (TIV) and the intranasal live attenuated flu vaccine (LAIV), there are two newer versions of TIV available this flu season. These include the intradermal TIV (Fluzone Intradermal) which uses a smaller needle and is FDA-approved for persons 18-64 years of age, and the high-dose TIV (Fluzone High-Dose) which contains four times as much antigen and is approved for those 65 years or older. Providers should give these vaccines only to the appropriate age groups and follow administration instructions carefully. CDC has no preference for the high-dose TIV over regular-dose TIV for those 65 years or older. The high-dose vaccine does produce higher antibody levels, but studies are pending on whether this response translates into better vaccine effectiveness. The high dose vaccine may also cause increased local reactions at the injection site such as swelling, pain and redness.

Flu remains a major cause of morbidity and mortality in our country. Flu vaccine is safe and effective, and is the best way to prevent severe flu infections. Health care providers, public health agencies, and the public can together increase vaccination coverage rates to maximize benefit to individuals and our communities.

Resources:

Comprehensive information regarding testing, antiviral medication use, infection control, prevention and control of influenza with vaccines and vaccine effectiveness is available at: http://www.cdc.gov/flu/professionals/

Current vaccine recommendations including a table guiding administration is available from the Advisory Committee on Immunization Practices (ACIP) MMWR 2011;60(33):1128-1132. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a3.htm?s_cid=mm6033a3_w

Information regarding flu activity will be available throughout the season at: http://www.doh.wa.gov/ehsphl/Epidemiology/CD/fluupdate.pdf (statewide data) http://www.cdc.gov/flu/weekly/ (national data)