



Seasonal Influenza Vaccination
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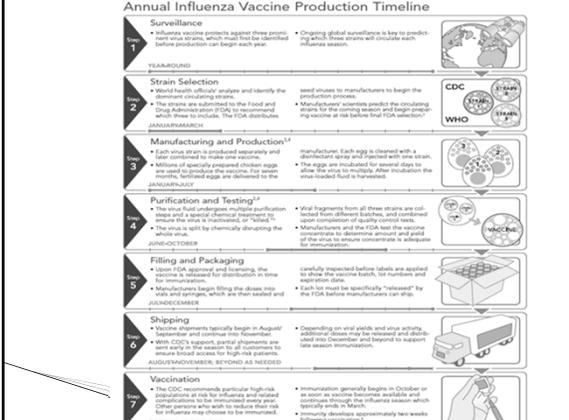
Seasonal Influenza Vaccination

- ▶ Overview
 - 2012–2013 Influenza Strain
 - Types of Influenza Vaccine
 - Who should get vaccinated
 - Vaccine Effectiveness
 - Coverage Rates
 - Influenza Vaccine Development
 - Influenza Vaccine Safety
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Influenza Strain Selection

- ▶ Each Year
 - Food and Drug Administration (FDA)
 - World Health Organization (WHO)
 - U.S. Centers for Disease Control and Prevention (CDC) and
 - Other institutions study virus samples collected from around the world.
- ▶ flu viruses that are the most likely to cause illness during the upcoming flu season

Annual Influenza Vaccine Production Timeline



2012–2013 Influenza Strain

- ▶ On February 23, 2012 the World Health Organization (WHO) recommended that the Northern Hemisphere's 2012–2013 seasonal influenza (flu) vaccine be made from the following three vaccine viruses:
 - an A/California/7/2009 (H1N1)pdm09–like virus;
 - an A/Victoria/361/2011 (H3N2)–like virus;
 - a B/Wisconsin/1/2010–like virus (from the B/Yamagata lineage of viruses).

Types of Flu Vaccine

- ▶ Trivalent inactivated Vaccine (TIV)
 - The regular trivalent inactivated vaccine that's given intramuscularly is approved for people 6 months of age and older, including healthy people, those with chronic medical conditions, and pregnant women.
 - A "high dose" trivalent inactivated vaccine also given intramuscularly containing 4 times the amount of antigen as the regular TIV that is approved for use in people 65 and older. It was introduced in 2009–2010.
 - An intradermal trivalent inactivated vaccine that is given into the dermal layer of the skin via a single dose, prefilled microinjection syringe and that contains less antigen than the intramuscular TIV formulations. The intradermal vaccine was approved for use in people 18 through 64 years of age in 2011.
- ▶ Live, Attenuated Vaccine
 - The Live, Attenuated Intranasal Influenza Vaccine (LAIV) that is given as a nasal spray and can be used in healthy people 2–49 years of age who are not pregnant.

Who should get vaccinated?

- ▶ Advisory Committee on Immunization Practices (ACIP)
 - annual influenza vaccine for all people aged 6 months and older.
- ▶ Children 6 months through 8 years
 - require 2 doses of the influenza vaccine during their first season of vaccination.
 - 2 doses should be administered a minimum of 4 weeks apart.

Target Groups

- ▶ People who are at high risk of developing serious complications like pneumonia if they get sick with the flu. This includes:
 - People who have certain medical conditions including asthma, diabetes, and chronic lung disease.
 - Pregnant women.
 - People 65 years of age and older
- ▶ People who live with or care for others who are at high risk of developing serious complications.
 - Household contacts and caregivers of people with certain medical conditions including asthma, diabetes, and chronic lung disease.

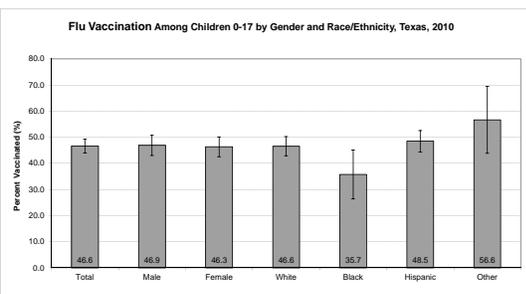
Who should not get the vaccine?

- ▶ Children younger than 6 months of age
- ▶ People who have a moderate-to-severe illness with a fever
- ▶ People with a history of Guillain-Barré Syndrome (GBS) that occurred after receiving flu vaccine
- ▶ People who have a severe allergy to chicken eggs.
- ▶ People who have had a severe reaction to a flu vaccination.

How effective is the flu vaccine?

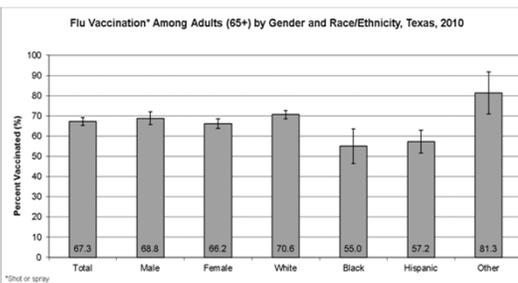
- ▶ How well the flu vaccine works (or its ability to prevent influenza illness) can range widely from season to season and also can vary depending on who is being vaccinated
- ▶ At least two factors play an important role in determining the likelihood that flu vaccine will protect a person from influenza illness:
 - Characteristics of the person being vaccinated, such as their age and health
 - The similarity or "match" between the flu viruses in the vaccine and those spreading in the community
- ▶ Preliminary data for the 2010-2011 flu season indicate that flu vaccine effectiveness was about 60% for all age groups combined

Flu Vaccine Coverage in Children



Source: Texas Behavioral Risk Factor Surveillance System

Flu Vaccine Coverage in Adults 65 and Older



*Shot or spray

Source: Texas Behavioral Risk Factor Surveillance System

New Vaccine Developments

- ▶ On February 29, 2012, quadrivalent flu vaccine manufactured by MedImmune was licensed by FDA for use in the United States.
 - administered as a nasal spray
 - approved for use in people ages 2 through 49 years
 - The vaccine is the first to contain four strains of the influenza virus, two influenza A and two influenza B lineage strains
- ▶ The vaccine will most likely not be available for the 2012–2013 flu season.

Flu Vaccine Safety

- ▶ The CDC and the FDA closely monitor for any signs that the vaccine is causing unexpected adverse events
- ▶ Work with state and local health officials and other public health partners to investigate any unusual events.
- ▶ Most common side effects from flu vaccines soreness, redness, tenderness or swelling where the flu shot was given and nasal congestion after the flu vaccine nasal spray.

Vaccine Adverse Event Reporting System (VAERS)

- ▶ National program managed by both CDC and FDA to monitor the safety of all vaccines licensed in the United States.
- ▶ Anyone can file a VAERS report.
- ▶ VAERS relies on information included in these reports to monitor for clinically serious adverse events or health problems that follow vaccination.

**Questions
and
Answers**

References

- ▶ CDC, What You Should Know for the 2012–2013 Influenza Season
 - <http://www.cdc.gov/flu/about/season/flu-season-2012-2013.htm#recommendations>
- ▶ TX DSHS Immunization Branch
 - <http://www.dshs.state.tx.us/immunize/default.htm>
- ▶ TX DSHS Infectious Disease Control Unit, Influenza
 - <http://www.dshs.state.tx.us/idcu/disease/influenza/>