

*epi*TRENDS

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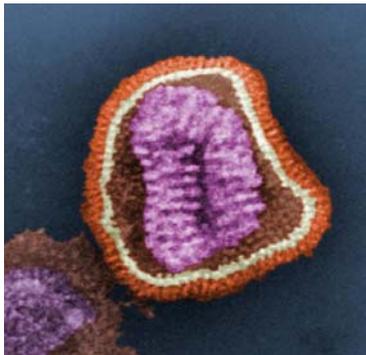
The 2012-2013 Influenza Season Has Arrived!

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Annual influenza outbreaks cause considerable morbidity and mortality in Washington and throughout the United States. The Centers for Disease Control and Prevention estimate that approximately 3,000 to 49,000 people die from influenza or its complications annually. Since influenza viruses are constantly changing, year round surveillance is needed to assist with vaccine development and to detect changes in antiviral resistance patterns. Surveillance data also inform providers when influenza is in the community so that antiviral medications can be started early. Vaccination is the best way to prevent influenza and its complications.

Influenza Activity in the United States, May – September 2012

The Centers for Disease Control and Prevention (CDC), in collaboration with state and local health departments, monitor influenza activity year round. During May–September 2012, influenza A (2009 H1N1), influenza A (H3) and influenza B viruses were all detected in the United States.



Transmission electron micrograph of an influenza virus particle; CDC

Overall, the proportion of specimens testing positive for influenza at World Health Organization (WHO) and the National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories this summer was four-fold higher than the average proportion testing positive during the previous six summers (excluding the summer of 2009). This increased activity was likely due to a late 2011–2012 season and to enhanced surveillance during an outbreak of variant

influenza A (H3N2v) associated with swine exposure which resulted in the identification of 306 H3N2v virus infections in ten states.

Of specimens analyzed at CDC during May–September, 2012, 92% of influenza A (2009 H1N1), 100% of influenza A (2009 H1N1) and 42% of influenza B viruses were antigenically similar to the recommended vaccine strains in the 2012–2013 Northern Hemisphere influenza vaccine. Although it is impossible to predict which viruses will circulate during the influenza season, the viruses detected this past summer were well-matched

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to the 2011-2012 vaccine strains. In addition, nearly all of influenza virus isolates tested at CDC were sensitive to the antiviral medications oseltamivir and zanamivir. Nationally, only one of 114 influenza A (2009 H1N1) viruses tested was resistant to oseltamivir. This specimen was collected from a Washington state resident who had acquired an influenza infection overseas.

As of October 12, 2012, influenza activity remains very low in Washington State. Current data on influenza activity in the state are available in the weekly Washington State Department of Health (DOH) [Influenza Update](#).

(<http://www.doh.wa.gov/Portals/1/Documents/5100/fluupdate.pdf>)

National surveillance data are published weekly in the [CDC FluView](#).

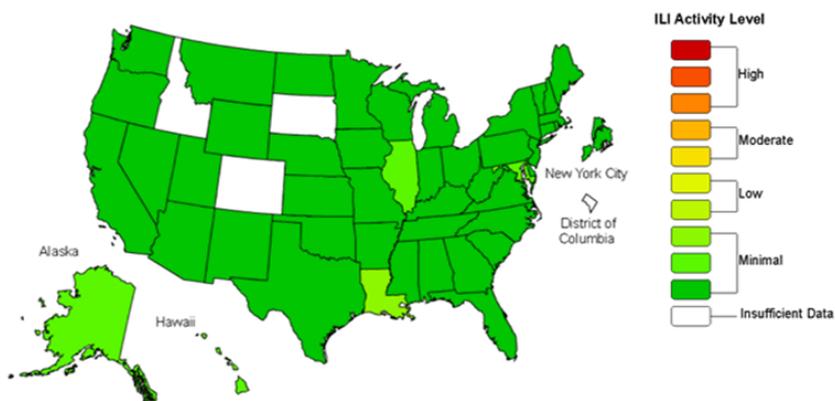
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Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2012-13 Influenza Season Week 40 ending Oct 06, 2012



Influenza Vaccine Recommendations for the 2012–2013 Season

Annual influenza vaccination is the best way to prevent influenza and its complications. CDC and the Department of Health recommend annual influenza vaccination for all persons six months of age and older as soon as vaccine is available. Vaccination is especially important for people who are at greater risk for serious complications from influenza; including young children, pregnant/postpartum women, people 65 years of age and older, those who are morbidly obese, American Indians/Alaska Natives, and people with certain medical conditions like heart disease, lung disease, diabetes and neurologic conditions. Children six months through eight years generally do not produce an optimal immune response after a single dose of vaccine. Therefore, *previously unvaccinated* children should get two doses of influenza vaccine given at least four weeks apart during the first season of vaccination. In children who have been *previously vaccinated*, only one dose is needed during the 2012–2013 season if the child got at least two seasonal influenza vaccines during any previous season, and at least one dose of a 2009(H1N1)-containing vaccine (i.e., either 2010–

11 or 2011–12 seasonal vaccine or the monovalent 2009[H1N1] vaccine). All other children should receive two doses of vaccine. A dosing algorithm for children six months through eight years is available [here](#).

(http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm?s_cid=mm6132a3_w#fig1)

The influenza vaccine protects against three different types of influenza including two influenza A strains and one influenza B strain. The antigenic composition of the influenza vaccine was the same during the 2010–2011 and 2011–2012 seasons. This season, the influenza vaccine contains one different influenza A (H3N2) strain and a different influenza B strain. The vaccine still contains a 2009 H1N1 strain. A quadrivalent live attenuated influenza vaccine containing two influenza A and two influenza B viral antigens was approved by the Food and Drug Administration in February 2012 but will not be produced until the 2013–2014 season.

Vaccine Coverage Estimates in Washington and the United States

Although influenza vaccine is recommended for everyone 6 months of age and older, data from the Behavioral Risk Factor Surveillance System and National Immunization Survey show that many residents of Washington State, including people at highest risk for influenza complications, are not getting vaccinated annually. During the 2011–2012 influenza season, approximately 47% of children under 18 years old and 40% of adults in Washington State received an influenza vaccine. Among those at highest risk for influenza including adults 18–64 years old with a high risk condition and those 65 years and older, only 47% and 68% reported vaccination, respectively. These proportions are significantly lower than the Healthy People 2020 target of 90% coverage in these two groups.



Healthcare practitioner administering live attenuated intranasal vaccine; CDC

Nationally, data from Internet panel surveys performed by CDC found that 67% of healthcare providers were vaccinated during the 2011–2012 season. The proportion vaccinated varied greatly by provider type with 86% of physicians receiving vaccine but only 52% of providers in long-term care facilities. The proportion of pregnant women vaccinated increased significantly to around 50% during the 2009 H1N1 pandemic and has remained fairly stable since then

Influenza Treatment

CDC recommends early treatment with a neuraminidase inhibitor (oseltamivir or zanamivir) for patients with suspected or confirmed influenza who are hospitalized, have severe or progressive illness, or are at [higher risk for influenza complications](#) (http://www.cdc.gov/flu/about/disease/high_risk.htm). In addition to vaccination, persons at high risk for influenza complications should contact their provider as soon as possible after symptoms of influenza develop. Treatment should be started while diagnostic tests are pending.

Preventing influenza is essential for reducing the associated morbidity and mortality. To achieve this goal, Local health jurisdictions can promote general influenza vaccination, target high risk groups and healthcare workers, or offer influenza vaccine clinics.

References:

DOH Influenza Activity: <http://www.doh.wa.gov/Portals/1/Documents/5100/fluupdate.pdf>

Dosing algorithm:

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm?s_cid=mm6132a3_w#fig1

Risks for influenza complications: http://www.cdc.gov/flu/about/disease/high_risk.htm

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