CDC Influenza E-Brief

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Updated Influenza Activity

During week 5 (January 30 – February 5, 2011), influenza activity in the United States increased. Of the 7,511 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division, 2,377 (31.7 percent were positive for influenza. The proportion of deaths attributed to pneumonia and influenza (P&I) was at the epidemic threshold.

Eleven influenza-associated pediatric deaths were reported. Four of these deaths were associated with influenza B viruses, two of these deaths were associated with 2009 influenza A (H1N1) virus, one was associated with an influenza A (H3) virus, and four were associated with an influenza A virus for which the subtype was not determined.

The geographic spread of influenza in 37 states was reported as widespread; nine states reported regional influenza activity; the District of Columbia reported local activity, and Guam, Puerto Rico, the U.S. Virgin Islands, and four states reported sporadic influenza activity.

164 million doses of influenza vaccine have been distributed this season.

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National Center for Immunization and Respiratory Diseases
Influenza Division

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Visits to doctors for influenza-like illness (ILI) decreased this week. Of 10 U.S. regions, one region – Region 4 (the Southeast United States) reported ILI activity above baseline levels (a decrease of three regions from last week). Four states (Alabama, Georgia, Louisiana and Mississippi) had high ILI activity (a decrease from 6 states from last week).

The number of states reporting an increase in the geographic spread of influenza is increasing. Eleven states (Alabama, Arizona, Connecticut, Kentucky, Louisiana, Maryland, Nevada, New York, North Carolina, Tennessee and Virginia) reported widespread geographic influenza activity (an increase from eight states from last week). Regional geographic influenza activity was reported by 17 states (Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Maine, Massachusetts, Mississippi, Missouri, New Hampshire, New Jersey, Ohio, Oklahoma, Pennsylvania, South Carolina and Texas), an increase from 16 states last week. Local geographic influenza activity was reported by the District of Columbia and 15 states (an increase from 11 states last week), and sporadic influenza activity was reported by the U.S. Virgin Islands and six states (a decrease from 15 states since last week). Guam reported no influenza activity, and Puerto Rico and California did not report.

The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System is at a level expected for this time of year. Four pediatric death were reported this week. Two of these deaths were associated with influenza A (H3) viruses, and the other two were associated with influenza B virus infection. The percentage of specimens testing positive for influenza in the United States decreased for this week's report, dropping from 21 percent nationally last week to 16 percent.

Influenza viruses identified so far include 2009 H1N1 viruses, influenza A (H3N2) viruses and influenza B viruses. Approximately 74 percent of reported viruses were influenza A and 26 percent were influenza B. Among the 204 influenza A viruses that were subtyped, 80 percent were influenza A (H3N2) viruses and 20 percent were 2009 H1N1. These viruses remain similar to the viruses chosen for the 2010-2011 flu vaccine, and remain susceptible to the antiviral drugs oseltamivir and zanamivir.

2011-2012 Seed Strain Selection

The final meeting to decide on the 2011-2012 vaccine composition will be held February 17-19 in Geneva, Switzerland at the World Health Organization (WHO) Headquarters.

Stay tuned for an update!

US Decision for Vaccine Viruses at FDA Vaccines and Related Biological Products Advisory Committee

On February 25, 2011, the FDA Vaccines and Related Biological Products Advisory Committee (VRBPAC) will meet to review WHO's recommendations as they relate to the U.S. They will discuss and make recommendations on the selection of strains to be included in the influenza virus vaccine for the 2011-2012 influenza season. The committee will also hear an update on pandemic influenza surveillance.

HHS and Walgreens Announce New Effort Aimed at Addressing Health Disparities in Flu Vaccination

In December 2010, Walgreens announced that it would donate $10 million in vouchers for free flu shots to 350,000 eligible uninsured and underserved people in 15 communities across the country. The announcement is part of a larger project being undertaken by HHS and CDC and several key retail pharmacy partners to address continuing health disparities in flu vaccination rates. The Walgreens donation aims to remove financial barriers to getting vaccinated and improve vaccination rates among underserved populations.

Vouchers are good for one flu shot at any Walgreens pharmacy, Duane Reade pharmacy in New York or Take Care Clinic selected communities. The communities were selected based on existing vaccination disparities as well as the availability of HHS infrastructure and resources in these areas. Local public health officials and their community partners in the identified cities, in conjunction with the HHS regional health administrators, will distribute the vouchers through a variety of community outreach efforts. Vouchers will be available on a first come, first served basis while supplies last. For more information about HHS efforts to promote influenza vaccination across the country, visit: www.flu.gov.

Innovative Influenza Research at CDC

Persistence and Infectivity of the Influenza H1N1 Virus on Personal Protective Equipment and Surfaces

This project will study the amount of time influenza virus remains infectious on various surfaces, to address questions about extended use and re-use of N-95 respirators; ultraviolet disinfection of environmental surfaces, and; hand hygiene interventions.

Virologic Evaluation of the Modes of Influenza Virus Transmission among Humans

The project will assess the relative contribution of different modes of influenza virus transmission (contact transmission, large droplet transmission and droplet nuclei transmission) among humans, to better define duration of influenza viral shedding; improve understanding of influenza virus environmental contamination during human infection; and, ascertain the distance (e.g. less than versus greater than 6 feet) between people that poses a risk for influenza virus transmission.

Enhancing the Capability of Public Health and Clinical Laboratories to Assess Susceptibility of Influenza Viruses to Antiviral Drugs

Pharmaceutical treatment options for influenza virus infections are limited to two classes of drugs, M2 blockers and oseltamivir. In 2008-2009, an unprecedented emergence of A/H1N1 viruses with the oseltamivir-resistance arose in Europe and spread globally, including in countries where this drug was not used. This revealed the need for the close monitoring of drug susceptibility. The goal of this project is to enhance public health laboratory PHL capacity to perform such functional testing. To this end, CDC and Association of Public Health Laboratories are selecting laboratories to conduct functional testing after being trained by the Influenza Division personnel.

Harnessing Electronic Health Records to Enhance Reporting to the Vaccine Adverse Event Reporting System (VAERS)

VAERS is a passive reporting system that may be used by medical personnel, patients and families, or the manufacturer to report adverse events possibly associated with vaccines. VAERS has been instrumental in detecting possible vaccine safety problems, but underreporting of adverse events is a limitation of the system. CDC is developing and piloting test computer software to facilitate electronic reporting of potential vaccine-related adverse events to the VAERS system. An increased ability to report vaccine adverse events will be incredibly useful in the event of another pandemic where large amounts of vaccine are distributed. Enhancements to VAERS may also help increase our understanding adverse events associated with routine vaccinations.

Pan Flu Exercise

March Pandemic Exercise

CDC will conduct a Pandemic Influenza functional exercise on March 1–3, 2011. This exercise will build on lessons learned during the 2009 H1N1 pandemic and address key issues in responding to a major international health threat. It will also help train government workers and partners who are new to pandemic preparedness about participating in a wide-scale emergency response.

The following federal, state and local partners will participate:

- The Florida Department of Health, Georgia Department of Community Health and the Chicago Department of Public Health will be activating their emergency operations centers during the exercise.
- Representatives from the following organizations will be role-playing in the Exercise Control Group to add realism to the scenario:
  - Arkansas Department of Health
  - Michigan Department of Community Health
  - New York City Department of Health and Mental Hygiene
  - North Dakota Department of Health
  - Ohio Department of Health
  - Texas Department of State Health Services
  - Washington State Department of Health
  - Cleveland County Health Department in Shelby, North Carolina
  - Napa County Health Department in Napa, California
  - HHS Office of the Assistant Secretary for Preparedness and Response (ASPR)
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County and City Health Officials (NACCHO)

Influenza Spanish Season Flu Website Launch

In November 2010, the Spanish language Seasonal Flu Web site, http://espanol.cdc.gov/enes/flu, was fully deployed. This site now provides Spanish language documents equivalent to the CDC English-language seasonal influenza information for most influenza web pages. Prior to November, CDC had limited capacity for multilingual translation of web documents. Now, translation, web development and quality assurance are performed by the vendor MotionPoint, a new contractor for CDC. New and updated html pages in English are translated by teams of certified translators and linguists and posted on the Spanish site within 24 hours.

Benefits to Infants from Vaccination of Pregnant Women

Based upon data from the National Health Interview Survey (NHIS), 11.3-24.3 percent of pregnant women received influenza vaccines from the 2006-07 through the 2008-09 seasons. Prior to the past pandemic season of 2009-10, influenza vaccination coverage levels among pregnant women were consistently below (~15 percent) compared to levels among other recommended risk groups (30-70 percent). However, preliminary Behavioral Risk Factor Surveillance System (BRFSS) data indicates that approximately 38 percent of pregnant women received the seasonal influenza vaccine during 2009-10 season. An internet survey of pregnant women conducted in late November 2010 indicated that approximately 45 percent of pregnant women received the seasonal influenza vaccine. The estimates for 2009-10 and 2010-11 vaccine uptake are preliminary and data from the 2010 and 2011 NHIS data will be needed to compare to prior years. However data indicates a substantial increase in seasonal influenza vaccine use by pregnant women in the U.S.

International "One Flu Strategic Retreat"

CDC will participate in the International One Flu Strategic Retreat in Castelbrando, Italy from February 1-3, 2011. The objectives of the meeting will include: 1) providing updates on influenza viruses identified at the animal-human interface and the accessibility of viruses, gene sequence data and other associated surveillance information; 2) Exchanging information on virus sharing practices and policies as well as opportunities for improvement. 3) Defining ways to improve pre-pandemic candidate vaccine virus selection for human vaccines (evidence-based approach to selection of pre-pandemic vaccine candidates). 4) Identifying methods and approaches to overcome barriers to virus sharing and collaboration at the animal-human interface; and, 5) Identifying ways to promote virus sharing and on how to achieve this goal.

Reports of Highly Pathogenic Avian Influenza A (H5N1) Update

The Ministry of Health of Egypt announced two confirmed cases of human infection of H5N1 avian influenza. Investigations into the source of infection indicated exposure to poultry. The case was confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network (GISN).

South Korea has confirmed two outbreaks of the H5N1 avian Influenza in animals; one in a flock of ducks in the city of Cheonan and the other in a flock of chickens in the city of Iksan. Detection of the virus prompted authorities to cull more than 100,000 birds and quarantine commercial duck and chicken breeding farms in affected areas; no human illnesses have occurred.

Japan has confirmed ongoing outbreaks of H5N1 avian influenza in animals. Local agriculture authorities found over 11 infected chickens. For more information about international influenza activity, visit http://www.cdc.gov/flu/international/activity.htm.

The Second Annual African Network for Influenza Surveillance and Epidemiology (ANISE)

The second annual African Network for Influenza Surveillance and Epidemiology (ANISE) Meeting took place in Accra, Ghana January 11-12, 2011. There were approximately 100 participants from 23 countries in Africa as well as representatives from CDC, WHO, U.S. Department of Defense, U.S. Agency for International Development, Agency for Preventive Medicine, Institute Pasteur and the African Union Inter-African Bureau for Animal Resources. Partners came together to hear updates on regional surveillance, vaccine studies and other respiratory disease pathogen studies being conducted on the continent as well as the future direction for some of the funding partners. 21 countries gave presentations on their progress in the development of influenza surveillance systems including SARI (Severe Acute Respiratory Infections) surveillance.