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Clusters of Influenza A Infections Identified:

Reports Underscore Importance of Timely Influenza Vaccination

This Health Alert Network notice describes recent reports of influenza A activity in Texas and other parts of the United States, presents results of preliminary laboratory analysis of influenza A(H3N2) isolates conducted at the Centers for Disease Control and Prevention, and outlines current recommendations for influenza vaccination.

During the first week of October, Texas health authorities reported cases and school outbreaks of laboratory-confirmed influenza A infections in the Houston metropolitan area. Testing in Texas identified influenza A(H3N2) virus and isolates were sent to the Centers for Disease Control and Prevention (CDC) for further characterization. At CDC, preliminary analysis has shown that 8 of 13 A(H3N2) isolates from Texas are antigenically similar to the A(H3N2) A/Panama/2007/99 vaccine strain, while five isolates are antigenic drift* variants. Influenza subsequently has been reported from several counties in Texas.

During August and September, CDC had received influenza A(H3N2) isolates from sporadic cases in Alaska, Connecticut, Wisconsin, Hawaii, New Hampshire, New York, Texas, and the District of Columbia and influenza A isolates from sporadic cases in Louisiana, Texas, and Washington. While influenza activity in the United States usually starts in November or December and reaches peak levels from late December through April, the timing of influenza activity is highly variable from year to year and influenza outbreaks have been reported in October in some previous years. Influenza cases and isolated outbreaks can occur at any time of the year.

Similar to the Texas isolates, approximately 33% of influenza A(H3N2) viruses isolated worldwide between February and September have drifted antigenically from the current A(H3N2) A/Panama/2007/99 vaccine strain in laboratory tests. By contrast, influenza A(H1N1) and influenza B viruses generally have remained similar to their vaccine strain counterparts. Influenza vaccine is expected to provide good protection against influenza A(H1N1), B viruses, and A(H3N2) viruses that are similar to the vaccine strains. While vaccine protection against the A(H3N2) drift variants may be lower, the vaccine is expected to provide some degree of effectiveness although the level of protection cannot be predicted.

Supplies of influenza vaccine are adequate in the United States this year. The adequate supply, coupled with appearance of community influenza activity in Texas in early October, serves as a reminder of the need for timely vaccination against influenza, particularly among persons 6 months of age or older and who are at increased risk for complications of influenza. Such "high-risk" groups include:

- Persons 65 years of age and older
- Women who will be in the second or third trimester of pregnancy during influenza season
- Persons with one of several chronic, long-term health problems (e.g., heart or lung disease, kidney problems, asthma, and HIV/AIDS or any other illness or condition that suppresses the immune system).

Influenza vaccination is also recommended for other target groups, including

- Persons aged 50 to 64 years because of the increased prevalence of high-risk conditions in this age group.
- Health-care workers and others in close contact with high-risk individuals because of the possibility that this group might transmit influenza to persons in high-risk groups.

For the 2003-04 influenza season, influenza vaccination also is encouraged, when feasible, for children 6 to 23 months of age and their household contacts and out-of-home caregivers because young children are at increased risk of influenza-related hospitalization. For 2004-05, influenza vaccination will be recommended for these groups for the first time.

*Antigenic drift is the gradual accumulation of changes in the hemagglutinin (HA) protein of influenza viruses that may affect the binding of antibodies to this virus protein. Since antibodies to the HA are important for protection from influenza, antigenic drift may result in an increase in susceptibility of the population to infection by these antigenically drifted viruses, in spite of previous infection or vaccination.

For additional information about influenza, please see the CDC Website at <http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>.

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national and international organizations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES