SEASONAL INFLUENZA ACTIVITY

Last week, influenza activity continued to decrease in most regions of the United States. Michigan continues to report ‘local’ influenza activity. See MI Flu Focus for more influenza surveillance updates.

National News

- CDC’s FluView (week ending March 29, 2014)
  - 82 flu-associated pediatric deaths have been reported for the 2013-14 season
- Four new flu deaths reported last week in North Carolina, death toll climbs to 96
- 57 have now died in Arkansas due to flu this season, second-highest total on record

INFLUENZA-RELATED JOURNAL ARTICLES

- Low 2012-13 influenza vaccine effectiveness associated with mutation in the egg-adapted H3N2 vaccine strain, not antigenic drift in circulating viruses
  - Canadian scientists suggest mutations occurred when H3N2 reference strain recommended for vaccine was adapted to make it grow well in eggs
  - Mutations were associated with reduced vaccine effectiveness of vaccine’s H3N2 component
  - See this CIDRAP article on the study
- IL-15 adjuvanted multivalent vaccinia-based universal influenza vaccine requires CD4+ T cells for heterosubtypic protection
  - Vaccine uses live vaccinia (cowpox) virus, protected mice against H7N9, H3N2, pH1N1, and H7N7
- Serologic evidence of influenza A(H1N1)pdm09 virus in northern sea otters
  - Results show sea otters are susceptible to infection with influenza A virus, complex nature of interspecies transmission of flu viruses in marine environment

MI IMMUNIZATION TIMELY TIPS NEWSLETTER

The April issue of the MI Immunization Timely Tips newsletter has been released. This month’s issue includes information on National Minority Health Month (April), National Infant Immunization Week (April 26-May 3), and the dates and locations of the 2014 MDCH Fall Regional Immunization Conferences.

CDC PRESS RELEASE: FLU VACCINE AND ICU IN KIDS

The Centers for Disease Control and Prevention issued a press release on March 27 about a study in the Journal of Infectious Diseases that showed flu vaccination reduced a child’s risk of being admitted to a pediatric intensive care unit for flu by an estimated 74%.

AVIAN INFLUENZA A (H7N9) NEWS AND ARTICLES

The global outbreak total has now reached 410 cases with 124 deaths since February 2013. The United Nations Food and Agriculture Organization is urging people to stay vigilant during the Qingming Festival on April 5. It is a 3-day holiday and involves increased poultry purchases, slaughter, and consumption, and travel in the region.

- WHO: Human infection with H7N9 - update (April 3)
- Ultrastructural fingerprints of avian influenza A(H7N9) virus in infected human lung cells
  - Found formations in the cells which have been seen in only a limited number of flu A viruses before
- Epidemiologic characterization of 30 confirmed cases of human infection with avian influenza A(H7N9) virus in Hangzhou, China
  - Researchers looked at cases from April 1-May 1, 2013
  - Most were retired, 60 years and older, men
  - Environmental testing: H7N9 positive rate highest in a district with just 2 confirmed cases, other districts with lower rates linked to higher number of cases

AVIAN INFLUENZA A (H5N1) NEWS ARTICLES

- Laos reports H5N1 return after 5-year hiatus
- New drug application for cell-cultured H5N1 vaccine gets approval in Japan
- Grappling with avian flu, Cambodians wait for compensation

OTHER INFLUENZA-RELATED NEWS

- Microneedle patch may increase influenza immunization rate
- University of Rochester awarded $2.9M to study influenza
- Netherlands overhauls biosecurity rules as avian flu dispute simmers

FLU WEBSITES

- www.michigan.gov/flu
- www.cdc.gov/flu
- www.flu.gov
- http://vaccine.healthmap.org/