Eye on Influenza

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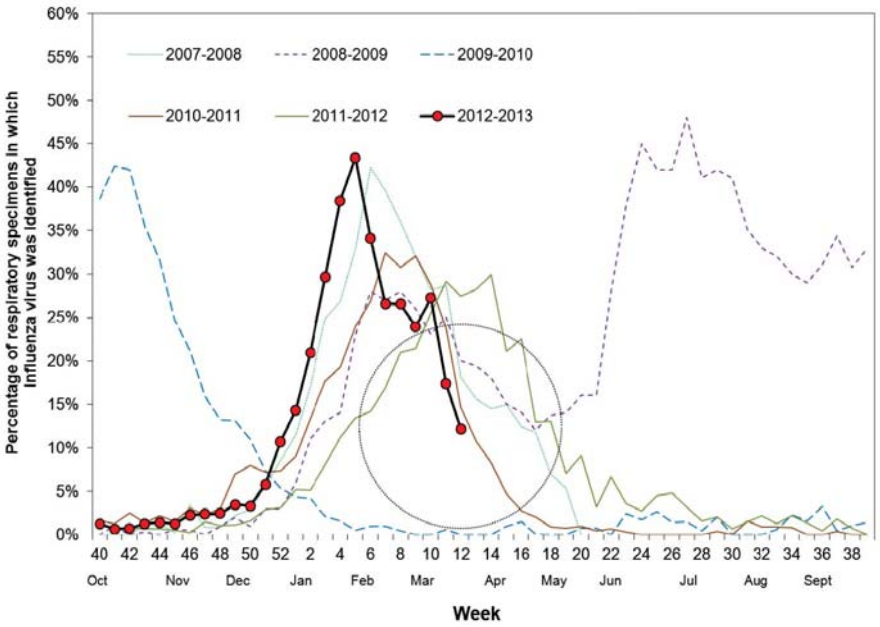
Influenza activity continues to decrease in Orange County. However, we continue to receive reports of severe influenza and respiratory outbreaks in schools indicating influenza is still circulating. So far this season, a total of 110 influenza-associated pediatric deaths have been reported in the U.S; the majority of these children were not vaccinated against influenza.

- **In Orange County:** Four new cases of severe influenza (ICU/death) in persons less than 65 years of age have been reported since the last update, for a total of 36 severe cases including six deaths this season. Laboratory detections continue to decrease since peak activity in Week 5 (ending Feb 2). Visits to sentinel providers for influenza-like illness were at 3% during Week 11. Flu B is now the predominant strain in Orange County, which is consistent with California and the U.S.

Percentage of Influenza Detections in Respiratory Laboratory Network and Sentinel Laboratories, 2007–2013

http://www.cdph.ca.gov/HealthInfo/discond/Documents/Final_FluReport_Ending_032313.pdf



- **In CA & the U.S.:** In California, influenza activity continues to decrease statewide. During Week 12 (ending March 23) the percent of specimens testing positive for influenza decreased to 12.2% (see chart above). Influenza activity was downgraded to local* in CA and is widespread in only 6 states (CT, MA, NV, NJ, NY, and NC). Influenza-associated deaths continue to be reported in adults less than 65 years of age, with eight reports received during Week 12 in CA. In the U.S. influenza activity continues to decline across key flu indicators, including influenza-like-illness, which dropped below baseline for the first time since early December. Influenza viruses are still circulating, with influenza B viruses now predominating (flu B 73.5%/ flu A 26.5%) in the past weeks. Of the flu B viruses characterized so this season, 70.0% have been B/Wisconsin/1/2010-like, the influenza B component of the 2012-2013 Northern Hemisphere influenza vaccine. *[* **Local:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.]*

- **Study findings support surgical facemasks worn by infected persons to limit the spread of influenza.** Exhaled breath data with and without a surgical mask were completed for 37 (21 influenza A, 16 influenza B) volunteers with influenza virus infection confirmed by PCR of nasopharyngeal specimens. Exhaled influenza viral particle copy number was measured by quantitative RT- PCR in two particle size fractions, ≥5 µm (coarse) and <5 µm (fine). Viral copy numbers were greater in the fine than in the coarse fraction. These results suggest that the infectious dose via aerosol is about two orders of magnitude lower than via large droplets, and that aerosols may play an important role in seasonal influenza transmission. Surgical masks nearly eliminated viral RNA detection in the coarse aerosol fraction with a 25 fold reduction in the number of viral copies, and a 2.8 fold reduction in copies detected in the fine aerosol fraction. The CDC currently recommends that healthcare settings provide influenza patients with facemasks as a means of reducing transmission to staff and other patients. For the full article see: Mar 5 *PLoS Pathog* *http://www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1003205*.

If you have any comments about this flyer, contact Sandra Okubo, MPH or Michele Cheung, MD at (714) 834-8180.
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