

Influenza Surveillance Update

April 3, 2006

Current Situation

The proportion of patient visits to sentinel providers for influenza-like illness (ILI) during the week ending March 25th (week 12) was 2.26% (weighted average). Nationally, 2.5% of patient visits to sentinel providers were for ILI, which is above the national baseline. Criteria for inclusion as a case of ILI are fever of 100°F and cough or sore throat.

The proportion of mortality due to pneumonia and influenza (P&I) in Clark County was 7.5% for the week ending March 31st (week 13). The national P&I mortality was 7.7% for week 12, with the national threshold for influenza outbreaks being 8.2%.

Nationally, 89% of all isolates tested were influenza A, with 94% of the influenza A isolates being sub-typed as H3N2. Of the 379 A(H3N2) isolates characterized by the Centers for Disease Control and Prevention (CDC), 301 (79%) were characterized as A/California/07/2004-like, which is a component of this year's vaccine. Seventy-eight of the A(H3N2) isolates characterized showed reduced titers with antisera produced against A/California/07/2004. Of the 78 low-reacting viruses, 52 were tested with antisera produced against A/Wisconsin/67/2005 (the H3N2 component selected for the 2006-07 vaccine), and 44 are A/Wisconsin-like. Of the 52 influenza B isolates characterized, four were characterized as being similar to B/Shanghai/361/2002, a component of this year's vaccine, and 20 were characterized as being similar to B/Florida/07/2004, which is a minor antigenic variant of the Shanghai strain. Twenty-eight

influenza B viruses were identified as belonging to the B/Victoria lineage, which is not a component of this year's vaccine, but are similar to B/Ohio/1/2005, the influenza B component selected for the 2006-2007 vaccine.

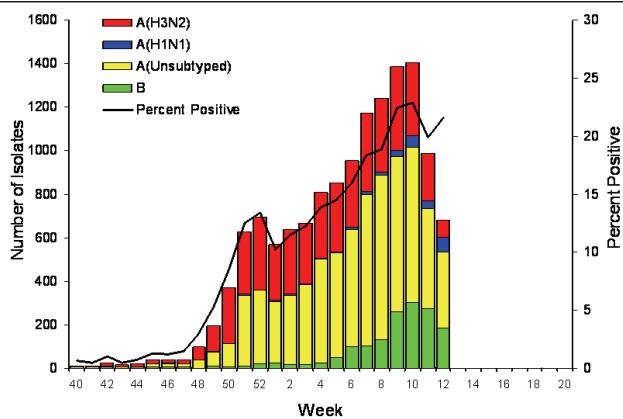
Analysis

Influenza activity has been declining nationwide since mid-March, with only sixteen states reporting widespread influenza activity in week 12; western states continue to report little influenza activity, with no western state reporting regional or widespread influenza activity.

The 2005-2006 influenza season has been mild in comparison to previous influenza seasons. Nation-wide, as well as in Clark County, influenza hospitalizations, pneumonia and influenza deaths, and sentinel provider reports have all been lower than has been observed in the previous two seasons.

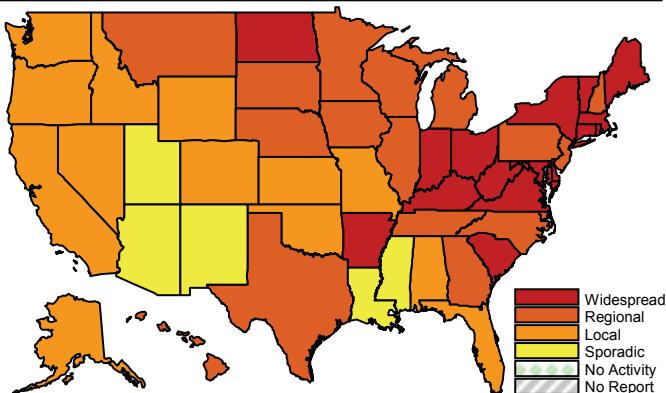
On Wednesday, March 29, the Food and Drug Administration (FDA) approved zanamivir, sold under the trade name Relenza, for the prevention of influenza A and B in persons five years of age and older; it had previously only been approved for the treatment of influenza. Zanamivir joins oseltamivir as the only two drugs approved for the prevention of influenza. A recent study published in the New England Journal of Medicine found that zanamivir appears to be effective against the H5N1 influenza strain in humans, and does not appear vulnerable to the mutations that make H5N1 resistant to oseltamivir.

Chart 1. National Laboratory Testing



Source: World Health Organization And National Respiratory and Enteric Virus Surveillance System Collaborating Laboratories

Chart 2. National Flu Activity—Week 12



Source: Centers for Disease Control and Prevention: www.cdc.gov/flu