California Influenza and Other Respiratory Disease Surveillance for Week 14  
(April 1-7, 2012)

Note: This report includes data from many different sources of influenza surveillance, including syndromic surveillance, laboratory surveillance, and mandatory reporting of influenza deaths for cases ages 0-64 years. The information contained in this report should be viewed as a "snapshot" of influenza activity for each surveillance week, and should not be considered as population-based data or representative of all California public health jurisdictions.

In week 14, the geographic distribution of influenza in California remained “widespread*.”

Influenza Report Highlights

- Outpatient influenza-like illness (ILI) decreased 0.5% in week 14 (2.2%) compared to week 13 (2.7%).
- Of 2128 specimens tested during week 14,
  - 648 (30.5%) were positive for influenza; of these
    - 156 (24.1%) were influenza B and
    - 492 (75.9%) were influenza A.
  - 62 (12.6%) were subtyped as 2009 A (H1),
  - 167 (33.9%) were subtyped as seasonal A (H3), and
  - 263 (53.5%) were not subtyped.
- Of the 98 influenza isolates tested during the 2011-12 influenza season, one was resistant to neuraminidase inhibitors.
- Eighty-two specimens from California residents have been strain-typed this season; all but eight influenza B strains match the 2011-12 influenza vaccine.
- No laboratory-confirmed influenza-associated deaths among persons less than 65 years were reported in week 14.
- No suspected or confirmed influenza A (H3N2)v [variant influenza A (H3N2), formerly called swine-origin triple reassortant A (H3N2)] has been detected in California.

*For the Centers for Disease Control and Prevention (CDC) definitions of influenza geographic distribution, please go to the CDC Influenza page (http://www.cdc.gov/flu/weekly/overview.htm).

A. Syndromic Surveillance Update

1. CDC Influenza Sentinel Providers

A total of 84 (42.4%) out of 198 enrolled sentinel providers have reported data for week 14. Based on available data, the percentage of ILI visits for week 14 (2.2%) was below baseline (Figure 1).
2. Kaiser Permanente Hospitalization Data (“Flu Admissions”)

The percentage of Kaiser Permanente hospitalizations for pneumonia and influenza in Northern California decreased in week 14 (6.2%) compared to week 13 (6.8%).

B. Laboratory Update

1. Respiratory Laboratory Network (RLN) and Sentinel Laboratory Surveillance Results

The percentage of influenza detections in the RLN and sentinel laboratories increased in week 14 (30.5%) compared to week 13 (29.1%), (Figure 2). Of 2128 specimens tested by the RLN and sentinel laboratories, 156 (7.3%) were positive for influenza B and 492 (23.1%) were positive for influenza A (Figure 3). Of the 492 specimens that tested positive for influenza A, 62 (12.6%) were subtyped as 2009 A (H1), 167 (33.9%) were subtyped as seasonal A (H3), and 263 (53.5%) had no further subtyping performed. The influenza-positive specimens were reported statewide.

To date for the 2011-2012 season, of 42,179 specimens tested, 6015 (14.3%) were positive for influenza; of these, 811 (13.5%) were influenza B and 5204 (86.5%) were influenza A. Of the 5204 specimens that tested positive for influenza A, 537 (10.3%) were subtyped as 2009 A (H1), 1243 (23.9%) were subtyped as seasonal A (H3), and 3424 (65.8%) had no further subtyping performed.

Neither the RLN nor the California Department of Public Health Viral and Rickettsial Disease Laboratory (CDPH- VRDL) have identified any influenza viruses by polymerase chain reaction (PCR) typing or subtyping that are suggestive of the influenza A (H3N2)v infection.
Figure 2. Percentage of Influenza Detections in Respiratory Laboratory Network and Sentinel Laboratories, 2007–2012
The proportion of respiratory syncytial virus (RSV) detections increased slightly in week 14 (13.9%, compared to 12.3% in week 13), (Figure 4).
2. Antiviral Resistance Testing (AVR)

CDPH-VRDL has tested 98 influenza specimens for antiviral resistance to date during the 2011-2012 influenza season; all but one influenza A (2009 H1N1) have been sensitive to neuraminidase inhibitors (Table 1).

Table 1. Number of Specimens Tested for Antiviral Resistance

<table>
<thead>
<tr>
<th>Influenza Strain</th>
<th>Neuraminidase Inhibitors Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A (2009 H1N1)</td>
<td>1/31</td>
</tr>
<tr>
<td>Influenza A (H3N2)</td>
<td>0/67</td>
</tr>
</tbody>
</table>

3. Influenza Virus Strain Characterization

Eighty-two California specimens have been strain-typed to date during the 2011-2012 influenza season; all but eight matched with components of the 2011-2012 vaccine for the Northern Hemisphere (Table 2).
Table 2. Influenza Virus Antigenic Characterization for the 2011-12 Season

<table>
<thead>
<tr>
<th>Influenza Strain</th>
<th>Total (N=82)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td></td>
</tr>
<tr>
<td>A/Perth/16/2009-like (H3N2)*</td>
<td>42</td>
</tr>
<tr>
<td>A/California/07/2009-like (H1N1)*</td>
<td>20</td>
</tr>
<tr>
<td>Influenza B</td>
<td></td>
</tr>
<tr>
<td>B/Brisbane/60/2008-like*</td>
<td>12</td>
</tr>
<tr>
<td>B/Wisconsin/01/2010-like</td>
<td>8</td>
</tr>
</tbody>
</table>

*Matches components of the 2011-12 Northern Hemisphere influenza vaccine

C. Laboratory-confirmed Fatal Case Reports

CDPH received no reports of influenza-associated deaths among persons less than 65 years old in week 14. To date during the 2011-2012 influenza season, CDPH has received 20 reports of influenza-associated deaths among persons less than 65 years old; 4 were among children 0-17 years and 16 were among adults 18-64 years.

D. Influenza-associated Outbreaks

CDPH received six reports of laboratory-confirmed influenza outbreaks in week 14; three were in congregate living facilities and one each in a prison, a daycare and a hospital. Of the six outbreaks, one was associated with influenza A (2009 H1N1), two were associated with influenza A (H3) and three were associated with influenza A where subtyping was not performed.

For questions regarding influenza surveillance and reporting in California, please email InfluenzaSurveillance@cdph.ca.gov. This account is monitored daily by several epidemiologists.

For more information regarding the different influenza surveillance data sources, please visit the CDPH Influenza Surveillance Program at https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Flu-Reports.aspx

To obtain additional information regarding influenza, please visit the CDPH influenza website at https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx.

A copy of the case report form for reporting any laboratory-confirmed influenza case that was either admitted to the ICU or died can be downloaded from the Severe Influenza Case History Form Link at https://www.cdph.ca.gov/CDPH%20Document%20Library/ControlledForms/cdph9070.pdf.