California Influenza and Other Respiratory Disease Surveillance for Week 19
(May 6-12, 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 19, the geographic distribution of influenza in California remained “local*.”

Influenza Report Highlights

- Outpatient influenza-like illness (ILI) decreased 1.3% in week 19 (1.4%) compared to week 18 (2.7%).
- Of 773 specimens tested during week 19,
  - 48 (6.2%) were positive for influenza; of these
    - 23 (47.9%) were influenza B and
    - 25 (52.1%) were influenza A.
  - 2 (8.0%) were subtyped as 2009 A (H1),
  - 8 (32.0%) were subtyped as seasonal A (H3), and 15
    - (60.0%) were not subtyped.
- Of the 140 influenza isolates tested during the 2011-12 influenza season, one was resistant to neuraminidase inhibitors.
- Of the 103 specimens from California residents that have been strain-typed this season, all but eight influenza B strains matched the 2011-12 influenza vaccine.
- Three laboratory-confirmed influenza-associated deaths among persons less than 65 years were reported in week 19.
- 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 72 (36.5%) out of 197 enrolled sentinel providers have reported data for week 19. Based on available data, the percentage of ILI visits for week 19 (1.4%) 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 slightly in week 19 (4.4%) compared to week 18 (4.5%).

B. Laboratory Update

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

The percentage of influenza detections in the RLN and sentinel laboratories decreased in week 19 (6.2%) compared to week 18 (13.1%) (Figure 2). Of 773 specimens tested by the RLN and sentinel laboratories, 23 (3.0%) were positive for influenza B and 25 (3.2%) were positive for influenza A (Figure 3). Of the 25 specimens that tested positive for influenza A, 2 (8.0%) were subtyped as 2009 A (H1), 8 (32.0%) were subtyped as seasonal A (H3), and 15 (60.0%) had no further subtyping performed. The influenza-positive specimens were reported statewide.

To date for the 2011-2012 season, of 50,054 specimens tested, 7351 (14.7%) were positive for influenza; of these, 1236 (16.8%) were influenza B and 6115 (83.2%) were influenza A. Of the 6115 specimens that tested positive for influenza A, 609 (10.0%) were subtyped as 2009 A (H1), 1536 (25.1%) were subtyped as seasonal A (H3), and 3970 (64.9%) 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 decreased slightly in week 19 (6.4%, compared to 6.6% in week 18) (Figure 4).
2. Antiviral Resistance Testing (AVR)

CDPH-VRDL has tested 140 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>1/35</td>
</tr>
<tr>
<td>Influenza A (H3N2)</td>
<td>0/105</td>
</tr>
</tbody>
</table>

3. Influenza Virus Strain Characterization

Of the 103 California specimens that have been strain-typed to date during the 2011-2012 influenza season, all but eight influenza B 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=103)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>82</td>
</tr>
<tr>
<td>A/Perth/16/2009-like (H3N2)*</td>
<td>52</td>
</tr>
<tr>
<td>A/California/07/2009-like (H1N1)*</td>
<td>30</td>
</tr>
<tr>
<td>Influenza B</td>
<td>21</td>
</tr>
<tr>
<td>B/Brisbane/60/2008-like*</td>
<td>13</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 three reports of influenza-associated deaths among persons less than 65 years old in week 19; all were among adults in the 25-49 year age-group.

To date during the 2011-2012 influenza season, CDPH has received 36 reports of influenza-associated deaths among persons less than 65 years old; 6 were among children 0-17 years and 30 were among adults 18-64 years.

D. Influenza-associated Outbreaks

CDPH received one report of a laboratory-confirmed influenza outbreak in week 19 in a congregate living facility that was associated with influenza A (no subtyping 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.