California Influenza and Other Respiratory Disease Surveillance for Week 20
(May 13-19, 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 20, the geographic distribution of influenza in California remained “local*.”

Influenza Report Highlights

- Outpatient influenza-like illness (ILI) decreased 2.1% in week 20 (0.6%) compared to week 19 (2.7%).
- Of 507 specimens tested during week 20,
  - 35 (6.9%) were positive for influenza; of these
    - 20 (57.1%) were influenza B and
    - 15 (42.9%) were influenza A.
  - 1 (6.7%) was subtyped as 2009 A (H1),
  - 6 (40.0%) were subtyped as seasonal A (H3), and 8
    - (53.3%) were not subtyped.
- Of the 140 influenza isolates tested during the 2011-12 influenza season, 1 was resistant to neuraminidase inhibitor drugs.
- Of the 103 specimens from California residents that have been strain-typed this season, all but 8 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 20.
- 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 56 (28.4%) out of 197 enrolled sentinel providers have reported data for week 20. Based on available data, the percentage of ILI visits for week 20 (0.6%) 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 increased in week 20 (4.7%) compared to week 19 (4.4%).

B. Laboratory Update

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

The percentage of influenza detections in the RLN and sentinel laboratories remained steady in week 20 (6.9%) compared to week 19 (6.8%) (Figure 2). Of 507 specimens tested by the RLN and sentinel laboratories, 20 (3.9%) were positive for influenza B and 15 (3.0%) were positive for influenza A (Figure 3). Of the 15 specimens that tested positive for influenza A, 1 (6.7%) was subtyped as 2009 A (H1), 6 (40.0%) were subtyped as seasonal A (H3), and 8 (53.3%) had no further subtyping performed. The influenza-positive specimens were reported statewide.

To date for the 2011-2012 season, of 50,572 specimens tested, 7391 (14.6%) were positive for influenza; of these, 1256 (17.0%) were influenza B and 6135 (83.0%) were influenza A. Of the 6135 specimens that tested positive for influenza A, 610 (9.9%) were subtyped as 2009 A (H1), 1547 (25.2%) were subtyped as seasonal A (H3), and 3978 (64.8%) 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 decreased in week 20 (5.4%, compared to 6.4% in week 19) (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 inhibitor drugs (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 20; one was in a child under 4 years old and two were in adults in the 50-64 year age-group. The dates of death occurred in February and March 2012.

To date during the 2011-2012 influenza season, CDPH has received 39 reports of influenza-associated deaths among persons less than 65 years old; 7 were among children 0-17 years and 32 were among adults 18-64 years.

D. Influenza-associated Outbreaks

CDPH received three reports of laboratory-confirmed influenza outbreaks in week 20; two were in congregate living facilities that were associated with influenza A (H3) and A (no subtyping performed) and one was in a jail that was associated with influenza B. The outbreaks occurred in March and April 2012.

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.