

## **California Influenza and Respiratory Disease Surveillance for Week 10 (March 6–12, 2011)**

Note: This report includes data from many different sources of influenza surveillance, including syndromic surveillance, laboratory surveillance, voluntary case-based reporting of severely ill cases and mandatory reporting of influenza deaths for cases ages 0-17 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 jurisdictions.

**Overall influenza activity in California for Week 10 remains “widespread.”\***

### **Influenza and Other Respiratory Disease Highlights (Week 10)**

- With 87 sentinel providers reporting Week 10 data so far, influenza-like illness (ILI) activity decreased by 0.4% compared to the previous week. The ILI activity in California for Week 10 was “low.”\*\*
- Of 325 specimens tested by polymerase chain reaction (PCR) statewide by the Respiratory Laboratory Network (RLN) during Week 10, 151 (46.5%) were positive for influenza; of these, 117 (77.5%) were influenza A and 34 (22.5%) were influenza B. Of the 117 influenza A specimens, 48 (41.0%) were subtyped as A (H3) and 66 (56.4%) were subtyped as A (2009 H1N1); subtyping is pending for the remaining 3 (2.6%) specimens.
- The percentage of influenza detections in sentinel laboratories decreased slightly during Week 10; 798 (29.4%) of 2,717 specimens tested were positive compared to 903 (30.6%) of 2,954 specimens tested during the previous week.
- Of 41 influenza A (2009 H1N1) specimens and 48 influenza A (H3N2) specimens tested by the CDPH Viral and Rickettsial Disease Laboratory (CDPH-VRDL) for neuraminidase-inhibitor resistance, no resistance has been found.
- During Week 10, the proportion of specimens tested statewide by RLN and sentinel laboratories that were positive for respiratory syncytial virus (RSV) continued to decrease; 269 (11.1%) of 2,424 specimens tested were positive, compared to 362 (14.3%) of 2,530 specimens tested during the previous week.

\*Widespread activity is defined by the CDC as “outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.”

\*\*Activity levels range from minimal to high and are based on the percent of outpatient visits due to ILI compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation.

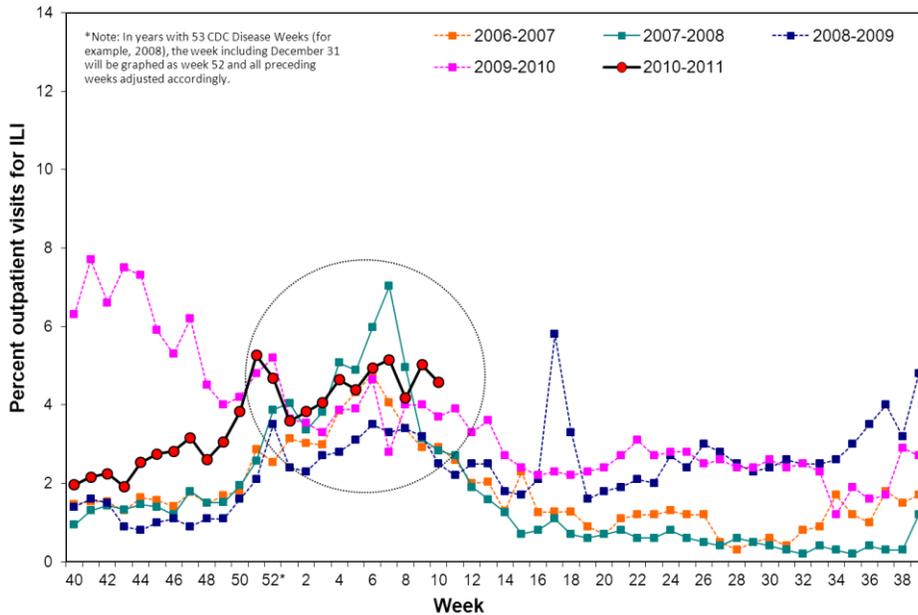
## **A. Syndromic Surveillance**

### CDC Influenza Sentinel Providers

Sentinel providers report the number of outpatient visits for ILI and the total number of visits per week. These data are reported weekly as a percentage of total visits due to ILI. The ILI case definition is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a known cause other than influenza.

The percentage of ILI visits decreased during Week 10 (4.6%) compared to the previous week (5.0%). A total of 87 sentinel providers reported data in Week 10 compared to an average of 127 providers reporting in prior weeks. Some ILI visits during recent weeks may not yet be reported.

**Figure 1. California Sentinel Providers – Influenza-Like Illness Visits, 2006-2011**



**B. Laboratory Update**

**1. Respiratory Laboratory Network (RLN) Surveillance Results**

The RLN is composed of 28 local public health laboratories that offer PCR testing for influenza A and B and testing using the R-mix shell vial culture system to identify five other common respiratory viruses (RSV, adenovirus, and parainfluenza virus type 1-3).

The percentage of specimens that tested positive for influenza decreased in Week 10 (46.5%) compared to Week 9 (51.2%). Of 325 specimens tested by the RLN during Week 10, 117 (36.0%) were positive for influenza A and 34 (10.5%) were positive for influenza B. Of the 117 specimens that tested positive for influenza A, 48 (41.0%) were subtyped as influenza A (H3) and 66 (56.4%) as influenza A (2009 H1N1); subtyping is pending for the remaining 3 (2.6%) specimens (Table 1). There have been no specimens positive for RSV by R-mix since Week 8 (February 20–26, 2011).

**Table 1. Respiratory Laboratory Network (RLN) Surveillance Results from Selected Laboratories\*, March 6–12, 2011**

|  | <b>Total RLN*</b>       | <b>Northern CA</b>     | <b>Central CA</b>      | <b>Southern CA</b>     |
|--|-------------------------|------------------------|------------------------|------------------------|
|  | <b>No. (%)</b>          | <b>No. (%)</b>         | <b>No. (%)</b>         | <b>No. (%)</b>         |
| <b>Number of specimens tested by PCR</b>   | <b>325</b>              | <b>114</b>             | <b>57</b>              | <b>154</b>             |
| Influenza A                                | 117 (36.0) <sup>†</sup> | 41 (36.0) <sup>†</sup> | 23 (40.4) <sup>†</sup> | 53 (34.4) <sup>†</sup> |
| A (seasonal H1N1)                          | 0 (0.0) <sup>‡</sup>    | 0 (0.0)                | 0 (0.0)                | 0 (0.0)                |
| A (H3)                                     | 48 (41.0) <sup>‡</sup>  | 11 (26.8) <sup>‡</sup> | 8 (34.8) <sup>‡</sup>  | 29 (54.7) <sup>‡</sup> |
| A (2009 H1N1)                              | 66 (56.4) <sup>‡</sup>  | 30 (73.2) <sup>‡</sup> | 14 (60.9) <sup>‡</sup> | 22 (41.5) <sup>‡</sup> |
| A (subtyping pending)                      | 3 (2.6) <sup>‡</sup>    | 0 (0.0)                | 1 (4.3) <sup>‡</sup>   | 2 (3.8) <sup>‡</sup>   |
| Influenza B                                | 34 (10.5) <sup>†</sup>  | 9 (7.9) <sup>†</sup>   | 3 (5.3) <sup>†</sup>   | 22 (14.3) <sup>†</sup> |
| <b>Number of specimens tested by R-mix</b> | <b>37</b>               | <b>0</b>               | <b>24</b>              | <b>13</b>              |
| RSV  | 0 (0.0) <sup>¶</sup>    | 0 (0.0)                | 0 (0.0)                | 0 (0.0)                |
| Other respiratory viruses                  | 0 (0.0) <sup>¶</sup>    | 0 (0.0)                | 0 (0.0)                | 0 (0.0)                |

\* RLN labs reporting Week 10 data, by region:

Northern CA: Contra Costa, Humboldt, Sacramento, San Francisco, Santa Clara, Shasta, Sonoma

Central CA: Fresno, Monterey, San Joaquin, Tulare

Southern CA: Imperial, Kern, Los Angeles, Orange, Riverside, San Diego, Santa Barbara

† Percent of total specimens tested for influenza by PCR

‡ Percent of influenza A positives

¶ Percent of total specimens tested by R-mix

## 2. Sentinel Laboratory Surveillance Results

Sentinel laboratories are a network of clinical, commercial, academic, and hospital laboratories located throughout California that provide weekly data on the number of laboratory-confirmed influenza and other respiratory virus detections and isolations.

Table 2 shows positive influenza and RSV results reported from sentinel laboratories during Week 10. The percentage of specimens that tested positive for influenza decreased slightly in Week 10 (798 of 2,717; 29.4%) compared to the previous week (903 of 2,954; 30.6%). Of the 798 influenza positive specimens, 518 (64.9%) were positive for influenza A and 280 (35.1%) were positive for influenza B. Of 2,387 specimens tested for RSV during Week 10, 269 (11.3%) were positive. This was a decrease from the previous week, when 362 (14.6%) of 2,478 specimens tested positive for RSV.

**Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, March 6–12, 2011**

|   | No. (%)        |
|---|----------------|
| <b>Number of sites reporting</b>            | <b>70</b>      |
| <b>Total specimens tested for influenza</b> | <b>2,717</b>   |
| Influenza                                   | 798 (29.4)*    |
| Influenza A                                 | 518 (64.9)**,† |
| Influenza B                                 | 280 (35.1)**,‡ |
| <b>Total specimens tested for RSV</b>       | <b>2,387</b>   |
| RSV   | 269 (11.3)*,¶  |

\* Percent of total specimens tested

\*\* Percent of specimens positive for influenza

Total number of positive lab results reported, by local health jurisdiction of patient's residence and/or site location:

† Alameda (61), Contra Costa (51), Fresno (50), Kern (1), Kings (2), Long Beach (12), Los Angeles (42), Madera (4), Marin (11), Merced (1), Napa (1), Orange (3), Placer (26), Riverside (1), Sacramento (53), San Bernardino (4), San Diego (14), San Francisco (19), San Joaquin (17), San Mateo (22), Santa Clara (66), Solano (33), Sonoma (14), Stanislaus (9), Tulare (1)

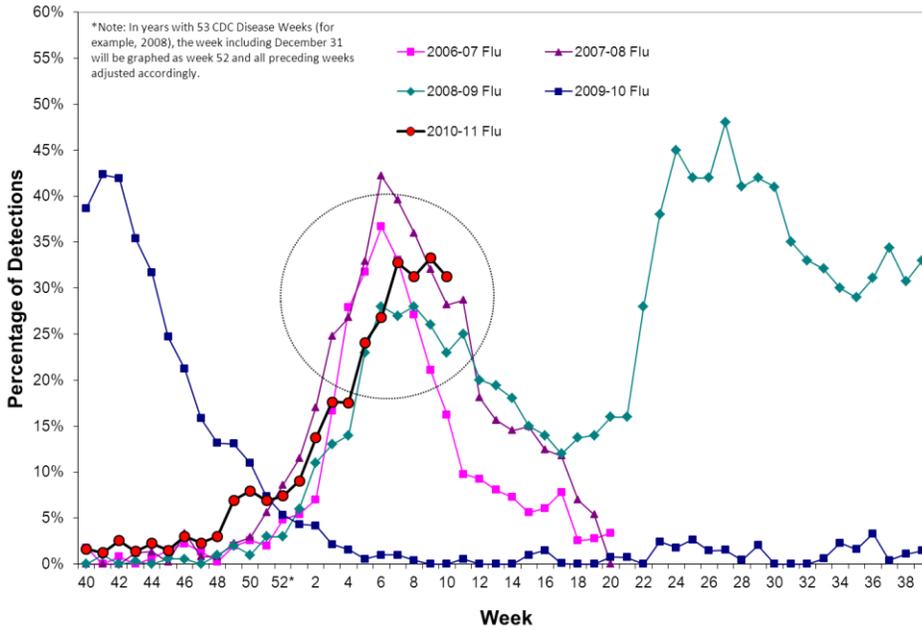
‡ Alameda (60), Contra Costa (22), Fresno (38), Kern (1), Long Beach (6), Los Angeles (8), Madera (3), Marin (2), Merced (2), Placer (5), Riverside (1), Sacramento (18), San Bernardino (1), San Diego (2), San Francisco (7), San Joaquin (12), San Mateo (15), Santa Clara (30), Solano (13), Sonoma (24), Stanislaus (6), Tulare (4)

¶ Alameda (25), Contra Costa (10), Fresno (21), Kern (8), Kings (2), Long Beach (22), Los Angeles (31), Madera (4), Marin (3), Merced (1), Napa (1), Orange (2), Placer (22), Riverside (7), Sacramento (32), San Diego (18), San Francisco (4), San Joaquin (7), San Mateo (10), Santa Clara (21), Solano (8), Sonoma (1), Stanislaus (7), Tulare (2)

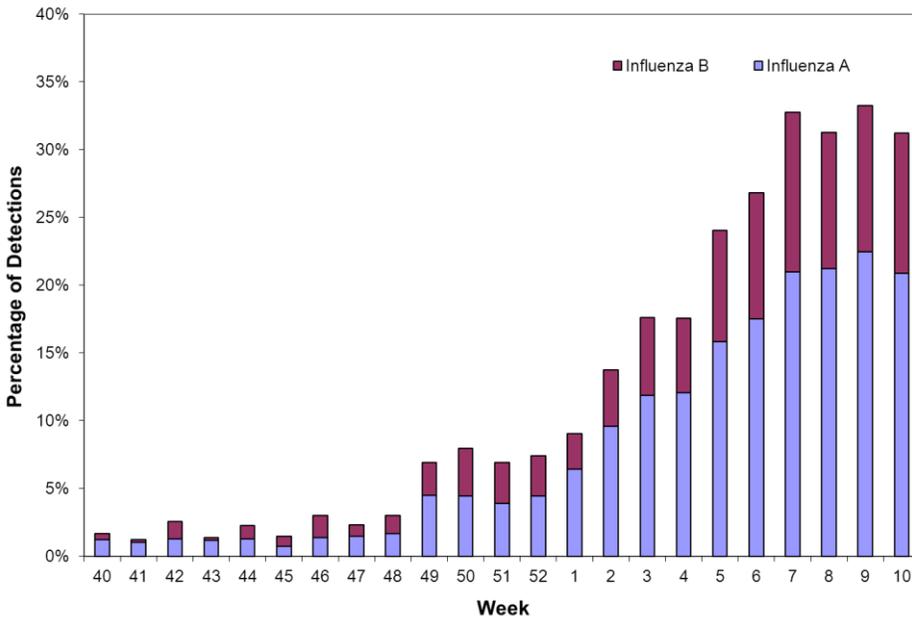
### 3. Combined RLN and Sentinel Laboratory Surveillance Results

Figures 2 through 4 summarize the combined laboratory data from both the RLN and the sentinel laboratories. Figure 2 shows that influenza detections decreased in Week 10 (31.2%) compared to the previous week (33.3%). A total of 947 samples tested positive for influenza in Week 10, including 633 (66.8%) influenza A and 314 (33.2%) influenza B (Figure 3). Figure 4 shows that the percentage of RSV detections continues a downward trend that began in Week 1 (January 2–8, 2011).

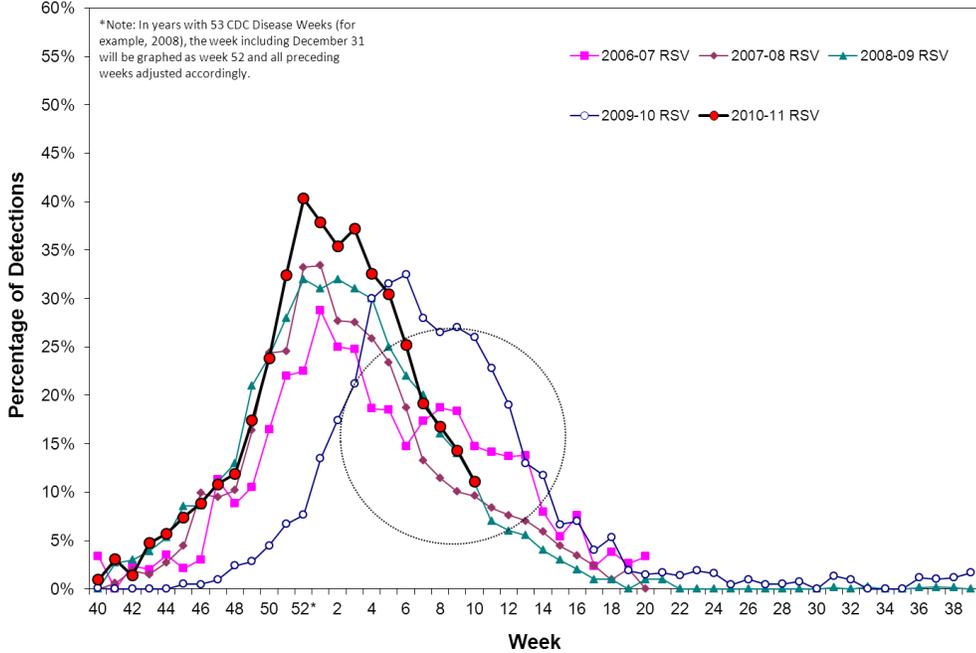
**Figure 2. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011**



**Figure 3. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, by Influenza Type**



**Figure 4. RSV detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011**



For questions regarding this report or influenza surveillance and reporting in California, please email [InfluenzaSurveillance@cdph.ca.gov](mailto:InfluenzaSurveillance@cdph.ca.gov). This account is monitored daily by several epidemiologists.

To obtain additional information regarding influenza, please visit the CDPH influenza website at [http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza\(Flu\).aspx](http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza(Flu).aspx).