

## **California Influenza and Respiratory Disease Surveillance for Week 45 (November 7-13, 2010)**

*The next influenza and respiratory disease surveillance report will be published on December 3, 2010, and will include data reported during Week 46 (November 14-20, 2010) and Week 47 (November 21-27, 2010).*

For Week 45, overall influenza activity in California remained “sporadic.\*”

### **Influenza Highlights (Week 45)**

- In Week 45, the California Department of Public Health (CDPH) received one report of a laboratory-confirmed influenza patient who was admitted to the ICU and tested positive for influenza A(H3). Since Week 40, the start of this reporting year, two non-fatal adult cases have been reported.
- Reports of influenza-like illness (ILI) from sentinel providers decreased this week compared to the previous week. The ILI activity this week in California was “minimal.”
- The percentage of Kaiser Permanente hospitalizations for pneumonia and influenza (P&I) remained low, though there was a slight increase in northern California.
- Among 55 specimens tested by PCR statewide by the Respiratory Laboratory Network (RLN), three were positive for influenza B. All positive specimens were submitted by San Diego County.
- The proportion of specimens that were positive for respiratory syncytial virus (RSV) increased slightly among sentinel laboratories (8.0%, compared to 6.4% in Week 44).

### **A. Laboratory-confirmed case reports**

This week, CDPH received one report of severe (defined as ICU admission or death) laboratory-confirmed influenza A(H3) from Northern California. Two severe cases have been reported from October 1 through November 13, 2010; both were non-fatal adult cases admitted to the ICU.

### **B. Syndromic Surveillance**

#### CDC Influenza Sentinel Providers

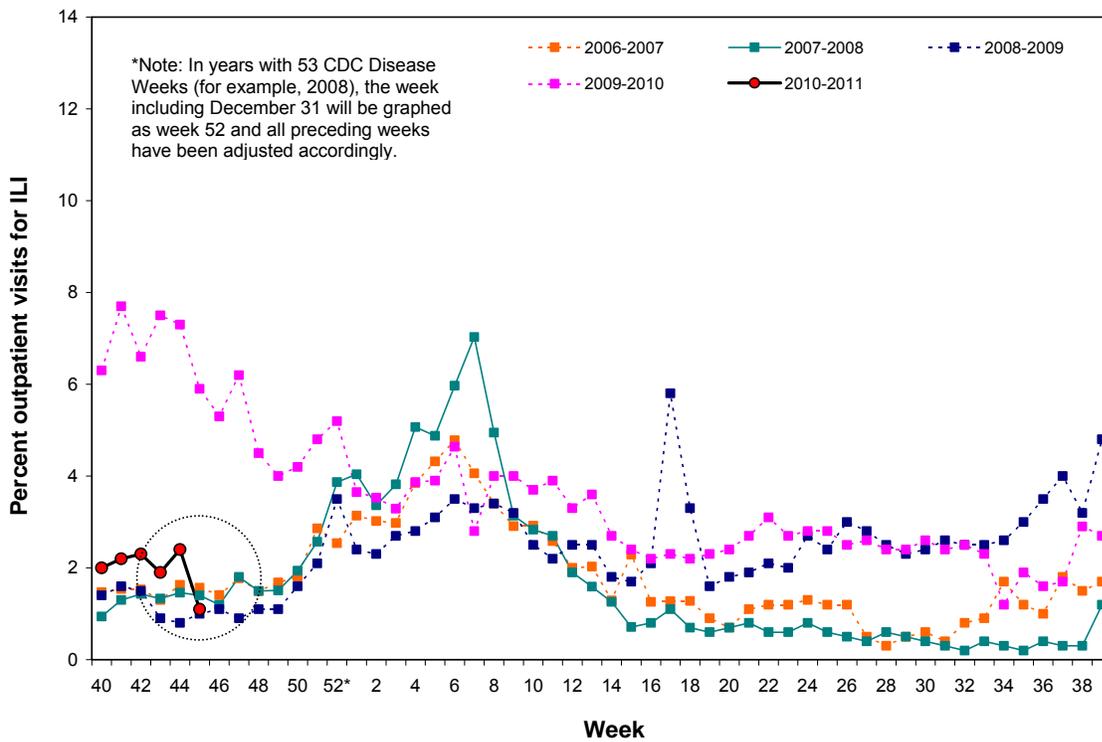
Sentinel providers report the number of outpatient visits for ILI and the total number of visits per week. These data are reported weekly as a percentage of total visits due to ILI. The ILI case definition is fever  $\geq 100^{\circ}\text{F}$  ( $37.8^{\circ}\text{C}$ ), oral or equivalent, AND cough and/or sore throat (in the absence of a known cause other than influenza).

ILI decreased in Week 45 (November 7-13, 2010) compared to the previous week. A total of 80 sentinel providers reported in Week 45.

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\*Sporadic is defined by the Centers for Disease Control and Prevention (CDC) as “small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of influenza-like-illness (ILI)”

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



**C. Laboratory Update**

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

The Respiratory Laboratory Network is composed of 23 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, parainfluenza virus type 1-3).

During Week 45 (November 7-13, 2010), of 55 specimens tested by the RLN, three (5.4%) were positive for influenza B. All three influenza positive specimens were from San Diego County.

**Table 1. Respiratory Laboratory Network (RLN) Influenza PCR Surveillance Results from Selected Laboratories<sup>a</sup>, Week 45 (November 7-13, 2010)**

|  | Total RLN <sup>a</sup> | Northern CA | Central CA | Southern CA |
|--|------------------------|-------------|------------|-------------|
|  | No. (%)                | No. (%)     | No. (%)    | No. (%)     |
| <b>Number of specimens tested by PCR</b>   | <b>55</b>              | <b>26</b>   | <b>4</b>   | <b>25</b>   |
| Influenza A <sup>b</sup>                   | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |
| A (H1) <sup>c</sup>                        | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |
| A (H3) <sup>c</sup>                        | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |
| A (2009 H1N1) <sup>c</sup>                 | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |
| Influenza B <sup>b</sup>                   | 3 (5.4)                | 0 (0.0)     | 0 (0.0)    | 3 (12.0)    |
| <b>Number of specimens tested by R-mix</b> | <b>32</b>              | <b>0</b>    | <b>15</b>  | <b>17</b>   |
| RSV <sup>d</sup>                           | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |
| Other respiratory viruses <sup>d</sup>     | 0 (0.0)                | 0 (0.0)     | 0 (0.0)    | 0 (0.0)     |

<sup>a</sup> RLN labs reporting Week 45 data, by region:

Northern CA: Contra Costa, Sacramento, San Mateo, Santa Clara, Shasta

Central CA: Fresno, San Joaquin, Tulare

Southern CA: Long Beach, Los Angeles, Orange, San Diego, San Luis Obispo, Santa Barbara

<sup>b</sup> Percent of total specimens tested for influenza by PCR

<sup>c</sup> Percent of influenza A positives

<sup>d</sup> Percent of total specimens tested by R-mix

## 2. Sentinel Laboratory Positive Results Data

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 in the past week (November 7-13, 2010) from sentinel laboratories. Of the 731 specimens tested for influenza, five (0.7%) were positive for influenza A and three (0.4%) were positive for influenza B. A total of 55 (8.3%) specimens were positive for RSV.

**Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, November 7-13, 2010**

| Week 45 | Number      | Sentinel Laboratories                               |
|---------|-------------|---|
|         |             |   |
|         | Influenza A | 5 (0.7%) <sup>a</sup><br>Total tested Week 45: 731  |
|         | Influenza B | 3 (0.4%) <sup>b</sup><br>Total tested Week 45: 731  |
|         | RSV         | 55 (8.3%) <sup>c</sup><br>Total tested Week 45: 660 |

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

<sup>a</sup> Alameda (1), Santa Clara (3), Solano (1)

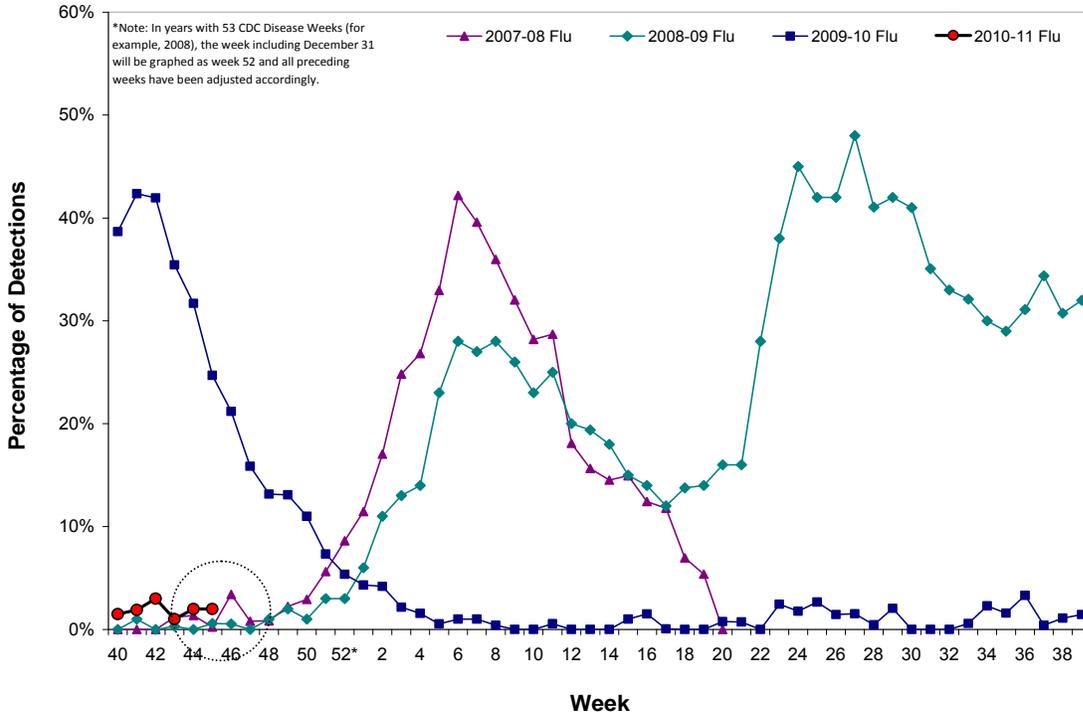
<sup>b</sup> Alameda (1), Imperial (1), San Diego (1)

<sup>c</sup> Alameda (15), Contra Costa (2), Fresno (2), Imperial (5), Long Beach (3), Los Angeles (1), Merced (1), Monterey (1), Placer (1), Riverside (3), Sacramento (1), San Bernardino (1), San Diego (1), San Francisco (1), San Mateo (4), Santa Clara (7), Santa Cruz (1), Sonoma (3), Stanislaus (2)

Figures 2 and 3 summarize the combined laboratory data from both the RLN and the sentinel laboratories.

Figure 2 shows that detections of influenza remained level during Week 45 (November 7-13, 2010); of all the samples tested, 0.6% were influenza A and 0.8% were influenza B. Figure 3 shows that RSV increased slightly during Week 45, following an upward trend that started in Week 43 (October 24-30, 2010).

**Figure 2. Influenza detections at Sentinel Laboratories/Respiratory Laboratory Network, 2007-2011**



**Figure 3. RSV detections at Sentinel Laboratories/Respiratory Laboratory Network, 2006-2011**

