

## **California Influenza and Respiratory Disease Surveillance for Week 02 (January 9-15, 2011)**

**For Week 2, overall influenza activity in California remained “local.\*\*”**

### **Influenza and Respiratory Disease Highlights (Week 2)**

- Reports of influenza-like illness (ILI) decreased by 1.5% in Week 2 compared to the previous week; however a low number of sentinel providers reported in Week 2 (75 compared to an average of 122 in previous weeks). The ILI activity in California for Week 2 remained “minimal\*\*\*”.
- Of 122 specimens tested by polymerase chain reaction (PCR) statewide by the Respiratory Laboratory Network (RLN) during Week 2, 70 (57.4%) were positive for influenza; 48 (68.6%) were influenza A and 22 (31.4%) were influenza B. The influenza A specimens were subtyped as H3 (27 specimens) and 2009 H1N1 (21 specimens). The majority of positive specimens were from Los Angeles and Orange counties.
- The percentage of influenza detections in sentinel laboratories increased during Week 2; 214 (11.3%) of 1,886 specimens tested were positive, compared to 172 (7.8%) of 2,194 specimens tested during the previous week.
- During Week 2, the proportion of specimens tested statewide that were positive for respiratory syncytial virus (RSV) remained level; 721 (37.8%) of 1,908 specimens tested were positive, compared to 845 (37.9%) of 2,231 specimens tested during the previous week. Overall RSV activity remains high; the percentage of RSV detections in Week 2 exceeds the range of percentages seen for RSV at the same time in previous years.
- Eight influenza A (2009 H1N1) specimens and 25 influenza A (H3N2) specimens have undergone resistance testing by the CDPH Viral and Rickettsial Disease Laboratory (CDPH- VRDL); none have been found to have neuraminidase-inhibitor resistance.

\*Local activity is defined by the CDC as “outbreaks of influenza or increases in influenza-like illness (ILI) cases and recent laboratory- confirmed influenza in a single region of the state.”

\*\*Minimal activity is defined by the CDC as ILI activity from outpatient clinics being below the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation.

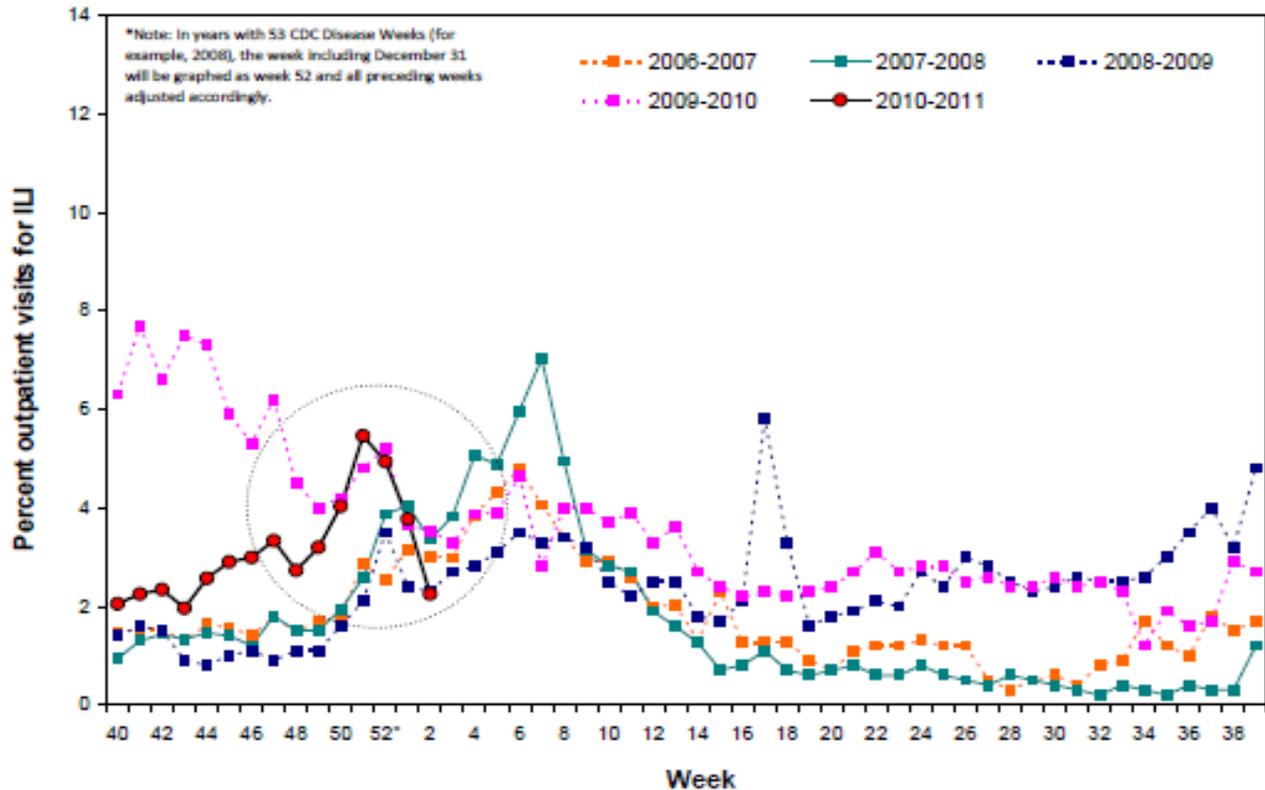
### **A. Syndromic Surveillance**

#### CDC Influenza Sentinel Providers

Sentinel providers report the number of outpatient visits for influenza-like illness (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.

ILI continued to decrease during Week 2 (2.3%) compared to the previous week (3.8%). A total of 75 sentinel providers reported data in Week 2 compared to an average of 122 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 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, and parainfluenza virus type 1-3).

The percentage of specimens that tested positive for influenza increased significantly in Week 2 (57.4%) compared to the previous week (25.0%). Of 122 specimens tested by the RLN during Week 2, 48 (39.3%) were positive for influenza A, including 27 (56.3%) influenza A (H3) and 21 (43.8%) influenza A (2009 H1N1). An additional 22 (18.0%) specimens were positive for influenza B (Table 1). The majority of positive specimens were from Los Angeles and Orange counties.

The percentage of specimens that tested positive for RSV from the RLN increased in Week 2 (21.7%) compared to Week 1 (2.9%). However, the overall number of specimens tested by R- mix has been small.

**Table 1. Respiratory Laboratory Network (RLN) Surveillance Results from Selected Laboratories\*, January 9–15, 2011**

	<b>Total RLN* No. (%)</b>	<b>Northern CA No. (%)</b>	<b>Central CA No. (%)</b>	<b>Southern CA No. (%)</b>
<b>Number of specimens tested by PCR</b>	<b>122</b>	<b>25</b>	<b>14</b>	<b>83</b>
Influenza A	48 (39.3)†	2 (8.0)†	3 (21.4)†	43 (51.8)†
A (seasonal H1N1)	0 (0.0)‡	0 (0.0)	0 (0.0)	0 (0.0)
A (H3)	27 (56.3)‡	2 (100.0)‡	2 (66.7)‡	23 (53.5)‡
A (2009 H1N1)	21 (43.8)‡	0 (0.0)	1 (33.3)‡	20 (46.5)‡
Influenza B	22 (18.0)†	0 (0.0)	1 (7.1)†	21 (25.3)†
<b>Number of specimens tested by R-mix</b>	<b>23</b>	<b>1</b>	<b>20</b>	<b>2</b>
RSV	1 (3.0)¶	1 (100.0)¶	4 (20.0)¶	0 (0.0)
Other respiratory viruses	1 (3.0)¶,††	0 (0.0)	2 (10.0)¶	0 (0.0)

\* RLN labs reporting Week 2 data, by region:

Northern CA: Contra Costa, Sacramento, San

Mateo, Santa Clara, Shasta, Sonoma Central

CA: Fresno, Monterey, San Joaquin, Tulare

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

† Percent of total specimens tested for influenza by PCR

‡ Percent of influenza A positives

¶ Percent of total specimens tested by R-mix

†† Parainfluenza type 2 (2)

## 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 2. The percentage of specimens that tested positive for influenza increased in Week 2 (214 of 1,886; 11.3%) compared to the previous week (172 of 2,194; 7.8%). Of the 1,886 specimens tested for influenza in Week 2, 145 (7.7%) were positive for influenza A and 69 (3.7%) were positive for influenza B. Of 1,885 specimens tested for RSV during Week 2, 716 (38.0%) were positive. This was a slight decrease from the previous week, when 844 (38.4%) of 2,197 specimens tested positive for RSV.

**Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, January 9–15, 2011**

	No. (%)
<b>Number of sites reporting</b>	<b>73</b>
<b>Total specimens tested for influenza</b>	<b>1,886</b>
Influenza A	145 (7.7)*
Influenza B	69 (3.7)†
<b>Total specimens tested for RSV</b>	<b>1,885</b>
RSV	716 (38.0)‡

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

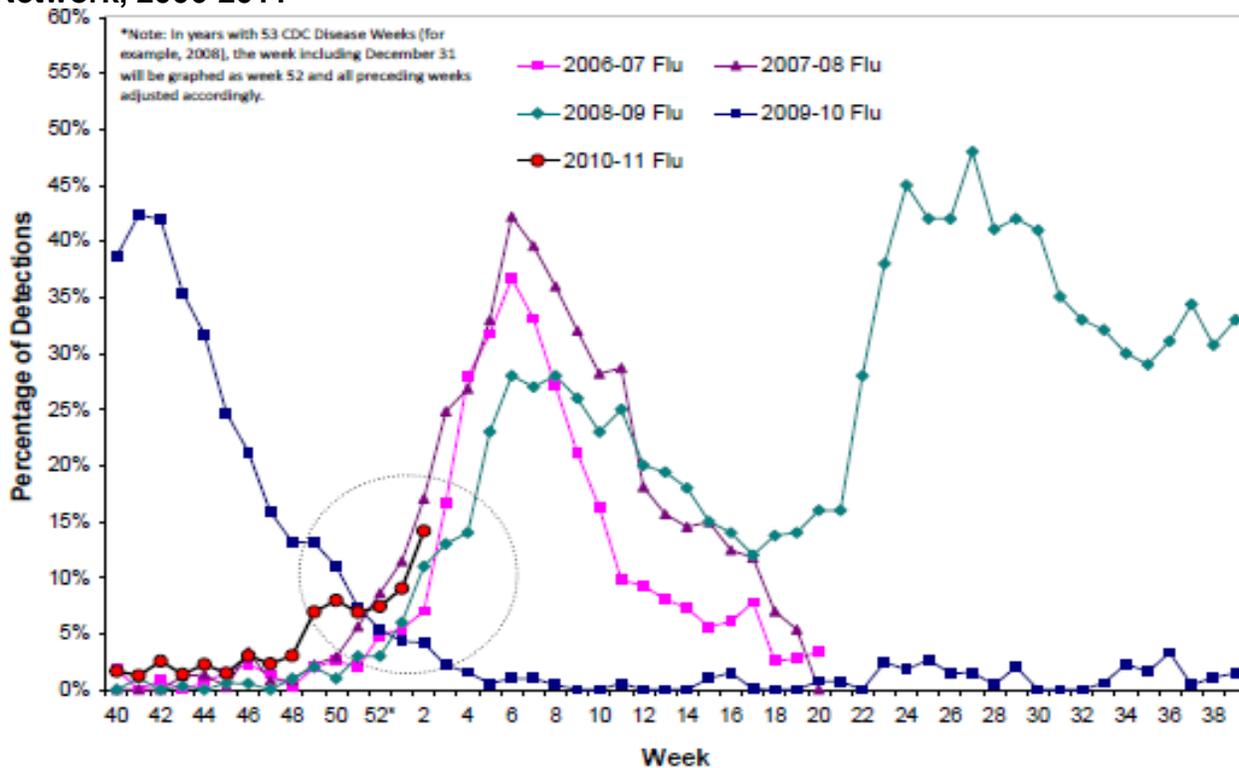
\* Alameda (27), Contra Costa (7), Fresno (5), Imperial (9), Kings (2), Long Beach (4), Los Angeles (9), Marin (1), Placer (6), Riverside (1), Sacramento (4), San Bernardino (1), San Diego (12), San Francisco (13), San Joaquin (3), San Mateo (11), Santa Clara (23), Solano (5), Sonoma (2)

† Alameda (4), Contra Costa (5), Fresno (4), Imperial (2), Long Beach (7), Los Angeles (17), Marin (2), Orange (3), Sacramento (2), San Diego (6), San Francisco (4), San Mateo (2), Santa Clara (5), Solano (2), Sonoma (3), Stanislaus (1)

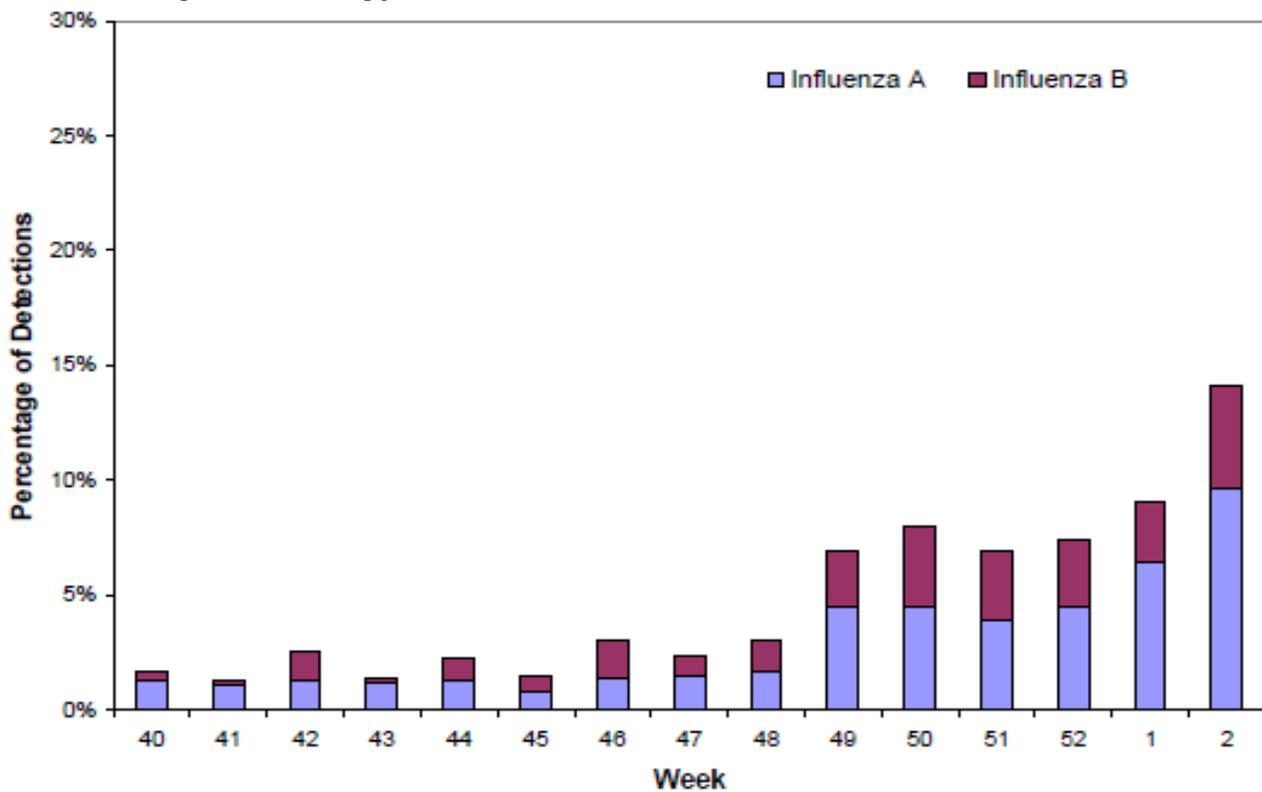
‡ Alameda (66), Contra Costa (49), Fresno (57), Imperial (14), Kern (4), Kings (4), Long Beach (62), Los Angeles (48), Madera (16), Marin (4), Merced (3), Napa (1), Orange (3), Placer (14), Riverside (12), Sacramento (57), San Bernardino (5), San Diego (78), San Francisco (19), San Joaquin (31), San Mateo (29), Santa Clara (93), Solano (24), Sonoma (8), Stanislaus (11), Tulare (3), Yolo (1)

Figures 2 through 4 summarize the combined laboratory data from both the RLN and the sentinel laboratories. Figure 2 shows that influenza detections increased sharply in Week 2 (14.1%) compared to the previous week (9.0%). Of the samples tested during Week 2, 9.6% were influenza A and 4.5% were influenza B (Figure 3). Figure 4 shows that the percentage of RSV detections remained level in Week 2 (37.8%) compared to the previous week (37.9%). Overall RSV activity remains high; the percentage of RSV detections in Week 2 exceeds the range of percentages seen for RSV at the same time in previous years.

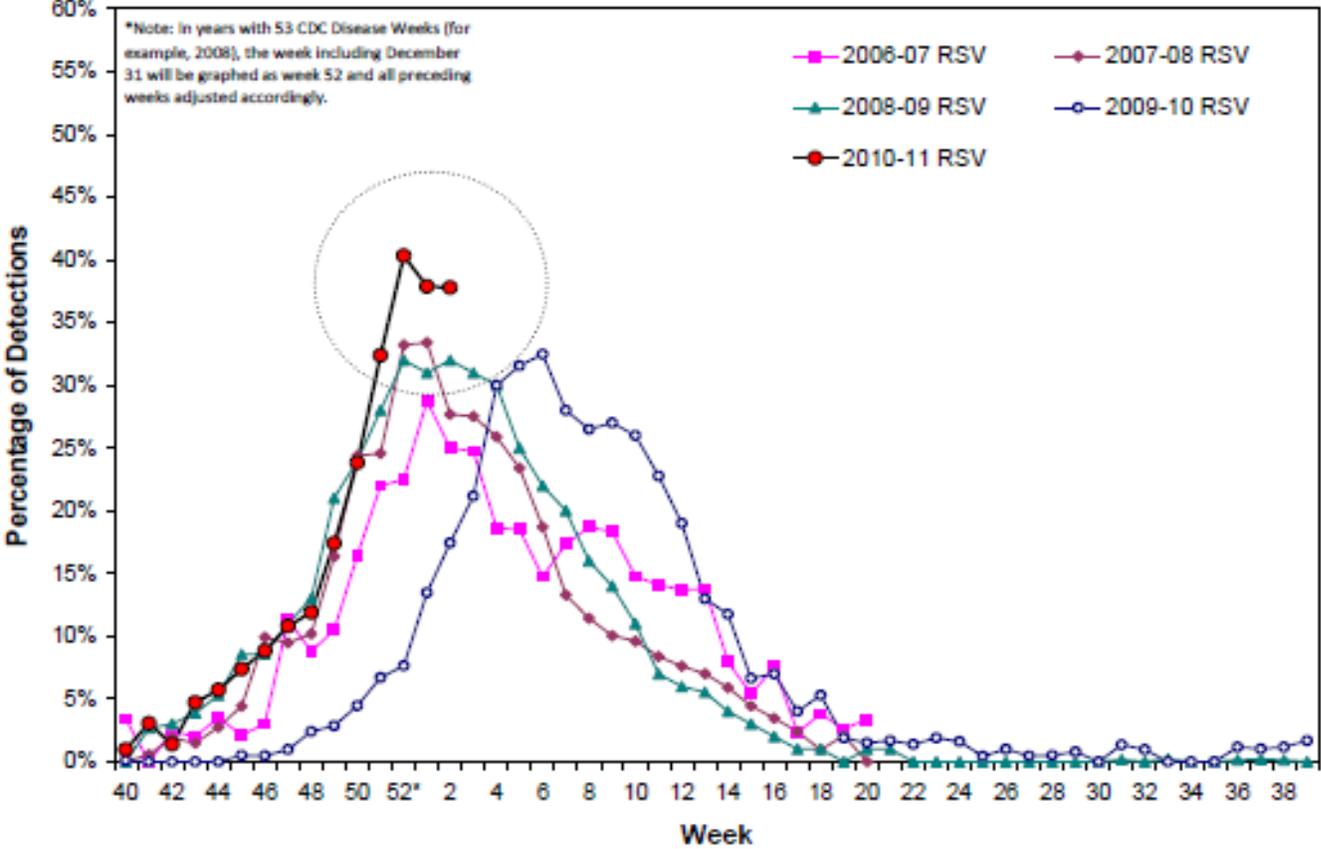
**Figure 2. Influenza detections in Sentinel Laboratories/Respiratory Laboratory Network, 2006-2011**



**Figure 3. Influenza detections in Sentinel Laboratories/Respiratory Laboratory Network, by influenza type**



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



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For questions regarding 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 <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx>.