

California Influenza and Respiratory Disease Surveillance for Week 16 (April 17–23, 2011)

Note: This report includes data from many different sources of influenza surveillance. 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 16 remains “local.”*

Influenza and Other Respiratory Disease Highlights (Week 16)

- With 68 sentinel providers reporting Week 16 data so far, influenza-like illness (ILI) activity decreased by 0.5% compared to the previous week. The ILI activity in California for Week 16 was “minimal.”**
- Of 74 specimens tested by polymerase chain reaction (PCR) statewide by the Respiratory Laboratory Network (RLN) during Week 16, 6 (8.1%) were positive for influenza; of these, 4 (66.7%) were influenza A and 2 (33.3%) were influenza B. Of the 4 influenza A specimens, 3 (75.0%) were subtyped as A (H3) and 1 (25.0%) was subtyped as A (2009 H1N1).
- The percentage of influenza detections in sentinel laboratories decreased during Week 16; 19 (2.9%) of 663 specimens tested were positive, compared to 41 (3.6%) of 1,134 specimens tested during the previous week.
- During Week 16, the proportion of specimens tested statewide by RLN and sentinel laboratories that were positive for respiratory syncytial virus (RSV) remained low; 27 (4.0%) of 669 specimens tested were positive, compared to 41 (3.9%) of 1,048 specimens tested during the previous week.

*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.”

**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.

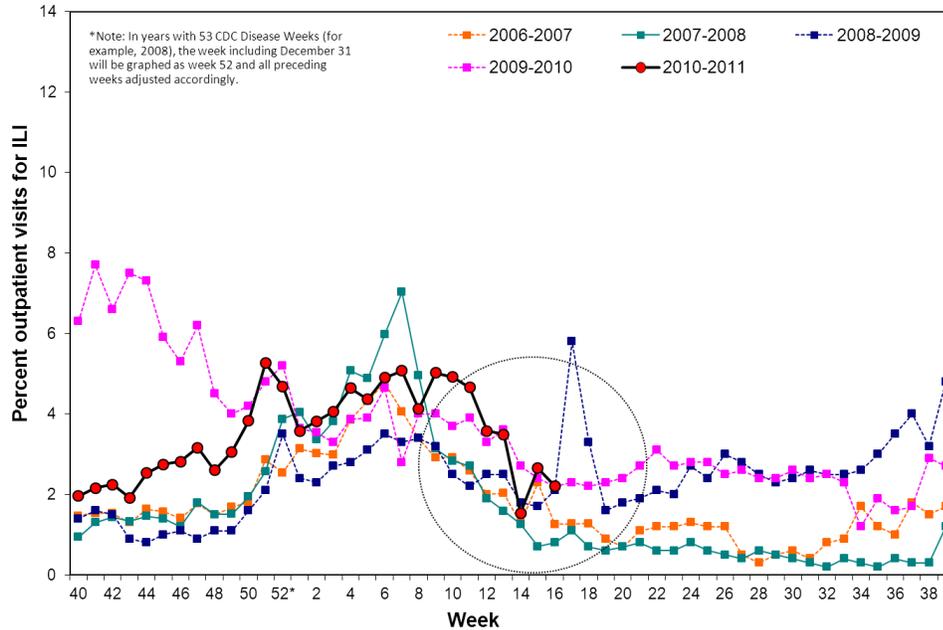
A. Syndromic Surveillance

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 16 (2.2%) compared to the previous week (2.7%). A total of 68 sentinel providers have reported Week 16 data so far, compared to an average of 126 providers reporting in previous 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 16 (8.1%) compared to Week 15 (14.3%). Of 74 specimens tested by the RLN during Week 16, 4 (5.4%) were positive for influenza A and 2 (2.7%) were positive for influenza B. Of the 4 specimens that tested positive for influenza A, 3 (75.0%) were subtyped as influenza A (H3) and 1 (25.0%) was subtyped as influenza A (2009 H1N1) (Table 1).

Table 1. Respiratory Laboratory Network (RLN) Surveillance Results from Selected Laboratories*, April 17–23, 2011

	Total RLN*	Northern CA	Central CA	Southern CA
	No. (%)	No. (%)	No. (%)	No. (%)
Number of specimens tested by PCR	74	36	7	31
Influenza A	4 (5.4) [†]	4 (11.1) [†]	0 (0.0)	0 (0.0)
A (seasonal H1N1)	0 (0.0) [‡]	0 (0.0)	0 (0.0)	0 (0.0)
A (H3)	3 (75.0) [‡]	3 (75.0) [‡]	0 (0.0)	0 (0.0)
A (2009 H1N1)	1 (25.0) [‡]	1 (25.0) [‡]	0 (0.0)	0 (0.0)
Influenza B	2 (2.7) [†]	1 (2.8) [†]	0 (0.0)	1 (3.2) [†]
Number of specimens tested by R-mix	36	2	17	17
RSV	2 (5.6) [¶]	1 (50.0) [¶]	0 (0.0)	1 (5.9) [¶]
Other respiratory viruses	0 (0.0) [¶]	0 (0.0)	0 (0.0)	0 (0.0)

* RLN labs reporting Week 16 data, by region:
 Northern CA: Alameda, Contra Costa, Humboldt, Placer, Sacramento, San Francisco, Shasta, Sonoma
 Central CA: Fresno, Monterey, San Joaquin, Stanislaus, Tulare
 Southern CA: Imperial, Kern, Long Beach, Los Angeles, Orange, Riverside, San Diego, 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

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 16. The percentage of specimens that tested positive for influenza decreased in Week 16 (19 of 663; 2.9%) compared to the previous week (41 of 1,134; 3.6%). Of the 19 influenza positive specimens, 7 (36.8%) were positive for influenza A and 12 (63.2%) were positive for influenza B. Of 633 specimens tested for RSV during Week 16, 25 (3.9%) were positive.

Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, April 17–23, 2011

	No. (%)
Number of sites reporting	56
Total specimens tested for influenza	663
Influenza	19 (2.9)*
Influenza A	7 (36.8)**,†
Influenza B	12 (63.2)**,‡
Total specimens tested for RSV	633
RSV	25 (3.9)*,¶

* 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 (2), Contra Costa (1), San Bernardino (1), San Francisco (1), Santa Clara (1), Sonoma (1)

‡ Alameda (2), Contra Costa (2), Sacramento (3), San Joaquin (1), Santa Clara (1), Sonoma (1), Stanislaus (2)

¶ Fresno (3), Kern (1), Los Angeles (5), Madera (1), Orange (1), Placer (2), Riverside (2), Sacramento (4), San Diego (1), San Francisco (1), San Mateo (1), Santa Clara (2), Sonoma (1)

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 16 (3.4%) compared to the previous week (4.7%). A total of 25 samples tested positive for influenza in Week 16, including 11 (44.0%) influenza A and 14 (56.0%) influenza B (Figure 3). Figure 4 shows that the percentage of RSV detections remained low during Week 16, with 27 (4.0%) of 669 specimens testing positive for RSV, compared to 41 (3.9%) of 1,048 specimens in Week 15.

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

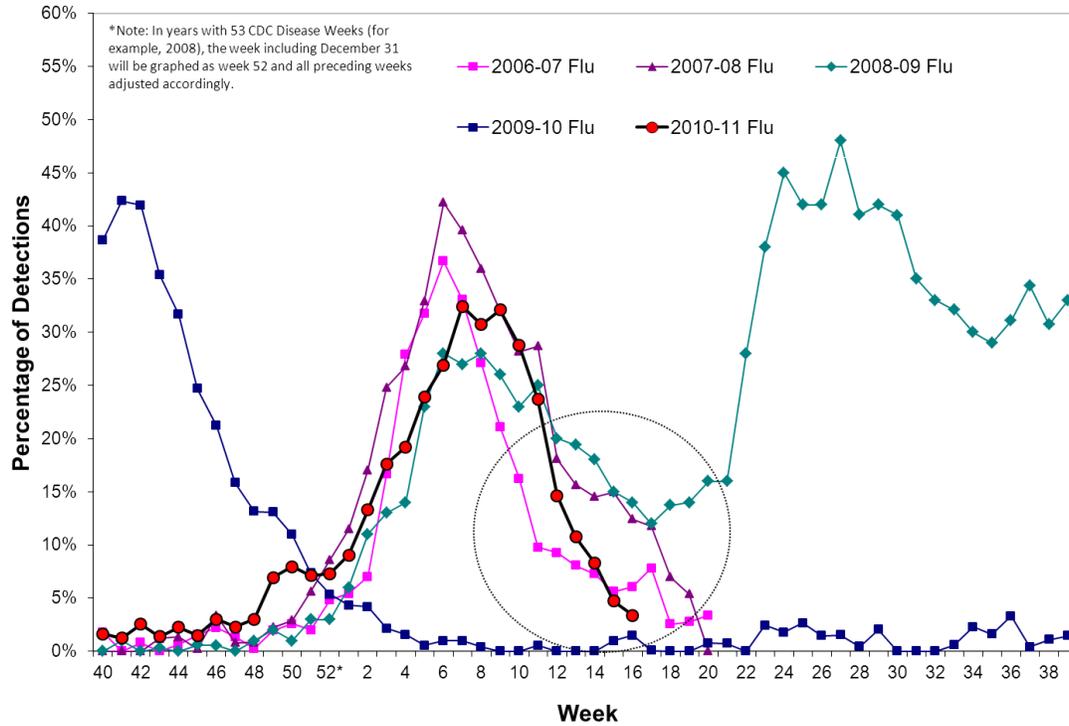


Figure 3. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, by Influenza Type

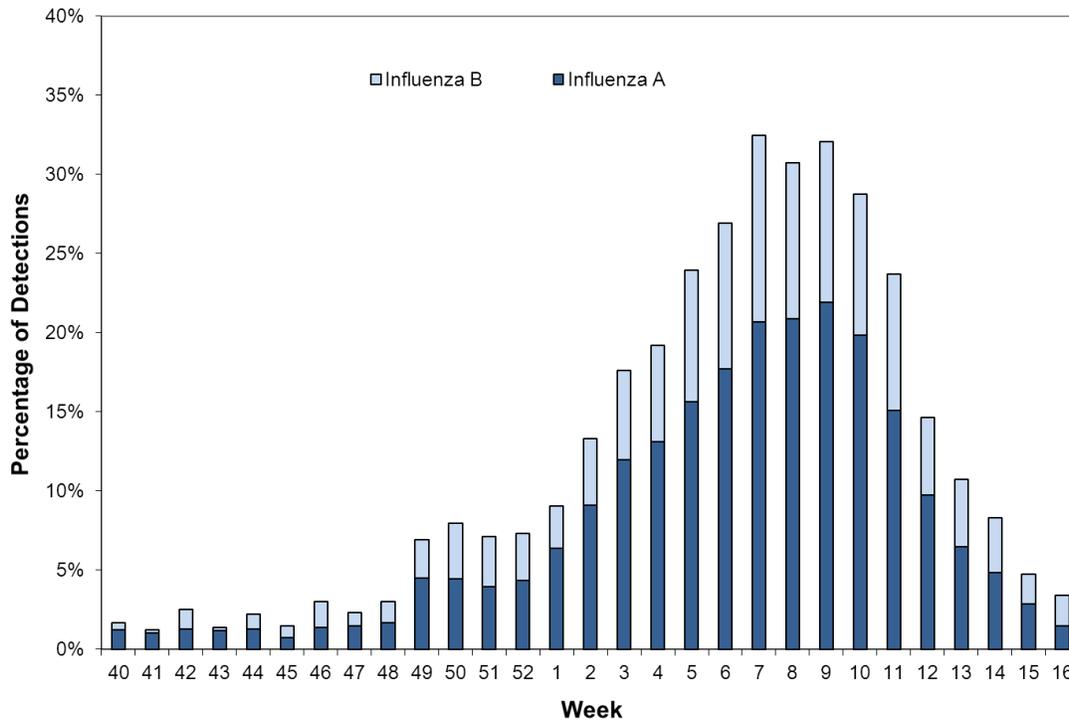
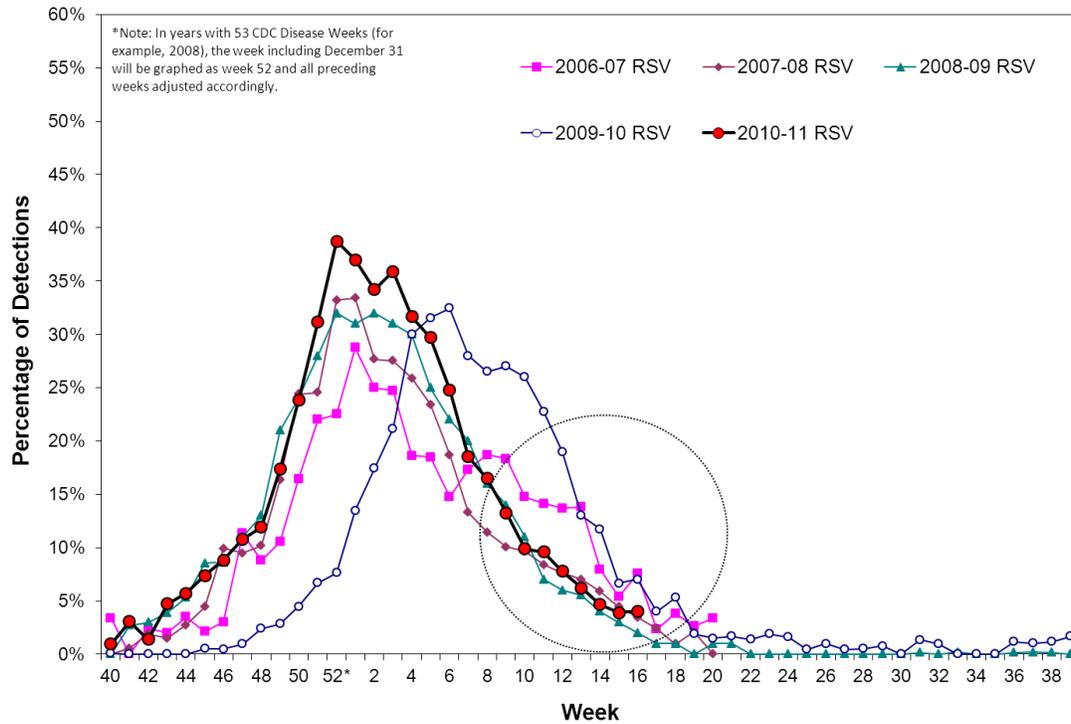


Figure 4. RSV detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011



For questions regarding this report or influenza surveillance and reporting in California, please email InfluenzaSurveillance@cdph.ca.gov. 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).