

California Influenza and Respiratory Disease Surveillance for Week 48 (November 28 – December 4, 2010)

For Week 48, overall influenza activity in California remained “sporadic.”*

Influenza Highlights (Week 48)

- In Week 48, the California Department of Public Health (CDPH) received three reports of laboratory-confirmed influenza among patients under 65 years of age who were admitted to the ICU. Since Week 40, the start of this reporting year, seven non-fatal severe cases (defined as ICU admission or death) have been reported; four have been in pediatric patients under 18 years of age.
- Reports of influenza-like illness (ILI) from sentinel providers decreased in Week 48 compared to previous weeks. The ILI activity in California for Week 48 remained “minimal.”**
- The percentage of Kaiser Permanente hospitalizations for pneumonia and influenza (P&I) increased slightly in southern California during this reporting period.
- Among 23 specimens tested by PCR statewide by the Respiratory Laboratory Network (RLN) during Week 48, none were positive for influenza.
- The proportion of specimens that were positive for respiratory syncytial virus (RSV) continued to increase among sentinel laboratories (13.6% in Week 48, compared to 11.1% in Week 47).

A. Laboratory-confirmed case reports

During Week 48, CDPH received three reports of severe (defined as ICU admission or death) laboratory-confirmed influenza among patients under 65 years of age; one influenza A (2009 H1N1), one influenza B, and one influenza A identified by rapid test only. To date, a total of seven severe cases under 65 years of age have been reported since October 1, 2010; all influenza types and subtypes have been detected. The median age has been 14 years, with a range of 1-55 years. Of the seven cases, three were previously healthy and four had medical conditions identified by the Advisory Committee on Immunization Practices (ACIP) as risk factors for severe influenza. Three cases were associated with secondary bacterial infections. No influenza-associated fatalities have been reported. For cases where influenza is identified by rapid test or DFA only, local health jurisdictions are encouraged to collect specimens for further confirmatory PCR testing and subtyping at the local public health laboratory.

*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).”

**Minimal 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.

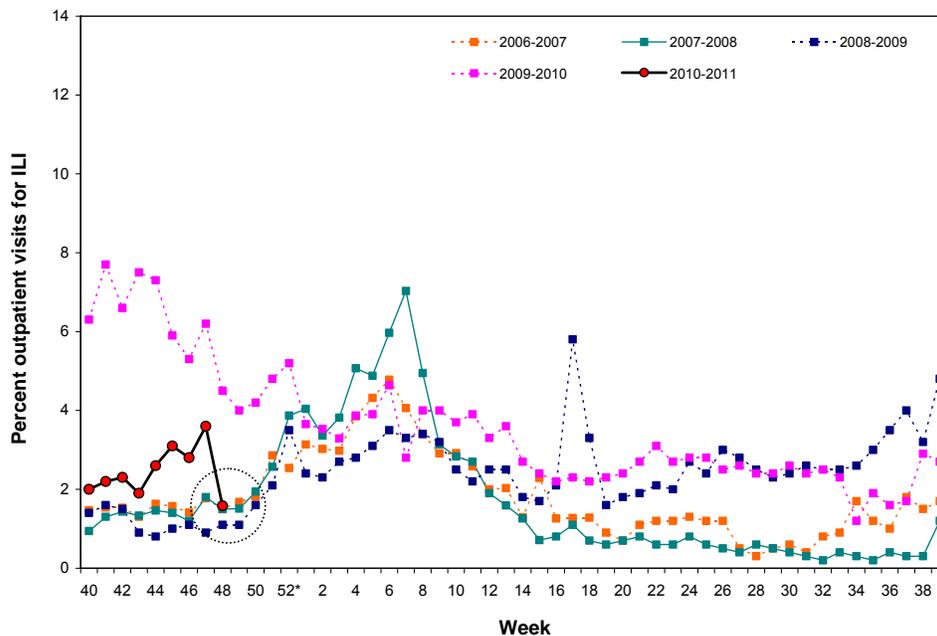
B. Syndromic Surveillance

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°C), oral or equivalent, AND cough and/or sore throat (in the absence of a known cause other than influenza).

ILI decreased during Week 48 (November 28 – December 4, 2010) compared to the previous week. A total of 97 sentinel providers reported Week 48 data.

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, and parainfluenza virus type 1-3).

During Week 48 (November 28 – December 4, 2010), of 23 specimens tested by the RLN, none were positive for influenza.

Table 1. Respiratory Laboratory Network (RLN) Influenza PCR Surveillance Results from Selected Laboratories^a, Week 48 (November 28 – December 4, 2010)

	Total RLN ^a	Northern CA	Central CA	Southern CA
	No. (%)	No. (%)	No. (%)	No. (%)
Number of specimens tested by PCR	23	17	4	2
Influenza A ^b	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
A (H1) ^c	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
A (H3) ^c	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
A (2009 H1N1) ^c	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Influenza B ^b	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Number of specimens tested by R-mix	12	0	12	0
RSV ^d	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other respiratory viruses ^{d,e}	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)

^a RLN labs reporting Week 48 data, by region:

Northern CA: Contra Costa, Placer, Sacramento, Santa Clara, Shasta

Central CA: Fresno, San Joaquin, Tulare

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

^b Percent of total specimens tested for influenza by PCR

^c Percent of influenza A positives

^d Percent of total specimens tested by R-mix

^e Parainfluenza type 2 (1)

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 reported from sentinel laboratories during Week 48 (November 28 – December 4, 2010). Of the 860 specimens tested for influenza, 16 (1.9%) were positive for influenza A and 7 (0.8%) were positive for influenza B. Of 809 specimens tested for RSV, 110 (13.6%) specimens were positive.

Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, November 28 – December 4, 2010

Week 48		Sentinel Laboratories
		Number
	Influenza A	16 (1.9%) ^a Total tested Week 48: 860
	Influenza B	7 (0.8%) ^b Total tested Week 48: 860
	RSV	110 (13.6%) ^c Total tested Week 48: 809

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

^a Alameda (2), Fresno (1), Imperial (6), Los Angeles (1), Marin (1), Orange (1), San Francisco (1), San Mateo (1), Santa Clara (2)

^b Alameda (1), Contra Costa (1), Los Angeles (3), San Diego (1), Sonoma (1)

^c Alameda (21), Contra Costa (6), Fresno (8), Imperial (2), Kern (1), Long Beach (7), Los Angeles (5), Marin (1), Merced (6), Placer (3), San Francisco (9), San Bernardino (2), Sacramento (6), San Joaquin (3), San Mateo (7), Santa Clara (11), Sonoma (7), Stanislaus (5)

Figures 2 and 3 summarize the combined laboratory data from both the RLN and the sentinel laboratories. Figure 2 shows that detections remained at a low level through Week 48 (November 28 – December 4, 2010). Of the samples tested during Week 48, 1.8% were influenza A and 0.8% were influenza B. Figure 3 shows that RSV increased during Week 48, continuing an upward trend that started in Week 43 (October 24-30, 2010).

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

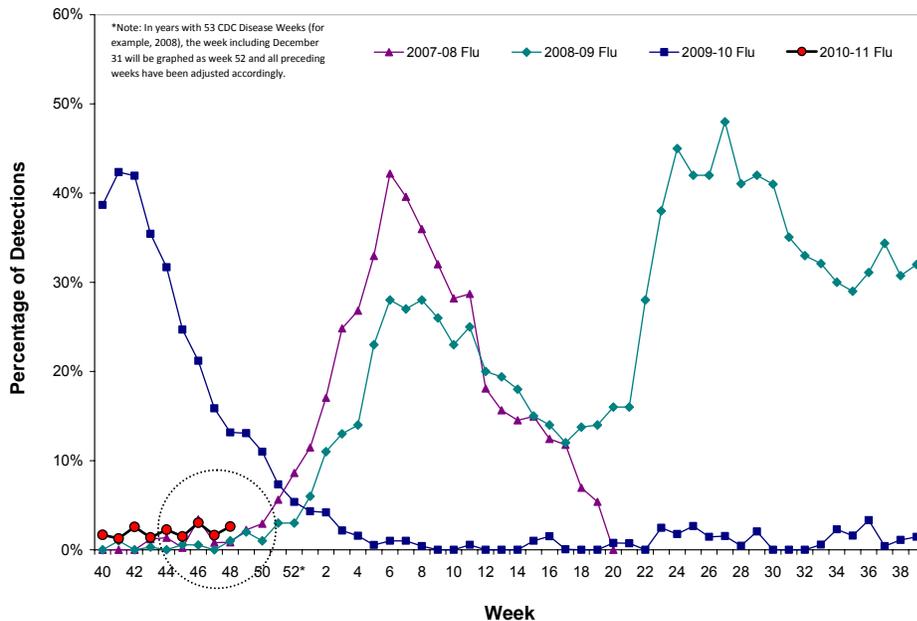


Figure 3. RSV detections at Sentinel Laboratories/Respiratory Laboratory Network, 2006-2011

