

California Influenza and Respiratory Disease Surveillance for Week 44 (October 31 - November 6, 2010)

For week 44, overall influenza activity in California remained “sporadic*”.

Influenza Highlights (Week 44)

- In week 44, the California Department of Public Health (CDPH) received no reports of cases of laboratory-confirmed influenza that were admitted to the ICU or died. Since week 40, the beginning of the 2010-11 influenza season, one non-fatal adult case has been reported.
- Reports of influenza-like illness (ILI) from sentinel providers increased 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.
- Among 69 specimens tested by PCR statewide by the Respiratory Laboratory Network (RLN), 3 were positive for influenza A and 4 for influenza B. Of note, all positive specimens were submitted by San Diego County.
- The proportion of specimens tested by the RLN and the Sentinel Laboratories that were positive for respiratory syncytial virus (RSV) remained steady following a rise in week 43.

A. Laboratory-confirmed case reports

This week, CDPH received no reports of a severe (defined as ICU admission or death) case of laboratory-confirmed influenza. The only severe case reported from October 1 through November 6, 2010, was a non-fatal case of laboratory-confirmed influenza B in an adult.

B. Syndrome Surveillance

1. Kaiser Permanente Hospitalization Data (“Flu Admissions”)

“Flu Admissions” are defined as a text diagnosis of “flu”, “pneumonia”, or “influenza” recorded at time of admission to the hospital. Influenza activity is tracked by dividing the number of Flu Admissions by the total number of hospital admissions for the same day to obtain a percentage of influenza and pneumonia admissions.

As indicated in the circles, Figures 1 and 2 show that during week 44 (October 31-November 6, 2010), the percentage of Kaiser hospitalizations for pneumonia and influenza (P&I) decreased in both northern and southern California. Both data points remain within the range of percentages seen for seasonal influenza in previous years.

*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. Inpatient “Flu” Admissions at Northern California Kaiser Facilities, 2006-2011

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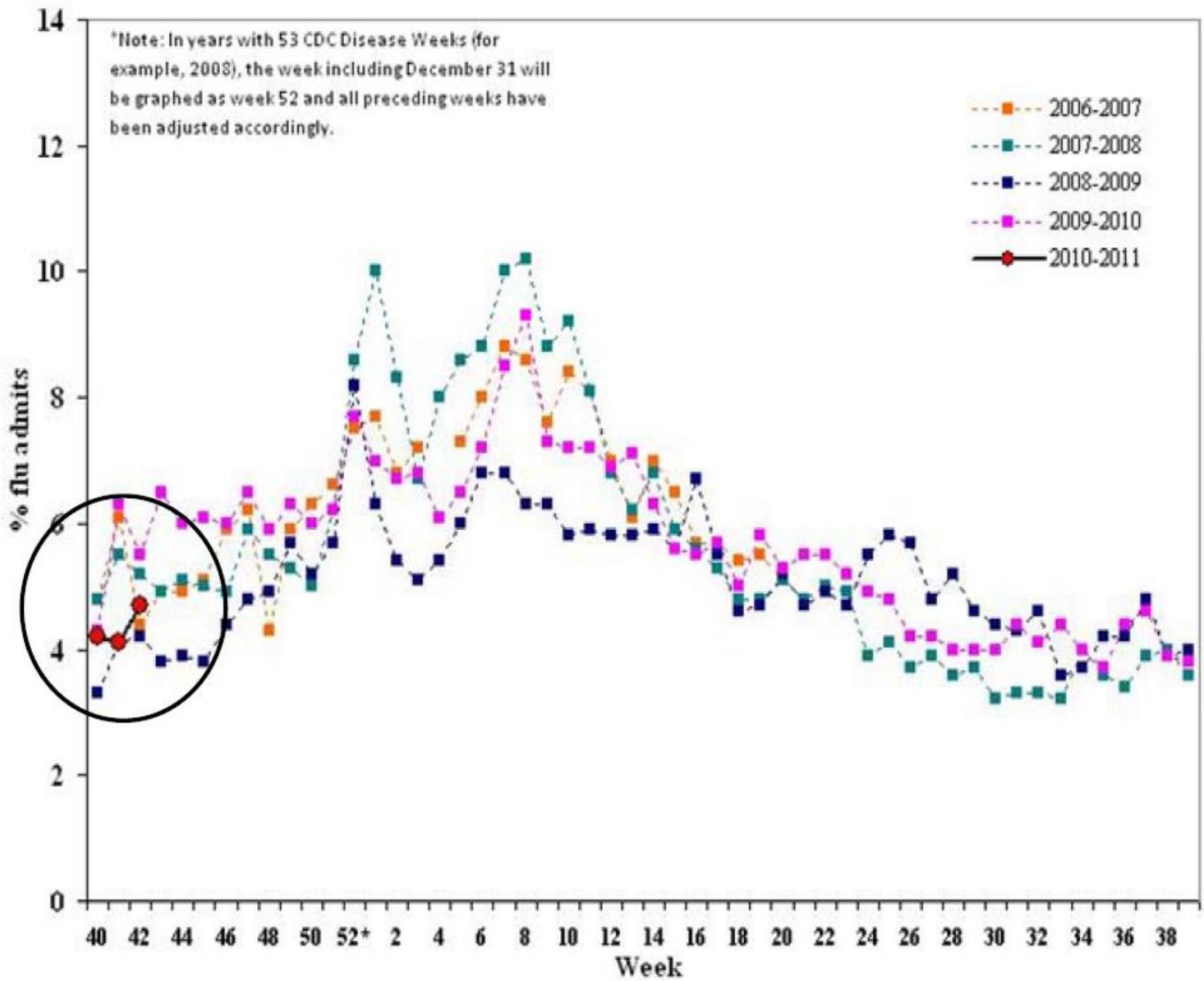
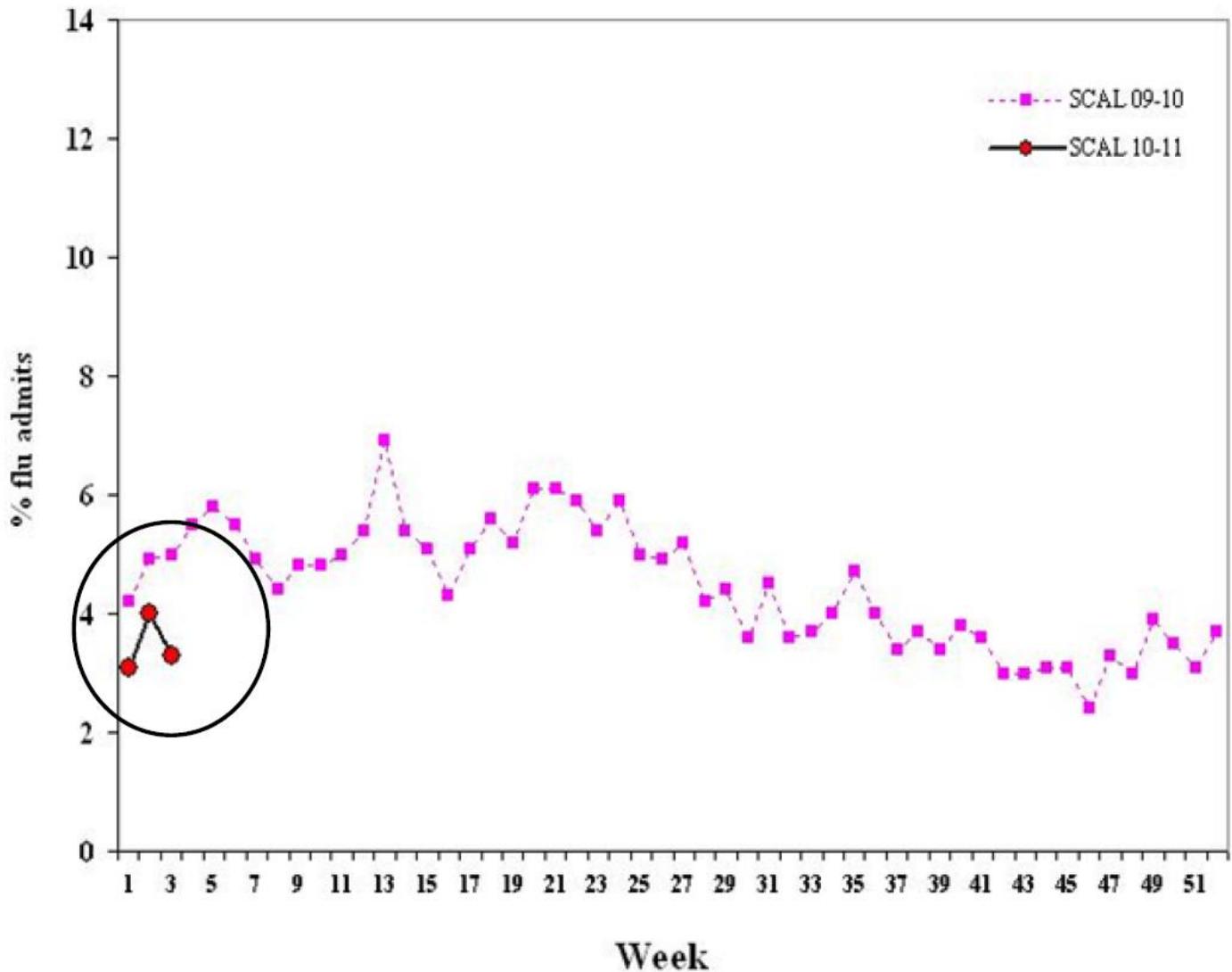


Figure 2. Inpatient “Flu” Admissions at Southern California Kaiser Facilities, 2009-2011

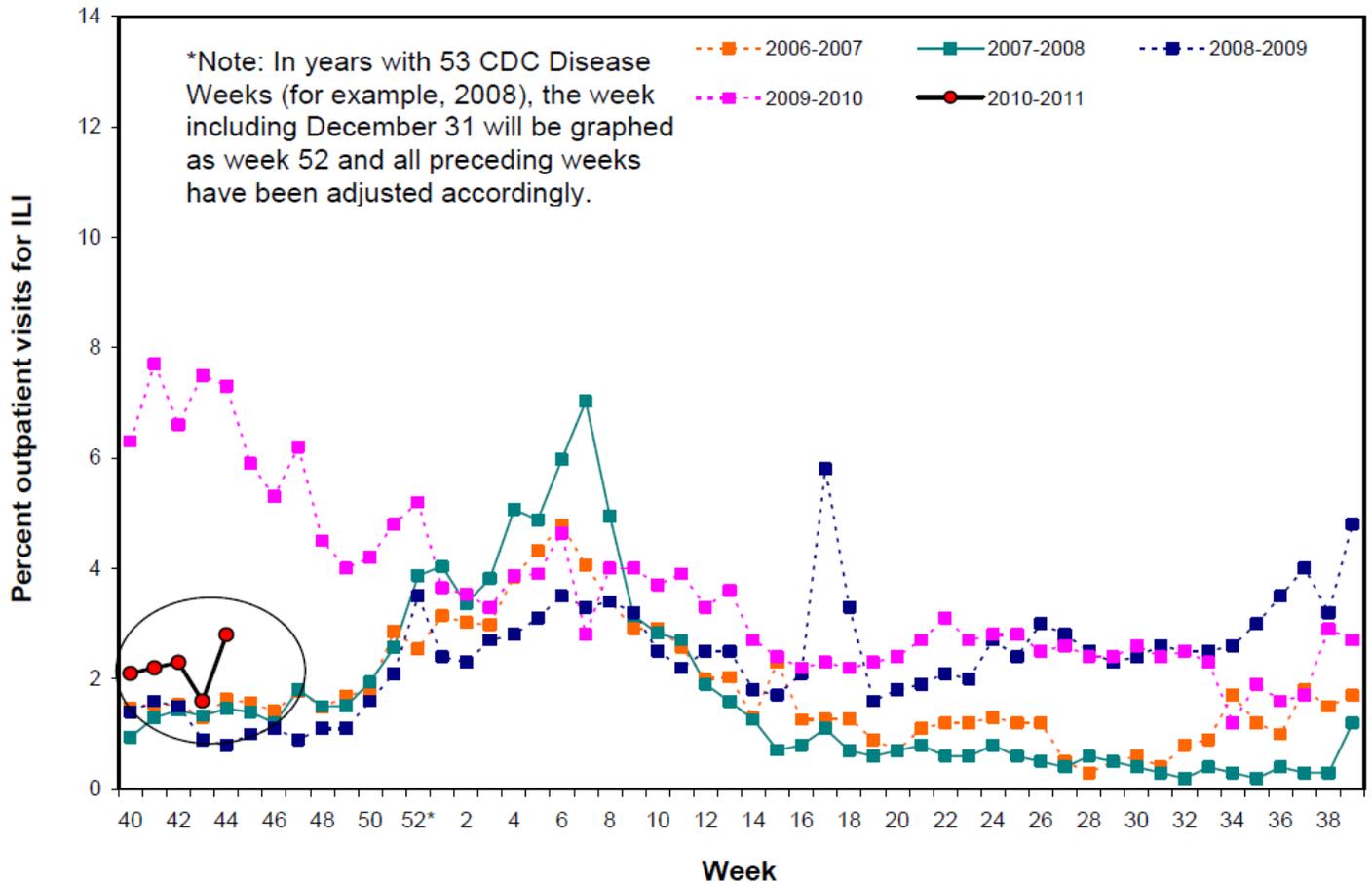


2. CDC Influenza Sentinel Providers

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 increased in Week 44 (October 31-November 6, 2010) compared to the previous week. A total of 73 sentinel providers reported in Week 44.

Figure 3. 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 1-3)

During Week 44 (October 31-November 6, 2010), of 69 specimens tested by the RLN, 7 (10%) were positive for influenza, including influenza A/H3 (2), A/2009 H1N1 (1), and B (4). All 7 influenza positive tests were from San Diego County.

Table 1. Respiratory Laboratory Network (RLN) Influenza PCR Surveillance Results from Selected Laboratories^d, Week 44 (October 31-November 6, 2010)

California RLN Region	Total Flu tested (PCR)	Flu A Number (%) ^a	H1 Number (%) ^b	H3 Number (%) ^b	2009 H1N1 (confirmed or probable) Number (%) ^b	Flu B Number (%) ^a	Total R-mix tested	RSV Number (%) ^c	Other Respiratory Viruses Number (%) ^c
Total RLN^d	69	3 (4)	0 (0)	2 (67)	1 (33)	4 (6)	27	0 (0)	1 (4)
Northern	15	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0	0 (0)	0 (0)
Central	7	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	20	0 (0)	1 (5)
Southern	47	3 (6)	0 (0)	2 (4)	1 (2)	4 (9)	7	0 (0)	0 (0)

^a Percent of "Total flu tested (PCR)"

^b Percent of positive "Flu A"

^c Percent of "Total R-mix tested"

^d Northern CA: Contra Costa, Placer, San Francisco, San Mateo, Santa Clara, Shasta

Central CA: Fresno, San Joaquin, Tulare

Southern CA: Long Beach, Los Angeles, San Diego

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 (October 31-November 6, 2010) from sentinel laboratories. Of the 622 tested for influenza, 6 (1%) were positive for influenza A and 2 (0.3%) were positive for influenza B.

Table 2. Influenza and other respiratory virus detections from 17 Sentinel Laboratories for Week 44, October 31- November 6, 2010.

Virus Strains	Number (%) and Total Tested
Influenza A	6 (1.0%) ^a Total tested week 44: 622
Influenza B	2 (0.3%) ^b Total tested week 44: 622
RSV	34 (6.4%) ^c Total tested week 44: 532

^a Imperial (3); Marin (1); Sacramento (1); Solano (1)

^b Alameda (1); Los Angeles (1)

^c Alameda (10); Contra Costa (1); Long Beach (2); Los Angeles (1); Marin (1); Monterey (1); Placer (1); Riverside (1); Sacramento (1); San Francisco (2); San Mateo (1); Santa Clara (7); Santa Cruz (1); Sonoma (3); Ventura (1)

Figures 4 and 5 summarize the combined laboratory data from both the RLN and the Sentinel Laboratories.

Figure 4 shows that detections of influenza increased during Week 44 (October 31-November 6, 2010); of all the samples tested, 1% was influenza A and 1% was influenza B. Figure 5 shows that RSV decreased slightly during Week 44.

Figure 4. Influenza detections at Sentinel Laboratories/Respiratory Laboratory Network, 2007-2011.

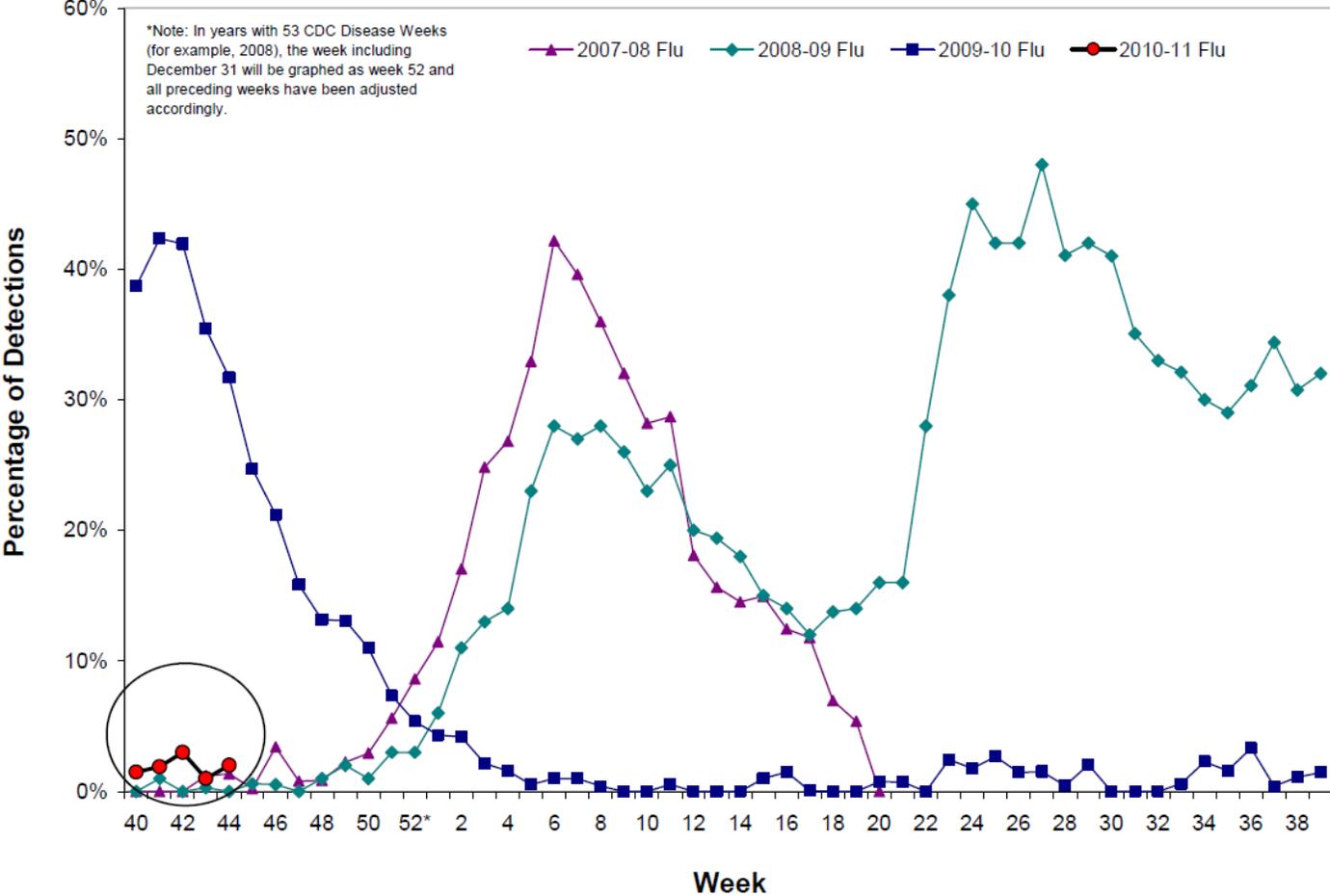


Figure 5. RSV detections at Sentinel Laboratories/Respiratory Laboratory Network, 2006-2011.

