

California Influenza and Respiratory Disease Surveillance for October 24-30, 2010

For week 43, overall influenza activity in California remained “sporadic*”.

Influenza Highlights (Week 43)

- In week 43, CDPH received no reports of cases of laboratory-confirmed influenza that were admitted to the ICU or died.
- Reports of influenza-like illness (ILI) from sentinel providers and the percentage of Kaiser Permanente hospitalizations for pneumonia and influenza (P&I) remained low. The ILI activity this week in California was “minimal”.
- The proportion of specimens tested by the Respiratory Laboratory Network (RLN) and the Sentinel Laboratories that were positive for respiratory syncytial virus (RSV) increased.
- Among 41 specimens tested by PCR statewide by the RLN, six were positive for influenza A and one for influenza B.
- As of October 30, 2010, no antiviral resistance testing has been performed by the Viral and Rickettsial Disease Laboratory (VRDL)

A. Laboratory-confirmed case reports

This week, CDPH received no reports of cases of laboratory-confirmed influenza that was either admitted to the ICU or died. From October 1-30, 2010, CDPH has received one report of a laboratory-confirmed influenza B in an adult.

B. Syndrome Surveillance

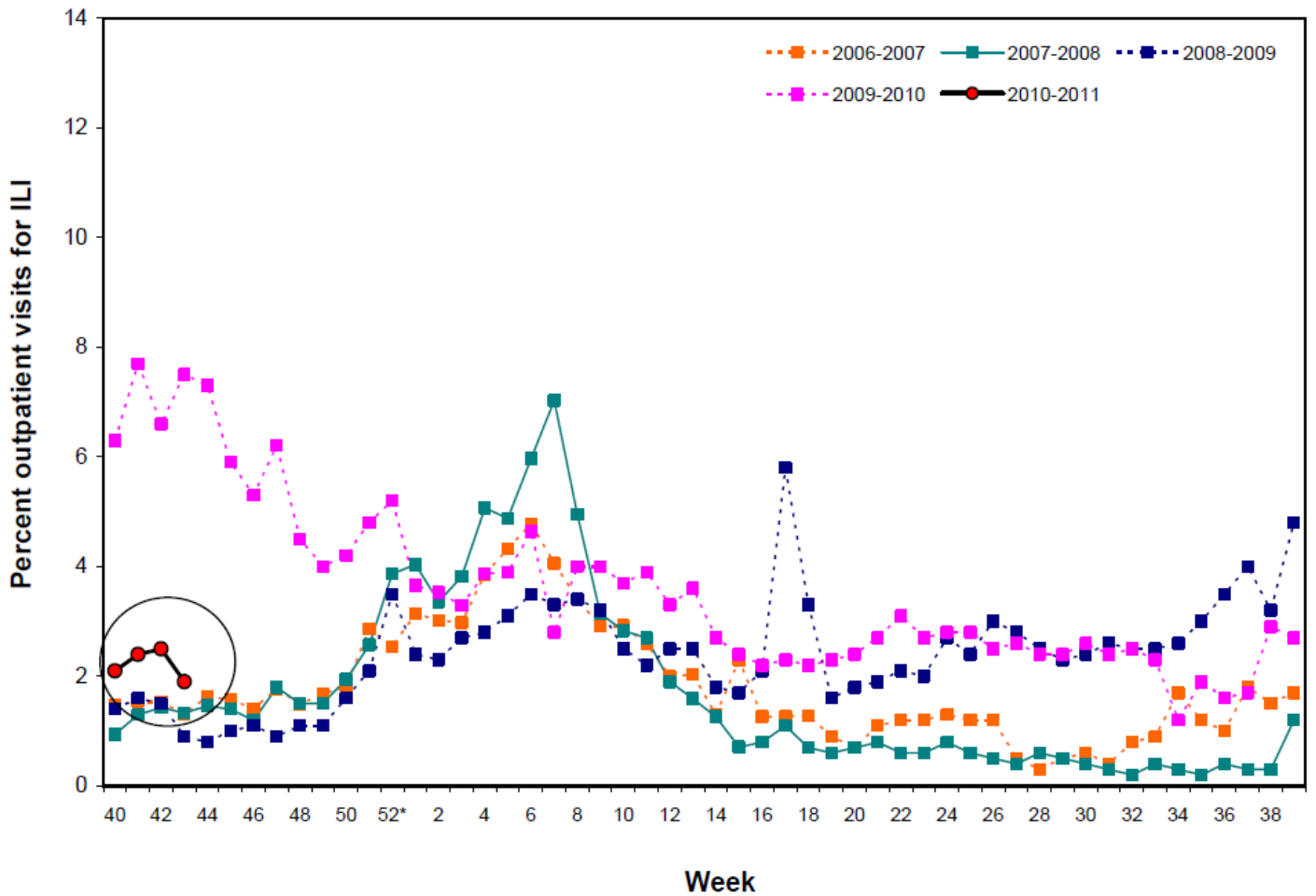
1. CDC Influenza Sentinel Providers

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 slightly in Week 43 (October 24-30, 2010) compared to the previous week (Figure 1). A total of 80 sentinel providers reported in Week 43

*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 43 (October 24-30, 2010), of 41 specimens tested by the RLN three (7%) were positive for influenza, including influenza A/H3 (2) and A/2009 H1N1 (1).

Table 1. Respiratory Laboratory Network (RLN) Influenza PCR Surveillance Results from Selected Laboratories^d, Week 43 (October 24-30, 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	41	3 (7)	0 (0)	2 (67)	1 (33)	0 (0)	25	0 (0)	2 (8)
Northern	15	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0	0 (0)	0 (0)
Central	5	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	10	0 (0)	2 (20) ^e
Southern	21	3 (14)	0 (0)	2 (67)	1 (33)	0 (0)	15	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, El Dorado, San Mateo, Santa Clara, Shasta

Central CA: Fresno, Tulare

Southern CA: Long Beach, Los Angeles, Riverside, San Diego, San Luis Obispo

^e parainfluenza type 2 (1); adenovirus (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 other virus results in the past week (October 24-30, 2010) from sentinel laboratories. Of the 440 tested for influenza, 3 (1%) were positive for influenza A and 1 (0.2%) was positive for influenza B. The other most frequently detected virus was RSV.

Table 2. Influenza and other respiratory virus detections from 8 Sentinel Laboratories for Week 43, October 24-30, 2010.

Virus Strains	Number (%) and Total Tested
Influenza A	3 (1%) ^a Total tested week 43: 440
Influenza B	1 (0.2%) ^b Total tested week 43: 440
RSV	24 (7%) ^c Total tested week 43: 361
Other Respiratory Viruses	17 (9%) ^d Total tested week 43: 199

^a Alameda (1); San Francisco (1); Santa Clara (1)

^b Los Angeles (1)

^c Alameda (5); Contra Costa (1); Fresno (3); Imperial (1); Los Angeles (3); Orange (1); San Francisco (3); San Joaquin (1); San Mateo (1); Santa Clara (1); Sonoma (1); Stanislaus (2); Tulare (1)

^d parainfluenza type 2 (7); rhinovirus (7); parainfluenza type 3 (2); parainfluenza type 1 (1)

Figures 2 and 3 summarize the combined laboratory data from both the RLN and the Sentinel Laboratories.

Figure 2 shows that detections of influenza decreased during Week 43 (October 24-30, 2010). Of all the samples tested, 1% was influenza A; no influenza B was detected. Figure 3 shows that RSV increased during Week 43.

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

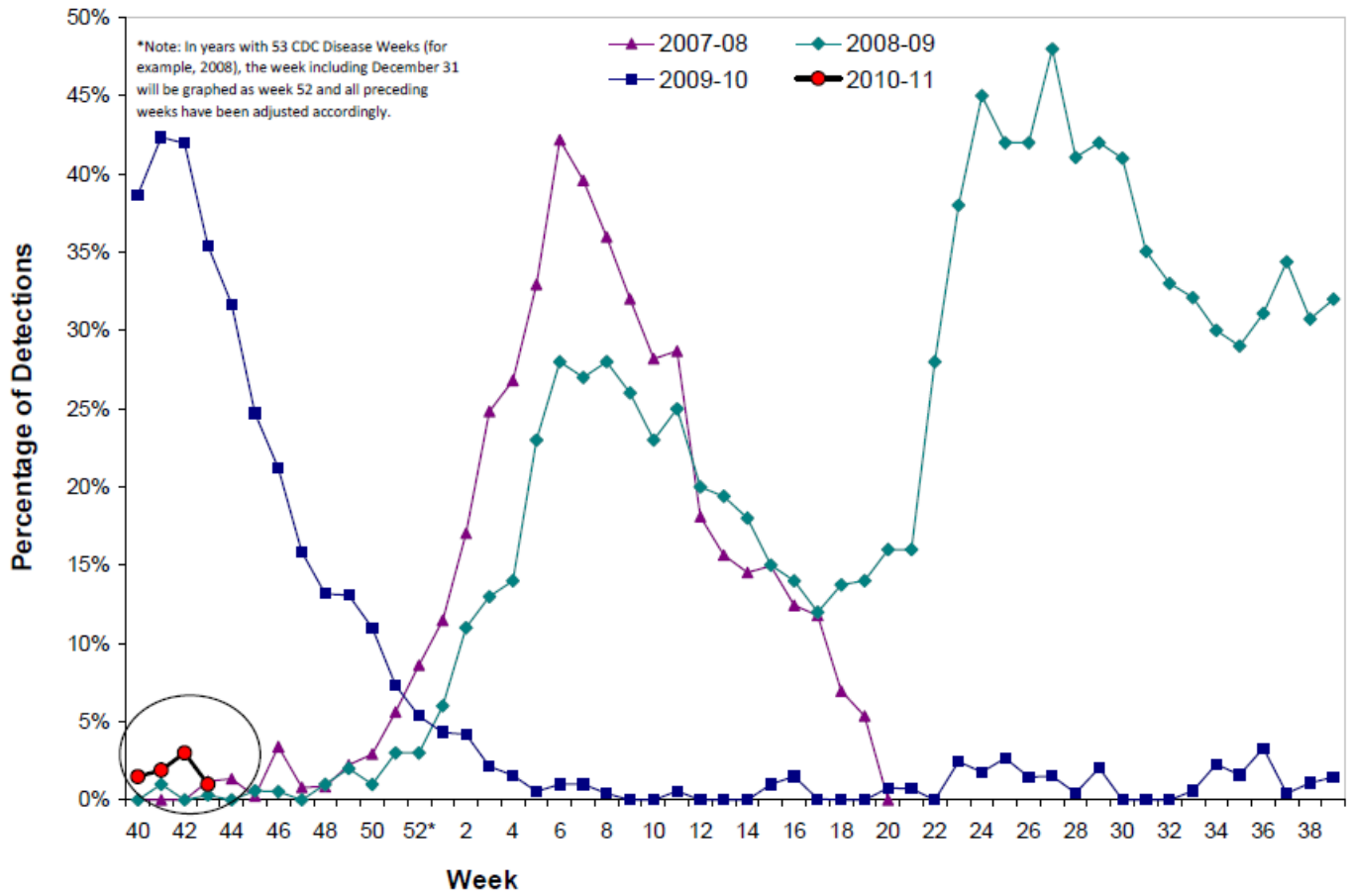


Figure 3. RSV detections at Sentinel Laboratories/Respiratory Laboratory Network, 2006-2011.

