California Influenza Surveillance Project

Viral and Rickettsial Disease Laboratory

2007-2008

Influenza Update – Week 18 (April 27 – May 3, 2008)

National Influenza Activity:
During week 18 (April 27 – May 3, 2008), influenza activity continued to decrease in the United States. Seventy-seven (4.5%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. The proportion of deaths attributed to pneumonia and influenza has been above the epidemic threshold for 17 consecutive weeks. The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was below national and region-specific baseline levels. Five states reported local influenza activity; 30 states, the District of Columbia and Puerto Rico reported sporadic influenza activity; and 15 states reported no influenza activity.

California Influenza Activity
During Week 18 (April 27–May 3, 2008), influenza activity in California remained "sporadic" (defined by the CDC as "Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak, no increase in cases of influenza-like illness (ILI)"). Most surveillance parameters continue to trend down. One new institutional outbreak was reported this week.

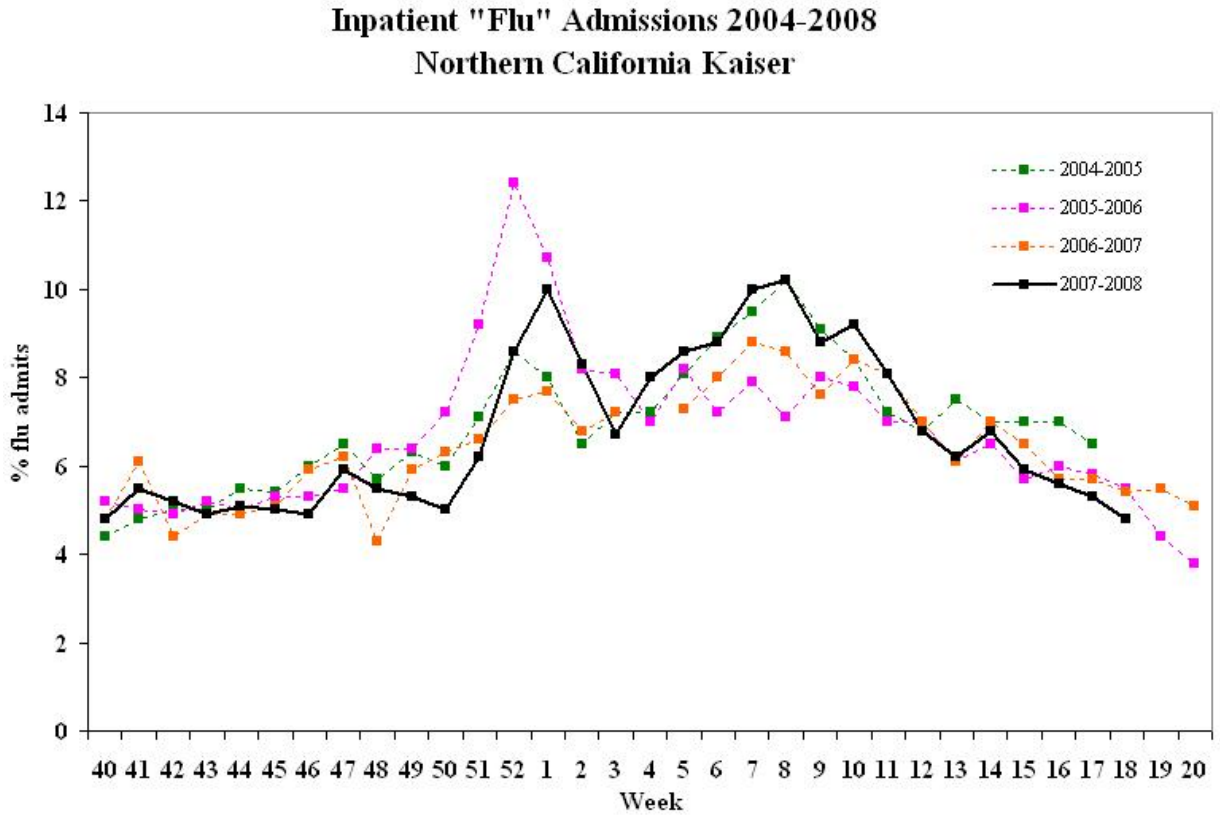
Kaiser Permanente inpatient, sentinel providers' outpatient influenza-like illnesses, and Kaiser Permanente antiviral data:

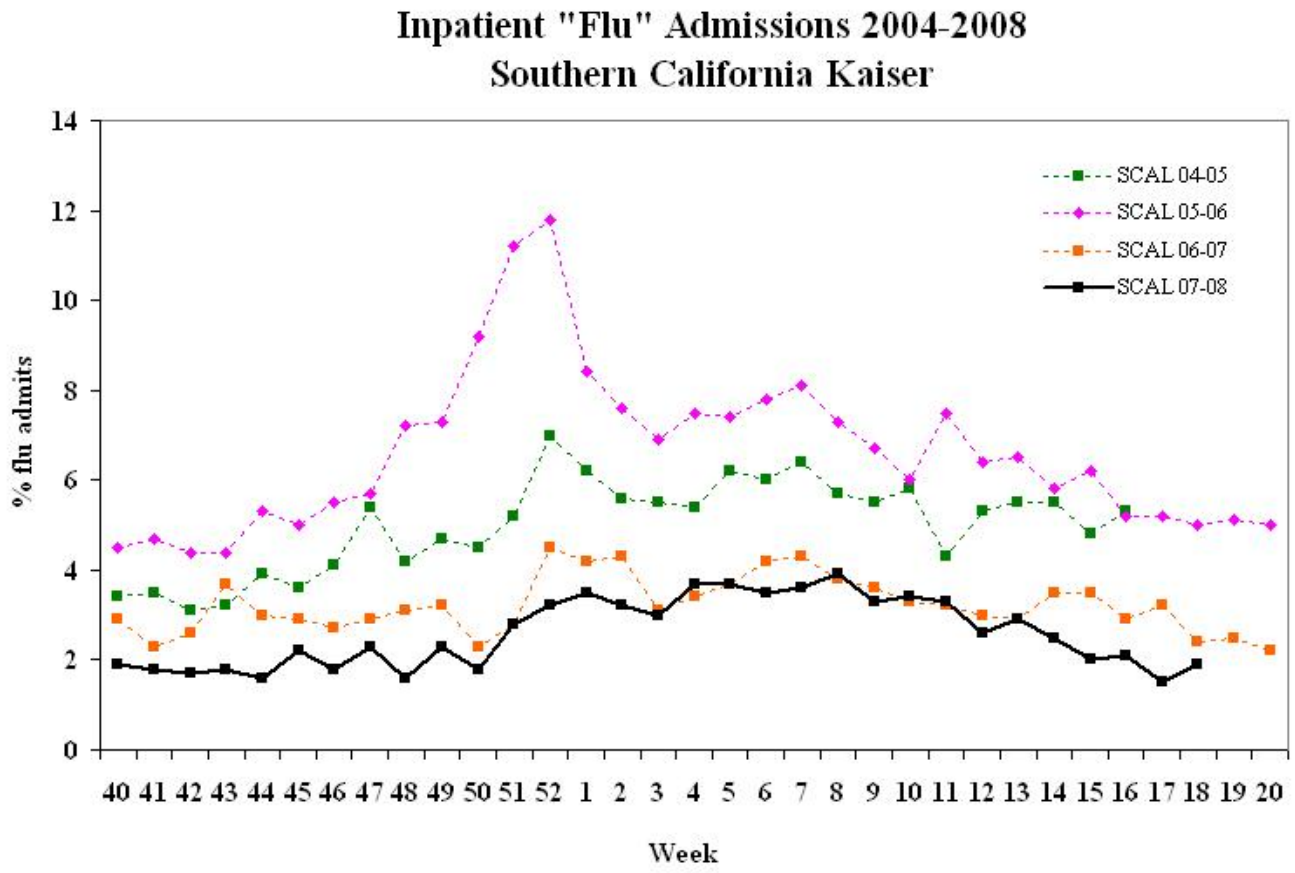
Week	Kaiser Inpatient Data % (range)*		Outpatient ILI Data %(# reported)‡	Kaiser Antiviral Data§	
	Northern CA	Southern CA		Northern CA	Southern CA
18	4.8 (2.4–7.6)	1.9 (0.0–4.6)	0.9 (57 reported)	71	58
Previous week	5.3 (2.3–10.3)	1.5 (0.7–3.3)	1.1 (73 reported)	74	56

* "Flu admissions" are present year-round. During the off-season, these consist chiefly of pneumonia, which represents approximately 3–5% of all admissions

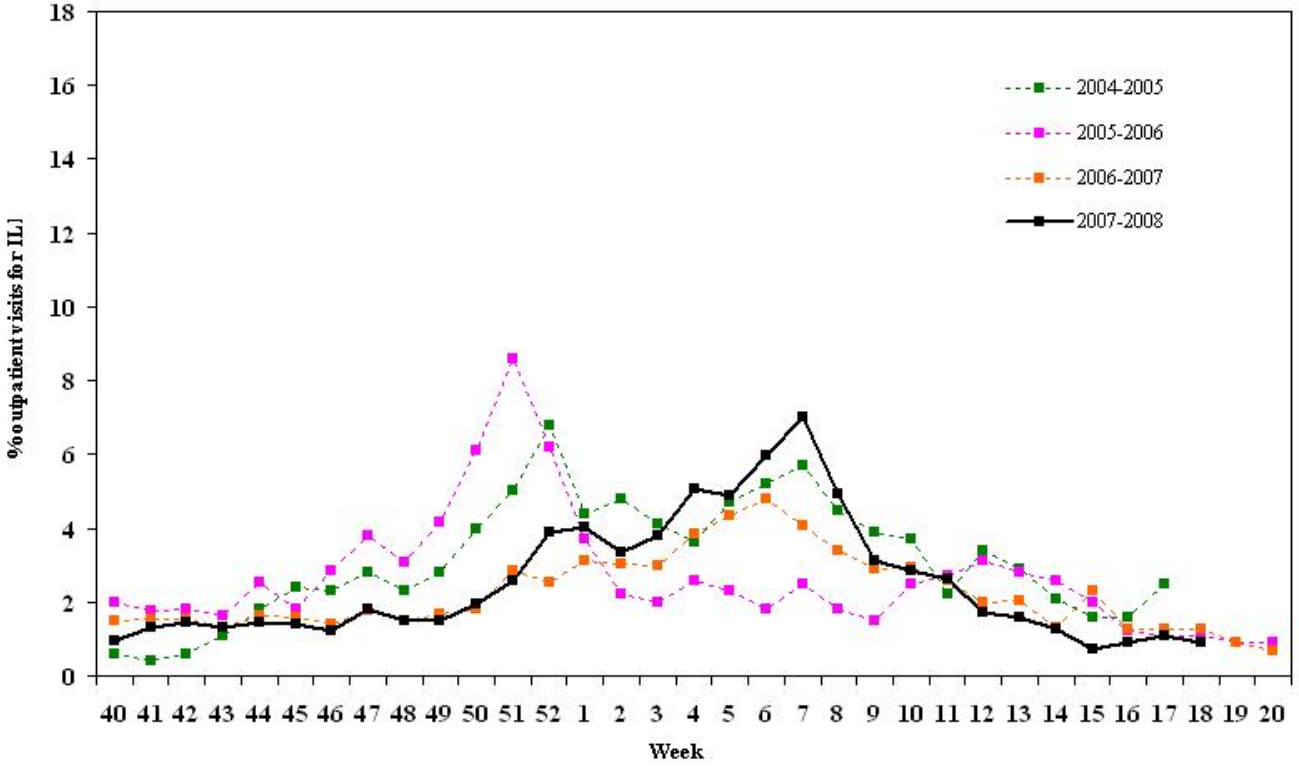
‡ The percentage of outpatient visits for influenza-like illness (ILI) is calculated by dividing the number of ILI visits by the total number of outpatient visits per week

§ The number of prescriptions filled for the antiviral drugs used for influenza (amantadine, rimantadine, zanamivir, and oseltamivir) by Kaiser outpatient pharmacies in California

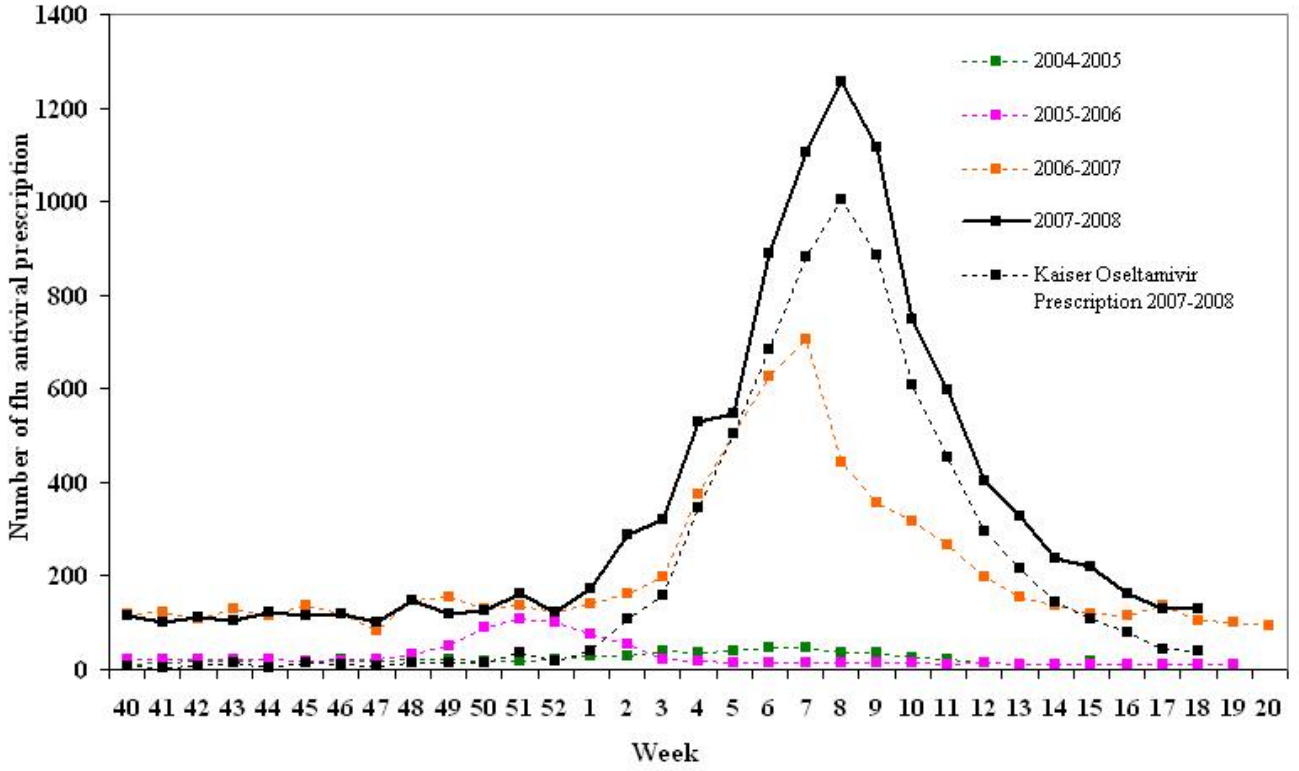

Inpatient "Flu" Admissions 2004-2008
Northern California Kaiser
% flu admits
Week
2004-2005
2005-2006
2006-2007
2007-2008


Inpatient "Flu" Admissions 2004-2008
Southern California Kaiser
% flu admits
Week
SCAL 04-05
SCAL 05-06
SCAL 06-07
SCAL 07-08

California Sentinel Providers
Influenza-Like Illness (ILI) Visits 2004-2008



Kaiser Pharmacy Data
Influenza Antiviral Usage 2004-2008



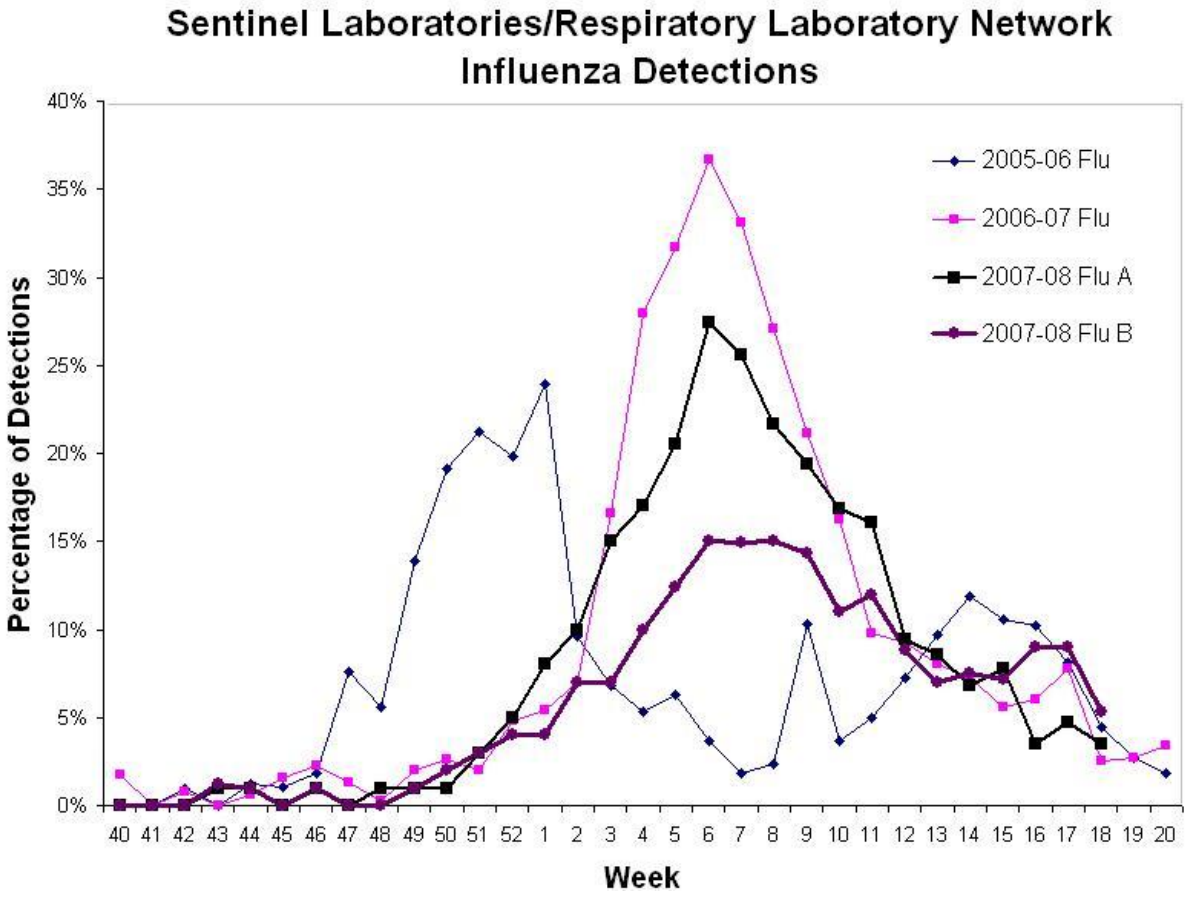
Laboratory Data (viral isolation and detection)

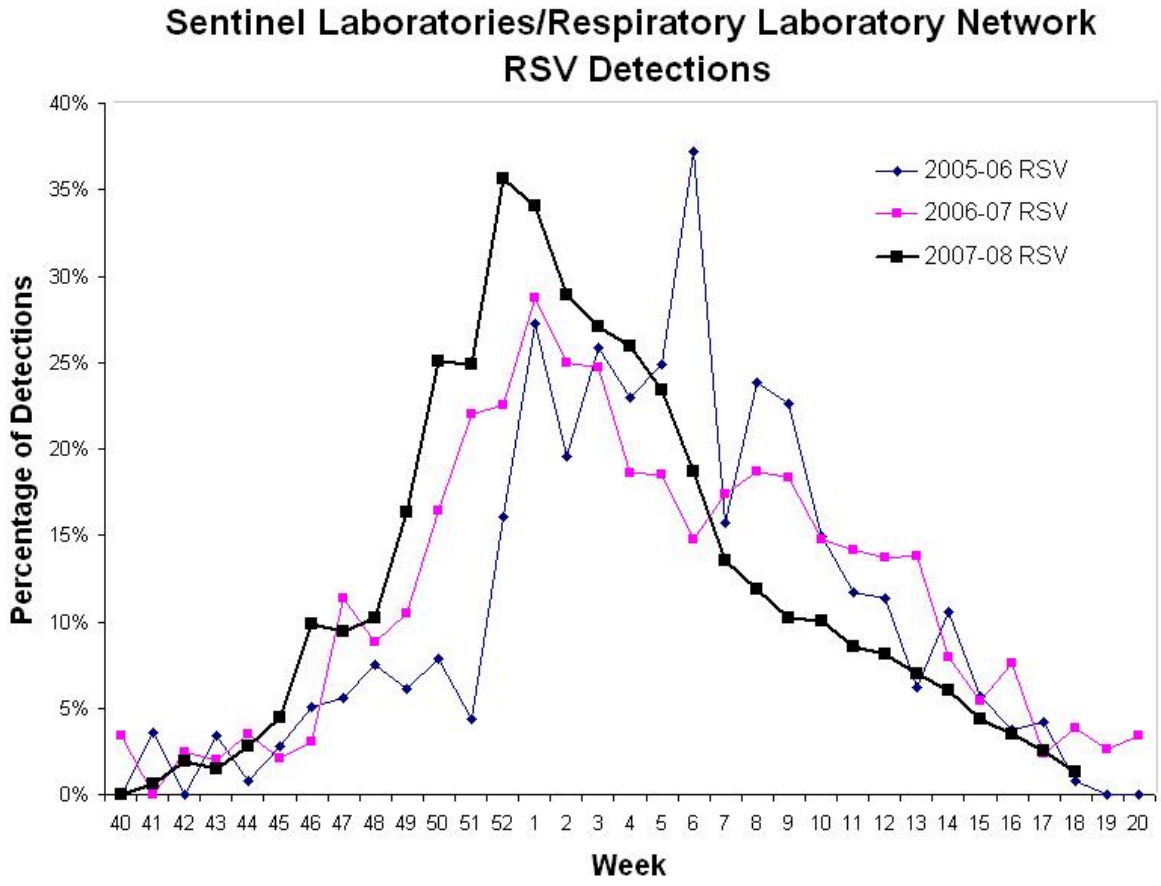
Please note that for the 2007–2008 season, sentinel laboratory and the respiratory laboratory network data are combined.

		Sentinel Laboratories/Respiratory Laboratory Network[‡]	Sentinel Providers
Week 18	Number of Sites Reporting	16	627 specimens submitted through week 18 (404 positive by culture, 2 pending)
	Influenza A	8[a] Total to date: 6302	263
	Influenza B	15[b] Total to date: 3841	112
	Influenza A/B	0 Total to date: 19	0
	RSV	5[c] Total to date: 6771	2
	Other Respiratory Viruses	4[d] Total to date: 283	27[e]

[‡]Sentinel laboratories are hospital, academic, private, and public health laboratories located throughout California that provide data on the number of laboratory-confirmed influenza and other respiratory virus detections and isolations. The Respiratory Laboratory Network (RLN) is a network of 26 local public health laboratories that offer enhanced diagnostic testing with the "R-mix" shell vial assay, which detects several respiratory pathogens, including influenza A and B viruses, respiratory syncytial virus, parainfluenza virus, and adenovirus. Some RLN labs also offer PCR testing for influenza A and B.

[a] Fresno (2); Sacramento (1); San Francisco (3); Santa Clara (1); Solano (1)
[b] Alameda (3); Contra Costa (1); Fresno (2); San Diego (3); San Francisco (1); San Joaquin (1); Santa Clara (2); Solano (2)
[c] Contra Costa (3); Santa Clara (2)
[d] parainfluenza type 3 (4)
[e] adenovirus (14); echovirus type 9 (1); enterovirus (1); herpes simplex virus type 1 (1); human metapneumovirus (1) parainfluenza type 1 (8); parainfluenza type 2 (1)


Sentinel Laboratories/Respiratory Laboratory Network
Influenza Detections
Percentage of Detections
Week
2005-06 Flu
2006-07 Flu
2007-08 Flu A
2007-08 Flu B


Sentinel Laboratories/Respiratory Laboratory Network
RSV Detections
Percentage of Detections
Week
2005-06 RSV
2006-07 RSV
2007-08 RSV

Antiviral Resistance Testing:
To date this season, 157 influenza-confirmed specimens have been tested for antiviral resistance. 100% (87/87) of influenza A/H3 specimens and 4% (3/70) of influenza A/H1 specimens have had the S31N mutation consistent with adamantane resistance. No mutations consistent with resistance to the neuraminidase inhibitors were seen in A/H3 (0/87). One percent (7/70) of A/H1 viruses had the H274Y mutation associated with oseltamivir resistance.

Emergency Room Visits (California Emergency Physicians):
The Flu Watch Center reports the prevalence on a weekly basis of flu-related illnesses as a percentage of total CEP emergency room visits. Information for ILI reported by CEP, including surveillance methods and recent activity graphs, is available at http://www.cep.com.

Week	% of emergency room visits for ILI*	Regional ILI (%)		
		Southern CA	Central CA	Northern CA
15	1.9	1.9	1.4	1.9
Previous Week	1.9	2.0	1.2	2.0

* case definition: fever plus cough, sore throat, upper respiratory illness or nasal congestion

Please continue to assist us in recruiting primary care providers (physicians, nurse practitioners, and physician assistants) to be sentinel physicians in your area. For more information, contact Melissa Dahlke at flu@cdph.ca.gov or 510-620-3494.

For questions about the California Influenza Surveillance Project, please contact Erica Boston (erica.boston@cdph.ca.gov).