

# California Influenza Surveillance Project Viral and Rickettsial Disease Laboratory 2007-2008

## Influenza Update – Week 9 (February 24 - March 1, 2008)

The California Influenza Surveillance Project conducts statewide influenza surveillance year-round. Weekly updates of the website occur during influenza season. Please see the overview page for general descriptions of each of the surveillance methods. The data described below is for the 2007-2008 season and includes data through week 9.

### Recent National Influenza Activity:

During week 9 (February 24 – March 1, 2008), influenza activity continued to decrease in the United States. Two thousand four hundred one (27.2%) 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 was above the epidemic threshold for the eighth consecutive week. The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was above national baseline levels. ILI decreased in seven of the nine regions compared to week 8, but remained above region-specific baselines in all nine regions. The Mid-Atlantic and West North Central regions reported ARI at or above their region specific baselines. Forty-seven states reported widespread influenza activity; three states reported regional influenza activity; and the District of Columbia reported local influenza activity.

### California Influenza Activity:

During Week 9 (February 24–March 1, 2008), influenza activity remained at “widespread” (defined by the CDC as “Outbreaks of influenza or increases in influenza-like illness [ILI] cases and recent laboratory-confirmed influenza in at least half the regions of the state.”) Although most surveillance parameters are trending down, Kaiser admission data in Northern California continues to be above baseline. Additionally, reporting of Influenza B detections has remained high. Nine cases of severe pediatric influenza were reported this week.

### Kaiser inpatient, outpatient ILI, and Kaiser antiviral data:

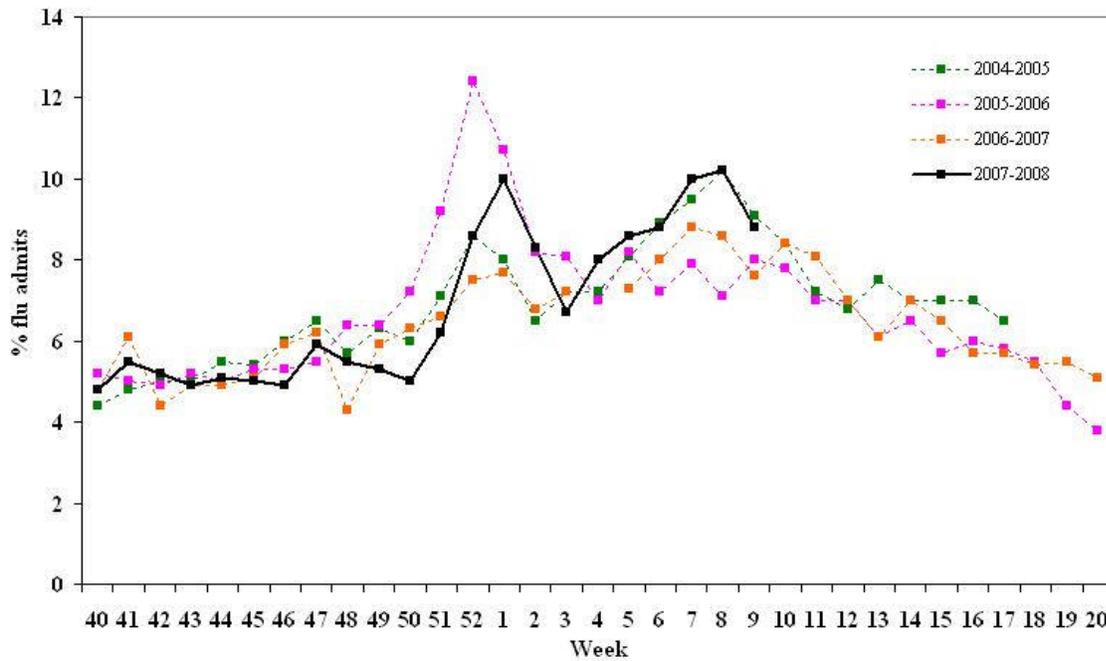
Week	Kaiser Inpatient Data % (range)*		Outpatient ILI Data %(# reported)‡	Kaiser Antiviral Data§	
	Northern CA	Southern CA		Northern CA	Southern CA
<b>9</b>	8.8 (3.9 - 14.0)	3.3 (1.5 - 5.1)	3.2 (88 reported)	707	407
<b>Previous week</b>	10.2 (4.8 - 15.7)	3.9 (1.7 - 7.8)	4.9 (107 reported)	788	467

\*“Flu admits” are present year-round because of baseline pneumonia admissions, with an estimated baseline rate for the off-season of approximately 3-5%

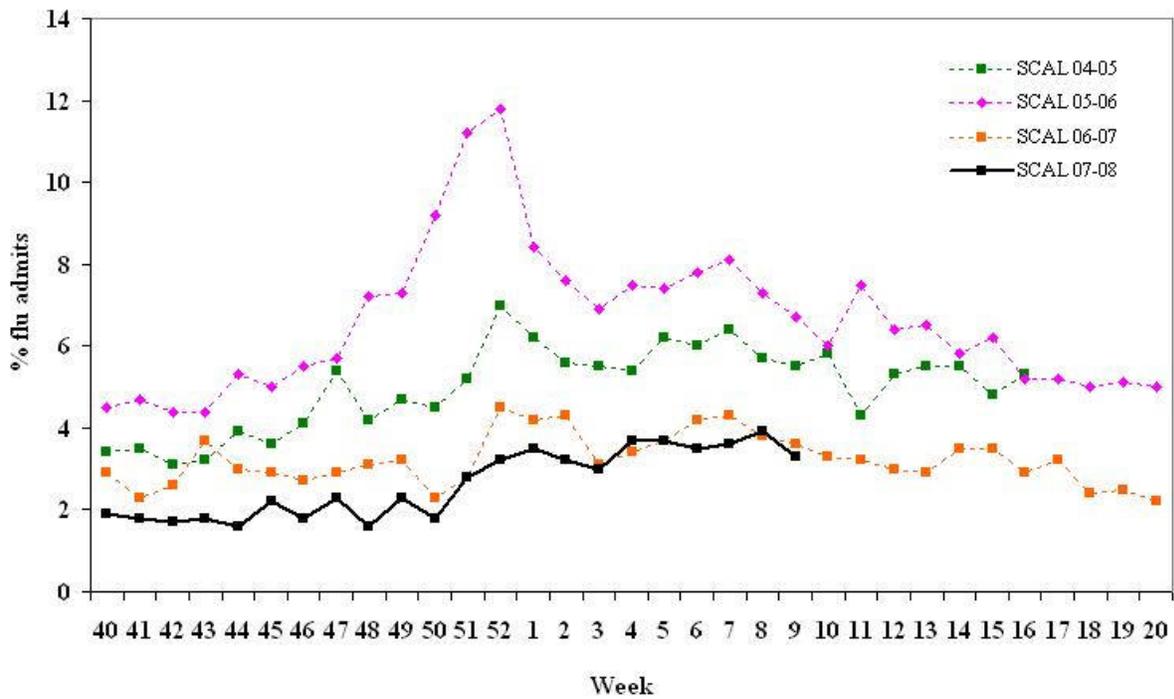
‡The percentage of outpatient visits for influenza-like illness (ILI) is calculated by dividing the number of ILI visits by the total number of outpatient visits per week

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

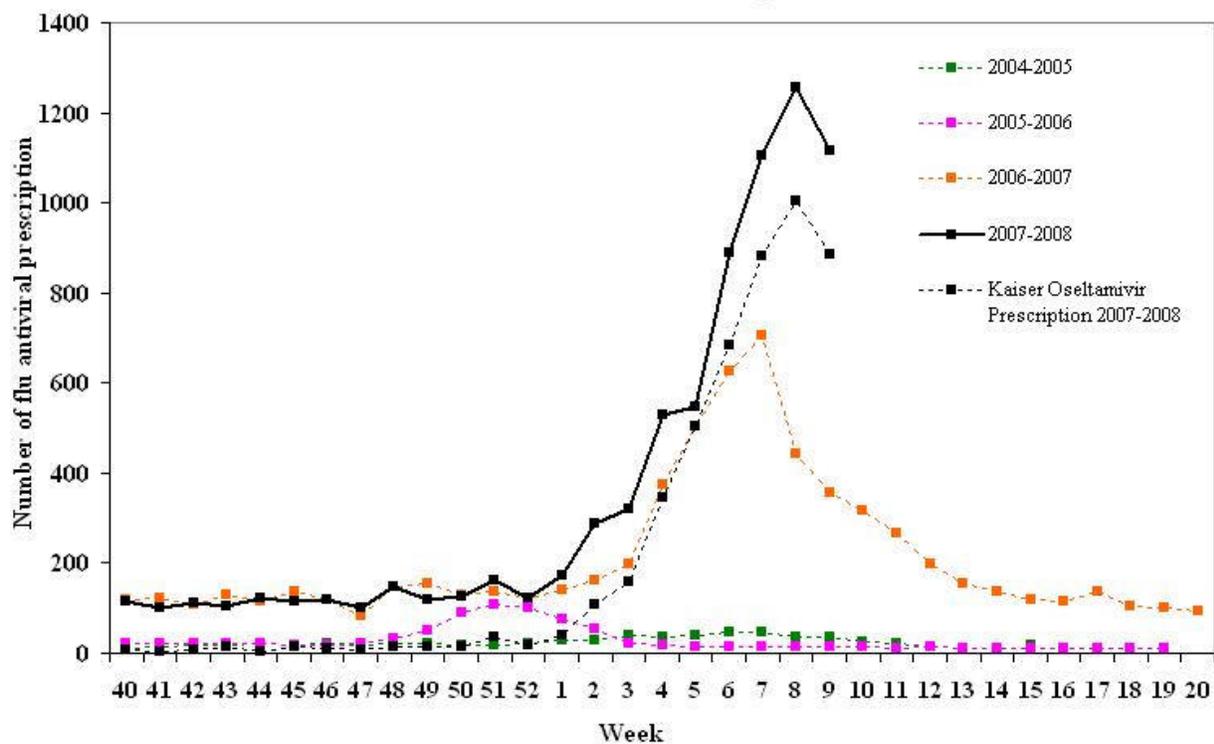
### Inpatient "Flu" Admissions 2004-2008 Northern California Kaiser



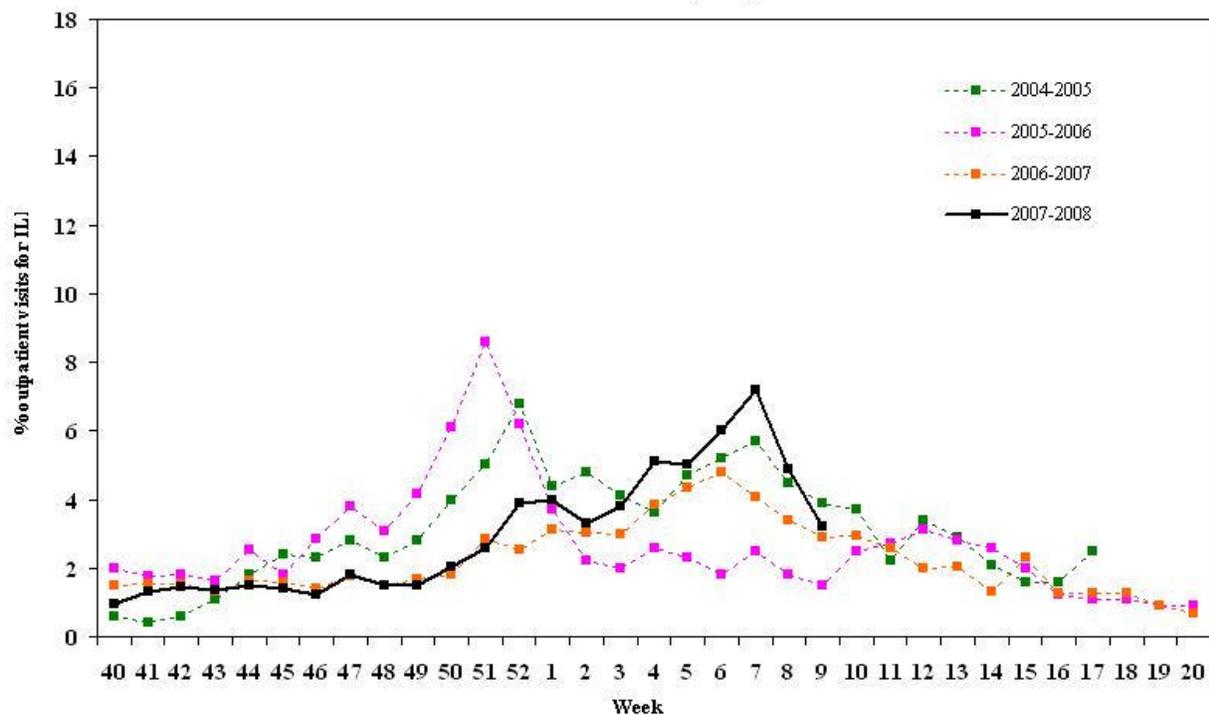
### Inpatient "Flu" Admissions 2004-2008 Southern California Kaiser



## Kaiser Pharmacy Data Influenza Antiviral Usage 2004-2008



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



**Laboratory Data (viral isolation and detection):**

Please note: for the 2007-2008 season, sentinel laboratory and the respiratory laboratory network data will be combined.

		Sentinel Laboratories/Respiratory Laboratory Network <sup>‡</sup>	Sentinel Providers
<b>Week 9</b>	<b>Number of Sites Reporting</b>	16	535 specimens submitted through week 9 (301 positive by culture, 52 pending)
	<b>Influenza A</b>	530 <sup>a</sup> Total to date: 5171	209
	<b>Influenza B</b>	364 <sup>b</sup> Total to date: 2912	72
	<b>Influenza A/B</b>	0 <sup>c0</sup> Total to date: 9	0
	<b>RSV</b>	263 <sup>c</sup> Total to date: 6099	1
	<b>Other Respiratory Viruses</b>	10 <sup>d</sup> Total to date: 217	19 <sup>e</sup>

<sup>‡</sup>Sentinel laboratories are hospital, academic, private and public health laboratories located throughout California that give 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 offers 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.

<sup>a</sup>Alameda (73); Contra Costa (36); Fresno (54); Kings (1); Los Angeles (20); Madera (2); Marin (11); Merced (2); Monterey (4); Napa (2); Orange (9); Placer (8); Riverside (1); Sacramento (60); San Diego (45); San Francisco (24); San Joaquin (17); San Mateo (28); Santa Barbara (1); Santa Clara (58); Solano (32); Sonoma (31); Stanislaus (7); Tulare (1); Yolo (1); Unknown (2)

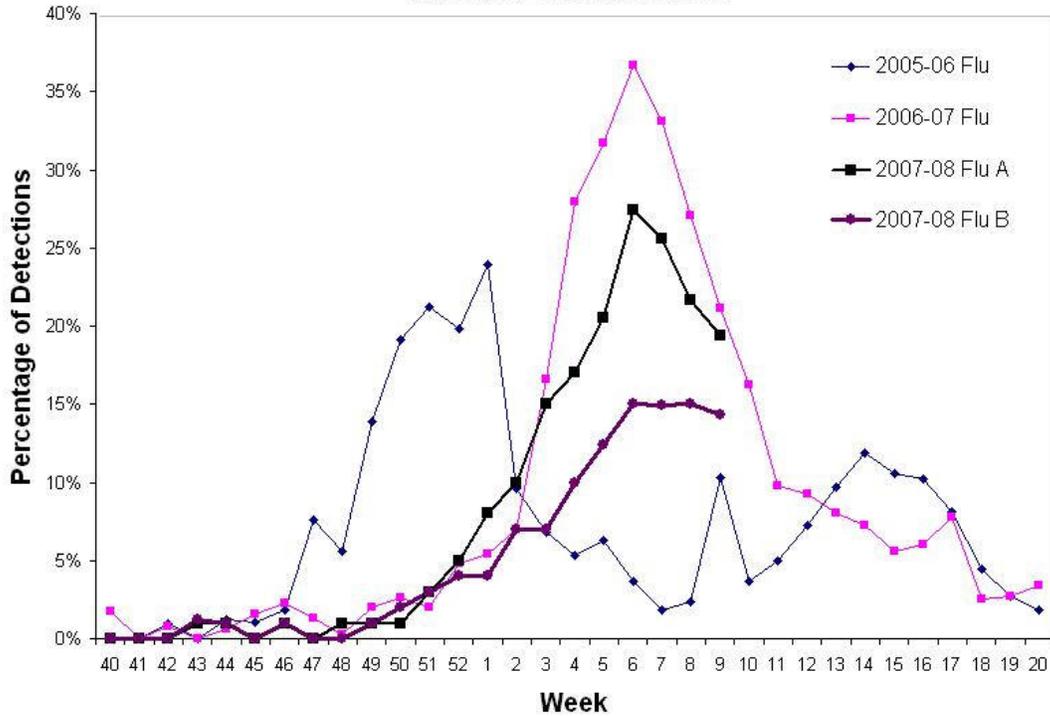
<sup>b</sup>Alameda (55); Contra Costa (31); Fresno (12); Kern (1); Los Angeles (8); Madera (1); Marin (12); Merced (1); Napa (4); Orange (9); Placer (9); Riverside (7); Sacramento (51); San Diego (31); San Francisco (19); San Joaquin (11); San Mateo (24); Santa Clara (34); Solano (26); Sonoma (11); Stanislaus (6); Yolo (1)

<sup>c</sup> Alameda (21);Contra Costa (18); Fresno (24); Kern (1); Kings (1); Los Angeles (46); Madera (1); Marin (3); Merced (3); Monterey (1); Napa (5); Orange (2); Placer (12); Riverside (4); Sacramento (43); San Benito (1); San Francisco (6); San Joaquin (6); San Mateo (14); Santa Clara (20); Solano (16); Sonoma (9); Stanislaus (3); Tulare (1); Yolo (1); Unknown (1)

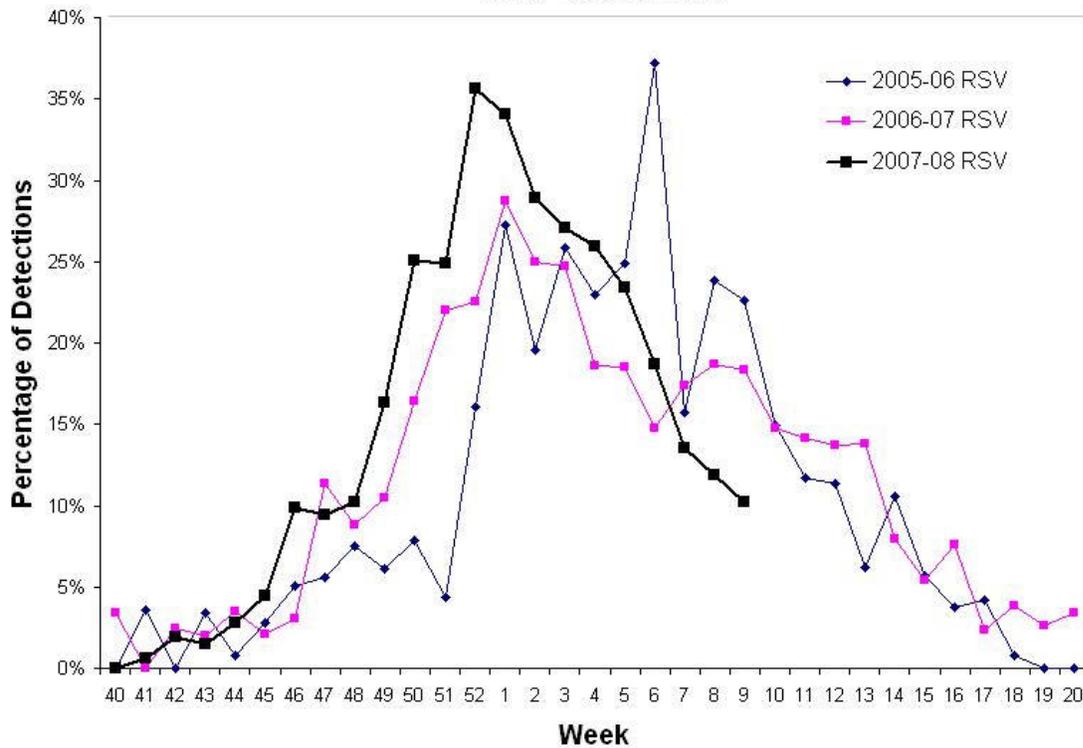
<sup>d</sup> adenovirus (1); human metapneumovirus (9)

<sup>e</sup> adenovirus (6); 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



### Sentinel Laboratories/Respiratory Laboratory Network RSV Detections



County Public Health Laboratories participating in RLN:

County Public Health Lab	PCR	R-mix
Alameda	X	
Contra Costa	X	
El Dorado		X
Fresno	X	X
Humboldt	X	
Imperial		X
Long Beach		X
Los Angeles	X	
Monterey	X	
Orange	X	X
Placer	X	X
Sacramento		X
San Bernardino	X	X
San Diego	X	X
San Francisco		X
San Joaquin	X	X
San Mateo		X
Santa Barbara		
Santa Clara	X	X
Shasta	X	X
Solano	X	X
Sonoma		X
Stanislaus		X
Tulare		X
Ventura		X

Influenza Antigenic Characterization Season 2007-08 (Week 4):

**VRDL Influenza Antigenic Characterization  
Season 2007-08 (Week 4)**

	Number typed	Subtype	#	Strain type
<b>A</b>	23			
	13	H1	13	A/Solomon Islands/03/06 *
	10	H3N2	3	A/Wisconsin/67/2005 *
			7	A/Brisbane/10/2007
<b>B</b>	12		3	B/Ohio/1/05 Victoria lineage *
			9	B/Florida/4/06 Yamagata lineage

\*match components of 2007-08 for the Northern Hemisphere influenza vaccine  
Note: Graph does not reflect current type & subtype proportions of circulating strains.

### 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; the data is collected from over 50 hospital clients, including district, county, independent, non profit, for-profit, and academic hospitals, as well as trauma centers. 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
7	5.8	6.3	5.8	5.3
Previous Week	5.5	5.9	5.1	5.2

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

### Antiviral Resistance Testing:

To date this season, 19 influenza-confirmed specimens have been tested for antiviral resistance. 100% (7/7) of influenza A/H3 specimens and none (0/12) of influenza A/H1 specimens have had the S31N mutation consistent with adamantane resistance. No mutations consistent with resistance to the neuraminidase inhibitors in either A/H3 or A/H1 viruses have been identified.

Somayeh Honarmand, MS  
Viral and Rickettsial Disease Laboratory  
California Department of Public Health  
850 Marina Bay Parkway  
Richmond, CA 94804  
Fax: (510) 307-8599  
[somayeh.honarmand@cdph.ca.gov](mailto:somayeh.honarmand@cdph.ca.gov)

Erica Boston  
Viral and Rickettsial Disease Laboratory  
California Department of Public Health  
850 Marina Bay Parkway  
Richmond, CA 94804  
Fax: (510) 307-8599  
[erica.boston@cdph.ca.gov](mailto:erica.boston@cdph.ca.gov)

This report of influenza surveillance from the Division of Communicable Disease Control of the California Department of Health Services is intended for the use of local health departments and contributing health care providers, should be considered privileged, and **not distributed** further.