

California Influenza Surveillance Project

Viral and Rickettsial Disease Laboratory

2008-2009

Influenza Update – Week 51 (December 14 – December 20, 2008)

Recently, a Health Advisory was issued by the CDC providing interim recommendations for use of antiviral medications given the observation of high levels of resistance to oseltamivir in influenza A/subtype H1 viral isolates. While the data is preliminary and the number of influenza viruses tested is small, CDC has recommended that when influenza A (H1N1) virus infection or exposure is suspected, zanamivir or a combination of oseltamivir and rimantadine should be used. Because determination of subtype (H1 versus H3) is often not available at point-of-care testing, these recommendations can be applied to any situation where influenza A infection is suspected but subtype is not known. Oseltamivir is still recommended for influenza B infection. In some counties, subtyping may be available at local public health laboratories. Identification of subtype following confirmation of influenza A infection may be very useful in situations such as institutional outbreaks (e.g. long term care facilities or prisons), where implementation of mass treatment or chemoprophylaxis with antivirals is considered.

Throughout the season the CDPH Viral and Rickettsial Disease Laboratory will continue to perform surveillance and laboratory characterization for influenza, including subtyping, strain-typing and antiviral resistance testing. We will provide further local information about circulating subtypes and antiviral resistance once influenza activity increases. We encourage submission of influenza specimens from outbreaks and hospitalized cases of severe influenza. A copy of the CDC Health Advisory is attached.

California Influenza Activity

- Influenza activity, including sentinel provider outpatient influenza-like illnesses (ILI), Kaiser Permanente P&I (pneumonia and influenza) hospitalizations and influenza laboratory tests in both Northern and Southern California, remained sporadic (defined by the CDC as “Isolated cases of lab confirmed influenza in the state, but ILI activity is not increased”).

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

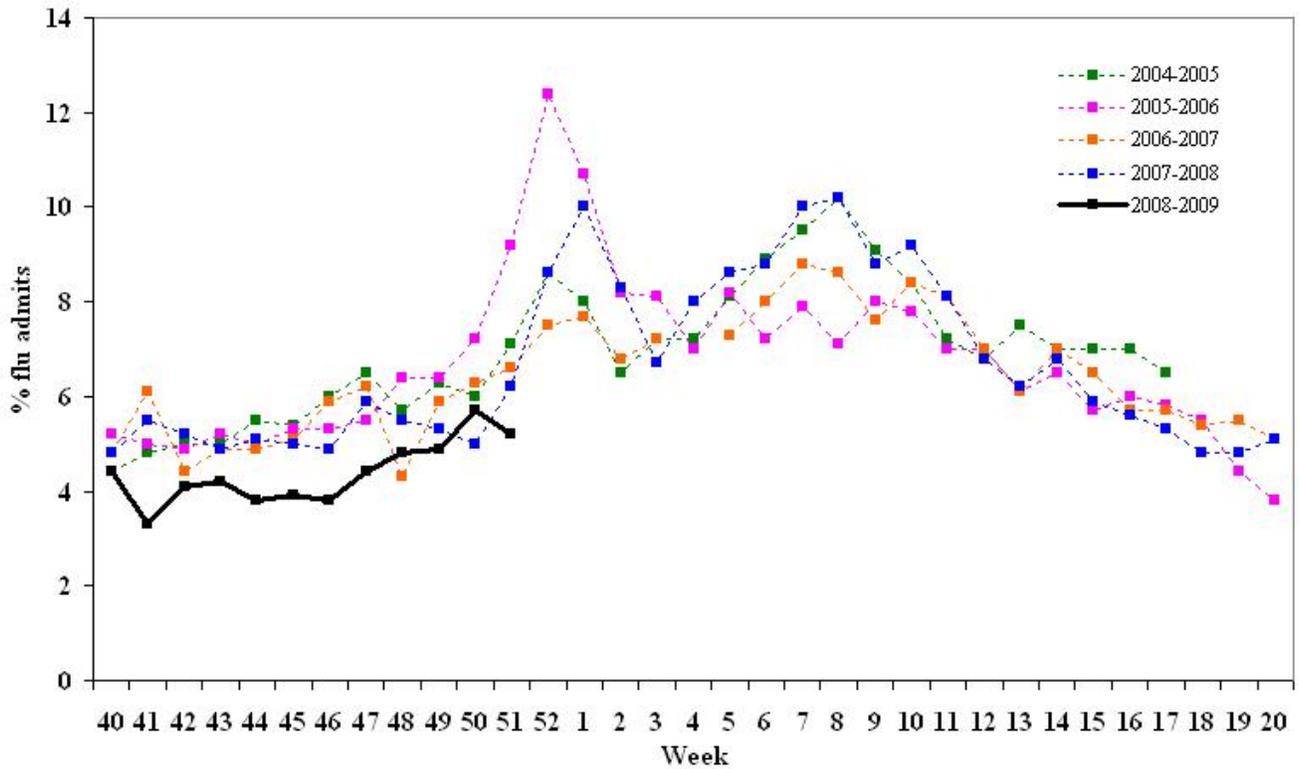
Week	Kaiser Inpatient Data % (range)*		Outpatient ILI Data %(# reported)‡	Kaiser Antiviral Data§	
	Northern CA	Southern CA		Northern CA	Southern CA
51	5.2 (3.2–9.2)	1.9 (0.6–3.7)	1.6 (63 reported)	63	61
Previous week	5.7 (0.8–8.9)	2.0 (0.0–5.0)	1.6 (99 reported)	62	56

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

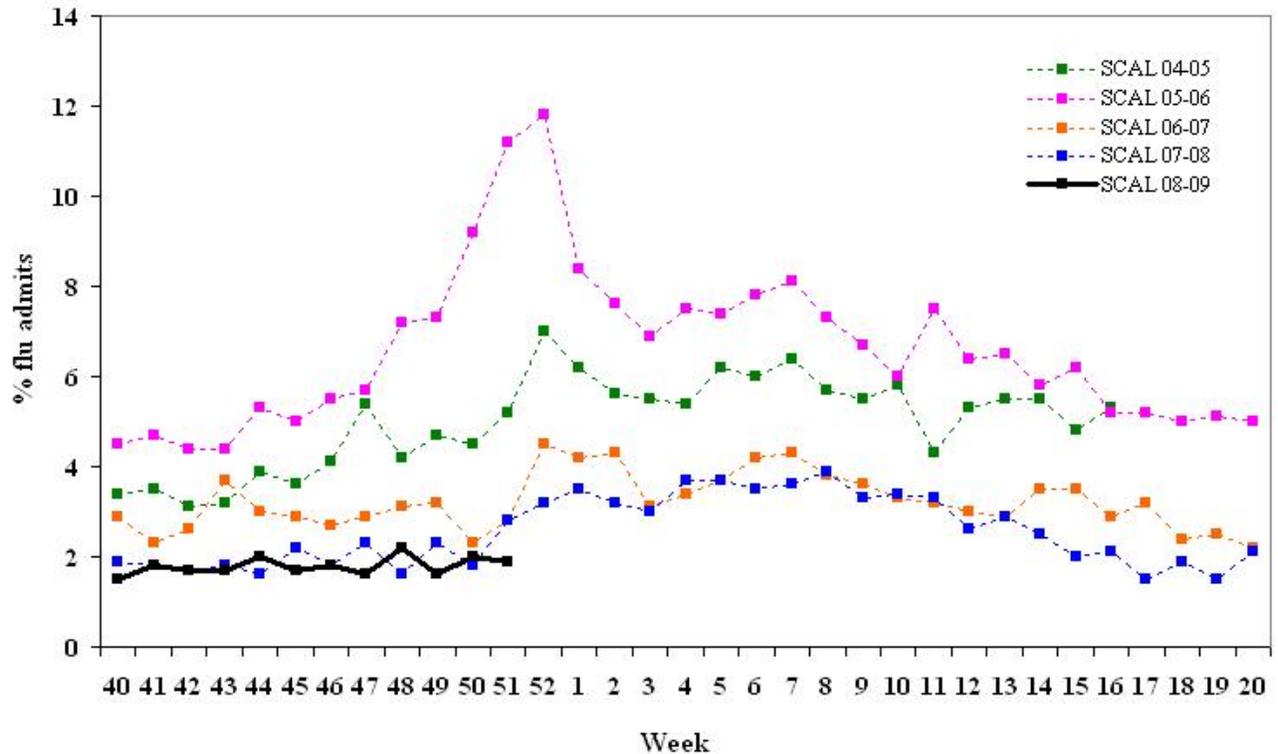
‡ The percentage of outpatient visits for influenza-like illness (ILI) is calculated by dividing the number of ILI visits by the total number of outpatient visits per week

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

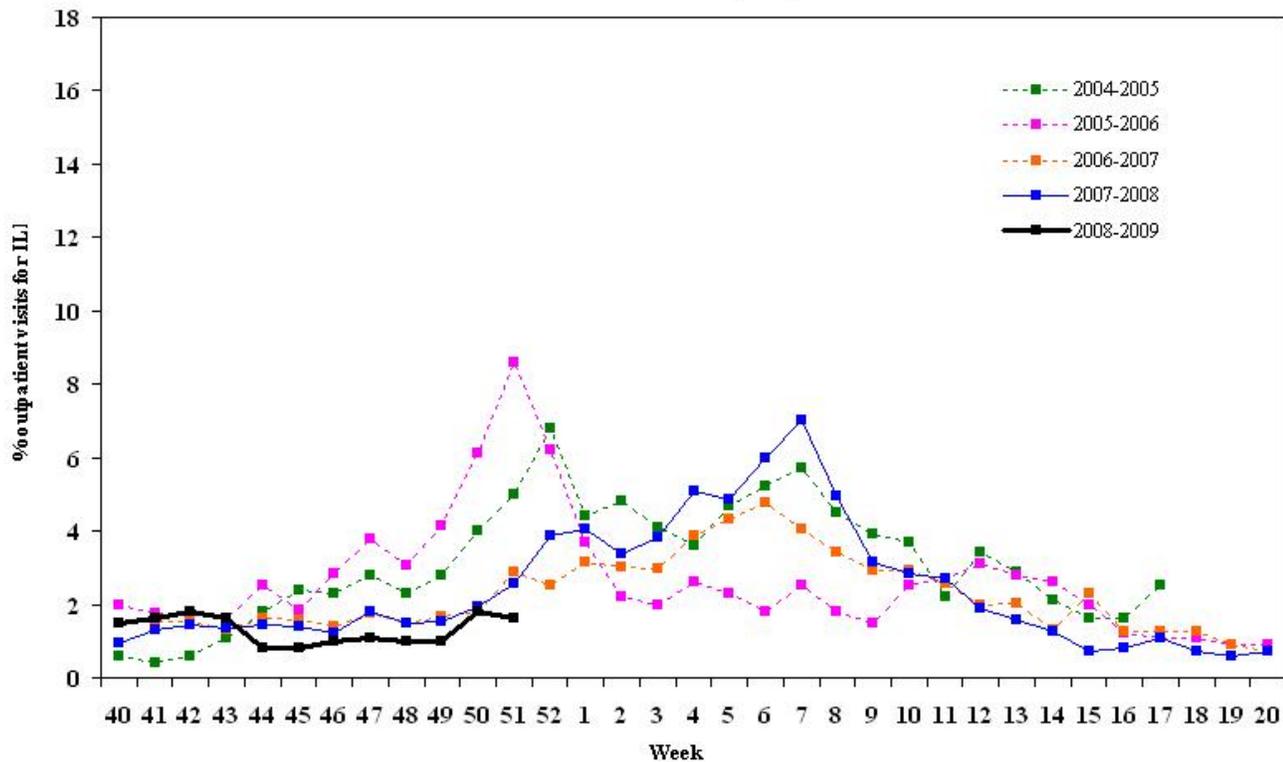
Inpatient "Flu" Admissions 2004-2009 Northern California Kaiser



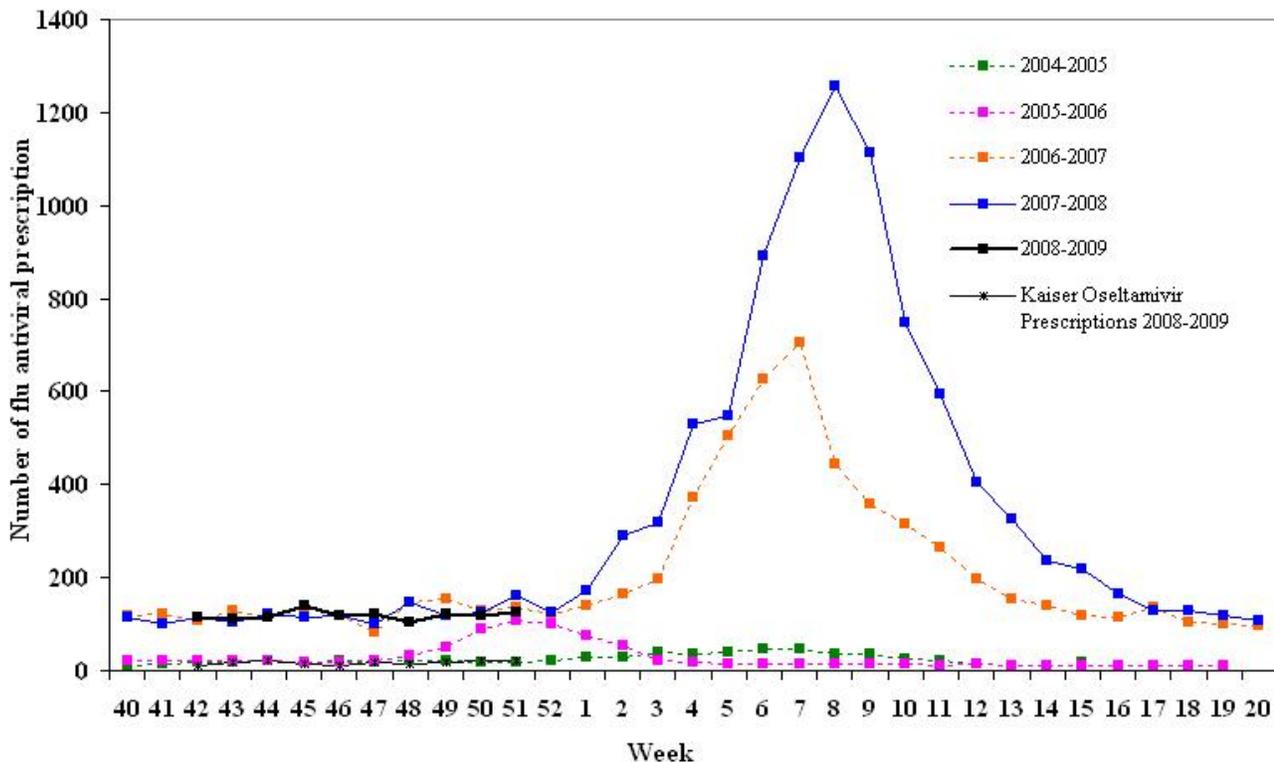
Inpatient "Flu" Admissions 2004-2009 Southern California Kaiser



California Sentinel Providers Influenza-Like Illness (ILI) Visits 2004-2009



Kaiser Pharmacy Data Influenza Antiviral Usage 2004-2009



Laboratory Data (viral isolation and detection)

		Sentinel Laboratories/Respiratory Laboratory Network[‡]	Sentinel Providers
Week 51	Number of Sites Reporting	26	54 specimens submitted through week 51 (14 pending, 2 positive by PCR)
	Influenza A	11 ^a Total to date: 40	1
	Influenza B	3 ^b Total to date: 13	1
	Influenza A/B	0 Total to date: 0	0
	RSV	271 ^c Total to date: 804	0
	Other Respiratory Viruses	2 ^d Total to date: 71	0

[‡]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 23 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.

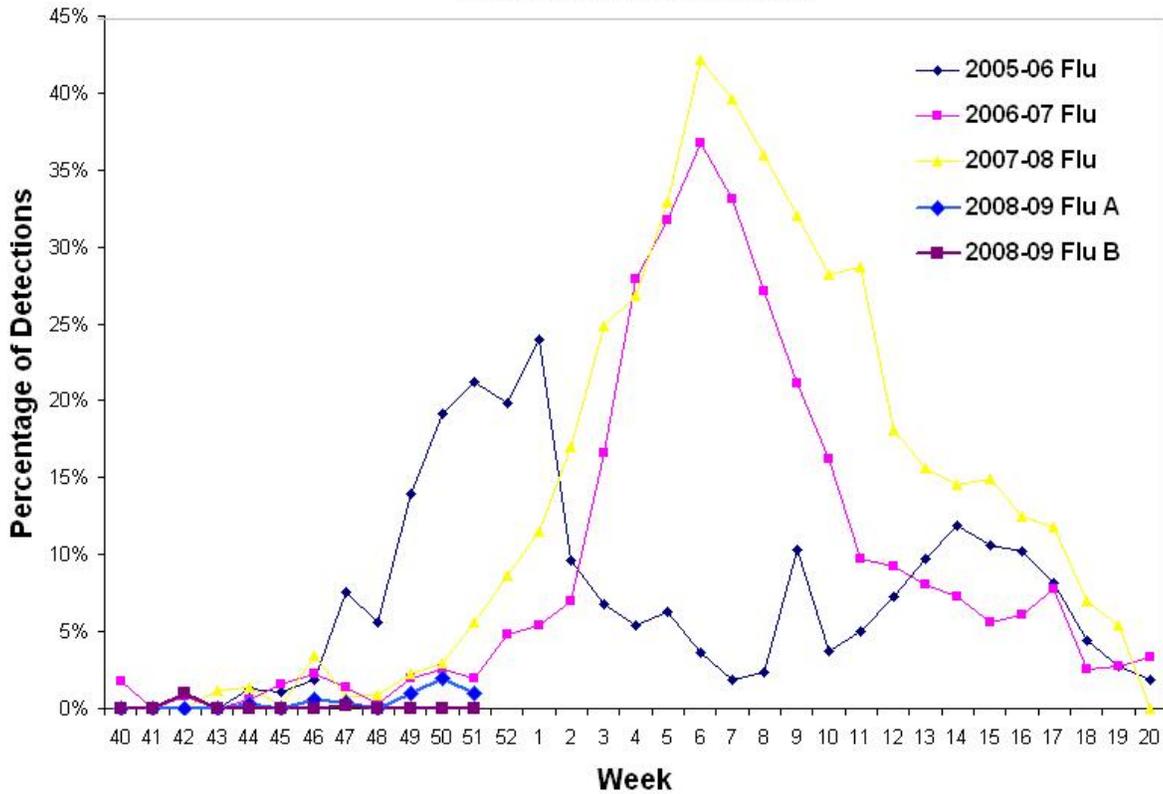
^a Alameda (1); Contra Costa (1); Long Beach (1); Sacramento (2); San Diego (1); San Francisco (1); San Mateo (2); Sonoma (2)

^b Napa (1); Sacramento (1); Sonoma (1)

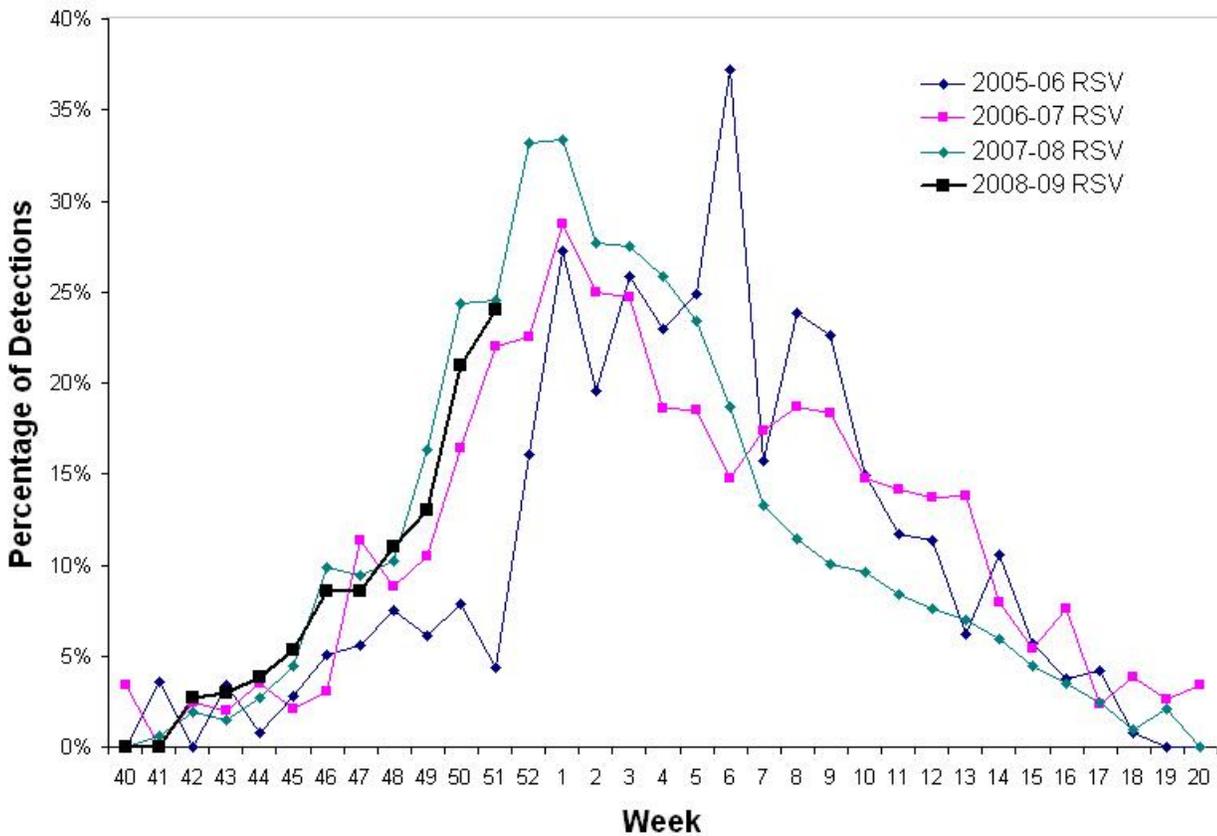
^c Alameda (53); Contra Costa (17); Fresno (2); Kern (1); Long Beach (23); Los Angeles (12); Marin (4); Merced (1); Monterey (1); Placer (2); Sacramento (14); San Bernardino (1); San Diego (10); San Francisco (15); San Joaquin (9); San Mateo (22); Santa Clara (71); Solano (8); Sonoma (2); Stanislaus (2); Unknown (1)

^d parainfluenza type 2 (2)

Sentinel Laboratories/Respiratory Laboratory Network Influenza Detections



Sentinel Laboratories/Respiratory Laboratory Network RSV Detections



Respiratory Laboratory Network:

County Name	Rmix	PCR
Alameda	X	X
El Dorado	X	X
Contra Costa		X
Fresno	X	X
Humboldt		X
Imperial	X	
Long Beach	X	
Los Angeles	X	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
Santa Clara	X	X
Shasta	X	X
Solano	X	X
Sonoma	X	
Stanislaus	X	
Tulare	X	
Ventura	X	
VRDL	X	X

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) or Janice Louie (janice.louie@cdph.ca.gov).