

The California Influenza Surveillance Project

Summary 2002-2003

The California Influenza Surveillance Project conducts statewide influenza surveillance year-round. Weekly updates of the website occur during influenza season and will resume after week 40, 2003. Please see the previous page for general descriptions of each of the surveillance methods. The data described below is for the 2002-2003 season and includes data through week 17.

Overall, influenza activity in the 2002-2003 influenza season was similar to that seen in 2001-2002.

Kaiser Inpatient Data (Figures 1 and 2)

The percent of Northern California (NCAL) inpatient admissions for flu (“influenza”, “pneumonia”, and “flu”) began to increase in week 48 (11/24-11/30/02) and had a small peak in week 1 (12/29/02-1/4/03) at 7.7%. NCAL admissions decreased slightly over the next few weeks and then peaked again in week 6 (02/02/03-02/08/03) at 9%. NCAL admissions continued at or above 8% through week 11 (3/9/03-3/15/03) and then have been decreasing ever since. NCAL admissions were near baseline levels at 5.1% during week 17 (4/20-4/26/03). The percent of Southern California (SCAL) inpatient admissions for flu began to increase slowly in week 45 (11/03/02-11/09/02) and then increased more dramatically after week 51 (12/15/02-12/21/02) to a peak of 7.9% in week 1. SCAL admissions had a small peak again at 6.7% in week 8 (2/17-2/22/03) and then decreased slowly over the next several weeks to baseline levels after week 15 (4/06/03-4/12/03).

The overall timing and magnitude of flu admissions in NCAL in the 2002-2003 season was similar to what was seen in 2001-2002. However, SCAL flu admissions were lighter in the second half of the 2002-2003 season compared to 2001-2002. This may in part be due to differences in the number of sites reporting from SCAL this season (11 versus 4 last year).

Figure 1

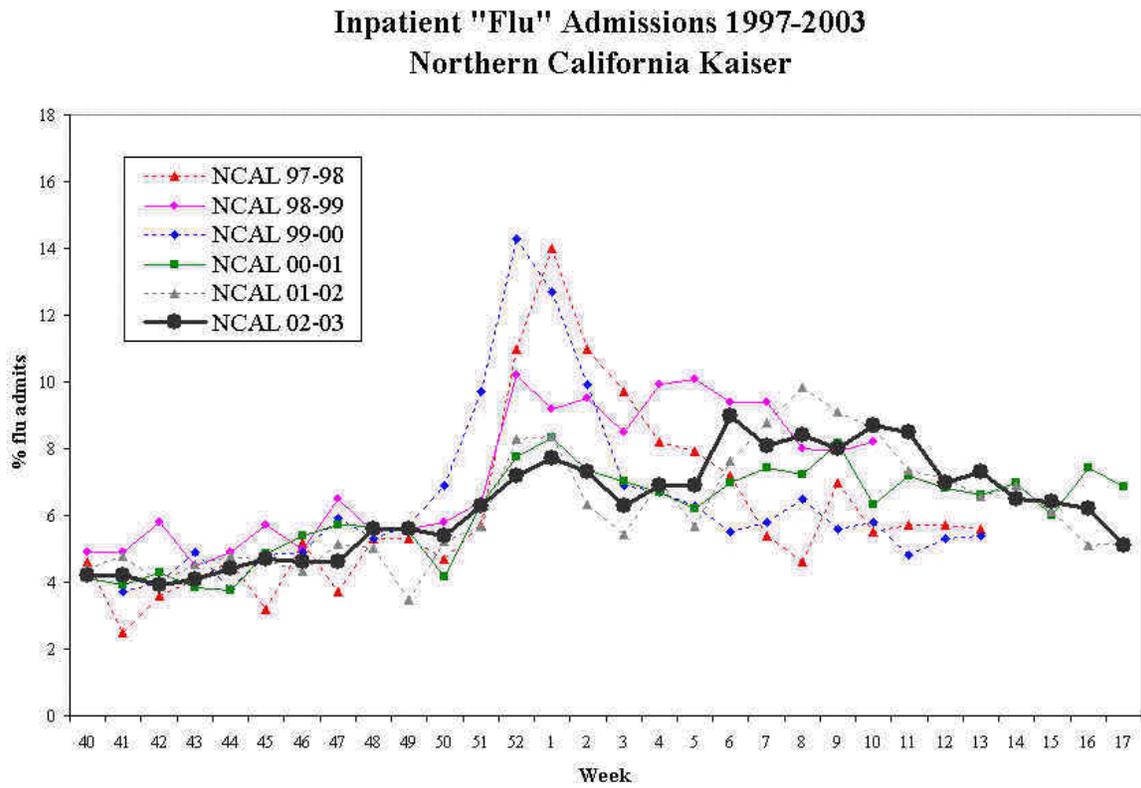
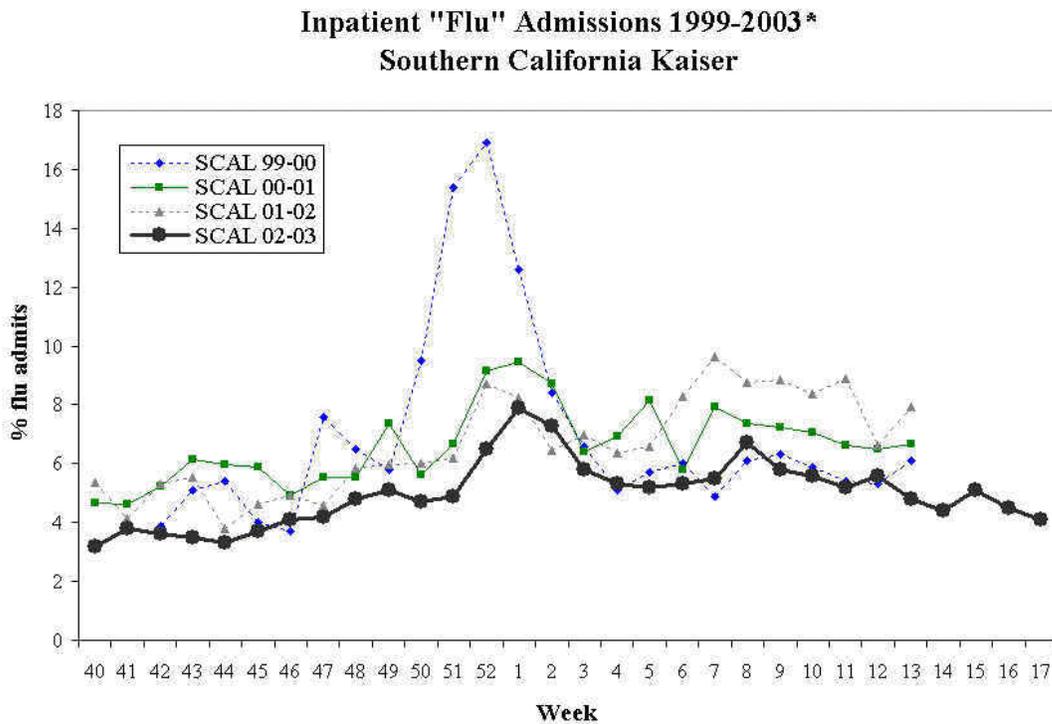


Figure 2

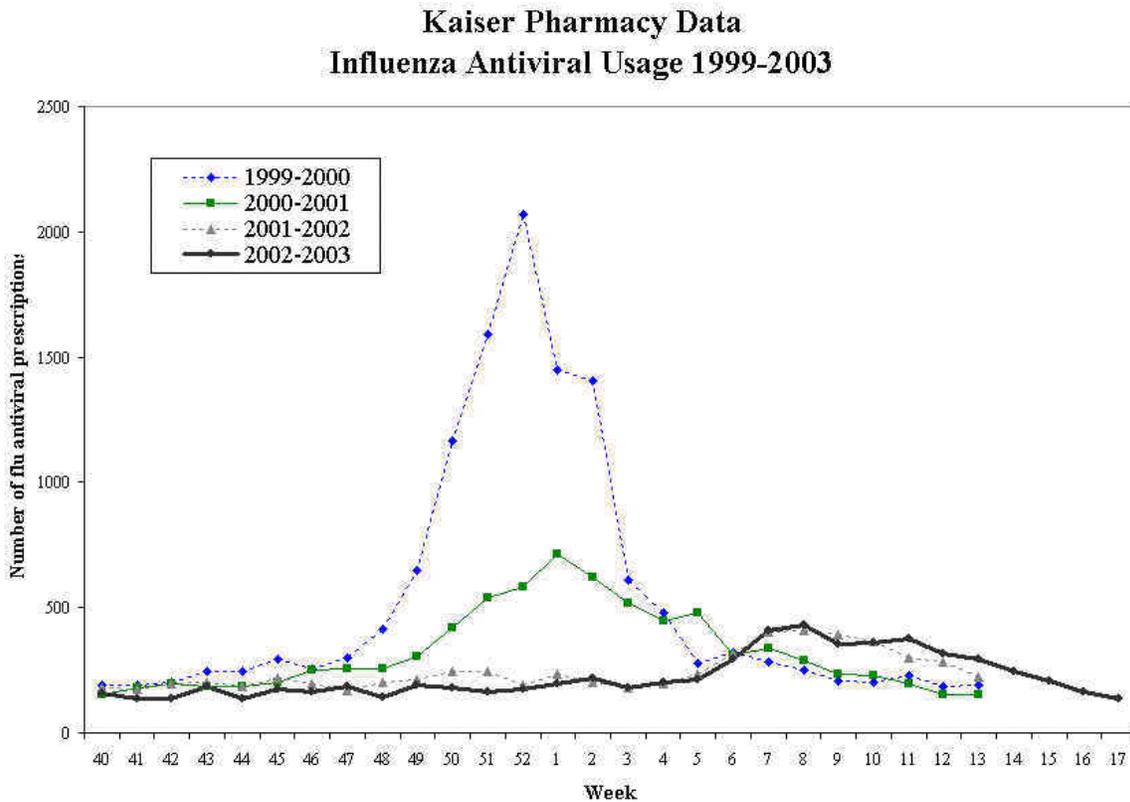


*Note: data from SCAL 02-03 includes data from 11 sites, compared to 4 sites in 00-01 and 01-02, and 3 sites in 99-00

Pharmacy Data (Kaiser-specific) (Figure 3)

The number of NCAL antiviral prescriptions for amantadine, rimantadine, oseltamivir and zanamivir remained at baseline levels until week 6 (2/02-2/08/03) and then peaked at 216 in week 11 (3/9/03-3/15/03). The number of SCAL prescriptions was consistently elevated after week 52 (12/22/02-12/28/02) then peaked at 327 in week 8. Overall, the timing and magnitude of antiviral usage for influenza was similar in 2002-2003 to that seen in 2001-2002.

Figure 3

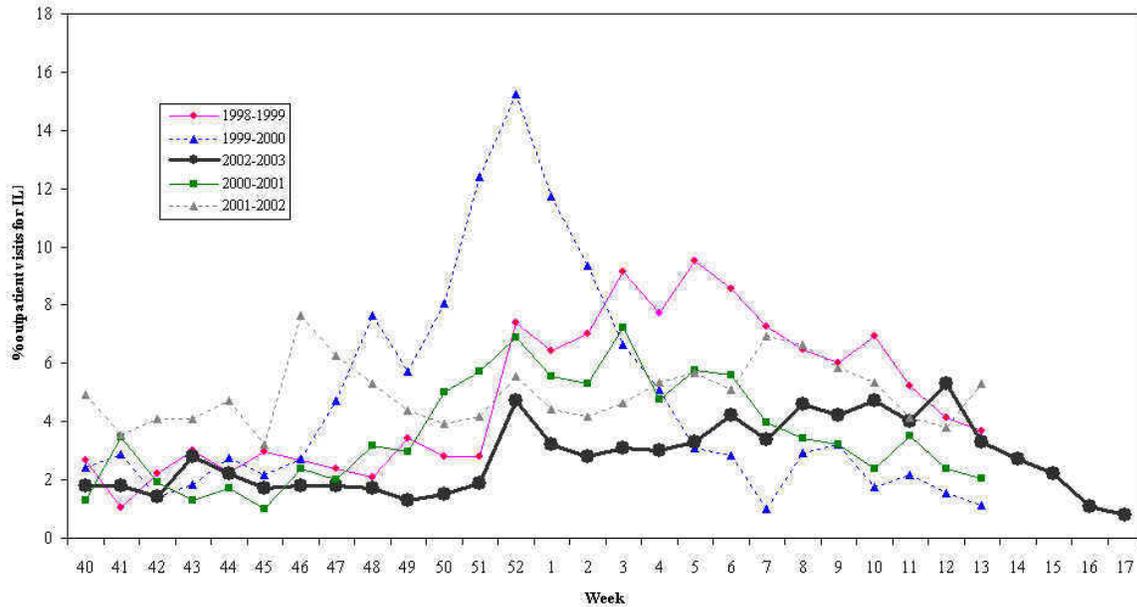


Sentinel Physicians (Figure 4)

The percent of outpatient visits for influenza-like illnesses (ILI) increased in week 52 and remained above baseline until beginning to decrease after week 12. The highest percent of ILI visits was 5.3% in week 12 (3/16-3/22/03). Overall, the magnitude of ILI visits in 2002-2003 was less than that reported in the 2001-2002 season.

Figure 4

**California Sentinel Physicians
Influenza-Like Illness (ILI) Visits 1998-2003**



Respiratory Virus Isolation/Detection Data (Figure 5 and Figure 6)

During the 2002-2003 influenza season, CISP received weekly reports of detections and isolations of influenza and other respiratory viruses from an average of 18 participating sites, including hospital, academic and private laboratories, situated throughout California. Also, influenza isolates were requested from our participating sites for detailed antigenic and genetic characterization. Selected isolates were forwarded to CDC for confirmation and further analysis.

The number of total influenza detections (A & B) reached its highest value (171) during week 9 (2/23-2/28/03) and then decreased steadily to less than baseline (5) during week 17. The number of influenza A detections peaked at 150 during week 9, while influenza B detections peaked at 30 during week 10 (3/02-3/08/03).

The cumulative total of influenza detections (1158) reported through week 17, was 95.5% of the total reported (1212) during the same period last season (2001-2002). Of the total influenza detections reported through week 17, 948 (82.7%) were type A and 210 (17.3%) were type B, compared with 79.6% type A and 20.4% type B during the 2001-02 season.

The number of RSV detections peaked at 375 in week 4 (1/19/03-1/25/03) and decreased to remain at 11 at week 17. The cumulative total of RSV detections (4034) reported through week 17 is 108.5 % of that reported over the same period last season (3725).

Figure 5

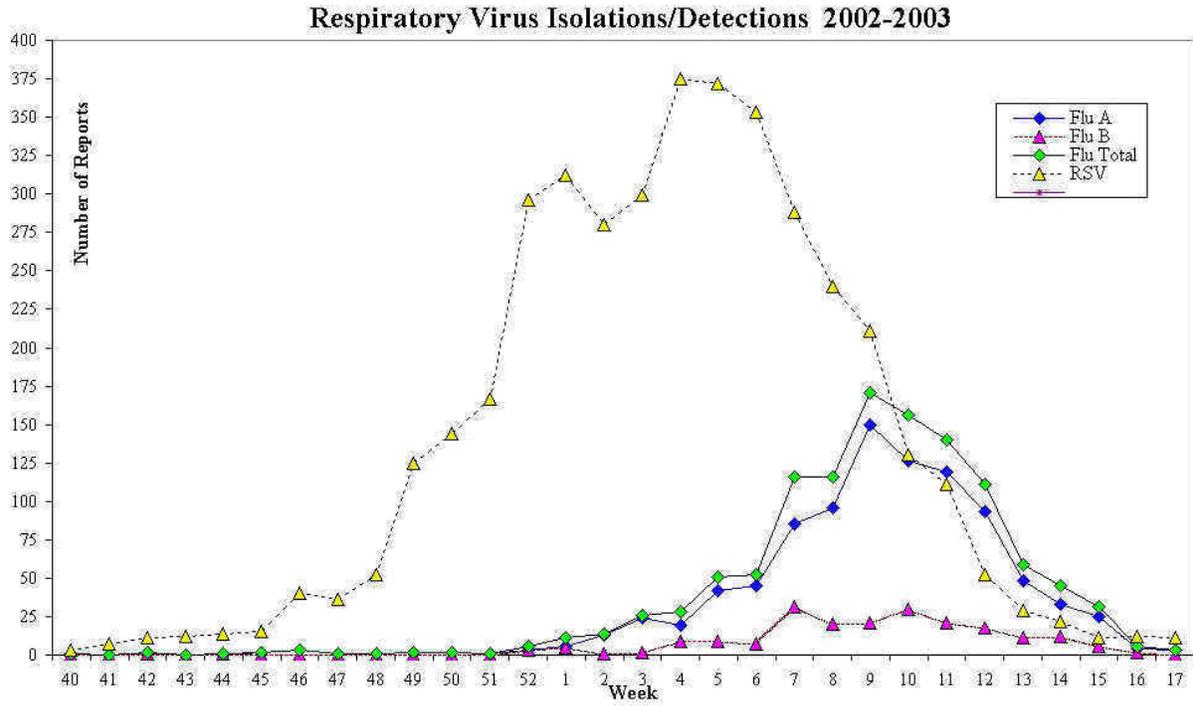
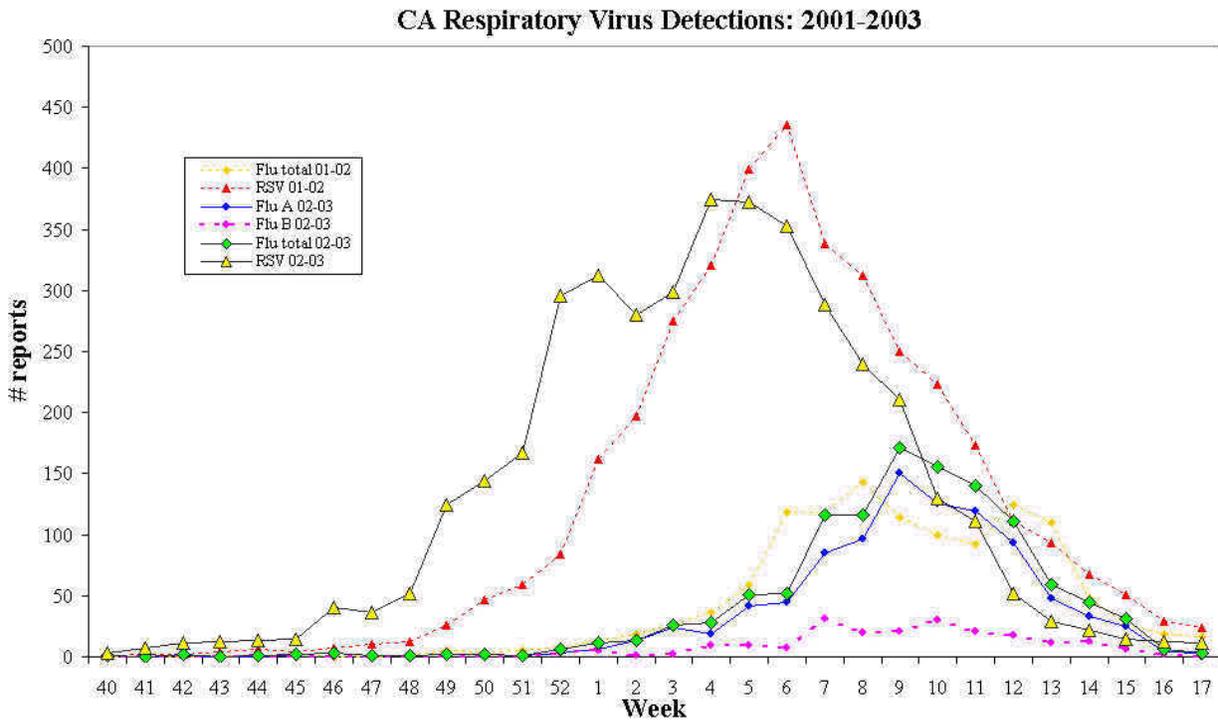


Figure 6



Antigenic Characterization of Influenza Isolates (Table 1)

To date, 170 influenza isolates have been characterized antigenically by hemagglutination inhibition assay (HIA) at CDHS Viral and Rickettsial Diseases Laboratory. One hundred and thirteen type A (eighty-nine H1 and twenty-four H3) isolates were characterized as A/New Caledonia/20/99-like and A/Panama/2007/99-like, respectively. Fifty-seven type B isolates have been characterized as B/Hong Kong/330/2001-like. All three strains correlate with components of the 2002-2003 season's influenza vaccine.

Table 1 (* =strains included in the 2002-2003 flu vaccine)

Influenza Virus	Number Typed	Subtype		Strain type
Influenza A Isolates for 2002-2003	113	Total		
	24	H3N2	0 24	A/Sydney/5/97 A/Panama/2007/99*
	89	H1	0 89	A/Bayern/7/95 A/New Caledonia/20/99*
Influenza B Isolates for 2002-2003	57	Total	0 57	B/Sichuan/379/99 B/Hong Kong/330/2001*