

The California Influenza Surveillance Project

2001-2001 Summary

The following information summarizes the statewide influenza surveillance from week 40 through week 13 of the 2000-2001 influenza season. In general, influenza activity began increasing after week 45, peaked in weeks 1-3 and gradually declined thereafter. Overall, influenza activity was milder and peaked later than in the 1999-2000 season, with greater fluctuations and a slower return to baseline. The following describes the 2000-2001 trends for each of the surveillance methods in more detail. Please see the previous page for general descriptions of each of the surveillance methods.

Kaiser Inpatient Data (Figure 1 and Figure 2)

During the 2000-2001 influenza season "flu admits" (admission diagnoses of pneumonia, influenza or influenza-like illness) "peaked" at week 1. During week 1, flu admits accounted for 8.3% of total admissions in Northern California and 9.5% of total admissions in Northern California. In Northern California, flu admits "peaked" again in week 9 at 8.2%. Overall, the magnitude of influenza activity was milder this year than for the 1999-2000 influenza season, with the maximal flu admission rates being 42% and 44% lower than last year's peaks of 14.3% and 16.9% in Northern and Southern California, respectively. However, flu admit rates in both Northern and Southern California were slower in returning to baseline this year.

Figure 1

**Inpatient "Flu" Admissions 1997-2001
Northern California Kaiser**

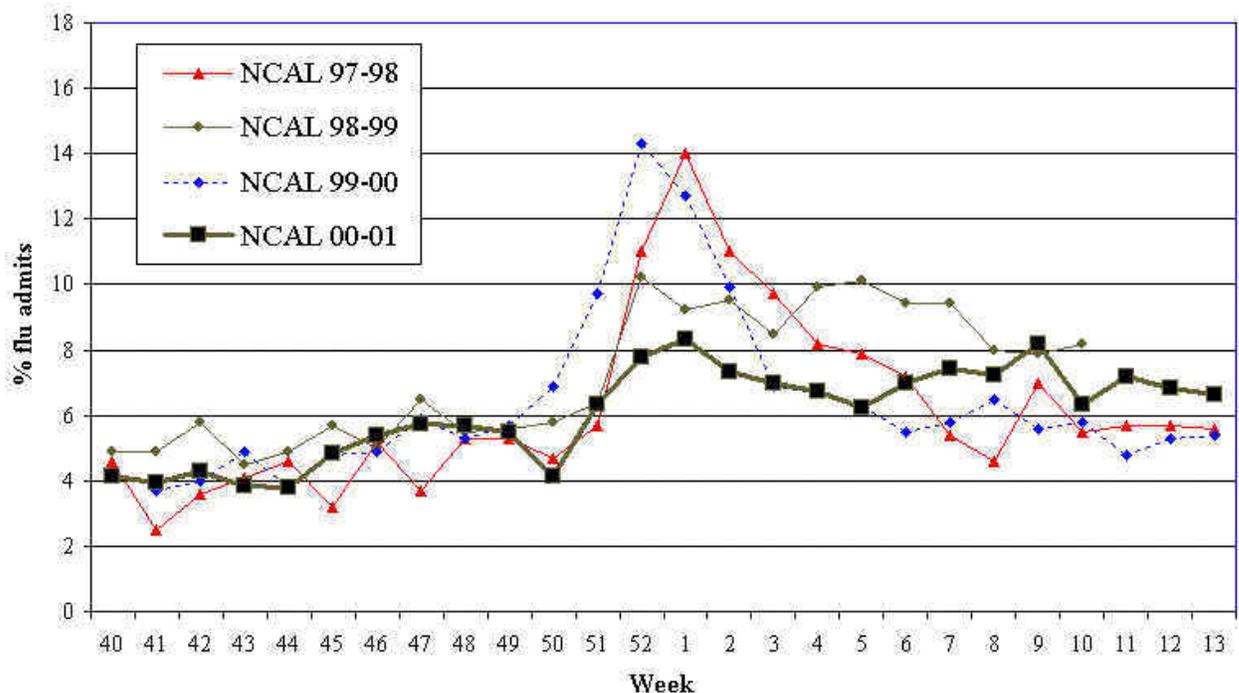
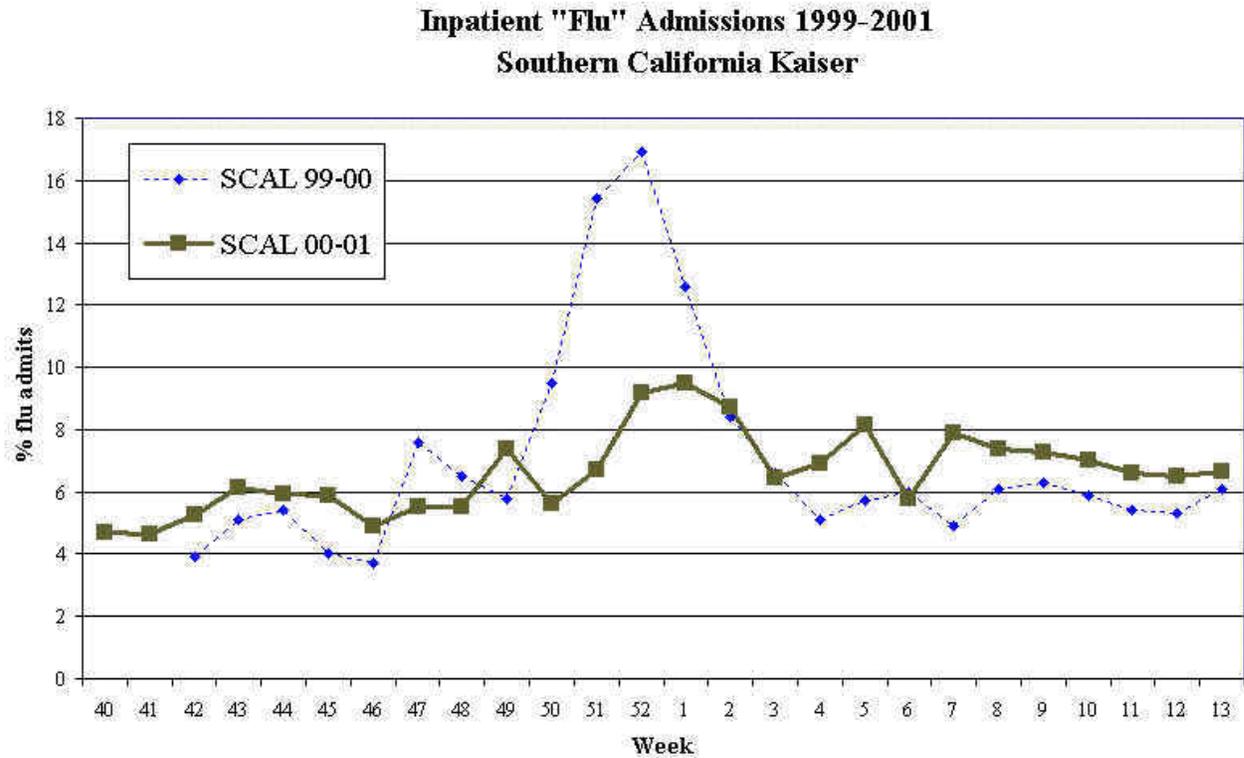


Figure 2



Pharmacy Data (Kaiser-specific) (Figure 3 and Figure 4)

During the 2000-2001 influenza season, the numbers of anti-viral prescriptions for influenza (amantidine, rimantidine, oseltamivir, and zanamivir) peaked at week 2 in Northern California and week 1 in Southern California. The maximum number of flu antiviral prescriptions filled in one week was 219 in Northern California and 517 in Southern California. Compared to the 1999-2000 influenza season, this year's peaks were 79% and 59% lower than last year's peaks of 1023 and 1269, respectively. The cumulative numbers of prescriptions above baseline were 16% and 52% of last year's totals in Northern and Southern California, respectively.

Figure 3

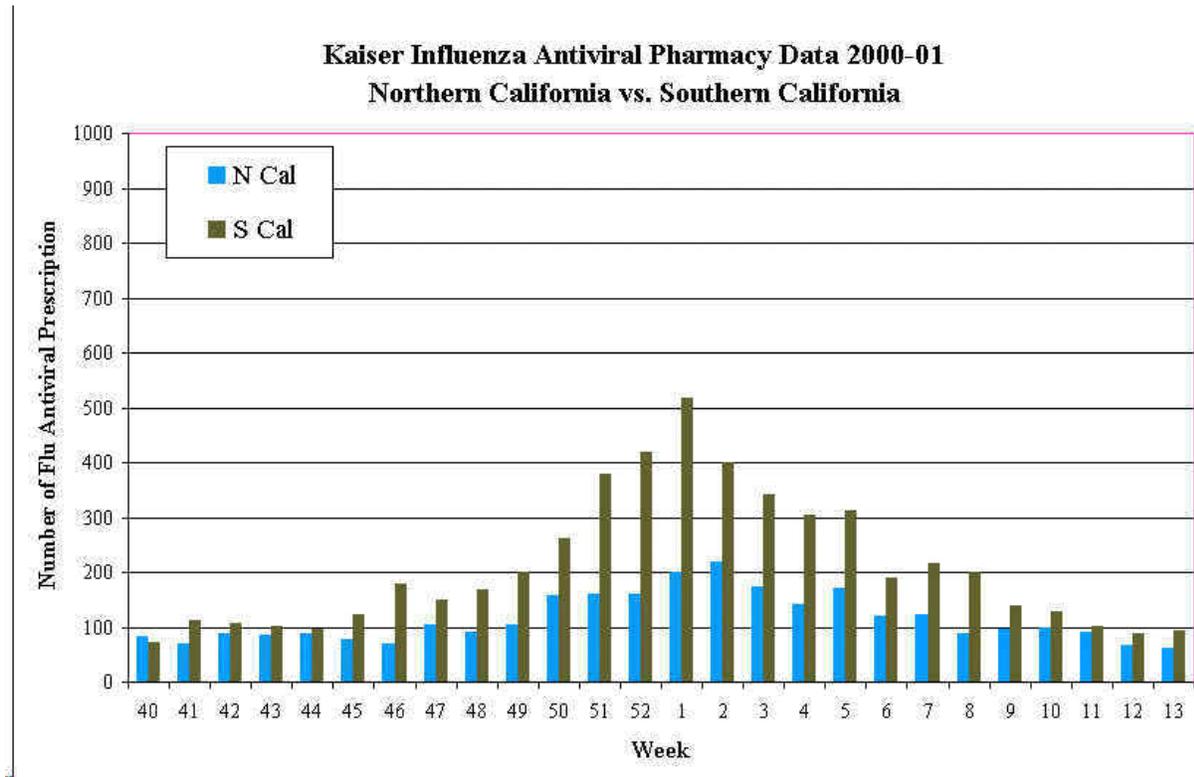
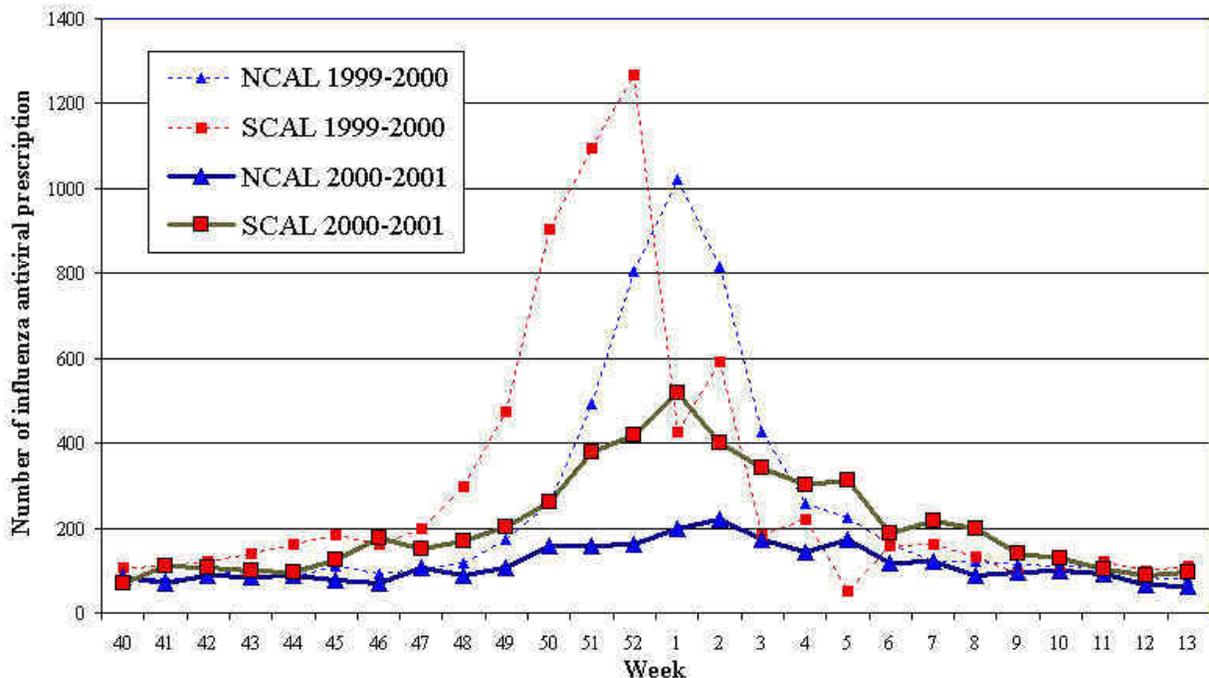


Figure 4

Kaiser Pharmacy Data
Influenza Antiviral Usage 1999-2001



CDC California Sentinel Physicians (Figure 5 and Figure 6)

During the 2000-2001 influenza season, 13 CDC sentinel physicians located throughout California reported the numbers of outpatient visits for influenza like illness (ILI) out of total visits for each week. ILI visit rates peaked at week 3 at 7.2%, which is 52% lower than the peak of 15.2% for week 52 during the 1999-2000 influenza season.

Non-CDC California Sentinel Physicians (Figure 5)

Twelve non-CDC sentinel physicians located throughout the state reported ILI visit rates for one day each week. Non-CDC ILI visit rates peaked at 16% at week 3. This was the first year for the non-CDC sentinel physician reporting program.

Figure 5

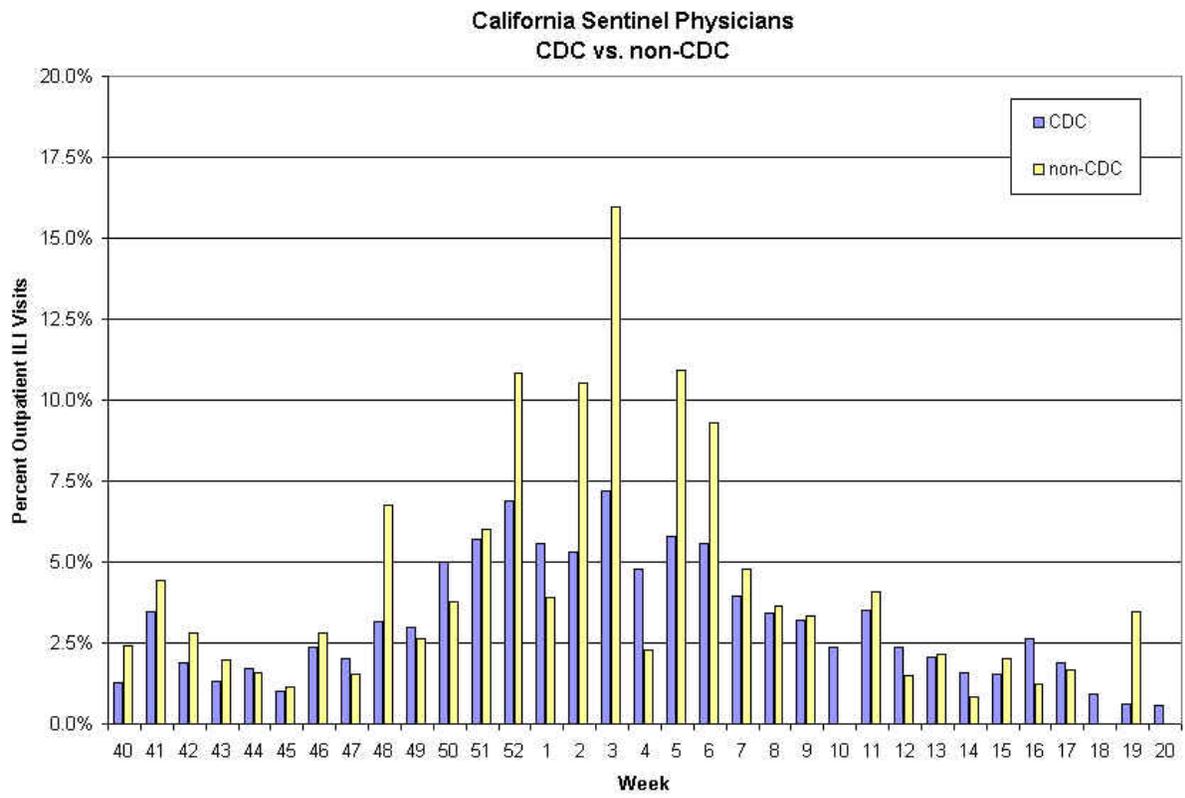
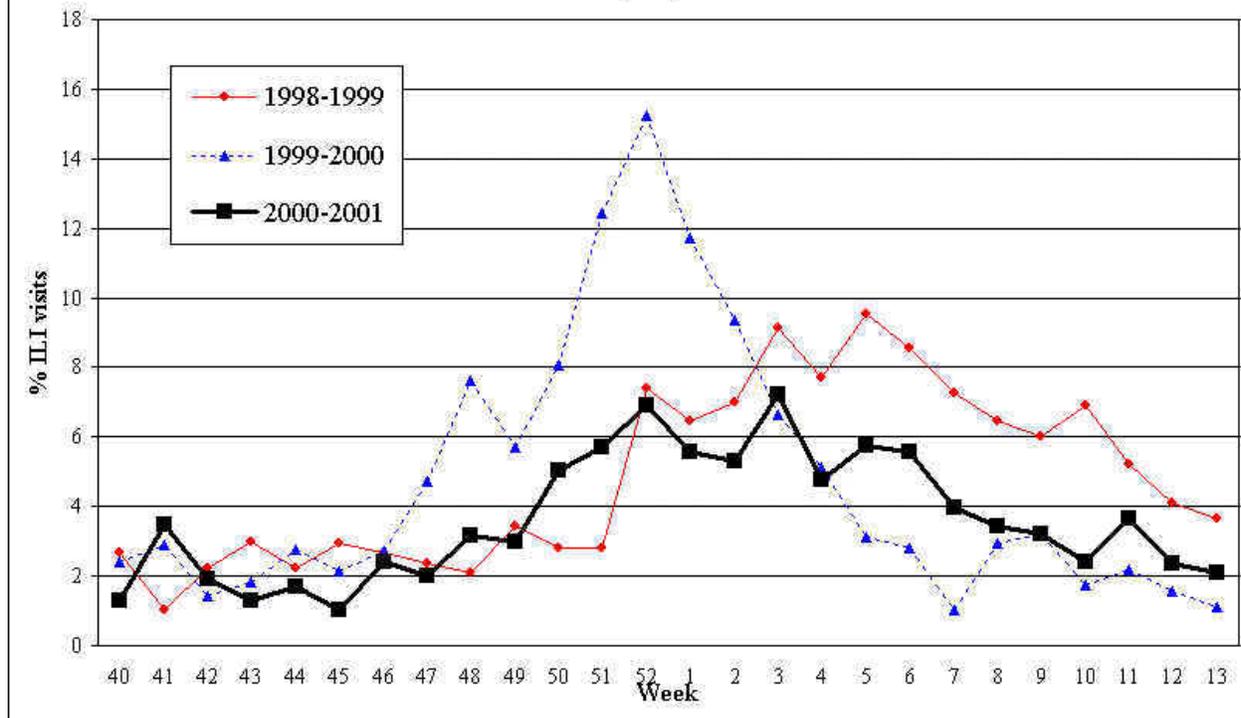


Figure 6

**CDC Sentinel Physicians
Influenza-Like Illness (ILI) Visit Rates 1998-2001**



Respiratory Virus Isolation/Detection Data (Figure 7 and Figure 8)

Weekly reports of detections and isolations of influenza and other respiratory viruses from 18 county, hospital, academic, and private labs were received by fax or e-mail. The number of total influenza detections (A & B) peaked at 124 during week 4 (1/21-1/27), with influenza A reports peaking at 81 during week 2 and influenza B reports peaking at 72 during week 6. Reports for RSV detections peaked at 439 during week 6.

Influenza isolates were received from county and Kaiser laboratories throughout the state for detailed antigenic and genetic characterization. Selected isolates are forwarded to CDC for confirmation and further analysis.

The cumulative total of all influenza detections reported through week 12 (1095) is 77% of the total reported over the same period last season (1427). Among the total influenza detections reported this season, 55% were type A and 45% were type B, compared with 99% type A and 1% type B reported during the 1999-2000 influenza season. The cumulative total of RSV detections reported through week 12 (3951) is 126% of that reported over the same period last season (3146).

Figure 7

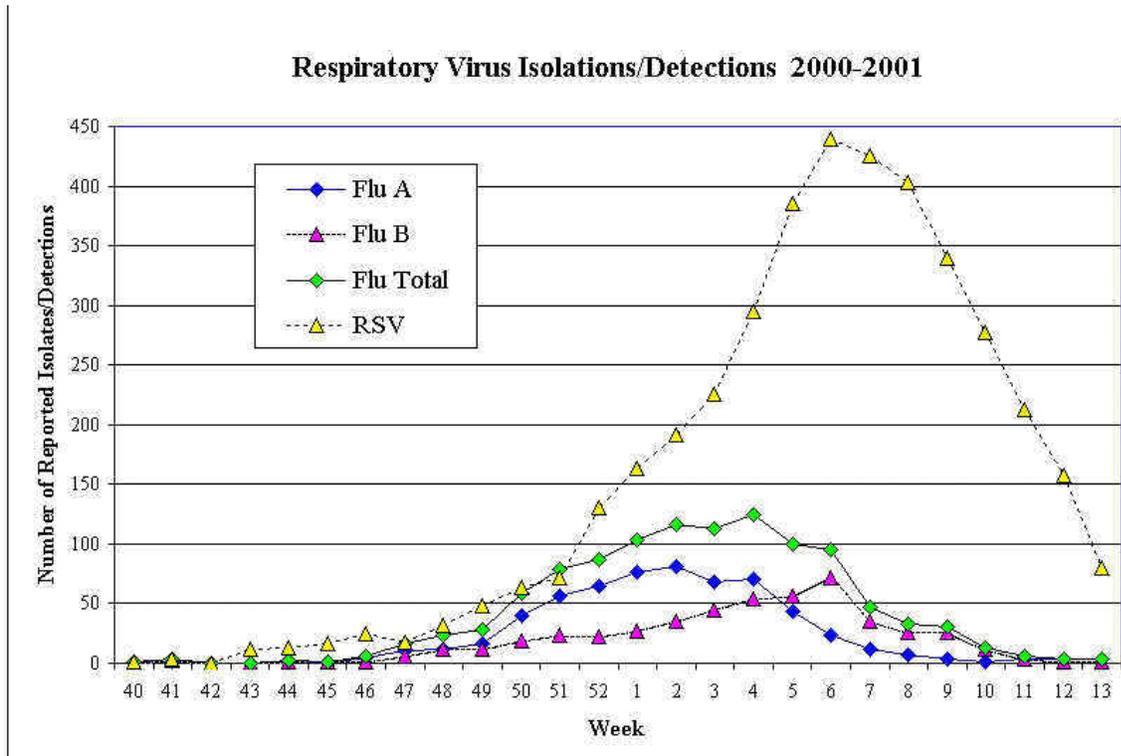
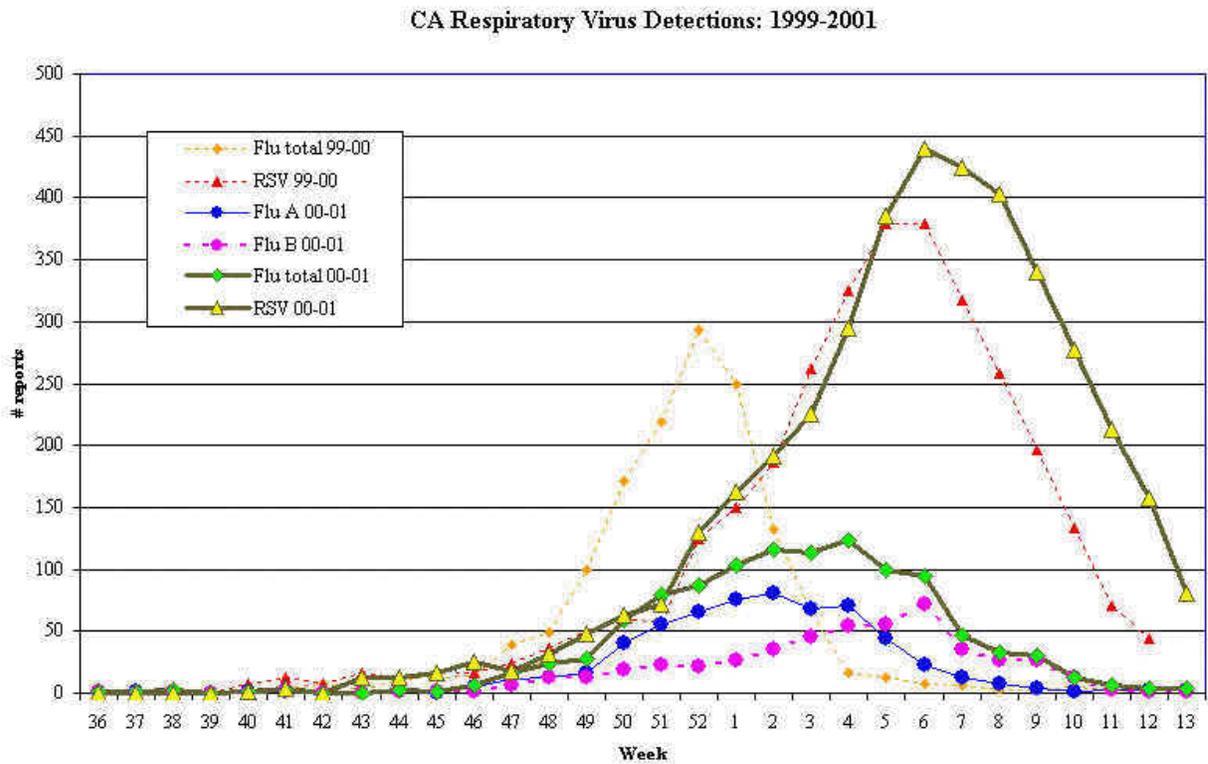


Figure 8



Antigenic Characterization of Influenza Isolates (Table 1)

Of the 43 type A isolates that have been subtyped, 93% were H1N1 and 7% were H3N2. All of the influenza A H1N1 and H3N2 isolates analyzed were closely related to the A/New Caledonia/20/99 or A/Panama/2007/99 components of this year's influenza vaccine, respectively. Of the 71 type B isolates that have been analyzed, 7% were closely matched to the B/Yamanashi/166/98 component of this year's vaccine and 93% were more closely related to B/Sichuan/379/99-like strains. Both A/H1N1 and B reported detections were more frequent in young adults and children this season than the previous season, when A/H3N2 strains predominated.

Table 1

Influenza Virus	Type	Number Typed	Subtype
Influenza A Isolates for 2000-2001	Total	43	
	H3N2	3 0 3	A/Sydney/5/97 A/Panama/2007/99*
	H1N1	40 1 39	A/Bayern/7/95 A/New Caledonia/20/99*
Influenza B Isolates for 2000-2001	Total	71 0 5 66	B/Beijing/243/97 B/Yamanashi/166/98* B/Sichuan/379/99

* = strains included in the 2000-2001 influenza vaccine