

The California Influenza Surveillance Project

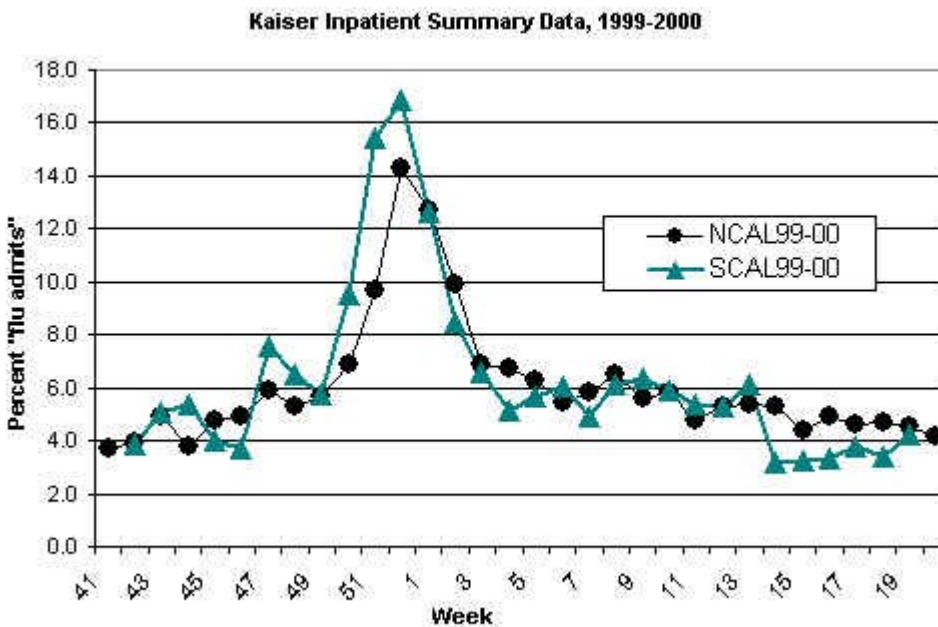
Summary 1999-2000

Each of the methods described on the previous page for monitoring influenza activity in California produced the same trend during the 1999-2000 season. Influenza activity began increasing after week 40, peaked in week 52 and steadily declined thereafter. No geographic differences were seen with any of the surveillance methods used. The following describes the 99-00 influenza trends in more detail.

Kaiser Inpatient Data (Figure 1)

During the 1999-2000 influenza season "flu admits" (admission diagnosis of pneumonia or influenza) peaked at week 52. During week 52 flu admits accounted for 16.9% of total admissions in Southern California and 14.3% of total admissions in Northern California.

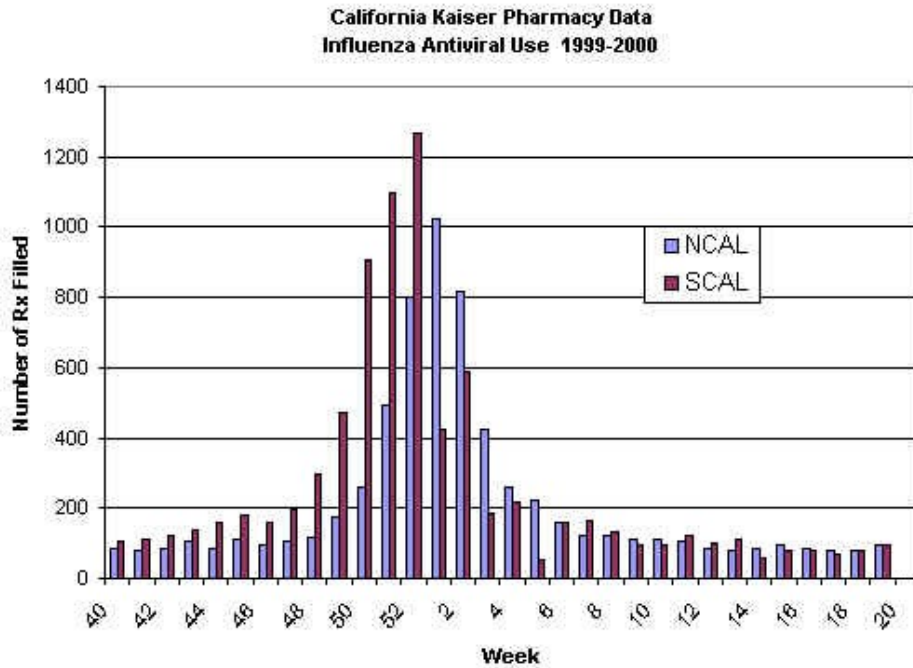
Figure 1



Kaiser Pharmacy Data (Figure 2)

Kaiser facilities provide CISP with the numbers of anti-viral prescriptions (Oseltamivir, Zanamivir, Amantidine, Rimantidine) filled within their pharmacies on a weekly basis during influenza season. The graph below shows the number of anti-viral prescriptions filled (1269) peaked at week 52 in Southern California. In Northern California the number of anti-influenza prescriptions filled (1023) peaked at week one.

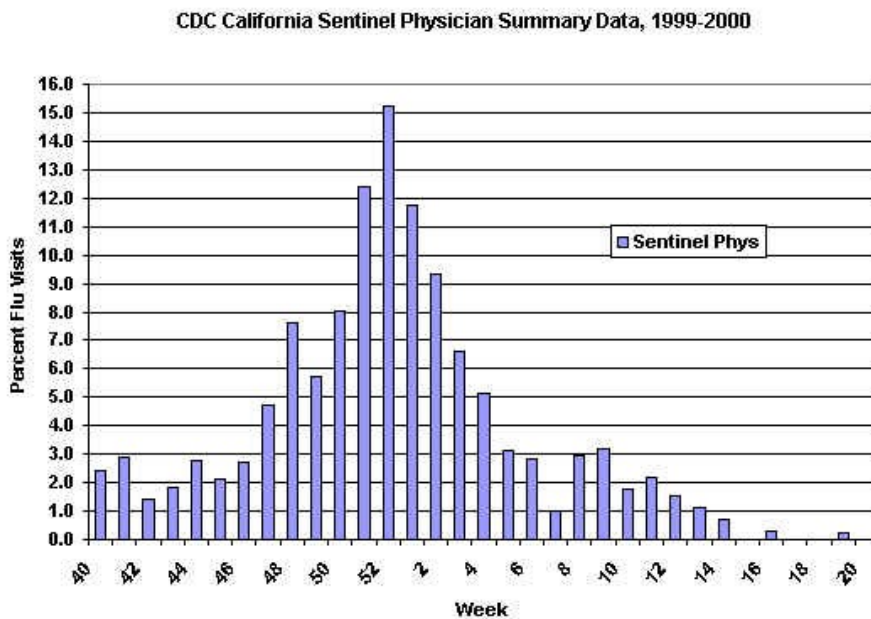
Figure 2



CDC California Sentinel Physicians (Figure 3)

During the 1999-2000 influenza season nine CDC sentinel physicians located throughout California reported the numbers of outpatient visits for influenza like illness (ILI) on a weekly basis. The graph below shows that sentinel physician reports peaked at week 52 with 15.2% of total outpatient visits attributed to ILI.

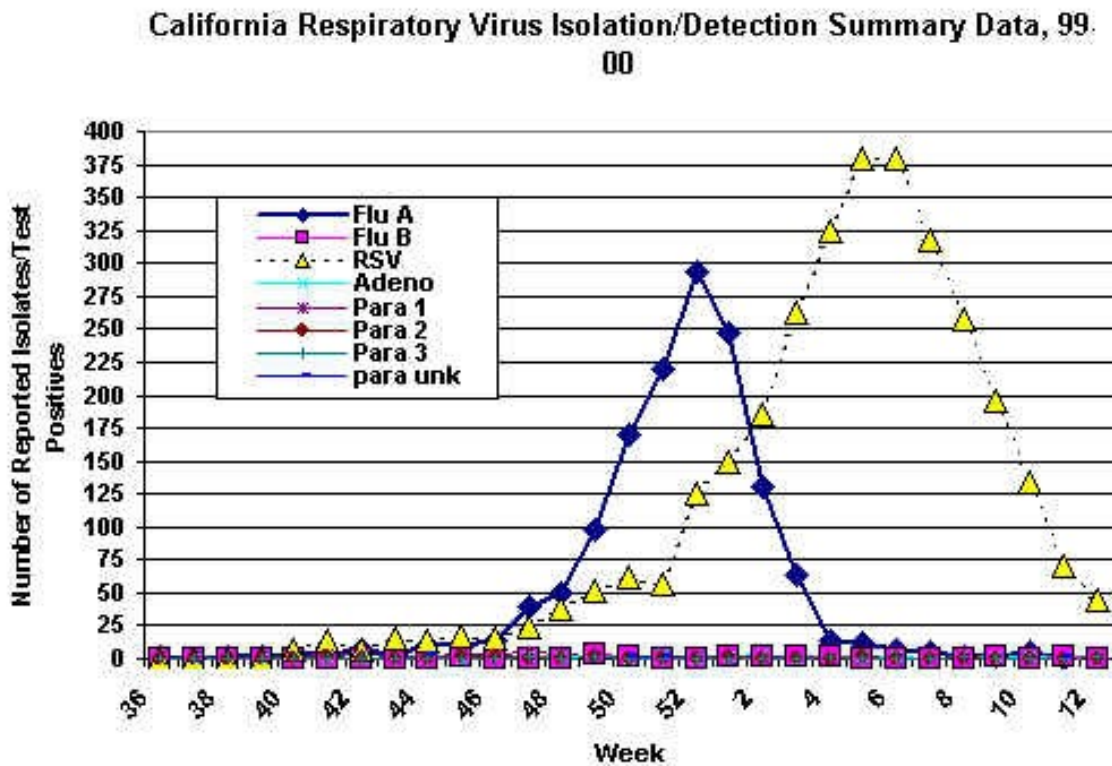
Figure 3



Respiratory Virus Isolation Data (Figure 4)

During the 1999-2000 influenza season 21 private, hospital, public health and academic laboratories located throughout California reported the number of respiratory virus isolations/detections per week to CISP. Influenza isolations and detections peaked at week 52 (293 reported Influenza positives) whereas RSV isolations and detections peaked later at week six (379 reported RSV positives). Typically, 2-3 of the 21 reporting laboratories provided isolation/detection data for other respiratory viruses which included adenovirus and parainfluenza. However, there were no discernible trends for these viruses due to low number reported.

Figure 4



Antigenic Characterization of Influenza Isolates (Table 1)

VRDL received 168 influenza isolates from laboratories throughout California for further characterization. Among these, 162 had virus titers high enough to allow for strain typing using hemagglutination inhibition. Strain typing results for the 1999-2000 influenza season are listed in the table below. Most isolates closely matched influenza strains included in the 99-00 influenza vaccine.

Table 1

Influenza Virus	Type	Number Typed	Subtype
159 influenza A isolates	H3N2 (157)	127 (81%)	A/Sydney/5/97-like
		30 (19%)	Reduced activity to A/Sydney/5/97-like
	H1N1 (2)	(100%)	A/New Caledonia/20/99-like
3 influenza B isolates		(100%)	B/Yamanashi/166-like