

**Semi-Annual Summary
Quarter I & II 1999**

**Varicella Surveillance Project
Los Angeles County Department of Health Services
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SEMI-ANNUAL REPORT January 1 to June 30, 1999

I. METHODOLOGY

Summary of Methodology

The varicella active surveillance project (VSP) conducts active surveillance for varicella among the 312,000 residents (according to the 1990 census projections for 1998) of the Antelope Valley Health Services District of the Los Angeles County Department of Health Services. The project collects case reports of varicella from 307 surveillance units, representing 100% sampling of the Antelope Valley population. Surveillance units include all public and private schools and day care centers with enrollments of 12 or more children; private physicians, public health clinics, hospitals, primary care physicians, and health maintenance organization (HMO) offices; employers with 500 or more employees; correctional facilities; and miscellaneous others likely to identify and report cases of varicella. A case of varicella is defined as illness with acute onset of a diffuse papulovesicular rash without other known cause. Case reports and data regarding vaccine administration are collected every two weeks. A structured telephone interview is conducted with each case or parent/guardian to collect detailed demographic, clinical, and health impact data and to determine if there are additional cases or susceptible contacts within the household. Susceptible household contacts are re-interviewed four-to-six weeks after the initial contact to identify additional cases. Data are entered into a Turbo Pascal-based database designed by project staff. Data collection began January 1, 1995.

Reporting Sources

A total of 282 reporting sites representing 307 surveillance units are currently participating (Table 1). Varicella cases are also identified through household interviews and occasionally through sites outside those specifically under active surveillance. Fluctuation in the number of surveillance units by type are primarily related to schools, day care centers and medical facilities opening, consolidating, or closing.

Table 1. Number and Type of Participating Surveillance Units, VSP, Quarter I - II, 1995-1999

Number & Distribution of Surveillance Units Participating					
Surveillance Unit by Type	Q I - II 1995 N (%)	Q I - II 1996 N (%)	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
Elementary and Highschools	92 (32.1)	93 (31.2)	91 (31.5)	97 (32.8)	101 (32.9)
Preschool/Day Cares	49 (17.1)	68 (22.8)	76 (25.2)	73 (23.9)	75 (24.4)
Private Practice MDs	86 (30.0)	87 (29.1)	89 (29.8)	86 (28.1)	81 (26.4)
HMO Offices	13 (4.5)	16 (5.4)	14 (4.7)	19 (6.2)	17 (5.5)
Hospitals	3 (1.0)	3 (1.0)	3 (1.0)	3 (1.0)	3 (1.0)
Public Health Clinics	12 (4.1)	12 (4.0)	7 (2.3)	9 (3.0)	11 (3.6)
Correctional Facilities	3 (1.0)	3 (1.0)	3 (1.0)	3 (1.0)	3 (1.0)
Large Employers	11 (3.8)	11 (3.7)	10 (3.3)	10 (3.3)	10 (3.3)
Miscellaneous	15 (5.2)	3 (1.0)	3 (1.0)	3 (1.0)	4 (1.0)
Households	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.3)
Outside Normal Sampling	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.3)
TOTAL	286 (100)	298 (100)	298 (100)	305 (100)	307 (100)

II. REPORTED CASES

During the second quarter of 1999, 227 persons with varicella were reported by surveillance units; 10 (4.4%) were excluded when case interviews revealed that illness or school absence was not due to varicella. Of the remaining 217 presumptive cases, 195 (86.0%) were verified by telephone interview and collection of clinical data completed, 15 (6.6%) were unreachable by telephone or declined to be interviewed and were considered probable cases and 7 (3.0%) are pending collection of clinical data (Table 2). In this report, analysis is limited to verified cases unless otherwise specified.

Table 2. Status of Reported Varicella Cases by Month, VSP, Quarter II, 1999

Status of Case	April N (%)	May N (%)	June N (%)	Total Q II N (%)
Verified	67 (85.9)	82 (87.2)	46 (83.6)	195 (86.0)
Probable	7 (9.0)	5 (5.3)	3 (5.5)	15 (6.6)
Excluded	3 (3.8)	6 (6.4)	1 (1.8)	10 (4.4)
Pending	1 (1.3)	1 (1.1)	5 (9.1)	7 (3.0)
TOTAL	78 (100)	94(100)	55 (100)	227 (100)

Verified cases in Quarter II 1999 were 31.2% (195/625) the number of cases in the same quarter of 1998 (Table 3). This was the largest decrease in cases experienced since Quarter II 1996, when the number of cases was 56.5% (737/1,304) those in 1995.

Table 3. Status of Quarter II Varicella Cases by Year, VSP, 1995 - 1999

Status of Case	Q II 1995 N (%)	Q II 1996 N (%)	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 N (%)
Verified	1,304 (94.5)	737 (88.3)	880 (87.7)	625 (89.8)	195 (86.0)
Probable	46 (3.3)	63 (7.5)	64 (6.3)	43 (6.2)	15 (6.6)
Excluded	30 (2.2)	35 (4.2)	60 (6.0)	28 (4.0)	10 (4.4)
Pending	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	7 (3.0)
Total Reported	1,380 (100)	835 (100)	1,004 (100)	696 (100)	227 (100)

The 414 verified cases reported in Quarters I - II 1999 were 30% (414/1,396) of those cases reported during the same period in 1998 (Table 4). This was the greatest decrease in the number of cases since 1996, which had 68.6% (1,588/2,308) of the cases reported during Quarters I - II 1995.

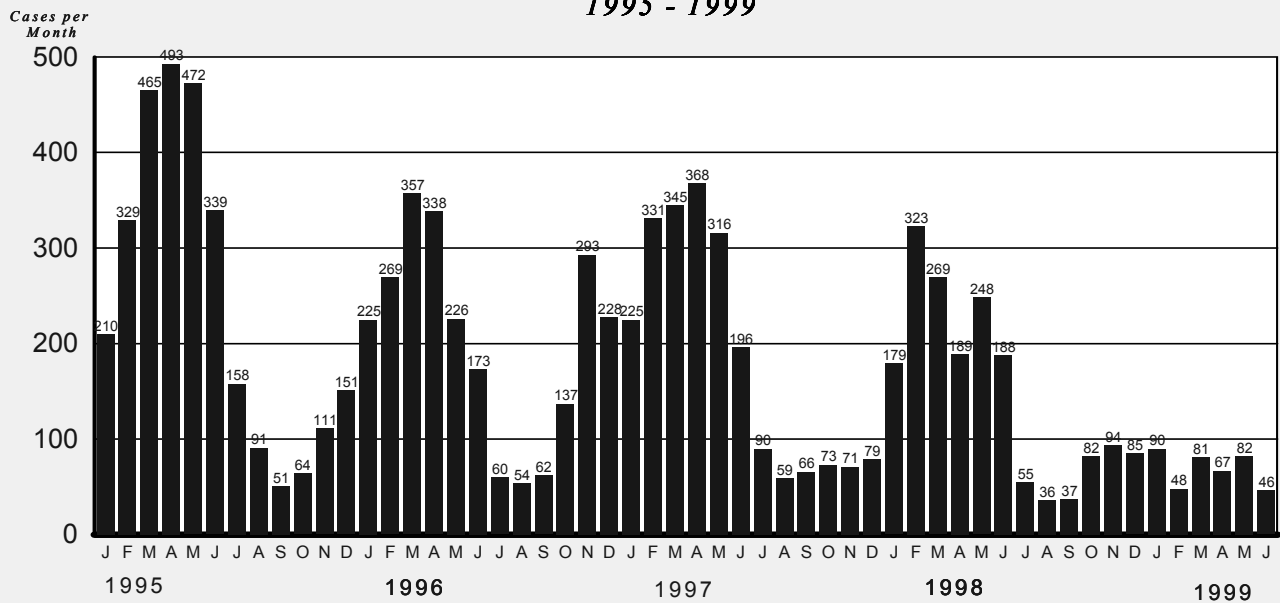
Table 4. Status of Cumulative Quarter I - II Varicella Cases by Year, VSP, 1995 - 1999

Status of Case	Q I - II 1995 N (%)	Q I - II 1996 N (%)	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
Verified	2,308 (91.9)	1,588 (90.5)	1,781 (89.2)	1,396 (90.2)	414 (88.3)
Probable	130 (5.2)	115 (6.6)	115 (5.8)	83 (5.4)	27 (5.8)
Excluded	73 (2.9)	52 (3.0)	100 (5.0)	69 (4.5)	21 (4.5)
Pending	(0)	0 (0)	0 (0)	0 (0.0)	7 (1.5)
Total Reported	2,511 (100)	1,755 (100)	1,996 (100)	1,548 (100)	469 (100)

Seasonal Trend

The characteristic seasonal trend evident in the preceding four years is virtually non-existent in Quarters I & II of 1999 (Figure 1). This lack of seasonality is unexplained, but may be attributed, in part, to a reduction in the susceptibles within the population as a result of vaccinations administered since 1996.

Figure 1. Verified Varicella Cases by Month in the Antelope Valley 1995 - 1999



SURVEILLANCE DATA

Age Distribution

We note in Table 5 and 6 a significant decrease in the frequency of varicella cases in the 1-4 age group from 1997 to 1998, both by Quarter II only ($\chi^2=29.84$, $p<0.005$) and cumulative Quarters I - II ($\chi^2=11.0$, $p<0.005$). The number of cases in 1999, is about one third of 1998; however, the age-specific distribution of varicella cases are not substantially different.

Table 5. Age Distribution of Varicella Cases, VSP, Quarter II, 1995 - 1999

Age (years)	Q II 1995 N (%)	Q II 1996 N (%)	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 N (%)
<1	51 (3.9)	39 (5.3)	41 (4.7)	21 (3.7)	7 (3.6)
1-4	506 (38.8)	257 (34.9)	296 (33.7)	129 (24.7)	49 (25.1)
5-9	562 (43.1)	338 (45.9)	406 (46.1)	363 (55.4)	98 (50.3)
10-14	94 (7.2)	57 (7.7)	59 (6.7)	66 (9.2)	27 (13.8)
15-19	32 (2.5)	15 (2.0)	32 (3.6)	14 (2.1)	4 (2.1)
20+	59 (4.5)	31 (4.2)	46 (5.2)	32 (4.9)	10 (5.1)
TOTAL	1,304 (100)	737 (100)	880 (100)	625 (100)	195 (100)

Table 6. Age Distribution of Varicella Cases, VSP, Cumulative Quarter I - II, 1995 - 1999

Age (years)	Q I - II 1995 N (%)	Q I - II 1996 N (%)	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
<1	82 (3.6)	69 (4.3)	68 (3.8)	51 (3.7)	19 (4.6)
1-4	910 (39.4)	496 (31.3)	541 (30.4)	345 (24.7)	104 (25.1)
5-9	983 (42.6)	786 (49.5)	883 (49.6)	774 (55.4)	204 (49.3)
10-14	178 (7.7)	124 (7.8)	128 (7.2)	128 (9.2)	52 (12.6)
15-19	49 (2.1)	38 (2.4)	58 (3.3)	30 (2.1)	9 (2.2)
20+	106 (4.6)	75 (4.7)	103 (5.8)	68 (4.9)	26 (6.3)
TOTAL	2,308 (100)	1,588 (100)	1,781 (100)	1,396 (100)	414 (100)

Race/Ethnicity

Comparing Quarter II 1999 with Quarter II 1998, a significant change ($\chi^2=8.3$, $p<0.005$) occurred in the racial/ethnic distribution of varicella cases among Blacks (Table 7).

Table 7. Distribution of Varicella Cases by Race/Ethnicity, VSP, Quarter II, 1995 - 1999

Race/Ethnicity	Q II 1995 N (%)	Q II 1996 N (%)	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 N (%)
White	738 (56.6)	394 (53.5)	416 (47.2)	319 (49.2)	115 (59.0)
Black	143 (11.0)	108 (14.7)	154 (17.5)	95 (15.0)	14 (7.2)
Hispanic	371 (28.5)	215 (29.2)	284 (32.2)	185 (31.9)	61 (31.3)
Asian/Am.Ind./Other	52 (4.0)	20 (2.7)	27 (3.1)	26 (3.8)	5 (2.6)
TOTAL	1,304 (100)	737 (100)	880 (100)	625 (100)	195 (100)

A significant change ($\chi^2=7.1$, $p<0.10$) occurred in Quarters I - II 1999, in the racial/ethnic distribution of varicella cases among the Blacks (Table 8). It is notable that the distribution of Blacks decreased 5.1% (15.0 - 9.9) between 1998 and 1999.

Table 8. Distribution of Varicella Cases by Race/Ethnicity, VSP, Cumulative Quarter I - II, 1995 - 1999

Race/Ethnicity	Q I - II 1995 N (%)	Q I - II 1996 N (%)	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
White	1,324 (57.4)	813 (51.2)	822 (46.2)	687 (49.2)	220 (53.1)
Black	244 (10.6)	242 (15.2)	295 (16.6)	210 (15.0)	41 (9.9)
Hispanic	631 (27.3)	459 (28.9)	603 (33.9)	446 (31.9)	137 (33.1)
Asian/AmInd./Other	109 (4.7)	74 (4.7)	60 (3.4)	53 (3.8)	16 (3.9)
TOTAL	2,308 (100)	1,588 (100)	1,780 (100)	1,396 (100)	414 (100)

Gender

Females and Males were generally affected equally for all age groups with an overall female-to-male ratio of 0.95 in Quarter II 1999. A detailed analysis stratified by age will be provided in the annual report as a greater number of cases will yield more stable age-specific female-to-male ratios.

Grading of Varicella Lesions

Beginning in 1997, along with the two other project sites, we modified the definition of lesion grading from “mild” (<50), “moderate” (50-250) and “severe” (>250) to “less-than-average” (<50), “average” (50-500) and “more-than-average” (>500). The distribution of grading of lesions has not substantially changed over 1997 to 1999. (Tables 9 and 10).

Table 9. Grading of Varicella Lesions, VSP, Quarter II, 1995 - 1999

Grading of Lesions	Q II 1995 N (%)	Q II 1996 N (%)	New Definition	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 N (%)
Mild	433 (33.2)	287 (38.9)	< average	327 (37.2)	231 (36.5)	70 (35.9)
Moderate	613 (47.0)	300 (40.7)	average	470 (53.4)	336 (53.4)	109 (55.9)
Severe	258 (19.8)	150 (20.4)	> average	83 (9.4)	58 (8.5)	19 (8.2)
Total	1,304 (100)	737 (100)		880 (100)	625 (100)	195 (100)

Table 10. Grading of Varicella Lesions, VSP, Cumulative Quarter I - II, 1995 - 1999

Grading of Lesions	Q I - II 1995 N (%)	Q I - II 1996 N (%)	New Definition	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
Mild	827 (35.8)	576 (36.3)	< average	631 (35.4)	509 (36.5)	161 (38.9)
Moderate	1,071 (46.4)	712 (44.8)	average	980 (55.0)	769 (55.1)	215 (51.9)
Severe	410 (17.8)	300 (18.9)	> average	170 (9.5)	118 (8.5)	38 (9.2)
Total	2,308 (100)	1,588 (100)		1,781 (100)	1,396 (100)	414 (100)

Severity of Disease Index

During Quarter II, 1999, 90% of cases had no complications (Index 1).

Table 11. Severity of Disease Index, VSP, Quarter II, 1995 - 1999

Severity of Disease Index	Q II 1995 N (%)	Q II 1996 N (%)	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 N (%)
Index 1	1,092 (83.7)	643 (87.2)	783 (89.2)	533 (87.2)	175 (89.7)
Index 2	198 (15.2)	91 (12.3)	89 (10.1)	89 (12.3)	17 (8.7)
Index 3	9 (0.7)	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.5)
Index 4	5 (0.4)	2 (0.3)	6 (0.7)	3 (0.3)	2 (1.0)
Index 5	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	1,304 (100)	737 (100)	878 (100)	625 (100)	195 (100)

A significant ($\chi^2=10.8$, $p<0.025$) difference in the distribution of cases by severity of disease index was noted between 1998 and 1999 for cumulative Quarters I - II (Table 12). Ninety percent of all cases had no complications (Index 1); however, the percentage of Index 3 and 4 cases in 1999 is over three times that of 1998. This finding is difficult to interpret because of the small numbers involved.

Table 12. Severity of Disease Index, VSP, Cumulative Quarter I - II, 1995 - 1999

Severity of Disease Index	Q I - II 1995 N (%)	Q I - II 1996 N (%)	Q I - II 1997 N (%)	Q I - II 1998 N (%)	Q I - II 1999 N (%)
Index 1	1,953 (84.6)	1,385 (87.2)	1,542 (86.7)	1,216 (87.2)	373 (90.1)
Index 2	337 (14.6)	198 (12.5)	220 (12.4)	171 (12.3)	34 (8.2)
Index 3	13 (0.6)	1 (0.1)	4 (0.2)	3 (0.2)	3 (0.7)
Index 4	5 (0.2)	4 (0.3)	13 (0.7)	4 (0.3)	4 (1.0)
Index 5	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	2,308 (100)	1,588 (100)	1,779 (100)	1,394 (100)	414 (100)

Considering combined Quarters I - II, 1999, young children less than five years old were more likely to have complications as indicated by a disease index of 2 or greater (Table 13). In prior years, these complications were seen in children less than one year old and adults. The J-shaped distribution obtained in prior years was not observed during Quarters I - II 1999. This finding is difficult to interpret because of the small numbers involved.

Table 13. Severity of Disease Index 2-5 by Age, VSP, Quarter I - II, 1995 - 1999 and Combined Years.

	Age Group					
	<1	1 - 4	5 - 9	10 - 14	15 - 19	>19
	Q I - II 1995					
	N=82 n (%)	N=910 n (%)	N=983 n (%)	N=178 n (%)	N=49 n (%)	N=106 n (%)
Index 2 - 5	16 (19.5)	144 (15.8)	128 (13.0)	22 (12.3)	11 (22.4)	34 (32.0)
	Q I - II 1996					
	N=69 n (%)	N=496 n (%)	N=786 n (%)	N=124 n (%)	N=38 n (%)	N=75 n (%)
Index 2 - 5	15 (23.1)	61 (12.3)	85 (10.8)	11 (8.8)	7 (18.4)	24 (32.4)
	Q I - II 1997					
	N=68 n (%)	N=541 n (%)	N=883 n (%)	N=128 n (%)	N=58 n (%)	N=103 n (%)
Index 2 - 5	11 (16.1)	73 (13.4)	90 (10.1)	16 (12.5)	9 (15.5)	38 (36.9)
	Q I - II 1998					
	N=51 n (%)	N=345 n (%)	N=774 n (%)	N=128 n (%)	N=30 n (%)	N=68 n (%)
Index 2 - 5	7 (13.7)	42 (12.1)	86 (11.1)	19 (14.8)	4 (13.7)	20 (29.4)
	Q I - II 1999					
	N=19 n (%)	N =104 n (%)	N=204 n (%)	N=52 n (%)	N=9 n (%)	N=26 n (%)
Index 2 - 5	3 (15.8)	16 (15.4)	16 (7.8)	3 (5.8)	1 (11.1)	2 (7.7)
	Q I - II, Combined Years, 1995-1999					
	N=289 n (%)	N=2,396 n (%)	N=3,630 n (%)	N=610 n (%)	N=184 n (%)	N=378 n (%)
TOTAL	52 (18.0)	336 (14.0)	405 (11.2)	71 (11.6)	32 (17.4)	118 (31.2)

Hospitalizations

There were four hospitalized cases during Quarters I - II, 1999; a one-year-old white female with onset of varicella on 3/19/99 and hospitalized for three days from 3/23 - 3/26 with dehydration; a six-year-old Hispanic male with leukemia/lymphoma (on chemotherapy) developed varicella on 3/26/99 and was hospitalized from 3/29 to 4/5 with abdominal pain likely due to hepatitis related to varicella; a fourteen-year-old Korean male developed varicella on 4/20/99 and was hospitalized from 4/25 to 4/30 with varicella encephalitis; and a one-year-old Hispanic male developed varicella on 6/22/99 and was hospitalized from 6/23 to 6/24 with dehydration. No sequelae were reported.

Varicella in Previously Vaccinated Persons

Of the 414 verified cases of varicella in Quarters I - II 1999, 43 (10.4%) occurred in persons who reported having received varicella vaccine (Table 14). The percentage of cases more than 42 days after vaccination doubled in 1999 compared to 1998. The number of breakthrough cases in 1999, compared to the total verified cases, differed significantly from 1998 ($\chi^2=9.3$, $p<0.005$).

Table 14. Varicella-Like Rash in Vaccine Recipients <42 days and >42 days after Vaccination, VSP, Quarter I - II, 1996 - 1999

Time of Rash Onset	Q I - II 1996 N=1,588 n (%)	Q I - II 1997 N=1,781 n (%)	Q I - II 1998 N=1,396 n (%)	Q I - II 1999 N =414 n (%)
< 42 days of vaccination	5 (0.3)	11 (0.6)	11 (0.9)	13 (3.1)
> 42 days after vaccination	9 (0.6)	43 (2.4)	47 (3.3)	28 (6.8)
Unk. time period after vaccination	6 (0.4)	3 (0.2)	2 (0.3)	2 (0.5)
TOTAL	20 (1.3)	57 (3.1)	60 (4.4)	43 (10.4)

History of Previous Varicella

A history of previous varicella was reported by 13.0% (54/414) of the cases during Quarters I and II 1999, which was 5% to 8% higher than similar time periods in 1995 through 1998 (Table 15). The average age at the time of initial infection was 4.0 years and the average age at the time of the second infection was 12.5 years.

Table 15. History of Previous Varicella, VSP, Quarter I - II, 1995 - 1999

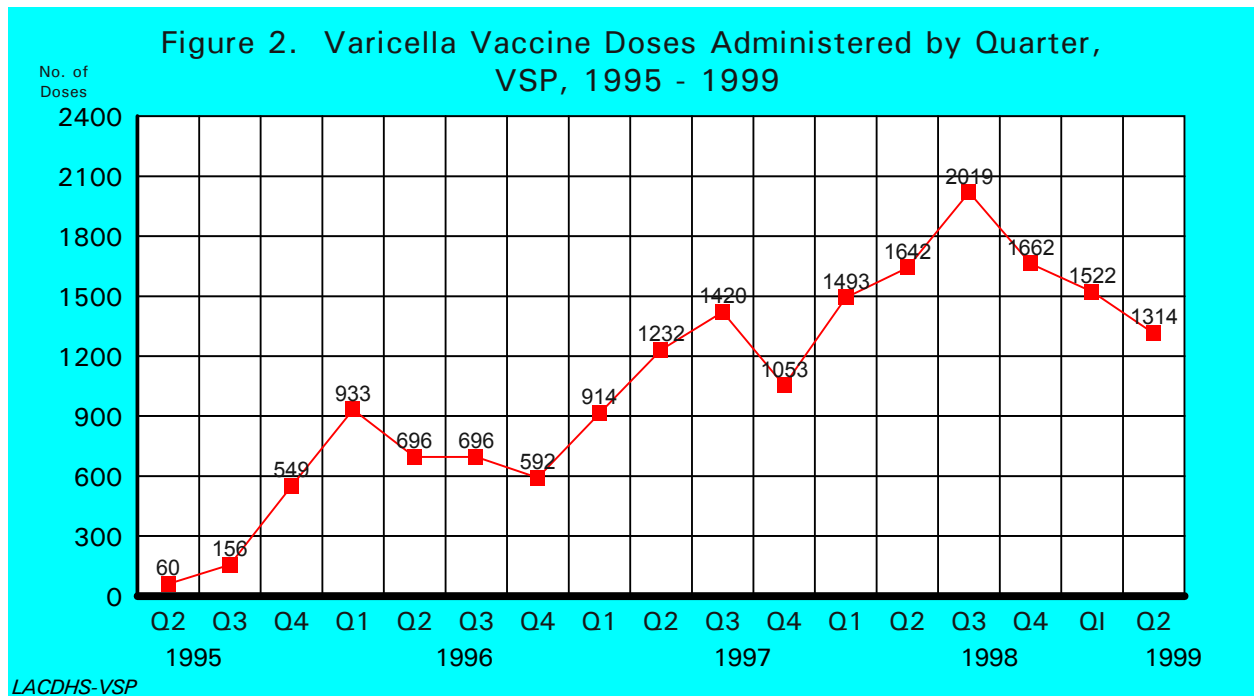
History of Previous Varicella	Q I - II 1995		Q I - II 1996		Q I - II 1997		Q I - II 1998		Q I - II 1999	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Hx of Previous Varicella	113	(4.9)	73	(4.6)	141	(7.9)	126	(9.0)	54	(13.0)
Age at Onset (years)	mean	(range)	mean	(range)	mean	(range)	mean	(range)	mean	(range)
Initial Infection	3.3	(0-14)	3.3	(0-8)	3.5	(0-18)	4.1	(0-15)	4.0	(0-15)
Second Infection	11.0	(0-52)	10.0	(0-48)	9.9	(0-42)	11.6	(0-57)	12.5	(0-47)
Difference of Mean Age	7.8	-----	6.8	-----	6.4	-----	7.6	-----	8.5	-----

Comparison of Project Variables

The COMPARISON report (Attachment 2) represents a summary of all project variables for Quarters I - II, 1995 to 1999, for further reference as desired.

IV. VARICELLA VACCINE IN STUDY POPULATION

Fifty-eight reporting sites are currently providing varicella vaccine, up from 47 sites in 1998. Each site submits a monthly varicella immunization report to the VSP office on which they have recorded the varicella vaccine doses administered by age at their facility. Figure 2 represents the varicella vaccine doses administered by quarter since vaccine licensure. During Quarters I - II, 1999, 2,836 vaccine doses were administered (with one large HMO yet to report). Merck & Co. shipped 2,725 vaccine doses to the Antelope Valley during the same period. The surplus of 111 doses could be attributed to administration of vaccines actually shipped in the last quarter of 1998, but not administered until the first quarter of 1999.



One year olds remain the largest portion of vaccine recipients (700; 53%) in Quarter II 1999 (Table 16).

Table 16. Total Varicella Vaccine Doses Administered by Age, Antelope Valley, Quarter II 1996 - 1999 and All Quarters Combined Years

Age (years)	Q II 1996 N (%)	Q II 1997 N (%)	Q II 1998 N (%)	Q II 1999 ¹ N (%)	Cumulative-All Quarters 1995-1999 N (%)
1	209 (30)	512 (42)	792 (48)	700 (53)	8,265 (46)
2	121 (17)	171 (14)	158 (10)	122 (9)	2,128 (12)
3-4	132 (19)	224 (18)	284 (17)	199 (15)	3,207 (18)
5	94 (14)	130 (11)	210 (13)	112 (9)	1,663 (9)
6-9	79 (11)	112 (9)	99 (6)	89 (7)	1,406 (8)
10-12	27 (4)	36 (3)	62 (4)	72 (5)	640 (4)
13-19	17 (2)	16 (1)	22 (1)	14 (1)	428 (2)
>20	17 (2)	31 (3)	10 (1)	6 (<1)	217 (1)
TOTAL	696 (100)	1,232 (100)	1,642 (100)	1,314 (100)	17,954 (100)

¹ With 95% of sites reporting

V. EVALUATION

Reporting Completeness: Capture-Recapture

Using only two ascertainment sources, we estimate 57.5% completeness during Quarters I - II, 1999, in 2- to 18-year-olds (Table 17). However, considering cases from all surveillance units including those outside the selected ascertainment sources (i.e. households), overall completeness percentages are 68.4%, 70.6%, 79.8%, 78.3% and 74.4% for Quarters I - II, 1995, 1996, 1997, 1998 and 1999, respectively.

Table 17. Capture-Recapture Estimates of 2- to 18-year-olds Based On Two Ascertainment Groups, 'Schools' and 'Providers', VSP, Quarter I - II, 1995 - 1999

Time Period	Reported by both, a	Providers Only, b	Schools Only, c	Cases Missed by both groups, d_{nue}	Varicella Cases p_{nue} (95% Confidence Interval)	Actual Reported Cases a+b+c	Percentage Complete	Odds Ratio, r
Q I-II '95	193	253	1057	1631	2881 (2631-3200)	1503	52.2	.995
Q I-II '96	115	135	771	1032	1918 (1712-2200)	1021	53.2	.991
Q I-II '97	171	165	794	927	1892 (1733-2098)	1130	59.7	.995
Q I-II '98	124	109	708	726	1558 (1410-1761)	941	60.4	.991
Q I-II '99	32	33	188	221	441 (366-578)	253	57.4	.970

Attachment 1.
Definitions: Grading of Lesions, Severity of Disease Index and Overall Disease Grading

Grading of Lesions	Severity of Disease Index	Overall Disease Severity
<p><u>1995/1996 Definition</u></p> <p>Mild: Few scattered lesions on the body (less than 50 lesions which can be counted in 39 seconds or less).</p> <p>Moderate: Number of lesions between mild and severe (50-250 lesions, scattered on the body).</p> <p>Severe: So many lesions that in places they almost touched or it is difficult to see the normal skin between the lesions (greater than 250 lesions).</p> <p><u>1997 Definition</u></p> <p>Less than average: Few scattered lesions on the body (less than 50 lesions which can be counted in 39 seconds or less).</p> <p>Average: Number of lesions between mild and severe (50-500 lesions, scattered on the body).</p> <p>More than Average: So many lesions that in places they almost touched or it is difficult to see the normal skin between the lesions (greater than 500 lesions).</p>	<p>Index 1: No severity factors associated with lesions (patients with common cold should be classified as Index 1).</p> <p>Index 2: ▶ High fever (greater than 40°C on one reading) or temperature greater than 38.5°C on or after the fifth day. ▶ Bacterial infections (i.e., otitis media, lesions) defined by receipt of antibiotics (excluding suppressive therapy for chronic otitis, recurrent UTI, pre-existing conditions). ▶ Lower Respiratory Tract infections (i.e., pneumonitis) that doesn't require receipt of antibiotics or supplemental oxygen (symptoms may include breathing faster than expected from the degree of fever or nasal congestion, or excessive chest motion needed for breathing). ▶ Cerebellitis that resolves within one week and does not require hospitalization. ▶ Changes in mental status and/or severe headache not requiring hospitalization.</p> <p>Index 3: Lower respiratory track infections (i.e., pneumonitis) that require the receipt of antibiotics or supplemental oxygen (symptoms may include breathing faster than expected from the degree of fever or nasal congestion, or excessive chest motion needed for breathing).</p> <p>Index 4: Hospitalization required (except when hospitalization is for an immunocompromised patient admitted for antiviral medication only or for observation).</p> <p>Index 5: Significant disability or death, (i.e., acute demyelinating encephalomeningitis, encephalitis with sequelae, Reye's Syndrome, severe pyomyositis, purpura fulminans, Guillan-Barre, irreversible renal failure).</p>	<p>Grade I: Mild lesions with severity of disease index 1.</p> <p>Grade II: ▶ Moderate lesions with severity of disease index 1. ▶ Mild or moderate lesions with severity of disease index 2.</p> <p>Grade III: ▶ Severe lesions with severity of disease index 1. ▶ Severe lesions and severity of disease index 2. ▶ Mild, moderate or severe lesions and severity of disease index 3.</p> <p>Grade IV: Mild, moderate or severe lesions and severity of disease index 4.</p> <p>Grade V: Mild, moderate or severe lesions and severity of disease index 5.</p>