

# Dental Utilization in California's Children's Health Initiatives' Healthy Kids Programs

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We would like to thank Delta Dental of California's Community Partnership Programs for providing dental utilization numbers for each of the reporting counties. Also, thank you to Robert Isman, DDS, MPH for providing 2005 Denti-Cal data for several counties. Last, but not least, thank you to the Children's Health Initiatives for their collaboration with us on our evaluation.



**Table 1: Number of Children Continuously Enrolled during 2006 by Plan and Age Group**

Plan	0-1 Years	2-3 Years	4-6 Years	7-10 Years	11-14 Years	15-18 Years	2-18 Years	≥ 19 Years
Alameda	0	7	23	89	107	84	310	3
Santa Cruz	3	42	178	355	341	306	1,222	13
Kern	9	47	172	35	20	23	297	3
Partnership Health Plan	1	2	9	20	18	9	58	0
Santa Barbara	0	2	18	34	26	11	91	0
Santa Clara	43	401	1502	2944	3248	2753	10,848	125
San Francisco	26	107	371	698	782	733	2,691	1,802
San Joaquin	6	52	268	511	441	265	1,537	2
San Luis Obispo	2	29	75	126	108	69	407	4
San Mateo	13	132	445	1128	1116	1165	3,986	37
<b>Totals</b>	<b>103</b>	<b>821</b>	<b>3061</b>	<b>5940</b>	<b>6207</b>	<b>5418</b>	<b>21,447</b>	<b>1989</b>

Note: Includes children enrolled from 1/1/2006 through 12/31/2006 with no more than a 45 day break in coverage. Age in years is as of 12/31/2006.

### **Research Aims**

This report is organized to answer three questions:

1. What is the rate of utilization of dental services by children enrolled in the individual Healthy Kids programs, as measured by at least one dental visit in past year by age?
2. How does utilization for Healthy Kids programs compare to other programs?
3. What are the types of dental services being utilized by children enrolled in the individual county Healthy Kids programs, by age of child?

### **Methodology**

Analysis of this data was approved by the Institutional Review Board at the University of Southern California. In order to conduct the analysis, the researchers engaged in the following activities:

1. Obtained releases of information from each of the study CHIs.
2. Obtained electronic utilization reports of all services provided to Healthy Kids enrollees from the dental plan (Delta Dental) and enrollment data for the one year of January 1, 2006 to December 31, 2006 for each of the study Children's Health Initiatives.
3. Imported electronic utilization reports for each CHI into SAS 9.1.2 to determine number of children who received any service, preventive services, and restorative services by age. Types of service were identified from health plan data by using the

Current Dental Terminology (CDT)<sup>1</sup> from the American Dental Association's Code on Dental Procedures and Nomenclature that identifies 12 general categories for services: diagnostic, preventive, restorative, endodontics, periodontics, prosthetics, MFO prosthetics, implants, prosthetics fixed, oral surgery, orthodontics, and adjunctive general.

4. Enrollment data were used to calculate utilization rates based on the number of eligible children (listed in Table 1). Eligibility and rates were determined based on the national standard developed for HEDIS<sup>2</sup> measures.

## Key findings

1. *What are the rates of utilization of dental services by children enrolled in the individual county Healthy Kids programs, as measured by at least one dental visit in past year, by age of child? How does utilization for Healthy Kids programs compare to other programs?*

The number of children who received dental care within specific age groups is presented in Table 2. Overall for the CHIs, only 2% of the children who received dental care were less than 3 years of age; 21% of services were provided to children under age 6 and 79% of services went to children 6 through 18 years (Figure 2).

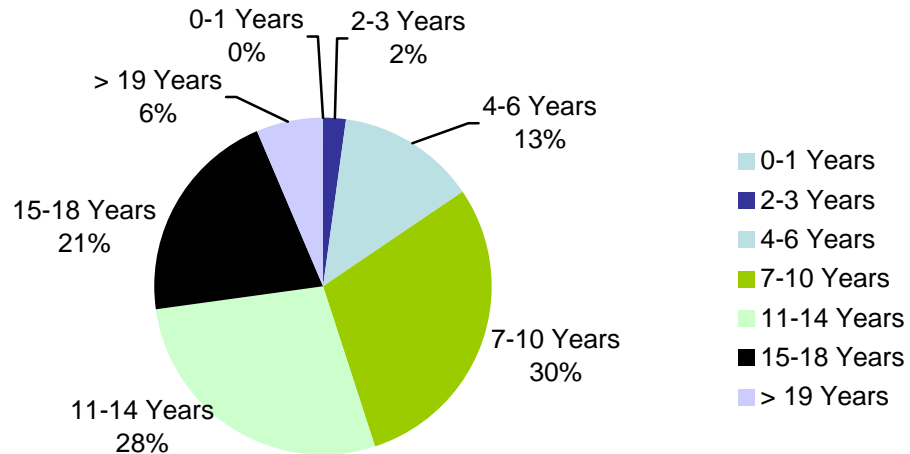
**Table 2: Number of Continuously Enrolled Children with a Dental Visit by Plan and Age Group**

Plan	0-1 Years	2-3 Years	4-6 Years	7-10 Years	11-14 Years	15-18 Years	2-18 Years	≥ 19 Years
Alameda	0	4	15	62	64	53	198	2
Kern	0	18	64	23	13	7	125	0
Partnership Health Plan	1	1	6	13	12	3	35	0
San Francisco	0	32	243	503	529	393	1,700	888
San Joaquin	1	14	161	364	280	141	960	2
San Luis Obispo	0	12	39	81	53	24	209	0
San Mateo	0	59	335	887	778	712	2,771	20
Santa Barbara	0	0	13	27	19	8	67	0
Santa Clara	2	165	1,056	2,283	2,246	1,657	7,407	74
Santa Cruz	0	24	134	267	232	184	841	4
<b>Total</b>	<b>4</b>	<b>329</b>	<b>2,066</b>	<b>4,510</b>	<b>4,226</b>	<b>3,182</b>	<b>14,313</b>	<b>990</b>

Note: Includes children enrolled from 1/1/2006 through 12/31/2006 with no more than a 45 day break in coverage; \*Age in years as of 12/31/2006

<sup>1</sup> CDT codes are a standardized coding system used to record information about dental treatment procedures and services, and to provide data to agencies involved in adjudicating insurance claims (<http://www.ada.org/ada/prod/catalog/cdt/index.asp>)

<sup>2</sup> HEDIS is the health plan performance measurement of the National Committee for Quality Assurance, which establishes standardized measures for health plan quality. The only measure for dental plan quality is based upon whether an enrollee had a visit in the past year (<http://www.ncqa.org/tabid/59/Default.aspx>)

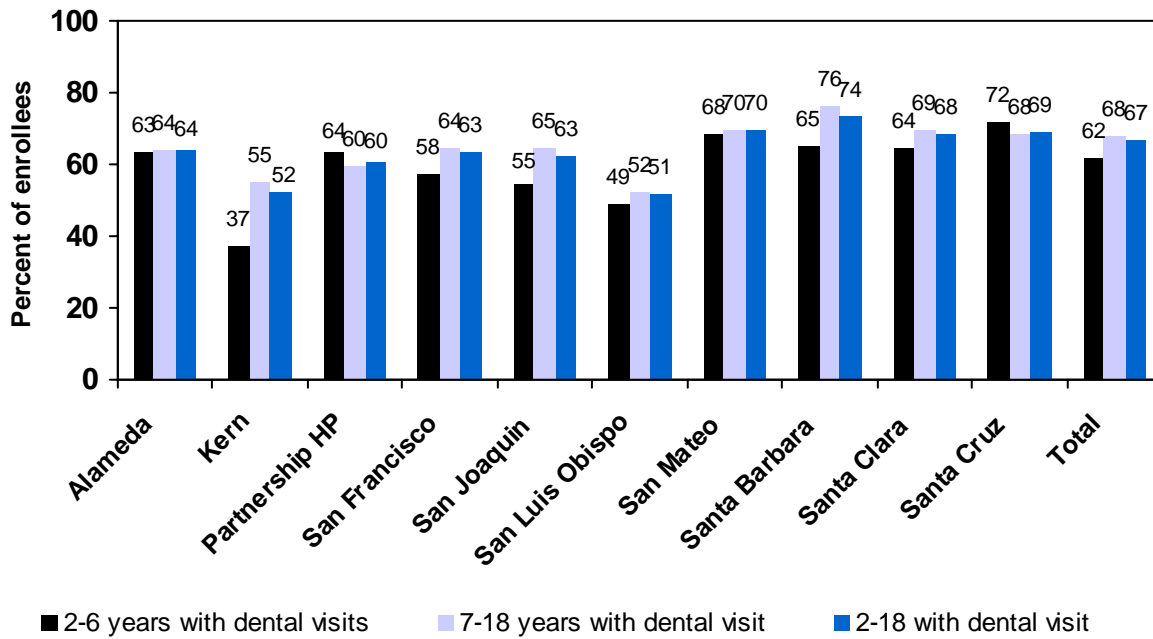


**Figure 2: Age Distribution of Healthy Kids Children Receiving Services**

The percentage of enrolled children who received at least one dental service varied between counties ranging from 42.9% in Kern County to 69.5% in San Mateo County with an average of 66.7% (Table 3, Figure 3). For younger children, ages six years and younger, there was a range of 37.4% in Kern County to 71.8% in Santa Cruz County.

**Table 3: Number of Healthy Kids Enrolled Children, Children with a Dental Visit, and Percent of Enrolled Children with a Dental Visit, by County**

County	Number of Children Enrolled (by age in years)*			Number with a Dental Visit			% with a Dental Visit		
	2-6	7-18	Total	2-6	7-18	Total	2-6	7-18	Total
Alameda	30	280	310	19	179	198	63.3%	63.9%	63.9%
Kern	219	78	297	82	43	125	37.4%	55.1%	42.1%
Partnership Health Plan	11	47	58	7	28	35	63.6%	59.6%	60.3%
San Francisco	478	2,213	2,691	275	1,425	1,700	57.5%	64.4%	63.2%
San Joaquin	320	1,217	1,537	175	785	960	54.7%	64.5%	62.5%
San Luis Obispo	104	303	407	51	158	209	49.0%	52.1%	51.4%
San Mateo	577	3,409	3,986	394	2,377	2,771	68.3%	69.7%	69.5%
Santa Barbara	20	71	91	13	54	67	65.0%	76.1%	73.6%
Santa Clara	1,903	8,945	10,848	1,221	6,186	7,407	64.2%	69.2%	68.3%
Santa Cruz	220	1,002	1,222	158	683	841	71.8%	68.2%	68.8%
<b>Total</b>	<b>3,882</b>	<b>17,565</b>	<b>21,447</b>	<b>2,395</b>	<b>11,918</b>	<b>14,313</b>	<b>61.7%</b>	<b>67.9%</b>	<b>66.7%</b>



**Figure 3: Percent of Healthy Kids Enrollees with a Dental Visit, By Age**

The age group with the lowest average rate of dental visits was younger children ages 2-3; they averaged 40%, ranging from 27% in San Joaquin County to 57% in Alameda and Santa Cruz Counties (Table 4). Adolescents, ages 15-18, averaged 59%, ranging from 30% in Kern to a high of 73% in Santa Barbara. Children between the ages of 4-6 years had a higher average of 68%, with a dental visit ranging from 37% in Kern to 75% in San Mateo. The age group with the greatest average rate of utilization was older children, ages 7-10 years with an average of 76%, ranging from 64% in San Luis Obispo to 79% in Santa Barbara and San Mateo.

**Table 4: Percent of Healthy Kids Children who Received Dental Care, by Age Group, by County, and average for children ages 2 through 18**

Plan	2-3 Years	4-6 Years	7-10 Years	11-14 Years	15-18 Years	Total 2-18 Years
Alameda	57.1%	65.2%	69.7%	59.8%	63.1%	63.9%
Santa Cruz	57.1%	75.3%	75.2%	68.0%	60.1%	68.8%
Kern	38.3%	37.2%	65.7%	65.0%	30.4%	42.1%
Partnership Health Plan	50.0%	66.7%	65.0%	66.7%	33.3%	60.3%
Santa Barbara	0.0%	72.2%	79.4%	73.1%	72.7%	73.6%
Santa Clara	41.1%	70.3%	77.5%	69.2%	60.2%	68.3%
San Francisco	29.9%	65.5%	72.1%	67.6%	53.6%	63.2%
San Joaquin	26.9%	60.1%	71.2%	63.5%	53.2%	62.5%
San Luis Obispo	41.4%	52.0%	64.3%	49.1%	34.8%	51.4%
San Mateo	44.7%	75.3%	78.6%	69.7%	61.1%	69.5%
<b>Total</b>	<b>40.1%</b>	<b>67.5%</b>	<b>75.9%</b>	<b>68.1%</b>	<b>58.7%</b>	<b>66.7%</b>

2. How does utilization for Healthy Kids programs compare to other programs?

Although not directly comparable, the following utilization data are provided for reference. The rates provided for Healthy Families and Medi-Cal appear lower than rates reported for CHIs for the same age groups:

- The percentage of children enrolled in **Healthy Families**, ages 4-18, who had an annual dental visit in 2004 was 54% overall, and 67% for those enrolled in Healthy Families coverage provided by Delta Dental.<sup>3</sup>
- For California children, ages 0 through 5, enrolled in **Medi-Cal** from July 2004 to June 2005, the percentage with a visit was 33%; for those aged 0-20 years, the figure was 47%.<sup>4</sup>
- For California children, ages 2-5, enrolled in **Medi-Cal** anytime during 2005, utilization for dental services in counties where data was available, averaged 35%;

<sup>3</sup> The Healthy Families data are not directly comparable to the data collected for Healthy Kids, since the Healthy Families measure calculates the percentage of enrolled members, ages 4 through 18, who were continuously enrolled during the measurement year and who had a least one dental visit during the measurement year. "Dental Plan Quality Measurement Report for Services Provided in 2004" [www.mrmib.ca.gov/MRMIB/HFP/2004DentalRpt.pdf](http://www.mrmib.ca.gov/MRMIB/HFP/2004DentalRpt.pdf) (accessed January 2008).

<sup>4</sup> Data supplied by California Department of Health Services, Special run, December 2006.

for individuals, ages 6-20 in those some counties, utilization for Medi-Cal averaged 38%.<sup>5</sup>

- Although these data are reported for different years, the average 2006 Healthy Kids utilization of dental services for children ages 2-5 in some counties was much higher than the average for 2005 **Medi-Cal** enrollees for the same age groups:
  - San Francisco averaged 58% and 37%, Kern averaged 37% and 39%, San Joaquin averaged 55% and 26%, Santa Clara averaged 64% and 36%, and Santa Cruz averaged 72% and 42% for Healthy Kids and **Medi-Cal** utilization rates, respectively.
  - Specifically, in San Mateo County, 64% of children continuously enrolled in Healthy Kids for the year preceding June 30, 2004 had at least one dental service; 62% of the children ages 0-5 years, 70% of children ages 6-12 years, and 57% of children ages 13-18 had a visit.<sup>6</sup>
- The California Oral Health Needs Assessment (2005) found that 70% of children in kindergarten and 74% of third grade children had a dental visit in the past year.<sup>7</sup>
- The California Health Interview Survey (2005) found that 44.8% of children ages 2-3 years, 84.5% ages 4-6 years, and 91.1% of children ages 7-10 years (under 300% of the federal poverty level) in the thirteen reporting counties for this study had a dental visit in the last year, regardless of health or dental insurance coverage status.<sup>8</sup>
  - For those with **Medi-Cal** coverage (2005) in the thirteen reporting counties, 36.3%, 84.6% and 88.7% of children ages 2-3, 4-6 and 7-10 respectively had a dental visit in the past year.
  - For those with **Healthy Families** coverage (2005) in the same thirteen counties, 24.6%, 98.2% and 79.9% of children ages 2-3, 4-6 and 7-10 respectively had a dental visit in the past year.
- Nationally, in 2002, 49% of children ages 2-17 years had an annual dental visit, while only 30% of low-income children ages 2-19 under 200% of federal poverty level, had an annual dental visits.<sup>9</sup>

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<sup>5</sup> Data supplied by Medi-Cal. Special run, March 2007. Utilization data includes 2005 fee for service users and dental services provided through community clinics. It does not include dental managed care visits, which represents approximately 4% of the Medi-Cal dental program population.

<sup>6</sup> Howell E, Hughes D, Courtot B, Palmer L., "Evaluation of the San Mateo County Children's Health Initiative: Third Annual Report," September 2006, <http://www.urban.org/url.cfm?ID=411365> (accessed February 2008).

<sup>7</sup> Dental Health Foundation, "'Mommy, It Hurts to Chew'" The California Smile Survey An Oral Health Assessment of California's Kindergarten and 3rd Grade Children," February 2006, [http://www.tdhf.org/topics/public/For%20web/DHF\\_2006\\_Report.pdf](http://www.tdhf.org/topics/public/For%20web/DHF_2006_Report.pdf) (accessed November 2006).

<sup>8</sup> California Health Interview Survey, 2005, <http://www.chis.ucla.edu> (accessed April 2008). Data could only be provided for children ages 2-11 as surveyed by CHIS that year.

<sup>9</sup> CDC, Healthy People 2010 Database - January, 2008 Edition, <http://wonder.cdc.gov/data2010/focus.htm> (accessed January 2008).

3. What are the types of dental services being utilized by children enrolled in the individual county Healthy Kids programs, by age of child?

Table 5 lists the percentage of continuously enrolled children that received diagnostic, preventive, and/or restorative dental services. Nearly two thirds of children received a diagnostic (64%) or preventive (63%) dental service and about one third (35%) received some type of restorative dental care (fillings).

The percentage of children who had oral surgery (predominately extractions) ranged from 9% in Kern County to 14% in Santa Clara County, with an average of approximately 14%. This suggests that a large proportion of children have disease so severe that teeth must be extracted rather than restored.

In San Luis Obispo County, 24% of the children received "Adjunctive General" services; substantially higher than other counties. These services were predominately nitrous oxide administration suggesting that providers in San Luis Obispo County are more likely to use nitrous oxide sedation when providing care to children.

**Table 5: Percent of Continuously Enrolled Children (2-18 years) that Received Diagnostic, Preventive, and/or Restorative Care by County**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	62.3%	61.0%	33.9%	8.4%	9.7%	7.1%
Kern	39.7%	36.0%	26.6%	7.4%	9.1%	9.4%
Partnership Health Plan	56.9%	55.2%	36.2%	0.0%	12.1%	5.2%
San Francisco	61.5%	60.5%	26.9%	3.5%	11.6%	4.9%
San Joaquin	60.2%	56.8%	31.8%	6.1%	13.9%	3.6%
San Luis Obispo	47.7%	47.2%	30.2%	8.4%	13.0%	23.6%
San Mateo	66.0%	65.9%	38.5%	6.6%	12.6%	4.6%
Santa Clara	66.5%	65.3%	35.6%	5.9%	15.1%	5.5%
Santa Barbara	70.3%	69.2%	37.4%	8.8%	11.0%	16.5%
Santa Cruz	63.3%	61.9%	38.3%	7.4%	12.0%	16.5%
Total	64.4%	63.2%	34.6%	5.9%	13.7%	6.2%

Dental sealants are a proven method for the prevention of decay on the chewing surfaces of molars. The first permanent molars erupt in most children at about 6 years of age. Of the children age 6 years and older who received dental care, only 27% received dental sealants, ranging from 19% in San Francisco County to 49% in San Luis Obispo County (Table 6, Figure 5).

When looking at the entire population of Healthy Kids enrollees age 6 years and older, only 18% of children received sealants, ranging from 12% in San Francisco County to 37% in Santa Barbara County (Table 6, Figure 4).

For reference, Healthy Families reported that in 2004, only 11% of enrollees received sealants overall, while 16% of Healthy Families children enrolled in Delta Dental received sealants. The California Oral Health Needs Assessment found that 33% of third graders who had seen a dentist in the past year had sealants.

**Table 6: Percent of 6-18 Year Old Children that Received Dental Sealants by Plan**

Plan	% of Continuously Enrolled 6-18 Year Old Members	% of Continuously Enrolled 6-18 Year Old Members with a Dental Visit
Alameda	22.9%	35.4%
Kern	12.3%	24.3%
Partnership Health Plan	19.6%	32.3%
San Francisco	12.0%	18.5%
San Joaquin	13.9%	21.6%
San Luis Obispo	25.3%	48.6%
San Mateo	21.6%	30.7%
Santa Barbara	36.7%	48.3%
Santa Clara	18.2%	26.2%
Santa Cruz	22.7%	32.7%
Total	18.3%	26.8%

Note: Includes children 6-18 years enrolled from 1/1/2006-12/31/2006 with ≤ 45 day break in coverage

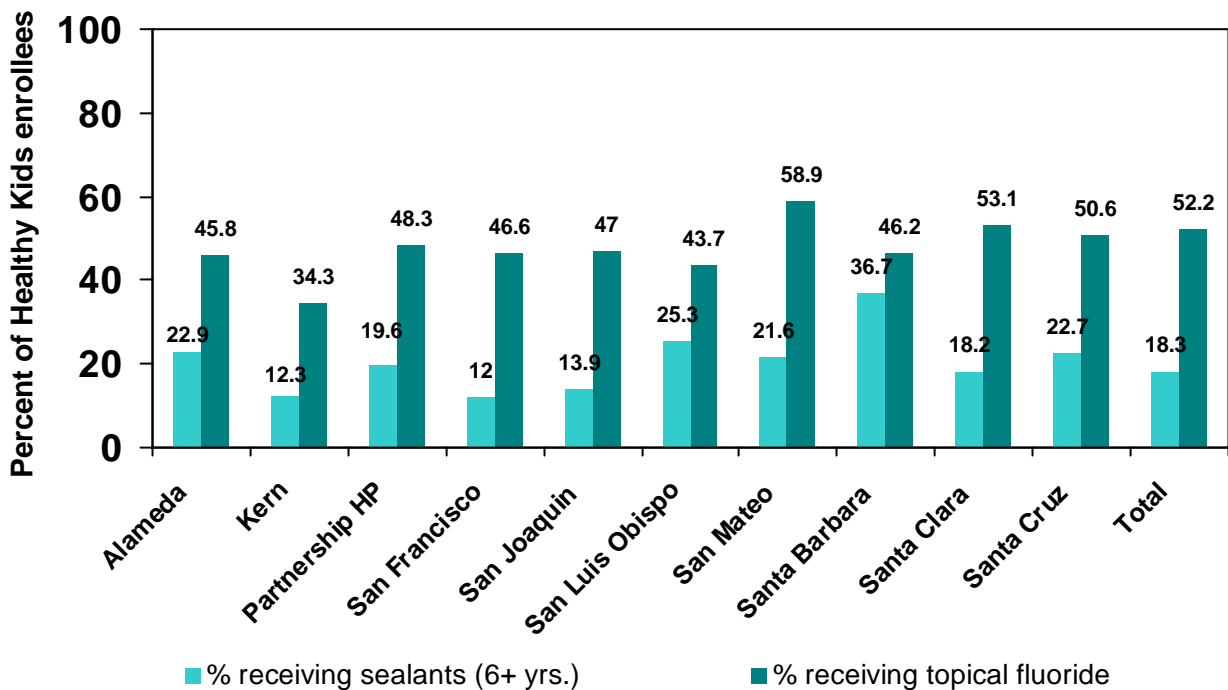
**Table 7: Percent of Continuously Enrolled Children (2-18 Years) with a Dental Visit that Received Diagnostic, Preventive, and/or Restorative Care by Plan**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	97.5%	95.5%	53.0%	13.1%	15.2%	11.1%
Kern	94.4%	85.6%	63.2%	17.6%	21.6%	22.4%
Partnership Health Plan	94.3%	91.4%	60.0%	0.0%	20.0%	8.6%
San Francisco	97.3%	95.8%	42.5%	5.6%	18.3%	7.8%
San Joaquin	96.5%	90.9%	50.8%	9.8%	22.3%	5.7%
San Luis Obispo	92.8%	91.9%	58.9%	16.3%	25.4%	45.9%
San Mateo	94.9%	94.8%	55.3%	9.5%	18.1%	6.6%
Santa Barbara	95.5%	94.0%	50.7%	11.9%	14.9%	22.4%
Santa Clara	97.4%	95.6%	52.1%	8.7%	22.1%	8.1%
Santa Cruz	92.0%	90.0%	55.6%	10.7%	17.5%	24.0%
Total	96.4%	94.7%	51.9%	8.9%	20.5%	9.3%

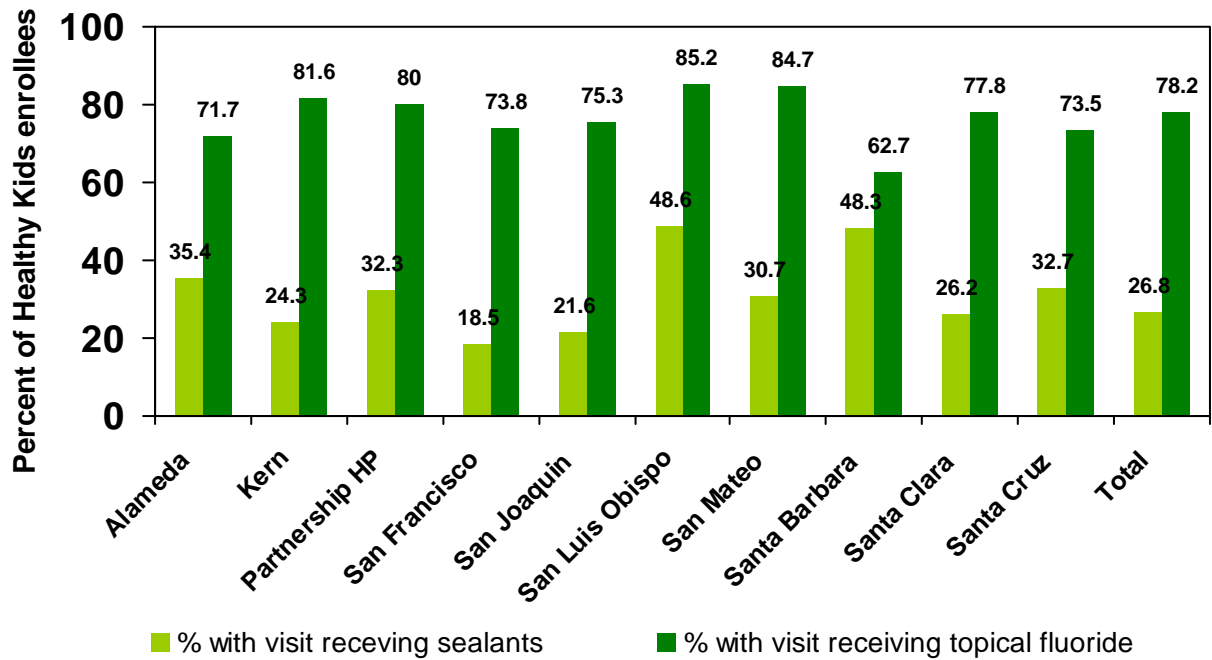
**Table 8: Percent of Continuously Enrolled Children (2-18 Years) that Received Specific Preventive Services by Plan**

Plan	Topical Fluoride (with & w/o a cleaning)	Oral Hygiene Instruction	Teeth Cleaning
Alameda	45.8%	15.5%	57.4%
Kern	34.3%	23.6%	36.0%
Partnership Health Plan	48.3%	15.5%	53.4%
San Francisco	46.6%	30.9%	60.2%
San Joaquin	47.0%	32.5%	56.0%
San Luis Obispo	43.7%	17.4%	46.2%
San Mateo	58.9%	47.4%	64.7%
Santa Barbara	46.2%	6.6%	65.9%
Santa Clara	53.1%	35.5%	64.6%
Santa Cruz	50.6%	43.3%	59.2%
Total	52.2%	36.4%	62.2%

Another proven method for preventing tooth decay is the application of topical fluoride. Of the children continuously enrolled in Healthy Kids, only one half (52%) received a fluoride treatment ranging from 34% in Kern County to 59% in San Mateo County. (Table 8, Figure 5). For those children who received a dental visit, the percentage of children receiving a topical fluoride ranged from 63% in Santa Barbara County to 85% in San Luis Obispo County.



**Figure 4: Percent of Healthy Kids enrollees receiving sealants and topical fluoride**



**Figure 5: Percent of Healthy Kids enrollees with a dental visit receiving sealants and topical fluoride**

## DISCUSSION

Comparisons of Healthy Kids, Medi-Cal, and Healthy Families programs in these thirteen counties show a common trend for children when stratifying by age group. Younger children, under age 3, are much less likely to get a dental visit in the three programs than are children over age 7, with differences greater than 50% in these age groups. Overall however, the rate for children under age 3 in Healthy Kids is higher (40.1%) than for the other programs.

This study shows that there was some variability across counties in the percentage of children in Healthy Kids programs who received any dental care in the past year. In addition, there was great variation in the types of services children received. A large number of children are having teeth extracted (indicating severe dental disease) while a smaller number of children receive preventive care such as dental sealants or fluoride.

Clearly there is an immediate need for both kinds of services. The high rate of restorative treatments likely indicates the sizeable need for dental services among the primarily low-income, undocumented, families enrolling in Healthy Kids. As utilization

of preventive services increases over time, however, it is anticipated that the need for restorative treatments will decline.

There are several limitations to this study. First, it is difficult to determine whether the differences in utilization can be explained by practice styles (e.g. extractions v. restorations), availability of services (e.g. for oral surgery), or the severity of dental disease in enrollees in different counties.

Second, while dental claims data are the most accurate reflection of services for which dentists have billed the dental plan, they do not include provided services for which there was no billing either by the dentist, or perhaps by another provider such as a school-based screening or sealant program. In addition, unlike medical data, there are no diagnostic codes in dental data. Since the only data are for billed services, we do not know the extent of dental disease (treated or untreated).

## **Policy Implications and Recommendations**

Because CHIs are locally funded county programs, determining cost-effective measures for preventive care is crucial for program sustainability. Children who receive their first preventive dental visit before the age of one average a cumulative cost of \$262 for dental related visits. By delaying the visit just two years (to age three), studies suggest that cumulative costs for dental related visits rises to \$449; delaying the visit by two additional years raises cumulative costs for dental related visits to \$546<sup>10</sup>. Less than 2% of children who received dental care in Healthy Kids programs were less than three years of age. By encouraging parents and caregivers to bring children in for dental visits earlier, counties and states may experience substantial fiscal benefits.

Statewide, California ranks very low in the prevalence of children with dental sealants, which are a proven method for the prevention of decay on the chewing surfaces of molars. The National Preventive Dentistry Demonstration Program followed 9,566 participants after four years and found that the application of sealants and fluoride gel saved an average of 1-2 surfaces from tooth decay over the study period<sup>11</sup>. The National Oral Health Surveillance System (NOHSS)<sup>12</sup> ranked California 19<sup>th</sup> out of the 25 states in the surveillance system in terms of percentage of 3rd grade children with sealants. Given the efficacy of dental sealants in preventing disease, efforts should be made to increase the use of dental sealants in CHI enrollees in all counties.

Another proven method for preventing tooth decay is the application of topical fluoride. Of the children continuously enrolled in Healthy Kids, only one half (52%) received a

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<sup>10</sup> Savage MF, Lee JY, Kotch JB, Vann WF. Early Preventive Dental Visits: Effects on Subsequent Utilization and Costs. *Pediatrics*, 114(4). October 2004.

<sup>11</sup> Klein SP, Bohannon HM, Bell RM, Disney JA, Foch CB, Graves RC. "The Cost and Effectiveness of School-based Preventive Dental Care." *American Journal of Public Health*, 1985; 75:382-391.

<sup>12</sup> National Oral Health Surveillance System, accessed November, 2006; <http://www.cdc.gov/nohss/>.

fluoride treatment ranging from 34% to 59% by county. Since most CHI enrollees would be considered high risk, efforts should be made to increase the application of topical fluoride; preferably fluoride varnish or 4-minute gels/foams.

The percentage of children under age 3 receiving services is extremely low and reinforces the need for CHI programs to educate both parents and providers on the importance of finding a dental home and receiving dental care at a very young age. In fact, new clinical guidelines by the American Academy of Pediatric Dentistry and the American Academy of Pediatrics advise parents and caregivers to establish a dental home for higher risk children by 12 months of age.<sup>13</sup>

The California HealthCare Foundation (CHCF) has reported that the profile of children least likely to receive dental care includes being under the age of 5, not having dental insurance, being low-income, Latino or African American<sup>14</sup>. The Children's Health Initiatives continue to demonstrate the great need for oral health care among its members and supports the CHCF findings that dental coverage significantly increases the rates of dental visits.

Questions that need further exploration include: what accounts for the difference in utilization between MediCal and Healthy Kids? What accounts for differences between counties? From this we can design improved programs and achieve better dental health in a larger group of children.

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<sup>13</sup> American Academy of Pediatric Dentistry, Clinical Guideline on Infant Oral Health Care. [www.aapd.org/media/Policies\\_Guidelines/G\\_InfantOralHealthCare.pdf](http://www.aapd.org/media/Policies_Guidelines/G_InfantOralHealthCare.pdf); American Academy of Pediatrics, Oral Health Risk Assessment Timing and Establishment of the Dental Home. <http://aappolicy.aappublications.org/cgi/content/full/pediatrics.;111/5/1113>. (Accessed November, 2006)

<sup>14</sup> Snapshot: *Have and Have\_nots: A Look at Children's Use of Dental Care in California*. California HealthCare Foundation. <http://www.chcf.org/topics/medi-cal/index.cfm?itemID=133575> (accessed February 2008)

## APPENDIX A

### Utilization tables by age groups: 0-5 and 6-18 years

- Table A-1: Number of Children Continuously Enrolled during 2006 by Plan and Age Group
- Table A-2: Number of Continuously Enrolled Children with a Dental Visit by Plan and Age Group
- Table A-3: Percent of Continuously Enrolled Children with a Dental Visit by Plan and Age Group
- Table A-4: Percent of Continuously Enrolled Children (0-5 Years) that Received Diagnostic, Preventive, and/or Restorative Care by Plan
- Table A-5: Percent of Continuously Enrolled Children (6-18 Years) that Received Diagnostic, Preventive, and/or Restorative Care by Plan
- Table A-6: Percent of Continuously Enrolled Children (0-5 Years) with a Dental Visit that Received Diagnostic, Preventive, and/or Restorative Care by Plan
- Table A-7: Percent of Continuously Enrolled Children (6-18 Years) with a Dental Visit that Received Diagnostic, Preventive, and/or Restorative Care by Plan

**Table A-1: Number of Children Continuously Enrolled during 2006 by Plan and Age Group\***

<b>Plan</b>	<b>0-5 Years</b>	<b>6-18 Years</b>
Alameda	17	293
Kern	168	138
Partnership Health Plan	8	51
San Francisco	342	2,375
San Joaquin	210	1,333
San Luis Obispo	73	336
San Mateo	394	3,605
Santa Barbara	12	79
Santa Clara	1,294	9,597
Santa Cruz	136	1,089
<b>TOTAL</b>	<b>2,654</b>	<b>18,896</b>

Note: Includes children enrolled from 1/1/2006 through 12/31/2006 with no more than a 45 day break in coverage

\* Age in years as of 12/31/2006

**Table A-2: Number of Continuously Enrolled Children with a Dental Visit by Plan and Age Group\***

<b>Plan</b>	<b>0-5 Years</b>	<b>6-18 Years</b>
Alameda	9	189
Kern	55	70
Partnership Health Plan	5	31
San Francisco	158	1,542
San Joaquin	106	855
San Luis Obispo	34	175
San Mateo	234	2,537
Santa Barbara	7	60
Santa Clara	746	6,663
Santa Cruz	86	755
<b>TOTAL</b>	<b>1,440</b>	<b>12,877</b>

Note: Includes children enrolled from 1/1/2006 through 12/31/2006 with no more than a 45 day break in coverage

\* Age in years as of 12/31/2006

**Table A-3: Percent of Continuously Enrolled Children with a Dental Visit by Plan and Age Group\***

Plan	0-5 Years	6-18 Years
Alameda	52.9%	64.5%
Kern	32.7%	50.7%
Partnership Health Plan	62.5%	60.8%
San Francisco	46.2%	64.9%
San Joaquin	50.5%	64.1%
San Luis Obispo	46.6%	52.1%
San Mateo	59.4%	70.4%
Santa Barbara	58.3%	75.9%
Santa Clara	57.7%	69.4%
Santa Cruz	63.2%	69.3%
<b>TOTAL</b>	<b>54.3%</b>	<b>68.1%</b>

Note: Includes children enrolled from 1/1/2006 through 12/31/2006 with no more than a 45 day break in coverage

\* Age in years as of 12/31/2006

**Table A-4: Percent of Continuously Enrolled Children (0-5 Years) that Received Diagnostic, Preventive, and/or Restorative Care by Plan**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	47.1%	41.2%	35.3%	17.6%	5.9%	17.6%
Kern	29.8%	28.0%	16.7%	7.1%	4.8%	8.3%
Partnership Health Plan	50.0%	50.0%	37.5%	0.0%	12.5%	25.0%
San Francisco	45.6%	44.2%	19.0%	3.2%	2.9%	6.1%
San Joaquin	46.7%	44.8%	32.4%	11.9%	6.2%	3.8%
San Luis Obispo	45.2%	37.0%	28.8%	9.6%	11.0%	26.0%
San Mateo	57.6%	54.1%	29.9%	7.4%	4.1%	4.1%
Santa Barbara	58.3%	50.0%	16.7%	0.0%	0.0%	16.7%
Santa Clara	57.0%	54.4%	29.2%	9.1%	5.8%	6.7%
Santa Cruz	60.3%	58.1%	29.4%	13.2%	5.9%	21.3%
<b>TOTAL</b>	<b>52.8%</b>	<b>50.2%</b>	<b>27.5%</b>	<b>8.4%</b>	<b>5.3%</b>	<b>7.6%</b>

Note: Includes children 0-5 years enrolled from 1/1/2006-12/31/2006 with ≤45 day break in coverage

Denominator=All continuously enrolled children 0-5 years

**Table A-5: Percent of Continuously Enrolled Children (6-18 Years) that Received Diagnostic, Preventive, and/or Restorative Care by Plan**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	63.1%	62.1%	33.8%	7.8%	9.9%	6.5%
Kern	49.3%	43.5%	37.0%	7.2%	13.8%	10.1%
Partnership Health Plan	56.9%	54.9%	35.3%	0.0%	11.8%	3.9%
San Francisco	63.1%	62.2%	27.7%	3.5%	12.7%	4.7%
San Joaquin	62.2%	58.4%	31.6%	5.2%	15.1%	3.5%
San Luis Obispo	47.9%	49.1%	30.4%	8.0%	13.4%	22.9%
San Mateo	66.7%	67.0%	39.3%	6.5%	13.5%	4.6%
Santa Barbara	72.2%	72.2%	40.5%	10.1%	12.7%	16.5%
Santa Clara	67.5%	66.5%	36.3%	5.5%	16.3%	5.4%
Santa Cruz	63.5%	62.3%	39.3%	6.6%	12.8%	15.9%
<b>TOTAL</b>	<b>65.6%</b>	<b>64.7%</b>	<b>35.5%</b>	<b>5.6%</b>	<b>14.8%</b>	<b>6.0%</b>

Note: Includes children 6-18 years enrolled from 1/1/2006-12/31/2006 with ≤ 45 day break in coverage  
Denominator=All continuously enrolled children 6-18 years

**Table A-6: Percent of Continuously Enrolled Children (0-5 Years) with a Dental Visit that Received Diagnostic, Preventive, and/or Restorative Care by Plan**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	88.9%	77.8%	66.7%	33.3%	11.1%	33.3%
Kern	90.9%	85.5%	50.9%	21.8%	14.5%	25.5%
Partnership Health Plan	80.0%	80.0%	60.0%	0.0%	20.0%	40.0%
San Francisco	98.7%	95.6%	41.1%	7.0%	6.3%	13.3%
San Joaquin	92.5%	88.7%	64.2%	23.6%	12.3%	7.5%
San Luis Obispo	97.1%	79.4%	61.8%	20.6%	23.5%	55.9%
San Mateo	97.0%	91.0%	50.4%	12.4%	6.8%	6.8%
Santa Barbara	100.0%	85.7%	28.6%	0.0%	0.0%	28.6%
Santa Clara	98.8%	94.4%	50.7%	15.8%	10.1%	11.7%
Santa Cruz	95.3%	91.9%	46.5%	20.9%	9.3%	33.7%
<b>TOTAL</b>	<b>97.4%</b>	<b>92.5%</b>	<b>50.6%</b>	<b>15.5%</b>	<b>9.7%</b>	<b>14.0%</b>

Note: Includes children 0-5 years enrolled from 1/1/2006-12/31/2006 with ≤ 45 day break in coverage  
Denominator=All continuously enrolled children 0-5 years **with a dental visit** for any reason

**Table A-7: Percent of Continuously Enrolled Children (6-18 Years) with a Dental Visit that Received Diagnostic, Preventive, and/or Restorative Care by Plan**

Plan	Diagnostic	Preventive	Restorative	Endodontics	Oral Surgery	Adjunctive General
Alameda	97.9%	96.3%	52.4%	12.2%	15.3%	10.1%
Kern	97.1%	85.7%	72.9%	14.3%	27.1%	20.0%
Partnership Health Plan	93.5%	90.3%	58.1%	0.0%	19.4%	6.5%
San Francisco	97.1%	95.8%	42.7%	5.4%	19.5%	7.3%
San Joaquin	97.0%	91.1%	49.2%	8.1%	23.5%	5.5%
San Luis Obispo	92.0%	94.3%	58.3%	15.4%	25.7%	44.0%
San Mateo	94.8%	95.2%	55.8%	9.3%	19.1%	6.5%
Santa Barbara	95.0%	95.0%	53.3%	13.3%	16.7%	21.7%
Santa Clara	97.3%	95.7%	52.2%	7.9%	23.4%	7.7%
Santa Cruz	91.7%	89.8%	56.7%	9.5%	18.4%	22.9%
<b>TOTAL</b>	96.3%	94.9%	52.1%	8.2%	21.7%	8.8%

Note: Includes children 6-18 years enrolled from 1/1/2006-12/31/2006 with ≤ 45 day break in coverage  
 Denominator=All continuously enrolled children 6-18 years **with a dental visit** for any reason