



## FIRST 5 COMMISSION INVESTMENTS IN ORAL HEALTH 2005 –2009

### INTRODUCTION

The First 5 Oral Health Network—a joint project of the First 5 Association of California and the California Dental Association—was created in fall 2008 to promote and advance efforts by First 5 county commissions to address the oral health needs of children ages 0-5. To obtain information for the Network’s Learning Exchange meetings about current and historical investments in oral health, county commissions participated in an online survey in December 2008. Fifty-six of the 58 commissions completed the survey, and, 44 (77%) participated in a follow-up telephone interview. This report, a synopsis of a slightly longer report, presents the survey findings and was prepared by consultant Barbara M. Aved, PhD, MBA, and Moira Kenney, First 5 Association Statewide Program Director.

### SURVEY ASSUMPTIONS AND DEFINITIONS

The survey assumptions and definitions, including how “programs and services” were broken out, are in the Appendix.

Funding and patient visit data were aggregated and are reported here at the regional and statewide level. Commissions were assigned to one of six regions (Table 1):

**Table 1. Commission Regions and Participation**

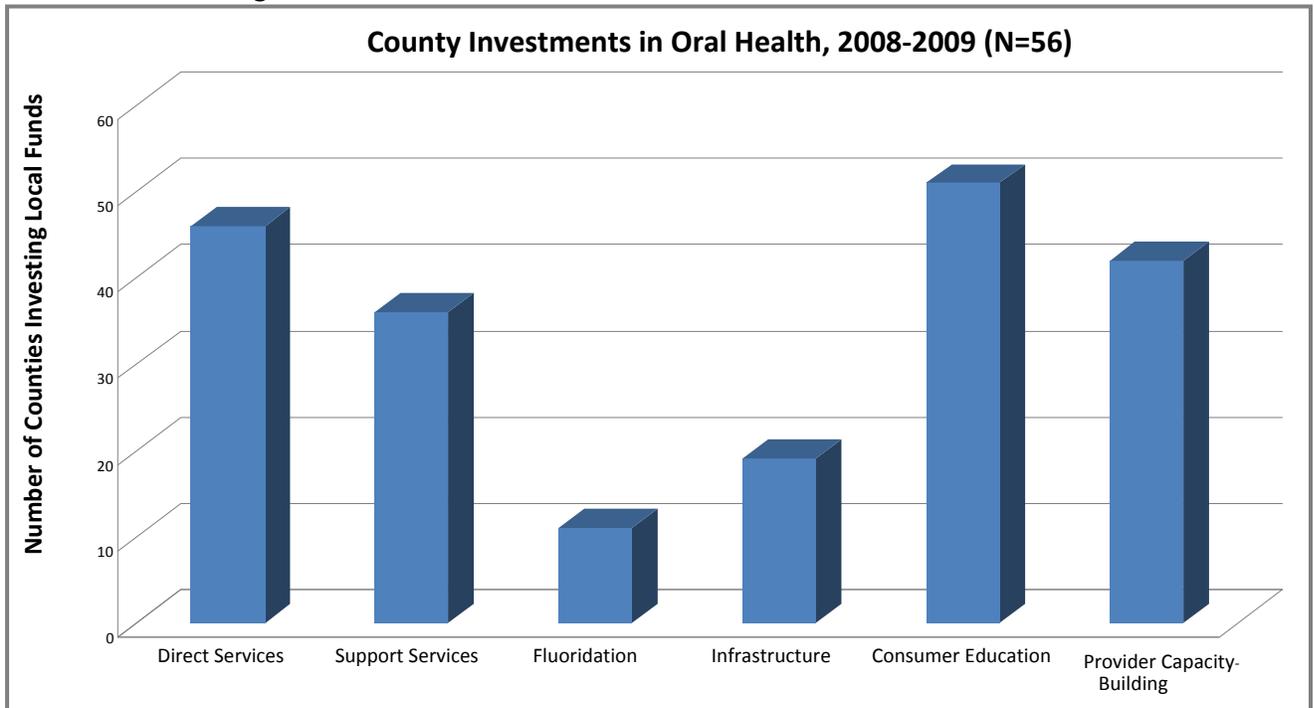
Region	# of Counties Assigned	# of Counties Reporting
Bay Area	12	12 (100%)
Central	8	7 (88%)
Northeast	10	10 (100%)
Northwest	11	11 (100%)
Sacramento	9	8 (89%)
Southern	8	8 (100%)

### FINDINGS

#### What Oral Health-Related Services and Programs are Commissions Supporting in the Current Fiscal Year (FY 08/09), and How Much is Invested?

Nearly all (88%) of the commissions are supporting some type of consumer education, directly or as incidental to other funded activities this year (Figure 1). Close to three-quarters are also funding direct services and provider capacity-building strategies.

**Figure 1. Number of Counties with Oral Health-Related Allocations**



A total of \$28 million has been allocation toward oral health in the current fiscal year. Of this amount, First 5s are primarily supporting projects related to infrastructure investment followed by direct services (Figure 2). However, the cost of fluoridation efforts—the strategy reported by the least number of commissions—disproportionately influences these fund distributions.

**Figure 2. Distribution of Fund Allocations**

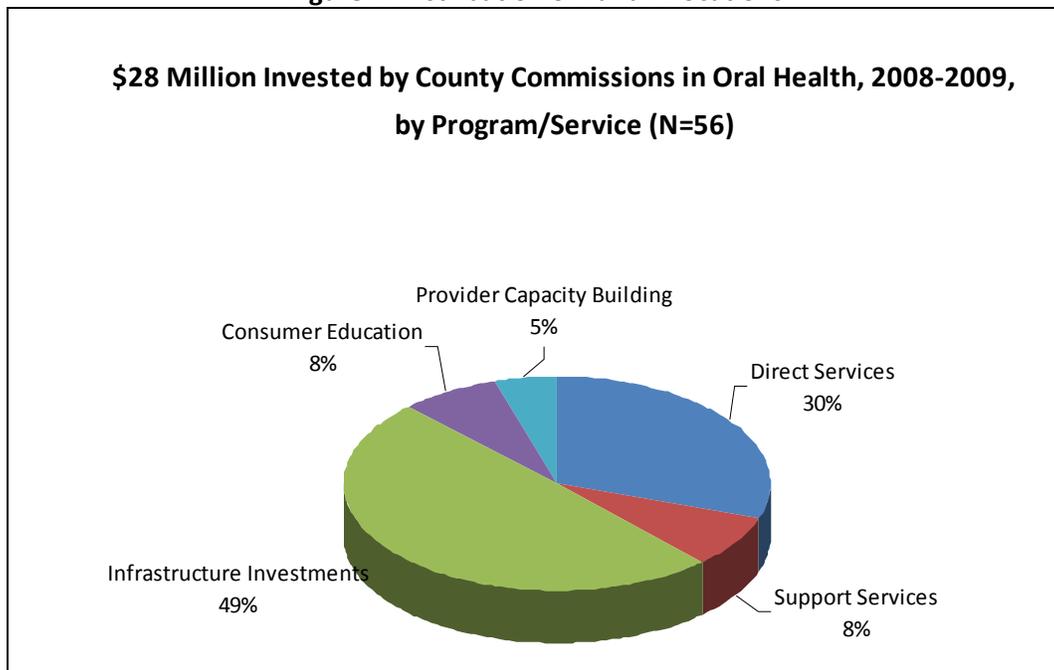
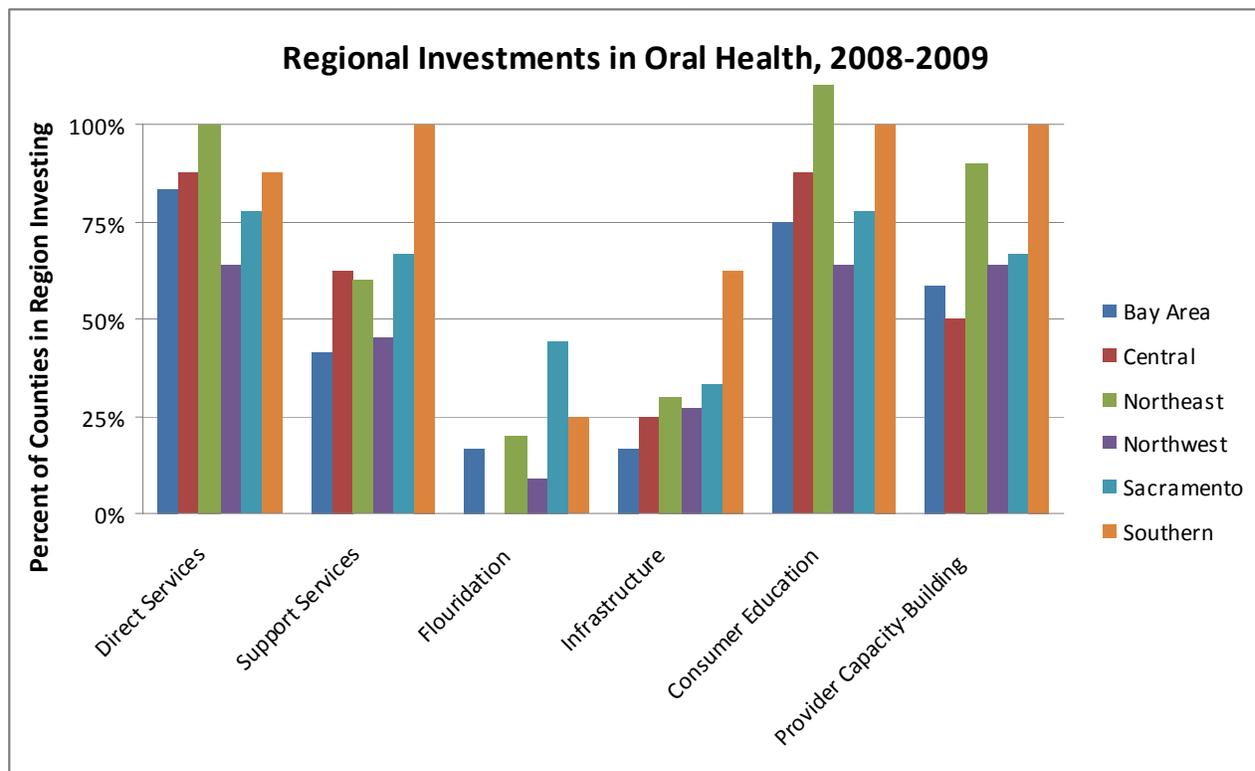


Table 2 displays the reported dollars invested for each of the programs/services by region. Figure 3 shows the percentage of counties in the region investing.

**Table 2. Commission Allocations for Oral Health-Related Programs and Services, 2008-2009 (N=56)**

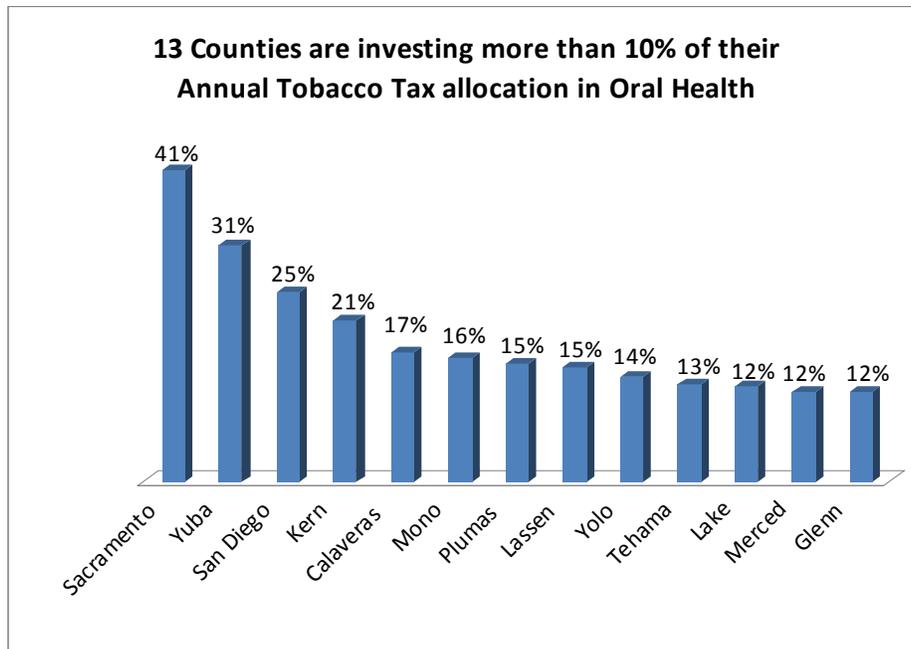
Region	Direct Services	Support Services	Infrastructure Investments	Consumer Education	Provider Capacity Building
Bay Area	\$183,836	\$25,000	\$324,024	\$227,150	\$38,500
Central	\$1,659,962	\$943,972	\$304,500	\$485,072	\$20,200
Northeast	\$240,157	\$44,115	\$52,000	\$39,000	\$39,770
Northwest	\$110,040	\$35,000	\$125,068	\$124,713	\$42,720
Sacramento	\$762,506	\$44,285	\$7,030,000	\$56,342	\$52,871
Southern	\$4,132,937	\$1,157,834	\$6,639,567	\$1,289,453	\$1,172,309
TOTAL	\$7,089,438	\$2,250,206	\$14,475,159	\$2,221,730	\$1,366,370

**Figure 3. Current-Year Regional Allocations**



As a proportion of their annual Proposition 10 funds, about one-quarter (23%) of the commissions are investing greater than 10% toward oral health programs and services (Figure 4).

**Figure 4.**



**How Much Did Commissions Invest in Oral Health in the Last 3 Years?**

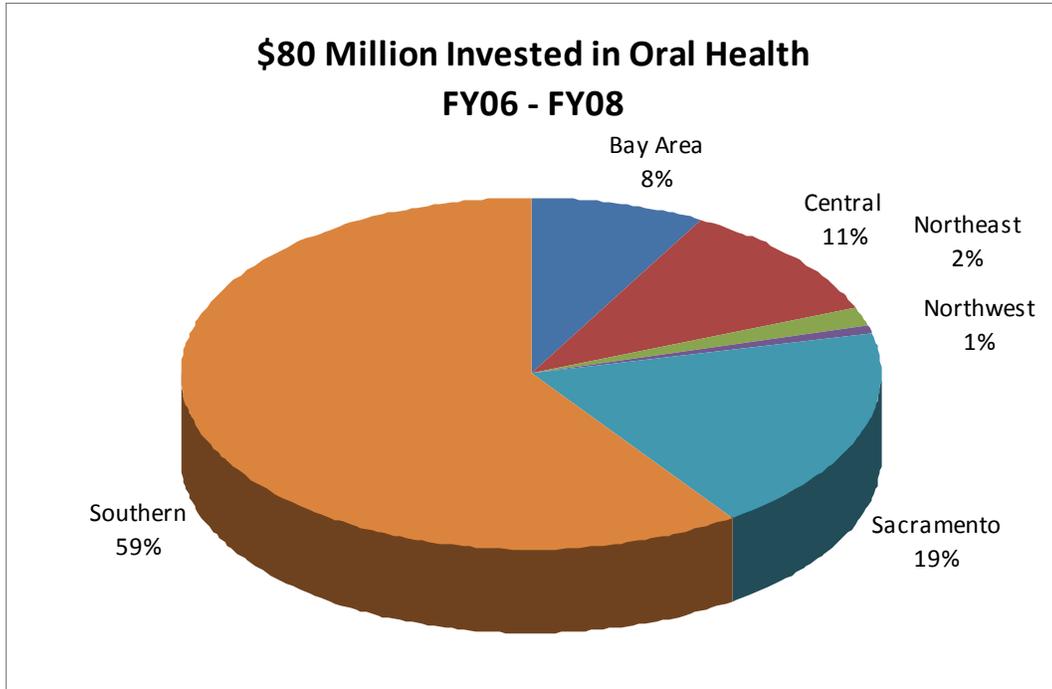
First 5s allocated more than \$80 million in oral health-related grantmaking between FY 2005/06 and 2007/08 (Table 3).

**Table 3. Historical Investment in Oral Health by Region (N=56)**

Region	FY 2006-2008
Bay Area	\$6,419,679
Central	\$8,684,786
Northeast	\$1,274,131
Northwest	\$772,378
Sacramento	\$15,130,543
Southern	\$47,852,787
<b>TOTAL</b>	<b>\$80,134,304</b>

Consistent with the regional distributional of Proposition 10 funds, the greatest proportion, 59%, of the oral health investment was in the Southern California region (Figure 5). The next highest regional investment is the Sacramento area. The investments in both of these regions are skewed somewhat by the large (costly) investments in fluoridation efforts.

Figure 5. Historical Regional Investment in Oral Health



**How Many Children Ages 0-5 Were Served Last Year?**

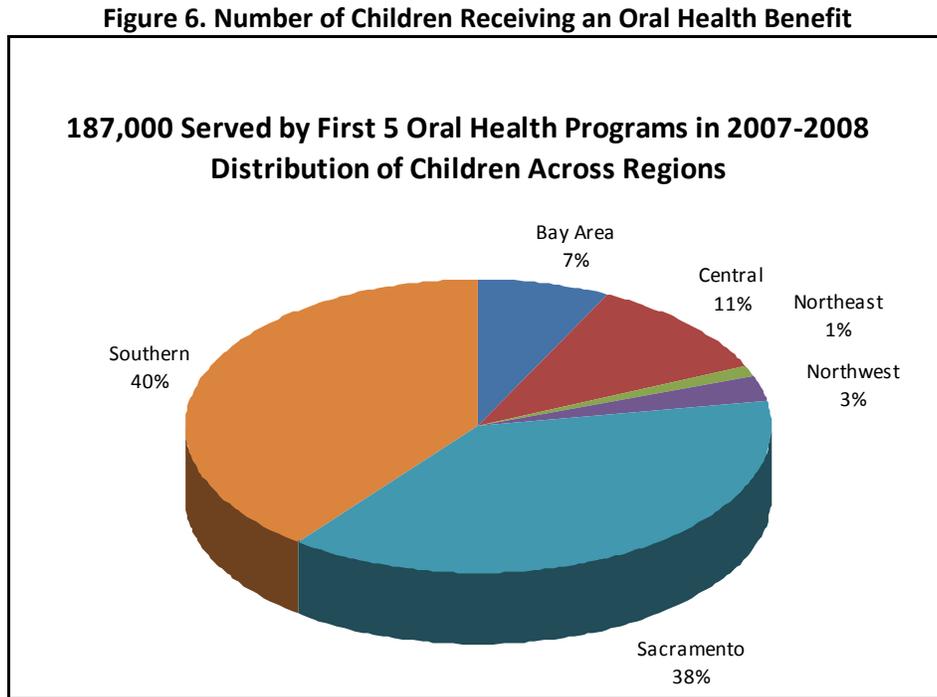
A total of 187,206 children received some type of oral health services in FY 2007/08 (Table 4), although eight of the 56 respondent counties were not able to provide an unduplicated count. The number of children provided an oral health service by the 48 (86%) counties that reported an unduplicated count was 134,245 children.

**Table 4. Number of Children Served, 2007-2008 (N=56)**

Region	Total Served
Bay Area	14,771
Central	22,367
Northeast	2,297
Northwest	5,357
Sacramento	77,257
Southern	79,928
Total*	187,206

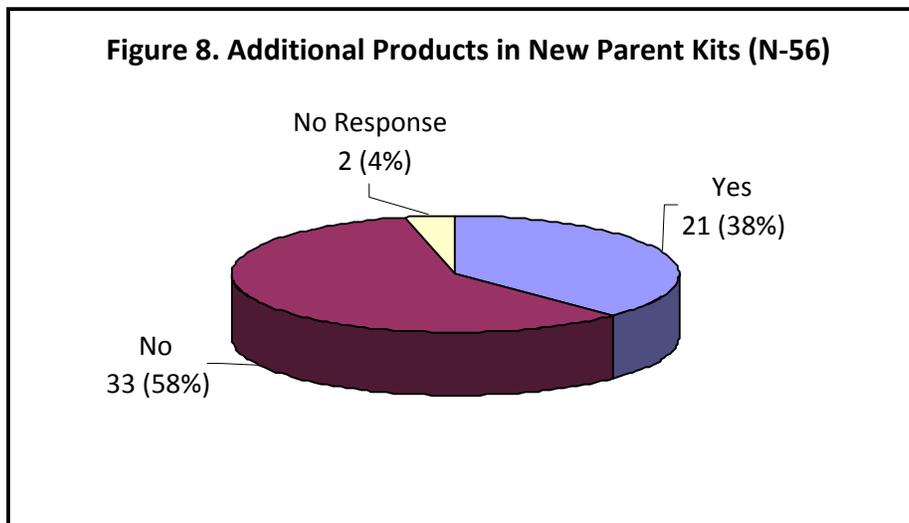
\*Contains some duplication.

Figure 6 shows the percentage distribution by region of the children who received some type of oral health service or program.



**Are any Oral Health Products Added to Kits for New Parents?**

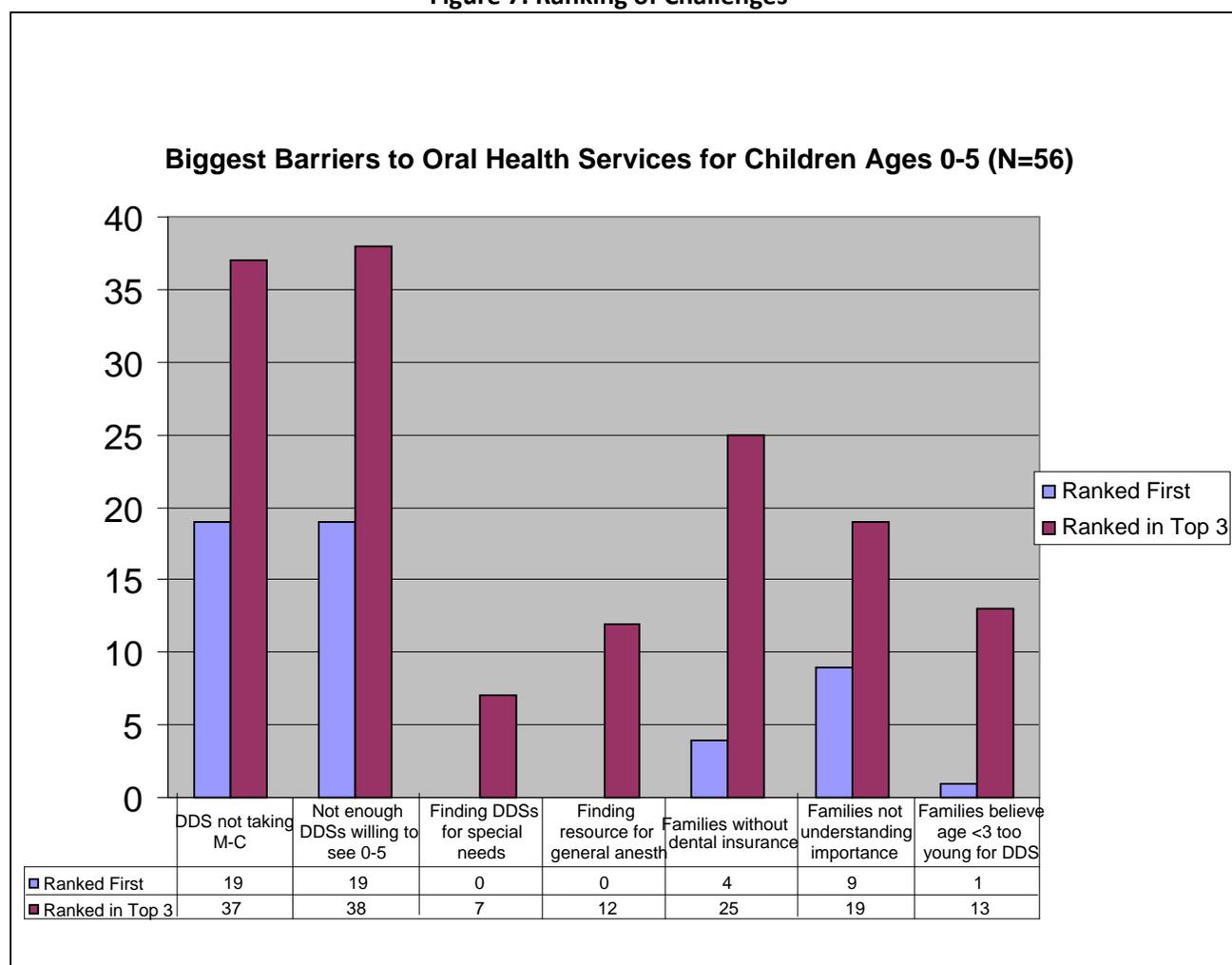
About four in ten (38%) commissions include additional oral health-related products in their Kit for New Parents (Figure 8) as they have found this to be an effective method for bringing the importance of oral care to parents' attention when their children are infants. Tulare, for example, includes The First Years Oral Care set in each Kit and distributed 9,760 in FY 07-08. The Kit includes implements for gum and tooth care from age 3 months through toddler.



## What Have Been the Biggest Barriers to Meeting Oral Health Needs of Children?

- The greatest challenges to serving children 0-5, co-ranked the #1 barrier, are finding dental providers who accept Medi-Cal and finding enough providers willing to see the 0-5 age group (Figure 7). Subsidizing premiums through CHIs or enrolling children in Medi-Cal and Healthy Families does not always equate to access—or utilization of services—at least through the private dental care system.
- The next most commonly first-ranked barrier was parents not understanding the importance of early oral health care and the value in trying to obtain services and adopting positive behaviors at home.

Figure 7. Ranking of Challenges



## How are Commissions Reaching Hard-to-Reach Populations?

Non-English speaking. First 5s fund organizations that employ bilingual and, when possible, bicultural staff for the major language groups in their counties (e.g., Spanish, Chinese, Russian). Educational materials in these languages are also generally widely available. Some commissions,

Nevada for example, support dental “promotoras” to educate Spanish-speaking parents of infants and toddlers.

Rural populations. Rural children and families are provided access through the use of mobile dental vans. Seven commissions are currently supporting this strategy with present-year allocations. The vans provide screening, levels of treatment in some cases, and oral health educational materials for parents/caregivers when families are present at mobile services.

Special needs. The majority of commissions do not have special or unique oral health programs and services that specifically address children with disabilities and other special needs. These children are generally accommodated as they are identified with the same strategies as for all 0-5 children. Only five of the commissions reported supporting a distinctive effort in some way—Sonoma, Lassen, Sierra, San Diego, and Los Angeles.

### **How are Commissions Addressing Continuity of Care?**

- The majority of commissions have been supporting screening programs, and most include fluoride varnish. These programs often connect children to dental insurance if they are eligible.
- Even though some children get connected to regular dental care through large-scale screening efforts, screening and dental premiums don’t appear to be a permanent solution to the lack of dental infrastructure because too few private dental providers are willing to open their practices to more Medi-Cal or 0-5 age children.
- Linkage to treatment is the biggest gap in the continuum of care services, and sedation services, when general anesthesia is necessary, are the most critical problem in most counties.\* Low reimbursement rates and low priority for dental procedures (i.e., high competition for operating room time) are the major barriers to sedation cases. However, access to treatment services *is* increasing, and many programs have identified sympathetic providers, at least for the most serious cases of oral decay, which because they may be done pro bono or “under the radar” may not always be evident or documented.

### **What Do Commissions Consider Their Most Effective Strategies?**

- Close to half the commissions cited screening efforts as the most effective strategy—many with fluoride varnish in addition (Table 5)—because it is preventive, relatively low cost, and increases access to ongoing dental care. The most successful venues for reaching large numbers of children with screening are early childhood education sites and community health fairs.
  - ▶ Fresno – supports large-scale screenings through “kindergarten camps” prior to each school year.
  - ▶ Shasta – includes teaching of tooth brushing in screenings at early care settings.

---

\* In some counties, the problem affects all children, regardless of insurance type or ability to self-pay, as general anesthesia for children’s dentistry is simply unavailable and patients must travel out of county—or several counties away—for services.

- ▶ A few commissions mentioned that their outreach and screening services included pregnant women.

**Table 5. Most Effective Strategies**

Strategy	Frequency of Mention*
Screening (with and without fluoride varnish)	21
Direct parent education	9
Mobile van services**	9
CHI + enrollment in Medi-Cal/Healthy Families	6
Building purchase for dental services (including sedation)/ hospital dentistry, e.g., paying for OR time	5

\*Commissions could cite more than one strategy.

\*\*Could include some of the other strategies listed in this table.

- Direct parent education, including pregnant women, was the second-most cited effective strategy, as parents are recognized as the key to changing children’s oral health status and demonstrating long-term results. Examples include:
  - ▶ Alameda – supports dental case management for families with a significant parent education component.
  - ▶ Napa – sees pregnant women through direct referral from Healthy Moms and Babies prenatal program (and then provides education to the entire family).
  - ▶ Yolo – supports community clinics that have developed an internal referral system so every pregnant woman gets a dental appointment at OB visits.
  - ▶ San Diego – care coordination efforts lead to completed treatment plans for both children and pregnant women
- Mobile vans were viewed as successful for their ability to reach rural populations, take services to school sites, and deliver preventive as well as treatment services to the uninsured and under-insured.
  - ▶ Butte – In addition to screening, offers fillings, pediatric crowns, pulp therapy and the extraction of non-restorable primary teeth.
  - ▶ Lassen – the community clinic will be taking over the van services from First 5, and believes the charges will meet their costs.
- Subsidizing premiums through CHIs and enrolling eligible children in Medi-Cal and Healthy Families was cited by five commissions as the most-effective strategy.
- Solutions for treatment resources, such as permanent infrastructure investment, was cited by four commissions. Examples include:

- ▶ Sonoma – established a state-of-the-art sedation dentistry facility that offers case management and education in addition to the surgery center. The commission provided TA and funds for the initial planning, and more recently major equipment. Mendocino, Lake, Napa and Marin have also provided grants for this regional resource.
- ▶ Fresno – significant allocation toward building a dental clinic (progress is currently suspended).
- ▶ Lassen – helped fund the sedation room at the local community clinic and paid for equipment and training of a clinic dentist. The DDS does procedures twice a month in the local hospital OR and, because it's a money loser, the hospital has now adopted the OR dentistry program as its charity-care community benefit.
- ▶ San Joaquin – actively promoting an about-to-open oral health surgery center that will serve Medi-Cal and children with special needs.

### **What Evidence is there for the Effectiveness of Efforts?**

- Several commissions provided outcome evaluation reports and data that demonstrate various positive oral health outcomes.\* Evidence suggests the following results:
  - ▶ Lake – longitudinal data show countywide collaboration has resulted in systematic changes and a steady decline in the number of children with oral problems and severity of decay; children and families served in the program have improved or maintained good oral health practices.
  - ▶ Nevada – dental "promotoras" education of parents of infants and toddlers has shown a subsequent anecdotal drop in preschoolers with severe dental health issues.
  - ▶ Calaveras – data suggest fluoride varnish, begun in the schools in 2005-06, is contributing to the annual decrease in the number of children with untreated decay and urgent treatment needs.
  - ▶ Lassen –fluoride varnish as well as sealants, cleaning and education has “directly resulted in no Head Start children (the program recipients) being referred for hospital dentistry in 2008—the first time since inception of the children’s oral health program that this has occurred.”
  - ▶ Humboldt – increased tooth brushing time and decreased plaque levels for children that participate in the TOOTH Americorps program.
  - ▶ Santa Barbara – dry tooth brushing in early care and education settings may be reducing the incidence of oral problems among those children.
  - ▶ Napa – women who received a dental visit while receiving prenatal care were more likely to report having brought their child every 6 months for preventive dental care and *intend* to also bring the child every six months in the future.
  - ▶ San Bernardino, Yolo, San Francisco, Shasta – support for training DDSs and non-dental professionals, including MDs to do fluoride varnish, has resulted in increased access to services with more providers willing to see 0-5 children.

---

\* The data were not examined by us; they are shared here as reported by the commissions.

- ▶ Orange – placement of new pediatric DDSs in low-income clinics in exchange for pay-down on student loans; children having their own toothbrushes (previously they had none or shared); children reducing soft drink consumption; children seen at younger ages (decrease in average age at first visit); implementing best practices (e.g., performing as many procedures as a child can comfortably tolerate at 1 visit to minimize risk of no follow-up); more parents understanding that baby teeth *should* be cared about.

### Who Have Been the Major Partners in the Last 3 Years?

Commissions have formally partnered or been at the table specifically for oral health with a variety of local, state and national organizations (Table 6). They have mostly initiated the collaborations, but in some cases were invited into ongoing efforts.

- More than 75% identified their local health department as a major collaborator.
- About 50% mentioned school districts and community health centers (citing Indian health clinics, specifically, in a number of counties), many of which are grantees as well as collaborators.
- Despite proximity to surrounding counties that have invested in oral health, only 6 said they had had any type of relationship with one of the state’s 5 dental schools.

**Table 6. Major Partnerships (N=44)**

Partner	Service/Program/Effort Type	Frequency of Mention
Local health department	Planning/coord.; advisory/advocacy; CHI premiums; referrals from CHDP/MCH; screening sites; parent educ.; MAA funds	33
School districts/Co. Office of Ed	Screening sites; parent liaison; admin. support	18
Community clinics/health centers	Planning/coord.; screening services	17
Other funders	Dental suite at a co-funded community clinic; pay for transportation; fluoridation; CHI	13
Other (e.g., Rotary/other service clubs; Americorps; American Academy of Pediatrics; community college RDA program)	Operational support; promotoras; screening services	11
Hospitals/hospital systems	OR equipment; OR time; advisory/ advocacy	10
Other First 5s	Bi-county/regional treatment resources, mobile vans, screening programs	9
Dental school	Needs assessment; provider inventory; outreach fairs; technical assistance; direct services for 0-5 (e.g., pediatric residents)	6
Local dental society	Access to private DDSs; planning/coord.; presentation to commissioners; chart reviews;	5
Health Partnership/Trust	CHI premiums; fiscal intermediary	4
California Dental Assn/Dental Health Foundation	Planning/coord; advisory; training resources; meeting space	4

Source: Telephone interviews.

## APPENDIX

### SURVEY DEFINITIONS AND ASSUMPTIONS

- All funding information was asked as *allocations*, not expenditures.
- Estimates were acceptable for the general purpose of this survey.
- Commissions with Child Health Initiatives (CHIs) were asked to break out *oral health-related* data. To calculate the annual investment in direct services, commissions multiplied the dental premium by the number of enrolled children (e.g.,  $\$24.82 \times 600 = \$14,892 \times 12$  months =  $\$178,704$ ).
- The request for *outcome* evaluation findings was clarified during the telephone interview as referring to results like improved quality, satisfaction, health status, retention, behavior change, systems change and so forth, as opposed to process results such as numbers served.
- The survey defined “programs and services” as:
  - *Direct Services*: screening with/without fluoride varnish; treatment with/without general anesthesia;
  - *Support Services*: transportation assistance; case management;
  - *Infrastructure*: fluoridation; building or equipment purchase/lease; mobile van purchase/lease;
  - *Consumer education*: social marketing; materials development; parent education; child education; community fairs;
  - *Provider Capacity-Building*: recruitment/retention; training dentists and non-dental professionals to do screening/prevention; support of pro bono providers; community coordination and planning efforts.
- Funding and patient visit data were aggregated and reported at only the regional and statewide level.