County of San Mateo Health Services Agency
Public Health Division

A Profile of Children's Oral Health in San Mateo County

Phase 1

Prepared for the San Mateo County Board of Supervisors
By the Public Health Division
San Mateo County Health Services Agency

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A Profile of Children's Oral Health in San Mateo County Phase I

Alex, a four year old boy, has major health concerns stemming from dental caries. He needs four teeth removed, and sixteen teeth need root canal treatment and need to be capped with stainless steel crowns. Without treatment, further complications will develop. He will be in chronic pain and must be on an antibiotic until dental treatment begins. His insurance carrier, Healthy Families, does not cover the sedation required for the emergency dental treatment necessary. The participating dentist who conducted the initial assessment cannot provide treatment without traumatizing the boy without proper sedation. The parents do not have the financial resources to pay for the proper sedation.

(Actual case reported to San Mateo County Public Health Division, January, 2000.)

The San Mateo County Board of Supervisors expressed interest in the status of children's dental health needs during the Health Services Agency budget hearings in June 1999 and allocated $50,000 to the Health Services Agency to conduct a children's dental health needs assessment. The San Mateo County Dental Coalition has been a driving force in raising the issues of children's oral health to the Board of Supervisors. The following report was prepared by the Public Health Division.

The status of oral health in children on a local and statewide level is a growing concern and an emerging issue for children's advocates. Yet the issue has been difficult to document. Because oral health has not been considered an area of primary care, let alone a major physical health issue, very little, if any, data have been collected. Even national data are collected only every five to ten years, from the National Health and Nutrition Examination Survey and National Health Interview Survey.

This report is divided into five parts:

A. Summary of Findings of this Report
B. Oral Health Needs of Children
C. San Mateo Children in Need of Oral Health Services
D. Access to Dental Care in San Mateo County
E. Recommendations for Next Steps.

A. Summary of Findings of This Report

The data collected in this report support a number of findings about the status of dental care for children in San Mateo County.

1. ***A high percentage of children who receive dental screenings have dental problems, and yet not enough children are screened.*** The Brighter Bites Program, a dental prevention program in San Mateo County, conducts school-based dental screenings and classroom education. In the last screening year, only 16.8% of the 2,300 children screened in non-fluoridated areas were free of caries. Of the 5,198 children screened in 1998-99 by the Child Health and Disability Prevention Program (CHDP) (children with family incomes below 200% of poverty), 2,571 (49%) were identified to have dental problems.

2. ***The number of dentists serving Medi-Cal patients declined 30% from 1997 to 1998.*** This decrease is found throughout the County. The Central and South parts of the County showed the largest drops, 26% and 22% respectively. Only 129 dentists currently serve this population, 105 of whom are currently accepting new patients.

3. ***Coastside access to oral health is extremely limited.*** Of the nine dentists in the area, none accept Medi-Cal/Denti-Cal or Healthy Families. The Coastside Dental Collaborative have identified what they see as a “Pandora’s box” of unmet needs.

4. ***The County Dental Clinics provide the majority of services to low income children needing services. At the same time, clients at the County Dental Clinics suffer from poor access to dental services, difficulties obtaining appointments, long wait times for appointments, and long wait times in the clinics before they can see providers.*** In addition, the full range of specialty dental services often needed by clients is generally not available at the clinics. There are multiple reasons for these difficulties. As the largest provider of dental services for low-income children, the clinics serve a high volume of children, placing many strains on the system. Recruiting pediatric dentists has been an ongoing problem, due to three issues - the overall shortage of pediatric dentists, compensation issues, and the limited scope of practice opportunities at the county clinics. Due to the high volume of clients, the clinics made the decision to limit the scope of practice to ensure that as many people as possible are seen at the clinics. More than 7,000 dental visits are provided each year at the four clinic locations, a majority to children.

5. ***San Mateo County has not achieved the Healthy People 2000 goal of 75% of community water supplies being fully fluoridated.*** Currently only 47% of population of the County reside in areas with fully fluoridated water. About 14% of children in the County live in areas with no fluoridation and an additional 39% live in areas with only partial fluoridation. As a result, these children are at higher risk of dental disease, and need to supplement the fluoride they are missing in their water, through pills, rinse and dental application.

6. ***San Mateo has a long way to go to reach the Healthy People 2000 goal of 50% of children having sealants on their molar teeth.*** The only data available on this in the County are through Brighter Bites, which found that fewer than 10% of children screened in non-fluoridated areas had sealants. While the percent has nearly tripled in four years, this very low rate suggests the underuse of an important preventive measure.

7. ***The children who have special access issues include the following groups*:**

   - ***Children whose families have no health insurance, and those who have medical insurance but no dental insurance***: Access to dental insurance is extremely limited: in California, 26% of preschoolers, 28% of kindergarten to third grade and 44% of high school students have no dental insurance. In addition, 21% of the County's children had no health insurance in 1998.[1]

   - ***Children who are Medi-Cal beneficiaries***: Approximately 27,400 San Mateo County children were Medi-Cal eligible in 1997-98.[2] Of those, almost 13,000 children were beneficiaries who accessed general health screening services through CHDP. However, Denti-Cal, the dental program for Medi-Cal beneficiaries, has such a low reimbursement rate most dentists in San Mateo County won't accept it. Denti-Cal is also not a benefit of the Health Plan of San Mateo, our Medi-Cal managed care plan.

   - ***Children who are Healthy Families beneficiaries***: Children who are covered by Healthy Families are now eligible for dental care. Unfortunately, many of them have received no treatments or prevention education for long periods of time before the start of this health insurance program. Many have significant remediation ahead of them. Parents report obtaining Healthy Families coverage for their children because of the dental coverage. There is currently no information available concerning the use of Healthy Families. Anecdotal reports show that low reimbursement keeps dentists from participating in this program, similar to Medi-Cal. Enrollment in Healthy Families has also lagged, largely due to the complexities of signing up for the program.

   - ***Children whose parents have limited education***: Studies for Healthy People 2000 consistently show that children whose parents have limited education (less than high school), are less likely to be screened appropriately and less likely to follow prevention regimens, with regular brushing with fluoride toothpaste, flossing, etc.[3] In San Mateo County, 20% of children grow up in such households.

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1 HM Schauffler and ER Brown. *The State of Health Insurance in California, 1999*. Berkeley, CA: Regents of the University of California, January, 2000.

2 California Department of Health Services, Children's Medical Services, Child Health and Disability Prevention Program, Tables 53 and 54, July 1997-98.

3 J. Fine, op.cit.

- ***Children with disabilities***: Children with special needs have unique access issues that many dentists either cannot or will not meet. These are children with mental health issues, development delays or disabilities, and learning disabilities; children on medications which complicate procedures; and/or physically handicapped children. They also have fewer resources to call upon and more difficulty in achieving oral health. Access barriers for children with disabilities include the additional training dentists and dental assistants must have to perform otherwise routine services; the length of time a visit takes, and therefore the ratio of time to reimbursement; transportation; ability to do routine dental maintenance; and the lack of knowledge of which dentists are qualified to serve children with special needs.

- ***Children living on the Coastside:*** There are significant access issues relating to transportation and the lack of dental providers in this geographic area.

8. ***The lack of data on oral health is a major block to measuring progress.*** It also points to the relative priority given to oral health in primary health care. Requiring separate insurance, separate providers with separate training, and separate equipment, oral health has been relegated to a stepchild status in most communities. Although the benchmarks have been set by the Healthy People 2010 process, consistent monitoring, such as is done by Brighter Bites with a limited sample, is essential to improving the oral health of children. Until a commitment is made by policymakers, funders, and providers to measure progress and to commit resources to education, prevention, and treatment, oral health will remain a problem.

B. Oral Health Needs of Children

The improvement in oral health in America is one of the major public health success stories of this century. Public health measures such as fluoridation of water, preventive approaches available for self-care (fluoride), and professional dental services (fluorides and dental sealants) have resulted in dramatic reductions in dental caries (cavities) among children and young adults. The proportion of school-age children who now have "caries-free" permanent teeth has more than doubled during the last 20 years, primarily as a result of drinking fluoridated water, using fluoride toothpaste, having sealants applied, and a higher rate of dental visits.

Among school-age children in the US, 25% experience 75% of the tooth decay.[4] That 25% who experience the majority of dental caries typically represents children who are from economically or socially disadvantaged families, children who have some type of disabling condition, or children who experience other barriers to preventive and treatment services. Many children who experience oral health problems in childhood continue to experience them the rest of their lives.

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[4] *Oral Health of United States Children: The National Survey of Dental Caries in U.S. Children: 1986-87.* Bethesda, USDHHS, 1989.

Oral health in children is a necessary prerequisite to overall health and well-being and should be part of comprehensive primary care. Most oral diseases in children are preventable. Oral diseases can cause pain, interference with eating, poor self-image, over-use of emergency rooms, and valuable time lost from school and work. Tooth decay, pain, infection and gum diseases are the most common oral health problems facing California's children. Methods of oral hygiene, such as brushing with fluoride toothpaste and flossing, regular dental visits, application of dental sealants, early detection of oral diseases, and changes in behaviors can eliminate most oral diseases and produce enormous improvements in oral health in both adults and children.

Children aged 6 through 8 are at an important stage of dental development: they have a complement of primary teeth as well as their permanent first molars and incisors. The importance of optimal oral health for these children cannot be overemphasized.

The State of California's Oral Health in Children

In California, our children are in significantly worse shape than the national trends. In 1993-94, the percentage of 6 – 8 year olds with untreated decay was more than twice as high as the US average for this age group in 1986-87 and 175% higher than the Healthy People 2000 objective for the nation.[5] Whereas other states used to look to California as a trendsetter in public health innovations, especially prevention and health promotion, now California ranks 47th in the nation in percent of the state's population benefiting from fluoridated drinking water.[6] Compared to the Year 2000 goal of 75% of the population, California hovers at 16% while the rest of the nation had reached 62% by 1992.[7]

In the US in 1986-87, 47% of all 6 – 8 year olds had never had a cavity. As of 1995, the nation had reached less than 20% of the target of no caries in this age group.[8] In California almost ten years later, however, only 27% of children in this age group, and only 29% of 15 year olds, have never had a cavity. Almost one third of California preschoolers and more than two thirds of elementary and high school children have experienced tooth decay. More than half of all school-age children have untreated tooth decay. More than 20% of tenth graders are in urgent need of dental care for intensive decay, pain, or infection, and more than 60% have gum disease requiring professional treatment.[9]

Improvements in oral health have not been experienced uniformly nationally, statewide or locally. People of color and individuals from low socioeconomic communities continue to experience higher disease levels and subsequent problems due to inappropriate or inadequate treatment and lack of access to dental care. Lower education levels of

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5 Jared Fine, *The Oral Health of California's Children: A Neglected Epidemic.* San Rafael, The Dental Health Foundation.

6 Fluoridation Census: 1992: Summary, Atlanta, CDC, USDHHS, PHS, 1993.

7 Ibid.

8 *Healthy People 2000 Midcourse Review and 1995 Revisions*, US Department of Health and Human Services, Public Health Service. 1995.

9 J. Fine, op.cit.

parents have also been shown to have a negative impact on the oral health of their children.[10]

Healthy People 2000 and 2010 Targets

Healthy People 2000 established a national health promotion agenda to improve the health of all Americans. The origin of *Healthy People 2000* is the 1979 Surgeon General's report on health promotion and disease prevention, which stated that its purpose was to encourage a second public health revolution in the United States. Released in 1990, *Healthy People 2000* set 319 objectives organized into 22 priority areas. The overarching goals are to increase years of healthy life, reduce disparities in health among different population groups, and achieve access to preventive health services. The goals have been monitored and revised to create new goals for 2010.

In developing the targets for national oral health, a number of assumptions were made. Oral disease prevention technologies are not expected to undergo major changes in the immediate future. Although there may be new products, much of what needs to be accomplished still will depend on conscientious personal oral health care supplemented with regular professional care. The Healthy People 2000 committee working on oral health identified the principal strategy should be to expand the use of the most effective and efficient preventive methods, which meant the expansion of community water supply fluoridation. Below are the nine (out of sixteen) oral health objectives relevant to children in the Healthy People 2000 and 2010 documents.

Healthy People Oral Health Objectives[11]

1) Reduce the proportion of children and adolescents with caries (in permanent or primary teeth).

2) Reduce the proportion of untreated dental caries among children.

3) Increase the proportion of children with protective sealants on molar teeth.

4) Increase the proportion of people served by community water systems providing optimal levels of fluoride.

5) Increase use of professionally or self-administered topical or systemic (dietary) fluorides to those not receiving optimally fluoridated public water.

6) Increase the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay for children.

7) Increase the proportion of all children entering school programs for the first time who have received an oral health screening, referral, and follow-up for necessary diagnostic, preventive, and treatment services.

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[10] Ibid.

[11] *Healthy People 2000 Midcourse Review*, op.cit.

8) Reduce smokeless tobacco use by males.

9) Extend the requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risk of head injuries.

California has not met the Healthy People 2000 oral health objectives, and new targets have now been set for 2010.[12] There are insufficient data to determine San Mateo County's compliance with nearly all of the Healthy People 2000 objectives. All indications from data that are available is that objectives have not been met.

C. San Mateo Children in Need of Oral Health Services

Oral disease is the most common health problem among low income children in San Mateo County. Dental caries (cavities) occur in 80% of children by the time they reach their 18th birthday, compared to 71% statewide.[13]

There were 176,132 children 0 – 17 in San Mateo County in 1998, 22% of the total population.[14] Almost 10% of all children in the County – nearly 17,000 children age 0 – 17 - lived in poverty in 1995, compared to 22.3% statewide.[15] Twenty percent of the children in the County live in households in which the mother has less than twelve years of education, which is considered to be a risk factor for oral health problems.[16] The best data available indicate that more than 20% of children in the County are uninsured.[17]

Table 1 shows the breakdown on San Mateo County's children by age grouping – five to nine year olds were the largest group in 1996. This is the age group which is at an important stage of dental development, although the earlier the intervention, the more likely problems can be detected and avoided. For example, the American Academy of Pediatric Dentistry recommends that infants have their first dental examination when the first tooth erupts, but no later than twelve months of age.

Table 1
Ages of San Mateo County's Children, 1996

	#	%
Age		
Infant (<1)	10,056	6%
1 to 4	41,659	24%
5 to 9	49,514	28%
10 to 13	34,319	20%
14 to 18	38,680	22%
Total 1996	174,228	

Source: California County Data Book, 1997, Children Now, State of California, Department of Finance.

[12] Internal Health Department documents.
[13] San Mateo Dental Collaborative figures.
[14] State of California, Department of Finance, *City/County Population Estimates, with Annual Percent Change, January 1, 1998 and 1999.* Sacramento, California, May 1999.
[15] Children Now. *California Data Book 1999*. Oakland, CA. 2000.
[16] Ibid.
[17] Schauffler and Brown, op.cit.

Screening for Low Income Children

Children living in families earning less than 200% of poverty are eligible for the State's CHDP Program. Part of the preventive health exams performed by CHDP provides includes screening in oral health. Over the past five years, about 25,000 children a year have accessed the general screening. However, the number who have been screened for oral health is a much smaller number, having risen from a low of 3,676 in 1994-95 to only 5,198 in 1998-99.

Table 2 shows the number of children screened and identified with problems through the California Department of Health Services.[18] These data come from all CHDP providers in the community. In reviewing three years of data, it is important to note that the state changed its own methodology in counting the target population for CHDP (200% of poverty) and Medi-Cal, as can be seen by the large drop in both target populations in 1997-98. The total number of children screened rose 41%, from 3,676 to 5,198. Of those low income children screened, almost half (49% or 2,517 children) had dental problems. The proportion of dental problems to all health problems in the CHDP population has ranged from 40-50% over the past five years. This number is far from the Healthy People goal of 80% of children living caries-free. Children with Medi-Cal were identified less often with dental problems, probably because of access to Denti-Cal, the dental component of Medi-Cal. As many as 62% of the State-eligible children were identified with dental problems.

Table 2
CHDP Children Screened and Identified with Oral Health Problems

	1994-95	1995-96	1996-97	1997-98	1998-99
Total CHDP Target Population (0 – 20)	NA	111,397	111,937	44,329	NA
Total Children Served	NA	25,092	25,412	25,780	NA
%of Total Population Served	NA	22%	23%	58%	NA
Total CHDP Children Screened for Dental Problems	3,676	4,332	4,569	5,676	5,198
Total CHDP Children with Dental Problems	1,978	1,807	2,284	2,276	2,571
% of Total CHDP Children Screened With Dental Problems	54%	42%	50%	40%	49%
% of Medi-Cal CHDP Children Screened With Dental Problems	41%	39%	38%	38%	31%
% of Non-Medi-Cal CHDP Children Screened With Dental Problems	62%	43%	56%	41%	58%

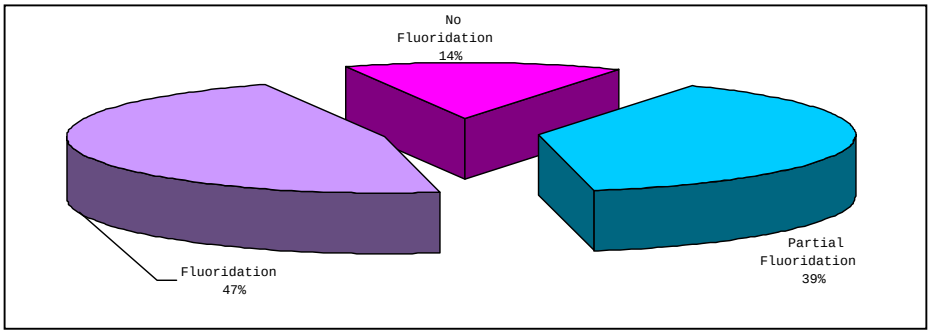
Source: California Department of Health Services. Children served based on CHDP claims.

Water Fluoridation in San Mateo County

Almost half (47%) of San Mateo children 0 – 18 live in areas with full fluoridation, while 39% live in areas with partial or intermittent fluoridation. Only 14% live in areas with no fluoridation. (See Chart 6 and map on page 10.)

[18] State of California Department of Health Services, Children's Medical Services, Child Health and Disability Program, Tables 52, 53, 54, 56, 58, for years 1995-96, 1996-97, 1997-98, and 1998-99.

Chart 1
Percentage of Children Living in Fluoridated, Non-Fluoridated and Partially Fluoridated Areas of San Mateo County



Source: Department of Public Health, San Mateo County, 2000.

Research on the success of water fluoridation, which has been shown to reduce cavities by more than 50% in children, led to a statewide bill signed in October 1995, which encourages water districts to adjust the natural level of fluoride in their water. It also initiated education and prevention projects such as Brighter Bites. This school-based dental education program provides toothbrushes, fluoride, educational materials, and classroom presentations to preschool through sixth grade in non-fluoridated communities. Targeted schools in San Mateo both do not have fluoride in their community water system and do have a large percentage of children on the subsidized school lunch program, and are therefore low-income. Brighter Bites serves 3,000 school age children in San Mateo County. The focus of the program is to teach children how to prevent dental disease by teaching them how cavities and periodontal disease occur and methods to prevent them.

The Healthy People 2000 Midcourse Review and 1995 Revisions cites an unnamed study of three unnamed communities which showed the importance both of fluoridation and prevention efforts in local areas. This study showed that 52% of the children were caries-free in the optimally fluoridated area, compared to 40 and 25% in the two sites with minimal fluoridation.[19] The contrast in caries-free rates between the two minimally fluoridated communities appears to be due to the difference in uses of dental sealants. In the community with 40% caries-free children, 54% had dental sealants; in the community with 25% caries-free children, only 7% had dental sealants; in the optimally fluoridated community, 6.5% of the children had dental sealants. Such data illustrate the impact of multiple interventions.

[19] Healthy People 2000 Midcourse Review and 1995 Revisions, USDHHS, PHS. Please note the communities involved were not named in the report.

INSERT MAP HERE

Screening of Children Living in Non-Fluoridated Areas of San Mateo County

The Brighter Bites Program tracks the progress of its screening program. The staff has used selected school samples which comprised 1,790 students in 1995, 1,203 in 1996, 1,603 in 1997, and 2,293 in 1998. Funding for this program last year was $13,000. It is important to note that these screenings do not have a control group in fully fluoridated areas.

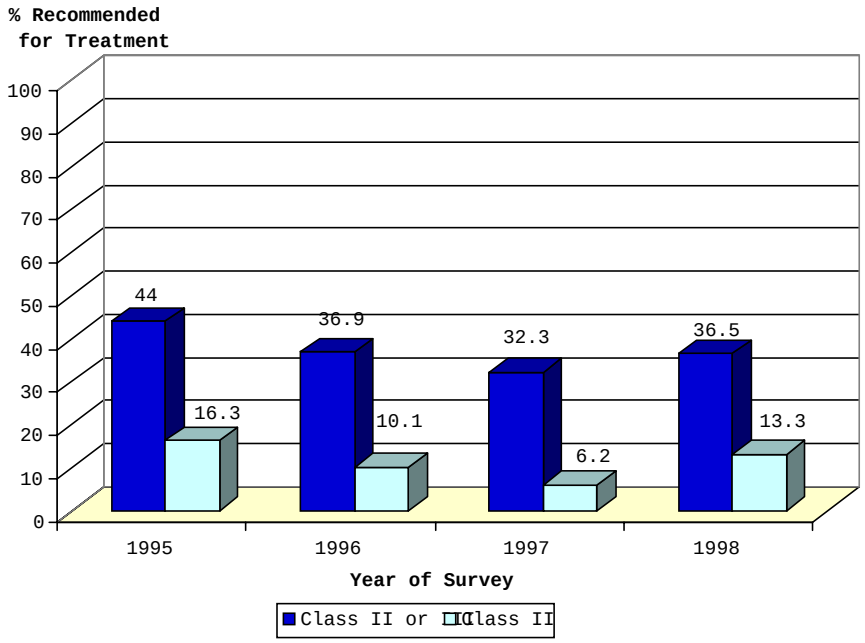
The screening tracked the following oral health concerns among children:

3) Proportion of children with Class II or Class III Dental Status (Chart 2)
4) Proportion of children free of dental caries (Chart 3)
5) Proportion of children with early childhood caries ("Baby-Bottle Tooth Decay") (Chart 4)
6) Children recommended for prophylaxis or orthodontia (Chart 5)
7) Proportion of Children With or Recommended for Sealants (Chart 6).

In each of these areas, the children screened fare worse than the Healthy People goals. Also of concern is the fact that in most cases progress was being made in each area in the first three years of screening, followed by a year of regression. This highlights the need for consistent and repreated education, combined with movement toward community water fluoridation.

The Proportion of Children with Dental Problems. The need for oral health services has been classified according to urgency. Class II is considered less urgent, such as the need for fillings in caries. Class III is considered urgent care, for such needs as root canal, treatment of advanced periodontal disease, and acute pain. As can be seen in Chart 2, the proportion of children in need of oral health services in non-fluoridated areas had declined 27% in three years, although still an unacceptably high number. Then, in 1998, the rate rose slightly. The decline in need for urgent treatment showed an even steeper drop of 63% from 1995 - 1997. Again, 1998 showed an increase, this time a sharp one, from 6.2% in 1997 to 13.3% in 1998 - more than double. This points to the need for early intervention services and referrals.

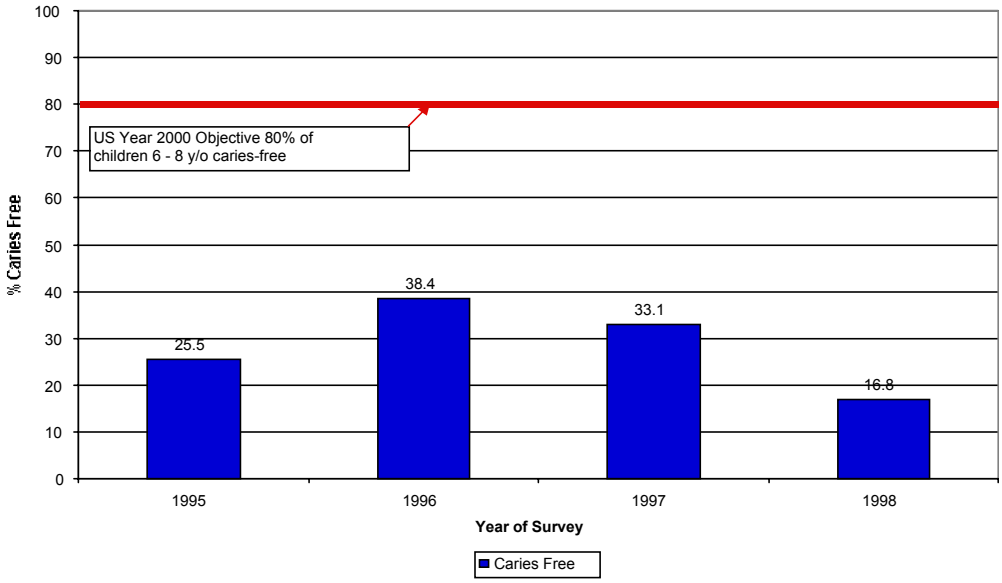
Chart 2
Proportion of Children with Class II or Class III Dental Status
Children K-6th Grade, Selected Schools
San Mateo County (Non-Fluoridated Areas) 1995-98



Note: Class II requires non-urgent restorative treatment. Class III requires urgent restorative treatment.
Source: San Mateo Brighter Bites School-Based Screening.

Proportion of Children Caries Free. The proportion of children free of dental caries in the sampled non-fluoridated areas had improved by 29% in three years, although still considerably below the Healthy People goal of 80% caries-free. As can be seen in Chart 3, again in 1998, the situation worsened among the screening group: only 16.8% of children were caries free children in 1998.

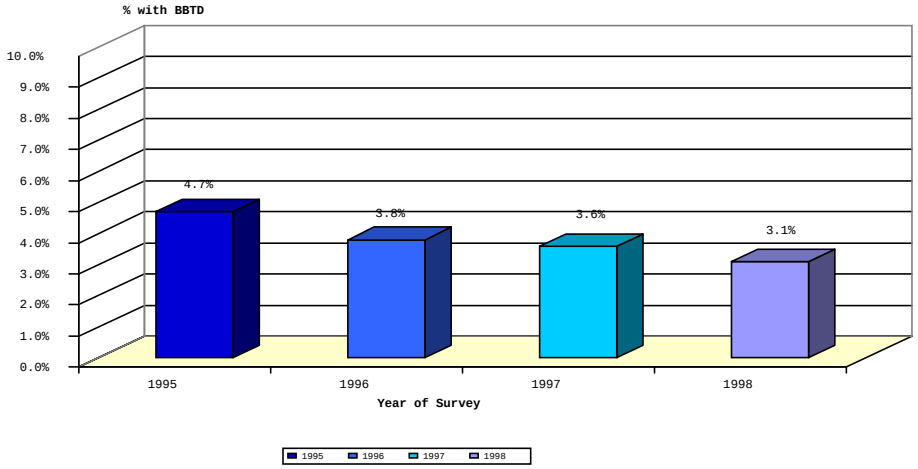
Chart 3
Proportion of Children Free of Dental Caries
Children K-6th Grade, Selected Schools
San Mateo County (Non-Fluoridated Areas) 1995-98



Source: San Mateo Brighter Bites School Based Screening.

Proportion of Children with Early Childhood Caries. The proportion of children with early childhood caries among children K-6 has decreased 34% in four years, from 4.7% in 1995 to 3.8% in 1996, to 3.6% in 1997, to 3.1% in 1998, as can be seen in Chart 4. The Healthy People goal is that 75% of parents and caregivers practice feeding habits which prevent this disease, information that is not available through this screening.

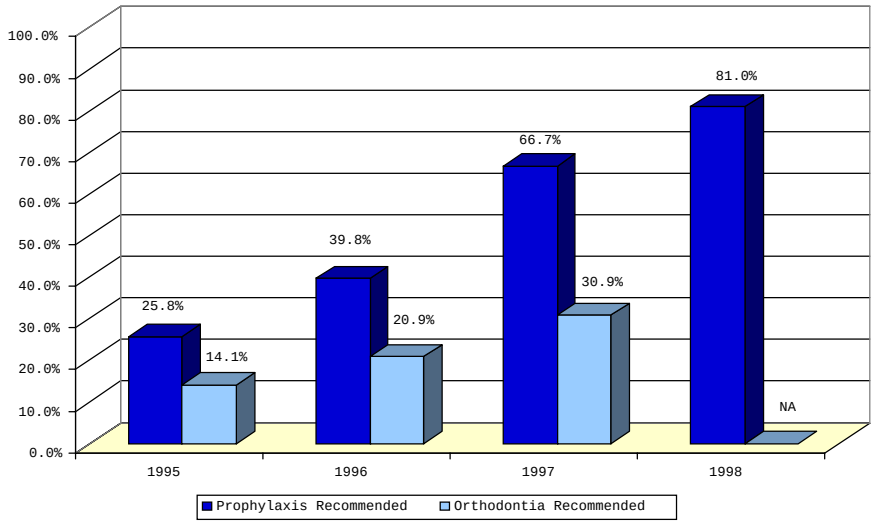
Chart 4
Proportion of Children with Early Childhood Caries
Children K-6th Grade, Selected Schools
San Mateo County (Non-Fluoridated Areas) 1995-98



Source: San Mateo Brighter Bites School Based Screening.

Proportion of Children Recommended for Prophylaxis or Orthodontia. As can be seen in Chart 5, the proportion of children recommended for prophylaxis (preventive care, such as teeth cleaning) and orthodontia has increased dramatically over three years, most likely due to more screening efforts in the Brighter Bites Program. However, it also points to the likelihood that a large number of children are not getting the preventive care they need on a regular basis.

Chart 5
Children Recommended for Prophylaxis or Orthodontia
Children K-6th Grade, Selected Schools
San Mateo County (Non-Fluoridated Areas) 1995-98

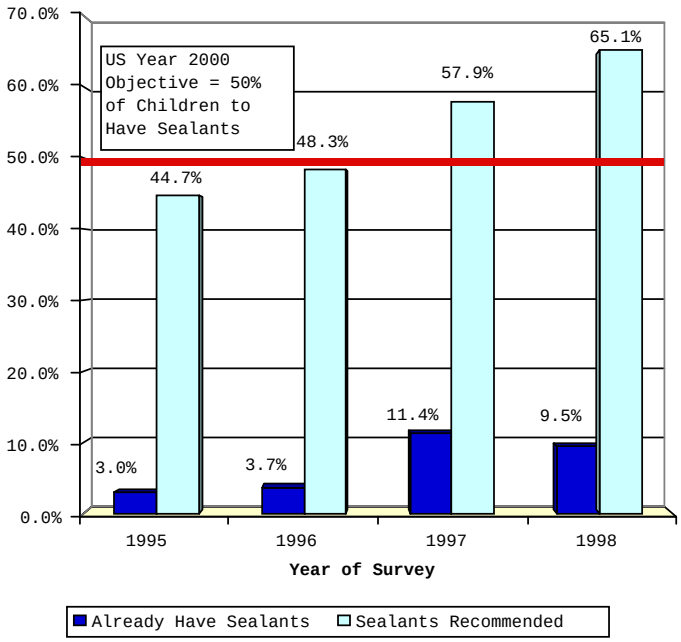


Source: San Mateo Brighter Bites School Based Screening.

Proportion of Children with Dental Sealants. While the ages of 6 – 8 are the optimal years for application of sealants to the first permanent molars to protect them from decay, only 10% of California children in this age group had received them in 1993-94. In states where the state health department and the dental profession have worked together to promote their use, the proportion of children in this age group with sealants rose from 11% in 1986-87 to 26% in 1992-93. Sealants are especially important in areas without fluoridation, so it is a matter of great concern that the Brighter Bites screening found that fewer than 10% of the children had sealants in these non-fluoridated areas (see Chart 6). There is reason for hope as more and more children are recommended for sealants, but until they have reached the minimum goal of 50% of children having sealants, children in these areas continue to be at high risk.

The proportion of children recommended for sealants has nearly tripled in four years, from 3% in 1995 to 9.5% in 1998, as can be seen in Chart 6 from the Brighter Bites screening program of children in non-fluoridated areas. This is still woefully below the Healthy People goal of 50% of children with sealants. Concurrently, the percentage of children for whom sealants have been recommended has risen consistenly ffrom 44.7% in 1995 to 65.1% in 1998, an increase of almost 50%.

Chart 6
Proportion of Children With or Recommended for Sealants
Children K-6th Grade, Selected Schools
San Mateo County (Non-Fluoridated Areas) 1995-98



Source: San Mateo Brighter Bites School Based Screening.

D. Obstacles to Access To Dental Care

Significant and unique barriers exist for many families trying to access dental care in San Mateo County for their children. Personal and cultural barriers combined with economic factors and overcrowded or inefficient systems of care can seem insurmountable. Barriers such as inadequate reimbursement, restrictions on care, administrative paperwork, lack of coverage, or other factors also affect providers of dental care.

Several surveys, interviews, and informal discussions share congruence that a primary obstacle to increasing the supply of dentists willing to see low income children. The telephone survey conducted by the Health Education Department, minutes of meetings at the Coastside Dental Collaborative and interviews with dentists show that the primary reasons are the lack of coordination, low reimbursement rate, level of paperwork requirements, salary issues of dentists at the county clinics, and the limited scope of work permitted at the County clinics.

Dentists Willing to Serve Medi-Cal and Low Income Children

There are only 129 dentists who currently serve pediatric Medi-Cal/Denti-Cal clients, 105 of whom are currently accepting new pediatric Medi-Cal/Denti-Cal clients, for the 17,000 children in the County who live in poverty. Extrapolating data from the State Department of Health Services list of Medi-Cal/Denti-Cal dentists which showed 334 dental providers in San Mateo County in 1997 and 234 in 1998, it appears that this is a reduction of 30%. Unknown is how many pediatric Denti-Cal patients each of these 105 dentists will accept. Kaiser does not provide dental services, or a referral system for its members.

The Health Education Department of the San Mateo Public Health Division conducted a survey in January 2000 through telephone interviews with dentists, successfully reaching 200 dentists, as shown in Table 3.

Table 3
Dentist Survey Results

	Yes	No	Did not answer/did not know
Accepting new pediatric Medi-Cal/Denti-Cal clients	105	95	34
Percent of 234	45%	40%	15%
Currently serve pediatric Medi-Cal/Denti-Cal clients	129	65	40
Percent of 234	55%	28%	17%

Source: Health Education Department telephone survey, conducted January 2000.

Of the 200 dentists who responded to a question about ability to provide dental services in a language other than English, 58% provide services in Spanish, 40% in Tagalog, 17% in Chinese, and 5% in Russian.

Of the 95 dental offices not currently accepting new pediatric Medi-Cal/Denti-Cal patients in the telephone survey, the top four reasons given were business concerns (13%), too much paperwork (8%), the limited scope of Denti-Cal services (8%), and billing problems or non-payment (5%). Almost half (41) either did not know or did not answer the question.

Of the 65 dental offices who reported that they do not currently serve Denti-Cal patients, the top reasons stated were again business concerns (9%), no calls or referrals from these clients (6%), low reimbursements (6%), or referred clients to another dentist (5%). Almost half (32) either did not know or did not answer the question.

Coastside Access to Oral Health

Coastside access to oral health services is extremely limited. Currently, of the nine dentists in the area, none provide services to pediatric Medi-Cal/Denti-Cal or Healthy Families patients. Furthermore, there is no county dental clinic in the area. In 1997, this lack of dental services impelled the members of the Coastside Collaborative for

Children, Youth, and Families to set dental services as a high priority. The Collaborative secured funding for dental education, screening and treatment.

During the first two years of the project, two Half Moon Bay dentists provided care to children age 1 – 18 who had been identified and referred from Half Moon Bay and the South Coast after Brighter Bites screening. In early 1999, the dentists withdrew because of low reimbursement, leaving 30-40 children in immediate need of dental care. The Collaborative then contracted with the On-Site Dental Foundation for six visits of the On-Site Dental Van. Of the 90 people registered, 60 received treatment, 24 completed treatment, and 36 were referred elsewhere. Despite the clear need for this care, the Collaborative had to abandon the plan, because of the cost ($3,000 per day for the van) and the lack of local follow-up.

Changes Needed to Improve Access at County Clinics

Currently the County is the largest provider of dental services to low income children. The four dental clinics operated by the county are located in Daly City (North County Health Center), San Mateo (39th Avenue Health Clinics located within the San Mateo County General Hospital), Redwood City (Fair Oaks Family Health Center), and Menlo Park (Willow Clinic). A number of issues compromising access have been found. Therefore, an informal evaluation of the county dental program was completed in November, 1999, by the San Mateo County Health Services Agency Health Education Department in November, 1999. Members surveyed clients and staff to assess needed changes.

The survey includes feedback from 45 clients about their oral health care. When asked what areas they thought would improve access, their responses included:

1) being able to call the Fair Oaks clinic for an appointment anytime instead of having to wait until the first workday of the month;
2) decreasing the waiting time in the clinic to see the provider;
3) decreasing the waiting time to get an appointment;
4) counseling about insurance and funding status and options; and,
5) receiving timely notification of canceled clinic sessions and appointments.

Dentists working in the County Clinics also had suggestions for ways to expand access:

1) hire specialists to treat children's periodontic/endodontic needs;
2) acquire additional dental equipment (nitrous oxide, air abrasion units);
3) schedule the necessary time to provide more dental care for each client;
4) expand panel of specialists;
5) implement a system that helps clients make their appointment, adds a dental assistant or clerk to help with the clerical duties; and
6) hire a dental coordinator who makes appointments for clients and follows up on services needed.

The San Mateo Dental Coalition members (See attachment 1) have made a number of recommendations based on the available data. These included the following:

a. establish a uniform standard of practice;
b. shorten time until appointment; make intake, tracking, and waiting procedures uniform across clinics;
c. expand scope of practice to include root canal, orthodontics, endodontics, general anesthesia, etc.;
d. train staff on any changes; expansion of dental services/hours;
e. make structural changes to improve dental services to children, including designing a separate dental clinic waiting area with toys, intake capability, and a quiet room for waiting children; creating a new pediatric dental clinic at SMCGH; providing orthodontic and preventive care services; recognizing volunteer dentists for their work in an organized and formal manner; providing a larger, appropriately staffed clinic; establishing a quality review of the dental clinics to ensure adequate services are provided to clients; and reviewing how dentists get paid;
f. add clerical staff and additional dental assistants; and
g. add hours to the 1.5 days currently budgeted for the Chief of Dental Services.

The Extent And Impact Of Volunteer Services

The Share the Care Program is a volunteer program of San Mateo community dentists who volunteer their services in their offices for CHDP children whose needs cannot be met at the county dental clinics. In FY 1997-98, 62 dentists from throughout the County served between one and twelve children each, with most serving one to three children. A total of 81 children received dental treatment through Share the Care, a value of $48,833. In the first six months of FY 1999-2000, 36 children received treatment, a value of $50,364.

Currently 26 dentists provide dental services on a rotating basis at the Friday afternoon clinic. Each gives dental treatment to four to six patients in an afternoon. The volunteer clinic is staffed three Fridays per month. Approximately 144 hours are donated to the dental clinic annually, a value of $16,200. Dentists who work in this clinic prefer this method of meeting the needs of low income children to accepting Medi-Cal or Healthy Families. Gregory Kong, DDS, is the afternoon coordinator of the volunteer clinic. He also represents the San Mateo County Dental Society as the liaison to the dental program, Share the Care.

Share the Care is a tedious process for clients, who must be matched to a dentist based on treatment needed and dentist requirements. Demographics also play an important role in making an appointment. CHDP staff often spend hours coordinating this process to make it work for both parties.

Current Preventive Oral Health Programs for Young Children and Their Families

Five community-based or governmental programs include a component on oral health:

1. Head Start, which reaches 600 children countywide, focuses on oral health as an ongoing part of the curriculum. Every child must have a dental assessment prior to entering the program and parents of any child with four or more caries receives mandatory counseling and education. As problems arise, parents are given training on dental health. Tooth brushing and oral hygiene are a regular part of the children's curriculum.

2. Early Head Start, for pregnant women and toddlers, has recently begun to incorporate oral health education in its program.

3. Pre-to-Three integrates oral health into its program.

4. WIC's ongoing oral health component includes reminders about brushing; education about early childhood caries; and a regular class on oral health taught in the annual schedule of classes.

5. The Child Care Coordinating Council uses a very small part of its infectious disease and injury prevention class to discuss prevention of oral disease. It also provides a list of dentists who accept Medi-Cal, and provides some information in child care settings on early childhood caries.

The County Office of Education is an ideal link for oral health. Currently, however, under the 1994 Health Framework for Schools, oral health does not stand out as a priority, and is therefore at the discretion of individual teachers in terms of how much they choose to teach.

Health Plan of San Mateo

According to senior staff of the Health Plan of San Mateo, the Health Plan is very concerned about dental care access problems for its members. While dental care is not a covered benefit of the Health Plan of San Mateo, the Health Plan of San Mateo Enhancement Fund Project has set aside up to $200,000 for preventive dental care for children.

E. Recommendations for Next Steps

The following recommendations are based on:

a) a preliminary analysis of existing dental services and resources available for children in San Mateo County;
b) a review of state and federal priorities on dental health;

c) interviews and discussion from the San Mateo County Health Services Agency staff, clients, and Dental Coalition members;
d) anecdotal information related to case studies on special children's needs;
e) information based on discussion with other California counties as to existing services and resources that address access to care issues; and
f) an overview of issues such as major oral health problems of children, children's access to dental care, and barriers to care.

1. Recommendations for Community Action

a. Strengthen relationships with the San Mateo Dental Society, private dentists, and other community groups concerned about oral health needs.

b. Advocate for the use of Proposition 10 funds for prevention programs which encourage first dental screenings for children ages of 2 – 4, and provide education to prevent early childhood caries.

c. Organize parents, elected officials, and communities to work to change current paying practices of private insurers and public payers for dental health.

d. Work to obtain fluoridated water systems in geographic areas not currently served.

e. Conduct a series of community forums on dental health to hear from community groups about their dental needs, the barriers to dental health, the access to care problems, and their priorities around dental services.

2. Recommendations for Prevention and Education

a. Develop preventive service clinics such as biweekly sealant clinics, as well as mobile equipment and trained staff to conduct dental sealant campaigns in local schools in conjunction with parent education activities.

b. Design and implement an early childhood caries prevention program that reaches out to the broader community, to parents of young children, in culturally appropriate ways.

c. Recruit a bilingual (Spanish/English) community worker, negotiate for a part-time health educator, dental hygienist, and pediatric dentists to plan and jointly implement a community approach to preventive dental health.

d. Work with San Mateo County Office of Education to elevate dental health education as a component of K – 12 health framework.

3. Recommendations for Treatment

a. Reorganize current dental services in the county clinics to ensure easier telephone access; fewer cancellations of clinic hours; and shorter wait times for clients *(these efforts are currently underway).*

b. Expand existing county dental services to provide more types of services, care during hours convenient to working parents, care in outlying pockets of the county, and referrals to specialty treatment as needed.

c. Provide “case management” of children to assure that they obtain needed services and are able to navigate through the complexities of different payer care programs. (These “case managers” may be able to locate county funding to provide care for children who “fall between the cracks.”)

d. Lobby the California Department of Health Services to include Denti-Cal within the scope of covered services for the Health Plan of San Mateo.

Phase II Needs Assessment

a. Convene the Dental Coalition Task Force on Needs Assessment to plan an in-depth examination of the needs and concerns of community citizens, to review the exact status of existing services beyond those provided by the county government, and to develop a master plan and priorities for addressing such concerns.

Attachment I: Dental Coalition Members

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Early Head Start/Head Start

Katinka Baltazar
Early Head Start/Head Start

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Concerned Citizen

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Peninsula Family Resource Center

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Health Plan of San Mateo

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Bonnie Johnson
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Prenatal to Three Initiative

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School Nurse

Judy Scannel, RN
San Mateo – Foster City School District

Nadine Suyehiro, RN
San Mateo – Foster City School District

Al Teglia
Legislative Aide for Supervisor Griffin