Marin County
Oral Health Needs Assessment

2014

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Executive Summary

Marin County has been ranked the healthiest County in California consecutively over the past five years. [1] However, data demonstrates there are considerable health disparities among its 258,000 residents. While limited local data makes it is difficult to assess the extent of oral health disparities in Marin, oral health providers serving low-income populations[2] are well aware of their patients' significant unmet needs. Given limitations in time and resources to collect primary data, the scope of this oral health needs assessment is focused primarily on the capacity of Marin's oral health safety net to meet the needs of low-income residents. Results of this assessment will inform the County's future planning of oral health services for low-income populations.

Key Findings

There are several aspects of Marin's oral health safety net that are perceived as successful by the majority of providers and other oral health leaders interviewed for this report. Children's access to care, including orthodontic care, outreach and education aimed at children's oral health and the safety net's ability to handle emergency visits in a timely fashion are the positive aspects of Marin's oral health care safety net.

Despite children's seemingly easy access to care, disparities exist in oral health outcomes among children. For example, according to three years of data compiled for the California Kindergarten Oral Health Assessment, several school districts in Marin exceed the County's average when it comes to untreated tooth decay. The average percentage of kindergarten students who had untreated tooth decay across all Marin school districts ranged from 4 to 10 percent. However, ten school districts reported over 10% of their students had untreated tooth decay. [2] Two school districts did not meet the Healthy People 2020 goal of: "No more than 25.9 percent of children aged 6 to 9 years had untreated tooth decay in at least one primary or permanent tooth."[3]

Another challenge Marin's oral health safety net struggles with is strong coordination across the key stakeholders (public agencies, private providers, non-profit organizations, and community clinics) to leverage resources aimed at preventing tooth decay among children. Providers would like to see a more systematic approach to screenings, sealants and education in schools with high-concentrations of low-income students.

Organizational capacities to meet oral health needs among low-income populations in Marin are reportedly limited. Safety net providers reported a limited capacity to provide and/or refer to adequate specialty care, are generally not able to completely meet the needs of special populations, have not fully integrated oral health into primary and behavioral health care and struggle to cover the cost of

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[1] Marin Again Ranked Healthiest County in California. County of Marin Press Release. March 26, 2014. http://www.marincounty.org/main/newsroom/health-and-wellness-notices/2014/health-ranks

[2] "low-income populations" refers to people who lack dental insurance, have public dental insurance, or who do not qualify for public dental insurance and can not afford private insurance

[2] Data provided by Diane Schaubach, California Dental Association

[3] Oral Health, Healthy People 2020. http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=32

providing oral health care to low-income populations. In addition, clinic space is also a limitation clinics face in providing access to oral health care.

Access to care is one factor among many that impact oral health outcomes. When asked to rank the key barriers to positive oral health outcomes among their patients, providers prioritized the following top three barriers:

- ❑ Patients do not understand and/or value oral health self-care
- ❑ Social determinants of health (e.g. poverty, food)
- ❑ Limited access to preventative interventions (fluoride, screenings, sealants)

Recommendations

Ten recommendations fall into three interrelated categories: access to care, data collection, and infrastructure.

Access to oral health care

1. Determine and implement strategies to **engage private dentists** in providing care to low-income populations.

2. Leverage resources and help patients access the reduce-cost care provided at the **schools of dentistry** in San Francisco.

3. A **mobile dental van** could alleviate physical capacity issues that clinics are now grappling with as more low-income adults have access to dental insurance.

4. Free up the availability of routine and follow-up care appointments for children and adults by **reducing the number of emergency visits** provided by the County and community clinics.

Data collection

5. Several providers indicated a strong interest in **collecting and tracking patient outcome data** to better understand the extent of needs and most cost-efficient use of resources.

6. **Increase the response rate** for the Kindergarten Oral Health Assessments by coordinating efforts between the schools, clinics, family advocates and parents.

7. Explore the oral health needs of **special populations**[4] more deeply by conducting an in-depth, targeted needs assessment that includes oral health screenings.

Infrastructure

8. The cost of providing oral health care for low-income populations exceeds County and community clinic revenue. A number of key informants suggested a solution to this issue is to receive for the County and/or other funders to provide a subsidy to cover uncompensated care. A **financial analysis** could help determine the best strategies to balance clinic costs, maximize Denti-Cal reimbursements and secure revenue for the County Dental Clinic and Federally-

[4] Special populations include people who are: medically compromised, developmentally disabled, mentally ill, geriatric, homeless and pregnant women.

Qualified Health Centers so that more uninsured and underinsured populations have access to care. In addition, the analysis could examine current clinic staffing and determine the most cost-efficient mix of dental personnel.

9. Support **care management** activities so that patients are able to navigate the system of care and access the range of services they need to reach optimal health. In addition, transformation within clinics to better **integrate oral, medical and behavioral health services** across providers will take time and resources.

10. **Leadership** among Marin's oral health safety net is needed to pursue any of these recommendations. Counties committed to addressing oral health issues have leadership from the County Health Department and FQHCs who are proactively engaged in efforts to: apply for and draw down federal and state resources to leverage oral health efforts, network with other counties to inform local strategies, advocate for the allocation and prioritization of local resources toward oral health care and prevention, and build and sustain partnerships between private providers, safety net providers, and leaders of other community-based organizations and public agencies.

    Given that Marin County Health and Human Services Department does not have a position specifically designated for improving oral health, it is important for the Oral Health Advisory Committee (OHAC) to work together as efficiently and effectively as possible to improve the oral health safety net. There are several ways in which OHAC could proceed to address some of the recommendations above. For example, OHAC could decide to focus on addressing the oral health needs of a particular population (much the way children's oral health was prioritized several years ago) or OHAC could narrow its focus to a particular geographic region where there are currently poor oral health outcomes. Another way OHAC could proceed is by working to address a particular oral health issue (e.g. access to endodontic care). Whichever direction OHAC moves in it will be important to expand membership to engage stakeholders who are knowledgeable about the particular issue and have relationships with the targeted populations (e.g. promotoras, WIC, Mission Possible, etc).

Background

Oral health, the health of the mouth and surrounding craniofacial (skull and face) structures, is central to a person's overall health and well-being. Poor oral health can be related to major chronic conditions, pain, impacts on children's growth and social development, nutrition problems, late detection of oral cancers, loss of teeth, missed school days and work, and expensive emergency room use for preventable dental conditions. Tragically, untreated oral disease occasionally leads to death.[5] A thorough oral examination can detect signs of nutritional deficiencies as well as a number of systemic diseases, including infections, immune disorders, injuries and some cancers.[6]

Oral health outcomes have improved in the United States over the past 50 years due to effective prevention and treatment efforts. For example, fluoridation in community water now benefits 7 out of 10 Americans who get water through public water systems. However, fluoride alone cannot ensure positive oral health outcomes. Access to preventive services and dental treatment also plays a critical role in oral health and disease. Those with limited access have higher rates of oral health disease. A person's ability to access oral health care is associated with factors such as education level, income, race, and ethnicity.[7]

In the book **Improving Access to Oral Health Care for Vulnerable and Underserved Populations**, the authors state:

> "Oral health care is one of those dimensions of our health care delivery system in which striking disparities exist. More than half of the population does not visit a dentist each year. Poor and minority children are substantially less likely to have access to oral health care than are their nonpoor and nonminority peers. Americans living in rural areas have poorer oral health status and more unmet dental needs than their urban counterparts. Older adults, especially those living in long-term care facilities, have a high prevalence of oral health problems and difficulty accessing care by individuals trained in their special needs. Disabled individuals uniformly confront access barriers, regardless of their financial resources. The consequences of these disparities in access to oral health care have a strong influence not only on oral health but on overall health as well. Poor oral health can lead to malnutrition, childhood speech problems, and serious, and sometimes fatal, infections. Poor oral health is associated with diabetes, heart disease, and premature births. Oral disease in pregnant women and young mothers can be transmitted vertically to their offspring, perpetuating a cycle of disease."[8]

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[5] Oral Health in the U.S.: Key Facts. The Henry J. Kaiser Family Foundation, June 2012. http://kaiserfamilyfoundation.files.wordpress.com/2013/01/8324.pdf

[6] Oral Health Fact Sheet. California Dental Association. http://www.cda.org/Portals/0/pdfs/fact_sheets/oral_health_english.pdf

[7] Oral Health, Healthy People 2020. http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=32

[8] Institute of Medicine and National Research Council. 2011. *Improving Access to Oral HealthCare for Vulnerable and Underserved Populations*. http://www.hrsa.gov/publichealth/clinical/oralhealth/improvingaccess.pdf

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The research questions guiding this assessment were:

- What is the current capacity of Marin's oral health safety net to meet the needs of low-income residents?
- How are oral health safety net systems in other counties efficiently and effectively addressing needs of low-income populations?
- What key issues should the County and their partners consider when developing a strategic plan that leverages resources and addresses gaps?

[9] Marin Again Ranked Healthiest County in California. County of Marin Press Release. March 26, 2014. http://www.marincounty.org/main/newsroom/health-and-wellness-notices/2014/health-ranks

[10] "low-income populations" refers to people who lack dental insurance, have public dental insurance, or who do not qualify for public dental insurance and can not afford private insurance

Methodology

Several strategies were used to gather information that would help answer the research questions. Key informant interviews were conducted with representatives from the following organizations:

- ❑ Federally-Qualified Health Centers
- ❑ Head Start
- ❑ First 5
- ❑ Marin County Dental Clinic
- ❑ Mission Possible
- ❑ PDI
- ❑ University of California – San Francisco
- ❑ California Department of Public Health
- ❑ California of Health Services
- ❑ California Primary Care Association
- ❑ Marin County Dental Society

The questions key informants responded to are provided in Appendix A.

This assessment also included a scan of oral health needs assessments and strategic plans completed by other California counties. Leaders in the following counties provided lessons learned and recommendations for Marin's oral health system to consider based on their previous experiences:

- ❑ Contra Costa
- ❑ San Luis Obispo
- ❑ Humboldt
- ❑ Lake
- ❑ San Francisco

An on-line survey was developed, in partnership with safety net providers, to gather information from all Marin-based oral health providers who serve low-income populations (survey provided in Appendix B). Twelve providers were invited to participate in the survey. The survey was completed by a total of four providers representing one non-profit, two Federally-Qualified Health Centers (FQHCs) and the County Dental Clinic.

Finally, a review of secondary data was conducted. Data sets from Denti-Cal, the Office of Statewide Planning and Development and the California Kindergarten Oral Health Assessment were analyzed. The California Health Interview Survey data sets were reviewed and intentionally not included in this assessment due to the statistically unstable results for Marin County.

Marin County's Oral Health System of Care for Low-income Residents

Marin County has a number of resources that support and/or provide oral health services for low-income residents. These resources include:

- Three Federally-Qualified Health Centers
- Marin County Dental Clinic
- PDI – a non-profit pediatric surgery center
- Two university-run dental programs
- Approximately 21 private providers and specialists who accept Denti-Cal and/or provide pro-bono services
- Marin County Dental Society
- Marin County Health and Human Services
- Local funders

Federally-Qualified Health Centers

There are three Federally-Qualified Health Centers (FQHC) in Marin that provide dental services: Coastal Health Alliance, Marin City Health and Wellness Center, and Marin Community Clinics. Low-income adult, pediatric, insured and uninsured patients are able to access dental services on sliding fee scales. The clinics differ in the type of dental care they are able to provide, including the capacity to provide urgent care and restorative and rehabilitative services. Under the Affordable Care Act, FQHCs are encouraged to improve tracking of health outcomes and improve integration of oral health with primary care and behavioral health. Currently, the FQHCs only track utilization of oral health services and not outcomes.

Coastal Health Alliance

Coastal Health Alliance (CHA) is a Federally Qualified Health Center with three sites in West Marin. In 2012, CHA provided a total of 15,259 visits to over 5,000 unduplicated patients. Almost half (47%) of the patients' income level was at or below 200% Federal Poverty Level (FPL). While CHA has provided behavioral health and primary care for many years, expanding services to include dental care is a new endeavor.

Access to dental care has been a long-term, significant challenge for West Marin residents, especially low-income residents. There are three dentists in the area who serve patients with private insurance and do not offer care for patients who are uninsured or have Medi-Cal. The nearest oral health safety-net providers are located in East Marin and Sonoma Counties, at least 45 minutes by car over narrow, winding roads. The very restricted and circuitous bus system is also a barrier to accessing safety-net providers.

The only private dentist in Point Reyes Station recently scaled back the days he provides care from five days to three. Although this shift limits access for privately insured residents, it opens up the opportunity for CHA to use the dental office to provide care for low-income populations. As of June 18, 2014, CHA is piloting a dental program by offering general dentistry services patients who have Medi-Cal or are uninsured two days per week. Urgent care visits for CHA patients will be prioritized. CHA contracts with a dentist (who also works at a FQHC in Sonoma County) and employs an assistant and coordinator.

CHA's pilot dental program is an opportunity to collect data and better understand the extent of oral health care needs among their patients. CHA will use information collected over the next six months to determine if, and the extent to which, the organization expands their scope of dental services.

Marin Community Clinics

In 2013, Marin Community Clinics (MCC) provided 37,775 dental visits to uninsured, underinsured, and publicly insured children and adults.[11] Dental care was provided at MCC's clinics in the canal area of San Rafael and Novato as well as the County's dental clinic in central San Rafael. Between the three clinics, MCC provides care seven days a week with 8.03 FTE dentists and 24.58 FTE dental assistants and technicians. The majority of the visits MCC provides are oral exams (27%), prophylaxis (24%), and fluoride treatments (24%). MCC has designated one Sunday a month to provide safe dental care to pregnant women (i.e. nitrous oxide is not used in the clinic on these designated days). Last year MCC provided emergency care to 2,040 patients and is projected to provide over 3,000 emergency visits this year. MCC is hoping to expand care for adults by increasing dental clinic hours in the evening in San Rafael and on Saturdays in Novato. In addition, MCC is exploring a partnership with a non-profit organization, Operation Access, to engage more private clinicians and specialists in the provision of pro bono oral surgeries for low-income populations.

Marin City Health and Wellness Center

Marin City Health and Wellness Center (MCHWC) provides primary health, dental and behavioral health care to residents of public housing and those who are homeless in Marin County. The main clinic site in Marin City (Southern Marin) began providing dental care with one dental chair in January 2012 and opened another dental chair in August 2013. In 2012, MCHWC provided 1,221 visits with a staff of 1.5 FTE dentists and 2.0 FTE dental assistants. Services are also provided throughout Marin to clients of Community Action Marin and Centerpoint. Many of MCHWC's patients seek dental care due to damage caused by substance abuse.

Marin County Dental Clinic

In 2013, the Marin County Dental Clinic (MCDC) provided 16,791 oral health visits to over 4,700 low-income children and adults.[12] The majority of visits (56%) were for uninsured and underinsured adults and children who did not have full scope Denti-Cal. Approximately 60% of these patients paid out-of-pocket for their visits on a sliding scale. By far, this clinic provides the most uncompensated care than any other clinic in Marin – serving as the safety net of the safety net. Marin County's general fund budget includes a line item to support the dental clinic on an annual basis. In 2013, the county provided $1.2 million to close the gap between the Dental Clinic's revenue ($2.3 million) and the expenditures ($3.5 million).

Forty-four percent (7,328 of 16,791) of the visits at MCDC were provided to children who have full-scope Denti-Cal. Through a contract with Marin Community Clinics, the County's Dental Clinic draws down a higher reimbursement rate for pediatric Denti-Cal visits than if the County billed Denti-Cal directly.

The County clinic is open six days per week and employs the following FTE staff: 4.4 Dentists, 1.2 Hygienists, 9 Registered Dental Assistants, 1 Dental Assistant, 2 Clerical and 4 Administrative. The clinic provides emergency visits to anyone in need regardless of the patients' ability to pay.

[11] 37,775 dental visits includes 7,328 visits for 1,679 MCC patients under 21 years old seen at Marin County Dental Clinic

[12] These figures include 7,328 visits for 1,679 patients under 21 years old seen at Marin County Dental Clinic under a contract with Marin Community Clinics

Emergency visits occur every day and are provided in between scheduled appointments. Fourteen percent of the clinic's visits are emergency visits and one third of MCDC's visits are for restorative services.

PDI

PDI provides safe sedation for dental treatment and provides oral health prevention education to low-income children throughout Northern California. With support from Marin Community Foundation, First 5 Marin, and others, PDI provides extensive dental care for approximately 120 low-income Marin children on an annual basis. In addition to providing fillings, extractions, pulpotomies and crowns to children under sedation, PDI offers dental screenings and oral health education at community centers/events and at schools. Since 2011, PDI has conducted dental screenings (totaling 515 children screened) and oral health education at San Geronimo Valley Community Center, the World Diabetes Day event, Old Gallinas Children Center and Bahia Vista Elementary School.

University of California, San Francisco – School of Dentistry

In 2013, 154 Marin children under the age of 18 were seen at UCSF's School of Dentistry. Services provided at UCSF range from routine dental and oral health care to the every specialty in the oral and crainiofacial sciences. Patients seeking care apply for treatment and must have a flexible schedule that allows for multiple appointments to complete a treatment plan. Fees are approximately half the cost of private dental practice fees at the Predoctoral Dental Clinic. Dental Resident and Dental Post Graduate specialty clinics save approximately 25% over what the service would typically cost in a private specialty office in the area.[13]

University of the Pacific – School of Dentistry

Marin County children and adults are able to access free introductory screenings and discounted X-rays and other procedures at the University of Pacific (UoP) School of Dentistry in San Francisco. As a teaching facility, all of the treatment fees include an educational discount of approximately 30% less than fees charged at private practices in the Bay Area. All care at UoP is performed by dental students or residents under close supervision of faculty experts. Treatment typically takes longer since care is provided by students under the supervision of faculty.[14]

Private Dentists and Specialists

Five private dentists and one oral surgeon in Marin County accept Denti-Cal insurance according to California's Denti-Cal provider website. Phone calls to the private providers listed confirmed four of the five dentists listed are currently accepting new patients with Denti-Cal (adults and children). Appointments for routine care are available within two to three weeks. One private dentist, Dr. Clark Fong Professional Dental Corporation, will accept adults and children with Denti-Cal beginning in September and as of June there was already a wait list of 15 people.

Fifteen private orthodontists provide pro-bono orthodontic care for children who qualify for the program operated by the Marin County Dental Society. Four orthodontists volunteer at Marin Community Clinics providing low-cost, long-term orthodontic care to MCC patients.

Marin County Dental Society

Marin County Dental Society (MCDS) is an association of dental professionals serving the populations of Marin County. The mission of the organization is to be the recognized resource for serving the

[13] UCSF School of Dentistry website: http://dentistry.ucsf.edu/patient-services/patients-frequently-asked-questions-faqs

[14] University of Pacific website: http://dental.pacific.edu/Dental_Services.html

needs of its members and of the community. The majority (87%) of dental professionals in Marin County are members of MCDS. There are a number of specialists who are members, including 9 Pedodontists, 7 Endodontists, 11 Periodontists, 6 Oral Surgeons, and 16 Orthodontists.

MCDS engages in several activities to improve access to oral health services among low-income individuals and families.

- ❑ Information and referral provided to people who call MCDS looking for oral health resources
- ❑ Pro-bono orthodonic care for two years to eligible families
- ❑ Oral health education in schools (see Appendix C)

Marin County Department of Health and Human Services
The Maternal Child and Adolescent Health Program (MCAH) within the County's Department of Health and Human Services leads a number of oral health prevention efforts to promote the health of the women, infants, children, and adolescents of Marin County with a special focus on low-income populations. Between 2004 and 2010, a dental hygienist coordinated oral health screenings, health education sessions, fluoride, cleanings, and x-rays for children ages 0 to 5 and pregnant women. State budget cuts and shifts in local funding resulted in a scaled back scope of prevention services provided by the County. Currently a part-time dental hygienist provides screenings and health education for pregnant women one day per week and provides screenings, fluoride, and health education at one school or community event per month. Approximately 150 children are reached per year.

MCAH staff also coordinates the Oral Health Advisory Committee (OHAC) – an interdisciplinary, multi-agency group of local oral health providers, dental school leaders, clinic managers, school nurses, the Marin County Dental Society, and Marin County Public Health staff who meet quarterly to exchange information.

Local Funders
Currently there are no local funders specifically dedicated to supporting oral health services and prevention for low-income populations in Marin County. However, similar to other counties around the state, Marin's First 5 Commission has historically allocated resources toward oral health education and services targeting children ages 0 to 5 and their parents. In 2004, First 5 contributed to outreach and screening children throughout the County and collected data on oral health care needs. This information helped catalyze the addition of pediatric operatories at the County Dental Clinic and Marin Community Clinics. Although First 5 does not currently allocate resources to oral health (beyond a small grant to PDI), oral health outreach and prevention efforts may be aligned with First 5's future funding priorities. In addition, oral health is among one of the issues included in the expenditures for an upcoming local ballot initiative.[15]

Marin Community Foundation and Marin County Health and Human Services, among other local funders and donors, contribute significantly to the general operations of all three of the FQHCs. At one time there was a donor-advised fund at Marin Community Foundation that specifically supported oral health services for uninsured adults when Medi-Cal did not cover this benefit. This support was instrumental in the launch of dental clinics at two of the FQHCs.

PDI receives a small amount of grant funds from First 5 and Marin Community Foundation to subsidize some of the costs not covered by Denti-Cal for pediatric surgeries.

Marin County's Oral Health Safety Net: Highlights

Key informants and oral health providers were asked to describe the aspects of Marin's oral health safety net that work well. Below is a snapshot of highlights within Marin's oral health safety net:

- **Staff** at county and community clinics are professional, culturally competent, and committed to social justice. In addition to dental care, staff help patients navigate referrals and improve oral health self-care
- Evening and weekend **clinic hours** allow for more appointments and the capacity to handle emergencies
- Three of the four safety net providers indicated in the on-line survey that they maintain an **on-call list of dentists** for backup. One of the providers has a list of 24 back-up providers
- There is one **oral surgeon** in Marin who accepts Medi-Cal
- **Minor root canals** are performed at Marin Community Clinics and the County Dental Clinic
- There is interest and steps toward **integrating oral health**, primary care, and behavioral health
- **Screenings and health education** takes place in schools throughout Marin County
- **Patient satisfaction surveys** are administered as one measure for quality of care at the community and County clinics
- The quarterly **Oral Health Advisory Committee** meetings are an opportunity for providers to share information and collectively problem solve

Most key informants and survey participants reported **children's access to care**, including access to pro-bono **orthodontic care**, was a real asset within Marin's oral health safety net. Interviewees also noted the **outreach and education** efforts aimed at improving children's oral health was effective. Another highlight key informants reported was **emergency visits** at the County and one FQHC were very accessible. More information about these particular highlights follows.

Children's Access to Care

Children's access to dental care greatly improved once Marin Community Clinics opened dental suites in San Rafael and Novato. MCC was able to renovate and expand services due, in large part, to significant local grant funding. In addition to their dental suites at two sites, MCC has an effective partnership with the Marin County Dental Clinic to also serve pediatric patients of MCC. This partnership was described by two key informants as a 'win-win' because the County Dental Clinic provides greater access for MCC pediatric patients while the County is able to receive a higher reimbursement rate for services using MCC's Prospective Payment System (PPS) rate. The opening of two dental chairs at Marin City Health and Wellness Center (MCHWC) also recently increased access for low-income patients.

Survey responses related to appointment availability indicate clinics vary in how far out pediatric patients have to wait for routine care appointments. MCHWC reported less than a two week wait for appointments while MCDC reported a four to six week wait for routine pediatric appointments (see Table 1).

Table 1: Emergency Visits and Availability of Routine Pediatric Visits by Clinic

Clinic	Percentage of emergency visits per week	Average number of weeks to book a routine pediatric appointment	Number of unduplicated low-income pediatric patients seen in 2013
MCC	0-25	2-4	14,363[16]
MCDC	25-49	1-2	1,679[17]
MCHW	Does not provide	Less than 2	356

It is interesting to note the inverse correlation between the percentage of emergency visits a clinic provides and the average number of weeks for a routine pediatric appointment.

In addition to input from key informants and survey responses, Denti-Cal 2012 utilization rates indicate children eligible for Denti-Cal in Marin County used dental services at a higher rate (71%) than eligible children in other counties with a similar sized Denti-Cal eligible population (see Table 2). Marin's utilization rate also exceeded the State utilization rate (55%) for the 0 to 20 year old age group. Children with Denti-Cal accessed services at Federally-Qualified Health Centers (62%) far more than they access services at private dentists and the County Dental Clinic (10%).

Table 2: Children's Denti-Cal Utilization Rates, Dentists and Clinics, by County, CY 2012

	Ages 0 to 20								
Counties	**Dentists**			**Clinics**			**Total**		
	Users	Eligibles	Util Rate (%)	Users	Eligibles	Util Rate (%)	Users	Eligibles	Util Rate (%)
El Dorado	2538	7018	36	826	7018	12	3364	7018	48
Napa	2089	7051	30	2060	7051	29	4149	7051	59
Tehama	621	7435	8	3631	7435	49	4252	7435	57
Marin	767	7873	10	4852	7873	62	5619	7873	71
Yuba	2134	8972	24	2065	8972	23	4199	8972	47
Mendocino	769	9328	8	4374	9328	47	5143	9328	55
Humboldt	487	9984	5	3653	9984	37	4140	9984	41
State total	1,311,805	2,784,576	47	226,546	2,784,576	8	1,538,351	2,784,576	55

Source: Dr. Robert Isman, Medi-Cal Dental Services Branch, Dental Program Consultant, California Department of Health Services

Orthodontic Care

Low-income children who require orthodontic care (which is not covered by Medi-Cal) can apply for pro-bono services offered by private dentists. The Marin County Dental Society coordinates the application and matching process on an annual basis. This year over, 40 families applied for pro bono orthodontic care and 22 children were placed with 15 Marin-based orthodontists. Eighteen children were referred to other providers and six children remain on a wait list.

Oral Health Screenings and Education

Over 30 private providers volunteer at many schools to educate children about the importance of oral hygiene (for a complete list of dentists and schools see Appendix C). In addition, staff from PDI and a part-time County hygienist conduct screenings and provide education at health fairs, elementary schools, pre-schools and community centers. One key informant who has conducted screenings for many years noted a recent decrease in the number of children with visible cavities. She noted the

[16] These figures includes 1,679 patients under 21 years old seen at Marin County Dental Clinic under a contract with Marin Community Clinics

[17] These patients are seen at Marin County Dental Clinic under a contract with Marin Community Clinics

changes in awareness could be attributable, in part, to the coordinated efforts of health education and screenings at the time when First 5 and County funding supported such activities. While the funding no longer exists for systematic health education and screenings, some pre-schools have instituted good oral health practices into their curriculum. For example, the mid-day brushing program continues on in some locations.

Emergency Visit Access

Another strength of Marin's oral health safety net is the capacity to provide emergency visits at the County and community clinics which prevents inappropriate hospital emergency department visits. Data from the Office of Statewide Health and Planning Department (OSHPD) indicates there is relatively little strain on Marin's hospital emergency departments to provide urgent oral health services. Between 2005 and 2012, a total of 4,183 people with were seen at emergency departments in Marin County for ambulatory care-sensitive dental conditions (otherwise known as preventable dental conditions). This represents .74% of the overall emergency room visits, annually, over the span of those 8 years. It is interesting to note, a higher percentage of emergency department visits were provided for preventable dental conditions (.74%) than visits for conditions related to diabetes (.28%) for all patients using the emergency department every year between 2005 and 2012.

Table 3: Primary Diagnosis for Emergency Department Visits, Marin County, 2005 - 2012

	Primary Diagnosis for Emergency Department Visits						
Year	Diabetes		Asthma		Dental		Total # of ED visits
	# of patients	% of ED visits	# of patients	% of ED visits	# of patients	% ofED visits	
2005	180	0.26%	774	1.11%	470	0.68%	69,512
2006	192	0.27%	883	1.23%	508	0.71%	71,588
2007	182	0.26%	670	0.95%	497	0.70%	70,857
2008	148	0.21%	675	0.98%	500	0.72%	69,151
2009	176	0.25%	721	1.00%	537	0.75%	71,765
2010	238	0.34%	793	1.14%	549	0.79%	69,803
2011	233	0.33%	798	1.14%	613	0.87%	70,085
2012	218	0.31%	729	1.03%	509	0.72%	70,576
Total	1569	0.28%	6043	1.07%	4183	0.74%	563,337

Source: OSHPD Data analyzed by Marin County Department of Health and Human Services, Epidemiology Department

A 2009 report commissioned by California HealthCare Foundation (CHCF), disaggregated OSHPD data at the county level and compared emergency department visits by diabetes, asthma and ambulatory care sensitive dental conditions. The rate of emergency department visits for preventable dental conditions in Marin County exceeded the rate of visits related to diabetes across every age group. Children less than a year old and the 18 to 34 year old population had a higher rate of using the emergency department for preventable dental conditions than for asthma-related issues.[18]

The CHCF report concluded that insurance status, controlling for other demographic factors, accounted for the largest increased risk of ED use for preventable dental conditions. People without *private* insurance were at least 7 times more likely to visit the emergency department. Other predictors of ED visits related to preventable dental conditions:

- ❑ People living in rural areas are 15 to 47 percent more likely to visit the ED.
- ❑ African Americans are more likely to visit.

[18] California HealthCare Foundation. Snapshot: Emergency Department Visits for Preventable Dental Conditions in California, 2009.

- ❑ People ages 18 to 34 are significantly more likely to visit than other age groups under age 65.
- ❑ Women are slightly more likely (5 percent) to visit.

The availability of emergency appointments that both Marin County Dental Clinic and Marin Community Clinics provide on a daily basis may help contribute to the relatively low percentage of emergency visits for dental care at local hospital emergency departments.

While access to care for pediatric visits has significantly increased over the past few years in Marin and emergency visits are seemingly well-managed by the Marin County Dental Clinic and Marin Community Clinics (versus the hospitals), it is uncertain how the safety net will sustain these positive attributes given the growing number of adults with dental coverage.

Marin County's Oral Health Safety Net: Gaps

Secondary data, key informant interviews and survey responses reveal disparities in oral health outcomes and several gaps in Marin's oral health system of care. The following topics were identified as areas for improvement:

- ❑ Tooth decay disparities among kindergarten students
- ❑ Limitations in the capacity of the safety net to adequately meet the needs of low-income populations
- ❑ A fragmented and under-funded approach to oral health education and screening
- ❑ Social determinants of health impacting oral health

Tooth Decay Disparities

Three years of data collected to meet the kindergarten dental checkup requirement demonstrates disparities in untreated tooth decay among Marin County students (see Table 1). The average percentage of students found to have untreated tooth decay across all participating Marin school districts ranged from 4 to 10 percent over the past three years.[19] However, ten schools that participated in the assessment reported over 10% of the students assessed had untreated tooth decay. Many of these schools reported more than 10% of students with untreated tooth decay for multiple years (see Table 4). Two school districts (Marin Office of Education and Sausalito Marin City) did not meet the Healthy People 2020 goal of no more than 25.9 percent of children aged 6 to 9 years have untreated tooth decay in at least one primary or permanent tooth.[20] It is important to note some schools with high percentages of untreated tooth decay had low assessment participation rates.

[19] Five school districts did not participate in the Kindergarten Oral Health Assessment in one or more years (i.e. Laguna Joint Elementary, Lagunitas Elementary, Lincoln Elementary, Nicasio Elementary and Union Joint Elementary).

[20] Healthy People 2020 Oral Health Objectives: http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=32

Table 4: Subset of California Kindergarten Oral Health Assessment data, Marin County School Districts, 2010 – 2014

Year	District	Total Eligible	Proof of Assessment	% Eligible who were Assessed	Untreated Decay	% Assessed w/ Tooth Decay
2011 - 2012	Sausalito Marin City	59	44	75%	18	41%
2010 - 2011	Marin County Office of Education	13	9	69%	3	33%
2012 - 2013	Nicasio Elementary	6	4	67%	1	25%
2011 - 2012	San Rafael City Elementary	637	339	53%	77	23%
2010 - 2011	Sausalito Marin City	58	50	86%	10	20%
2011 - 2012	Dixie Elementary	214	206	96%	37	18%
2010 - 2011	Ross Elementary	55	45	82%	8	18%
2012 - 2013	Lu Sutton	76	57	75%	9	16%
2010 - 2011	Dixie Elementary	184	176	96%	27	15%
2012 - 2013	San Geronimo	263	144	55%	21	15%
2010 - 2011	Shoreline Unified	14	14	100%	2	14%
2011 - 2012	Marin County Office of Education	13	8	62%	1	13%
2010 - 2011	San Rafael City Elementary	547	405	74%	47	12%
2010 - 2011	Mill Valley Elementary	386	285	74%	32	11%
2010 - 2011	MARIN TOTAL	2771	2027	73%	643	9%
2011 - 2012	MARIN TOTAL	2844	1992	70%	782	10%
2012 - 2013	MARIN TOTAL	3247	2400	74%	97	4%

Source: Diane Schaubach, California Dental Association

Opportunity to address this gap: Target health education, screenings and sealants at schools where 10% or more of the students screened had untreated tooth decay. Explore funding support from California Department of Education continues to increase the number of children who are assessed, especially in schools that did not meet the requirement.

Limited capacity of safety net providers

The key themes that surfaced through key informant interviews and survey responses is that the safety net providers have limited capacity to (1) provide and successfully refer to specialty care, (2) adequately meet the needs of special populations, (3) integrate oral health into primary and behavioral health care, and (4) cover the cost of providing oral health care to low-income populations. In addition, clinic space is also a limitation clinics face in providing access to oral health care.

Specialty Care

Three of the four providers who completed the on-line survey refer patients to specialists. One of the FQHCs indicated less than 25% of their patients who are referred to specialty care do not access it while the other FQHC and the County Dental Clinic indicated about half to one-third of their patients referred to specialty care do not access it. The main reason children are not able to access specialty care is because there are not specialists in Marin County who accept public dental insurance.

Safety net providers were asked to rank the types of specialty care that is the greatest unmet need among low-income patients in Marin. Providers ranked **endodontic** care as the greatest unmet need followed by orthodontic care, oral surgery, periodontal care, geriatric care, and other specialty as the specialty with the least unmet need. Key informants also reported access to specialty care, especially endodontic care, as a critical unmet need among low-income populations. Several safety net providers noted their patients often need root canals and while some providers at the county and community clinics can perform minor root canals, it is a time-consuming process and could be more efficiently handled by a specialist. In addition, many root canals are complex procedures, requiring the expertise of a specialist, which are not available at the clinics. Patients in need of complex root canals are referred to a private specialist or to UCSF. There is one private endodontist willing to provide care at a discounted rate for patients of the County Dental Clinic. Staff at the County Dental Clinic have worked out an arrangement that makes it easy for the specialist to treat the patients (e.g. x-rays and clinical notes are emailed to specialist, staff works with patients to ensure they keep the appointment with specialist, etc.) and report the partnership is positive.

In addition to endodontic care, orthodontic care is another specialty difficult to access for low-income families. While Marin County Dental Society meets some **orthodontic** care needs among low-income children, there continues to be a gap between need and resources. While MCDS matched 22 children with orthodontists who provided reduced or free care, six children remain on a waitlist. Typically there are not enough pro bono slots available for the amount of children who apply and are eligible for the program. Marketing for this program is quite limited – it is estimated there are many more children who would be eligible for the pro bono care if they knew about the program and applied. A couple of barriers prevent even more children from applying for the program: (1) MCDS staff and many orthodontists do not speak Spanish and (2) advertising the opportunity may not be a top priority of school administrators. Children who end up accessing this resource do so because the parent advocates in particular schools are aware of the program and support families in their application process. Schools that do not have active family advocates who are aware of the program may not be advertising the program as well compared to other schools with family advocates.

Oral surgery, especially for impacted wisdom teeth, is another gap in Marin's oral health safety net. There is one private oral surgeon who accepts Medi-Cal insurance and reduces the cost of care by 50% for patients who do not have insurance (sometimes Medi-Cal does not cover impacted teeth for children). One provider is not enough to meet the oral surgery needs of low-income populations.

There is a significant gap in the number of specialists willing to serve patients who have either public insurance or are uninsured. There may be a number of reasons contributing to limited access to private providers for patients with Denti-Cal or who are uninsured. According to survey results from 54 Marin County private providers in 2004, the top three reasons why private providers did not accept publicly funded insurance were: inadequate reimbursement that doesn't cover costs, onerous paperwork, and insurance plans are too difficult to work with and are too bureaucratic.

Opportunities to address this gap:
Expand the capacity of the community clinics to provide, contract, and/or partner with endodontic and orthodontic specialists and oral surgeons.

Apply Marin County Dental Society's model of matching pro bono orthodontic care to low-income patients to address other key oral health needs, like endodontic care.

Work with California Dental Association Foundation to host a CDA Cares event where dentists and specialists provide free care to uninsured and underinsured clinic patients on a designated day.

Explore barriers and opportunities to improve access to reduced-cost services at local dental schools.

Special populations

Providers who participated in the survey were asked to rate how well *Marin's oral health safety net* was able to meet the needs of special populations (i.e. medically compromised, pediatric, developmentally disabled, mentally ill, geriatric, homeless, pregnant women, and English language learners). Two of the respondents indicated the safety net has the capacity to 'completely meet the needs' of pediatric patients. Only one respondent reported the safety net was 'completely able to meet the needs' of English language learners. Two of the four respondents reported the safety net is only 'partially able to meet the needs' of mentally ill, geriatric, homeless, and pregnant women. Three of the respondents indicated they were not sure of the safety net's capacity to meet the needs of people with development disabilities (see Table 5).

Table 5: Survey Responses to the Question: How well does Marin's oral health safety net meet the needs of special populations? The oral health safety net includes non-profit organizations, County and community clinics, hospitals and academic institutions.

	Special Population							
Survey Respondent	Medically Compro-mised	Pediatric	Development-ally Disabled	Mentally Ill	Geriatric	Homeless	Pregnant women	English Language Learners
A	Partially meet needs	Completely meet needs	Partially meet needs	Partially meet needs	Partially meet needs	Partially meet needs	Partially meet needs	Partially meet needs
B	Not Sure	Completely meet needs	Not Sure	Partially meet needs	Partially meet needs	Partially meet needs	Partially meet needs	Completely meet needs
C	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure
D	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure	Not Sure

Survey respondents also indicated how well their organization meets the needs of special populations. Pediatric patients were the only category of special populations that all respondents reported they were able to 'completely meet the needs'. Survey responses and key informant interviews revealed safety net providers admittedly have limited capacity to adequately address the needs of many special populations; especially medically compromised, developmentally disabled, mentally ill, geriatric, homeless and pregnant women. Often these special populations require additional ancillary services (e.g. case management) that are beyond the providers' scope of services.

Recently an informal, diverse network of older adults in Marin County called Mission Possible prioritized the issue of oral health access for seniors as a key concern to address. This group has engaged in considerable outreach among their peer groups – particularly seniors who are immigrants and English language learners – and helped connect their friends and neighbors to oral health services at the clinics. In addition to outreach, Mission Possible plans to host several oral health education sessions for their communities whereby volunteer providers can help inform seniors much like the way providers conduct health education sessions for children in school. This grass-roots movement among a special population has evolved out of an identified gap in prevention and treatment services in Marin County.

Opportunity to address this gap: Further assessment is needed regarding oral health access and outcomes for specific populations. Tailored interventions could be developed, in partnership with special populations and their advocates, to appropriately address unmet needs.

Integration with primary and behavioral health care

Integration of oral health, primary care, and behavioral health is one strategy for improving the clinics' capacity to appropriately serve special populations. Only two of the four safety net providers responded to the questions related to integrating oral health care with primary and behavioral health care. Both of the providers that responded to the questions regarding integration noted that 'sometimes' the provider shared patients' oral health information with patients' other providers and 'sometimes' providers consulted across disciplines in a systematic and sustained manner.[21] One provider reported basic diagnostics across all disciplines was provided 'sometimes' while the other provider reported this level of integration 'does not occur often'. Struggling to meet the complex needs of a typically underserved patient population was a theme that emerged during the key informant interviews as well. Providers are trying to develop the capacity internally to integrate oral health, primary care and behavioral health by better communication and coordination across their providers and staff. However, the need for hospital dentistry to treat patients with complex medical and psychological issues is beyond the current capacity of the clinics. Hospital dentistry would allow patients with severe medical or psychological issues to access anesthesia for their dental care.

Opportunity to address this gap: Explore models for integrated oral, primary and behavioral health care in the clinic setting. Explore models for hospital dentistry.

Cost of care

Leaders and dentists at the community and County clinics all identified a significant unmet need lies in the clinics' ability to provide care to uninsured and underinsured populations. Patients who do not have dental insurance are able to access care on a sliding scale basis (with the visit fee minimum set at

[21] The scale for survey responses was: Always, Sometimes, Not Often, Never, and Unsure.

$50). Clinics have varying sliding scale fees and policies for subsidizing care for uninsured patients. Some clinics provide services regardless of the patient's ability to pay and without proof of income while some do not.

While the cost of providing uncompensated care obviously strains the clinics financially, so too does providing care to patients with Denti-Cal. Denti-Cal reimbursement rates for dental practices (including the Marin County Dental Clinic) are one of the lowest in the nation.[22] Second, the scope of services covered under Denti-Cal is limited, leaving many patients needing care beyond what insurance covers. For example, Denti-Cal only covers one cleaning per year even though some patients at risk for disease may require more frequent dental visits. When patients need care not covered by insurance they either pay out-of-pocket or do not access the needed care. Providers indicated a significant constraint in their ability to see more low-income patients is the high cost of care patients are required to pay out-of-pocket due to lack of insurance coverage.

Opportunity to address this gap: Engage in a financial analysis to determine the best strategies to balance costs, maximize Denti-Cal reimbursements and secure revenue for the County Dental Clinic and Federally-Qualified Health Centers so that more uninsured and underinsured populations have access to care. This analysis could also determine the most optimal mix of staffing and dental personnel at the clinics.

Overall clinic size

Safety net providers reported one of the biggest constraints to increasing access to care for low-income populations is not having enough space for additional dental chairs. Emergency visits push out the availability of routine appointments on a daily basis at County clinic and one FQHC. One clinic expanded hours of operation to evenings and weekends to see more patients and may expand hours even more in the future. The County Dental Clinic is planning an expansion of 3 dental chairs to start with the ability to add 2 more in the future. This expansion will allow for an additional 5,679 visits per year with the potential of adding an additional 3,786 for a total potential increase of 9,465 visits. The County is in the initial phases of this expansion, which includes a construction assessment.

Opportunity to address this gap: Explore the financial feasibility of a mobile dental van to provide screenings, sealants and routine care throughout the County.

Oral Health Education and Screenings

Marin County received state funds to participate in the Dental Disease Prevention Program several years ago. This program allowed for a systematic way of providing screenings and health educations for school children. Since state funding for that program ended, private providers, the County, and PDI are trying to fill the gap by providing screening and health education. However, all providers noted there is a need for better coordination to leverage resources aimed at preventing tooth decay among children. Providers would like to see a more systematic approach to screenings, sealants and education in schools with high-concentrations of low-income students.

[22] "State budget fails to address low Denti-Cal rates", California Dental Association, 6/23/2014. http://www.cda.org/news-events/state-budget-fails-to-address-low-denti-cal-rates

Opportunity to address this gap: Institute a robust dental disease prevention program in schools and in community-settings by leveraging resources from the County, clinics, schools, universities, and private providers. Include nonprofit organizations and informal networks for traditionally underserved populations (e.g. Mission Possible and promotoras) to spread oral health information to vulnerable populations.

Social Determinants of Health

Access to care is one factor among many that impact oral health outcomes. When asked to rank the key barriers to positive oral health outcomes among their patients, providers prioritized the following barriers as the top three:

- ❑ Patients do not understand and/or value oral health self-care
- ❑ Social determinants of health (e.g. poverty, food)
- ❑ Limited access to preventative interventions (fluoride, screenings, sealants)

These barriers were ranked as more significant than other barriers such as a lack of access to specialty care, lack of access to medical care, patients having chronic diseases and a lack of outcome measures that providers could use to evaluate and improve oral health care.

Opportunity to address this gap: Leadership at the County Department of Health and Human Services can help integrate public health approaches to address oral health issues among low-income populations.

Recommendations

The following recommendations evolved from input gathered by key informants in Marin County and leaders in other counties who have completed oral health needs assessments and strategic plans. These recommendations form a basis from which Marin County Department of Health and Human Services can develop a strategic plan in partnership with safety net providers. An oral health strategic plan for Marin County could include key metrics and methodologies to track oral health outcomes as well as strategies for leveraging resources. Healthy People 2020 Oral Health Indicators may be relevant for the strategic planning process (See Appendix D). Examples of comprehensive *children's* oral health strategic plans exist for Alameda, Humboldt, Lake and San Luis Obispo Counties.[23] With a finalized strategic plan, leaders in these counties are beginning to align activities and efforts across their oral health safety net providers to accomplish agreed upon oral health metrics.

The following recommendations fall into three interrelated categories: access to care, data collection, and infrastructure.

Access to oral health care

1. Build on two assets of Marin's oral health safety net system of care: (1) the Marin County Dental Society's program that matches private orthodontists with children who need this specialty and (2) the partnership Marin County Dental Clinic has with one private endodontist. Determine and implement strategies to **engage private dentists** in providing care to low-income populations. There are a number of strategies worth exploring: (1) a contractual arrangement between clinics and private providers, (2) a volunteer arrangement between clinics and private providers, and (3) conduct a CA Cares event so that private providers donate their services on a designated day.[24]

2. Another asset in the County's oral health system safety net worth exploring more fully is the reduce-cost care provided at the **schools of dentistry** in San Francisco. Perhaps there are opportunities for teledentistry, subsidized transportation, and/or increasing the number of dentist residents rotating at the County and FQHCs.

3. A **mobile dental van** could alleviate physical capacity issues that clinics are now grappling with as more low-income adults have access to dental insurance. There are examples of successful mobile dental vans in at least two counties: Humboldt and Contra Costa.

   The van in Humboldt is operated by a large FQHC, Open Door Health Center, and travels between three to four schools per year. Most of the schools are within the city limits of Eureka. Clinicians from the FQHC see about 500 children per school year, provide screening, sealants and treatment, and are able to bill Denti-Cal the same as they would if the visit occurred in the

[23] Additional examples: San Francisco's children's oral health strategic plan will be made public in the Fall, 2014. A report commissioned by the John Muir/Mt. Diablo Community Health Fund, The Oral Health Landscape in Contra Costa County, highlights the gaps and opportunities for improvement in oral health across all ages in Contra Costa County. Sonoma County embedded oral health indicators for children in the County's Community Health Needs Assessment 2008-2011.

[24] CA Cares website: http://www.cdafoundation.org/cda-cares

permanent clinic. The mobile van is a success, in part, because of the close collaboration with the schools. The Office of Education values this service because it helps prevent children from missing school do to oral health issues. The clinics find the mobile van is a solution to the problem of no-shows.

The Ronald McDonald van, a mobile dental van in Contra Costa County, is overseen by John Muir Community Health Alliance with two different FQHCs providing services for children. The mobile van model used in Humboldt is more applicable to Marin County than the arrangement in Contra Costa.

4. Free up the availability of routine and follow-up care appointments for children and adults by **reducing the amount of emergency visits** provided by the County and community clinics. A coordinated, systematic approach to oral health education activities, screenings and providing sealants, particularly for populations at most-risk of poor oral health outcomes, could alleviate the need for and strain of emergency visits. A couple of key informants suggested the best approach to a coordinated, impactful dental disease prevention program is to have bi-lingual hygienists from FQHCs conduct the activities at school sites and refer families back to the clinic as a dental and medical home.

Data collection

5. Several providers indicated a strong interest in **collecting and tracking patient outcome data,** however competing priorities, time and resources are barriers. It may be feasible for all of Marin's safety net providers to collectively choose one or two indicators from Healthy People 2020 to track. Providers could work together to determine the best way to collect data and commit to sharing outcomes with one another after an appropriate amount of data is collected.

   If a more coordinated approach to health education, screenings and sealants was developed (as noted in recommendation #4), data collection and sharing across providers could help inform more targeted interventions and a strategic allocation of resources in the future. The College of Marin Dental Assistant program may be a valuable resource to leverage.

6. **Increase the response rate** for the Kindergarten Oral Health Assessments by coordinating efforts between the schools, clinics, family advocates and parents. The California Department of Education appears committed to increasing the number of children who are assessed and may have flexible funds available to support the outreach and screening costs.[25]

7. Explore the oral health needs of **special populations**[26] more deeply by conducting an in-depth, targeted needs assessment that includes oral health screenings. Partnerships with traditionally underserved people and community-based organizations that serve special populations can also inform the needs assessment and tailored interventions to meet the needs. For example, special populations may require hospital dentistry and other accommodations beyond the capacity of Marin's current oral health safety net.

[25] California Department of Education website: http://www.cde.ca.gov/ls/he/hn/oralhealth.asp

[26] Special populations include people who are: medically compromised, developmentally disabled, mentally ill, geriatric, homeless and pregnant women.

Infrastructure

8. The cost of providing oral health care for low-income populations exceeds County and community clinic revenue. A number of key informants suggested a solution to this issue is to receive a subsidy to cover uncompensated care from public and private sources (e.g. County General Fund, local hospitals, foundations, etc). A **financial analysis** could help determine the best strategies to balance clinic costs, maximize Denti-Cal reimbursements and secure revenue for the County Dental Clinic and Federally-Qualified Health Centers so that more uninsured and underinsured populations have access to care. In addition, the analysis could examine current clinic staffing and determine the most cost-efficient mix of dental personnel.

9. The County and community clinics provide care for populations who often have several issues impacting their health and well-being. Resources are needed to support the clinics' ability to provide **care management** activities so that patients are able to navigate the system of care and access the range of services they need to reach optimal health. Promotoras/community health workers/peer health educators could be a low-cost and high impact strategy for helping traditionally marginalized populations learn about and access oral health care. In addition, transformation within clinics to better **integrate of oral, medical and behavioral health services** across providers will take time and resources.

10. **Leadership** among Marin's oral health safety net is needed to pursue any of these recommendations. Counties committed to addressing oral health issues have leadership from the County Health Department and FQHCs who are proactively engaged in efforts to: apply for and draw down federal and state resources to leverage oral health efforts, network with other counties to inform local strategies, advocate for the allocation and prioritization of local resources toward oral health care and prevention, and build and sustain partnerships between private providers, safety net providers and leaders of other community-based organizations and public agencies. For example, Lake County with approximately the same size Denti-Cal eligible population as Marin County[27] applied County general funds to support a coordinator position responsible for leading the Dental Disease Prevention Program after the State eliminated this program through budget cuts. After a couple of years with County general fund support, the coordinator was able to secure support for the position through a Health Resources and Services Administration (HRSA) grant.

    San Luis Obispo, another county of similar population size to Marin, is another County that has prioritized an Oral Health Program Manager position. This position is funded by a mix of sources, including the local First 5 Commission (which matches the Maternal, Child and Adolescent Health Federal Financial Participation grant), and reimbursements through the local medical managed care plan and Denti-Cal. Overhead costs are covered by the County. This position, filled by a dental hygienist, allows for 50% FTE for billable clinical services (e.g. fluoride varnish) and 50% FTE coordinating collaborative efforts among oral health providers. In addition, the Oral Health Program Manager is tracking changes at the State related to oral health and positioning the County to be ready for new funding opportunities when they arise.

    Leadership to better leverage and coordinate local, state and federal resources can also come from FQHCs as is the case with Open Door Health Center in Humboldt County.

[27] In 2012, the number of people eligible for Dent-ical were 15,029 in Lake County and 15,873 in Marin County.

Given the Marin County Health and Human Services Department does not have a position specifically designated for improving oral health, it is important for the Oral Health Advisory Committee (OHAC) to work together as efficiently and effectively as possible to improve the oral health safety net. There are several ways in which OHAC could proceed to address some of the recommendations above. For example, OHAC could decide to focus on addressing the oral health needs of a particular population (much the way children's oral health was prioritized several years ago) or OHAC could narrow its focus to a particular geographic region where there are currently poor oral health outcomes. Another way OHAC could proceed is by working to address a particular oral health issue (e.g. access to endodontic care). Whichever direction OHAC moves in it will be important to expand membership and engage stakeholders who are knowledgeable about the particular issue and have relationships with the targeted populations (e.g. promotoras, WIC, Mission Possible, etc).