

# The Oral Health Landscape in Contra Costa County: Needs and Opportunities

Commissioned by



JOHN MUIR/MT. DIABLO COMMUNITY HEALTH FUND

*John Muir Health*

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## Organization of This Report

This report is presented in three sections:

- I. Executive Summary and Recommendations
- II. Key Findings
- III. Strategies to Consider

### Executive Summary and Recommendations

The Executive Summary and Recommendations is intended as the actionable portion of this document, highlighting upfront the oral health needs and opportunities that emerged from this research.

These recommendations are crafted to be relevant and appropriate to the John Muir/Mt. Diablo Community Health Fund (the CHF) and its role as a community health funder. However, none are actions the CHF can take on independently or in isolation—all will depend on the ability of community partners to play a role in seizing these opportunities.

The recommendations are grouped by overall theme, and priorities are suggested among and within each theme, identifying areas of greatest need and/or opportunity.

### Key Findings

The Key Findings section comprises the bulk of our research findings, gathered from primary and secondary sources.

The research is organized into five major categories: Oral Health Status, Dental Health Insurance, The Oral Health Safety Net, Barriers to Care, and Leadership and Policy.

Each section includes information on the overall national and/or statewide context, followed by information specific to Contra Costa County.

Where appropriate, quotes from informant interviews are used to provide added detail. These quotes are unattributed to emphasize their content rather than the identity of the speaker.

### Strategies to Consider

The Strategies to Consider section includes information about promising approaches to addressing oral health, and examples of programs implementing these approaches.

This section highlights five areas of activity: Advocacy, Workforce, Education, Delivery Models, and Health Care Integration. For each of these, there is an overall description of the strategy, followed by profiles of relevant models.

# I. Executive Summary and Recommendations

## Executive Summary

Oral health is integral to overall health and well-being, but high costs, inadequate financing for public programs, and gaps in services put even routine dental care out of reach for many.

The John Muir/Mt. Diablo Community Health Fund (the CHF) commissioned this report on the oral health landscape in Contra Costa County in order to identify opportunities for CHF investment and to engage providers, fellow funders, policy leaders, and other stakeholders in creating solutions to unmet oral health needs.

In Contra Costa County, efforts to expand access to dental care for children include the work of the Dental Health Collaborative/ Ronald McDonald Care Mobile® and its partner organizations, the John Muir Health Community Health Alliance, La Clinica de La Raza, Brookside Community Health Center, and Contra Costa Health Services' Children's Oral Health Program, as well as some private dentists. Together, these providers work through the schools and in communities to provide services to children who are uninsured or enrolled in the state's Medicaid program, Denti-Cal. However, the capacity of these existing efforts is limited, reaching only a fraction of the county's underserved children.

Adults have even less access to dental care. The state reduced adult Denti-Cal benefits in 2009 to cover only pregnant women, adults living in care facilities, and to meet emergency needs only for other adults, leaving many locked out of dental care. Even working adults who have some dental coverage may postpone dental visits for themselves or their families because of high out-of-pocket copays, inability to take time away from work, and other barriers. Contra Costa safety net providers such as La Clinica, Brookside, and Contra Costa Health Services dental clinics provide some critical services but see only a small proportion of adult dental patients in need, and without a viable third-party payer, there is little hope of this changing. Frail seniors, disabled adults, and adults with chronic disease have a compounded risk of poor oral health, related health issues, and experience unique barriers to access.

Neither the State nor the County maintains data on the oral health status of children and adults that includes the uninsured.<sup>1</sup> In the absence of a mechanism for coordinated data collection and analysis, the full magnitude of need—and the degree of success to which it can be met through existing or future efforts—cannot be stated with any accuracy. Although some data are collected about children's oral health through the providers identified above, their collaboration has not extended to a comprehensive data collection system identifying need, services offered, or service outcomes.

The data challenge is not unique to Contra Costa County, rather it is reflective of the broader health care system in which oral health care and coordination of data has not been viewed as a top priority (in fact, it is almost seen as outside the health care system) and where leadership and accountability for oral health is often unclear.

Given what we have been able to learn about oral health status in Contra Costa County and what we know about the broader national and statewide context as well as promising programs being tested in other communities, we propose the following recommendations for consideration by the CHF and its partners.

## Recommendations

In developing these recommendations, we recognize the gap between meeting oral health needs and the change that is *feasible* given the constraints of timing, political will, and other factors that no one organization can overcome on its own. The CHF has been most effective when supporting champions of change, rather than building the infrastructure to be a change agent itself. The situation is no different in the case of oral health, where we have sought to identify ways that the CHF can fuel the efforts of others who have the expertise, innovation, and commitment to change the landscape of oral health in Contra Costa County.

The following recommendations for consideration by the CHF represent an oral health need and/or opportunity that is ripe for action and that can be addressed in a way that is relevant to the CHF's role as a community health funder. The recommendations are organized into three tiers or levels of priority based on the following criteria:

- The recommendation has the potential to **fill a gap or address an unmet need** (i.e. there are few other resources directed to this activity, population, or service).
- The recommendation is one where the **CHF can productively exert influence or make an impact** (i.e. a difference can be made even with a modest investment at a local scale).
- The recommendation aligns with **the capacity and readiness of community partners** (i.e. it meets the local system of providers and policymakers where they are).

## Data Collection and Coordination

You cannot solve a problem if you are not sure what the problem is. The greatest challenge in understanding the oral health needs in Contra Costa County is the lack of coordinated data. This is not a problem unique to Contra Costa County. Although national health care reform has emphasized upgrades in information technology, electronic records, and data sharing, oral health has not been included as a priority in these efforts. It is also possible that policy makers have not committed resources to oral health data collection because it would increase pressure to address the severe and actionable needs.

Oral health providers in Contra Costa County can rise above this *status quo* by taking initiative on behalf of the oral health of residents and making data a top priority (including addressing the total lack of data on adult oral health). The CHF can play a critical role by advocating for the development of a data collection system across what is currently a fragmented array of programs serving the most vulnerable populations. This will require strong leadership, mutual accountability, agreement on metrics, and commitment to transparency. In short, it will require real collaboration.

***This is a primary priority recommendation that meets each of the three criteria.***

**1. Encourage the development of a countywide effort to identify key metrics, develop methods of tracking against them, and share the results.**

Convene key providers to develop protocols for collecting and sharing oral health data. This group must include representatives from East, Central, and West Contra Costa County providers and involve individuals who have the knowledge and authority not only to design data collection mechanisms but to ensure that they are implemented. The same standards and metrics must be shared by private providers and public health facilities alike, to provide as comprehensive a picture as possible of oral health needs and issues in Contra Costa County, for children as well as adults.

Within any decentralized system, the process of designing a data collection process, and then creating regular data-filled reports, creates impetus for change over time. Only by making the problem visible and measurable will the community be able to move toward real and lasting solutions.

## **Advocacy and Policy Leadership**

There is increasing evidence that oral health is inextricably tied to overall health, but the health care system has yet to adapt accordingly. Access to dental care is still viewed as an “add on” or optional component of the federal, state, and local public health infrastructure. Historically, the practice of dental care has evolved on a separate track from that of medical care, and the task at hand is to bring the two into greater alignment. The primary health care community must begin to prioritize oral health as a core health issue, and the oral health community must take a leadership role in partnering with public health so that they can share responsibility for meeting a more complete standard of overall health and wellness.

***This is a primary priority recommendation that meets each of the three criteria.***

**2. Encourage advocacy efforts aimed at the systems and policy change needed to advance oral health status in Contra Costa County (including coordinated data).**

Support oral health advocates in leading change. Consider funding current or new advocacy efforts working for systems and policy change.

Examples of such change may include:

- Creation of an oral health director position within Contra Costa Health Services that is accountable for oral health across the population, i.e. adults and children;
- Provision of training and development of protocols preparing primary health care providers (doctors and nurses) to offer basic preventive oral health education and services.

Without someone being a voice for improved oral health and systemic change, no one will be held accountable to meeting the need. Advocacy creates attention and draws the light that drives change. Oral health in Contra Costa County needs a champion(s) who can help align multiple players and siloed programs behind a coordinated campaign for change.

## Adult Oral Health

There are virtually no oral health services available to uninsured and underinsured adults in Contra Costa County, and no local leadership taking this on as a priority.<sup>1</sup> The greatest barrier is the lack of a payment mechanism since Denti-Cal benefits were reduced in California in 2009. As stated by one local provider, “There is no access to care for adults unless they have cash.” Further, charitable solutions for adults have been slow to emerge because children’s needs have greater emotional appeal and are often geared toward prevention, which is less costly than the often expensive restorative work needed by adult patients. Finally, the American Dental Association reports that while some states are considering adult dental coverage as an optional benefit under health care reform, the Patient Protection and Affordable Care Act does not directly address coverage for adult dental benefits.<sup>2</sup>

There also appears to be a lack of awareness about or will to address this situation through systemic change. Such change in itself is beyond the CHF’s ability to solve, however the CHF could leverage its funding to serve some adults while simultaneously building awareness about Contra Costa’s unmet oral health needs. There are opportunities to build momentum for change on behalf of adult oral health by addressing the need for better data collection and coordination (see [Recommendation 1](#)) and advocating for policy and leadership that treats oral health as a priority health issue (see [Recommendation 2](#)), though these are long-term prospects that will take time to bear fruit. In the meantime, there are some interventions that can help bring dental care to those who need it, even if on a small scale or for specific adult populations, including frail seniors.

*This is a **primary priority** recommendation that fits two of the criteria. (This work may challenge the current capacity of existing providers, as it looks to new solutions not already in place.)*

### **3. Sponsor or co-sponsor a “dental day” event to bring visibility to the state of oral health in Contra Costa County and provide urgent services to the underserved.**

- Consider partnering with [Remote Area Medical](#) California or [CDA Cares](#) (featured on page 33 of this report) to bring a free dental care event to Contra Costa County.
- Create a central role for policy leaders and the media in order to leverage the event to make visible (in a way that data is currently failing to capture), the level of need that is not being met, especially among uninsured and underinsured adults. If pursuing this recommendation, the CHF and its partners must be deliberate in conveying this dual purpose, so that more than simply providing one day of service, they are drawing attention to the lack of service and the inadequate systemic response—effectively using the event as a call to action by the community, providers, and policymakers.

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<sup>1</sup> Statewide policy efforts by entities such as the California Dental Association and the Oral Health Access Council are underway, though it should also be noted that even with adult Denti-Cal restored, significant barriers to oral health remain.



**4. Support pilot programs and/or volunteer-based strategies to provide dental care to uninsured and underinsured adults, especially seniors living in institutional settings.**

Examples of such strategies may include:

- Fund a pilot program to bring portable and/or virtual dental care to elderly and/or disabled adults living in care facilities (see [Apple Tree Dental](#), featured on page 28 of this report). For this, and any other direct service recommendation, include an evaluation of the pilot or demonstration project so that it is as a learning opportunity.
- Encourage the coordination of volunteer opportunities for local private practitioners and/or dental students to contribute their skills in safety net settings.

Although neither of these recommendations are a solution to meeting the need for safety net services for adults, even starting to meet the needs of some will demonstrate to local providers that improvement is possible. Any initiative in this area can serve as a model for learning and inspiration to do more.

## **Children's Oral Health**

Because tooth decay is preventable, it is compelling to target oral health efforts toward children. As one of our expert interviewees remarked, "We know how to prevent disease and have systems in place. The issue is how to get more of it, and get it paid for." A number of Contra Costa County providers<sup>2</sup> are already engaged in such efforts to address oral health early on, or "upstream." There are opportunities to build on existing efforts by increasing the capacity of these programs and helping them work more effectively together, as well as by involving other key stakeholders as providers of oral health education and/or basic preventive services. However, because there is already more programming currently available for children than for adults, this is not necessarily recommended as a top priority.

*This is a **tertiary priority** recommendation that fits with one of the above criteria. (Although there are still unmet needs in children's oral health, this represents less of a gap than found in adult oral health.)*

**5. Expand the capacity of existing programs so that they continue to serve children both efficiently and effectively, and explore promising new models as appropriate.**

Consider supporting training, staffing, or other investments in growing the capacity of existing children's oral health programs, conditional upon their ability to demonstrate measurable results. Encourage closer collaboration and shared learning among these providers, including data collection and analysis (see [Recommendation 1](#)). Consider supporting pilots of models that engage teachers, caregivers, and others in providing oral health education to children and their families (see [Cavity Free Kids](#), featured on page 26 of this report).

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<sup>2</sup> Providers of safety net dental services to children include: the Dental Health Collaborative/ Ronald McDonald Care Mobile® and its partner organizations, the John Muir Health Community Health Alliance, La Clinica de La Raza, Brookside Community Health Center, and Contra Costa Health Services' Children's Oral Health Program, as well as some private dentists.



This recommendation implies that there is a foundation in children's oral health services on which the CHF and others can build, but that the capacity is not currently adequate to meet the need. Investing in existing capacity will help meet needs, but it is less likely than some of the other recommendations to drive systemic change.

## Special Services

Sedation dentistry is more than a convenience for patients experiencing dental anxiety. It is a necessary element of treatment for some populations such as very young children, people with developmental disabilities, and older adults with dementia-related illnesses. These patients may need sedation (or even full anesthesia) because they are not cognitively able to understand why their cooperation is needed in the dental chair or not physically able to sit still to get care. Anesthesia may also be needed to provide advanced care such as oral surgery, as it would for any adult requiring oral surgery. Few providers are equipped to provide sedation or anesthesia services to special populations, Denti-Cal recipients, or uninsured or underinsured adults.

This is a niche need that, if effectively addressed, could make a significant impact on a small number of dental patients in Contra Costa County. The CHF has an immediate opportunity to support existing grantees (Operation Access and La Clinica) in exploring a partnership to expand access to sedation and anesthesia dentistry to underserved patients (similar to [Project Access Northwest](#), described on page 33 of this report).

*This is a **tertiary priority** recommendation. (Although it addresses three of the above criteria, it is more narrow in its potential impact than other recommendations.)*

### **6. Support exploration of a potential partnership between dental care providers and other medical providers to increase access to sedation dentistry for underserved patients.**

Consider supporting feasibility research and planning related to the potential expansion of Operation Access services to include oral health specialists and anesthesiologists to enhance access to sedation dentistry for uninsured and underinsured adults. Should this result in a pilot project, include an evaluation component to make this a learning opportunity.

Implementation of this recommendation will build on existing services and meet a high-impact need for a small number of people.

Although these recommendations are framed as opportunities appropriate to the CHF's role as a community health funder, they all depend on the active involvement of community partners. The CHF cannot take on these challenges on its own, but invites providers, other funders, and policymakers to consider how all can contribute to closing gaps in oral health and be champions of this issue to continue to move it forward.

## II. Key Findings

### Introduction

#### Purpose

The John Muir/Mt. Diablo Community Health Fund (the CHF) has observed growing challenges and gaps in services in oral health care for underserved, uninsured, and underinsured populations in Contra Costa County. Recognizing the need for more information to help inform strategic action, the CHF commissioned this research to better understand community oral health care needs and to identify opportunities for investment.

The primary audience for this report is CHF leadership, which has a specific interest in what role the CHF might play in addressing community oral health needs. However, the report is also informative to fellow health funders and other stakeholders involved in oral health.

#### Scope

The scope of this report includes the oral health care needs of children and adults countywide, though in seeking to identify the areas of greatest need, it may emphasize specific populations

#### What IS oral health?



The World Health Organization defines “oral health” as:

*...a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual’s capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing.*

Oral health correlates to overall health, and oral diseases are often linked to chronic disease. Risk factors include poor diet, tobacco use, and alcohol abuse. Social determinants also play a key role in oral health with higher prevalence of oral diseases among low-income populations and other disadvantaged groups. Access to regular dental care plays a critical role in achieving and maintaining good oral health, which in turn is essential to quality of life.

The dual goals of dental care include: disease prevention (education, sealants, etc.), and disease management or (if possible) elimination (screening, diagnosis, restorative care, etc.). Both goals, and their related interventions) are essential. However, the need for and efficacy of each of these approaches may vary depending on individual and population characteristics, including demographic, environmental, and other factors.

## Methods

This report is informed by a review of existing research, supplementary online research, and interviews with key local stakeholders and other experts in the field.

The consultants conducted interviews with representatives of the Dental Collaborative of Contra Costa, including the John Muir Community Health Alliance, La Clinica de La Raza, Brookside Community Health Center, and Contra Costa Health Services.<sup>3</sup> In order to learn more about the dental health needs of special populations, including the disabled and the frail elderly, the consultants interviewed community-based organizations serving those groups. Additional interviewees included a select number of practitioners, academics, and policy advocates who were selected for their field expertise and their ability to shed light on the issue from a point of view external to the Contra Costa provider community.

## The Data Challenge

Understanding the need for dental care in Contra Costa County is critical to policy and funding decisions. However, there is no single agency collecting and monitoring data on oral health status in the county. Some data is generated through children's oral health programs operated by Contra Costa Health Services and the Dental Health Collaborative/Ronald McDonald Care Mobile®, but no one is capturing data on adult oral health because few adults are being treated by community clinics or other safety net providers due to lack of a system of reimbursement in the absence of Denti-Cal. One provider we interviewed characterized the situation as follows.

*"I don't know of anybody keeping a full overview of everything. We do it [collect data] on an individual level, each organization, but I don't know of anyone doing oral health data for the whole county. What I see more in the county is that it's segmented: this one's doing this, and that one's doing that."*

The children's oral health data being collected is held in silos, with each provider or program tracking its own numbers with little effort to support collective learning. This data also tends to focus on process measures such as the number of children treated, rather than outcome measures indicating the results of that treatment. One interviewee explained the current status:

*"Right now...we're keeping track of the insurance coverage of the patients, their grade level, what we did, their age, if we educated them...things like that. We do keep track of the numbers of patients and we know their insurance."*

In developing this report, the lack of a coordinated system for monitoring oral health hampered our ability to develop a clear picture of oral health needs. Particularly for the adult population, we resorted to referencing demographic and socioeconomic data known to have a corollary relationship to oral health outcomes, which can be suggestive, at best, but misleading at worst.

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<sup>3</sup> Invitations were also extended to Ronald McDonald Charities and the Contra Costa Dental Society, but were declined.

## Oral Health Status

### Oral Health Status: National

In the U.S., one quarter of adults ages 65 and older have lost all their teeth, and nearly 60% of children ages 5-17 are affected by tooth decay.<sup>3</sup> More than 20% of American adults ages 18-64 describe their oral health as “fair” or “poor.”<sup>4</sup>

Oral health status is typically poorer among those with low incomes and low educational attainment, as well as among diabetic adults. Outcomes are also worse among some racial and ethnic groups, and disabled individuals often experience access challenges.<sup>5</sup>

#### Poverty matters...

Adults in poor families (28%) were more than twice as likely as adults in families that were not poor (13%) to have worse oral health status than others the same age.



#### Education matters...

Just 20% of adults aged 18–64 with less than a high school diploma had better oral health status than others the same age, compared to 39% of adults with a bachelor’s degree or higher.

#### Race/ethnicity matters...

**African** Americans and Mexican Americans have significantly higher rates of untreated tooth decay than non-Hispanic whites.

#### Health status matters...

Adults with diabetes (29%) were almost twice as likely as adults without diabetes (16%) to have worse oral health status than others the same age.

Some disabled and special needs patients cannot be safely served in conventional dental offices, making access to care even more difficult.

### Oral Health Status: California

In California, almost 40% of adults have lost one or more teeth due to disease. Among those more likely to be part of this group are the elderly, less educated, racial and ethnic minorities, low-income individuals, and current or former smokers.<sup>6</sup>

California ranked in the bottom two (second only to Arkansas) in a 25-state survey of children’s oral health in 2004-05.<sup>7</sup> Rankings were based on rates of tooth decay. In a 2007 survey of self-reported oral health, California ranked worse than any other state, excepting Texas.<sup>8</sup>

## Oral Health Status: Contra Costa County

### Children's Oral Health Status

National Healthy People 2010 objectives for children's oral health state that:

- Only 11% of children ages 2 to 4, 42% of children ages 6 to 8, and 51% of adolescents age 15 should have a history of tooth decay; and
- Only 9% of children ages 2 to 4, 21% of children ages 6 to 8, and 15% of adolescents age 15 should have current untreated tooth decay.

Progress toward these objectives has not been actively tracked in Contra Costa County.

#### Demographic Snapshot\*

Contra Costa County is home to more than 260,000 children under the age of 18. Countywide, this age group represents approximately one-quarter of the population, similar to the statewide total for California. However, within Contra Costa County, some west county and east county communities—including Bay Point, Richmond, and Oakley—have a notably higher percentage of young people (31%).



According to national data, African American and Hispanic children have higher rates of tooth decay than children of other populations. Contra Costa County has a slightly higher percentage of African American residents, and a lower percentage of Hispanics, than California as a whole. However, some communities—including Richmond, San Pablo, Bay Point, and Pittsburg—have African American and Hispanic populations higher than both the county and state percentages.

National data also tell us that poverty is correlated to greater risk of oral health disease. In 2012, 13% of Contra Costa County's children—nearly 33,000—were living in poverty.

\* U.S. Census Data

According to a 2005-06 screening of over 13,000 preschool and elementary school children in Contra Costa County, 16% had tooth decay—another 12% (some 260 children) had serious dental disease requiring urgent or emergency dental treatment.

In the 2009-10 school year, of the more than 6,000 school-age children receiving oral health assessments from Contra Costa Health Services' Children's Oral Health Program, 14.8% needed to see a dentist within two weeks—6.7% (more than 400 children) needed to see a dentist within 24 hours to address urgent or chronic problems accompanied by pain or infection.<sup>9</sup>

Although these findings are based on small sample sizes, relative to the total number of children countywide, and may be skewed because data were collected from student populations already identified as being high-risk, it is clear that not only is there a continuing need for the prevention of childhood tooth decay, but for the treatment of existing disease.<sup>10</sup>

Contra Costa County's triennial report on *Community Health Indicators 2010* indicates that in 2007 approximately 75% of children ages 5 to 17 had been to a dentist in the previous six months.<sup>11</sup> Although this proportion is higher than the 70% statewide average for California, it still means 25% of Contra Costa's school-age children had not seen a dentist within the past six months. It is estimated that in Contra Costa County at least 7% of children miss school days due to a dental problem.

Special needs children, including the developmentally disabled, are impacted by unique access challenges due to physical, cognitive, and/or behavioral limitations. These children are typically not included in most children's dental outreach programs, such as school-based or mobile clinics, but may receive services through regional centers for the disabled. Children requiring sedation in order to receive care, regardless of disability, are underserved because few providers are willing to provide sedation, especially to children ages 0 to 5, and Denti-Cal typically does not cover sedation.<sup>12</sup>

### **Adult Oral Health Status**

Contra Costa County has a population of over 788,000 adults age 18 and older. County-level data on adult oral health is not available. However, based on national statistics, it can be estimated that more than 300,000 have lost one or more teeth due to disease and more than 30,000 age 65 or older have lost all their teeth. Further, statewide data indicate that adult oral health outcomes are typically poorer among the elderly, low-income, less educated, racial and ethnic minorities, those with chronic disease, and current or former smokers.

The statistics below are offered as proxies for missing data on the oral health status of adults in Contra Costa County. Although they offer no direct link to the actual level of need, they do suggest risk factors in specific communities and populations.



**Elderly.** There are approximately 130,000 adults age 65 or older living in Contra Costa County. Some communities, most notably Walnut Creek and El Cerrito, have a higher proportion of residents age 65 and older than that reported at the county or state level. (See Appendix B, Table A, for detail.)

**Poverty.** Although Contra Costa County has a lower proportion of people living below the Federal Poverty Level than California overall, poverty rates are significantly higher in Richmond, San Pablo, and Bay Point. (See Appendix B, Table B, for detail.)

**Education.** Educational attainment is uneven across different communities in Contra Costa County. In San Pablo, Bay Point, and Pittsburg, less than 80% of the adult population age 25 and older graduated from high school. (See Appendix B, Table C, for detail.) These same communities are also home to higher proportions of African American and Hispanic residents, indicating a possible combination of risk factors for poor oral health.

**Smoking.** According to Contra Costa Health Services (<http://cchealth.org/tobacco/>), the overall smoking rate in the county is low (10%), the rate is much higher among some populations, including people of color, LGBT individuals, and low income individuals. More than 6,500 people in Contra Costa County die each year from smoking related diseases.



## **Cuts to Adult Denti-Cal**

In 2007, approximately 75,000 adults age 21 and older in Contra Costa County were recipients of Denti-Cal benefits.<sup>13</sup> The state of California cut the program in 2009, eliminating non-emergency services for all adults except pregnant women and individuals living in skilled nursing facilities. As a result, tens of thousands of adults in Contra Costa County no longer have coverage enabling them to access to regular dental care.

Interviews with local providers shed light on what this problem looks like on a day to day basis.

*“They [adults] were coming in regularly for preventative care under Denti-Cal, but now they’re only coming in for emergencies. There’s still adult coverage for surgery, but not preventive care. I can get reimbursed to extract a tooth, but not to fill it back in.”*

*“There’s this thing where they go to people’s houses or garages to get dental care... people come from Mexico or somewhere and they’ll do a bunch of work for a few days in someone’s garage and then go away. A lot of the patients are immigrants and don’t really understand about quality of care... or they think that it’s cheap and that’s the best thing. And then they sometimes come to us if the work was really bad or went wrong.”*

*“We meet people every day who don’t know they’re not covered. We only see them for emergencies, but if they were covered we could see them regularly.”*

The cuts to adult Denti-Cal have implications even beyond the adult population, as noted by one out-of-area interviewee.

*“Although children may be covered by Denti-Cal, if the mother is not covered, it is not very likely that she is going to the dentist, so the child is not going either.”*

Additionally, the loss of adult Denti-Cal has resulted in lost revenue for safety net providers who had been treating these adult patients.

## **Seniors and Special Populations**

Seniors face unique access challenges, as do adults with developmental disabilities. Not only are there often competing and complex health issues making it easy to ignore oral health as a priority, but for patients with dementia or cognitive issues, it is difficult to find dentists with the appropriate training or behavior intervention skills. Sedation dentistry is an important treatment option for special populations, but there are few resources for Denti-Cal or uninsured patients.

One interviewee highlighted the anticipated growth in the senior population and the challenge it poses to the provider community.

*“The baby boomers represent a huge number, and I don’t believe the oral health system is prepared to serve them at all.... You have an aging population that will need a significant amount of care going forward.”*

The fact that Medicare offers no dental benefits means that as more adults reach age 65, the gap in access to oral health care will continue to worsen for this already vulnerable population.



Initiatives to expand care to seniors have been successful, but only to a degree. One six-month demonstration project funded by the CHF subsidized care for seniors, which got 300 individuals to the clinic for oral health screenings and helped 45 to receive needed treatment. Employing a sliding fee scale, the project showed that even lowering the cost barrier (rather than eliminating it fully) can help seniors to access care. However, relying on grant funds and with no other third party payer to continue to make the care affordable, the model was ultimately not sustainable.

One provider of services to low-income seniors indicated that although their programming does not deal directly with health care, they sometimes use flexible grant funding to purchase dental care, including dentures, for senior clients who have no other means to do so. This is possible through a network of relationships the nonprofit has established on its own, demonstrating how organizations across the social services safety net are forced to seek their own solutions to the oral health care problem:

*“We have dentists and people that we work with at reduced rates who will serve them and we end up paying for it.”*

Providers of services to the developmentally disabled report that it is very difficult to find dentists who will work with this special population, and that often it is a matter of maximizing carefully tended relationships with two or three providers. One interviewee remarked:

*“Our list doesn’t have more than three [providers].... You just have to know the dental community and then not overburden them with too many patients.”*

## **Dental Health Insurance**

### **Insurance Status: National**

Cost and/or lack of insurance is a top reason why adults forego dental visits; as many as 130 million Americans do not have dental insurance coverage.<sup>14</sup>

According to the 2008 Kaiser Low-Income and Access Survey, 59% of low-income, non-elderly adults in the U.S. have no dental coverage: 38% have no insurance coverage at all, and 21% have insurance without dental benefits. Even when dental coverage is made available through private, employer-paid medical health policies, low-wage workers often do not take advantage of these because they cannot afford the required premiums, deductibles, or co-pays.<sup>15</sup>

Approximately 50 million Americans are on Medicaid, but federal law does not require states to offer adult dental benefits under this program.<sup>16</sup> Twenty-two states, including California, provide only emergency care or none at all. Among those states that provide some level of dental care under Medicaid, eligibility requirements may still leave out the most vulnerable adults.<sup>17</sup> Moreover, few dentists serve Medicaid patients, and those that do accept only a few at a time.<sup>18</sup>

One in ten children is uninsured. Although health care reform will extend coverage to more than 95% of all children, about half of those eligible for Medicaid – or some 4 million children – are not yet enrolled. States are required to provide dental benefits to children covered by Medicaid

and the Children's Health Insurance Program (CHIP). However, as noted above, few dentists accept Medicaid patients, young or old.

Medicare, serving some 48 million adults age 65 and over, does not offer dental benefits.<sup>19</sup>

### **Insurance Status: California**

California cut most adult Medicaid dental benefits in 2009, and nearly 40% of California adults do not have dental insurance coverage. Cost is cited as the number one barrier to dental care.<sup>20</sup>

### **Insurance Status: Contra Costa County**

Approximately 120,000 residents of Contra Costa County have no health insurance.<sup>21</sup> Dental health insurance is even harder to come by.

In 2007, more than 74,000 Contra Costa County adults over age 20 were beneficiaries of Denti-Cal, which has since been severely cut. In addition, the county is home to approximately 79,000 undocumented immigrants who would not be eligible for Denti-Cal even if adult benefits were restored.<sup>22</sup>

In 2007, it was estimated that 15% of Contra Costa County children under the age of 17 (more than 40,000 children) had no dental insurance coverage, and 70,000 age 0 to 20 were on Denti-Cal. Even children who are enrolled in Denti-Cal have poor access to care because few private dentists take Denti-Cal patients.<sup>23</sup>

## **The Oral Health Safety Net**

### **Safety Net: Overall Context**

The oral health safety net includes nonprofit community health centers, local public health agencies, private practice dentists, dental schools, and emergency departments.

### ***Community Health Centers and FQHCs***

Community health centers (CHCs) play an important role in the health safety net, and many also provide dental care services. There are many types of CHCs, including private nonprofit clinics, public clinics, free clinics, rural health clinics, and federally qualified health centers (FQHCs) and FQHC "look-alikes." FQHCs receive grant funding under the Public Health Service Act and cost-based reimbursement under Medicare because they meet specific regulatory criteria; the "look-alikes" are eligible for cost-based reimbursements but not the federal grant funds. There are more than 1,100 FQHC's operating in the U.S. and 118 in California. Almost all offer preventive oral health services; up to 80% provide restorative and/or emergency services.<sup>24</sup> However, it is also important to note that many FQHCs operate more than one clinic site, and these rates do not suggest that all services are available at all locations.

## ***Public Health***

Local public health agencies (LPHAs) serving cities and counties vary in the level of oral health services they provide. Estimates indicate that less than one-quarter of LPHAs in the U.S. have oral health programs, and trends indicate that more are being cut due to budget constraints.

## ***Private Dentists***

There are approximately 170,000 dentists in private practice in the U.S. This represents the vast majority of the nation's dentists.<sup>25</sup> Many private practice dentists try to provide some low- or no-cost care to underserved patients, but numerous challenges result in a limit to the number they serve.

## ***Dental Schools***

Many dental schools include outreach programs involving students in providing oral health care to underserved populations. Dental school graduates pursuing postgraduate degrees in various specialties may also play a role in providing access to care by performing their residencies in safety net clinical settings.

## ***Emergency Departments***

Emergency departments saw more than 830,000 visits in 2009 that were due to preventable dental conditions. An August 2010 study found that among emergency department visits not resulting in an inpatient admission, more were for oral health problems than for cardiovascular symptoms. Most of these patients do not receive dental care during these visits, but are given antibiotics and pain relievers, which only address the symptoms temporarily.<sup>26</sup>

## **Safety Net: Contra Costa County**

Dental services are provided by Contra Costa Health Services at four clinic locations: Bay Point, Martinez, Pittsburg, and Richmond (green markers on the map below). Oral health care is also provided by Brookside Community Health Center in San Pablo and Richmond and at La Clinica de La Raza at its Monument and Pittsburg locations (blue markers). The Dental Collaborative of Contra Costa operates a children's mobile dental clinic twice a week in East Contra Costa and twice a week in West Contra Costa at various locations (red icons). In addition, Contra Costa Health Services' Children's Oral Health Program provides school-based services for children in pre-kindergarten through sixth grade at schools throughout the county (not mapped). There is no comprehensive listing of private dentists providing low-cost care, but Contra Costa Health Services maintains an online listing of 42 providers (not mapped) accepting Denti-Cal patients.

## Oral Health Safety Net Resources in Northern Contra Costa County



Map adapted from Contra Costa County (Source: 2010 Community Health Indicators report)

= Contra Costa Health Services = Community Health Clinics = Mobile Dental Clinic

### Community Health Centers and FQHCs

**Brookside Community Health Center** is an FQHC serving West Contra Costa County. It has a fixed site clinic in San Pablo and a mobile clinic in Richmond. For dental care, it sees primarily children and teens, most of whom are covered by Denti-Cal. Adult dental patients have dwindled since Denti-Cal was cut in 2009, and they only come in for emergencies. Brookside still sees a number of pregnant women because their Denti-Cal coverage has been preserved, and it also serves diabetic and other high-risk patients that from the medical clinic. Brookside also provides children's dental care through the Ronald McDonald Care Mobile®.

**La Clinica de La Raza** is an FQHC serving Alameda County, Solano County, and Central and East Contra Costa County. In Contra Costa, it provides dental care at its Monument and Pittsburg clinics. La Clinica is the only safety net clinic providing sedation dental care. It also provides dental services for children through the Ronald McDonald Care Mobile®.

**The Ronald McDonald Care Mobile®** mobile dental clinic provides preventive and restorative dental services for children and youth through age 19. Most of these children are uninsured.<sup>27</sup> Services are provided free of charge through the Dental Collaborative of Contra Costa, a partnership between Ronald McDonald House Charities (RMHC) of the Bay Area, Contra Costa Health Services (CCHS), La Clinica, Brookside Community Health Center, and John Muir Hospital's Community Health Alliance.

- RMHC provides the mobile clinic
- CCHS provides screening and education in schools and other community settings
- La Clinica and Brookside provide dental services, including medical staff, registration, and enrollment assistance

- JMH/Community Health Alliance provides the driver and program coordination

The clinic operates twice a week in West Contra Costa County and twice a week in East Contra Costa County, focusing on underserved neighborhoods in Richmond, San Pablo, Bay Point, Pittsburg, Antioch, and parts of Concord. It sometimes goes to schools in the Pittsburg area and to WIC sites. Last year, the clinic served 658 children, many of them twice. Most are uninsured and many have had no prior history of dental care.

### ***Public Health***

Contra Costa Health Services provides dental services at four clinic locations: Bay Point, Martinez, Pittsburg, and Richmond. Patients are typically children and pregnant women; services to adults are limited.

Contra Costa Health Services' Children's Oral Health Program provides services for children from low-income families. The program provides free, school-based services for children in pre-kindergarten through sixth grade living in priority ZIP codes.<sup>28</sup> In the 2009-10 school year, the Children's Oral Health Program provided oral health assessments to 6,607 children and classroom education in oral hygiene and nutrition to 10,608. The program uses a portable dental model and refers children to the Ronald McDonald Care Mobile® for additional services.

### ***Private Providers***

In 2007, Contra Costa Health Services reported that there were 785 private dentists practicing in Contra Costa County. Of these, only 98 had billed Denti-Cal in the past year, and only 34 regularly saw children with Denti-Cal. At the time, only three pediatric dentists in the county were accepting new Denti-Cal patients on a regular basis.

As of March 2012, Contra Costa Health Services had listed 42 providers accepting children on Denti-Cal: 14 serving the western part of the county (Richmond, San Pablo, etc.), 19 in central county (Concord, Martinez, Walnut Creek, etc.), and 9 serving east county (Bay Point, Pittsburg, and Antioch). This list includes safety net providers listed above, including Brookside and La Clinica.<sup>29</sup>

### ***Dental Schools***

The Bay Area is home to dental schools at UCSF and the University of the Pacific (UoP), to which complex cases are sometimes referred. UoP has been a partner in providing dental services to adults with developmental disabilities through Lafayette-based Las Trampas, Inc. This has included low-cost exams on-site at group homes as well as off-site services. However, UoP has a 2–3 month waiting list, and transportation can be a challenge. Las Trampas has coordinated transportation for some patients, but as another dental care provider states: "We can always send patients [to San Francisco]...it's a matter of whether they will go."

Diablo Valley College also has a dental program providing education and practical training for dental hygienists, lab technicians, and dental assistants. Futures Explored is another nonprofit serving the developmentally disabled, whose *Actively Living and Involved in a Variety of*

Endeavors (ALIVE) program serves Concord and Antioch and has partnered twice with Diablo Valley College to obtain oral health services for participants.

However valuable these partnerships with dental schools may be, it seems they have not been made permanent, perhaps due to resource limitations.

### ***Emergency Departments***

Contra Costa County emergency departments were not contacted directly to obtain data on oral health needs. However, in 2007, Contra Costa County had 2,898 emergency department visits for preventable dental issues. More than 80% of these patients were 18 years of age or older.<sup>30</sup> This was prior to the discontinuation of adult Denti-Cal coverage; a 2011 statewide study on the effects of these cuts reports that although there is not sufficient evidence (based on just two years of data) to draw a conclusion, spending on emergency department visits for dental conditions that could have been avoided did, in fact, increase from FY 2008-09 to FY 2009-10.

## **Barriers to Care**

### ***For Patients***

Cost is the number one issue preventing adults from seeking dental care, but other barriers for patients include transportation, work and childcare arrangements, and lack of knowledge about the importance of oral health. Fear is also a barrier; one in ten adults cites this as their main reason for not seeking dental care.<sup>31</sup> One interviewee explored this topic in her remarks:

*“The barriers are quite complex, they’re multiple, and they look different for each population. Barriers for the frail elderly are lack of mobility, and a payer source for a dentist to come to a facility. Payer source and mobility are also issues for children. Poverty is a barrier. Oral health literacy is a barrier. There are populations that don’t value or seek care. But you could also make the argument that populations in poverty have so many other things to focus on like putting food on the table, so dealing with poverty is absolutely a barrier.”*

### ***For Providers***

Less than two percent of the nation’s dentists work full-time in what can be called safety net settings. The vast majority of the remainder works in private practice, where their business model demands that they turn a profit. For the private practice dentists willing to take on low-income patients, this means maintaining enough paying patients to offset or subsidize Medicaid and/or charity care patients. Low Medicaid reimbursement rates (covering as little as one-third of the usual and customary charges), slow turnaround of those reimbursement requests, and patient no-shows are cited as additional barriers to serving low-income patients.<sup>32</sup> Interviewees acknowledged this as one of the greatest challenges facing the entire oral health care system.

*“The greatest gap, system-wise, is the oral health financing structure. There is insufficient reimbursement, particularly for underserved and vulnerable populations.”*



To engage more private practice dentists in meeting the needs of underserved populations, a working business model is needed, especially with a growing number of dental programs facing sustainability issues.<sup>33</sup> Programs that have successfully balanced the profit imperative with that of providing charity care share some common characteristics, including: high patient volume, sufficient staff, good practice management, low debt, conservative approach to expenses, and enough paying patients to offset the cost of treating low-income patients.<sup>34</sup> This is a difficult balance to strike, as described by one out-of-area interviewee.

*“The elimination of adult Denti-Cal has had a tremendous impact. The number of people who have been unemployed or underemployed and uninsured or underinsured for the last three to four years has been growing. That population cannot afford the out of pocket costs, and the state is not providing a financing mechanism for those people to access dental services, so the revenues that dental providers have been receiving have dwindled. Even providers who were able to subsidize pregnant or underserved families through having higher revenues from the insured population, can’t do that [anymore] because their revenues overall have decreased. Some have been forced to eliminate auxiliary staff, billing staff, back office functions, etc.—especially in private practice.”*

There are also cultural and philosophical barriers at play. Interviewees mentioned the difference in training and mindset among the dental community, in contrast to what is demanded of safety net providers. One expressed it as a cultural difference:

*“They have been educated separately from the rest of the health professions and educated in a culture that ignores the issue of social wellbeing. All the other disciplines took the Hippocratic oath, but dentists didn’t and people see them as small businessmen. Dental professionals have grown up in an education system that allows them to operate independent of social needs and without a sense of social obligation to the larger community. Another barrier is they are trained in a narrow, procedural-oriented way and not in population health and disease management.”*

To be clear, this is not a moral judgment of dentists, but an observation of how they are trained and prepared for the work. Interviewee comments included:

*“Training in dental education is very clinic-based. Dentists coming out of school...their experience working in a community is limited.”*

*“Dentists are trying to see if they can fit charity care into their business model and make it sustainable. What is their payer mix that would allow them to be sustainable? But after that, they’re really looking at: ‘Can I navigate (do I have the resources to navigate) a program that is challenging, that requires me to practice in a way that is not consistent with what I think are the systems of care. Are there rules that I can’t practice or provide the care I feel needs to be provided?’ The variety of programmatic requirements and limitations is such that when you add that to the fee schedule, it starts to decrease the number of providers who feel they can operate in that environment.”*



Finally, the literature often points out that using non-dentist dental professionals could expand the system's capacity to provide care to the underserved.<sup>35</sup> However, attempts to implement this as a solution have elicited resistance from dentist associations. This resistance has likely slowed the spread of models relying on non-dentist professionals, and has been an issue in legislation currently being considered by the California State Legislature (see next page).

## Health Care Reform

One of the primary barriers to oral health for the underserved is the lack of a payer source. While the implementation of health care reform will extend coverage to many more children, limits on Medicaid dental coverage have left uninsured and underinsured adults (including the elderly and disabled) with little or no access to care.<sup>4</sup>

Although states cutting adult dental from their Medicaid reduces expenses in the short-term, it may create a larger, more costly, burden on both the government and individual consumers in future years. Because the repercussions from poor oral health tend to be gradual rather than immediate, the actual costs are not known. But it is reasonable to believe that, without the ability to pay for routine care, poor and uninsured consumers will put off routine care and preventable needs will turn into expensive medical crises that are covered through public health care or by the consumer in future years. Oral health advocates have a potential role to play in examining the impact of these cuts, articulating the long-term costs, and working with policymakers to reinstate or restructure Medicaid to better serve vulnerable adults.

At the same time, *coverage does not equal access*. Already, there are not enough dental care providers willing to take on Medicaid patients because of inadequate reimbursement and other concerns. Whether more children get automatic coverage or more adults have Medicaid dental benefits restored, neither can be a solution without addressing these other barriers.

Additionally, for the nearly 80,000 adults in Contra Costa County who are undocumented, health care reform and/or Medicaid restructuring is not a solution. The only way this need is likely to be addressed is if non-governmental organizations step in to champion oral health care access for this population.

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<sup>4</sup> In fact, experts are now reporting that a flaw in the roll-out of new health insurance exchanges will allow families to purchase plans that do not include the pediatric dental coverage, an oversight that would mean fewer children getting access to oral health care. Providers are watching for a ruling that would close this loophole. (Source: "Gaps in Health Law Dental Coverage," by Paige Winfield Cunningham, Politico.com, February 15, 2013 <http://www.politico.com/story/2013/02/gaps-in-health-laws-dental-coverage-for-children-87673.html#ixzz2LMoUHemW>)

## Public Dental Health Infrastructure

Despite the World Health Organization's recognition of oral health as part of overall health, oral health has not been integrated into the national, state, or local health infrastructure. The national Centers for Medicare and Medicaid Services (CMS), the Health Resources and Services Administration (HRSA), and the Centers for Disease Control and Prevention (CDC) all lack a permanent chief dental officer position.

This gap in leadership at the national level carries over to state public health agencies. Although 46 states report having had a full-time dental director in 2010-11, this does not mean there is a dedicated office of oral health at the state level.<sup>36</sup> Furthermore, almost half the states reported that the dental director had been in the position five years or less. Previous years' reports note the high turnover rate among directors and the fact that due to the different qualifications requirements among different states, some directors did not possess professional level public health and/or dental knowledge or experience.<sup>37</sup>

### California SB 694



California does not currently have a state office of oral health or a state dental health director (there is an Oral Health Unit under the Department of Public Health). SB 694, introduced by Alex Padilla (D, Los Angeles) would establish a Statewide Office of Oral Health and require that it be led by a dental director who is also a licensed dentist. One aim of this legislation is that such a director, in the authority of this office, would play a leadership role in developing a state oral health plan and seeking federal and private funding to implement these plans.

Early drafts of the proposed bill would have also authorized a project to explore new workforce training and care delivery models involving non-dentists in meeting the need for oral care for underserved children. This element met with resistance among dentists and associations of dentists, and has since been scaled back to encouraging the dental director to pursue a study "to assess the safety, quality, cost-effectiveness, and patient satisfaction of expanded dental procedures performed by dental care providers for the purpose of informing future decisions about how to meet the state's unmet oral health need for the state's children."

SB 694 was last amended in August 2012 and its current status appears as held in Assembly Committee (Appropriations). The California Dental Association web page on legislative issues reports that Sen. Padilla intends to reintroduce and continue work on SB 694 as part of a special session on health care reform expected to be called by the Governor in December.

In Contra Costa County, oral health is under the purview of the Department of Public Health, but the only dedicated unit is for children's dental: the Children's Oral Health Program (a part of the Family, Maternal, and Child Health Program). Adult dental health has no local policy home.

### III. Strategies to Consider

Interviews with local stakeholders and other experts in the field yielded examples of strategies that could be used to positively impact oral health.

#### Leadership and Advocacy

One of the most important components of advancing oral health policy—nationally, statewide, and locally—is leadership. Unfortunately, California has virtually no leadership in oral health as part of its public health infrastructure. The implications of this are discussed in a feature in the January 2012 issue of CDA Journal.<sup>38</sup>

Although this lack of leadership is also evident at the county level, Alameda County is a rare exception.

#### Policy and Leadership Example: Alameda County Office of Oral Health



Alameda County is one of two or three counties in the state that has an Office of Dental Health (ODH) as part of its Department of Public Health (DPH).<sup>39</sup> Under the celebrated leadership of Dr. Jared Fine, the ODH promotes the oral health of Alameda County residents by assessing needs and then mobilizing resources to address them by partnering with community-based providers and developing policy. Although its current programs emphasize children, with a focus on early (or “upstream”) interventions, the ODH is concerned with the oral health of all Alameda County residents. Recently, the ODH developed a five-year strategic plan for oral health.

Dr. Fine is a champion of the public health approach to promoting dental health, and the inclusion of the ODH as part of the Alameda County Public Health Department demonstrates the County's commitment to this vision of oral health.

In addition to this leadership component of shaping oral health policy, there is also a role for advocates in educating and mobilizing communities around oral health. Organizations like Children Now and the Center for Oral Health (formerly the Dental Health Foundation) currently conduct advocacy campaigns at the state level, but there is not a clear advocacy voice specific to oral health in Contra Costa County. If such leadership were to (or could be encouraged to) emerge, this community-based advocacy could complement policy leadership at the county level in a combined “insider/outsider” strategy for change.

## Workforce

The shortage of dental care providers serving low-income patients, whether Medicaid recipients or the uninsured, elicits the question: who else might provide these services? One strategy is to maximize the use of mid-level professionals by creating opportunities for them to provide the most advanced care that they are currently qualified to provide but that is often still performed by dentists. This may also include expanding their current scope of practice to include a broader range of services. In both cases, it will be important to ensure that services to Medicaid patients are still reimbursable if provided by mid-level professionals instead of dentists.

### Workforce Example: Dental Health Aide Therapist Initiative



In Alaska, the Dental Health Aide Therapist (DHAT) Initiative has increased access to health care services for more than 35,000 people living in the state's geographically remote, rural communities. Introduced in 2005 by the Alaska Native Tribal Health Consortium, and informed by successful models in over 50 countries worldwide, the DHAT Initiative trains people from the local community to provide affordable, quality care to patients in need.

DHAT training entails a two-year curriculum covering preventive and clinical services. A 2010 evaluation funded by the W.K. Kellogg Foundation, the Rasmuson Foundation, and the Bethel Community Services Foundation confirmed that DHATs are effectively providing appropriate, quality care—including fillings and extractions under a dentist's supervision.<sup>40</sup> However, the American Dental Association and other dentist groups object to extending these responsibilities to non-dentists. Alaska is one of only two states currently allowing dental therapists to perform these types of procedures.

*"[This is a dental workforce strategy and an economic development strategy. It would be dependent on regional players wanting to do it because you would have to have a united front related to the Dental Practice Act [which sets the rules under which dental health professionals work]."*

## Education

Educating primary health care providers about oral health issues can equip them to positively impact their patients' knowledge and perceptions of the importance of good oral health. Training teachers, care providers, and others to provide preventive education can also help to instill good oral health habits among children and their families. Existing curricula that have been developed for just this purpose include Smiles for Life and Cavity Free Kids.

### Education Example: Smiles for Life (Curriculum for Primary Care Providers)



Smiles for Life is a curriculum designed to prepare primary health care clinicians to educate patients about oral health. Developed by the Society of Teachers of Family Medicine Group on Oral Health, this comprehensive national curriculum was originally meant to be implemented in family medicine residency programs to meet training mandates. The materials have also been used in medicine, pediatric, physician assistant, and nurse practitioner graduate education programs.

*“Oral health is viewed as something that is a marginal health concern by individuals and families and well as by health care professionals. One barrier for primary care clinicians is that they get little to no education about oral health as part of their formal educational training. This lack of education translates into a lack of knowledge, skills, and sense of responsibility to address it.”*

### Education Example: Cavity Free Kids (Curriculum for Educators)



Cavity Free Kids is a curriculum designed to educate early learning educators, teachers, home visitors, parents, and children about oral health. The program is sponsored by the Washington Dental Service Foundation, and was created in partnership with Head Start, Early Head Start, and the Early Childhood Education and Assistance Program. Materials are available in three volumes: early start (prenatal, infants, toddlers); preschool; and child care. The curriculum uses a mix of classroom activities, songs, lesson plans (home and center based), parent meetings, and home visits, and is adaptable to various settings. Cavity Free Kids provides training at no cost to Washington educators, and out-of-state trainings are also available.

## Delivery Models

Several interviewees commented on the traditional care delivery system as a barrier to access. This barrier can be reduced by replicating emerging patient-centered models that bring services to the patient, such as mobile, portable, and virtual dental care.

*“The gap is: there are oral health needs, and then there are dental clinics and dental offices and dental schools, all of which require a patient to come on site, usually repeatedly. There is not a good system to bring care to patients.”*

*“It is important to have on-site dental services that are broad in scope. Not just do the screening and identify the need, but provide a significant amount of care on site.”*

**Mobile Dental:** Contra Costa County already employs a mobile dental model to reach underserved children using the Ronald McDonald Care Mobile®. The mobile model allows providers to bring services out into the community; services may vary depending on the dental staff and equipment on board.

**Portable Dental:** The portable model brings dental expertise and equipment to existing facilities such as residential care facilities, group homes, Head Start sites, etc. Instead of working from a van, providers treat patients in what is essentially a “pop-up” clinic inside the facility with which they are already familiar. Providers typically include a team of at least one dentist and one mid-level professional.

**Virtual Dental:** The virtual model is similar to the portable model, but with a telehealth component. Services are provided by a non-dentist oral health professional who has virtual access to a dentist via computer. There is also an emphasis on providing a “dental home” for patients who would otherwise have one.

## Portable Dental Example: Eldercare Dental Program – San Mateo County



A collaborative effort is currently underway in San Mateo County to identify and close gaps in access to dental care for vulnerable elderly and special needs patients. With funding from the Peninsula Health Care District and the California Dental Association, the San Mateo Eldercare Dental Program brings together key stakeholders—including members of the San Mateo County Dental Society, representatives of the county’s four safety net dental clinics, the County Health System division of Aging and Adult Services, Ombudsman Services, care facility administrators, and two dental schools—to build a model informed by the Apple Tree Dental model of portable dentistry.

Apple Tree Dental has been featured in reports by the American Dental Association and the California Dental Association, which cite it as an exemplary model for meeting the needs of the underserved. Based in Minnesota, Apple Tree Dental uses mobile units to bring dental care to nursing homes, Head Start locations, group homes, etc. Using dental teams of one dentist and two assistants, Apple Tree Dental delivers portable dental equipment into the building to set up a complete dental office on site, where services range from check-ups to root canals and extractions. Denture and lab services are also available. Apple Tree Dental balances revenue margins from Medicaid and privately insured patients to subsidize uncompensated care to the uninsured, and has succeeded in growing its portion of charity care from year to year 2006 through 2010.

San Mateo is looking to this model for inspiration and working with its founder to inform this planning process. To date, the collaborative has done an extensive survey that will provide benchmark data on gaps in access to dental care for disabled adults and the frail elderly in San Mateo County. The next step is to develop a business model that addresses these needs in a way that is economically sustainable.



## Portable Dental Example: Dental Days at WIC – Alameda County



Launched in 2008, Dental Days at WIC is a partnership of Alameda County's Women, Infants, and Children Program (WIC) and its Office of Dental Health. The program was launched with funding from First 5 Alameda County and the Dental Health Foundation. Its goals are to expand access to care, provide preventive dental services, and serve as a dental home by making WIC the point of entry to dental care for low-income families with very young children.

The program operates once a week at each WIC site (currently two sites, with plans to expand to three), deploying a team consisting of a Registered Dental Hygienist (RDH) and one or more case managers to provide education, treatment, and case management. Dental Days offer oral health and related nutrition education; assessment, prophylaxis (cleaning), and fluoride varnish; and assistance with follow-up appointments and reminders. Participants in need of additional care are referred to community clinics or private dentists, some of which have contracts with the county allowing them to bill for services provided to uninsured children.

The program treats 12–20 children per day. In its first two years of operation, Dental Days at WIC provided services to more than 1,500 children, educated more than 1,500 caregivers, and enrolled more than 1,200 children in Medicaid.

Dental Days at WIC also includes a strong sustainability component, and is supported by blended funding that includes fee-for-service (it bills Medicaid for at least three-quarters of its participants) as well as state, federal, and foundation sources. The program may also seek FQHC status, which would enable it to be reimbursed at a higher rate.

Dental Days at WIC is one of a handful of model WIC-based dental care programs featured by the Center for Oral Health (formerly the Dental Health Foundation) in its *WIC: Early Entry into Dental Care Guidebook*.<sup>41</sup>

*“When we talk about “patient-centered” care, we’re referring to programs that take services to where the needs are. I believe that expanding these models and increasing education so that oral health literacy is increasing or improved is important.”*

The fact that Alameda County's Office of Dental Health has worked side by side with the WIC program for years as part of the DPH is credited for enhancing the degree of cooperation involved in developing and administering this program.<sup>42</sup>

## Virtual Dental Example: Pacific Center for Special Care



The Pacific Center for Special Care, a part of the University of the Pacific, Dugoni School of Dentistry, has been implementing a demonstration project in the virtual dental model at sites throughout California. It has partnered with Head Start Centers, elementary schools, residential care facilities, and nursing homes to provide oral health services to a variety of underserved populations.

One of our interviewees is a part of this work, and spoke at length about what distinguishes this approach:

*“I have been part of the virtual dental home methodology, design, and implementation and see it growing to more states. There are a lot of examples of screening programs, where they look in your mouth and they sign a piece of paper with a referral to a dental clinic. It’s just not enough.*

*When you bring care on-site [via virtual model], it’s normalizing a relationship with an oral health provider. And also it’s changing the thoughts of the [facility] administration, teacher, or parent advocate about what is a normal relationship: it doesn’t just involve care when there is pain, bleeding, or a cracked tooth, it is a regular part of life, like an immunization schedule.”*

*A virtual dental home is a collaborative system of care that provides on-site services that are telehealth enabled, using technology to support a relationship between an on-site provider and a dentist that might be located in an office or university. They are working together to diagnose, identify a treatment plan, and provide care.”*

A related need that emerged from these conversations was that of documenting the impact of some of these kinds of demonstration projects. There are some innovations underway, but there is still a need to gather data on what works and to develop knowledge—specifically around the issue of funding and sustainability.

*“If I were a foundation looking at this, I’d be trying to see how I can support best practices. For example, could I fund a pilot project where a dentist is taking bundled payments [to provide preventive services]...and see if it has reduced costs [over time].”*

*“I’d really like to see someone [say] ‘we are going to support it, measure it, and publish it’...to give legs to some of these things that have a little activity.”*

## Health Care Integration

Educating primary care providers on how to talk about oral health with their patients (or even to provide basic services like fluoride varnish) can help reach people who are unlikely to visit a dentist. It also reinforces the importance of dental care as part of overall good health.

*“The nature of this disease [tooth decay] is that it is preventable, so the crying shame is that the people in the prevention business are not seeing oral health as part of their bailiwick, so the opportunity is being lost.”*

The Patient Protection and Affordable Care Act (ACA) includes provisions and incentives for the adoption of the Patient Centered Medical Home approach to care and the creation of Medicaid-based accountable care-type organizations using collaboration to achieve both quality care and cost savings. The purpose of these new models is to provide more coordinated care to Medicaid patients, with an emphasis on prevention, which will ultimately lower health care costs. These may provide new opportunities for integrating oral health and primary care.

In September 2012, Grantmakers in Health published *Returning the Mouth to the Body*, an issue brief on the need for this integration and the role that health funders might play.<sup>43</sup> It proposed that:

*“By sharing information, providing basic diagnostic services, and consulting one another in a systematic and sustained manner, dental and medical professionals in integrated practice arrangements would have a far better chance of identifying disease precursors and underlying conditions in keeping with a patient-centered model of care.”*

### Health Care Integration Example: Patient Centered Medical Home – Rhode Island



In Rhode Island, the state’s 2011-16 Oral Health Plan created a Safety Net Workgroup as part of its Oral Health Commission, which was tasked with expanding the Patient Centered Medical Home model of care to include oral health.<sup>44</sup>

The 2001 results of an initial landscape study identified several best practices already being used, including: shared medical and dental records; patient orientation to services offered; cross-discipline screening questions; cross-provider communication, joint meetings, and shared office space; and clinic co-location.

The study also highlighted specific innovations, including: training primary care providers to apply fluoride varnish; focusing efforts toward specific at-risk populations; and more integrated involvement of dental residents.

For more on this topic, see *Oral Health and the Patient-Centered Health Home*, National Network for Oral Health Access (2012).<sup>45</sup>

## Health Care Integration Example: New Primary Care Structures – Oregon



In Oregon, a Coordinated Care Organization (CCO) Medicaid demonstration program has been approved that is expected to cover about 90% of the state's Medicaid population once it is fully implemented. CCOs are essentially networks of health care providers that have agreed to work together to provide services to Medicaid recipients. Some 14 CCOs will be part of this effort.<sup>46</sup>

Oregon's model is notable because it includes not only medical and mental health providers in the CCO network, but dental providers as well. This represents a unique opportunity because it acknowledges the role of dental care in overall good health.

However, this model is still in development. Early in the program's implementation, some dental providers experienced difficulty gaining entry into CCO networks. Although the state legislation that created the new CCO structure and allocated the \$1.9 billion in additional funding to support its launch indicated that dental would be included, the wording was not specific about what this meant (e.g., is including one provider in the service area enough, or should the aim be to involve as many dental resources as possible?). The legislation also failed to require that dental providers should be included on the CCO governing board.

*"There is an opportunity for an accountable care organization [-type model] to include oral health in what they are accountable for and what the global payment is expected to cover, which will require a shift in what dental providers and insurers see as the opportunity to provide prevention."*

At the same time that health care reform presents new opportunities, the reforms may also lead to added burdens on health care providers. Many providers are struggling to adapt to the still changing health care landscape, and oral health can feel like "just one more thing" that is competing for attention.

Again, we heard the importance of investing in testing some of these new models to determine what works.

*"We need more operating models of where oral health has been embedded in the routine medical standard of care. We need more demonstration projects and they need to show how the money works, which gets you back to the Patient Centered Medical Home model and structures like accountable care organizations. There's a need to play out both the care model and the business model."*

## Volunteer-Based Strategies

### Free Dental Clinics and Other Volunteer Opportunities



CDA Cares is a partnership of the California Dental Association (CDA), the CDA Foundation, and America's Dentists Care Foundation that provides free dental clinic events serving more than 1,500 patients at each event. Volunteer dental and health professionals, including dentists, oral surgeons, dental hygienists, assistants, lab technicians, nurses, and pharmacists, provide a range of services, from cleanings to fillings and extractions, to oral health education and assistance in finding a dentist for follow-up care. Community volunteers assist with event registration, clinic setup and breakdown, data entry, escorting patients, and translation services.

Remote Area Medical (RAM) Volunteer Corps is a nonprofit provider of health care, dental care, eye care, veterinary services, and technical and educational assistance to people in remote areas of the United States and around the world. In 2009 and 2010 in Los Angeles, RAM provided services to some 13,000 patients. In 2011, it hosted events in Sacramento and Oakland, which served over 6,500 patients. Services were provided by a mix of California volunteers and out-of-state providers, for which legislative approval had to be obtained. State licensure boards are still working on guidelines for how to implement that legislation so that RAM events can continue in California.

Locally, dental professionals share news of volunteer opportunities on a much smaller scale, such as the need for volunteers to contribute their skills at free clinics, for example. Thus, in addition to large-scale events such as CDA Cares and RAM, more modest one-to-one appeals are used to rally dental professionals around volunteer needs.

### Partnerships for Access to Specialty Care



Operation Access seeks to bridge the health care gap in the greater Bay Area by mobilizing a network of medical volunteers, hospitals, and referring community clinics to provide donated surgical and specialty care to low-income, uninsured, and underinsured adults. A majority of its 1,700 referrals each year come from Contra Costa County (most via La Clinica de la Raza). In the past 3–5 years, Operation Access has extended its model to include specialty eye care. It is now actively exploring (with encouragement from La Clinica) developing its network to include oral surgeons and anesthesiologists, to improve access to advanced oral health care for the underserved.

Project Access Northwest is a similar organization serving the greater Seattle region (King and Snohomish Counties). It has a successful dental program, including a dedicated clinic for advanced extractions. Operation Access is looking to this model as it considers adding dental to its network of specialists.

## Appendix A: Key Informants

Name, Title	Organization	Date of Interview
Elaine Clark, Executive Director	Meals on Wheels	10/29/2012
Rita Peterson, Nurse & Clair Boomer, Nurse	Las Trampas, Inc.	11/7/2012
Penny Musante, Program Director	Futures Explored	12/2/2012
Nikki Moultrie, Manage	Contra Costa Health Services Children's Oral Health Program	10/16/2012 and 10/26/2013
Lorena Martinez-Ochoa, Director	Contra Costa Health Services Maternal and Child Health Program	10/16/2012 and 10/26/2013
Ben Aune, President and CEO	Operation Access	10/29/2012 and 2/15/2013
Manuel Alvear, DDS	private practice	11/2/2012
Chris Grazzini, Program Manager	John Muir Community Health Alliance	9/20/2012
Vanessa Franks, DDS	Brookside Community Health Center	9/26/2012
Tracy Garland, Director	U.S. National Interprofessional Initiative	9/17/2012
Gayle Mathe, Policy Development Director	California Dental Association	9/25/2012
Maureen Harrington, Program Manager	University of the Pacific, School of Dentistry	10/3/2012
Ariane Terlet, DDS and Dental Director	La Clinica de la Raza	9/27/2012 and 2/15/2013
Conrado Bárgaza, DDS and Executive Director	Center for Oral Health	10/4/2012
Paul Hofmann, DPH, Board Chair	Operation Access	2/14/2013
William Walker, MD, Director and Health Officer	Contra Costa Health Services	2/19/2013

## Appendix B: Demographic Tables

**Table A. Persons 65 Years and Older (Source: U.S. Census Data)**

Richmond (2010)	El Cerrito (2010)	San Pablo (2010)	Hercules (2010)	Martinez (2010)	Pleasant Hill (2010)	Walnut Creek (2010)	Concord (2010)	Bay Point (2010)	Pittsburg (2010)	Antioch (2010)	Oakley (2010)	Brentwood (2010)	County (2011)	California (2011)
10.2%	17.9%	8.8%	10.5%	12.1%	13.9%	26.6%	11.8%	6.5%	8.6%	8.8%	6.7%	11.4%	12.8%	11.7%

**Table B. Persons Living Below Federal Poverty Level (Source: U.S. Census Data)**

Richmond (2010)	El Cerrito (2010)	San Pablo (2010)	Hercules (2010)	Martinez (2010)	Pleasant Hill (2010)	Walnut Creek (2010)	Concord (2010)	Bay Point (2010)	Pittsburg (2010)	Antioch (2010)	Oakley (2010)	Brentwood (2010)	County (2011)	California (2011)
17.5%	7.5%	18.7%	5.4%	7.5%	8.5%	4.2%	11.2%	27.3%	15.7%	14.0%	8.2%	6.1%	9.9%	14.4%

**Table C. Persons 25 Years and Older – High School Graduate or Higher (Source: U.S. Census Data)**

Richmond (2010)	El Cerrito (2010)	San Pablo (2010)	Hercules (2010)	Martinez (2010)	Pleasant Hill (2010)	Walnut Creek (2010)	Concord (2010)	Bay Point (2010)	Pittsburg (2010)	Antioch (2010)	Oakley (2010)	Brentwood (2010)	County (2011)	California (2011)
78.4%	93.4%	64.3%	95.2%	92.9%	94.3%	96.7%	87.3%	70.0%	78.3%	84.9%	83.8%	89.3%	88.5%	80.8%



## Endnotes

- <sup>1</sup> For example, Contra Costa County uses the Healthcare Effectiveness Data and Information Set (HEDIS) to track services to children covered consecutively for at least 18 months, but this represents only a portion of the population.
- <sup>2</sup> *Potential Effects of the Affordable Care Act*, by Craig Palmer, October 9, 2012 <http://www.ada.org/news/7670.aspx>
- <sup>3</sup> *Dental Crisis in America: The Need to Expand Access*, Subcommittee on Primary Health and Aging U.S. Senate Committee on Health, Education, Labor & Pensions, February 29, 2012 <http://www.sanders.senate.gov/imo/media/doc/DENTALCRISIS.REPORT.pdf>
- <sup>4</sup> *Oral Health Status and Access to Oral Health Care for U.S. Adults Aged 18–64: National Health Interview Survey, 2008* [http://www.dentalhealthfoundation.org/images/lib\\_PDF/sr10\\_253.pdf](http://www.dentalhealthfoundation.org/images/lib_PDF/sr10_253.pdf)
- <sup>5</sup> *Breaking Down Barriers to Oral Health for All Americans: Repairing the Tattered Safety Net*, American Dental Association, August 2011 <http://www.ada.org/sections/advocacy/pdfs/breaking-down-barriers.pdf>
- <sup>6</sup> *Adult Oral Health Status in California, 1995–2006: Demographic Factors Associated With Tooth Loss Due to Disease* <http://comp.uark.edu/~siahedi/dental%20toothloss.pdf>
- <sup>7</sup> "Mommy, It Hurts to Chew," *The California Smile Survey An Oral Health Assessment of California's Kindergarten and 3rd Grade Children*, Dental Health Foundation, February 2006 <http://www.schoolhealthcenters.org/wp-content/uploads/2011/07/Hurts-to-chew.pdf>
- <sup>8</sup> *Dental Cuts Bite Children, Cost All Californians: The Case for Investing in School-Based Preventive Services*, Children Now and Oral Health Access Council, September 2009 [http://www.childrennow.org/uploads/documents/oral\\_health\\_brief\\_092009.pdf](http://www.childrennow.org/uploads/documents/oral_health_brief_092009.pdf)
- <sup>9</sup> *Healthy Teeth for Life: The Oral Health of Children in Contra Costa County*, Dental Health Action Group Children's Oral Health Program, Contra Costa Health Services, April 2007 [http://cchealth.org/dental/pdf/healthy\\_teeth\\_for\\_life\\_2007.pdf](http://cchealth.org/dental/pdf/healthy_teeth_for_life_2007.pdf)
- <sup>10</sup> *Community Health Indicators for Contra Costa County, December 2010*, Hospital Council of Northern & Central California and Contra Costa Health Services [http://cchealth.org/health-data/hospital-council/2010/pdf/2010\\_community\\_health\\_indicators\\_report\\_complete.pdf](http://cchealth.org/health-data/hospital-council/2010/pdf/2010_community_health_indicators_report_complete.pdf)
- <sup>11</sup> *Ibid.*
- <sup>12</sup> *Children's Dental Health in Santa Clara and San Mateo Counties: Overview of Current Needs and Activities*, Lucile Packard Foundation for Children's Health, January 2006 <http://www.plsinfo.org/healthysmc/pdf/dentalbrief.pdf>
- <sup>13</sup> *Denti-Cal Facts and Figures: County Data Appendix*, California HealthCare Foundation, May 2010 <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/D/PDF%20DentiCalCountyDataAppendix2010.pdf>
- <sup>14</sup> *Dental Crisis in America* (see above)
- <sup>15</sup> *Providing Care for the Underserved: How Some Dentists Are Reaching Out to Low-income and Uninsured Patients*, by Bridget Mintz-Testa, Featured in AGD Impact, May 2009 (Academy of General Dentistry) <http://www.agd.org/support/articles/?ArtID=5375>
- <sup>16</sup> *Adult Oral Health Status in California* (see above)
- <sup>17</sup> *Breaking Down Barriers to Oral Health for All Americans* (see above)
- <sup>18</sup> *Dental Crisis in America* (see above)
- <sup>19</sup> *Ibid.*
- <sup>20</sup> *Drilling Down: Access, Affordability, and Consumer Perceptions in Adult Dental Health*, by Nadereh Pourat, PhD, UCLA Center for Health Policy Research, November 2008 <http://www.chcf.org/publications/2008/11/drilling-down-access-affordability-and-consumer-perceptions-in-adult-dental-health#ixzz2ALVQtht8>
- <sup>21</sup> Data requested online via "ask CHIS" from 2009 California Health Interview Survey, search criteria: "Contra Costa" and "Currently Insured." ([www.chis.ucla.edu/](http://www.chis.ucla.edu/))
- <sup>22</sup> *Unauthorized Immigrants in California*, Public Policy Institute of California, July 2011 [http://www.ppic.org/content/pubs/report/R\\_711LHR.pdf](http://www.ppic.org/content/pubs/report/R_711LHR.pdf)
- <sup>23</sup> *Healthy Teeth for Life: The Oral Health of Children in Contra Costa County*, Contra Costa Health Services, April 2007
- <sup>24</sup> *Breaking Down Barriers to Oral Health for All Americans* (see above)
- <sup>25</sup> *Ibid.*
- <sup>26</sup> *Ibid.*
- <sup>27</sup> Although efforts are made to enroll eligible children in Medi-Cal, many families reportedly do not fill out the forms, fearing immigration issues. (Source: "Mobile clinic provides dental care for low-income children in Contra Costa County," by Eve Mitchell, *Contra Costa Times*, November 2, 2012.)
- <sup>28</sup> The program targets schools in neighborhoods with multiple poor health outcomes, high rates of poverty, low educational attainment, and at least 75% of the student population eligible for the Free and Reduced Lunch Program.
- <sup>29</sup> *Dentists Providing Denti-Cal Services for Children* (rev. March 1, 2012) [http://cchealth.org/dental/pdf/medi\\_cal\\_dental.pdf](http://cchealth.org/dental/pdf/medi_cal_dental.pdf)
- <sup>30</sup> *ED Use for ACS Dental, Diabetes, and Asthma Conditions, by Age Group and County, 2007*, Supplement to *Emergency Department Visits for Preventable Dental Conditions in California, 2009*, California HealthCare

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<sup>31</sup> *Oral Health Status and Access to Oral Health Care* (see above)

<sup>32</sup> *Providing Care for the Underserved* (see above)

<sup>33</sup> *Breaking Down Barriers to Oral Health for All Americans* (see above)

<sup>34</sup> *Providing Care for the Underserved* (see above)

<sup>35</sup> *Dental Crisis in America* (see above)

<sup>36</sup> *Synopses of State Dental Public Health Programs: Data for FY 2010-11*, Association of State and Territorial Medical Directors [http://www.astdd.org/docs/State\\_Synopsis\\_Report\\_SUMMARY\\_2012.pdf](http://www.astdd.org/docs/State_Synopsis_Report_SUMMARY_2012.pdf)

<sup>37</sup> *Guidelines for State and Territorial Oral Health Programs, 2010 Revision*, Association of State and Territorial Medical Directors [http://www.astdd.org/docs/ASTDD\\_GuidelinesfinaldraftSectionI6-4-101.pdf](http://www.astdd.org/docs/ASTDD_GuidelinesfinaldraftSectionI6-4-101.pdf)

<sup>38</sup> "California's State Oral Health Infrastructure: Opportunities for Improvement and Funding," by Joel Diringer and Kathy Phipps, *CDA Journal*, Vol 40, No 1 (January 2012) [http://diringerassociates.com/wp-content/uploads/2012/06/CDA-journal\\_0112-Oral-Health-Infrastructure-article-3.pdf](http://diringerassociates.com/wp-content/uploads/2012/06/CDA-journal_0112-Oral-Health-Infrastructure-article-3.pdf)

<sup>39</sup> Interview with Conrado Bárzaga, Center for Oral Health

<sup>40</sup> *Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska*, RTI International, October 2010. <http://www.wkkf.org/knowledge-center/resources/2010/10/Alaska-Dental-Therapist-Program-RTI-Evaluation-Report.aspx>

<sup>41</sup> *Ibid.*

<sup>42</sup> *WIC: Early Entry into Dental Care Guidebook (Section 5: Program Models in California)*, Center for Oral Health <http://www.dentalhealthfoundation.org/publications/wic--oral-health-guidebook/section-5-program-models-in-california.html>

<sup>43</sup> *Returning the Mouth to the Body: Integrating Oral Health & Primary Care*, *Grantmakers in Health*, September 2012 <http://www.gih.org/Publications/IssueDialogueDetail.cfm?ItemNumber=5005>

<sup>44</sup> Rhode Island Oral Health Commission, September 21, 2011

<http://www.oralhealth.ri.gov/documents/RIOHC%20September%202011%20Meeting%20Materials.pdf>

<sup>45</sup> Oral Health and the Patient-Centered Health Home: Action Guide, National Network for Oral Health Access, 2012 [http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCcQFjAB&url=http%3A%2F%2Fwww.nnoha.org%2Fgoopages%2Fpages\\_downloadgallery%2Fdownloadget.php%3Ffilename%3D19991.pdf%26orig\\_name%3Dpchhactionguide0212\\_final.pdf&ei=TNd-Ulf\\_HsTTiwLP0YDwDw&usq=AFQjCNEgl394PqmfV2JHQ5Htzj8FWjcoA](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCcQFjAB&url=http%3A%2F%2Fwww.nnoha.org%2Fgoopages%2Fpages_downloadgallery%2Fdownloadget.php%3Ffilename%3D19991.pdf%26orig_name%3Dpchhactionguide0212_final.pdf&ei=TNd-Ulf_HsTTiwLP0YDwDw&usq=AFQjCNEgl394PqmfV2JHQ5Htzj8FWjcoA)

<sup>46</sup> Blog post: "Feds approve Oregon's Medicaid coordinated-care initiative," *Modern Healthcare*, <http://www.modernhealthcare.com/article/20120709/NEWS/307099944#>