



# Healthy Mouth, Healthy Start

IMPROVING ORAL HEALTH FOR YOUNG CHILDREN AND FAMILIES THROUGH EARLY CHILDHOOD HOME VISITING

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# Introduction

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Good oral health is critical to children’s ability to grow up healthy and succeed in school and life. Yet, nationally and in California, tooth decay ranks as the most common chronic disease and unmet health care need of children.<sup>1</sup> Poor oral health can lead to unnecessary pain and suffering, diminished academic outcomes, and poorer overall health over a lifetime.<sup>2</sup> Further, good oral health is also critical to the health of pregnant women and potentially linked to healthy birth outcomes.<sup>3</sup>

Early childhood home visiting programs, focused on the health and development of pregnant women and young children, can play a critical role in getting children off to a good start when it comes to oral health. Home visiting programs link pregnant women, young children, and parents with trained home visitors who come into their homes and provide coaching, education, and resources to improve their health and well-being. By bringing care into the home, children and families are more likely to get the care they need. Home visiting programs—because of their goals and the close and consistent contact home visitors have with families—provide an ideal opportunity for providing early

preventive oral health education and services, while also linking families to needed oral health care.

However, the current role home visiting programs play in meeting the oral health needs of young children, pregnant women, and families is not well recognized. Nor are oral health elements of home visiting programs supported to the extent they could be. Drawing from interviews with leaders in the home visiting and oral health communities and a literature review, this issue brief examines how oral health is incorporated into the early childhood home visiting models that serve the largest number of young children in California: Healthy Families America, Nurse-Family Partnership, Parents as Teachers, Welcome Baby, and Early Head Start (home-based option). This brief makes the case for increasing efforts to promote oral health care in home visiting programs and strengthening the relationship between the home visiting community and the oral health community. Finally, it articulates recommendations for next steps for how home visiting programs can further address oral health disparities among young children and pregnant women.

## The Oral Health Needs of California’s Young Children and Pregnant Women

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As mentioned, tooth decay is prevalent among California’s children. The 2011 National Survey of Children’s Health found that more than 22 percent of California’s children had a dental problem in the last year, making California the 47th worst state in the nation for children’s oral health status, with only four states performing worse.<sup>4</sup> Further, 71 percent of children experience tooth decay by the time they reach the third grade, according to the most recent data available.<sup>5</sup>

Lack of access to oral health care is a major reason for poor oral health among children. While the utilization of oral health care is below optimal levels for many of

California’s children, certain groups, such as children enrolled in Medi-Cal and young children, face particular obstacles to getting needed oral health care services. In 2013, nearly 56 percent of children enrolled in Medi-Cal did not receive an oral health visit through the program.<sup>6</sup> Similarly, 57 percent of children, zero to three years old, in California had never been to a dentist.<sup>7</sup> In addition to there not being enough oral health care providers in communities where children enrolled in Medi-Cal live, many low-income families have trouble getting traditional office-based oral health care because they do not have affordable transportation, lose pay when they miss work, are juggling multiple jobs, and face other barriers to care.<sup>8</sup> Finally, many families

\*The National Survey of Children’s Health includes all 50 states and Washington, DC.

do not realize that their children have oral health care benefits or know how to use their coverage.<sup>9</sup>

Additionally, young children of color experience higher rates of dental decay and face additional obstacles in obtaining preventive oral health care. There is a lack of linguistically and culturally appropriate oral health care providers to serve communities of color as well as a lack of dentists working in areas that serve underserved and low-income communities of color.<sup>10</sup>

Poor oral health can disrupt normal childhood development and seriously damage overall health.<sup>11</sup> In addition, decay in primary teeth is a significant predictor of decay in permanent teeth, meaning that many children with poor oral health grow up to be adults with poor oral health.<sup>12</sup> Furthermore, dental disease impacts children's speech development and self-confidence, as well as their ability to eat, sleep, and learn and succeed in school.<sup>13</sup>

Pregnant women in California also do not fare well when it comes to oral health. In one study, 52 percent of pregnant women revealed they experienced a dental problem, of which 62 percent were not receiving oral health care.<sup>14</sup> Poor oral health among pregnant women has been associated with low birth weights, stillbirths, and pre-term births. For example, periodontal disease can lead to premature labor.<sup>15</sup> Pregnancy may also result in increased dental decay because of the increased levels of acidity in the mouth, usually from morning sickness, along with the increased likelihood of teeth loosening due to increased hormone levels that affect the ligament and bone that support teeth.<sup>16</sup>

The primary reason many pregnant women do not get oral health care is that they do not perceive a need for the care. They are not aware of the importance of getting oral health care and, therefore, do not prioritize it. The second most common reason pregnant women do not get oral health care relates to financial barriers.<sup>17</sup>

Another leading factor causing pregnant women to not receive oral health care is the limited number of oral health providers available to treat pregnant women. Many dentists, for example, have not been trained to provide oral health care to pregnant women. While training programs have changed, many providers continue to hold on to the myth that they should not treat pregnant women because it is not safe.<sup>18</sup> In

addition, many pregnant women enrolled in Medi-Cal do not realize that their coverage includes oral health benefits. The elimination of most adult oral health benefits from Medi-Cal in 2009 compounded this issue. Many oral health care providers were not aware that pregnant women continued to be eligible for oral health benefits under Medi-Cal, even while most other Medi-Cal-enrolled adults

were ineligible for oral health benefits.<sup>19</sup> In short, an overall lack of understanding of the need for good oral health and care and the lack of providers willing to treat pregnant women, especially those enrolled in Medi-Cal, leads to too many pregnant women having poor oral health.

Maternal and child oral health problems are linked. Mothers with high levels of dental decay are more likely to pass on oral health disease to their children through saliva, which could easily occur through day-to-day activities.<sup>20</sup> Further, poor nutrition—such as drinking sugar-sweetened beverages and consuming sugary snacks—can also lead to dental decay concerns for both mother and child.<sup>21</sup>

The points outlined above highlight the critical need to focus attention on the oral health of young children and pregnant women to help ensure children start off right. Because early childhood home visiting programs target this population, they are a logical place to address this need.

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# What Is Home Visiting?

Early childhood home visiting programs are voluntary programs delivered by trained home visitors to support families and—in particular—pregnant women, parents, and young children. Home visiting programs are designed to serve specific demographic groups and high-need communities and/or to meet specific needs. Home visitors work with families in the home (or other community locations, as appropriate) and are trained to connect families to resources and help them develop the skills they need to raise children who are physically, socially, and emotionally healthy and ready to learn. In short, home visitors act as a social support, forming a strong relationship with the parent and helping to connect the parent and child with much-needed services.

There is a wide variety of early childhood home visiting models in existence, including the five models researched for this brief. Home visiting models often serve pregnant women, parents, and children with particular risk factors. Risk factors include, but are not limited to, domestic violence experience, low family

income, lack of stable housing, low parental education, substance abuse in the family, a prevalence of depression or other mental health issues, first-time births among mothers, and/or living in communities selected by specific programs (e.g., First 5 LA's Best Start communities).<sup>22</sup> Families participate in home visiting programs voluntarily and are enrolled based on need and the child's age. The duration and frequency of home visits vary by model. Home visits can occur weekly or every other week, ranging from pregnancy through the child's fifth birthday, depending on the needs of the family and requirements of the model.

While home visiting programs have provided services to families for decades, they have recently enjoyed increased attention since the federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program was established as part of the Affordable Care Act (ACA), committing \$1.5 billion over five years to expand and improve state-administered home visitation.<sup>23</sup> MIECHV was reauthorized in March 2015, and funding will expire at the end of the 2017 federal fiscal year.

## Home Visiting Programs in California

In California, various organizations implement a number of different early childhood home visiting programs to best meet the needs of the families in their communities, based on funding availability and the availability of program models in the community. Many of the programs implemented in California have demonstrated effectiveness in supporting child development and school readiness, improving positive parenting, decreasing child abuse and maltreatment, reducing low birth weights, and helping family functioning and economic self-sufficiency for California children.<sup>24</sup>

Home visiting programs in California are developed and funded through three primary sources:<sup>\*</sup>

- Local First 5 Commissions<sup>†</sup> support services for 29,500 families across 42 counties;
- California Home Visiting Program (MIECHV) supports services for approximately 2,500 families in 24 counties; and
- Early Head Start supports about 1,998 families in 42 counties.<sup>‡25</sup>

The largest source of funding for home visiting programs in California is local First 5 Commissions, investing nearly \$80 million in 2015.<sup>26</sup> Other sources of funding for home visiting, in addition to the ones listed above, include foundations, the Mental Health Services Act (MHSA), and local government funding.<sup>27</sup>

<sup>\*</sup>We acknowledge the difficulty in obtaining exact numbers of families and children served per program given the various programs and funding streams in California and provide these numbers as an estimate.

<sup>†</sup>In 1998 California voters passed Proposition 10, adding a 50-cent tax to each pack of cigarettes sold to create First 5 California, also known as the California Children and Families Commission, to fund education, health services, child care, and other crucial programs for California's young children and their families. First 5 California distributes funds to local communities through the state's 58 individual counties, all of which have created their own local First 5 county commissions.

<sup>‡</sup>According to the California Head Start Association 2014–15 Program Statistics, 15,057 children ages 0 to 2 are served by Early Head Start (EHS), and 13.27 percent of all Head Start/EHS children are served in the home-based programs. We multiplied the total number of children served by EHS by the percent of all children served in the home-based program to estimate the number of children enrolled in EHS's home-based option (1,998).

Despite strong evidence of the long-term positive impacts of home visiting programs on children and families, funding limitations prevent these programs from reaching the hundreds of thousands of families in California that could benefit from such services. There

are varying levels of access to home visiting programs in counties throughout California, and the estimated unmet need for home visiting programs is nearly 600,000 children, as indicated by their experience with one or more of the risk indicators.<sup>28</sup>

## ORAL HEALTH ELEMENTS OF HOME VISITING PROGRAMS IN CALIFORNIA

Below are brief descriptions of the largest home visiting programs in California and how each incorporates oral health services.

### Early Head Start

Early Head Start—a component of Head Start—is designed to serve pregnant mothers, newborns and children through age three who are at or below the federal poverty level or who are eligible for Part C services of the Individuals with Disabilities Education Act. Home visiting through Early Head Start consists of one 90-minute home visit per week and two group socializations per month with a trained professional who has an associate degree in infant-child development or comparable experience.<sup>29</sup>

Oral health care is a part of the early childhood health requirements of the Early Head Start program. For example, Early Head Start staff brush children's teeth or wipe the gums of infants under age one. In addition to providing oral health education to families, Early Head Start requires that programs track whether a child has oral health care insurance and a dental home as well as determine whether well-child exams are up to date (oral screening). They then connect families that need assistance to health coverage and oral health care. They also enter data indicating if pregnant women have had an oral health exam and if oral health treatment has

started and has been completed. Finally, the program ensures that lesson plans include oral health.<sup>30</sup>

### Healthy Families America

Healthy Families America (HFA) is designed to serve families with particular risk factors identified by local HFA sites. Families are enrolled prenatally or within the first three months of birth. Services are offered to families for a minimum of three years, and families can be enrolled in the program until the child is five years old. Providers trained in the HFA model visit families for an hour about once a week for the first six months after the child is born. Visits vary in frequency afterward.<sup>31</sup>

Healthy Families America addresses 12 critical elements, which are focused on the health and well-being of participating families. Based on these elements, implementing agencies can choose a curriculum that will best help their home visitors work toward these standards with the families they serve. Depending on the implementing agency and the curricular resources selected, the focus on oral health can vary. One of the elements relates to connecting families to health care and other services and includes standards for home visitors to provide information, referrals, and linkages to available health care and health care resources for all participating family members.

This includes information on the importance of oral health care and referrals linking families to preventive services for oral health care, as appropriate.<sup>32</sup>

### Nurse-Family Partnership

Nurse-Family Partnership (NFP) is designed for first-time, low-income mothers and enrolls mothers no later than their 28th week of pregnancy. Services are provided until the child turns two years old. Public health nurses conduct weekly home visits for the first month after enrollment and then every other week until the baby is born. Visits are then weekly for the first six weeks after the baby is born and then every other week until the baby is 20 months. The last four visits are monthly. Home visits typically last 60 to 90 minutes. The visit schedule may be adjusted to meet client needs.<sup>33</sup>

All NFP home visitors ask if families have had an oral health care visit, following guidance provided by the American Academy of Pediatrics (AAP). They are also trained to provide oral health education and services to families, as needed. NFP home visitors are all public health nurses with extensive training and health care knowledge, including the importance of good oral health practices. As such, they are able to assess any health care issues that a child or pregnant mother may have and, as nurses, are required to practice

to the full scope of their license.<sup>34</sup> Information is also collected if a child has seen a dentist at various points in the program, along with health records that track the outcome of any problems identified by the home visitor.<sup>35</sup>

### Parents as Teachers

Parents as Teachers (PAT) is designed to serve families from pregnancy through kindergarten entry, with various eligibility criteria depending on the PAT program. The PAT model offers at least 12 home visits annually to families with high-need characteristics, as defined by the program. Families with two or more high-need characteristics—such as low income and history of child abuse in the family—receive at least 24 home visits annually. Home visits are with a provider trained in the PAT model and last approximately 60 minutes.<sup>36</sup>

Oral health is an essential element of the PAT model. PAT provides an evidence-informed curriculum for their home visitors, which addresses oral health care practices (frequency of brushing and flossing and type of toothbrush and toothpaste to use,

as recommended by AAP). The parent educators provide easy-to-read parent handouts during visits, which are reviewed with the parents. These are in both English and Spanish. In addition, PAT-implementing agencies conduct ongoing health reviews with all families of which an oral health review is a part. From these reviews, home visitors make referrals to Medi-Cal enrollment and oral health care providers. Parent educators also address challenges that may impact the family getting to oral health care providers, such as transportation, distance, and oral care providers' office hours. The parent educator connects families to other resources to support the family and assists in problem solving the particular challenge.<sup>37</sup>

### Welcome Baby

Welcome Baby is a locally developed program of First 5 LA that has expanded to 14 hospitals in Los Angeles County. All families delivering at a Welcome Baby-participating hospital in a Best Start community (14 communities where First 5 LA has focused community-building efforts) are offered up to nine visits: three

Welcome Baby visits occurring prenatally, one at the hospital, and five offered at home, once the baby is born.<sup>38</sup> Families identified as needing more focused support are referred to First 5 LA-funded HFA or PAT programs for more intensive home visiting services.

One of the focus areas of the Welcome Baby model is facilitating connections to other services and resources, including connections to oral health coverage through Medi-Cal and oral health care providers. Beyond referral, home visitors are able to advocate on behalf of families. In the case of the implementing agency interviewed for this brief, an oral health advocate is able to step in to assist families that are facing particular barriers to accessing oral health care; however, not all Welcome Baby-implementing agencies have an oral health advocate as a resource. Welcome Baby visitors also ask families during their intake whether they have seen a dentist within the last 12 months and, during subsequent appointments, check with families to see if they have been to the dentist since the initial intake.<sup>39</sup>

## The Role of Home Visiting in Meeting Oral Health Care Needs

Since early childhood home visiting programs are fundamentally concerned with the health and well-being of young children, when feasible, they are a logical place to increase a focus on oral health. Further, the strategies that are used to achieve results in home visiting programs—such as early intervention, anticipatory guidance, and education—can be effective

in improving children's oral health. In fact, there is increased attention to the fact that early childhood caries (i.e., tooth decay) is, indeed, a chronic disease and should be treated using chronic disease management tools, including parent education, family engagement, adoption of beneficial behaviors, and community and health system support.<sup>40</sup>

In the United Kingdom, for example, a study of a home visiting program—focused specifically on oral health—showed a reduced level of dental disease in participating children as a result of the oral health education provided to mothers by home visitors.<sup>41</sup> Mothers in the study that were provided with basic oral health information, such as using fluoride toothpaste twice a day, along with being given the opportunity to ask questions of a trained home visitor, showed improved oral health for themselves, as well.<sup>42</sup>

Another study demonstrated that anticipatory guidance provided to first-time mothers during pregnancy and after the child’s birth showed a lower incidence of dental caries in the women’s young children.<sup>43</sup> Finally, a study of a Virginia program that provides in-home preventive dental services and oral health literacy education for parents found that Medicaid-enrolled children in the program were three times more likely to have at least one dental visit than Medicaid-enrolled children not in the program. This evidence suggests that increasing parents’ oral health literacy and exposing them to preventive oral health practices played a role in encouraging families to seek care.<sup>44</sup>

Home visiting also helps address the issue that many families face socioeconomic barriers to getting critical oral health care services.<sup>45</sup> To address this, the Institute of Medicine recommends bringing oral health care services to families in the community—such as at their home.<sup>46</sup>

In addition, there is growing recognition that the dentist is not the only provider that can address children’s oral health needs. A team approach is necessary to provide the comprehensive oral health education, care management, and treatment families need. Home visitors can and should be an integral member of the team.

Further, because of the unique role that many home visiting models play in reaching newborns and their mothers at a very early point in the child’s development, they can play a vital role in oral health disease prevention, helping to set young children on a positive trajectory for good oral health later in life. Moreover, home visiting models have the added advantage of

serving both the parent and child, meaning the benefits of improved oral health extend to two generations. Home visitors simply have a greater amount of contact with families than a traditional oral health care provider, giving time for more impactful lessons and reinforcement.

Finally, from a systems perspective, strengthening the role home visiting programs play as part of the oral health care delivery system makes sense. It is well known that California—as well as other states—has a severe lack of providers that treat children enrolled in Medi-Cal.<sup>47</sup> As mentioned above, not all oral health services are required to be provided by a dentist. By having home visitors (and other appropriate community-based

providers) assess risk for oral health disease and provide education and preventive oral health services to children and families, dentists can focus on restorative and other services only they can provide. For example, in the San Mateo County Early Head Start program, the University of the Pacific has trained home

visitors to assess oral health risk of young children and refer high-need children to an oral health provider. By maximizing the role of both oral health providers and home visitors, we can begin to build a system where each provider can work at the top of his or her expertise and education, making the most efficient use of our workforce and ensuring children and families get the appropriate care they need, when they need it.

It should be noted that, while the home visiting programs reviewed for this brief all recognize the important role good oral health plays in improved overall health and well-being for traditionally underserved families, each home visiting model is unique. Increasing the emphasis on oral health will depend on the requirements of each home visiting model, the needs of the target population, and the resources available. Additionally, any added emphasis on oral health care in home visiting models will need to take into account the importance of maintaining fidelity to the home visiting model. In other words, it is important to pay attention to the overall goals of each home visiting program and how oral health activities can be incorporated so as to not overburden home visitors or compromise the program’s integrity.

**Because of the unique role home visiting models play in reaching newborns and their mothers, they can play a vital role in oral health disease prevention.**

# The Opportunity Now to Strengthen Oral Health Care in Home Visiting Programs

Over the past several years, there has been increased recognition of the importance of good oral health care for children and adults in California. Additionally, a number of efforts have been implemented to address the fact that the utilization of oral health care services among California's underserved children is among the worst in the nation.<sup>48</sup>

For example, the 2016–17 State Budget restored funding to the California Children's Dental Disease Prevention Program (CCDDPP), which provides oral health education and prevention services to children in schools. In 2014, Governor Brown signed Virtual Dental Home legislation to allow dental hygienists and specified dental assistants to provide more care in community settings, such as school and Head Start sites, while requiring Medi-Cal to pay for teledentistry so providers can seamlessly collaborate with an off-site supervising dentist to provide care.

The State also included a Dental Transformation Initiative (DTI) in the most recent Medi-Cal Waiver\* to improve the delivery of oral health care to children enrolled in Medi-Cal. The DTI aims to reward oral health care providers for providing preventive, risk-based, and continuous oral health care to children enrolled in Medi-Cal and to pilot innovative ways to bring oral health care to Medi-Cal-enrolled children in community settings.

To improve the oral health of pregnant women, the California Department of Public Health was recently awarded a federal Perinatal and Infant Oral Health Quality Improvement (PIOHQI) Expansion Grant. Focused on Sonoma County, the goal of this project is to reduce the prevalence of oral disease in high-risk pregnant women and infants through improved access to quality oral health care.<sup>49</sup>

Finally and critically, for the first time in decades, California has a state Dental Director. The Dental Director is charged with developing and implementing a statewide oral health plan, establishing prevention and oral health education projects, and working to secure funding for prevention-focused oral health programs, particularly for children.

Home visiting programs have similarly seen increased attention through the inclusion of MIECHV in the ACA and First 5 County Commissions' investment in home visiting programs locally. And, as mentioned, these programs recognize the importance of good oral health to improve the health and lives of pregnant women, children, and families.

These events provide us with a window of opportunity now to identify how the oral health and home visiting fields can come together and better reach children at the earliest point possible with preventive oral health care through home visiting programs.

## Recommendations for Next Steps

As this brief suggests, home visiting programs are engaged in efforts to improve the oral health of pregnant women, young children, and families. However, representatives from programs reviewed for this brief also recognized that more could be done. At the same time, each home visiting program is tailored to meet the unique needs of the families they serve, and the importance of such tailoring should be recognized. Therefore, recommendations for improvements must

allow for flexibility so that home visiting programs can remain true to their core principles.

**Provide home visitors with the training and resources they need to incorporate oral health practices into their activities.**

While most home visiting programs offer curricula related to oral health, it is also important that home visitors have access to resources to help them better

\*The 1115 Waiver Renewal is also called the Medi-Cal 2020 Waiver.



understand oral health care practices and policies. For example, one way to expose home visitors to the basics of preventive oral health care, including what activities are appropriate for various ages of children and pregnant women, is to incorporate oral health education into other educational opportunities, materials, and training curricula offered to home visitors.

Further, home visitors need assistance in connecting children, pregnant women, and families to appropriate care. For example, one of the implementing agencies of the Welcome Baby program engages additional staff to help to address individual families' barriers to care in emergency or more complicated cases as well as connect home visitors to up-to-date resources related to oral health care.<sup>50</sup> Early Head Start programs, as a part of Head Start, have access to resources secured by the Head Start program, such as local dentists that may have an agreement to serve the children in the Head Start program and nurses or health coordinators that serve the broader Head Start program.<sup>51</sup>

In addition, just like the other services home visitors connect to, home visitors need relationships with oral health care providers to which they can make referrals. This can be especially difficult, given the lack of oral health care providers that treat women and young children enrolled in Medi-Cal. Many low-income families do not have the time or resources to follow up on referrals, especially if those referrals are not welcoming. Therefore, home visiting programs need support in building and maintaining ongoing relationships with linguistically, culturally, and otherwise appropriate oral health care providers to whom home visitors can connect families.

### **Collect oral health data.**

Better collection of both process data (e.g., referrals to an oral health care provider) and outcomes data (e.g., caries in children over the course of their time in the program) will allow for models to better understand how they are impacting the oral health of pregnant women and young children and to refine their methods over time. And data collection helps to build the evidence base for home visiting models in addressing oral health issues as well as secure funding sources to incorporate oral health practices into home visiting programs. Data will also help to establish how home visiting programs fit into the larger community system of meeting the oral health care needs of underserved families.

Home visiting programs should come together with oral health data experts, state and federal decision-makers, and other relevant stakeholders to create recommendations for standardized data measures to implement across programs, as appropriate; identify financial and technical support for such data collection; and identify systems for using such data to inform continuous quality improvement by home visiting programs.

### **Create stable funding streams for home visiting.**

While a broader recommendation not specific to oral health, if home visiting programs are not sustainable and cannot reach the number of families that could benefit, there will be a huge missed opportunity for California families to reap the long-term benefits that home visiting programs have proven to deliver, including in oral health care. California should consider the use of General Fund revenues, as other states have already done for home visiting programs, to support current programs and increase the number of home visiting spots available to families.<sup>52</sup>

California should also seek more sustainable financing of home visiting by maximizing Medicaid dollars. For instance, South Carolina recently received permission from the Centers for Medicare and Medicaid Services to conduct a pilot program, using section 1915(b) waiver authority, to pay for home visiting using the NFP model.<sup>53</sup> In addition, recent federal changes to Medicaid regulations clarify that states can reimburse for preventive services “recommended by a physician or other licensed practitioner...within the scope of their practice under State law.”<sup>54</sup> This change creates an opportunity to provide Medicaid reimbursement for preventive services staffed by a broad array of health professionals, including home visiting program staff.<sup>55</sup> Innovative uses of Medicaid and state financing are key to increasing the number of home visiting spaces available and to reaching more children with these proven home visiting models.<sup>56</sup>

Community-based oral health programs can also be a source of funding to contribute to the funding of home visiting programs to pay for an oral health component. In other words, if a community is seeking funding to address the oral health needs of pregnant women and children, they can dedicate funds to home visiting programs to support the oral health activities of those programs.

# Conclusion

As California looks to transform its oral health care delivery system for underserved children through the statewide oral health plan as well as changes to the Medi-Cal program, we have a moment of opportunity to make sure early childhood home visiting is part of the solution. The activities home visitors engage in with families mirror those needed to help improve the oral health of young children and pregnant women. In

addition, delivering preventive oral health education and care early on in life is critical to preventing oral health problems later in life. As such, home visitors are in an ideal position to make a real difference in the oral health of California's most vulnerable children. With investment and support from California leaders, this potential can become a reality.

The Children's Partnership is a California-based nonprofit children's advocacy organization committed to improving the lives of children where they live, learn, and play. Our mission is to better the health and well-being of underserved children through strong community partnerships, forward-looking research, and informed policy. We build meaningful partnerships with communities and decision-makers to provide a powerful voice for children and champion programs and policies that break down barriers to advancement. Since 1993, TCP has been a leading voice for children and a critical resource for communities across California, working every day to provide all children with the resources and opportunities they need to thrive.

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- Healthy Families America
- LA Best Babies Network
- Los Angeles County Office of Education Head Start
- Los Angeles County Perinatal and Early Childhood Home Visitation Consortium
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- Parents as Teachers

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## Endnotes

<sup>1</sup> US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, *Oral Health in America: A Report of the Surgeon General* (Rockville, MD: US Department of Health and Human Services, 2000): 63; Dental Health Foundation, *Mommy, It Hurts to Chew: The California Smile Survey: An Oral Health Assessment of California's Kindergarten and 3rd Grade Children* (Oakland, CA: Dental Health Foundation, 2006).

<sup>2</sup> Hazem Seirawan, et al., "The Impact of Oral Health on the Academic Performance of Disadvantaged Children," *American Journal of Public Health* 102, No. 9 (2012): 1729-34; Susan A. Fisher-Owens et al., "Giving Policy Some Teeth: Routes to Reducing

Disparities in Oral Health," *Health Affairs* 27(2) (2008): 404-412, accessed July 18, 2016, <http://content.healthaffairs.org/content/27/2/404.full.pdf+html>.

<sup>3</sup> Maternal and Child Health Access, "Educate and Advocate: Oral Health During Pregnancy for Low-Income Women in California," May 2014, accessed June 27, 2016, <http://www.mchaccess.org/pdfs/alerts/Oral%20Health%20During%20Pregnancy%20Brief%20Final.pdf>.

<sup>4</sup> Data Resource Center for Child & Adolescent Health, "2011 National Survey of Children's Health," survey, accessed July 13, 2016, <http://www.childhealthdata.org/browse/survey/allstates?q=2587#>.

- <sup>5</sup> Dental Health Foundation, "Mommy, It Hurts to Chew: The California Smile Survey: An Oral Health Assessment of California's Kindergarten and 3rd Grade Children" (Oakland, CA: Dental Health Foundation, 2006), 12.
- <sup>6</sup> California State Auditor, "California Department of Health Care Services: Weaknesses in Its Medi-Cal Dental Program Limit Children's Access to Dental Care," December 2014, accessed June 27, 2016, <https://www.auditor.ca.gov/pdfs/reports/2013-125.pdf>.
- <sup>7</sup> UCLA Center for Health Policy Research, AskCHIS 2014, "Time Since Last Dental Visit (Age 0-3) (California)," exported on July 16, 2016, <http://ask.chis.ucla.edu>.
- <sup>8</sup> Institute of Medicine and National Research Council, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations* (Washington, DC: The National Academies Press, 2011): 60–65; Irwin Redlener et al., *The Growing Health Care Access Crisis for American Children: One in Four at Risk* (New York: The Children's Health Fund, 2007), accessed July 15, 2016, [www.childrenshealthfund.org/sites/default/files/WhitePaper-May2007-FINAL.pdf](http://www.childrenshealthfund.org/sites/default/files/WhitePaper-May2007-FINAL.pdf); Roberta Wyn et al., "Women, Work, and Family Health: A Balancing Act," April 2003, accessed July 15, 2016, <https://kaiserfamilyfoundation.files.wordpress.com/2003/04/3336.pdf>.
- <sup>9</sup> Barbara Aved Associates, *Sacramento Children Deserve Better: A Study of Geographic Managed Care Dental Services* (Sacramento, CA: First 5 Sacramento, 2010), 8.
- <sup>10</sup> Dental Health Foundation, "Mommy, It Hurts to Chew: The California Smile Survey—An Oral Health Assessment of California's Kindergarten and 3rd Grade Children," February 2006, accessed June 27, 2016, [www.centerfororalhealth.org/images/lib\\_PDF/dhf\\_2006\\_report.pdf](http://www.centerfororalhealth.org/images/lib_PDF/dhf_2006_report.pdf); California Pan-Ethnic Health Network, "Taking a Bite Out of Oral Health Inequities: Promoting Equitable Oral Health Policies for Communities of Color," January 2016, accessed June 27, 2016, [https://cpehn.org/sites/default/files/resource\\_files/cpehn\\_oral\\_health\\_brief\\_01\\_16.pdf](https://cpehn.org/sites/default/files/resource_files/cpehn_oral_health_brief_01_16.pdf).
- <sup>11</sup> Katrina Holt and Karen Kraft, *Oral Health and Learning: When Children's Health Suffers, So Does Their Ability to Learn* (2nd ed.) (Washington, DC: National Maternal and Child Oral Health Resource Center, Georgetown University, 2003).
- <sup>12</sup> Yihong Li and W.J. Wang, "Predicting Caries in Permanent Teeth From Caries in Primary Teeth: An Eight-Year Cohort Study," *Journal of Dental Research* 81(8) (2002): 561.
- <sup>13</sup> Association of State and Territorial Dental Directors, "Best Practices Committee, Best Practices Approach: Improving Children's Oral Health Through Coordinated School Health Programs," 2011, accessed on July 12, 2016, <http://www.astdd.org/docs/BPASchoolCSHP.pdf>; Hazem Seirawan et al., "The Impact of Oral Health on the Academic Performance of Disadvantaged Children," *American Journal of Public Health* 102(9) (2012): 1729–34; Nadereh Pourat and Gina Nicholson, *Unaffordable Dental Care is Linked to Frequent School Absences* (Los Angeles, CA: UCLA Center for Health Policy Research, 2009): 1–6.
- <sup>14</sup> Kristen S. Marchi et al., "Most Pregnant Women in California Do Not Receive Dental Care: Findings from a Population-Based Study," *Public Health Reports* 125(6) (2010): 831–842, accessed July 13, 2016, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2966664/pdf/phr125000831.pdf>.
- <sup>15</sup> Renee Samelson, "Promoting Collaborative Care During Pregnancy" (presentation, National Oral Health Conference, Albany Medical College, April 2013), accessed June 27, 2016, [www.nationaloralhealthconference.com/docs/presentations/2013/04-24/Renee%20Samelson.pdf](http://www.nationaloralhealthconference.com/docs/presentations/2013/04-24/Renee%20Samelson.pdf).
- <sup>16</sup> Hugh Silk et al., "Oral Health during Pregnancy," *American Family Physician* 77(8) (2008), accessed June 27, 2016, <http://mchaccess.org/pdfs/alerts/oral%20health%20during%20pregnancy.pdf>.
- <sup>17</sup> Eric Hartnett et al., "Oral Health in Pregnancy," *Journal of Obstetric, Gynecologic & Neonatal Nursing* 45 (2016): 565–573, accessed July 15, 2016, [http://www.jognn.org/article/S0884-2175\(16\)30159-9/pdf](http://www.jognn.org/article/S0884-2175(16)30159-9/pdf).
- <sup>18</sup> Ibid.
- <sup>19</sup> Maternal and Child Health Access, "Educate and Advocate: Oral Health During Pregnancy for Low-Income Women in California," May 2014, accessed June 27, 2016, <http://www.mchaccess.org/pdfs/alerts/Oral%20Health%20During%20Pregnancy%20Brief%20Final.pdf>.
- <sup>20</sup> Kim A. Boggess and Burton L. Edelstein, "Oral Health in Women During Preconception and Pregnancy: Implications for Birth Outcomes and Infant Oral Health," July 2006, accessed July 12, 2016, [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592159/pdf/10995\\_2006\\_Article\\_95.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592159/pdf/10995_2006_Article_95.pdf).
- <sup>21</sup> Connie Mobley et al., "The Contribution of Dietary Factors to Dental Caries and Disparities in Caries," *Academic Pediatrics* 9(6) (2009): 410–414, accessed July 12, 2016, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2862385/pdf/nihms197059.pdf>.
- <sup>22</sup> California Department of Public Health, "California Home Visiting Program (CHVP)," accessed June 28, 2016, <https://www.cdph.ca.gov/programs/mcah/Documents/Profile.CHVP.pdf>.
- <sup>23</sup> Zero to Three Policy Center, "The Maternal, Infant, and Early Childhood Home Visiting Program: Smart Investments Build Strong Systems for Young Children," 2014, accessed June 28, 2016, <https://www.zerotothree.org/document/112>.
- <sup>24</sup> Maternal and Child Health Bureau, Health Resources and Services Administration, "Home Visiting," accessed June 28, 2016, <http://mchb.hrsa.gov/programs/homevisiting>.
- <sup>25</sup> Ibid.; California Department of Public Health, "California Home Visiting Program," 2015, accessed on July 12, 2016, <https://www.cdph.ca.gov/programs/mcah/Documents/Profile.CHVP.pdf>; Hong Van Pham and Sarah Crow, "Voluntary Home Visiting Data Book: Assessing Need and Access in California," May 2015, accessed on June 28, 2016, [http://www.thenextgeneration.org/files/Home\\_Visiting\\_Databook\\_052115.pdf](http://www.thenextgeneration.org/files/Home_Visiting_Databook_052115.pdf).
- <sup>26</sup> First 5 Association of California, "2015 Home Visiting Survey Results," April 2016.
- <sup>27</sup> Ibid.
- <sup>28</sup> Hong Van Pham and Sarah Crow, "Voluntary Home Visiting Data Book: Assessing Need and Access in California," May 2015, accessed on June 28, 2016, [http://www.thenextgeneration.org/files/Home\\_Visiting\\_Databook\\_052115.pdf](http://www.thenextgeneration.org/files/Home_Visiting_Databook_052115.pdf).
- <sup>29</sup> US Department of Health & Human Services, Administration of Children & Families, "Implementing Early Head Start–Home Visiting (EHS-HV)," accessed June 28, 2016, <http://homvee.acf.hhs.gov/Implementation/3/Early-Head-Start-Home-Visiting--EHS-HV--Program-Model-Overview/8>.
- <sup>30</sup> Office of Head Start, Administration for Children and Families, "Oral Health–Revision," accessed June 28, 2016, [https://eclkc.ohs.acf.hhs.gov/hslc/standards/pi/2006/resour\\_pri\\_00109\\_122006.html](https://eclkc.ohs.acf.hhs.gov/hslc/standards/pi/2006/resour_pri_00109_122006.html).
- <sup>31</sup> Healthy Families America, "The Healthy Families America Strategy," accessed June 28, 2016, <http://www.healthyfamiliesamerica.org/the-hfa-strategy-1/>.
- <sup>32</sup> Healthy Families America, "HFA Best Practice Standards," accessed July 11, 2016, <https://www.cdph.ca.gov/programs/mcah/Documents/MO-CHVP-2014-2016-HFABestPracticeStandards.pdf>.
- <sup>33</sup> US Department of Health & Human Services, Administration of Children & Families, "Implementing Nurse-Family Partnership (NFP)," accessed June 28, 2016, <http://homvee.acf.hhs.gov/Implementation/3/Nurse-Family-Partnership--NFP--Program-Model-Overview/14,81>.
- <sup>34</sup> Nurse-Family Partnership, conversation, May 9, 2016.
- <sup>35</sup> Ibid.
- <sup>36</sup> US Department of Health & Human Services, Administration of Children & Families, "Implementing Parents as Teachers (PAT)," accessed June 28, 2016, <http://homvee.acf.hhs.gov/Implementation/3/Parents-as-Teachers--PAT-/16>.
- <sup>37</sup> Parents as Teachers, conversation, March 31, 2016.
- <sup>38</sup> Ian Hill, Margaret Wilkinson, and Sarah Benatar, "First 5 LA Welcome Baby Expansion: Early Implementation Experiences," Urban Institute, accessed July 12, 2016, <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000292-First-5-LA-Welcome-Baby-Expansion-Early-Implementation-Experiences.pdf>.
- <sup>39</sup> Maternal and Child Health Access Welcome Baby Program, conversation, May 3, 2016.
- <sup>40</sup> Burton Edelstein, "What State Policymakers and Staff Need to Know About Early Childhood Tooth Decay" (presentation, Centers for Medicare and Medicaid Services Oral Health Initiative, May 27, 2015).
- <sup>41</sup> M.B. Kowash, A. Pinfield, J. Smith, M.E.J. Curzon, "Effectiveness on Oral Health of a Long-term Health Education Programme for Mothers with Young Children," *British Dental Journal* 188, 201–205 (2000), accessed June 27, 2016, [www.nature.com/bdj/journal/v188/n4/pdf/4800431a.pdf](http://www.nature.com/bdj/journal/v188/n4/pdf/4800431a.pdf).
- <sup>42</sup> Ibid.
- <sup>43</sup> Kamila Plutzer and A. John Spencer, "Efficacy of an Oral Health Promotion Intervention in the Prevention of Early Childhood Caries," *Community Dental and Oral Epidemiology* 36(4) (2008): 335–46.
- <sup>44</sup> Tegwyn H. Brickhouse, Robin R. Haldiman, and Bhanu Evani, "The Impact of a Home Visiting Program on Children's Type of Dental Utilization," *Pediatrics* (132)(suppl. 2) (2013): S147–S152, accessed July 15, 2016, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4258828/pdf/peds.2013-1021N.pdf>.
- <sup>45</sup> Institute of Medicine and National Research Council, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations* (Washington, DC: The National Academies Press, 2011): 60–65.
- <sup>46</sup> Institute of Medicine and National Research Council, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations* (Washington, DC: The National Academies Press, 2011): 231.
- <sup>47</sup> California Department of Health Care Services, "Medi-Cal Dental Services Rate Review," July 1, 2015, accessed June 28, 2016, [http://www.dhcs.ca.gov/Documents/2015\\_Dental-Services-Rate-Review.pdf](http://www.dhcs.ca.gov/Documents/2015_Dental-Services-Rate-Review.pdf), 7.
- <sup>48</sup> California State Auditor, "California Department of Health Care Services: Weaknesses in Its Medi-Cal Dental Program Limit Children's Access to Dental Care," December 2014, accessed June 27, 2016, <https://www.auditor.ca.gov/pdfs/reports/2013-125.pdf>.
- <sup>49</sup> California Department of Public Health, "California Perinatal and Infant Oral Health Quality Improvement Project," accessed July 12, 2016, [http://mchoralhealth.org/PDFs/PIOHQI\\_Expansion\\_Abstracts\\_CA.pdf](http://mchoralhealth.org/PDFs/PIOHQI_Expansion_Abstracts_CA.pdf).
- <sup>50</sup> Maternal and Child Health Access Welcome Baby Program, conversation, May 3, 2016.
- <sup>51</sup> Los Angeles County Office of Education Head Start, conversation, May 5, 2016.
- <sup>52</sup> National Conference of State Legislatures, "Home Visiting Enacted Legislation in States," May 19, 2014, accessed July 18, 2016, [www.ncsl.org/research/human-services/home-visiting-enacted-legislation-in-states.aspx](http://www.ncsl.org/research/human-services/home-visiting-enacted-legislation-in-states.aspx).
- <sup>53</sup> Vikki Wachino, "Coverage of Maternal, Infant, and Early Childhood Home Visiting Services," accessed June 28, 2016, <https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-03-02-16.pdf>.
- <sup>54</sup> Trust for America's Health and Nemours, "Medicaid Reimbursement for Community-Based Prevention," accessed July 18, 2016, [www.astho.org/Community-Health-Workers/Medicaid-Reimbursement-for-Community-Based-Prevention](http://www.astho.org/Community-Health-Workers/Medicaid-Reimbursement-for-Community-Based-Prevention).
- <sup>55</sup> Ibid.
- <sup>56</sup> The Pew Center on the States, "Medicaid Financing of Early Childhood Home Visiting Programs: Options Opportunities, and Challenges," accessed June 28, 2016, [http://www.pewtrusts.org/~media/assets/2012/07/pcs\\_nashp\\_hv\\_medicaid.pdf](http://www.pewtrusts.org/~media/assets/2012/07/pcs_nashp_hv_medicaid.pdf).



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