OHAC ORAL HEALTH ACCESS COUNCIL

CHILDREN NOW

ORAL HEALTH

Policy Brief

A Mother's Oral Health Profoundly Impacts the Health of Her Child

- **18% of premature births are attributable to poor oral health in mothers.[1]**
- **Pregnant women with poor oral health are seven times more likely to have a premature and/or low birthweight delivery.[2]**
- **Only 19% of pregnant women enrolled in Denti-Cal (California's Medicaid dental program) access any dental care during pregnancy.[3]**
- **Less than 10% of Denti-Cal enrollees under age 2 have ever received preventive dental care.[4]**
- **Children of mothers with poor oral health are five times more likely to have oral health problems.[5]**

Pregnancy and early childhood are critical periods for ensuring good oral health, yet too many Californians fail to visit a dentist during those times. The public health consequences of this issue are both costly and preventable.

Advocacy groups, provider organizations and state policymakers are working to educate families about the crucial oral health needs of pregnant women, new mothers and young children. Advocacy efforts have targeted:

- Increasing oral health care access for at-risk populations;
- Standardizing dentists' and pediatricians' oral health recommendations for pregnant women and young children.

Much more remains to be done, however, to ensure proper oral health care during pregnancy and early childhood.

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Poor Oral Health Contributes to Complications During Pregnancy and Delivery

Oral health is essential to overall health. For expectant and new mothers, maintaining good oral health is crucially important not only for their teeth, but also for the rest of their body. Medical researchers have only recently begun to understand the complexity of the relationship between poor oral health and its effects on other bodily systems. For example, mounting evidence links poor oral health to cardiovascular disease,[6] poorly-controlled diabetes,[7] and difficulties during pregnancy and delivery.[8]

Pregnancy strains bodily systems, and the mouth is no exception. Hormonal changes experienced during pregnancy, combined with a build up of plaque on the teeth, can lead to "pregnancy gingivitis" or gum inflammation. If allowed to progress, gingivitis can turn into periodontitis, which is the destruction of the bone that anchors the teeth in place. Periodontitis has been associated with the most common and dangerous complication of pregnancy, preeclampsia, a hypertensive disorder that decreases blood flow to the placenta and can cause low birthweight and other complications.[9] Over the last decade, oral health experts have recognized that poor oral health contributes to premature birth (before 37 weeks gestation) and low birthweight deliveries. In infants who are otherwise healthy, pre-term birth is the leading cause of morbidity and mortality. **Research estimates that 18% of premature births are attributable to gum disease.[10] Pre-term birth occurs in about 12% of all pregnancies and accounts for approximately $7.4 billion in hospital charges borne by employers, insurers and the public.[11]**

18%

18% of premature births are attributable to poor oral health in mothers.

While these statistics point to an enormous opportunity to improve birth outcomes through advancements in the oral health care of pregnant women, the first step must be to inform women about the need for oral care before and during pregnancy. The Centers for Disease Control and Prevention's Pregnancy Risk Assessment Monitoring System data show that many women believe poor oral health is a natural part of pregnancy and fear dental treatment will hurt the fetus.[12] Both beliefs are untrue and harmful because they deter some women from seeking needed care.

A Mother's Oral Disease Can Spread to Her Child

Young children benefit when their mothers are educated about good oral care and able to access oral health services. **Research shows that infants of mothers with tooth decay are much more susceptible to Early Childhood Caries (ECC), characterized by bacterial infection and damage to baby teeth.[13] Furthermore, children can acquire oral infection from their mothers or other primary caregivers.** The saliva of mothers with poor oral health can contain *mutans streptococci* bacteria, which can be transmitted to the child and contribute to ECC. Routine activities such as tasting baby food or sharing utensils transfer saliva from mother to child and can trigger ECC.

Severe Early Childhood Caries[16]

Poor oral health in children affects far more than their appearance. The effects—including pain, nutritional problems, tooth loss, sleep deprivation, attention deficit, and slower physical and social development—impede children's success in school and in life. **Tooth decay is the most prevalent health problem in children, ahead of asthma, hay fever and diabetes.**[14] Over half of California's kindergarteners have a history of tooth decay, and over a quarter have untreated caries. Without treatment, severe ECC can result, leading to more costly problems with permanent teeth, such as abscesses and the need for orthodontic correction. Unfortunately, there is evidence that caries in young children are increasing. A Centers for Disease Control and Prevention report showed that tooth decay among 2- to 5-year-olds rose from 24% in 1988-1994 to 28% in 1999-2004, reversing a 40-year positive trend.[15]

Access to a Dentist Is Limited During Pregnancy and Early Childhood

Barriers to optimal oral health care during pregnancy and early childhood are many and include everything from a lack of clear treatment protocols to a shortage of nearby providers to a lack of insurance coverage. **One of the more easily addressed obstacles, however, is the lack of agreement among medical and dental professionals about proper treatment protocols for pregnant women and young children.** While there is no evidence of safety concerns with dental treatment at any time during pregnancy, the lack of professional consensus regarding appropriate care during pregnancy contributes to an unknown number of pregnant women failing to receive the care they need. Patients often do not know to ask about seeing a dentist during pregnancy, and obstetricians who fail to suggest a dental visit

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to their patients exacerbate this problem. Consequently, even women who might otherwise have access may not know to seek proper oral care during pregnancy.

Fortunately, guidelines are in place for young children. The American Academy of Pediatrics and American Academy of Pediatric Dentistry recommend that children begin regular professional dental care when the first tooth erupts or no later than 1 year of age. It is difficult to follow those recommendations in many communities, however, because pediatric dentists or family dentists who will treat young children are simply not available. California has more dentists per 100,000 people than the U.S. average, but those dentists are concentrated in more affluent, non-rural areas with lower percentages of people of color and children.[17] The situation is so severe that the federal government has designated more than 70 Dental Health Professional Shortage Areas in California. By comparison, New York only has one.[18] While many of the approximately 28,000 active general practice dentists in California treat young children, many others do not. A recent survey of California's dental hygienists showed that on average just 4.3% of their patient population was 0-5 years old (while 9% of the state's population are 0-5).[19] General practice dentists who do accept young children often refer them to pediatric specialists for procedures beyond a regular exam and cleaning, but there are only 550 pediatric specialists to serve nearly 3.2 million California children between the ages of 0 and 5.

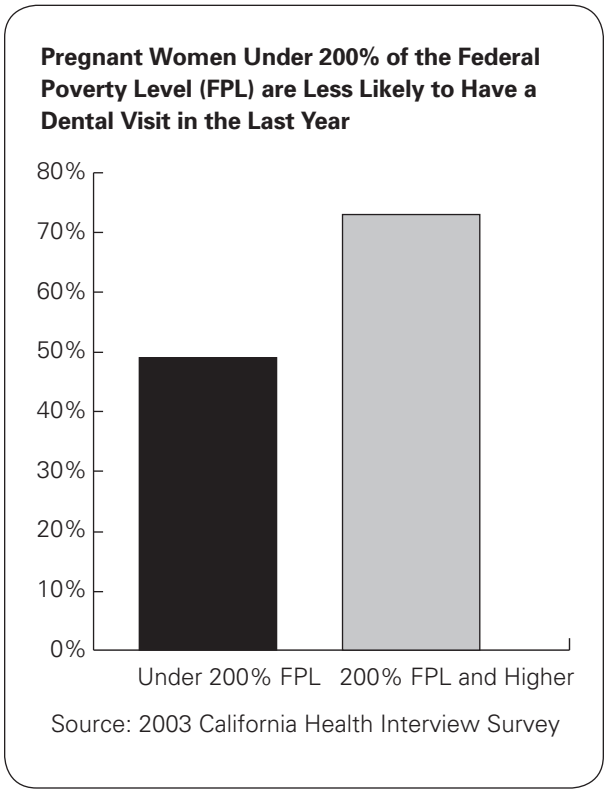
Access to a Dentist Is Especially Inadequate for Poor Women and Children

19%

Only 19% of pregnant women enrolled in Denti-Cal (California's Medicaid dental program) access any dental care during pregnancy.[3]

Due to a number of related factors, low-income pregnant women and young children are particularly at risk for oral disease. Not surprisingly, given the high cost of private dental insurance and the eligibility restrictions on public coverage, low-income women are less likely to have dental insurance and, consequently, less likely to receive regular dental care. Even when dental insurance exists, however, access to care is not guaranteed. For example, public dental insurance programs are available for low-income Californians. Children and parents who qualify for Medi-Cal, the state Medicaid program, automatically receive dental coverage through Denti-Cal. Additionally, children eligible for Healthy Families, California's State Children's Health Insurance Program (SCHIP) for slightly higher-income families, also receive public

dental insurance. Nonetheless, and **due in part to low provider reimbursement rates and unwieldy paperwork, only 40% of California's dentists accept Denti-Cal patients.**[20] This low level of dentist participation greatly restricts access to dental care for those with public insurance. Denti-Cal's provider reimbursement rates are significantly lower than the fees charged by many of California's dentists. For example, only 1% of California's general dentists charge the Denti-Cal rate of $15 or less for a periodic oral exam.[21]



Insufficient provider reimbursement rates and lack of access to care were recently highlighted when Denti-Cal was forced to return unspent funds to the federal government; $131 million was given back, despite the known shortfall in funding for public dental care.[22] During this same period, the number of Medi-Cal enrollees grew from under 5 million to 6.6 million, so clearly there was not a decrease in the need for services.

In addition, Denti-Cal rates are subject to state budget-related instability; a 5% rate cut was implemented and later rescinded during the 2005-2006 state budget cycle. While there is some evidence that Healthy Families' reimbursement rates and administrative procedures are better than those in Denti-Cal, they are still well below private insurer rates and more burdensome to administer.

Access to appropriate dental care is further hindered by the fact that many dentists who accept Denti-Cal are reluctant to treat pregnant women or young children. **For example, just 27 of the 98 dental practices in Contra Costa County that bill Denti-Cal will accept pregnant patients, and only *one* dentist will accept patients at 1 year old.**[23] **A mere 19% of pregnant Denti-Cal enrollees accessed any dental care during pregnancy, due to provider scarcity, lack of patient knowledge and other factors.** Less than 10% of Denti-Cal enrollees under age 2 have ever received preventive dental care.[24]

California's low-income children fare worse than the national average. For example, among preschool-age children enrolled in the federal Head Start early childhood services and education program in 2005-2006, 32% were diagnosed as needing dental treatment, compared to 25% nationally.[25] In the most recent National Survey of Children's Health, California children's oral health was least likely to be rated as "excellent" or "very good" (59%), compared to the national average of 69%. Only 37% of California children living below the poverty line had excellent or very good oral health.[26]

Momentum behind Oral Health Policy Is Growing

State policymakers, health organizations and the media are growing increasingly concerned about the consequences of poor oral health in pregnant women and newborns.[27] While progress has been made towards improving the oral health of those groups, many policy changes are still needed.

10%

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Expanding Denti-Cal Coverage for Pregnant Women Is Being Discussed

Denti-Cal has always provided emergency dental benefits for pregnant women enrolled in Medi-Cal and preventive dental benefits to all enrolled pregnant women who are citizens or legal immigrants. Since 2002, Denti-Cal has covered non-emergency preventive dental benefits for most pregnant women, including undocumented women on Medi-Cal. Further progress was made in 2005 (SB 377, Ortiz), when limited dental benefits were extended further to include nearly all pregnant women enrolled in Medi-Cal and the list of covered procedures was expanded.[28] Since those changes, Denti-Cal has distributed information about the new benefits to dentists via provider bulletins.[29]

Clear Standards for Dental Care during Pregnancy Are Being Established

Further movement was attempted in 2007 through legislation (AB 13, Laird) that would have created a process for developing consensus among academic experts, dentists, obstetricians, policy experts and community leaders on best practices for the dental treatment of pregnant women.[30] Although this bill did not pass, professional organizations and advocacy groups are continuing to discuss the most effective way to develop best practices and guidelines. The New York State Department of Health published model practice guidelines for oral health care during pregnancy and early childhood, and other states and national organizations have also shown interest in developing recommendations.[31]

Childhood Oral Health is being Encouraged through School Policies

Increased interest in early childhood oral health has produced important policy changes for young children. In 2006, state legislation passed that requires all public school children to show proof of a dental exam by May 31 of their kindergarten year (AB 1433, Emmerson/Laird).[32] While this new law does not reach the youngest children, it helps educate parents about the need for basic dental care and provides a forum for families to connect their children with a regular dental care provider. In addition, it provides a new source of data to help community health planners target the neediest populations.

The School Health Centers Expansion Act of 2007 (SB 564, Ridley-Thomas) would build on this success.[33] If passed, the bill will provide resources for new and existing school health centers that meet certain criteria, such as providing oral health assessments, preventive services, basic restoration and referrals to specialty dental care. Additionally, this legislation will provide increased dental services to children and, coupled with the kindergarten requirement, will help parents and communities view oral health as an essential component of school readiness.

Another bill introduced in the California Legislature this year (AB 834, Hayashi) promises to expand the reach of the Children's Dental Disease Prevention Program (CDDPP). This program currently provides school-based preventative dental care to over 300,000 low-income and special needs preschool and elementary school children. If passed, AB 834 will allow licensed or registered dental health professionals to join dentists in providing fluoride varnish, dental sealants, and other services; increase reimbursement beyond the current $10 per child annual rate; and decrease the administrative burden on participating organizations. The bill has bipartisan support and the potential to dramatically increase the number of children who can access critical dental services.

The Good News: Inexpensive, Effective Preventive Care Tactics Exist

- **Community Water Fluoridation**
  Water fluoridation is considered a major factor in the decline of tooth decay in the 20th century. Fluoridation saves more money in prevented disease than it costs.
- **Fluoride Varnish**
  Fluoride varnish is a simple, easily applied fluoride treatment that takes less than five minutes and costs about $1. Fluoride varnish is highly effective in preventing decay and can be safely used as soon as the first teeth have erupted.
- **Registered Dental Assistants**
  California's RDAs can now be certified to place dental sealants, decreasing the cost of some types of dental care, and increasing the reach of oral health providers.
- **Healthy Baby Nutrition**
  Babies who eat healthier and less sugary foods are less likely to acquire oral infection from their mothers.

Federal Oral Health Policy Reforms

A tragic example of the consequences of public neglect of children's oral health has spurred action at the national level. HR 2371 (Cummings, MD) was introduced in response to a 12-year-old Maryland boy's death from an untreated tooth abscess. This bill, if passed, will fund increased training of pediatric dentists and support oral health access for children at community health centers.[34] In addition, a leading proposal for federal reauthorization of the State Children's Health Insurance Program (SCHIP) would require that all state SCHIP programs include guaranteed dental benefits.[35] As mentioned previously, California's SCHIP program already covers preventive oral health services and treatment. All states provide some dental benefits in their SCHIP programs, but that coverage is subject to elimination during tough state budget years, and benefit packages vary from state to state.[36] Congress is currently debating details of the reauthorization for SCHIP, which is scheduled to expire September 30, 2007.

Bolstering federal efforts, national advocacy and research organizations are focusing attention on pregnant women's oral health care. In 2006, the PREEMIE Act was passed by Congress with the goal of creating a more comprehensive research agenda to investigate the causes, risk factors and prevention of pre-term birth, including further research on the link between oral disease and birth complications.[37] This federal law does not automatically fund such research, so advocates are currently trying to secure $9 million for Fiscal Year 2008.

Policy Recommendations on Oral Health for Pregnant Women and Young Children

Most Californians are still surprised to learn that toddlers' mouths can harbor very harmful decay and that mothers can transmit oral infections to their children. As such, intensified policymaker, advocate and provider efforts are needed to reduce the impact of poor oral health on pregnant women and young children. Key opportunities for additional policy progress include:

Prenatal and Early Childhood Best Practices and Guidelines

Stakeholders, including dentists, pediatricians, obstetricians and other health care providers, must develop guidelines for prenatal and early childhood oral health care. Clearly stated and widely distributed guidelines about appropriate oral health care practices would increase proper care during critical periods and could help reduce oral disease in mothers and young children.

5x

Children of mothers with poor oral health are five times more likely to have oral health problems.[5]

Targeted Research Funding

In order to more effectively prevent pregnancy complications caused by poor maternal oral health, additional research should be funded to determine the best timing for intervention and best method to treat pregnant women.

Broad-Based Community Education

Additional education and social marketing campaigns about the availability and need for oral health care for pregnant women and young children, especially among disadvantaged populations, are necessary. Pamphlets, public service announcements and other communications targeting pregnant women should be widely distributed in many languages and frequently updated to reflect the state of medical research.[38] Effective community practices for reaching the most at-risk pregnant women and young children should be spread to communities across the state.

Expansion of Water Fluoridation and Other Innovative Practices

Despite the public health benefits and demonstrated safety of community water fluoridation, California has one of the lowest rates of fluoridation in the U.S.: Only 28% of Californians on public water systems receive fluoridated water. This is due in part to a belief shared by some groups that water fluoridation is unsafe; however, the dental and medical communities, World Health Organization, and Centers for Disease Control and Prevention all subscribe to the benefits of fluoridation. Water fluoridation, as well as other simple preventive practices such as using xylitol mints and fluoride varnish, should be expanded to cover all children.

Establishing More Preschool, After School and School-Based Health Centers

Schools provide an ideal health care access point to young children, especially those who otherwise may have little access to care providers. Incentives to encourage registered dental assistants, nurses and other providers to come to school campuses and administer effective preventive treatments should be investigated. For example, Denti-Cal reimburses dentists, doctors and nurses for fluoride varnish applications, which can be given in school.[39] Healthy Families only reimburses dentists for the procedure, and some participating dental plans do not reimburse for fluoride varnish because they do not consider it a topical fluoride application.[40, 41] Healthy Families policies mirroring those of Denti-Cal would more successfully encourage fluoride varnish application in settings other than the dental office.

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Tighter Integration of Medical and Dental Health

Oral health must be considered alongside all other types of health care when coverage and reform decisions are made. Poor oral health significantly impacts other bodily systems. Obstetricians and pediatricians should utilize guidelines for incorporating simple oral health recommendations into their practices, for example, ensuring that pregnant women and young children are connected with regular oral health care providers and administering xylitol mints at check-ups.[42] Some insurers are strengthening links between medical and oral health care by providing special dental benefits to certain beneficiaries such as pregnant women and people with diabetes.[43]

Increasing Data Collection and Reporting

All oral health improvement efforts could be better targeted if more was known about existing practices and outcomes. High-quality data collection efforts, such as the California Health Interview Survey, however, tend to focus on medical health and only include a few questions about oral health. Funding and a federal policy change to require oral health reporting for each state's SCHIP program could help states establish more thorough data collection practices.

Denti-Cal Reforms to Encourage Dentist Participation

Increased Denti-Cal provider reimbursement rates for targeted prevention, such as oral exams and preventive treatment for pregnant women and children under 5 years old, could encourage more providers to offer such services. In addition, streamlined treatment authorization, paperwork and reimbursement processes should be developed to encourage greater participation in the program.

For more information, please contact Kelly Hardy at 510-763-2444, x 126 or khardy@childrennow.org.

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Children Now is a nonpartisan research and advocacy organization working to raise children's well-being to the top of the national policy agenda. The organization focuses on ensuring quality health care, a solid education and a positive media environment for all children. Children Now's strategic approach creates awareness of children's needs, develops effective policy solutions and engages those who can make change happen.

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