Introduction

The foundation for good oral health is established early in childhood and the role of the mother is significant even prior to conception. Most women, however, are unaware of the potential consequences neglecting their own oral health could have on them and their baby prior to, during, and after pregnancy. Although dental care during pregnancy is both safe and can prevent long-term health problems for both mother and child, an overwhelming number of women do not seek dental care during pregnancy. This issue is compounded by the fact that many dentists are reluctant or refuse to see pregnant patients.

Despite these barriers, there have been efforts during the past decade to move both patients and providers toward a better understanding of the importance and safety of oral health care prior to, during and after pregnancy (perinatal). New York and California have been leaders in the development of clinical guidelines for medical and dental professionals on dental care during pregnancy. Nationally, the federal Maternal and Child Health Bureau, in conjunction with the American Dental Association and the American College of Obstetrics and Gynecology, recently released a consensus statement on dental care during pregnancy. The first national report of its kind, this document utilizes the latest science and research in providing information to medical and dental professionals regarding the oral health care for, and referral of, pregnant women. This national consensus statement provides an ideal opportunity to shape current national and state policies to match the professional guidance.
Evidence Base for Perinatal Oral Health Care

Having a healthy mouth before pregnancy minimizes any risk of transmission of disease or costly treatment for the mother and the baby. Nevertheless, with nearly half of U.S. pregnancies being unplanned, it is critical for women who are unable to achieve optimal oral health prior to conception to have a clear understanding of the evidence on dental care during pregnancy. Many women worry that receiving dental care during pregnancy may cause harm to their unborn baby. This perceived danger of dental care to the fetus may be a primary concern to pregnant women; however, if left untreated, oral disease may in fact compromise the health of both the woman and the unborn child. Research released in 1996 by Offenbacher et al. sparked discussion about a possible connection between periodontal disease (gum disease) and preterm birth. Since that research was released, many studies have followed with varying degrees of supporting or refuting information. Although a causal relationship has never been established, a growing body of research is focused on linkages between untreated gum disease in the woman and adverse birth outcomes including preeclampsia, preterm birth, and low birth weight.

While the association between periodontal disease and birth outcomes continues to be explored, there is well-established evidence that women with high levels of the cavity-causing bacteria, mutans streptococci (MS), have a high likelihood of infecting the child before their second birthday. Women with poor oral health can also indirectly affect their children's oral health through the influence of their beliefs, knowledge, and skills. The prevention of transmission (from mother to child) of the MS bacteria and establishing good oral hygiene habits can significantly minimize a lifelong battle with the chronic disease known as dental caries, the disease that causes tooth decay/cavities. According to the Journal of the American Dental Association (JADA), Early Childhood Caries (ECC) can have a multi-faceted negative impact on the life of a child and the community, including eating and sleeping dysfunctions, poor performance and/or days missed at work and at school, inappropriate use of over-the-counter pain medications, infection, high costs of reparative care, parental and family stress, and sometimes death when the appropriate intervention is delayed. In fact, JADA published a paper noting that 20 percent of preschoolers are affected by episodic pain from dental caries. To prevent the various social, emotional, and intellectual costs associated with ECC, and to maintain the oral health of the child, the best strategy is to reduce the MS levels in the mother, therefore delaying the colonization of MS in the infant as long as possible.

- **Preconception:** Pre-conceptual (prior to pregnancy) or inter-conceptual (between pregnancies) counseling by health care professionals should integrate oral health as a core intervention for a healthy pregnancy, including information on establishing good oral hygiene practices and seeking professional care. Research by Goldenberg, et al. concluded that dental care during pregnancy may be too late to intervene as a means of reducing the systemic inflammation of periodontal disease that has been related to adverse birth outcomes. Xioung, et al., in their review of this same research, support the conclusion that oral health interventions are optimal during the pre-conceptual period.

- **Pregnancy:** The consequences of neglecting to treat an active infection during pregnancy outweigh the possible risks presented by dental treatment, including the majority of routinely used medications. In fact, there is no evidence linking early miscarriage to dental treatment in the first trimester. Additionally, providing care throughout pregnancy is safe. The existing guidelines developed by the New York State Health Department and the California Dental Association Foundation, in addition to the new national consensus statement, provide the most up-to-date evidence on the safety and efficacy of dental care during pregnancy, including: the safety of x-rays and medications; strategies for reducing the MS bacteria load in new mothers; and guidance on appropriate positioning of pregnant women in dental chairs later in pregnancy.

- **Post Partum & Infants:** The American Academy of Pediatric Dentistry (AAPD) recognizes the importance of perinatal oral health as the foundation for the oral health of an infant. Their 2011 guidelines on perinatal and infant oral health care provide a scientific basis for preventing and managing early childhood caries and the more severe form of the disease. In addition to professional guidelines, research supports simple solutions; one such example is having mothers chew xylitol gum 2-3 times a day to reduce the transmission of caries from mother to child, a relatively simple, low cost strategy to incorporate into a patient's oral health education.
Dental Care Utilization

Dental care is safe throughout pregnancy; however, many women do not access oral health care during the perinatal period. Studies show among pregnant women with perceived dental needs only about one-in-two received oral health care during pregnancy.\textsuperscript{18,19} In addition, less than one-third visited a dentist in the two to nine months following giving birth.\textsuperscript{20} Many states are implementing innovative approaches for women at highest risk for poor birth outcomes. Given that nearly half of all births in the U.S. are covered by Medicaid, the ability of women to access dental care through Medicaid is essential to reducing the risks of dental disease in both mother and child. To reach women who are at the highest risk for poor birth outcomes, some states have implemented strategies linking Medicaid-enrolled pregnant women to dental care, including the use of community health workers and case managers, and the development of partnerships between medical and dental providers, as well as the programs that commonly serve pregnant women.\textsuperscript{21} State Medicaid programs have also responded by providing Medicaid-enrolled pregnant women with dental coverage to reduce the payment barrier that may prevent pregnant women from seeking routine and preventive dental care.\textsuperscript{22}

Liability

Dental care is safe during pregnancy; however dentists often hesitate or refuse to treat pregnant women because of liability concerns.\textsuperscript{23,24} In fact, a dentist may be more liable for refusing to treat a patient because of her pregnancy than for providing care to that patient during pregnancy. Dentists should follow appropriate guidelines for treating pregnant patients, partner with a patient’s prenatal care provider when appropriate, and understand that very few, if any meritorious claims have resulted from dental care rendered during pregnancy. Washington Dental Service Foundation (WDS Foundation) conveys this message to dentists in their prenatal oral health continuing education course \textit{Oral Health from Birth: Using Evidence-Based Care to Manage and Treat Your Pregnant Patients}.\textsuperscript{25} The course summarizes related claims information from The Dentists’ Insurance Company (TDIC); Dentists Benefits Insurance Company (DBIC); and Northwest Dentists Insurance Company (NORDIC); dental insurance companies that provide liability coverage to thousands of dentists in multiple states. TDIC and DBIC report receiving no substantiated claims related to dental care given to pregnant women, and NORDIC encourages dentists to treat pregnant women, citing studies that repeatedly show that delayed dental treatments during pregnancy can put the mother and her unborn child at increased risk.

Fast Facts

\begin{itemize}
  \item Nearly one-in-five women do not visit the dentist during the year before they become pregnant.\textsuperscript{26}
  \item The consequences of neglecting to treat active infection during pregnancy outweigh the possible risks presented by dental treatment, including the majority of routinely used medications.\textsuperscript{27} In fact, there is no evidence linking early miscarriage to dental treatment in the first trimester.\textsuperscript{28}
  \item Providing care throughout pregnancy is safe.
  \item Simple solutions such as having mothers chew xylitol gum two to three times a day can reduce the transmission of caries from mother-to-child. This is a relatively simple, low cost strategy to incorporate into patient education about the oral health of their family.\textsuperscript{29,30,31}
\end{itemize}
Policy Opportunities

Increasing access to health care requires both affordable coverage and providers willing and able to serve the needs or families. Dental coverage is critical to increasing access to and improving the affordability of dental care prior to, during, and following pregnancy. But having medical and dental professionals who are ready and willing to educate and treat women and children is equally important. Policymakers have a critical and influential role to set the stage for improving access to and coverage of dental service.

- **Support the development of state perinatal oral health guidelines.** The New York State Department of Health guidelines and the California Dental Association guidelines provide a strong foundation for state policymakers, medical associations, dental societies, consumers, and public health officials, among others, to collectively develop guidelines that reflect the most current evidence and address the localized concerns of providers.

- **Assure Medicaid coverage of dental services for pregnant women.** A large portion of women and children at greatest risk for dental disease are eligible for Medicaid and/or CHIP coverage. Medicaid has the ability to extend dental benefits to adult women prior to pregnancy and/or during pregnancy. Public financing of dental coverage can remove the financial barrier to accessing dental care.

- **Include preventive dental services for pregnant women as a no-cost preventive service within the Essential Health Benefit package provided by insurance plans participating in the state Health Insurance Exchange(s).** States have tremendous flexibility in the establishment of benefits and Health Insurance Exchanges as allowed under the new Patient Protection and Affordable Care Act (ACA). Although many preventive services for women are required to be covered without cost-sharing, preventive dental benefits may be added by state policymakers. Eliminating cost-sharing for preventive dental care during pregnancy provides women some level of coverage if additional adult dental benefits are not provided through the benefit packages offered in the Exchange(s).

- **Encourage medical and dental providers to work together to ensure that pregnant women have access to accurate information and dental care.** Medical and dental providers often have long-standing relationships with patients through multiple stages of life for which they remain a trusted source of information and referrals for women. Medical and dental providers need to establish professional relationships and provide consumers with consistent information to provide referrals for appropriate and necessary care. Policymakers have the opportunity as leaders in the community to encourage these professional relationships or formal agreements. Opportunities include promoting policies that create formal partnerships between community health center medical and dental providers to ensure all pregnant women receiving prenatal care also receive dental care.

- **Support the health and oral health safety-net for pregnant women and families.** For women at greatest risk for poor birth outcomes and dental disease, safety-net medical and dental sites are a likely entry point for care if they are available in their community. However, with 54.5 million people living in primary care shortage areas and 43.8 million people living in dental professional shortage areas, accessing medical and dental care can be challenging. Policymakers in collaboration with federal agencies can support and encourage efforts to mitigate the maldistribution of dentists and medical providers to help ensure access to dental care for pregnant women.

- **Educate the public about the importance and safety of dental care for women of all ages, including pregnant women.** Women and families need to hear from a variety of sources about the importance and safety of dental care during pregnancy. Serving as a spokesperson for the issue may broaden the reach of the message to a wider audience and contribute to the improved health of women and their children.
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Acknowledgments

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About the Policy Center

The National Maternal and Child Oral Health Policy Center was created in 2008 as a collaborative effort of the Association of Maternal and Child Health Programs (AMCHP), the Association of State and Territorial Dental Directors (ASTDD), the Medicaid/SCHIP Dental Association (MSDA), and the National Academy for State Health Policy (NASHP) with funding from the federal Maternal and Child Health Bureau of the Department of Health and Human Services, Health Resources and Services Administration, Department of Health and Human Services. The Policy Center promotes the understanding of effective policy options to address ongoing disparities in children’s oral health.

The three-year initiative has set out to map a course for improving family oral health by building knowledge and skills of professionals with the ability to steer systems changes.

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