NIHCM FOUNDATION

IMPROVING ACCESS TO PERINATAL ORAL HEALTH CARE: STRATEGIES & CONSIDERATIONS FOR HEALTH PLANS

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INTRODUCTION

Most women do not access oral health care during pregnancy despite evidence that poor oral health can have an adverse impact on the health of a pregnant woman and her child. In this issue brief we explore how oral health practices and utilization of dental care among pregnant women may affect a woman's overall health, her birth outcome, and the oral health of her children. We also review guidelines and statements developed by professional organizations and states that instruct health professionals on providing appropriate dental care to pregnant women in order to prevent dental caries and periodontal disease, deliver appropriate dental treatment, and mitigate the costs of untreated dental disease. We explain how many patient, physician, workforce and financial barriers are limiting utilization of perinatal dental care and conclude with opportunities for health plans to play an important role in removing these barriers to ensure that all pregnant women have access to needed dental care.

DATA ON ORAL HEALTH AND PREGNANCY

Effect of pregnancy on oral health

Oral health is a key component of overall health and well-being for women across the lifespan and is a particularly important consideration prior to conception and during pregnancy (with pregnancy affecting oral health and oral health affecting pregnancy). The physical changes that occur during pregnancy may increase a woman's susceptibility to oral infections, including periodontal disease, and may harm the body's ability to maintain soft tissues in the mouth. Mild inflammation of the gums, or "pregnancy gingivitis" is estimated to affect over 30 percent of pregnant women.[1] Tooth decay may increase during pregnancy due to changes in oral hygiene and diet. Tooth erosion can result from nausea and vomiting that may occur during pregnancy.[2] Oral health also affects pregnancy, contributing to the overall health of the woman, and possibly affecting birth outcomes. Poor oral health in adults is associated with chronic diseases such as cardiovascular disease, diabetes and respiratory diseases, all of which may impact a woman's health during pregnancy.[3]

While oral health is integral to a woman's overall health, a mother's oral health status is also important to the health of her child. This relationship is manifested in several key ways.

- Research has exhibited an association between periodontal disease in pregnant women and adverse birth outcomes, such as low birth weight, preterm birth, preeclampsia and gestational diabetes.[4] Because studies have shown conflicting results on the relationship between periodontal disease and birth outcomes, and there is no general consensus on this association, further research is needed to explore and confirm this possible correlation. However, research does universally support the safety of dental treatment during pregnancy and confirms that maintaining good oral health prior

to and during pregnancy remains a key factor in achieving overall health and well-being for women and their infants.

- Mother-to-child transmission of bacteria is the primary vehicle through which children first acquire dental caries, the disease process that causes cavities. These bacteria are transmitted through saliva that is passed from a caregiver's mouth to a child's. The healthier the mother's mouth, and the longer the initial transmission of caries-causing bacteria is delayed, the more likely children are to establish and maintain good oral health.[5]

Pregnancy is a critical time to address oral health. Dental treatment is safe throughout pregnancy, and improving the oral health of pregnant women may prevent complications of dental disease, improve birth outcomes and decrease dental caries in children.[6] Pregnancy is also an opportune time to educate women on good oral health behaviors, nutrition and hygiene, both for themselves and their children.

Access and utilization of oral health care during pregnancy

While the importance and safety of dental care during pregnancy are confirmed, many women do not access dental care during the perinatal period.[7, 8] In the U.S. approximately one in five women do not access dental care during the year before they become pregnant.[9] There is limited national information regarding use of dental services during pregnancy; however data are available for some states in some years through the Pregnancy Risk Assessment Monitoring System (PRAMS), a CDC-supported surveillance system gathering information from new mothers regarding their behaviors and experiences during the perinatal period. A recent analysis of PRAMS data in four states found that only 23 to 35 percent of women accessed dental care during pregnancy, compared to 44 percent of all women between the ages of 20 and 49.[10,11] Overall, most women did not access dental care during pregnancy, and of those who reported having dental problems, one-half did not receive care. For women reporting a dental problem, public insurance for prenatal care and late enrollment in prenatal care were associated with their lower likelihood of accessing care.[12]

Data from California's Maternal and Infant Health Assessment (MIHA) tells a similar story of poor access, with only 35 percent of women giving birth during 2002-2007 receiving dental care during pregnancy. While 52 percent of women reported having a dental problem, 62 percent of these respondents did not receive dental care. Women who did not receive dental care were more likely to have lower incomes, lower education levels, and to be non-English speaking or of nonwhite ethnicity. They were also less likely to have private prenatal insurance or coverage during the first trimester or to have a usual source of medical care prior to pregnancy.[13]

CONSEQUENCES OF PREMATURITY AND EARLY CHILDHOOD CARIES

Periodontal disease can be detected in up to 30 percent of pregnant women.[14] Improving oral health during pregnancy may reduce adverse birth outcomes and associated costs and may decrease perinatal morbidity and mortality.[15] Additionally, improving women's oral health during pregnancy may decrease costs associated with treatment for early childhood caries.

The Costs of Premature Births

Premature births cost the U.S. $26 billion each year according to the Institute of Medicine (IOM). In 2007 the March of Dimes estimated that the average costs during the first year of life for a preterm baby were more than 10 times as high as medical costs for a baby born at full term ($49,033 versus $4,551). Additionally, the medical costs for both mother and baby for a preterm birth were four times higher than those for a full-term birth ($64,713 versus $15,047), including outpatient visits, prescriptions and in-hospital care. In 2005 preterm babies spent an average of 14.2 days in hospital stays during the first year of life, compared to an average of 2.3 days for full-term infants, and needed more prescriptions and outpatient visits.[16]

Preterm births and their associated costs represent 35 percent of total U.S. spending on health care

for infants and account for 10 percent of all health care spending for children. Preterm births are the cause of three-fourths of neonatal mortality and are responsible for one-half of long-term neurological impairments in children.[17] Efforts to estimate the percentage of low birth weight and preterm births attributable to periodontal disease suggest that 18 percent of these births may be caused by periodontal disease annually and therefore may account for a large proportion of the annual costs for delivery and care of these infants.[18]

Implications of Early Childhood Caries

In addition to reducing costs associated with poor birth outcomes, improving perinatal oral health also has potential to improve the oral health of children. Children whose mothers exhibit poor oral health are five times more likely to have oral health problems themselves than children whose mothers exhibit good oral health, and children whose mothers have high levels of oral bacteria and poor oral health have a greater risk for developing dental caries compared with children whose mothers have lower levels of oral bacteria and better oral health.[19]

Dental caries is a chronic, infectious disease that causes cavities, and it is initiated by oral colonization with cariogenic bacteria. Dental caries-causing bacteria are most often acquired by an infant through transmission of this bacteria from a mother or caregiver to the child through behaviors that transfer saliva, such as sharing food and utensils or cleaning a pacifier in a caregiver's mouth. The early acquisition of these bacteria in an infant's mouth is a key risk factor for caries in early childhood and throughout life. By controlling and reducing oral diseases in pregnant women and by educating women with a history of caries about avoiding transmission, the transmission of bacteria from mother to child can be reduced. Preventing or delaying this initial infection reduces children's risk for dental caries.[20] Children whose mothers receive treatment to suppress oral bacteria are less likely to develop cavities, to develop cavities later in life if affected, and to have fewer cavities overall than children whose mothers do not receive treatment to suppress bacteria.[21]

Tooth decay is the most common chronic childhood condition in the United States and is impacting a growing number of children at young ages. Tooth decay affects 26 percent of preschoolers, 44 percent of kindergarteners and more than half of teens.[22] The progressive nature of dental disease can significantly diminish the overall health and quality of life for children. Failing to prevent dental problems has long-term adverse effects that are consequential and costly.[23] Children who experience dental disease are susceptible to disturbances in growth and development, problems eating and speaking, low self esteem, lost days in school attendance, poor oral health as adults, and high costs for dental treatment in childhood and adulthood.[24]

Dental care for pregnant women should be available so women can achieve their own best possible oral and overall health and to limit their children's risk of acquiring dental caries. Additionally, both periodontal disease and dental caries are preventable, and early dental care, education, and proper home care have the potential to eliminate or diminish these diseases and their associated pain, complications and costs for all populations.[25]

REVIEW OF GUIDELINES/POLICY STATEMENTS

Numerous health professional organizations have developed guidelines, policy statements and/or recommendations addressing oral health and dental care during pregnancy **(Figure 1)**. In addition, two states established multidisciplinary expert panels to develop comprehensive clinical guidelines for the provision of oral health care during pregnancy and early childhood, which serve to summarize existing science, address barriers and opportunities, and instruct providers on appropriate timing of dental care **(Figure 2)**. Audiences for these documents are providers, advocates and program professionals on the national, state and local levels. While these professional guidelines serve as national policies for provider organizations, there is a need for comprehensive, nationally recognized guidelines endorsed across disciplines that instruct all providers who come in contact with pregnant women on the safety of dental treatment and on the appropriate protocols for referral to and delivery of dental care.

FIGURE 1. PROFESSIONAL GUIDELINES AND POLICY STATEMENTS FOR PERINATAL ORAL HEALTH CARE

Organization	Recommendation
American Dental Association: *Statement on "Ante Partum Dental Radiography and Infant Low Birth Weight" (2004)*	The American Dental Association (ADA) notes that maintaining oral health during pregnancy is important to the health of the woman and her baby and recommends that women continue to see a dentist regularly for examinations and teeth cleanings during pregnancy. The ADA recommends that women inform their dentists if they are pregnant or planning to become pregnant. If dental x-rays are required, a protective thyroid collar and apron should be used. Further guidance related to the use of dental x-rays with pregnant patients has been published by the ADA and the U.S. Department of Health and Human Services. http://www.ada.org/public/media/releases/0404_release03.asp
American Academy of Pediatrics & American Congress of Obstetricians and Gynecologists: *Guidelines for Perinatal Care, 6th Ed. (2006)*	American Congress of Obstetricians and Gynecologists (ACOG) encourages women to see their dentists early in pregnancy and to continue preventive dental oral hygiene practices. ACOG also recommends that pregnant women ask their dentists to consult their obstetricians for guidance if there are concerns about a dental procedure's effect on pregnancy. http://www.acog.org/bookstore/Guidelines_for_Perinatal_Care__P262C54.cfm
American Academy of Periodontology: **Statement Regarding Periodontal Management of the Pregnant Patient (2004)**	The American Academy of Periodontology recommends that "preventive oral care services should be provided as early in pregnancy as possible. However, women should be encouraged to achieve a high level of oral hygiene prior to becoming pregnant and throughout their pregnancies. If examination indicates a need for periodontal scaling and root planing or more involved periodontal treatment, these procedures are usually scheduled early in the second trimester. The presence of acute infection, abscess, or other potentially disseminating sources of sepsis may warrant prompt intervention, irrespective of the stage of pregnancy." http://www.perio.org/resources-products/pdf/44-pregnancy.pdf
American Academy of Pediatrics: *Policy Statement on Oral Health Risk Assessment Timing and Establishment of the Dental Home (2003, reaffirmed in 2009)*	The American Academy of Pediatrics (AAP) recommends that "pediatricians and pediatric health care professionals should develop the knowledge base to perform oral health risk assessments on all patients beginning at 6 months of age. Patients who have been determined to be at risk of development of dental caries or who fall into recognized risk groups should be directed to establish a dental home 6 months after the first tooth erupts or by 1 year of age (whichever comes first)." AAP also states that "early childhood caries is an infectious and preventable disease that is vertically transmitted from mothers or other intimate caregivers to infants. All health care professionals who serve mothers and infants should integrate parent and caregiver education into their practices that instruct effective methods of prevention of early childhood caries." http://aappolicy.aappublications.org/cgi/content/full/pediatrics;111/5/1113
American Academy of Pediatric Dentistry: *Guideline on Perinatal Oral Health Care (2009)*	Noting that dentists, physicians, health professionals, community organizations and other partners must work collaboratively to achieve perinatal and infant oral health, the American Academy of Pediatric Dentistry provides recommendations for perinatal oral health care, including anticipatory guidance, caries risk assessment, preventive strategies, and appropriate therapeutic interventions, targeting stakeholders in pediatric and perinatal oral health. http://www.aapd.org/media/Policies_Guidelines/G_PerinatalOralHealthCare.pdf

FIGURE 2. STATE GUIDELINES FOR PERINATAL ORAL HEALTH CARE

Organization	Recommendation
New York State Department of Health: *Oral Health Care During Pregnancy and Early Childhood Practice Guidelines (2006)*	The New York State Department of Health convened an expert panel of health care professionals to review literature, identify existing guidelines, practices, and interventions and to develop recommendations. The guidelines provide recommendations for prenatal, oral health and child health providers and are intended to facilitate change in the health care delivery system and improve standards of care. http://www.health.state.ny.us/publications/0824.pdf
California Dental Association (CDA) Foundation: *Oral Health During Pregnancy and Early Childhood: Evidence-Based Guidelines for Health Professionals (2010)*	This document assists a range of health professionals in private, public and community settings to deliver oral health services to pregnant women and children and is informed by a review of current science-based literature. The resource was developed by a group of state and national experts through a collaborative process facilitated by the California Dental Association Foundation and the American College of Obstetricians and Gynecologists, District IX. The guidelines can be accessed at: http://www.cdafoundation.org/library/docs/poh_guidelines.pdf

BARRIERS TO GOOD PERINATAL ORAL HEALTH CARE

Patient and Counseling Barriers

A range of factors associated with one's culture, demographics and early life experiences with oral health care have a strong influence on beliefs and knowledge about the importance of oral health, oral hygiene, nutrition practices and health-seeking behaviors.[26] Social and economic disparities in health are evident in a variety of health outcomes, including oral health and oral-health-related quality of life.[27] However, even women who have sufficient dental insurance coverage are often unaware of the importance of visiting a dentist during pregnancy and when planning to become pregnant.[28] In a survey of 652 mothers in Iowa, only 43 percent reported being aware of the possible connection between oral health and pregnancy outcomes.[29] Further, women often do not receive information about the importance of oral health from their obstetrician-gynecologists or other prenatal care providers.[30] Analysis of the New York State PRAMS data showed that only 60 percent of women discussed oral health with health or oral health professionals during pregnancy in contrast to 75 percent of respondents reporting that they had discussed topics such as smoking, drinking alcohol, breastfeeding, birth control, HIV testing and birth defects.[31] Other studies and surveys have shown even less encouraging results. The PRAMS survey data for Colorado showed that only 42 percent of pregnant women were counseled on oral health by a health care worker, compared to 90 percent reporting having been counseled on other topics.[32] A 2008 survey of obstetrician-gynecologists found that only a minority ask patients if they have recently seen a dentist (27 percent), ask about patients' oral health (46 percent), or provide information on proper oral care (31 percent).[33] A failure to communicate oral health information has been shown to significantly reduce the likelihood that a pregnant woman will seek dental care.[34]

The physical effects of pregnancy also may compromise a woman's usual oral health behaviors. Nausea and vomiting may cause a woman to avoid routine oral health practices (tooth brushing, flossing), resulting in a greater risk for tooth erosion or dental caries. Additionally, food cravings induced by pregnancy may lead to the frequent consumption of foods high in sugar and carbohydrates and therefore to a heightened risk of cavities.[35]

Provider Barriers

Prenatal care providers are usually the first health professionals to consult with a pregnant woman on preparing for a healthy pregnancy, yet many of these health providers are unaware of the importance of oral health during pregnancy.[36, 37] Medical schools do not include this important aspect in their curricula,[38] and dental school curricula seldom address dental care delivery during pregnancy adequately.[39] In a survey by Sanchez et al., 80 percent of surveyed family practitioners and pediatricians reported receiving only 2 hours or less of oral health training during their residencies. [40, 41]

In a survey of 829 dentists practicing in Oregon during 2004-2005, it was clear that dentists' attitudes have created significant barriers to accessing perinatal dental care:

- Twenty-three percent said they do not have the counseling skills to work with pregnant women.[42]
- Forty-two percent said they are concerned about being sued if a pregnancy has a negative birth outcome.
- Seventy-one percent said insurance plans do not fairly compensate them for counseling pregnant women.

Dentists often hesitate to provide care to pregnant women because they have misperceptions about the safety of providing dental care during the perinatal period.[43] Dentists are not the only providers with these misunderstandings, however. In fact, in a survey of women with Medi-Cal (California's Medicaid program), more than 8 percent of women reported that the main reason they did not receive dental services was that their medical providers advised against care.[44] Moreover, providers have a wide range of perceptions about the safety, accessibility and necessity of dental screening and treatments during pregnancy.[45] Both dental and obstetrical providers need comprehensive, nationally recognized guidelines endorsed across disciplines that provide evidence-based information on the safety, benefits and protocol for providing dental treatment and care to pregnant women.

Workforce Barriers

In addition to the shortage of dental care professionals who accept Medicaid, there are areas where dental care is limited or unavailable, particularly in rural areas.[46] Forty-nine million Americans live in more than 4,000 designated "Dental Health Professional Shortage Areas" (DHPSA), and it is likely that many qualifying areas have not been designated.[47] Currently a DHPSA is defined as an area having fewer than one dentist per 3,000 population.[48] To fill the currently defined DHPSAs alone, it would require 9,579 dentists.[49] These shortages make it difficult for consumers of all ages to access dental care in these areas. Further, while there has been a steady expansion of available services in the last ten years, almost one-third of community health centers and local health departments still do not offer onsite oral health services.[50]

Financial Barriers

Having dental insurance, as well as the type and quality of dental coverage, are important predictors of perinatal oral health care utilization. In the 1999 to 2002 period, 72 percent of women with dental insurance had seen a dentist in the past year, compared to 60 percent of women with health insurance but no dental coverage and 38 percent of women with no insurance at all.[51] Approximately 13 percent of pregnant women in the United States are uninsured, while Medicaid covers 18 percent of pregnant women, and 66 percent have private medical insurance.[52] Only 37 percent of Americans and only 29 percent of women of childbearing age have dental coverage.[53, 54] Furthermore, only 50 percent of uninsured women have a primary care or obstetric provider, compared with 89 percent of insured women, and uninsured pregnant women are less likely to receive prenatal care in their first trimester or to receive the optimal number of prenatal care visits throughout pregnancy. Thus uninsured pregnant women are less likely to receive education about the importance of oral health care during pregnancy, especially in the critical early stages.[55]

Unfortunately, access to dental insurance still lags far behind access to medical insurance, causing women to either pay high costs for dental care, forgo treatment or self-manage symptoms. Accessing dental benefits can be confusing as they are not often a part of comprehensive

medical insurance plans. While some national health plans offer integrated medical-dental insurance coverage, dental benefits are usually administered separately from medical insurance plans through a carve-out plan specializing in dental coverage.[56] Additionally, private dental insurance coverage is often limited in scope, leaving even those with coverage to pay relatively high out-of-pocket costs.[57] The proportion of public spending on dental services as compared with medical services paints an even bleaker picture. Because dental benefits are an optional benefit for adults enrolled in Medicaid, only four percent of dental services are funded through public expenditures.[58] The remaining dental services are funded about equally through private health insurance and out-of-pocket payments. In comparison, 46 percent of all health services are covered by public sources, and 54 percent are covered by private sources.[59] This lack of public funding for dental services has resulted in relatively high out-of-pocket costs for those seeking dental care.[60]

All states are required to offer dental services for children in Medicaid, but dental coverage for adults, including pregnant women, is optional.[61] While some state Medicaid programs provide adult dental coverage to pregnant women only or include enhanced coverage during pregnancy, pregnant women with Medicaid coverage may be unaware that dental services are a covered service.[62,63] Eligibility requirements for women and the range of benefits varies widely across states.[64,65] Women who are enrolled in Medicaid are significantly less likely to visit the dentist before, during and after pregnancy compared to those with private insurance.[66,67] Additionally, the Medicaid enrollment process can be time consuming and complex. Women frequently have to wait a significant amount of time to learn whether they are enrolled and may be moved from one managed care company to the next.[68] Further, women with Medicaid coverage likely face additional barriers typical for persons enrolled in public programs, such as a lack of transportation or the inability to miss work.[69]

Dentists' participation in Medicaid has historically been low. Dentists cite low reimbursement rates, payment delays and complicated paperwork as reasons for low participation.[70] Even in New York, where adult coverage is substantial and payment rates are relatively high,[71] fewer than one in four licensed dentists were actively participating in the Medicaid program in 2006.[72] These low participation rates are a major barrier to dental care for pregnant women enrolled in Medicaid.[73,74]

OPPORTUNITIES FOR HEALTH PLANS TO SUPPORT PERINATAL ORAL HEALTH CARE

Opportunities to Support Patients and Physicians

During pregnancy, women are more receptive to messages related to their health and the health of their future infants.[75] Thus, pregnancy is an opportune time to educate women about the importance of dental care and its impact on the health of their infants. It is recommended that prenatal care education universally include an oral health component, especially since pregnancy provides a "teachable" moment in self-care and future child care.[76] Prevention programs initiated during pregnancy have positively influenced the oral health of mothers and their children.[77] However, these programs are not widespread, and women receive information from a variety of sources during pregnancy, some of which may not be accurate.[78]

Health plans, through their maternity programs, provide educational materials to pregnant women on a variety of topics to ensure that members have healthy pregnancies and deliveries. Many health plans include materials specific to dental care and share information on how women can lower their risk of developing gum disease and its associated health risks to themselves and their babies by maintaining good oral health during pregnancy. A survey of pregnant women conducted by HealthPartners, a managed care organization in Minneapolis, MN, found that women overwhelmingly preferred to receive dental health information by mail, regardless of whether they were enrolled in a public or private health plan.[79] The HealthPartners survey also found that women preferred to receive information on infant-specific topics, such as care of the baby's mouth or development of teeth, over information concerning both the mother's and baby's health.[80] The authors suggest that health plans market their programs as promoting infant oral health care as a way to gain women's interest in the program and then incorporate information on self-care for the mother.

Email and web-based programs were the second and third preferred methods of information delivery among women enrolled in private health plans, however there was low interest in these methods among women in public plans. Health plans seeking to reach women enrolled in their publicly funded plans may want to consider the lack of access to technology for these enrollees and focus instead on mail and in-person education. However, for privately insured women, email or web-based education may be as successful as mailing materials.[81] Supporting the use of electronic outreach, a Pew study shows that greater numbers of Americans are accessing the internet through wireless means. The 2009 study showed that 56 percent of adult Americans had accessed the internet by using a mobile device or cell phone, a laptop, a game console, or an MP3 player. One-third of Americans have used their cell phones to access the internet for information seeking or to email or instant message.[82]

Text messaging, available widely through cell phones, is increasingly being utilized as a vehicle to share health information with pregnant women and new mothers. An example is the Text4Baby service, a National Healthy Mothers, Healthy Babies Coalition initiative, supported by the White House Office of Science and Technology Policy, Department of Health and Human Services, and others, providing health messages free of charge to pregnant women, including information on oral health such as

Figure 3. Text4baby

Text4baby is an educational program implemented by the National Healthy Mothers, Healthy Babies Coalition. It is a free mobile information service launched in February 2010 designed to promote maternal and child health. Women can sign up for the service by texting BABY (or BEBE for Spanish) to 511411 and will receive free SMS text messages each week timed to a due date or baby's date of birth. These messages focus on a variety of topics critical to maternal and child health such as: oral health, immunization, nutrition, seasonal flu, prenatal care, emotional well-being, drugs and alcohol, labor and delivery, smoking cessation, breastfeeding, mental health, birth defects prevention, car seat safety, exercise and fitness, developmental milestones, safe sleep, family violence, and more. The messages are based on evidenced-based best practices guidelines; were developed by the National Healthy Mothers, Healthy Babies Coalition with support from the Centers for Disease Control and Prevention, the Health Resources and Services Administration, health care experts; and underwent a vigorous review process by several government organizations.

The program is supported by a broad public-private partnership of over 150 entities, including the White House and government agencies, mobile carriers, health plans, national health professional associations, and state and local government. The mobile health platform is supported by Voxiva and the free messaging services are provided by participating wireless service providers of the CTIA – The Wireless Foundation. As of April 2010, over 35,000 users nationwide have registered for the service. WellPoint, Inc. is one of the premier corporate sponsors of Text4baby and is also promoting the service among several of its state-sponsored business plans (Medicaid members.) WellPoint will also be conducting a year-end claims-based evaluation to determine participation rates and outcome trends for prenatal and postnatal visits, birth weight, and neonatal intensive care unit days. Over twenty health plans have signed on as official outreach partners to spread the word about Text4baby and encourage the women they reach to take advantage of the free service. A large-sized, controlled behavioral and claims based study is currently in design with the Text4Baby government partners.

More information about becoming a partner is available at: http://www.text4baby.org.

SOURCES: 1) Direct inquiry to Text4Baby program, April 2, 2010.
2) Text4Baby. Available at: www.text4baby.org Accessed March 25, 2010.

Figure 4. A Public-Private Partnership to Improve Access to Care for Pregnant Women

Informed by the New York State *Oral Health Care During Pregnancy and Early Childhood: Practice Guidelines*, a novel project was developed in New York to establish a public-private partnership to link pregnant women to dental care. Two hospital-based facilities coordinating prenatal care assistance programs for high-risk populations and a private periodontal practice established the Maternal Oral Health project, an education, referral and dental care system. Initially, a series of educational efforts was undertaken to increase awareness of the perinatal oral health guidelines among hospital providers, specifically OB/GYNs, general physicians, nursing staff and physician assistants. Pregnant patients enrolled in the prenatal care assistance programs were referred for oral evaluations and treatment at the private practice, and home care instruction was given and evaluated at follow-up appointments. Patients were instructed on ways to reduce the transmission of caries-causing bacteria to infants and other children. After two years, the Maternal Oral Health project has seen more than 1,100 patients and reports significant success in changing attitudes and behavior among pregnant women regarding the importance of oral health. The Maternal Oral Health project has confirmed the effectiveness of a public-private partnership in linking at-risk pregnant women to dental care and has confirmed that the New York State perinatal guidelines can be successfully implemented in practice despite significant barriers to achieving oral health for high-risk populations.

SOURCE: Kerpen, S, Burakoff R. Improving Access to Oral Health Care for Pregnant Women: A Private Practice Model. *New York State Dental Journal.*

encouragement to visit a dentist and information on the importance of good oral health practices. Health plans are partnering with Text4Baby and promoting use of the service among their members (Figure 3).

In addition to the importance of providing education about the benefits of oral health care, women may also need information on how to assess and access their dental benefits. Often these benefits are offered through a stand-alone plan rather than the woman's medical health plan, with limited or no communication between the dental and medical plans. Even when women are receiving benefits through an integrated medical-dental plan, medical and dental benefits are not always integrated and often have different copayments and deductibles, which may lead to confusion about what is covered by a woman's dental benefit. Health plans can enhance women's use of their dental benefits by coordinating calls between the patient and the plan's maternity program and/or customer service department to determine what is covered under the benefit package. Health plans can also help connect pregnant women directly to in-network oral health providers and assist with scheduling appointments, either with the woman on the phone or by scheduling appointments for her. Health plans with integrated medical-dental plans have another opportunity to ensure that women follow through with referrals by conducting a claims review to determine whether women enrolled in their maternity programs have had a recent dentist visit and by reaching out to those women who have not received dental care. This outreach could be in the form of a phone call or reminder postcard and should include information about the importance of dental care during pregnancy. Health plans and providers can also maintain lists of local dental providers who accept their coverage to make it as easy as possible for women to access services. These lists should be regularly updated and communicated among plans, providers, pregnant women, and community-based organizations that provide health and social support services to pregnant women and families.

Another strategy in expanding access to care is to engage communities of interest in adopting the New York and California Guidelines. Figure 4 illustrates an example of the practical implementation and use of New York State's perinatal oral health guidelines.

Finally, health plans can support access to alternative sources of oral health care, especially for women who are uninsured, lack dental coverage, or live in rural or underserved communities. These may include

Figure 5. The Blue Foundation for a Healthy Florida, Inc. Oral Health Grant

The Blue Foundation for a Healthy Florida, Inc. is the philanthropic affiliate of Blue Cross and Blue Shield of Florida and was created as a 501(c)(3) philanthropic foundation to support community-based solutions to enhance access to quality health-related services for the uninsured and underserved in Florida. In 2009 The Blue Foundation for a Healthy Florida awarded a $100,000 grant to the Orange County Health Department to educate and link preconceptual and pregnant women to local health clinics for oral health services. The goal of the program is to reduce infant mortality among the County's uninsured population by linking women of childbearing age to affordable dental health care and education. The program, Critical Connections, provides outreach efforts to women and their OB/GYNs to encourage eligible women to access oral health care at a community health clinic. Grant funds support a health educator/program coordinator, costs for 300 dental exams/cleanings, office space, audio-visual needs, nutritional lunches, and brochures and materials.

SOURCE: Blue Foundation for a Healthy Florida, Inc. "Orange County Project Aims to Reduce Infant Mortality." March 3, 2009. Available at: http://www.bcbsfl.com/index.cfm?section=&fuseaction=BLUEFOUNDATION.UpdateDetails&id=20090309142203; Accessed March 25, 2010.

community health centers, local dental schools, especially those with an Advanced Education in General Dentistry (AEGD) Residency Program which provides dentists with hands-on clinical training, and other community-based programs, such as mobile clinics or vans.[83] Some dental organizations may facilitate donated clinical service opportunities in specific areas for a time-limited service program. These may be sponsored by religious organizations, service clubs, dental societies or universities. Health plans and health plan foundations can provide financial support for these programs to ensure women in their communities have access to adequate dental care during pregnancy (Figure 5). Health plan maternity programs could also provide a list of resources for uninsured women to assist them in accessing free or low-cost dental care.

Opportunities to Reduce Financial Barriers

Enhancing dental insurance coverage during pregnancy is a key strategy for increasing utilization of dental care. Several private health plans offer enhanced dental benefits during pregnancy, including coverage for an additional cleaning and full reimbursement for copayments or coinsurance related to dental visits during pregnancy (Figures 6 and 7). These enhanced benefits reduce financial barriers. Health plans that offer both medical and dental coverage should consider adding enhanced benefits during pregnancy in order to support a woman's overall health and optimal delivery and possibly to reduce adverse birth outcomes. Health plans already providing these benefits can collect and analyze data to demonstrate the impact of enhanced dental benefits on the health outcomes of their members and any associated cost savings. These data can contribute to the evidence base on the impact of providing dental care during pregnancy and, as warranted, encourage provision of expanded dental benefits by all health plans.

Since dental coverage for adults enrolled in Medicaid is optional and varies across the states, the National Oral Health Policy Center[i] recommends that states establish a comprehensive, pregnancy-related dental benefit for women enrolled in Medicaid. This ensures that pregnant women have a protected dental benefit and will be less vulnerable when states contemplate eliminating or reducing dental benefits for all adults.[85] As of 2008, six states did not offer any dental services for adults, and 16 offered only emergency services (such as only covering extractions).[86] By establishing a

i The National Oral Health Policy Center at Children's Dental Health Project promotes the understanding of effective policy options to address ongoing disparities in children's oral health. The Policy Center is a collaborative effort of key stakeholders that include the: Association of Maternal and Child Health Programs (AMCHP), Association of State and Territorial Dental Directors (ASTDD), Medicaid/SCHIP Dental Association (MSDA), and National Academy for State Health Policy (NASHP) with funding from the federal Maternal and Child Health Bureau (MCHB).

Figure 6. CIGNA Dental Oral Health Maternity Program

In 2000 the Surgeon General's Oral Health in America report spurred discussions among CIGNA's Dental Clinical Advisory Panel on the association between periodontal disease and pregnancy complications, including low birth weight babies and preterm deliveries. In addition to the report, the Panel also reviewed research conducted by Dr. Marjorie Jeffcoat of the University of Pennsylvania that established evidence that providing dental care to expectant mothers with periodontal disease may prevent low birth weight babies and preterm births.

In 2006 CIGNA began offering its Dental Oral Health Maternity Program. The program removes financial barriers preventing pregnant women from receiving dental care. The CIGNA enhanced dental benefit covers deep cleaning (scaling and root planning), periodontal maintenance, and treatment of inflamed gums around wisdom teeth. Because elevated hormones may put pregnant women at risk for developing pregnancy gingivitis, the program removes frequency limitations for dental cleanings so additional cleanings are fully reimbursed during pregnancy. The enhanced benefits include 100 percent reimbursement for any copayments or coinsurance paid by the member for the covered oral health services indicated above during pregnancy.

To inform customers about these enhanced benefits, CIGNA provides educational materials to members upon their enrollment in CIGNA medical and/or dental plans. When pregnant women enroll in CIGNA's Healthy Babies maternity program, they are provided with educational materials about the importance of oral health during pregnancy and its impact on the health of their infants. If they are also enrolled in CIGNA's dental plan, they receive information about the enhanced benefits available to them through the program.

To maximize awareness of the impact of dental health on overall health, CIGNA also conducts a dental outreach program. This program first reviews medical claims to identify women who are pregnant. CIGNA mails postcards with educational information about the importance of oral health care during pregnancy to those pregnant women who have not had a recent dental visit. CIGNA then follows up with a phone call to inquire if she needs any assistance scheduling a dental appointment. This integrated claims review is possible because CIGNA is an integrated company with both medical and dental plans making it easier to provide coordinated oral health benefits and determine which enrollees have not had a recent dental visit.

Despite outreach efforts and educational mailings, the enhanced benefit is currently underutilized by expectant mothers. To increase utilization and awareness of the program, CIGNA intends to continue strategies to provide more education for enrollees about the importance of oral health care and the benefits offered through the program and to make the program easier to use. CIGNA can also assess the oral health of women enrolled in their high-risk pregnancy program by asking questions about bleeding gums and gum disease history in its risk assessment questionnaires.

In developing this program, CIGNA created an incentive for preventive oral health care and treatment in hopes of improving the oral and overall health of the expectant mother. While initial data on cost savings from the enhanced benefit are limited, CIGNA continues to operate the program due to research demonstrating the importance of good oral health during pregnancy.

SOURCE: Personal interview with Miles Hall, DDS, Chief Dental Director, CIGNA. February 25, 2010.

pregnancy-specific dental benefit for women enrolled in Medicaid, states can ensure that pregnant women maintain dental coverage when other adult populations may be vulnerable to cuts in services. For example, in 2005 the California State Legislature mandated that Medicaid provide a limited number of dental services for enrolled pregnant women. In 2009 dental services for all adults enrolled in Medicaid were significantly

Figure 7. Aetna Dental/Medical Integration Program

Aetna developed a Dental/Medical Integration (DMI) Program after conducting a study with the Columbia University College of Dental Medicine that found preventive dental care may help reduce the risk of a preterm birth. The study reviewed medical and dental insurance data from 2003-2006 for 29,000 pregnant women. Results showed that the preterm birth rate was 42 percent higher for women not receiving dental treatment, and the low birthweight rate was 33 percent higher for women who did not receive dental treatment. An earlier study found that members with chronic conditions who sought earlier dental care lowered their overall medical costs. As a result of the study findings, Aetna launched its DMI program in the fall of 2007 to offer enhanced benefits to at-risk members, including pregnant women. The program utilizes a variety of outreach methods to engage women who are not currently seeking dental care and encourage them to visit a dentist. Women are identified for the program through Aetna's Health Risk Assessment tool if they indicate they are planning to become pregnant. The program fully covers additional dental services for women during pregnancy, including an extra routine cleaning, a dental debridement and periodontal maintenance. In addition to enhanced benefits, women are provided with educational information about the importance of good oral health during pregnancy and its impact on the health of their babies.

SOURCE: Aetna. Study Shows Preventive Dental Care May Help Reduce Risk of Preterm Birth. October 1, 2008. Available at: http://www.aetna.com/news/newsReleases/2008/1001_DMI_Preterm_Birth_Risk.html Accessed March 3, 2010.

reduced; however the designated pregnancy-related services were retained, preserving access to dental care for this population.[87]

The New York State Medicaid program is one of few to cover a wide range of dental services for adults, and in November 2009 the state enacted new legislation setting prenatal standards for Medicaid.[88] These standards require assessment of a woman's oral health care needs at the first prenatal care visit and education about the importance of oral health and the safety of dental care during pregnancy. The required assessment includes interviewing the patient regarding current and previous dental problems and the availability of a dental provider. The standards also recommend that a woman with a current oral health problem or who has not had an oral health visit in the past six months be referred to a dentist as soon as possible, preferably before 20 weeks' gestation, and that oral health care be coordinated between the prenatal care provider and dentist. Other options for expanding access to dental care for women enrolled in Medicaid include adopting presumptive eligibility, increasing eligibility for pregnant women, expanding postpartum coverage, and facilitating faster, easier application processes. While health plans offering Medicaid managed care benefits are restricted to offering coverage according to contracts with the state, health plans and Medicaid agencies can use this contract to address standards of access, quality, utilization, outreach efforts, reimbursement, and data reporting and can require a relationship with Title V and other public health agencies (Figure 8).[89]

CONCLUSION

Achieving good oral health during pregnancy is crucial to the lifelong health of mothers and their children. Health care providers treating pregnant women can play a vital role in promoting good oral health by educating women about the importance of oral health and helping to connect them to dental care. In the absence of formal national guidelines, stakeholders in New York and California led the way to improve perinatal oral health through establishing guidelines for dental providers, obstetrician-gynecologists, pediatricians and other health care professionals. California and New York have each collaborated with diverse stakeholders to develop clinical guidelines to improve standards of dental care delivery among diverse health professionals and are actively implementing and publicizing these guidelines. Additionally, some provisions in The Patient Protection and Affordable Care Act (health care reform)

Figure 8. Smiling Stork: A Medicaid Managed Care Approach to Promoting Dental Care during Pregnancy

DentaQuest is a dental benefits administrator of government and commercial dental programs, operating in 24 states and the District of Columbia. DentaQuest provides several wellness programs that address the overall health of at-risk members. These programs, including Smiling Stork, seek to change at-risk members' behavior, leading to improved overall health and resulting in reduced costs. The Smiling Stork program is an enhanced dental benefit and educational program for members and was developed in response to research documenting an association between periodontal disease and birth outcomes. Smiling Stork promotes the oral and overall health of pregnant women while simultaneously engaging medical and dental providers in connecting pregnant women to dental care.

The objectives of the Smiling Stork program are to educate women on the importance of accessing dental care during pregnancy, to assist them in establishing good oral health habits for themselves and their infants, and to connect them to covered dental services. The Smiling Stork program has several components: member education, education and outreach to the medical and dental provider networks, and education and outreach to community-based organizations. Once members are identified as pregnant, they receive educational information on the importance of seeing a dentist, education on good oral health habits for themselves and their infants, and assistance in accessing dental care. Women receive a "coupon" to see a dentist and also receive scheduling and transportation support. Simultaneously, medical and dental providers receive academic articles on current research on dental care for pregnant women, notification of an increase in member appointments, and presentations and educational opportunities on referring and providing dental care to pregnant women. Community-based organizations are engaged for further dissemination of educational materials to pregnant women.

Data show that utilization of dental care among pregnant members significantly increases after outreach and education efforts through Smiling Stork. Additionally, data reveal differences in rates of pre-term delivery among DentaQuest members enrolled in Smiling Stork; 24 percent of members accessing a dental cleaning through Smiling Stork had a pre-term baby, compared to 30 percent of members who did not receive a dental cleaning during pregnancy.

SOURCE: Personal interview with Doyle Williams, DDS, Chief Dental Officer, DentaQuest. April 20, 2010.

signed into law on March 23, 2010 may improve access and utilization of dental services during pregnancy by allowing stand-alone dental plans to join the newly conceived Health Insurance Exchanges, by expanding Medicaid coverage, by mandating a public education campaign to promote oral health focused on pregnancy and young children, and by building the dental professional workforce. Under health reform, all states will include oral health questions in PRAMS, thereby improving efforts to monitor access and utilization of oral health services by pregnant women.

Eliminating barriers to accessing perinatal oral health care requires a coordinated and collaborative effort among many stakeholders in the health care community. Fortunately, there are many existing initiatives that can offer guidance and support. Health plans are an important partner in this effort. Through their interactions with pregnant mothers, health care providers and community partners, they can make substantial contributions to improving access to and utilization of dental care during pregnancy.

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The National Institute for Health Care Management Research and Educational Foundation is a non-profit organization whose mission is to promote improvement in health care access, management and quality.

About The Children's Dental Health Project

The Children's Dental Health Project (CDHP) is a national non-profit organization that designs and advances research-driven policies and innovative solutions to oral health disparities by engaging a broad base of partners committed to children and oral health, including professionals, communities, policymakers and parents.

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