



Promoting Oral Health During Pregnancy

UPDATE ON ACTIVITIES

December 2019

Since the release of the landmark publication *Oral Health Care During Pregnancy: A National Consensus Statement* in 2012, federal agencies and organizations have continued to launch programs, advance policy, produce resources, and provide education and training to ensure that health professionals and pregnant women are aware of the importance and safety of receiving oral health care during pregnancy. The goal of these efforts is to improve oral health for pregnant women and their children. This document is the seventh in a series of updates to highlight activities to promote oral health during pregnancy. Past issues of *Promoting Oral Health During Pregnancy: Update on Activities* are available [online](#).



Programs and Policy

The Partnership for Integrating Oral Health Care into Primary Care project, led by the National Maternal and Child Oral Health Resource Center with funding from the Maternal and Child Health Bureau, is working with project teams to implement strategies to integrate interprofessional oral health core clinical competencies into primary care and ultimately improve access to oral health care. Each project team consists of a state maternal and child health (MCH) agency addressing the Title V national performance measure on oral health and a primary care setting. Five states—Georgia, Illinois, Maryland, Michigan, and Rhode Island—were selected to participate in the project from January 2019 through June 2020.

Three project teams, Georgia, Illinois, and Maryland, are integrating oral health care into prenatal care for pregnant women. Specifically, these teams are completing oral health risk assessments and screenings, providing preventive interventions and education, and conducting interprofessional collaborative activities. The Georgia project team includes Albany Area

Primary Health Care, a federally qualified health center; the Illinois project team includes the Champaign-Urbana Public Health District; and the Maryland project team includes University of Maryland Medical Center Women's Health in Baltimore.

Projects have focused on enhancing systems for integrating oral health care into primary care as described in *A User's Guide for Implementation of the Interprofessional Oral Health Core Clinical Competencies: Results of a Pilot Project* developed by the National Network for Oral Health Access. Systems include oral health training for primary care professionals, health information technology, clinical care workflows, and evaluation. For example

- Primary care professionals have completed selected *Smiles for Life: A National Oral Health Curriculum* courses, and some have completed in-person oral health trainings.
- Health information technology activities have focused on incorporating oral health into electronic health records and developing tracking mechanisms for data retrieval, analysis, and reporting.
- Clinical care activities have included developing and modifying workflows to determine the most appropriate division of responsibilities for primary care professionals and support staff to maximize efficiency and maintain quality of care.

The Georgia project team incorporated a caries risk assessment form into its electronic health record, implemented dental procedural codes to track oral health care provided to pregnant women, and developed a standing order for dental referrals.

The Maryland project team incorporated dot-phrases into its electronic health record to document oral health care provided to pregnant women and developed a process map that documents workflow steps and specifies which health professional or support staff is responsible for each task.

And the Illinois project team developed a workflow that includes a social worker, a nurse, and a nutritionist from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) addressing oral health care with pregnant women as well as a form to assess oral health risk and document oral health care provided to pregnant women.

Resources

National

Best Practice Approach: Perinatal Oral Health

This report provides a description of perinatal oral health, including its significance and background, barriers to accessing oral health care for this population, and a strategic framework for improving perinatal oral health. The report also includes guidelines and recommendations, research evidence, best practice criteria, state practice examples, and a logic model. [Funded by the Maternal and Child Health Bureau] The report was produced by the Association of State and Territorial Dental Directors.

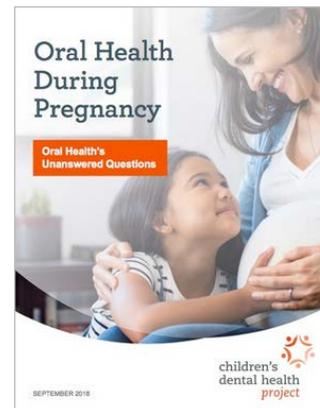
The Maternal and Child Health Bureau–Funded Perinatal and Infant Oral Health Quality Improvement (PIOHQP) Initiative 2013–2019: Final Report

This report describes the achievements of 16 projects funded through the PIOHQP initiative to improve oral health for pregnant women and infants, lessons the projects learned, and resources they produced. It provides examples of project achievements and successes in seven strategy areas: network development; workforce enhancement; community outreach; process and procedure development; program development; state practice guidance development; and data collection, evaluation, and reporting. Also presented are examples of PIOHQP projects included in *Best Practice Approach: Perinatal Oral Health* and selected resources produced by the projects. [Funded by the Maternal and Child Health Bureau] The report was produced by the National Maternal and Child Oral Health Resource Center.



Oral Health During Pregnancy: Oral Health's Unanswered Questions

This brief outlines challenges that the oral health community has encountered in ensuring that pregnant women have good oral health and offers starting points for overcoming these challenges. The brief provides background on the importance of oral health during pregnancy, presents four overarching unanswered questions related to pregnant women's oral health, discusses hurdles to getting care and the need for change, and offers a call to action. The brief was produced by the Children's Dental Health Project.



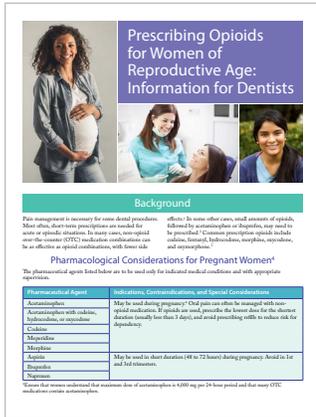
Oral Health Quality Indicators for the Maternal and Child Health Population

This handout outlines maternal and child health quality indicators to monitor oral health services delivered in public health programs and systems of care. Indicators for women of childbearing age and pregnant women are broken into three categories: access, utilization, and outcomes. Indicators for children are divided into four categories: access, utilization, process, and outcomes. [Funded by the Maternal and Child Health Bureau] The handout was produced by the National Maternal and Child Oral Health Resource Center and the Dental Quality Alliance.

Prescribing Opioids for Women of Reproductive Age: Information for Dentists

This document provides an overview of pain management for dental procedures for women of reproductive age and discusses pharmacological considerations for pregnant women (pharmaceutical agents and indications, contraindications, and special considerations), neonatal opioid withdrawal syndrome, guidelines for providing opioids, managing acute dental pain, and guidelines for

discharging women with opioid prescriptions. Information about prescription drug monitoring programs is included. [Funded by the Maternal and Child Health Bureau] The document was produced by the National Maternal and Child Oral Health Resource Center.



Protect Tiny Teeth

This toolkit for health professionals contains materials to integrate oral health care into prenatal care as well as educational resources to share with pregnant women. Materials include a video, waiting room posters, infographics, brochures, medical-to-dental referral forms, an oral health intake form and corresponding conversation guide, a visual screening guide, and an integration workflow. The materials are available in English and in Spanish. The materials were produced by the American Academy of Pediatrics.

Maine

Tips for a Healthy Mouth for Mom and Baby

This flip book for health professionals to share with pregnant women and parents with infants covers oral health during pregnancy and infancy. Topics include changes in the mouth during pregnancy, nausea, how to take care of teeth during pregnancy, how caring for the mouth during pregnancy helps infants, and how fluoride strengthens the teeth of both women and infants. Information about how eating healthy foods



and drinking water can promote oral health and overall health is included. [Partially funded by the Maternal and Child Health Bureau] The flip book was produced by From the First Tooth.

Tips for a Healthy Mouth for Mom and Baby: Resources for Community Organizations

This training for social services professionals provides information to improve women's oral health through education, collaboration, and integration of oral health care into prenatal care and primary care. It includes reasons that preventive oral health care is important and key messages to use with pregnant women and parents with infants. The training also reviews basic concepts related to oral health in pregnant women, infants, and children and discusses the importance of the dental home and providing referrals to dentists. [Partially funded by the Maternal and Child Health Bureau] The training was produced by From the First Tooth.

Maryland

Dental Referral Form for Pregnant Women

This form for pregnant women includes two sections, the first for a prenatal care professional to complete and send to an oral health professional, and the second for an oral health professional to complete and return to the prenatal care professional. The first section has space for information about the woman, the referring health professional, allergies and precautions, and procedures and medications considered safe during pregnancy. The second section has space for the diagnosis, treatment plan, and information about the oral health professional. [Funded by the Maternal and Child Health Bureau] The form was produced by the Maryland Department of Health.

Dental Referral Form for Pregnant Women

SECTION A: PRENATAL PROVIDER TO COMPLETE (SEND TO DENTAL PROVIDER)

Patient Information: Name: _____, Birth Date: _____

DOB: ____/____/____, Estimated Delivery Date: ____/____/____

Known Allergies and Precautions: (Specify, if any) _____

The following are considered safe during pregnancy:

Dental Procedures:	Medications:
Oral Examination	Anesthetics
Dental Prophylaxis	Cephalosporins
Scaling and Root Planing	Cloxacillin
Extraction	Metformin
Dental X-rays with Lead Shielding	Penicillin
Local Anesthetic with Epinephrine	Acetaminophen
Root Canal	Acetaminophen with Codeine, Hydrocodone, or Oxycodone
Restorations / Fillings	

Patient may NOT have: (Specify) _____

REFERRING PRENATAL PROVIDER

Name: _____, Signature: _____

Date: _____, Phone # _____

Unit: _____, FAX # _____

SECTION B: DENTAL PROVIDER TO COMPLETE (RETURN TO PRENATAL PROVIDER)

Diagnosis: _____

Treatment Plan: _____

DENTAL PROVIDER

Name: _____, Signature: _____

Date: _____, Phone # _____

Unit: _____, FAX # _____

©2016 Health Care is licensed by Maryland for program services in pregnancy. To find a dentist who accepts Medicaid, visit: dental.mhhs.maryland.gov. Permission is given to print this form, which can be found at: dental.mhhs.maryland.gov.

The Health of Your Mouth Is Important During Pregnancy

This poster for pregnant women includes information about how the health of a pregnant woman's mouth can affect her infant's health, the safety of getting oral health care during pregnancy, and the importance of making a dental appointment early in pregnancy. Information about public dental coverage during pregnancy in Maryland is also included. [Funded by the Maternal and Child Health Bureau] The poster was produced by the Maryland Department of Health.



New Mexico

Healthy Care for the Mouth of Expectant Mothers and Babies

This flipbook for health educators provides information to share with pregnant women and new parents about improving oral health during pregnancy and infancy. The flipbook is divided into two sections: (1) healthy mouths for pregnant women and (2) healthy mouths for infants. Each section includes tips for keeping the mouth healthy, information about what causes oral problems, and tips for preventing these problems. [Funded by the Maternal and Child Health Bureau] The flipbook was produced by the University of New Mexico Center for Development and Disability, University of New Mexico College of Nursing.

Online Course: Improving the Oral Health of Pregnant Women, Children, and Families

This course for community health workers includes six modules about improving the oral health of pregnant women, children, and families: (1) oral health essentials, (2) oral health screening, (3) oral health during pregnancy, (4) oral health knowledge and skills for

infants and young children, (5) planning and making changes for good family oral health, and (6) advocacy for oral health for mothers and infants. The course has been approved for continuing education units and medical education units for community health workers and representatives by the New Mexico Department of Health. [Funded by the Maternal and Child Health Bureau] The course was produced by the University of New Mexico Center for Development and Disability.

Rhode Island

Family Visiting and Oral Health

This presentation about family home visiting and oral health in Rhode Island provides an overview of the federally funded PIOHQI project, the goal of which was to reduce the prevalence of oral disease in pregnant women and infants through improved access to high-quality oral health care. The presentation also provides statistical data about family home visiting in Rhode Island, an overview of oral health, an oral hygiene demonstration, and information on setting oral health goals. [Funded by the Maternal and Child Health Bureau] The presentation was produced by the Rhode Island Department of Health.

Texas

Oral Health and Dental Services for Pregnant Women

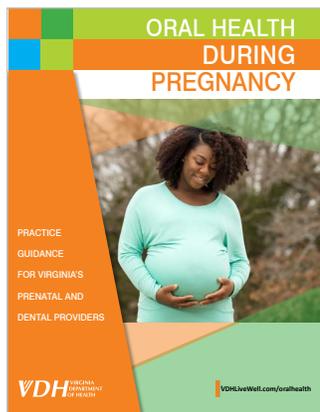
This training is designed to help health workers teach pregnant women about the importance of oral health and the safety of receiving oral health care during pregnancy and to provide pregnant women with resources to enable them to find affordable oral health care. For each topic, suggestions about how to communicate effectively with pregnant women and case examples are included. [Funded by the Maternal and Child Health Bureau] The training was produced by Texas Health and Human Services, Texas Health Steps.

Virginia

Oral Health During Pregnancy: Practice Guidance for Virginia's Prenatal and Dental Providers

This document presents practice guidance for oral health professionals and prenatal care professionals in Virginia. It provides information about the oral health of pregnant women and their infants in the state, state statistics on oral health care utilization during pregnancy,

clinical practice guidance, a visual guide of oral conditions that can occur during pregnancy, a pharmacological considerations chart, a sample dental referral form, and educational resources to share with pregnant women. [Funded by the Maternal and Child Health Bureau] The document was produced by the Virginia Department of Health, Dental Health Program.



Wisconsin

Educational Curriculum on Perinatal and Infant Oral Health Care: Current Standards of Care for Dental and Dental Hygiene Students

This curriculum for dental and dental hygiene students provides information on perinatal and infant oral health care. The modules cover oral health during pregnancy, infant oral health, the age 1 dental visit, and how to be a lifelong learner. The modules are designed to be integrated into a dental hygiene program curriculum. [Funded by the Maternal and Child Health Bureau] The curriculum was produced by the Children's Health Alliance of Wisconsin.

Healthy Smiles for Mom and Baby: Implementation Guide

This guide describes an approach to increase pregnant women's and infants' utilization of oral health services by implementing two models for obtaining oral health care: (1) maintaining a closed referral system and (2) integrating preventive oral health services into WIC clinic services. The guide also highlights education activities for health professionals and social services professionals who provide care to pregnant women and parents with infants. [Funded by the Maternal and Child Health Bureau] The guide was produced by the Children's Health Alliance of Wisconsin.

Healthy Smiles for Mom and Baby: Oral Health Online Training Guide

This guide provides information about Healthy Smiles for Mom and Baby Oral Health Training, a course for professionals in Wisconsin working with pregnant women, infants, and toddlers that combines oral health information with conversation techniques for discussing oral health with families. The training consists of four modules: (1) oral health conversations, (2) oral health for infants and toddlers, (3) oral health for pregnant women, and (4) oral health goal setting with families. Each module includes reflection activities and videos that demonstrate how to guide an oral health discussion with families. The guide also explains how to register for the course. [Funded by the Maternal and Child Health Bureau] The guide was produced by the Children's Health Alliance of Wisconsin.



Oral Health Guide for Families

This guide for pregnant women and families provides information about oral health for women during and after pregnancy as well as for infants and young children. Topics include oral diseases, keeping teeth healthy, healthy eating for two, the safety of oral health care for pregnant women, the importance of primary teeth, the causes of tooth decay and how to prevent it, caring for an infant's mouth, and the first dental visit. The guide is available in English and in Spanish. [Funded by the Maternal and Child Health Bureau] The guide was produced by the Children's Health Alliance of Wisconsin.



Journal Articles

Below is a summary of articles focusing on issues related to oral health during pregnancy that have been recently published in peer-reviewed journals.

Alexander DC, Geisinger ML, Shenoy S, Dragan IF. 2018. [Collaborating with the perinatal team for optimal oral health before, during, and after a healthy pregnancy](#). *Compendium of Continuing Education in Dentistry* 39(10):678–684.

This article provides information about fostering collaboration between perinatal health professionals and oral health professionals and describes the roles of health professionals in caring for women during the perinatal period. Topics include recommendations for oral health care during pregnancy, interprofessional collaboration, oral cavity changes during pregnancy, the relationship between periodontal inflammation and preterm birth and delivery, commonly undiagnosed neonatal oral conditions, and medical and dental home concepts.

Byrd MG, Quinonez RB, Rozier RG, Phillips C, Meghan M, Martinez L, Divaris K. 2018. [Prenatal oral health counseling by primary care physicians: Results of a national survey](#). *Maternal and Child Health Journal* 22(7):1033–1041.

This article describes a study conducted to investigate characteristics of primary care physicians who provide oral health counseling to pregnant women. The study relied upon data from the 2013 Survey of Primary Care Physicians on Oral Health. The authors conclude that a considerable proportion of primary care physicians counsel pregnant woman on oral health. Provider attributes, including education and preparedness, appear as promising targets for interventions aimed to enhance pregnant women's oral health.

Dragan IF, Veglia V, Geisinger ML, Alexander DC. 2018. [Dental care as a safe and essential part of a healthy pregnancy](#). *Compendium of Continuing Education in Dentistry* 36(2):86–91.

This article presents guidelines for oral health care during pregnancy, physiological changes that occur during pregnancy and their relevance to oral health and oral health care delivery, risk factors for oral conditions during pregnancy, and preventive strategies.



It also discusses the benefits of collaboration between perinatal health professionals and oral health professionals to optimize the quality of health care to help ensure good oral health for women and their children.

George A, Sousa MS, Kong AC, Blinkhorn A, Norrie TP, Foster J, Dahlen HG, Ajwan S, Johnson M. 2019. [Effectiveness of preventive dental programs offered to mothers by non-dental professionals to control early childhood dental caries: A review](#). *BMC Oral Health* 19(1):172.

This article reviews the effectiveness of maternal oral health programs undertaken by health professionals to reduce dental caries during the prenatal and/or postnatal periods. Interventions showed meaningful improvements in mother's behavioral and children's clinical oral health outcomes. The outcomes appear to be sustained when a suite of interventions, along with referral reminders, was used.

Geisinger ML, Alexander DC, Dragan IF, Mitchell SC. 2019. [Dental team's role in maternal and child oral health during and after pregnancy](#). *Compendium of Continuing Education in Dentistry* 40(2):90–96.

This article discusses the role of the dental team in ensuring that women during the perinatal period and their children have the best possible oral health. The article discusses the importance of establishing good health habits during the perinatal period and how the dental team can help. Topics include early childhood caries as a public health crisis, oral health for new mothers, oral health care during infancy, and the age 1 dental visit.

Hoerler SB, Jenkins S, Assad D. 2018. [Evaluating oral health in pregnant women: Knowledge, attitudes and practices of health professionals](#). *Journal of Dental Hygiene* 93(1):16–22.

This article describes a study conducted to assess prenatal care health professionals' levels of knowledge about oral health and its effect on pregnancy outcomes, examine their practices in evaluating oral health, and determine their attitudes toward a multidisciplinary approach to providing comprehensive prenatal care.

Horowitz AM, Child W, Maybury C. 2019. [Obstetric providers' role in prenatal oral health counseling and referral](#). *American Journal of Health Behavior* 43(6):1162–1170.

This article describes what obstetric (OB) residents and certified nurse-midwives (CNMs) in Maryland know about oral health, what oral health topics they discuss with pregnant women, how often they refer pregnant women to dentists, and their perspectives on barriers to obtaining oral health care during the prenatal period. The authors conclude that OB residents and CNMs need improved oral health literacy, training, oral health educational materials for patients, and a list of oral health professionals who accept their patients' insurance.

Iida H. 2017. [Oral health interventions during pregnancy](#). *Dental Clinics of North America* 61(3):467–481.

This article focuses on interventions to help improve the oral health of women during the perinatal period as well as that of their children. The article provides information about caries management and control, periodontal health management, interprofessional collaborative training and practice, and oral health





financing systems. Key points are included, along with a table listing practice guidelines and policy statements on oral health care during pregnancy and a table listing prenatal oral health infrastructure by state.

Mayberry ME, Norrix E, Farrell C. 2017. [MDA dentists and pregnant patients: A survey of attitudes and practice](#). *Journal of the Michigan Dental Association* 99(1):54–62, 83.

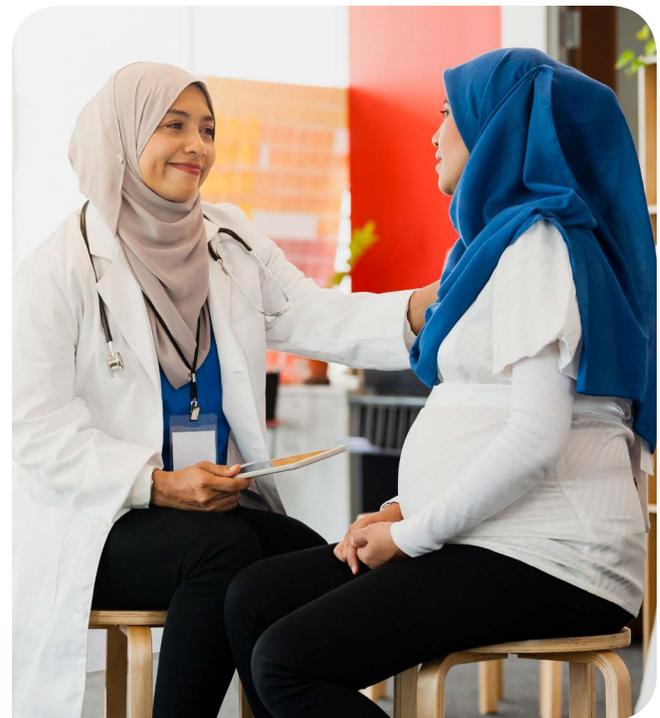
This article describes a survey conducted to assess the attitudes and practices of dentists in the Michigan Dental Association (MDA) related to the oral health of pregnant women and oral health treatment for this population. There were 347 respondents, a response rate of 7.72 percent. Ninety-one percent of respondents strongly agreed that oral health care is an important part of prenatal care, but only 37 percent indicated that they provided restorative procedures and periodontal scaling and root planing procedures throughout pregnancy.

Maybury C, Horowitz AM, La Touche-Howard S, Child W, Battanni K, Qi Wang M. 2019. [Oral health literacy and dental care among low-income pregnant women](#). *American Journal of Health Behavior* 43(3):556–568.

This article discusses the impact of oral health literacy (OHL) on utilization of oral health during the prenatal period and on knowledge, understanding, and practices related to preventing tooth decay among pregnant women with low incomes in Maryland. The authors found that when women with low incomes have access to oral health care while pregnant and visit an oral health professional, they are likely to receive information about practices to promote oral health in themselves and their children, which can increase their OHL.

Muralidharan C, Merrill R. 2019. [Dental care during pregnancy based on the risk assessment monitoring system in Utah](#). *BMC Oral Health* 19(1):237.

This article discusses oral health care received during pregnancy and factors associated with receiving such care for a group of pregnant women in Utah. The authors found that understanding the importance of receiving oral health care during pregnancy, having received counseling from a health professional about how to care for teeth and gums, and having dental insurance during pregnancy were positively associated with receipt of oral health care during pregnancy.



Vilella KD, Fraiz FC, Benelli EM, Assunção LR. 2017. [Oral health literacy and retention of health information among pregnant women: A randomised controlled trial.](#) *Oral Health Preventive Dentistry* 15(1):41–48.

This article describes a study that evaluated the effect of oral health literacy (OHL) on pregnant women's retention of information related to nutrition and oral hygiene for children under age 2. Pregnant women were randomly assigned to a standard oral (spoken) or written intervention or a control group. The authors found that participants with low oral health literacy had a lower knowledge score than those with higher OHL. Participants with low OHL showed higher acquisition and retention of information if they were in the spoken intervention vs. the written intervention or control group.



Cite as

National Maternal and Child Oral Health Resource Center. 2019. *Promoting Oral Health During Pregnancy: Update on Activities—December 2019*. Washington, DC: National Maternal and Child Oral Health Resource Center.

Promoting Oral Health During Pregnancy: Update on Activities—December 2019 © by National Maternal and Child Oral Health Resource Center, Georgetown University

This publication was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an annual award totaling \$1,000,000 with no funding from nongovernmental sources. This information or content and conclusions are those of the author(s) and should not be construed as the official policy of HRSA, HHS, or the U.S. government, nor should any endorsements be inferred.

Permission is given to save and print this publication and to forward it, in its entirety, to others. Requests for permission to use all or part of the information contained in this publication in other ways should be sent to the address below.

National Maternal and Child Oral Health Resource Center
Georgetown University
Box 571272
Washington, DC 20057-1272
(202) 784-9771
E-mail: OHRInfo@georgetown.edu
Website: <http://www.mchoralhealth.org>



National Maternal and Child Oral Health Resource Center