During Pregnancy, the Mouth Matters:

A Guide to Michigan Perinatal Oral Heath

MDHHS
Michigan Department of Health & Human Services
RICK SNYDER, GOVERNOR | NICK LYON, DIRECTOR

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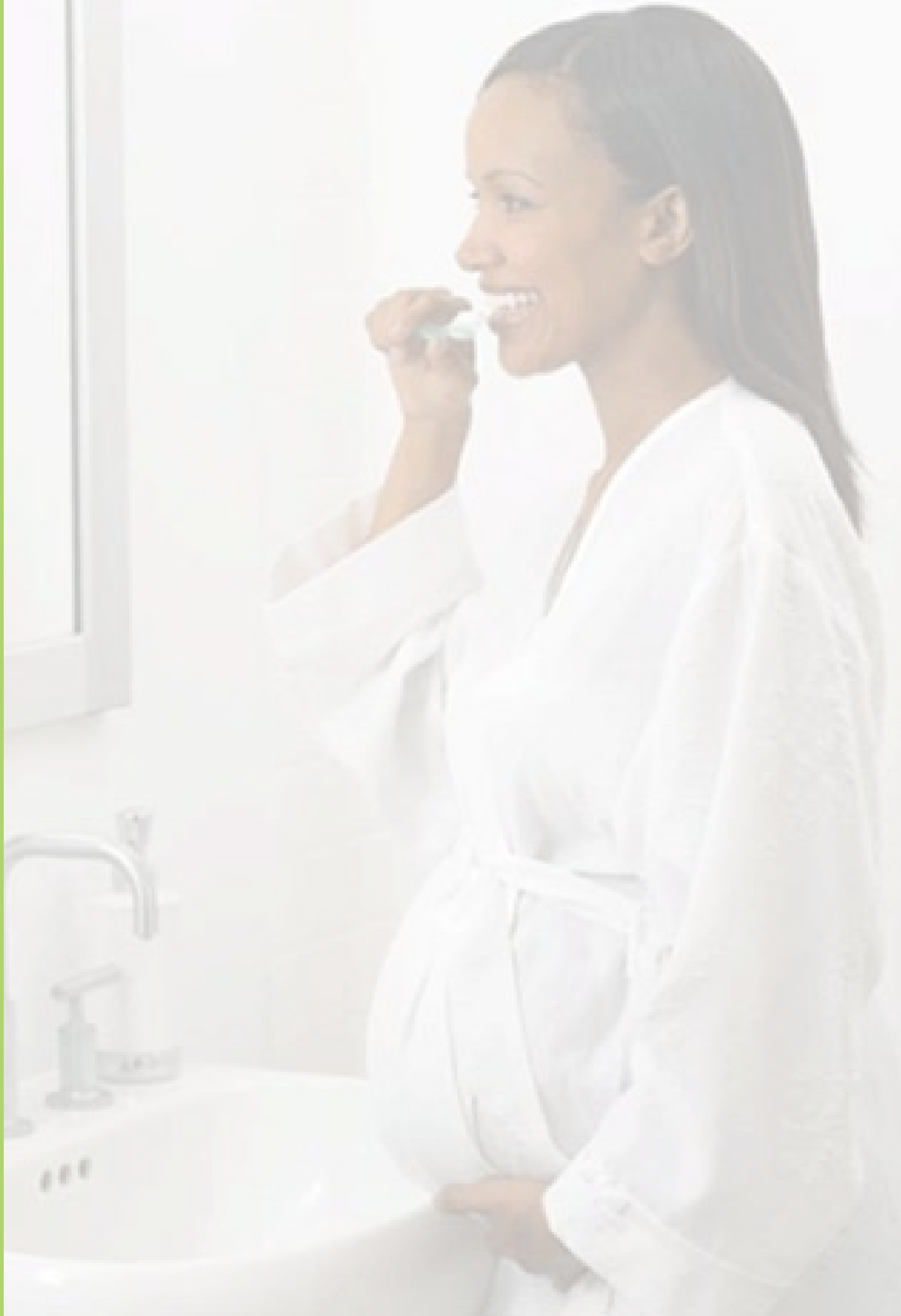

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STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

RICK SNYDER
GOVERNOR

NICK LYON
DIRECTOR

Dear Colleagues,

Evidence indicates that oral health is a critical component of a healthy pregnancy. Yet in Michigan, more than 41 percent of pregnant women are unable to receive the dental care they need during one of the most critical times of their lives. In response, the Michigan Department of Health and Human Services developed the multifaceted Perinatal Oral Health Initiative which aims to improve the oral health of pregnant women and infants across the State of Michigan. As part of those efforts, I am pleased to present to you "During Pregnancy, the Mouth Matters: A Guide to Perinatal Oral Health".

This guide includes information on infant mortality and perinatal oral health in Michigan, guidance for medical and dental professionals, a visual guide for common oral health conditions, and referral resources to assist in facilitating timely and important oral health care for pregnant women. At the end of the document are tear-out forms that can be used to assist you and facilitate appropriate oral health care for your patients.

The Michigan Department of Health and Human Services, medical and dental professionals, health care entities, professional associations, and advocacy organizations from across the state dedicated their time and expertise in the creation of this document. We are grateful to these stakeholders for their passion and commitment to this critical and complex issue. We eagerly anticipate your involvement as we move forward with this initiative and work together to ensure that a comprehensive perinatal system of care includes oral health.

Sincerely,

Nick Lyon

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Oral Health Consensus Statement

Pregnancy represents a unique period in a woman's life that may lead to an increased motivation to adopt healthy behaviors and receive care. As such, it is imperative that medical and dental professionals work in partnership to ensure that pregnant women receive timely and appropriate oral health care and dental treatment for the benefit of not only themselves, but their families as well. Pregnancy is a critical time to ensure needed dental treatment.

Acknowledgements

We have had the distinct pleasure of working with experts from national entities as well as Michigan medical and dental communities, universities, advocacy agencies, and coalitions to identify strategies to address the critical and complex issues surrounding perinatal oral health. These guidelines were developed with the input and guidance of the Michigan medical and dental community and numerous stakeholders throughout the state. Special acknowledgement goes to these individuals, members of the Perinatal Oral Health Advisory Committee and taskforces, as well as staff from the Michigan Department of Health and Human Services for sharing their knowledge and experience to assist in the creation of this important document. We appreciate the time, commitment, and enthusiasm of all to develop this critical initiative.

Disclaimer:

This document was developed to provide recommendations to the medical and dental professional and is in no way is intended to be a substitute for, or intended as definitive medical advice.

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Beginnings of a State-Wide Perinatal Oral Health Initiative

The statistics are startling. Data indicates that of pregnant women in Michigan who needed dental care, nearly 42 percent were unable to receive services. In addition, over half of pregnant women did not receive oral health counseling during pregnancy[26].

Michigan has taken steps to address this troubling issue and in August of 2013, leaders and experts representing medical and dental health professionals, local, state and federal government agencies, advocacy groups, and academicians convened to discuss perinatal oral health and to create an action plan for the State of Michigan. Participants were bold in their vision for this action plan and spent two days discussing strategies that embodied a seamless collaboration between medical and dental providers, and focused on making perinatal oral care the standard of practice.

In response to this dialogue and the hard work of participants and facilitators, the Perinatal Oral Health Initiative was developed. This multilayered plan includes five interrelated taskforces dedicated to the treatment and promotion of perinatal oral health into the medical home model and is overseen by an advisory committee comprised of representatives from Michigan medical and dental communities.

Objectives of these taskforces include:

- Developing evidence based perinatal oral health guidelines.
- Integrating oral health into the health home for women and infants.
- Developing interdisciplinary professional education to improve perinatal oral health.
- Increasing public awareness of the importance of oral health into the overall health of pregnant women and infants.
- Ensuring a financing system to support perinatal oral health.

The Perinatal Oral Health Initiative is housed under the Michigan Infant Mortality Reduction Plan.

[1] "Perinatal" refers to the time beginning before conception and continuing through the first year of life.

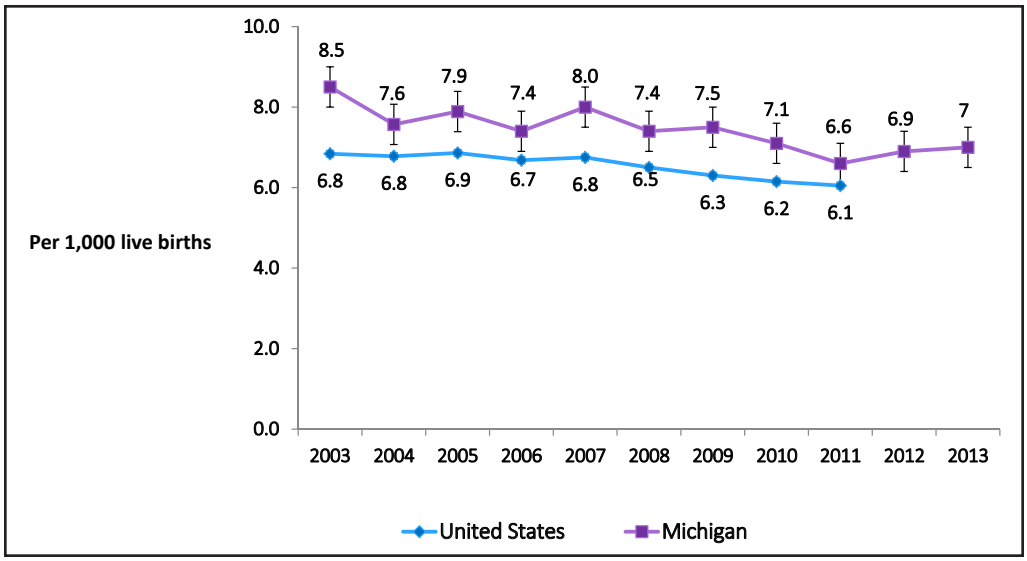
The Michigan Infant Mortality Reduction Plan

Michigan's focus on perinatal oral health is part of the ambitious Infant Mortality Reduction Plan, comprised of nine multifaceted strategies and proposed in 2011 to reduce Michigan's high infant mortality rates. The Perinatal Oral Health Initiative is housed under strategy seven: supporting a better health status of women and girls, with a specific focus on integrating oral health promotion and treatment into the medical home.

Infant Mortality Reduction Plan: Nine Multifaceted Goals and Strategies[19]	
1	Achieve health equity and eliminate racial and ethnic disparities by addressing the social determinants of health in all targeted infant mortality strategies
2	Implement a Perinatal Care System
3	Reduce Premature Births
4	Support increasing the number of infants who are born healthy and continue to thrive
5	Reduce sleep-related infant deaths and disparity
6	Expand home visiting and other support programs to promote healthy women and infants
7	Support better health status of women and girls
8	Promote behavioral health services and other programs to support vulnerable women and infants
9	Reduce unintended pregnancies

Although infant mortality declined substantially in Michigan during the 1990's, the rate has not significantly changed over the past decade and remains higher than the national average.

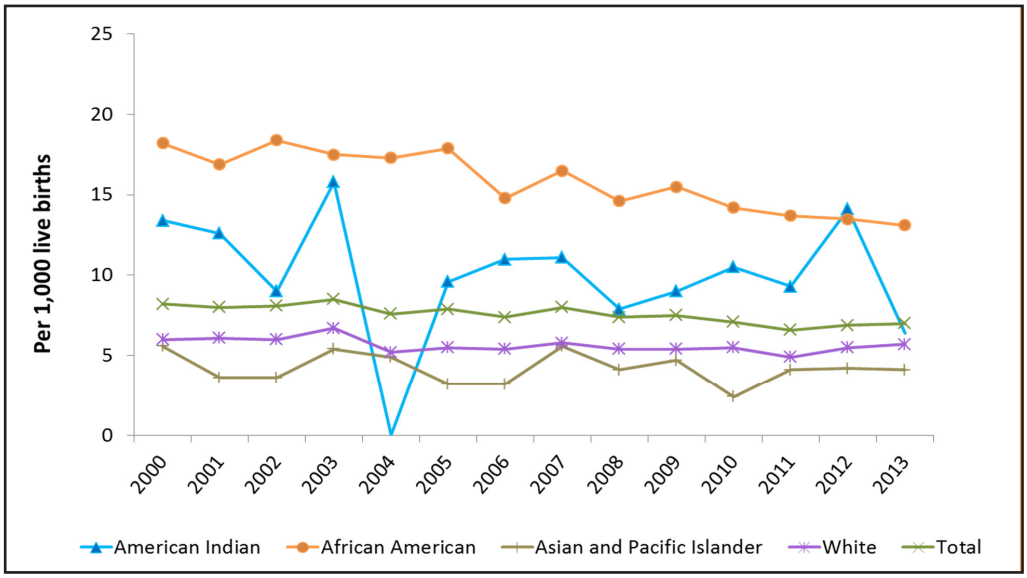
Michigan vs. U.S. Rates of Infant Mortality 2003-2013



Source: Centers for Disease Control and Prevention, National Center for Health Statistics MI Resident Live Birth and Death Files, Division for Vital Records and Health Statistics

In addition, the health disparities are staggering. Michigan data indicates that African American infants die at a rate between two and three times higher than that of their Caucasian counterparts.

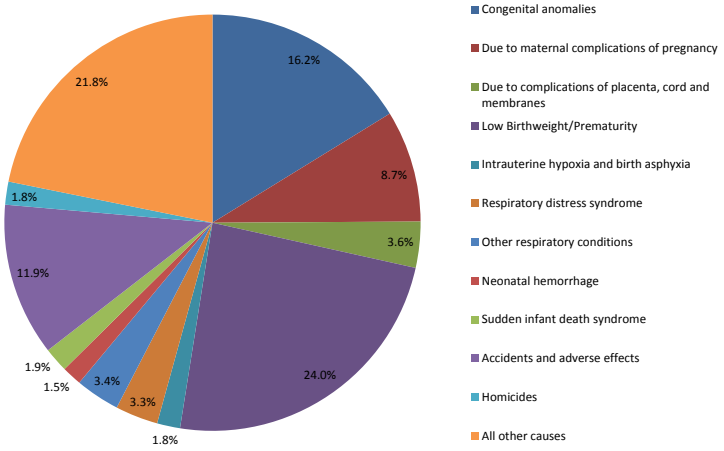
Trends of Infant Mortality by Race and Disparities, MI 1970-2013



Source: Centers for Disease Control and Prevention, National Center for Health Statistics MI Resident Live Birth and Death Files, Division for Vital Records and Health Statistics

Although the causes vary widely, low birth weight and prematurity account for the majority (24 %) of infant mortality cases in Michigan.

Distribution of Infant Mortality by Cause, MI 2012



Source: Michigan Resident Birth and Death Files, MDCH Division for Vital Records & Health Statistics . Prepared by: MDCH MCH Epidemiology Section, 12/11/2014

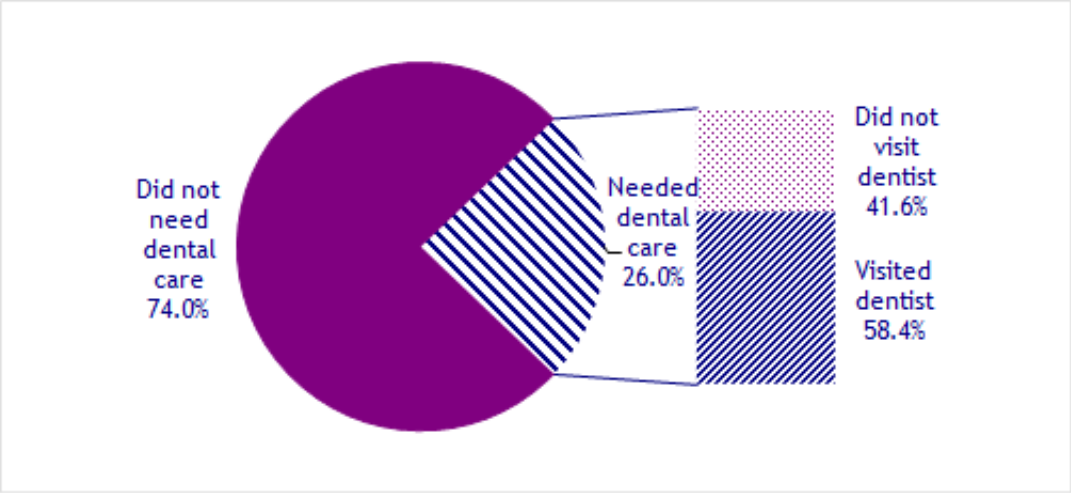
Source: Michigan Resident Birth and Death Files, MDCH Division for Vital Records & Health Statistics. Prepared by: MDCH MCH Epidemiology Section, 12/11/2014

National and Local Landscape

Oral health is undoubtedly an integral portion of a healthy pregnancy, national data suggests that over half of women do not visit the dentist while pregnant[3]. Additionally, only half of those who experience oral health problems receive appropriate and timely treatment.[3] Sadly, health disparities influence the likelihood of receiving care. There is a direct and proven relationship to income level, with the poorest women least likely to receive treatment. PRAMS (pregnancy risk assessment and monitoring) data from ten states also shows that Black and Hispanic women are less likely to receive dental care while pregnant when compared to white women.[3]

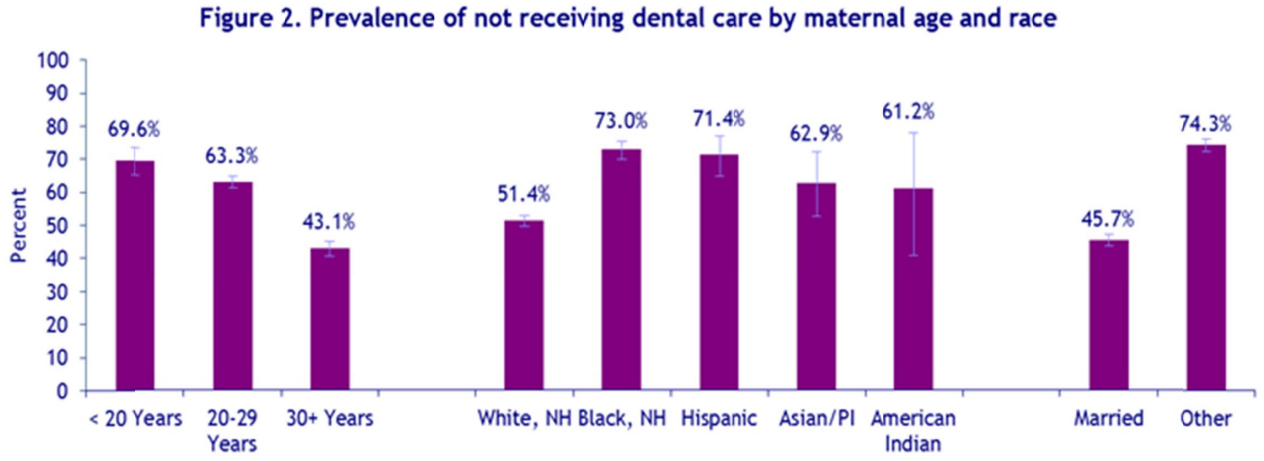
State level data collected by MI PRAMS indicates a similar situation within Michigan. PRAMS obtained data surrounding oral health needs by asking survey participants if they needed to see a dentist for a problem during pregnancy. Participants were also asked if they had their teeth cleaned during their pregnancy. Figure 1 (shown below) indicates that of the 26 percent of women who needed care, only 58.4 percent received that care, leaving 41.6 percent of women without needed dental treatment.[26]

Figure 1. Prevalence of dental care needed and dental care sought



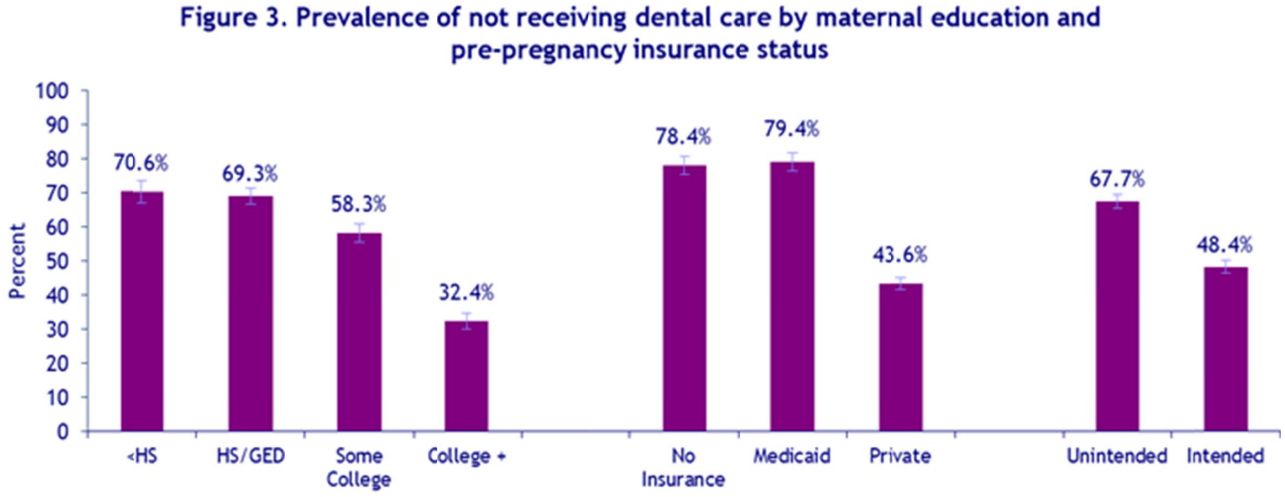
Michigan Department of Community Health (MDCH). Michigan Pregnancy Risk Assessment Monitoring System Data. Lansing, MI: MDCH, Lifecourse Epidemiology and Genomics Division, Maternal Child Health Epidemiology Section; [2015].

When accounting for maternal age and race, PRAMS indicated that women less than 30 years of age, as well as Black and Hispanic mothers were significantly more likely to have forgone care when compared with older women.[26]



Michigan Department of Community Health (MDCH). Michigan Pregnancy Risk Assessment Monitoring System Data. Lansing, MI: MDCH, Lifecourse Epidemiology and Genomics Division, Maternal Child Health Epidemiology Section; [2015].

In addition, as shown by figure 3 below; unmarried women were also significantly less likely to receive care. An examination of the prevalence of not receiving dental care by maternal education and pre- pregnancy insurance status, indicated that those with less than High school or GED were less likely to receive dental care as opposed to women with a college education. In addition, uninsured women, or women covered by Medicaid insurance were significantly less likely to receive care as opposed to women with private insurance.[26]



Michigan Department of Community Health (MDCH). Michigan Pregnancy Risk Assessment Monitoring System Data. Lansing, MI: MDCH, Lifecourse Epidemiology and Genomics Division, Maternal Child Health Epidemiology Section; [2015]

Further analysis by a logistic regression model indicates that even after controlling for other factors, maternal age, race, education and insurance stats are statistically significant predictors of receiving care during pregnancy. [26]

MI PRAMS data was also used to examine the association between a lack of dental care and poor birth outcomes.[26] These included whether the infant was admitted to the NCIU after birth, preterm labor, and low birth weight (classified as under 2,500 grams). Results indicate that even after controlling for confounding factors, neglecting oral health care

may significantly increase the risk of adverse birth outcomes. This analysis reveals that additional research is needed to further asses the importance of oral health care during pregnancy as well as the continued need to educate the public about the importance of dental care during pregnancy.[26] Of particular note is increasing research surrounding the transmission of cariogenic bacteria and of the linkage between periodontal disease and adverse outcomes.

Transmission of Cariogenic Bacteria

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Dental caries is an infectious disease mainly caused by Streptococcus mutans.[23, 7] Streptococcus mutans are indigenous bacteria emerging following the eruption of primary teeth.[18] Dental caries causes tooth decay that demineralizes or weakens the tooth structure. Teeth are made of three hard tissues: enamel, dentin, and cementum. Enamel being the hardest of the three. Caries can exist on all teeth and destroy all three surfaces. Untreated caries may lead to pain, infection, and loss of function. S. mutans is transmissible.[7] It is acquired from the mother or caregiver usually by two years of age.[23, 18] Colonization begins with the eruption of primary teeth.[7] However recent studies suggest that S. mutans colonize the mouths of pre-dentate infants.[7] Transmission can be both horizontal and vertical.[7] High levels of cariogenic bacteria in the mother or caregiver may lead to increased caries in the infant.[25] High maternal S. mutans may also contribute to low infant birth weight.[18] Tooth enamel defects induced by maternal nutritional deficiency during pregnancy are significantly associated with early colonization by S.mutans.[18] Pre-term infants are 4.4 times more likely to be colonized by S. mutans than are normal term babies.[18] The mode of delivery may also influence S. mutans transmission. C-section infants lend to accelerated acquisition of S. mutans 11.7 months earlier than vaginally delivered infants.[18]

Implications for Providers

Because early childhood caries is also a major public health problem affecting children and one of the major risk factors is the early acquisition of Streptococci mutans[6] from caregiver to child it is imperative that the importance of the mother's or care giver's oral health continue to be emphasized beyond the perinatal period. Early transmission of microbes is a significant risk factor for future caries experience.[1,13,14,16,24] Mothers with higher salivary levels of Streptococci mutans are more likely to infect their infants early in life,[8] and controlling these levels through preventive care for the mother has shown a reduction in the transmission.[5,17] Studies have shown that children who have acquired the cariogenic bacteria by age 2 have the most caries by age 4.[1,16] Data also shows infants delivered by cesarean section acquired the cariogenic bacteria nearly 12 months earlier than those delivered vaginally.[18] Therefore vaginal deliveries should be the choice of delivery when possible.

Perinatal Care Providers

- Educate the pregnant women about the importance of oral health as it relates to her health as well as her children.
- Encourage and assist pregnant women in seeking dental care during pregnancy especially if they have oral health problems.
- Provide and reinforce messages about achieving and maintaining good oral health.
- Educate the mother about good oral health practices for their infant that help in reducing the risk of caries. For more information see "Guidelines for Professionals" on pg. 15.

Dental Providers

- Dental care is safe and effective throughout the pregnancy.
- Reduce the levels of Streptococci mutans by treating active dental caries lesions and using agents such as fluorides, and chlorhexidine.
- Educate the mother or caregiver about behaviors that assist in the transmission of decay causing bacteria through salvia sharing. For more information see "Guidelines for Dental Professionals" on pg. 18.

Periodontal Disease and Adverse Pregnancy Outcomes

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During pregnancy, complex physiologic changes combined with alterations in eating patterns can lead to adverse changes in the oral cavity.[4] Periodontal disease is present in approximately 40% of all pregnant women.[2] In 1996, the first study was published that revealed a link between maternal periodontal disease and preterm birth.[21] Since that time, further studies have not confirmed a causal relationship but have continued to demonstrate an association with both preterm birth and fetal growth restriction. The theory behind the association stems from the understanding that periodontal disease is caused by anaerobic gram-negative bacteria. These bacteria are capable of producing inflammatory mediators such as cytokines, prostaglandins, interleukins, tumor necrosis factor, and endotoxins. These mediators are then transported systemically to the placenta, uterus and cervix.[2,4] This results in an increase in inflammatory modulators that may incite the above adverse outcomes.[15]

Over the past 10 years, studies have demonstrated conflicting results for the effect of treatment of periodontal disease and reducing adverse birth outcomes.[4] One reason for the lack of efficacy may be a delay in recognition and intervention for this condition. Despite there being no clear evidence that treatment of periodontal disease in pregnancy reduces preterm birth, all health care providers endorse this approach for several reasons. First, it is clear that periodontal treatment during pregnancy is not associated with any adverse birth or maternal outcomes. In addition, maternal oral health is improved with prenatal periodontal therapy.[20] Lastly, research has shown that reducing maternal oral levels of Streptococcus mutans by proper attention to oral health care reduces vertical transmission of this cariogenic bacteria to the newborn and future caries in that child.[2]

Resources for Referral in Michigan

Tools to Help Your Patients Locate a Provider

Help Finding Healthcare

The Michigan Department of Community Health website features multiple resources that assist in locating various Medical and Dental providers. Navigate to **Michigan.gov/MDCH**

www.findmicare.org

A Tool created by the Greater Detroit Area Health Alliance (GDAHC) and serves as a hub to find multiple health services in the Southeastern Michigan and Detroit area. A free app is also available to download to your mobile device.

www.insurekidsnow.gov

Health insurance information and a downloadable widget and tool to locate dentists for children

www.smilemichigan.com/Find-a-Dentist

A database from the Michigan Dental Association to assist in locating a dentist

www.findahealthcenter.hrsa.gov

A database to locate Community Health Centers in Michigan and nationwide

Additional Resources

Michigan Resources	
Delta Dental of Michigan – Healthy Kids Dental	http://www.deltadentalmi.com/Individuals/Special-Programs/Healthy-Kids-Dental.aspx
Maternal Infant Health Program (MIHP)	www.michigan.gov/mihp
Michigan Dental Association	www.Smilemichigan.com
Michigan Department of Health and Human Services	www.michigan.gov/oralhealth
Michigan Oral Health Coalition	www.mohc.org
Michigan Primary Care Association	www.mpca.net
Women, Infant, and Children (WIC)	www.michigan.gov/WIC
National Resources	
American Academy of Pediatric Dentistry	www.aapd.org
American College of Obstetrics and Gynecologists	www.ACOG.org
Association of State and Territorial Dental Directors	www.astdd.org
Children's Dental Health Project	www.cdhp.org
Maternal and Child Oral Health Resource Center	www.mchoralhealth.org
Smiles for Life	www.Smilesforlifeoralhealth.org

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Guidance for Perinatal Care Providers

Assess – Integrate basic oral health assessment as part of the first prenatal visit and as necessary throughout the perinatal period.[9,10,22]

- Conduct an oral health history and an oral exam to survey the mouth for issues such as untreated dental decay, lesions, infection, trauma, or swollen and bleeding gums. Document in the patient's record. (See reverse side for picture examples and pg. 17 for "Steps to an Oral Health Screening".)

Educate – Pregnancy is a teachable moment to change behavior that is associated with poor pregnancy outcomes. Education during this critical time is more effective. [3,9,10,11,22]

- Inform and reassure women that oral health care including but not limited to: radiographs (with thyroid and abdominal shielding), many pain medications, and local anesthesia is safe throughout pregnancy.
- Encourage women to seek consistent oral health care, change their toothbrush every trimester, practice appropriate oral hygiene and eat healthy foods.
- Explain the caries transmission process from mother to child and encourage women to practice habits (such as the "cleaning" of a pacifier or the sharing of utensils) that may reduce the risk of introducing cariogenic bacteria to their infant.[11,12]

Refer – Take steps to establish relationships with oral health professionals in your community, particularly Medicaid providers.

- If more than 6 months have passed since the last dental visit or oral health issues are noted during a visual exam, advise women to schedule a dental appointment immediately and refer if deemed necessary.[10,22]
- If urgent issues are identified, write and assist in the facilitation of a formal referral to an appropriate dentist. [10,22]

Common Oral Health Conditions during Pregnancy[3] (See page 16 for visual guide)	
Caries (Cavities)	Increased acidity in the mouth and the increase in sugary foods and beverages due to pregnancy cravings can result in an elevated risk of caries.
Pregnancy Gingivitis	An increased inflammatory response to plaque while pregnant can result in gingiva that swells and bleeds more easily and peaks during the 3rd trimester. Rinsing with saltwater (1 teaspoon in 1 cup of water) may help reduce irritation.[3,10]
Periodontitis	Untreated gingivitis can result in periodontitis (an inflammatory response in which plaque adheres to teeth and releases bacteria that results in destructive infection in the gums and bones.) This can result in loosening teeth, bone loss, and bacteremia.[3,10,22]
Gingival Lesions	Characterized by a highly vascularized and hyperplastic lesion up to 2 cm in diameter. These occur in approximately 5% of pregnancies.3 Excision is rare but may be indicated if pain or bleeding is prevalent or interference with mastication occurs.[3,10]
Tooth Erosion	Vomiting secondary to morning sickness, gastric reflux or hyperemesis gravidarum may lead to tooth erosion. Rinsing with 1 teaspoon of baking soda dissolved in a cup of water immediately following vomiting may help to neutralize acid.[3,10]

Visual Guide to Oral Health Conditions

Healthy teeth and gingival tissues

Photo courtesy of Dr. Francisco Plaza, Clinical Assistant Professor and Dr. Nahid Kashani, Clinical Associate Professor, University of Detroit Mercy School of Dentistry

Caries

Photo courtesy of Dr. Francisco Plaza, Clinical Assistant Professor and Dr. Nahid Kashani, Clinical Associate Professor, University of Detroit Mercy School of Dentistry

Hypomineralization

Photo courtesy of Dr. Francisco Plaza, Clinical Assistant Professor and Dr. Nahid Kashani, Clinical Associate Professor, University of Detroit Mercy School of Dentistry

Severe gingivitis, pyogenic granuloma, and plaque

Photo courtesy of Dr. Shin-Mey Rose Yin Geist, Associate Professor, University of Detroit Mercy School of Dentistry

Severe gingivitis

Photo courtesy of Dr. Francisco Plaza, Clinical Assistant Professor and Dr. Nahid Kashani, Clinical Associate Professor, University of Detroit Mercy School of Dentistry

Abcessed tooth

Photo courtesy of Dr. Francisco Plaza, Clinical Assistant Professor and Dr. Nahid Kashani, Clinical Associate Professor, University of Detroit Mercy School of Dentistry

Pregnancy Oral Health Screenings: A Guide for Perinatal Care Professionals

Steps to a Basic Oral Health Screening

While wearing gloves, using an adequate light source, and utilizing a tongue depressor or disposable mouth mirror:

- ☐ Check all teeth for visible decay areas or broken teeth
- ☐ Check gum tissues for redness, swelling, bumps and plaque or food buildup
- ☐ Check the cheek, tongue, the floor of the mouth and palatal tissues for irregularities
- ☐ Look down the throat for abnormalities

During the first visit and as necessary throughout pregnancy:

- Advise pregnant women that oral health care is safe during pregnancy and that a healthy mouth is a crucial component of a healthy pregnancy.
  - *Explain the caries transmission process and inquire about the oral health status of primary caregivers*
- Ask the patient: when did you last see the dentist and did they discover any issues?
  - *Facilitate a dental referral if necessary.*
- Do you have swollen or bleeding gums, a toothache, problems eating or chewing food, or other problems in your mouth?
  - *Facilitate a dental referral if necessary.*
- Since becoming pregnant, have you been vomiting? If so, how often?
  - *Advise the patient that after vomiting, it is best to rinse with water and a baking soda solution instead of immediately brushing your teeth.*
- Do you use products with fluoride or drink fluoridated water?
  - *Recommend fluoridated water and dental products to help reduce the incidence of decay.*
- How often do you brush and floss?
  - *Emphasize brushing and flossing twice a day and changing a toothbrush every trimester*

During the last post-partum visit:

- Re-emphasize the importance of continued appropriate and timely oral health care for the mother and her entire family.
  - *Facilitate a dental referral if necessary.*
- Advise mothers to swab the inside of their babies mouth with a soft cloth or gauze after every feeding
- Stress the importance of the first dental visit at eruption of the first tooth or at age one.

Guidance for Dental Professionals

Accept: Oral health professionals should provide all needed dental services to the pregnant patient.

- The evidence-based standard of care indicates that pregnancy is NOT a valid reason to delay routine dental care or treatment of oral health conditions.[10]
- Although prenatal care providers may refer patients to facilitate dental treatment, it is not necessary to have approval from the prenatal care provider for routine dental care of a healthy patient. [10]

Assess: Conduct an oral health history with special considerations for the pregnant patient. Pregnancy related questions may include but not be limited to:

- How many weeks pregnant are you, and when is your due date?
- Since becoming pregnant, have you been vomiting? If so, how often?
- Are you receiving prenatal care? If so, where? If not, do you need assistance obtaining a provider?
- Do you have any questions or concerns about receiving dental care while pregnant? [10,22]

The physiological changes that occur in the mouth during pregnancy as well as lifestyle changes may lead to an increased risk for some dental conditions. These include, but are not limited to:

- Pregnancy gingivitis and increased risk of periodontitis [3, 10,11]
- Benign gingival lesions (i.e. pyogenic granuloma, granuloma gravidarum or epulis of pregnancy) [3,10]
- Increased risk of caries, tooth mobility, and tooth erosion [3,10,11]

Utilize standard precautions, including but not limited to:	
Adjusted seating position	Place pregnant women in a semi-reclining position as tolerated, encourage frequent position changes, and/or place a small pillow under her hip to help prevent Postural Hypotensive Syndrome. [10,22]
Pharmaceutical Recommendations	Certain medications may not be appropriate for the pregnant patient. See "Pharmaceutical Recommendations" on pg. 20 for additional guidance.

Educate – Pregnancy is a critical and opportune time to advocate for appropriate oral health habits, as women may be more likely to be motivated to make these changes. [3, 10]

- Assure women that dental care (including radiographs, local anesthesia, and many pain medications) is safe throughout pregnancy. [9,10,11,22]
- Encourage women to maintain a healthy diet, practice good oral health, change their toothbrush every trimester and obtain appropriate and timely oral health care.

Collaborate – Take steps to establish relationships with prenatal health professionals in your community, particularly Medicaid providers.

- Maintain open communication with health professionals and consult as necessary when considering co-morbid conditions, the use of nitrous oxide, intravenous sedation, or general anesthesia [10,22]

Oral Health Referral Form for Pregnant Women*	Referred by: Phone Number: Fax Number:	Patient Name: DOB: Phone Number:

☐**This patient is cleared for routine evaluation and dental care, which may include but is not limited to:**

- Dental X-rays as needed for diagnosis (with abdominal and neck lead shield)
- Oral health examination
- Scaling and root planing
- Restoration of untreated caries
- Root Canal
- Extraction
- Standard local anesthetic (lidocaine with or without epinephrine)

****See reverse side for additional pharmaceutical recommendations****

Provider Signature: _____ Date:_____

Referred to: _____

Reason for referral: ☐Routine ☐ Bleeding gums ☐Pain ☐Other: _____

Week's gestation (at time of referral) _____Estimated delivery date: _____ Primary language spoken: _____

Known Allergies: NONE ☐ YES☐ (Drug(s)/Reactions):_____

_____

Significant Medical Conditions: NONE ☐ YES☐:_____

_____

Current Medications: ☐NONE ☐Prenatal Vitamins ☐Iron ☐Calcium ☐OTHERS (Attach List)

_____

_____

Additional Precautions: ☐NONE ☐YES (please list additional comments or instructions)

_____

_____

Dental Provider: Please fax information back to prenatal care provider (number above) after initial visit.

Exam date:_____ ☐ Normal Exam/Recall ☐Missed Appt.

Additional visits needed for ☐Caries ☐Periodontitis ☐Referral for Oral surgery ☐Other_____

Comments:

Dentist Signature: _____ Date: _____

Phone:

**Adapted with permission from "Oral Health During Pregnancy and Early Childhood: Evidence -Based Guidelines for Health Professionals. California Dental Association. 2010."*

Pharmacological Considerations for Pregnant Women

The pharmacological agents listed below are to be used only for indicated medical conditions and with appropriate supervision.

Pharmaceutical Agent	Indications, Contraindications, and Special Considerations
Analgesics	
Acetaminophen	May be used during pregnancy.
Acetaminophen with Codeine, Hydrocodone, or Oxycodone	
Codeine	
Meperidine	
Morphine	
Aspirin	May be used in short duration during pregnancy; 48 to 72 hours. Avoid in 1st and 3rd trimesters.
Ibuprofen	
Naproxen	
Antibiotics	
Amoxicillin	May be used during pregnancy.
Cephalosporins	
Clindamycin	
Metronidazole	
Penicillin	
Ciprofloxacin	Avoid during pregnancy.
Clarithromycin	
Levofloxacin	
Moxifloxacin	
Tetracycline	Never use during pregnancy.
Anesthetics	Consult with a prenatal care health professional prior to using intravenous sedation or general anesthesia.
Local anesthetics with epinephrine (e.g., Bupivacaine, Lidocaine, Mepivacaine)	May be used during pregnancy.
Nitrous oxide (30%)	May be used during pregnancy when topical or local anesthetics are inadequate. Pregnant women require lower levels of nitrous oxide to achieve sedation; consult with prenatal care health professional.
Antimicrobials	Use alcohol-free products during pregnancy.
Cetylpyridinium chloride mouth rinse	May be used during pregnancy.
Chlorhexidine mouth rinse	
Xylitol	

Source: Reproduced, with permission, from Oral Health Care During Pregnancy Expert Workgroup. 2012. *Oral Health Care During Pregnancy: A National Consensus Statement*. Washington, DC: National Maternal and Child Oral Health Resource Center.

Notes

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