

# Acknowledgements

Improving the health outcomes of maternal and infant populations is a critical priority in Missouri. The Missouri Perinatal Quality Collaborative serves as a statewide convener, resource, and change agent to support decreased variations in care and outcomes, support optimized use of evidence-based practice, and support clinical-community integration — all noted gaps in achieving equitable and improved health.

These efforts would not be possible without the collective vision and collaboration of the Missouri Department of Health and Senior Services, Missouri Hospital Association, and members of the Missouri Maternal-Child Learning and Action Network. MC LAN members represent a diverse group of stakeholders from clinical backgrounds, professional associations, government agencies, community-based organizations and community representatives who have committed support to reducing maternal morbidity and mortality in Missouri, including the March of Dimes, Missouri Section of the American College of Obstetricians and Gynecologists, Missouri Chapter of the American Academy of Pediatrics, Missouri Primary Care Association, Missouri DHSS, Missouri Department of Social Services MO HealthNet Division, Missouri Foundation for Health, Missouri Chapter of the Association of Women's Health, Obstetric and Neonatal Nurses, Nurse Practitioners in Women's Health Association, Missouri Chapter of the Amniotic Fluid Embolism Foundation, Generate Health, St. Louis Integrated Health Network, Bootheel Perinatal Network, Healthy Blue MO, Home State Health, United Healthcare, Nurture KC, Promise 1000, M-Brace Birthing, SafiMoms365, the Doula Foundation and Simply Strategy. These partners successfully aligned efforts to bring Alliance for Innovation on Maternal Health initiatives to Missouri in 2019 and connect directly to the Missouri Pregnancy-Associated Mortality Review Board, which identifies leading causes of morbidity and mortality.

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## The Evidence

Oral health is essential to overall health, especially during pregnancy. Maintaining oral health during pregnancy is key for both maternal and child health and promotes lasting positive outcomes for families. This section contains information on key recommendations and guidance for maintaining oral health during pregnancy.

ACOG recommends assessing a birthing person's oral health at the first prenatal visit. Providers should support the birthing person in maintaining regular dental checkups, ideally every six months, and affirm that dental procedures including X-rays (abdomen and thyroid shielding) and use of local anesthesia are safe during pregnancy.<sup>2</sup> The following oral health practices should be emphasized.

- » brush teeth for two minutes, twice daily, using toothpaste containing fluoride
- » floss daily
- » dental appointments twice a year
- » use chlorhexidine and fluoridated mouthwash to reduce bacteria
- » chew gum with xylitol to reduce bacteria
- » rinse mouth with one teaspoon of baking soda mixed into one cup of water after vomiting to help neutralize acid<sup>2,3</sup>

Some additional recommendations include the following.

- » drink fluoridated water
- » limit sugar intake
- » eat nutritious foods
- » do not use tobacco4

Associations are noted between periodontitis and preterm birth, infants with low birth weights and preeclampsia. Though more studies are needed to better understand the link between periodontitis and adverse outcomes, it is important to encourage birthing people to engage in the above oral health practices and receive recommended dental treatment.<sup>3</sup> More information, including resources for birthing people, is included in the Resources section of this document.

A 2024 expert panel review, formed by the American Dental Association Council on Scientific Affairs, concluded that abdominal and thyroid shielding is not needed for dental X-rays and recommends that customary use of abdominal and thyroid shielding be discontinued for all patients. Shielding use can block the X-ray beam, impeding capture of the needed view and possibly leading to added scans. Pregnant dental personnel performing dental X-rays should continue to utilize barriers, shielding, and personal dosimeters, and reduce exposure. To decrease patients' exposure to excessive radiation, dental personnel should:

- » perform a thorough exam prior to obtaining X-rays
- » make every attempt to get prior dental images
- » order imaging only to aid in diagnosis and improve patient treatment; do not use for screening
- » utilize digital imaging film
- » limit beam size to only the needed area of assessment
- » perform correct patient positions during imaging
- » order cone-beam computed tomography only in cases where the digital images do not yield essential information for diagnosis
- » follow federal, state and local radiation safety guidelines<sup>5,6</sup>

See the Resources Regarding Dental Radiography in the Resources section of this document for more detailed information and FAQs that specifically address pregnant people.

## Missouri's Call to Action

The Missouri PAMR Board reviews all deaths of birthing people while pregnant or within one year of the end of the pregnancy. Pregnancy-associated death is the overarching term used when referring to maternal deaths. Within this broad categorization are more specific terms to describe the cause of death, including pregnancy-related death, pregnancy-associated, but not related death (PANR) and pregnancy-associated, but unable to determine relatedness. See definitions below.

**Pregnancy-related death**: Death occurring during or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy.<sup>7</sup>

**PANR**: Death during or within one year of pregnancy from a cause that is not related to pregnancy.<sup>7</sup> (e.g., pregnant person who dies in a natural disaster)

**Pregnancy-associated, but unable to determine relatedness**: Cases when the board was unable to determine if a death was pregnancy-related or PANR.<sup>7</sup>

**Maternal morbidity**: Any health condition attributed to and/or aggravated by pregnancy and childbirth that negatively impacts women's health short-term or long-term. (Updated June 2024).<sup>7</sup>

Maternal mortality: The World Health Organization defines a maternal death as "a death while pregnant or within 42 days of the end of the pregnancy from any cause related to or aggravated by pregnancy or its management, but not from accidental or incidental causes." In Missouri, the term maternal mortality is used to describe the death of a person during pregnancy, childbirth and postpartum period up to 365 days from the end of a pregnancy. (Updated June 2024).<sup>7</sup>

The 2023 March of Dimes report showed the preterm birth rate is 11.3% in Missouri, compared to 10.5% in the U.S.9 Forty-seven percent of those who died from pregnancy-related causes and 54% of those who died from pregnancy-associated causes used tobacco either currently or in the past. The leading underlying cause of pregnancy-related deaths was cardiovascular disease. The ratio of PANR deaths for birthing people with Medicaid insurance coverage was greater than seven times that of those with private insurance. Though no direct causal link has been found, we do know that focusing upstream to address care access and positive health behaviors, like oral health, could help improve overall health and outcomes.

The Missouri Oral Health State Snapshot for 2020 showed 43.4% of pregnant people who were eligible for Medicaid insurance coverage received preventive dental services. <sup>10</sup> Missouri Medicaid insurance does cover dental appointments during pregnancy. <sup>4</sup> Links to find a dental provider are included in the Resources section of this document.

Maternal health care workers have a critical role in assessing and educating birthing people on oral health practices. Dental care procedures are safe in pregnancy and should be encouraged. Reinforcing essential oral health behaviors and connecting individuals to needed services can have a positive impact on both the birthing person's and infant's health outcomes.



## **Resources Section**

#### General

DHSS: Pregnancy and Dental Health

National Maternal and Child Oral Health Resource Center: Oral Health Care During Pregnancy: A National Consensus Statement

DHSS, Office of Dental Health: Low-Cost Dental Resource Guide

DHSS: Refer pregnant people who use tobacco to Baby & Me-Tobacco Free Program

Missouri Department of Social Services: Maternal and Infant Health

MO DSS: <u>Oral Health Matters – The Importance of Oral Health for Expecting Mothers</u> Health Resources and Services Administration: <u>How to Take Care of Your Oral Health</u>

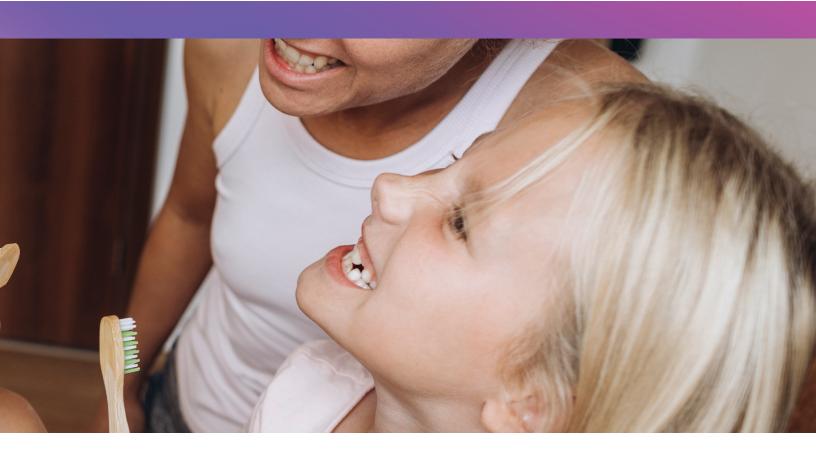
Rural Health Information Hub: Rural Oral Health Toolkit

### Resources Regarding Dental Radiography

Journal of the American Dental Association: Optimizing Radiation Safety in Dentistry

ADA: ADA Releases Updated Recommendations to Enhance Radiography Safety in Dentistry

American Association of Physicists in Medicine: Patient Gonadal and Fetal Shielding in Diagnostic Imaging Frequently Asked Questions



### Resources for Birthing People

DHSS: Dental Health During Pregnancy Is Important!

DHSS: Know the Facts: Baby Teeth Are Important

DHSS: Milestones for Mini Mouths — English, Spanish

DHSS: Baby & Me Tobacco Free Program

Journal of the American Dental Association: Dental Care During Pregnancy

DHSS: <u>Healthy Teeth – Healthy Pregnancy</u> -Find a dental provider through MO HealthNet

DHSS: <u>Locate Low-cost Dental Services</u>

DHSS, Office of Dental Health: Low-Cost Dental Resource Guide

HRSA: Oral Health and Pregnancy
HRSA: Oral Health and Nutrition

American Dental Association: Find-a-Dentist

American Dental Association: Breastfeeding: 6 Things Nursing Moms Should Know About Dental Health

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