Physiological changes during pregnancy can have an impact on dental health. Changes in gum tissue in response to hormones and oral bacteria are a common dental problem during pregnancy. Poor gum tissue health, known as periodontal disease, can cause bleeding gums and tooth mobility and has been associated with low-birth weight. Morning sickness or gastric pressure increases the risk for dental decay due to exposure to acids. Pregnant women with dental decay have the potential to pass decay-causing bacteria to a child shortly after delivery, even before a child has teeth.

Montana children have a higher prevalence of dental decay than national estimates based on Basic Screening Survey data. Prevention of oral disease during pregnancy is an opportunity to promote healthy pregnancies and prevent cavities among children.

**National Performance Measure 13A**

In 2015 Health Resources and Services Administration (HRSA) revised maternal and child oral health national performance measures to include use of preventive dental care among pregnant women. Survey results from the Centers for Disease Control and Prevention (CDC) Pregnancy Risk Assessment Monitoring System (PRAMS) are used to monitor the measure.

**Data Source and Methods**

The *Health Survey of Montana’s Mothers and Babies* was conducted in 2015 by the Montana Department of Public Health and Human Services. The survey was modeled after PRAMS and included oral health questions.

A random sample of women was drawn on a monthly basis from recent birth certificates. Women who were current residents and delivered a live birth in Montana were eligible for inclusion. Selected women were mailed a self-administered survey and non-respondents received a follow-up phone call with the option to take the survey over the phone. Of the 2,820 women selected, 1,119 women participated (40% response rate). Survey limitations include recall, reporting, and participation bias and misunderstanding of questions.
Findings
A high proportion of respondents [92.7%, 95% confidence interval (CI), 90.9-94.5] reported they understood the importance of caring for their teeth and gums during pregnancy. However, only 56.6% (CI 53.2-60.0) reported a health care provider talked with them about how to care for their teeth and gums during pregnancy.

Most respondents (91.7%, CI 89.8-93.6) reported it was safe to go to the dentist during pregnancy. Only 4.0% (CI 2.6-5.4) reported they could not find a dental clinic that took pregnant patients, although 10.4% (CI 8.2-12.7) of Medicaid-enrolled women reported difficulty in finding a provider. One in five respondents (20.4%, CI 17.5-23.3) reported cost was a barrier to utilizing dental care.

Use of Dental Care
Half of the respondents (51.6%, CI 48.2-55.0) reported having a preventive dental visit during pregnancy, which is similar to 2013 U.S. PRAMS estimates from 29 states (51.4%, CI 50.7-52.2).iii Low-income women, those with reported income below $26,001, reported similar rates of dental insurance coverage as the highest income respondents but low use of preventive dental care. Low-income women also reported they used dental care for a dental problem more often (Figure).

Less than half of women with reported income of $26,001 to $52,000 reported seeking preventive care (43.0%, CI 36.3-49.7) and also reported the lowest rate of dental insurance coverage, at 64.6% (CI 58.1-71.1). Further analysis indicated 56.4% (CI 53.0-59.8) of respondents used any dental care, which included preventive care or care for a dental problem.

Montana Medicaid offers a dental benefit for pregnant women. Income eligibility requirements during 2014 for Medicaid enrollment during pregnancy were 157% of the Federal Poverty Level, approximately $37,400 per year for a family of four.iv

Conclusions
While pregnant women reported understanding the importance of oral health, just over half received preventive dental care, which suggests there may be additional barriers to seeking dental care during pregnancy. Social determinants of health (SDOH), such as food security and unstable housing, may be associated with dental care use and should be explored as part of future survey analysis.

The 2015 survey had limited ability in assessing SDOH associations with use of dental care and poor pregnancy outcomes due to the small sample size. In 2016, Montana was awarded a grant from the CDC to conduct an annual PRAMS survey, which may assist in determining barriers to dental care related to SDOH in the future.
Recommendations

Continue to promote prevention of dental disease and use of dental care through:

- Educating medical and public health providers about the risks of poor oral health during pregnancy and the transmission of decay-causing bacteria from mothers to infants.
- Increasing the number of women advised to seek dental care during pregnancy.
- Assessing pregnant women for dental insurance coverage.

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\[\text{Dental insurance coverage} \quad \text{Utilized preventive dental care} \quad \text{Utilized dental care for a problem}\]

\[\text{↓ Represent 95\% confidence intervals}\]

\[\text{Figure. Percent of pregnant women reporting dental insurance coverage and dental care use in Montana, 2015.}\]

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