



# MI PRAMS Delivery

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## Oral Health During Pregnancy

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### Points of Interest

- ◆ A need for dental care was reported by 25% of pregnant women in Michigan.
- ◆ Just over half of those who needed dental care actually sought such care.
- ◆ There is evidence of socio-economic and race/ethnic disparities in access to dental care.
- ◆ Less than half of participants reported being counseled on caring for their teeth and gum during pregnancy.

Oral health means more than good teeth; it is integral to general health and essential for well-being [1]. The two most prevalent oral afflictions are dental caries and periodontal diseases. In the US, over 90% of adults 20 years or older experienced caries within the past year [2].

Almost all oral diseases are preventable. However it is estimated that half of all women experience a dental disease during pregnancy [3] with only half of them seeking dental care [3].

This places undue burden on public health since many studies show

that maternal oral health has significant implications for birth and pregnancy outcomes in addition to infant oral health [6]. Furthermore, poor pregnant women disproportionately fail to obtain care [4] even though low-income women and women of racial and ethnic minority groups are more likely to have periodontal disease [5].

The American Academy of Periodontology recommends that women have a periodontal evaluation before pregnancy and that they maintain good oral hygiene during pregnancy [7].

Michigan is using evidence-based interventions to aggressively develop oral health prevention strategies but only for children. Data on the burden of oral problems and dental care seeking behaviors among women who recently delivered a live birth has not been examined. Questions related to oral health practice among women who recently had a live birth were added to the Michigan PRAMS survey in 2004. This issue of MI PRAMS Delivery focuses on findings from these data.

### Status of oral health among PRAMS participants, Michigan 2004

Three questions from the 2004 MI PRAMS survey were used to assess the oral health status of participants:

1) *This question is about the care of your teeth during your most recent pregnancy.*

*\_I needed to see a dentist for a problem.*

*\_I went to a dentist or dental clinic.*

*\_A dental or other health care worker talked with me about how to care for my teeth and gums.*

Women were then asked:

2) *Have you ever had your teeth cleaned by a dentist or dental hygienist?*

Only data on women who responded 'Yes' to #2 above were asked:

3) *Question #80: When did you have your teeth cleaned by a dentist or dental hygienist?*

*\_Before -*

*\_During - or*

*\_After - my most recent pregnancy*

A quarter of women surveyed reported that they needed dental care during their most recent pregnancy. Among these women, 44% did not seek care (Figure 1).

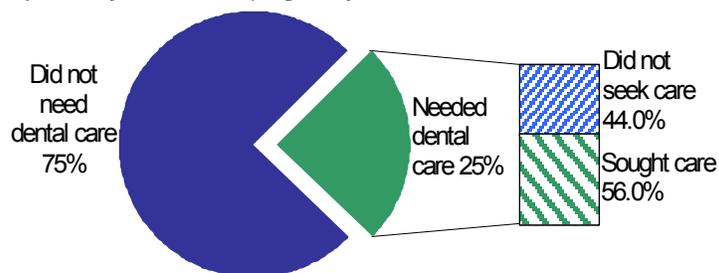


Figure 1: Prevalence of dental care need and care sought, 2004 MI PRAMS

### Possible Barriers to Dental Care During Pregnancy

- ◆ Lack of perceived need to see a dentist
- ◆ A fear of pain
- ◆ Concerns about the safety of their unborn child
- ◆ Financial considerations

#### References

1. Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century. Community Dentistry and Oral Epidemiology 2003;31:3-23
2. Beltran-Aguilar ED, Barker LK, Canto MT, et al., Surveillance for dental caries, dental sealants, tooth retention, edentulism, and enamel fluorosis--United States, 1988-1994 and 1999-2002. MMWR Surveill Summ 2005;54(3)
3. Ressler-Maerlender J, Krishna R, Robison V. Oral health during pregnancy: Current research. Journal of Womens Health 2005;14(10):880-882
4. Lydon-Rochelle MT, Krakowiak P, Hujuel PP, et al., Dental care use and self-reported dental problems in relation to pregnancy. AJPH 2004;94(5):765-771
5. Boggess KA, Edelstein BL. Oral health in women during preconception and pregnancy: Implications for birth outcomes and infant oral health. MCHJ 2006;10(5):S169-S174.
6. Gaffield ML, Gilbert BJC, Malvitz DM et al., Oral health during pregnancy - An analysis of information collected by the pregnancy risk assessment monitoring system. JADA 2001;132(7):1009-1016
7. American Academy of Periodontology. AAP statement on the periodontal management of the pregnant patient. Vol. 2005, 2005.
8. Jeffcoat MK, Geurs NC, Reddy MS, et al. Periodontal infection and preterm birth - Results of a prospective study. JADA 2001; 132(7):875-880.
9. Davenport ES, Williams C, Sterne JAC, et al. Maternal periodontal disease and preterm low birthweight: Case-control study. J DR 2002;81(5):313-318.
10. Lopez NJ, Smith PC, Gutierrez J. Periodontal therapy may reduce the risk of preterm low birth weight in women with periodontal disease: A randomized controlled trial. J Periodontol 2002;73(8):911-924
11. Michalowicz BS, Hodges JS, DiAngelis AJ, et al., Treatment of periodontal disease and the risk of preterm birth. NEJM 2006; 355(18):1885-1894.

## Demographics

Older respondents were more likely to report going to the dentist during pregnancy than younger respondents. Specifically, 55.2% of women 35 years of age or older reported visiting a dentist during pregnancy (Figure 2) compared to 46.5% of 20-34 year olds and 26.5% of women less than 20 years of age.

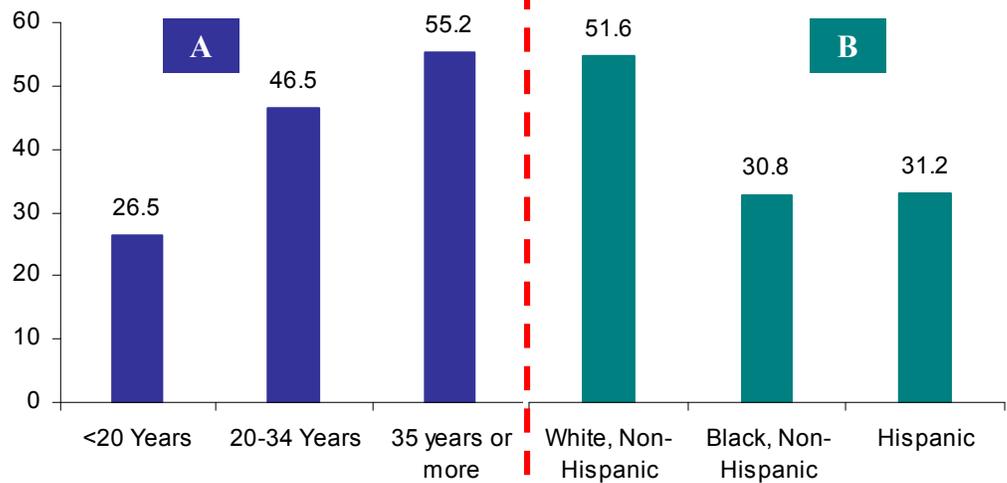
Black, non-Hispanic (30.8%) and Hispanic (31.2%) women were less likely to report going to the dentist as compared to White, non-Hispanic respondents (51.6%) (Figure 2).

Overall, less than half (44.8%) of women who went to dentist reported that they had been counseled on how to care for their teeth and gums during pregnancy (Table 1). Women who were

35 years of age or older were more likely to report being counseled (50.5%) compared to the 20 to 34 year olds (45.2%) or women less than 20 years old (33.4%).

White, Non-Hispanic women were most likely to be counseled (48.1%) while Black, Non-Hispanics and Hispanics reported similar proportions (35.4 and 37.6%).

**Figure 2:** Prevalence of visiting a dentist during pregnancy, by maternal age [A] and race/ethnicity [B], 2004 MI PRAMS



**Table 1.** Prevalence of receipt of oral health counseling during pregnancy, by maternal age and race/ethnicity among women who went to dentist during pregnancy, 2004 MI PRAMS

	%	95% Confidence Interval
<b>Total*</b>	44.8	41.7 - 48.0
<b>Age (Years)</b>		
Less than 20	33.4	23.6 - 43.2
20-34	45.2	41.6 - 48.8
35 or older	50.5	42.0 - 58.9
<b>Race/Ethnicity</b>		
White, Non-Hispanic	48.1	44.5 - 51.7
Black, Non-Hispanic	35.4	26.6 - 44.3
Hispanic	37.6	23.9 - 51.3

\*Total Sample Frequency (n) = 603, and Weighted Frequency (N) = 54,649

# MIPRAMS Oral Health - Access to care

Studies suggest that treating periodontal disease in pregnancy may reduce the risk of poor pregnancy outcomes [8-10]. However, these findings are not conclusive [11]. Nonetheless, prevention of periodontal disease may limit its personal and intergenerational consequences [5].

Low socio-economic status, which is identified as a significant barrier to access to dental care [4], may lead to poor oral health during pregnancy. In Michigan, women with private insurance were over two-times more likely to report going to a dentist or dental clinic during pregnancy (57.9%) compare to women on Medicaid (25.4%) or those with no insurance (24.4%) (Figure 4).

*Mothers with healthier gums have healthier babies*  
[DeStefano, and Beck]

**Recommendations**

- ◆ Pregnancy is one of the most ‘teachable moments’ therefore overall oral health counseling during this period may prove beneficial in reducing the prevalence of periodontal disease.
- ◆ This report may be used by policy-makers and program planners to design interventions that could improve general and oral health outcomes.
- ◆ Oral health counseling during pregnancy should be targeted to all women, particularly to:
  - ethnic minority groups
  - low socio-economic status
  - less than 20 years of age
- ◆ In Michigan, explore the benefits of simple and relatively low-cost dental product, such as various gums, to treat and prevent periodontal disease.

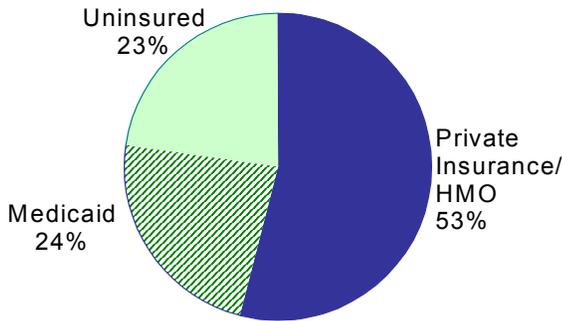


Figure 4: Prevalence of dental visit during pregnancy by insurance status, 2004 MI PRAMS

The data also suggest race/ethnic disparities in access to dental care among women who reported they needed to see a dentist. Specifically, dental visits during pregnancy were reported by 60% of White, non-Hispanic women who reported that they needed to see a dentist (Figure 5). However, only 46.0% of Black, non-Hispanics and 48.1% of women of Other ethnic minority groups reported the same. Further analyses showed that women who indicated a need to see a dentist during pregnancy, White, non-Hispanic women were 1.8 times more likely (95%CI: 0.84, 3.74) to have had a dental visit compared to their Black, non-Hispanic peers.

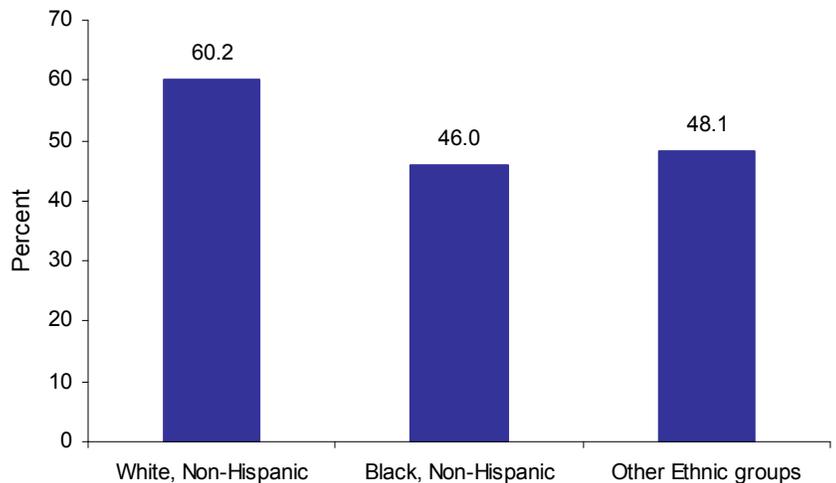


Figure 5: Prevalence of dental visit during pregnancy among women who reported a dental problem by race/ethnicity, 2004 MI PRAMS

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## About Michigan's PRAMS

The Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based survey, is a CDC initiative to reduce infant mortality and low birth weight. It is a combination mail/telephone survey designed to monitor selected self-reported maternal behaviors and

experiences of women who delivered a live infant in Michigan that occur before and during pregnancy, as well as early-postpartum periods. Information regarding the health of the infant is also collected for analysis. Annually, over 2,000 mothers are selected at random to participate

from a frame of eligible birth certificates. Women who delivered a low-birth weight infant were over-sampled in order to ensure adequate representation. The results are weighted to represent the entire cohort of women who delivered during that time frame.

### ☆ The Michigan Oral Health Program ☆

Oral disease is the most preventable chronic disease. The Michigan Oral Health Program has a focus on prevention of oral disease. In October 2007, the program is launching a state-wide fluoride varnish program for Head Start children and a dental sealant program for 2<sup>nd</sup> grade children at high risk for dental disease.

For information about the Michigan Oral Health Coalition, the Oral Health State Plan, the Oral Disease Burden Document, and the Count Your Smiles Survey please visit our website at [www.michigan.gov/oralhealth](http://www.michigan.gov/oralhealth).

### Suggested Citation

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