Oral Health 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.

### 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.

### 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](image-url)
### 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%).

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### 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

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).

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.

MIPRAMS Oral Health - Access to care

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

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

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.
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.

Suggested Citation