PERINATAL ORAL HEALTH DATA BRIEF

2016 North Carolina Oral Health Section Perinatal Basic Screening Survey

Background

Poor oral health during pregnancy negatively impacts both the mother and her unborn child. Research suggests periodontal disease during pregnancy increases the risk for poor birth outcomes including pre-eclampsia, pre-term birth, and low birth-weight infants.[1] Moreover, a mother's oral health status can predict the oral health of her children.[2] In 2016, the NC Oral Health Section (OHS) conducted its first dental public health surveillance activity of pregnant women who get prenatal services in North Carolina's local health departments to gather baseline data.

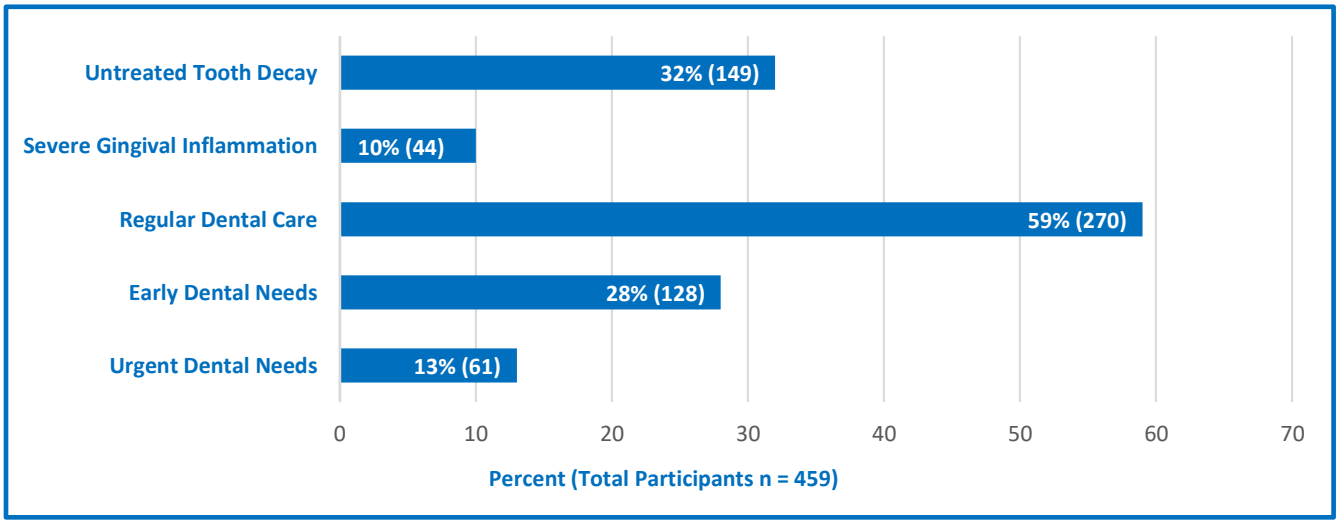
Methods

The screening was conducted by calibrated OHS public health dental hygienists using the Basic Screening Survey (BSS) developed by the Association of State and Territorial Dental Directors (ASTDD) for Older Adults. A 24-item questionnaire, offered in English and Spanish) accompanied each dental screening relating to ***demographics, self-reported oral health status and health behaviors, dental insurance coverage, and obstacles faced in receiving dental care***. Adult BSS oral health indicators included ***number of natural teeth, removable partials or dentures, untreated decay, root fragments, gingival inflammation, need for periodontal care, presence of suspicious lesions, and treatment urgency rating.*** This assessment used a convenience sample from local health departments offering prenatal services and willing to partner as host sites. A convenience sample of 400 pregnant women was sought to obtain a confidence interval of ±5% with 95% confidence. Consent to participate was obtained for each screening.

Results

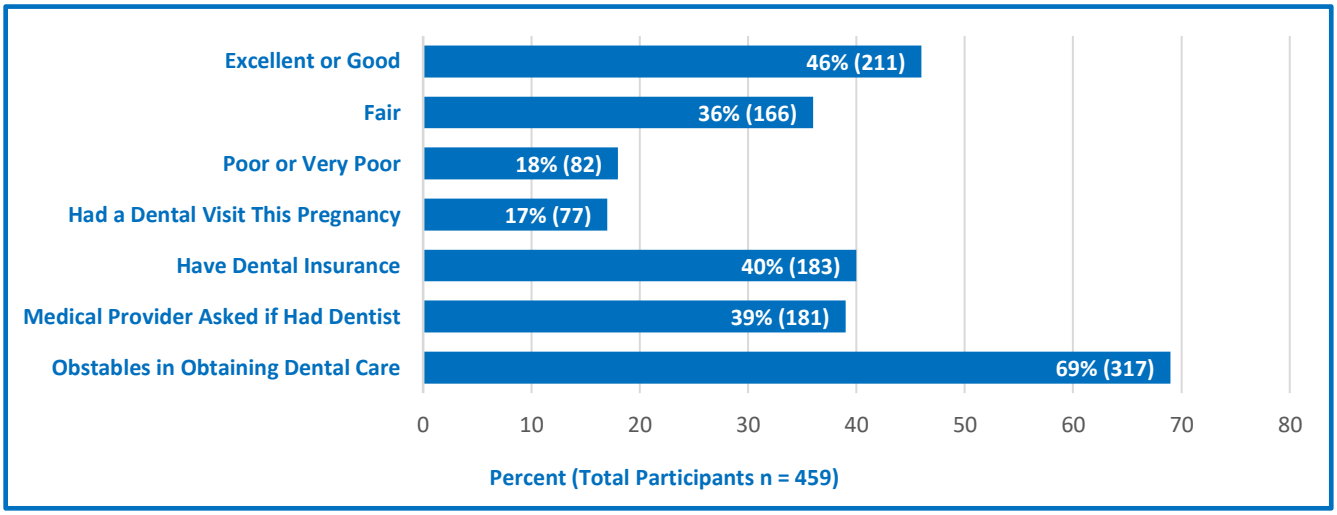
A total of **459** pregnant women participated in the BSS before or after their prenatal care visits. Clinical findings show that most women (59%) had general oral health needs while the rest (41%) had either early restorative dental needs or required urgent dental treatment. Almost a third (32%) had untreated tooth decay and 10% had severe gingival inflammation. See objective clinical data in Table 1.

Table 1: Adult BSS Data shows treatment urgency, untreated tooth decay, and severe gingival inflammation.



Less than a quarter reported having had a dental visit during their current pregnancy, even though 40% reported having dental insurance. In addition, over two-thirds (69%) stated they faced obstacles in obtaining dental care with the top three obstacles being cost (75%), no dentist (26%), and fear (13%). Over half (54%) of participants ranked their own oral health status as either fair, poor, or very poor. See subjective questionnaire data in Table 2.

Table 2: Questionnaire Data shows responses on oral health status, behaviors, and access to dental care.



Discussion

These findings illustrate that pregnant women have unmet dental needs and are not seeking and/or receiving the dental care they need during pregnancy. Only 17% reported having a dental visit while NC Pregnancy Risk Assessment Monitoring System (PRAMS) data for 2016 show that fewer (11.9%) went to a dentist about a dental problem. Although our BSS data show that 40% of pregnant women reported having dental insurance, over 20% of PRAMS participants reported that they could not afford to go to the dentist or dental clinic.

Not surprisingly, the most reported oral changes reported in this screening include bleeding gums (30%), sensitive teeth (22%), and oral pain (13%). Mirroring their subjective response on pain,13% of participants were identified during the oral screening as having urgent treatment needs (pain, infection, or swelling). These numbers may coincide with those that reported oral pain. For future oral surveillance activities in pregnant women, an attempt will be made to better correlate self-reported oral health status to clinical findings. Additionally, evaluators should attempt to ensure the questionnaire remains subjective and the BSS is as clinical as possible. Pain ideally would not be an indicator on both.

References

1. Ide, M. & Papapanou, P.N. (2013). Epidemiology of association between maternal periodontal disease and adverse pregnancy outcomes – systematic review. Journal of Clinical Periodontology. Retrieved from https://onlinelibrary.wiley.com/doi/ pdf/10.1111/jcpe.12063
2. Dye BA, Vargas CM, Lee JJ, et al. Assessing the relationship between children's oral health status and that of their mothers. *J Am Dent Assoc.* 2011; 142(2): 173-183. doi: 10.14219/jada.archive.2011.0061.

Associated Publications

Stephens R, Quinonez R, Boggess K, Weintraub JA. Perinatal oral health among underserved women: a call to action for North Carolina patients, providers and policymakers. *Matern Child Health J.* 2020; 24:351-359. Doi: 10.1007/s10995-019-02868-4.

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