

Impact of Access to Dental Care on Pregnancy Outcomes

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INTRODUCTION

- Although efforts have been made in promoting preventive care and addressing adverse maternal health outcomes, oral health disparities persist among vulnerable and underserved populations¹
- Despite health risks associated with poor oral health, some pregnant women, especially those from racial/ethnic minorities or lower socioeconomic groups, are less likely to receive needed dental services compared to the general population²
- Important predictors of access to oral health services include oral health literacy and barriers related to language, culture, and reluctance of dentists to treat pregnant women³
- Purpose of study: To evaluate access to oral health services during pregnancy and potential associations with pregnancy outcomes

METHODS

Data Source

- This research used cross-sectional data from the 2016-2020 Pregnancy Risk Assessment Monitoring System (PRAMS) collected by state health departments in partnership with the Centers for Disease Control and Prevention (CDC)
- PRAMS is a population-based, stratified random sample of new mothers who were surveyed about their behaviors and experiences during their most recent pregnancy, including barriers to care, obstetric history, socioeconomic status, and maternal and infant health status
- Response rate threshold: 50% starting in 2018 and 55% in 2016-2017
- Study sample included 206,080 women residing in 44 states/areas who had a live birth from 2016-2020

Statistical Analyses

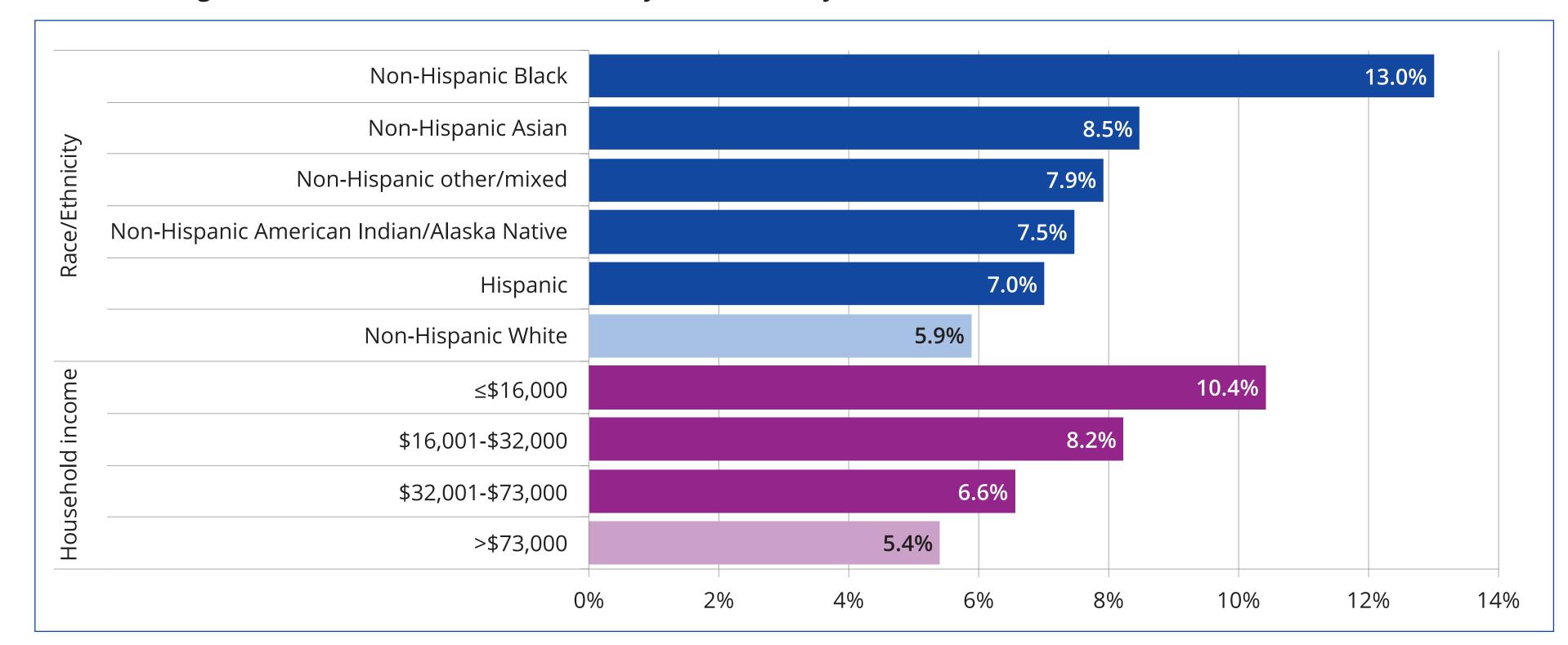
- Descriptive statistics and multivariable logistic regressions (odds ratio [OR], 95% confidence interval [CI]) were used to estimate the associations between difficulties in accessing oral health services during pregnancy and low birth-weight (LBW) newborns (<2,499 g), adjusting for maternal demographics, socioeconomic status, lifestyle, and medical history
- Survey data were weighted to address sampling design, non-response, and non-coverage
- All analyses were conducted in SAS v9.4

Women who reported difficulties in finding a dentist, financial barriers, and lack of knowledge about the safety or importance of dental care during pregnancy were more likely to have low birth-weight newborns.

III) RESULTS

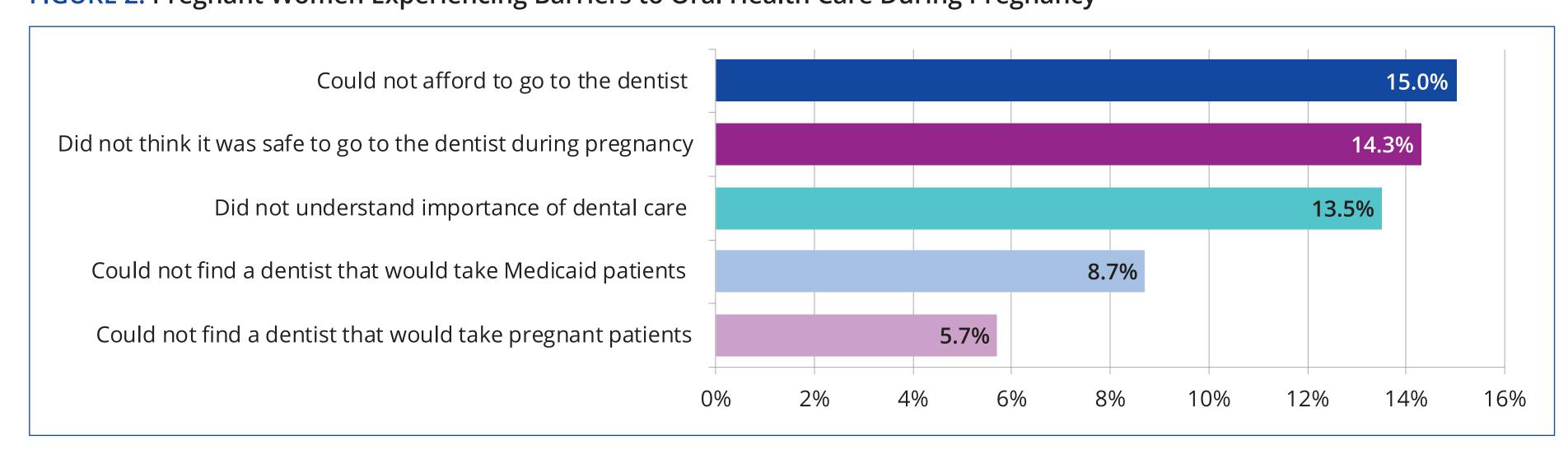
- The estimated prevalence of LBW newborns was 7.4% during the study period, 2016-2020 (total weighted sample=10,630,861)
- Non-Hispanic Black women and those with annual household incomes ≤\$16,000 were disproportionately more likely to have LBW newborns compared to other survey respondents

FIGURE 1. Pregnant Women With LBW Newborns by Race/Ethnicity



• About 6-15% of pregnant women experienced barriers in accessing dental care due to cost of care, the misconception that dental care is unsafe or not important during pregnancy, and unavailability of oral health providers

FIGURE 2. Pregnant Women Experiencing Barriers to Oral Health Care During Pregnancy



 Women who reported difficulties in finding a dentist, financial barriers, and lack of knowledge about the safety or importance of dental care during pregnancy were more likely to have LBW newborns than others (8.1%-9.1% vs 6.6%-7.1%; *P*<.001)

FIGURE 3. Pregnant Women With LBW Newborns by Barriers to Oral Health Care During Pregnancy

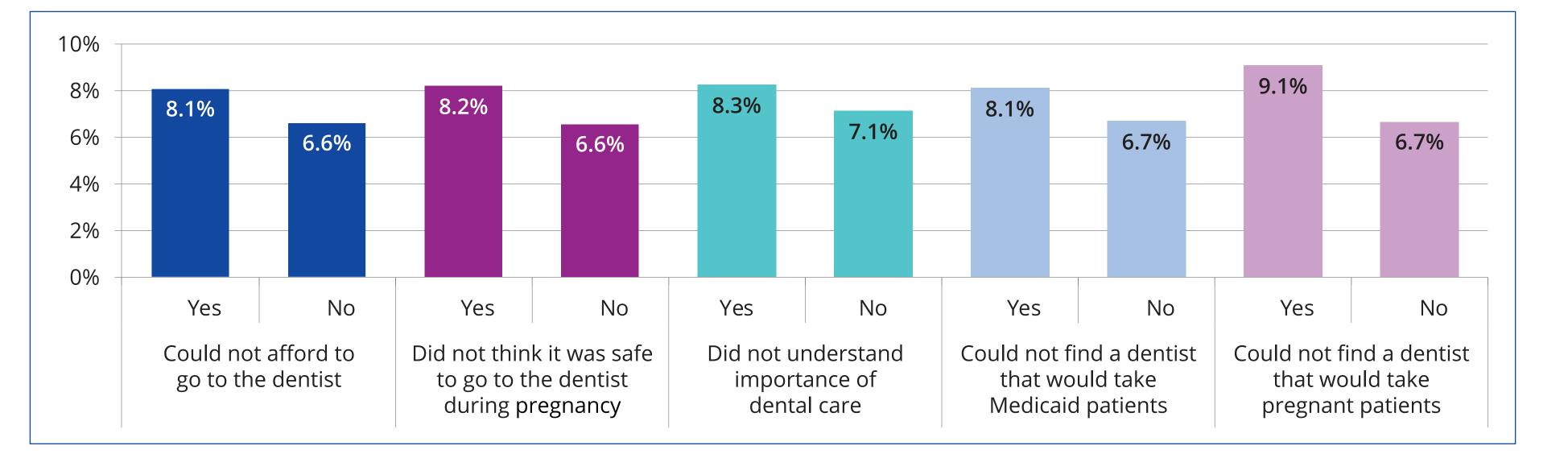
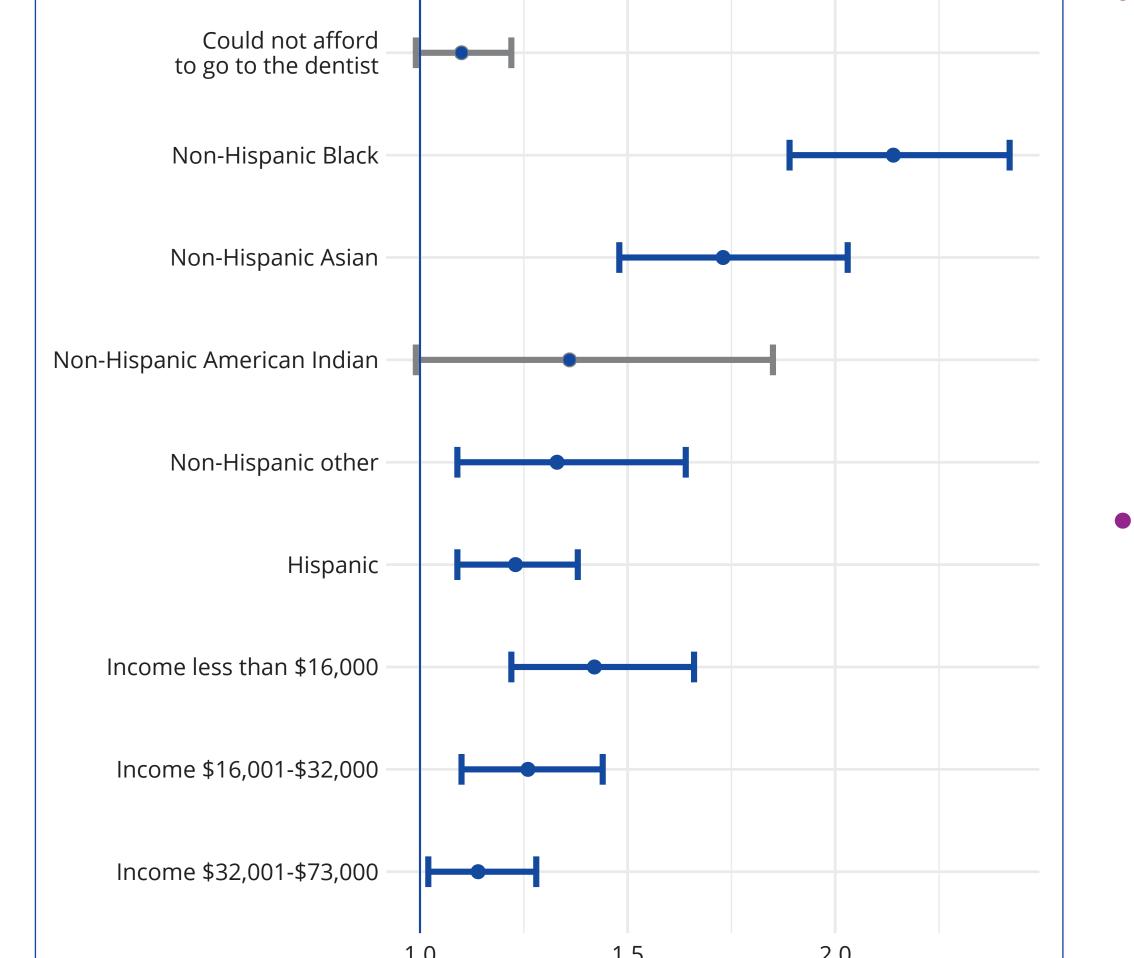


FIGURE 4. Adjusted Associations Between Barriers to Oral Health Services and LBW Newborns^a



^a Multivariable logistic regression estimates (odds ratio [OR], 95% confidence interval [CI]).

- Adjusted regression estimates indicated that the following were >40% more likely to have LBW newborns than others:
- Non-Hispanic Black women (OR=2.14, 95% CI=1.89-2.42)
- Non-Hispanic Asian women (OR=1.73, 95% CI=1.48-2.03)
- Those with low household income (OR=1.42, 95% CI=1.22-1.66)
- While not reaching statistical significance, adjusted estimates suggested a 3-9% increased likelihood of LBW newborns among mothers experiencing barriers to care

CONCLUSIONS

- This study found a concerning 7.4% prevalence of LBW newborns, particularly among non-Hispanic Black mothers and those with low incomes (≤\$16,000), highlighting disparities
- Study results suggest that increasing the number of dental providers accepting pregnant women and diminishing financial difficulties can help improve fetal health during pregnancy
- Improving dental care access by enhancing awareness through education and provider training are essential steps to mitigate potential LBW risks during pregnancy

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