

Barriers to Dental Care Associated With Hypertensive Disorders During Pregnancy

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Oral Health Workforce Research Center (OHWRC)

- OHWRC is based at the Center for Health Workforce Studies (CHWS), School of Public Health, University at Albany, State University of New York (SUNY)
- OHWRC was formed as a partnership between CHWS and the Healthforce Center at the University of California, San Francisco
- OHWRC, established in 2014, is 1 of 9 health workforce research centers in the country funded by the Health Resources and Services Administration (HRSA) and the only one uniquely focused on the oral health workforce

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Introduction

- Although largely preventable, dental disease is highly prevalent among pregnant and non-pregnant women of childbearing age¹
- Pregnant women are at risk of periodontal disease (about 40% experience some form of gum disease) and dental caries due to changes in pregnancy-related hormone levels and intraoral flora^{2,3}
- There is increasing evidence that the oral health status, attitudes, and practices of women may have an impact on maternal health status, pregnancy outcomes, and child oral health status^{4,5,6}

Study Objective

- To identify major barriers to dental care among pregnant women and assess their potential associations with hypertensive disorders of pregnancy

Methods: Data Source

- 2016-2020 Pregnancy Risk Assessment Monitoring System (PRAMS), designed by the CDC to assess the risk of adverse health outcomes in pregnant women and infants
- PRAMS data accounts for 81% of all live births in the US, but only states that achieved the minimum response rate of 55% in 2016-2017 and 50% in 2018-2020 are included
- The data is comprised of 2 components: core and standard questions
 - Core questions: Asked all PRAMS participants
 - Standard questions: Administrated in selected states
- Includes information on maternal demographics, socioeconomic characteristics, and behaviors before, during, and shortly after the latest pregnancy

Methods: Statistical Analysis

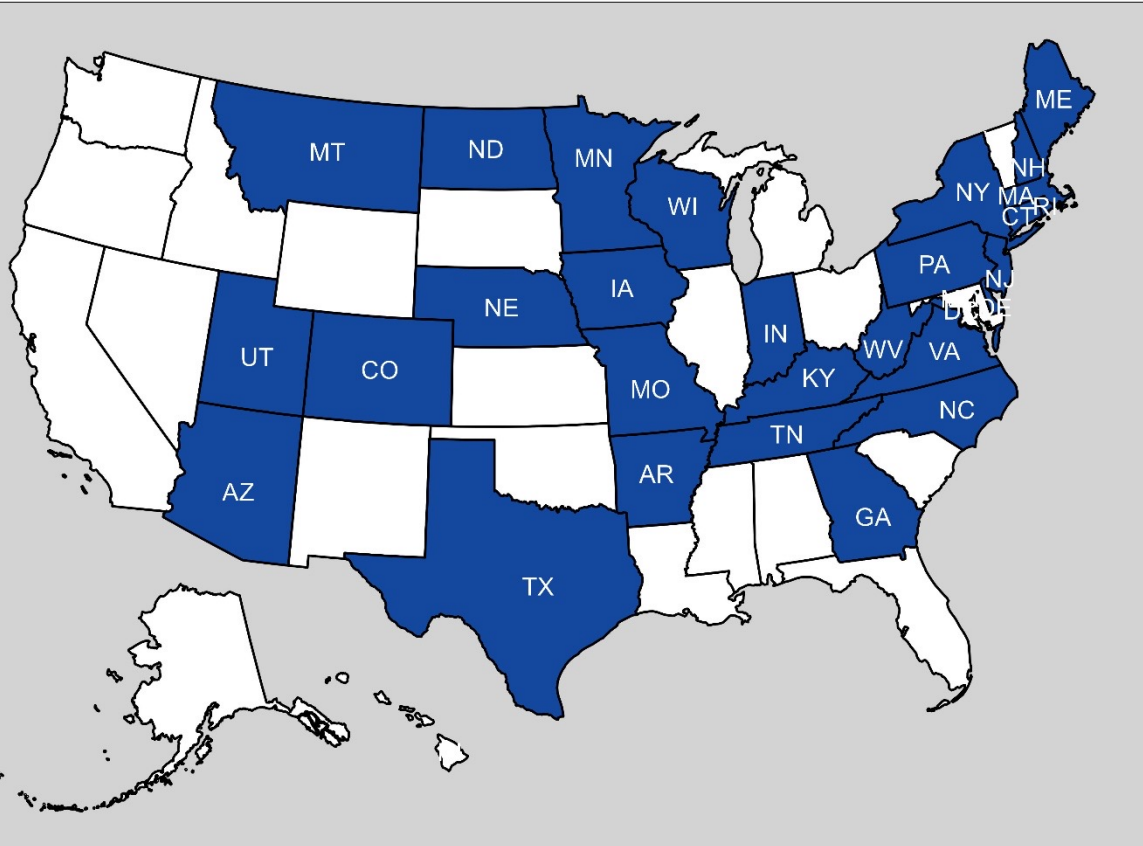
Study Outcome:

- Hypertensive disorders of pregnancy (gestational hypertension, preeclampsia, eclampsia)
- Self-reported answers (yes/no) to a core question

Independent Variables of Interest:

- 7 potential barriers to obtaining needed oral health services
- Self-reported answers (yes/no) to standard questions about:
 - Dental insurance
 - Cost of dental care
 - Oral health literacy
 - Providers availability

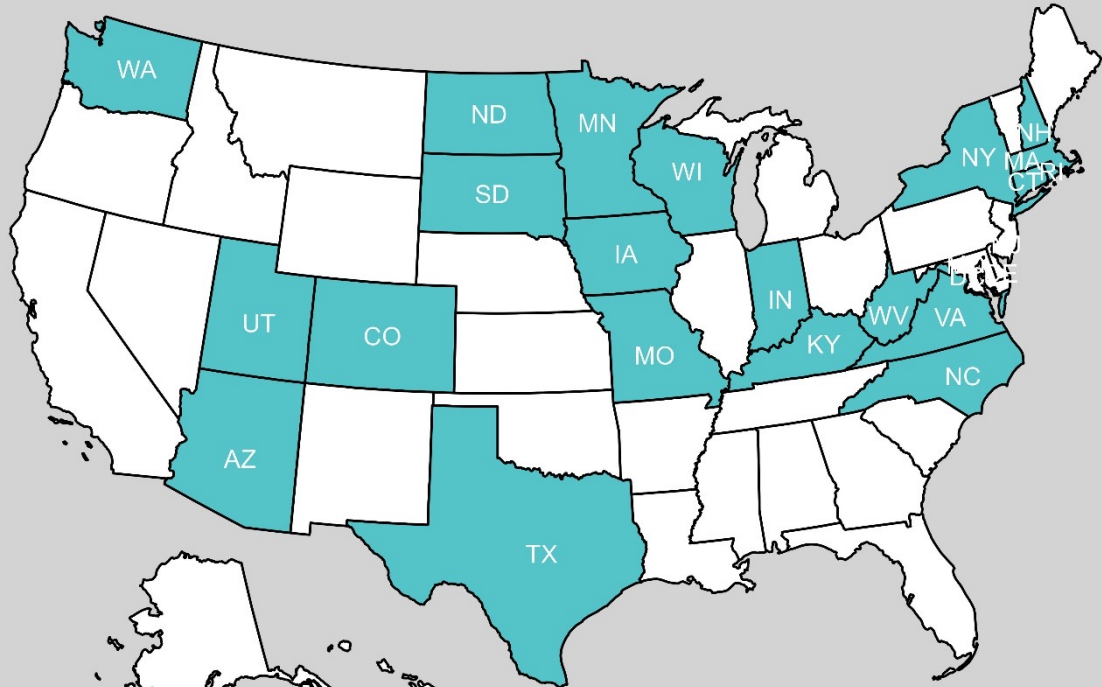
Independent Variables



- Oral health questions and responses from 31 states and territories
 - “I had insurance to cover dental care during my pregnancy” (weighted total n=6,935,418)
 - “I know it was important to care for my teeth and gums during my pregnancy” (weighted total n=7,034,511)
 - “A dental or other health care worker talked with me about how to care for teeth and gums” (weighted total n=6,983,143)

31 states and territories: AZ, AR, CO, CT, DE, DC, GA, IN, IA, KY, ME, MA, MN, MO, MT, NE, NH, NJ, NY, NYC, NC, ND, PA, PR, RI, TN, TX, UT, VA, WV, and WI.

Independent Variables (Cont.)



- Oral health questions and responses from 23 states and territories
 - “I could not find a dentist or dental clinic that would take pregnant patients” (weighted total n=4,681,159)
 - “I could not find a dentist or dental clinic that would take Medicaid patients” (weighted total n=4,657,160)
 - “I did not think it was safe to go to the dentist during pregnancy” (weighted total n=4,694,186)
 - “I could not afford to go to the dentist or dental clinic” (weighted total n=4,697,755)

23 states and territories: AZ, CO, CT, DC, IN, IA, KY, MA, MN, MO, NH, NY, NC, ND, PR, RI, SD, TX, UT, VA, WA, WV, and WI.

Statistical Analysis (Cont.)

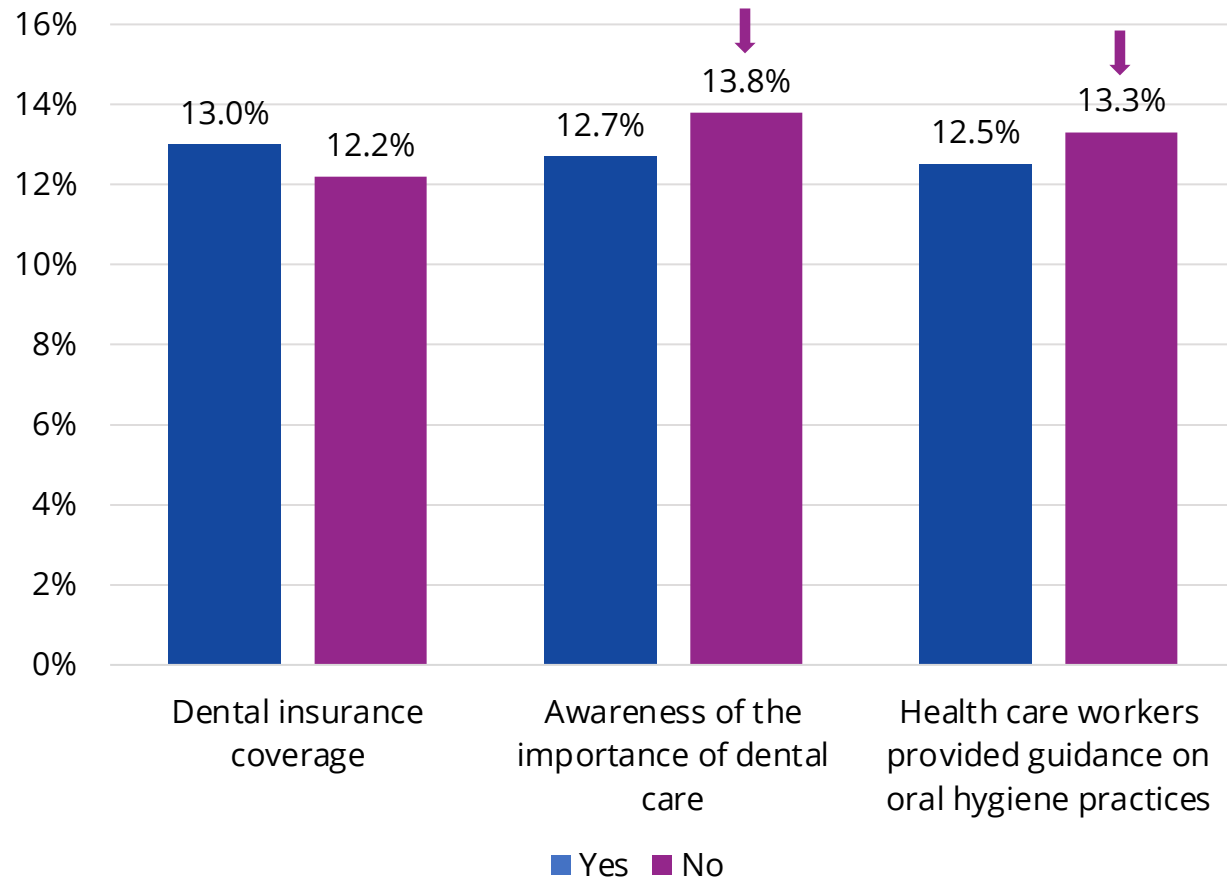
Confounding Factors:

- Sociodemographic characteristics: Maternal age and race/ethnicity, education attainment, household income, health insurance, Special Supplemental Nutrition Program for Women beneficiary (WIC)
- Lifestyle factors: Smoking during pregnancy
- Medical history: History of hypertension, plurality, prenatal care (Kotelchunck index)
- State of residence and survey year

Statistical Analyses:

- Descriptive statistics
- Seven multivariable logistic regressions adjusted for maternal sociodemographic characteristics, lifestyle factors, medical history, state of residence, and survey year

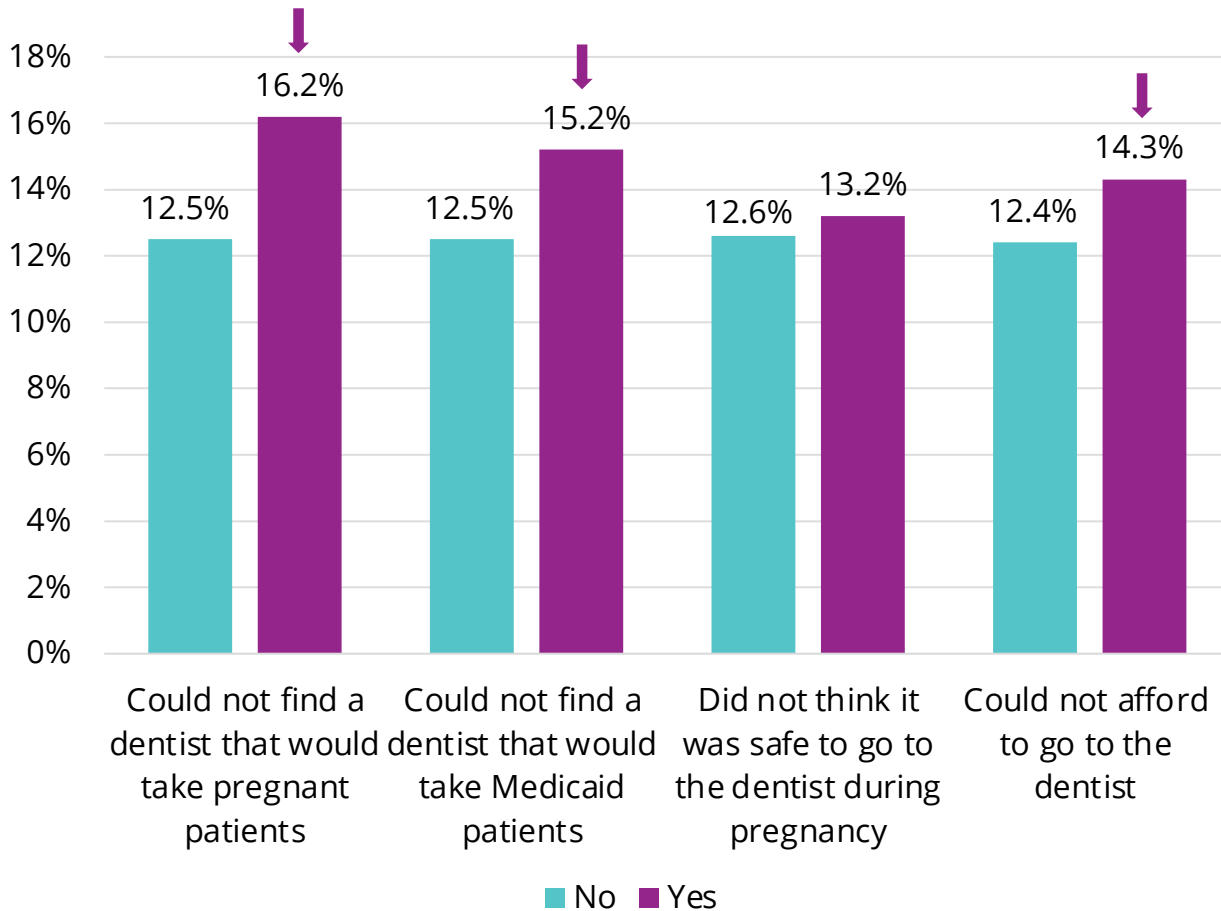
Barriers to Dental Care Among Women With Hypertensive Disorders of Pregnancy



- During 2016-2020, **13.3% of respondents** had hypertensive disorders during their pregnancy
- Respondents who reported:
 - Lack of awareness of the importance of oral health during pregnancy
 - Health care workers not providing guidance on oral hygiene practices during pregnancy

were more likely to be diagnosed with hypertensive disorders of pregnancy than women without these barriers to dental care

Barriers to Dental Care Among Women With Hypertensive Disorders of Pregnancy

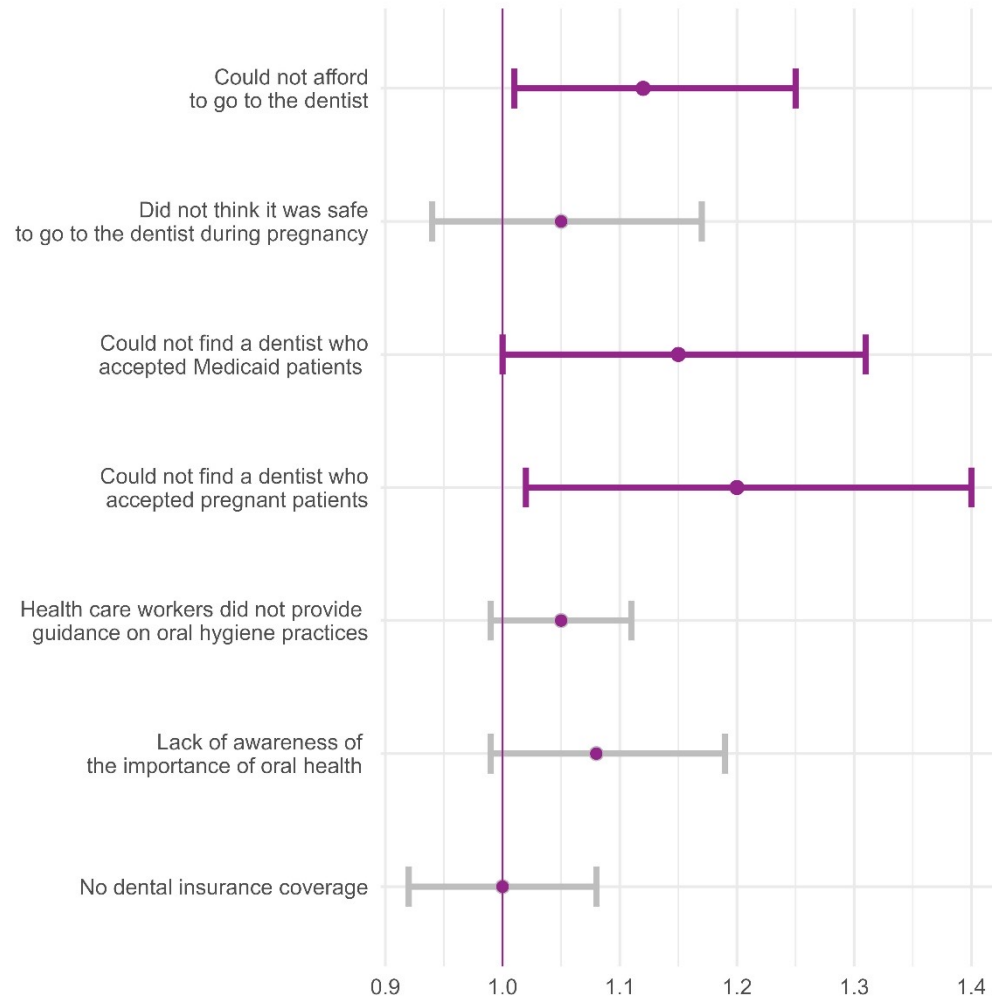


Respondents who reported difficulties in:

- Finding a dentist willing to accept pregnant women
- Finding a dentist who accepts Medicaid patients
- Affording the cost of oral health services

were at a higher risk of being diagnosed with hypertensive disorders of pregnancy compared to women without these barriers to dental care

Estimated Risks of Hypertensive Disorders of Pregnancy and Associated Barriers to Dental Care



Significant associations were identified between barriers to oral health services and hypertensive disorders of pregnancy among:

- Pregnant women who could not afford dental care (OR=1.15, 95% CI=1.03-1.27, p-value=0.012)
- Medicaid-insured pregnant women (OR=1.15, 95% CI=1.01-1.31, p-value=0.036)
- Pregnant women who were unable to find a dentist accepting pregnant patients (OR=1.29, 95% CI=1.10-1.51, p-value=0.001)

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

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Conclusions and Implications

- Barriers to dental care such as the inability to find a dentist who accepts pregnant or Medicaid-insured patients and financial difficulties, were statistically significant and associated with increased risks of hypertensive disorders of pregnancy
- Lack of knowledge about the importance of dental care during pregnancy and insufficient guidance on oral hygiene practices during pregnancy from health care professionals may also contribute to increased risks of hypertensive disorders of pregnancy
- Improving access to oral health services for pregnant women by addressing affordability and dentist availability, while improving patient education and provider communication, is crucial for promoting oral and overall maternal health

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