Lack of Dental Cleaning During Pregnancy

Texas Pregnancy Risk Assessment Monitoring System

2012-2016

Overview

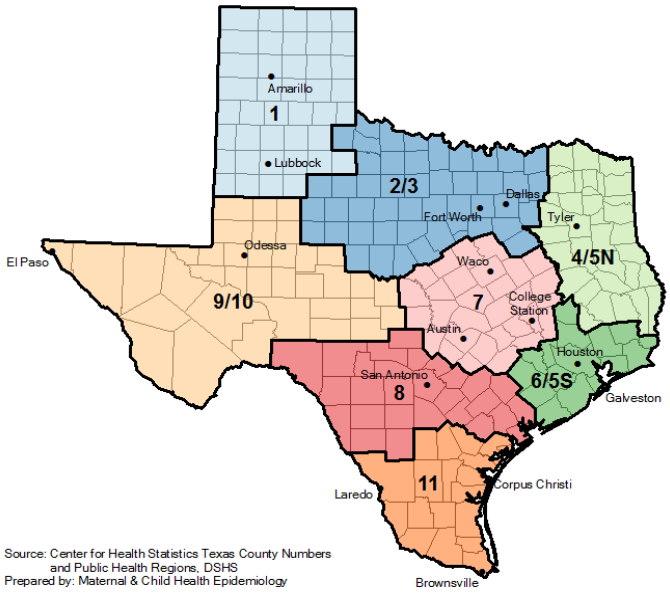
Oral health plays an important role in healthy pregnancy outcomes for both mother and infant.[1] According to recommendations issued by the American College of Obstetricians and Gynecologists (ACOG), dental work, x-rays, and dental hygiene appointments are safe for pregnant women.[2] A study that analyzed racial ethnic disparities in dental utilization among pregnant women in 10 states found that on an average, 44 percent of women had a dental visit during pregnancy.[3] Additionally, other studies have shown prevalence rates as high as 56-74 percent in pregnant women who have reported no dental visits.[4-5] Maternal periodontal disease is found in ≤40 percent of pregnant women.[6] Furthermore, maternal oral bacteria levels is not only associated with oral infection among children, but also predicts an increase in the occurrence of early childhood caries.[7]

This report uses Pregnancy Risk Assessment Monitoring System (PRAMS) data from combined years 2012-2016 to examine the lack of teeth cleaning received during pregnancy among Texas mothers. It also studies the relationship between a lack of teeth cleaning by a dentist or dental hygienist during pregnancy and select maternal health practices.

Background

PRAMS provides the most comprehensive population-based data on maternal health care before, during and after pregnancy in Texas. Questions cover health topics such as prenatal care, pregnancy intention, alcohol use, smoking and others. The results of survey analyses are generalizable to the population of women who are residents of Texas and gave birth to a live infant.

Texas Public Health Regions



Source: Center for Health Statistics Texas County Numbers and Public Health Regions, DSHS
Prepared by: Maternal & Child Health Epidemiology

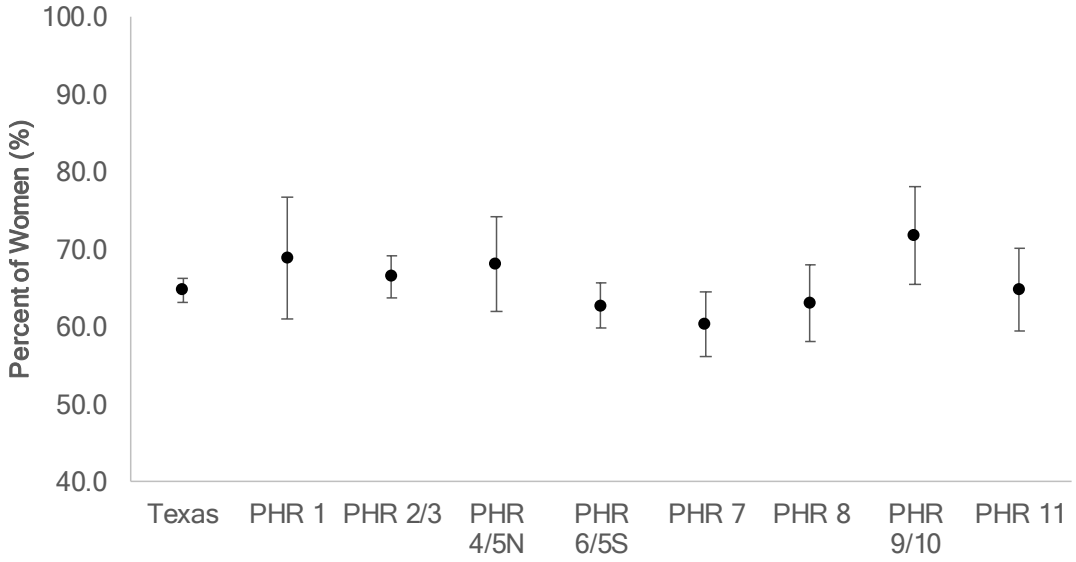
Texas is a vast state, with regional differences in geography, population size, demographic and socioeconomic characteristics, as well as various maternal and infant health indicators. Given the immense size of Texas, the distance that some individuals, especially those living in rural counties, must travel to receive health care services can be a significant challenge to accessing and receiving those services. For administrative purposes, each of the 254 Texas counties are assigned to one of 8 public health regions (see map). Public Health Region 1 (PHR 1) is administered from a regional office in Lubbock. Public Health Region 2/3 (PHR 2/3) is administered from a regional office in Arlington. Public Health Region 4/5 North (PHR 4/5N) is administered from a regional office in Tyler and Public Health Region 6/5 South (PHR 6/5S) is administered from a regional office in Houston. Public Health Region 7 (PHR 7) is administered from a regional office in Temple. Public Health Region 8 (PHR 8) is administered from an office in San Antonio, Public Health Region 9/10 (PHR 9/10) is administered from an office in El Paso, and Public Health Region 11 (PHR 11) is administered from an office in Harlingen. PHR 1 and 9/10 as well as PHR 8 and 11 are combined to insure adequate numbers of women for analyses.

Results

Analysis of PRAMS data from 2012-2016 showed the overall statewide prevalence of Texas women lacking a dental cleaning during pregnancy was 64.7 percent (95% CI: 63.3-66.2). Based on pooled 2012-2016 PRAMS data (figure 1.1), PHR 1 and PHR 9/10 had the highest prevalence of no dental cleaning during pregnancy (68.8 percent, 95% confidence intervals (CI): 60.9-76.7 and 71.8 percent, 95% CI: 65.5-78.0, respectively) (Figure 1.1). The lowest prevalence was observed in PHR 7 (60.3 percent, 95% CI: 56.1-64.5)

compared to all other PHRs in Texas. This prevalence rate is significantly lower than the rate in PHR 9/10 for women lacking a dental cleaning during pregnancy.

Figure 1.1
Percent of Women Reporting No Teeth Cleaning during Pregnancy by Public Health Region (PHR)



Source: 2012-2016 Texas PRAMS
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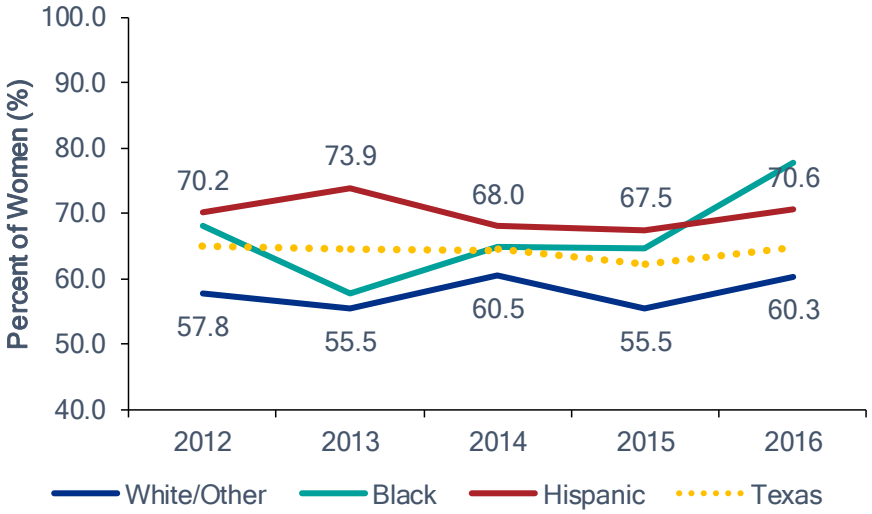
With respect to race/ethnicity, the prevalence rate from 2012-2016 for Hispanic women with a lack of dental cleaning during pregnancy was consistently higher than the statewide prevalence rate (Figure 1.2). However, in 2016, Black women had the highest prevalence of no dental cleaning during pregnancy (77.7 percent, 95% CI: 70.3-85.1), compared to Hispanic women (70.6 percent, 95% CI: 66.8-74.4) and White/Other women (60.3 percent, 95% CI: 55.8-64.8). As shown in Figure 1.2, in general, Black and Hispanic women were significantly less likely to have no dental cleaning during pregnancy than White/Other women.

Figure 1.2
Percent of Women Reporting No Teeth Cleaning during Pregnancy by Race/Ethnicity



Source: 2012-2016 Texas PRAMS
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Adjusting for maternal race/ethnicity, age, education level, and marital status, comparisons were made between a lack of dental cleaning during their most recent pregnancy and select maternal health practices, including prenatal care, vitamin use, and dental insurance. Crude (unadjusted) and adjusted prevalence ratios are presented in Table 1 for each health practice.

Overall, results indicate women who did not receive prenatal care (PNC) in the first trimester of pregnancy have a 16 percent higher prevalence of no dental cleaning during pregnancy than women with prenatal care. Additionally, women who did not take a daily multi-, prenatal, or folic acid vitamin in the month before they became pregnant have a 22 percent higher prevalence of no dental cleaning during pregnancy than those who took vitamins. Finally, women who did not have dental coverage during their most recent pregnancy have a 56 percent higher prevalence of no dental cleaning during pregnancy than their counterparts. These results appear to show that women who do not access dental services may have a lack of insurance. This lack of insurance may be a barrier to access for health practices in general. Reasons for lack of access may include geographic, demographic, or socioeconomic factors. Also, some dentists may believe treatment during pregnancy is not safe for the mom or baby.

These same reasons might also apply to the lack of women seeking routine dental care during pregnancy.

Of further interest, women 35 and older had a significantly higher prevalence of no dental cleanings during pregnancy compared to women ≤19 years of age, 63.2 vs. 53.0 percent, $p<0.0001$. More than 70 percent of women whose delivery was paid by Medicaid or who had no insurance (self-pay, other, or unknown) at delivery had a significantly higher prevalence of no dental cleanings during pregnancy compared to 52.1 percent of women who had private insurance ($p<0.0001$). Women with an obese body mass index (BMI 30 and above) [8] had a significantly higher prevalence of no dental cleanings during pregnancy compared to women with a normal BMI (BMI 18.5 to 24.9); 71.5 vs. 62.1 percent. Finally, women with a high-school education had a significantly higher prevalence of no dental cleanings during pregnancy compared to women with an education beyond high-school (71.9 vs. 58.8 percent).

Table 1: Association of lack of dental cleaning during pregnancy and select maternal health practices, Texas PRAMS 2012-2016

	Unadjusted		Adjusted [a]	
Health Practices	PR [b]	95% CI [c]	PR	95%CI [c]
Prenatal care	1.25	1.19 - 1.31	1.16	1.10 - 1.22
Prenatal vitamin use	1.27	1.21 - 1.34	1.22	1.16 - 1.29
Dental coverage during pregnancy	1.62	1.54 - 1.70	1.56	1.48 - 1.64

[a] Covariates include maternal race/ethnicity, age, marital status, and education
[b] Prevalence ratios
[c] 95 percent confidence interval

What's Next

Most women in Texas are not receiving dental care during pregnancy. Medical and dental providers should recognize the importance of educating women on maintaining good oral health during pregnancy. Poor oral health is associated with several chronic diseases, such as diabetes and heart disease, and low birth weight babies.[2] Children born to mothers with poor oral health are more likely to have early childhood caries or tooth decay.[9] Medical providers may want to discuss oral health, assure treatment is safe, and refer to a dentist if necessary. Dental providers may want to be willing to open their clinics to pregnant woman and educate them on proper oral

hygiene for mom and baby. Public health programs, such as Smiles for Moms and Babies, will continue to provide oral health education to providers, home visitors, and new and expectant mothers.

For additional information and resources, contact Smiles for Moms and Babies at dental@dshs.texas.gov.

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