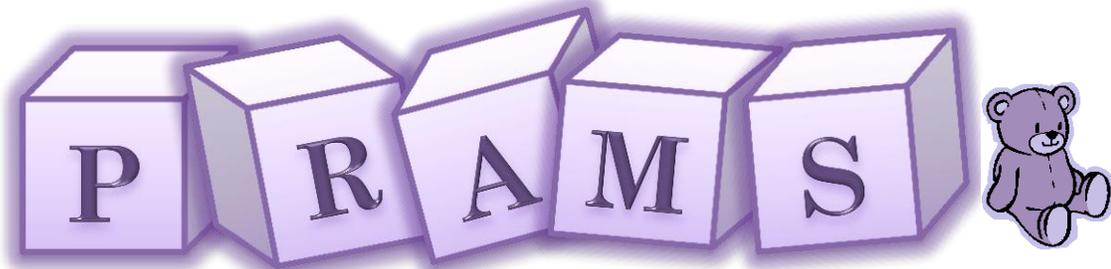


Texas



Pregnancy Risk Assessment Monitoring System

2011 Annual Report

**Texas Department of State Health Services
Division for Family and Community Health Services
Office of Program Decision Support**



2011 Annual Report Texas Pregnancy Risk Assessment Monitoring System

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PREFACE

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance system designed to monitor maternal attitudes and behaviors before, during, and after pregnancy. Conducted in partnership with the Centers for Disease Control and Prevention (CDC) and the Texas Department of State Health Services (DSHS), Texas PRAMS is a population-based assessment that monitors the health and behaviors of new mothers in Texas. It provides current information regarding preconception health, pregnancy, and birth trends, and serves as an excellent resource for those seeking to learn more about and to develop policies related to pregnancy and early infancy.

This document provides an overview of the data collected from a sample of women representing all live births to women in Texas during the 2011 calendar year. After an introduction on the history and data collection methodology of PRAMS, data are presented on pregnancy intention, contraceptive use, multivitamin use and folic acid knowledge, substance use (alcohol and tobacco), intimate partner violence, prenatal care, delivery (labor induction and cesarean section), breastfeeding, oral health, infant health and safety, and maternal postpartum experiences.

BACKGROUND

For most of the 20th century, rates of infant mortality and low birth weight in the United States (U.S.) dropped steadily. During the 1980s these rates began to level off, showing only modest decreases in the last years of the century.¹ In 1987, the CDC developed PRAMS to monitor and understand trends in infant mortality and morbidity. The CDC also sought to examine maternal attitudes and behaviors as possible factors contributing to infant outcomes.

Conducted through partnerships between the CDC and state health departments, PRAMS was originally implemented by six health departments. The surveillance system has now grown to include 40 states and New York City. For each state, the data collected are population-based and are representative of all new mothers in the state. In 2002, Texas began participating in PRAMS. Since then, the survey has been used to collect data on many topics, including pregnancy intention, contraceptive use, prenatal care, substance use (alcohol and tobacco), physical abuse, pregnancy-related morbidities, breastfeeding, and infant healthcare and safety. It has also assessed mothers' knowledge of pregnancy-related health issues, such as the adverse effects of tobacco and alcohol use and the benefits of folic acid.

Evidence suggests that maternal behaviors and attitudes before, during, and after pregnancy can influence pregnancy outcomes and infant health.² PRAMS data serve as an excellent resource to researchers and policymakers interested in assessing how such factors are associated with the health and well-being of new mothers and their infants in Texas. PRAMS can help to identify which groups of women are at high risk for adverse pregnancy outcomes so that they can be targeted for interventions. The surveillance system can also assist in the monitoring of infant

¹ Singh GK & van Dyck PC. Infant mortality in the United States, 1935-2007: Over seven decades of progress and disparities. Health Resources and Services Administration, Maternal and Child Health Bureau. Rockville, Maryland: U.S. Department of Health and Human Services, 2010.

² Centers for Disease Control and Prevention. Maternal and infant health homepage. Accessed on July 9, 2013, at <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/index.htm>.

mortality and morbidity trends within the state. Additionally, PRAMS supplements data available on birth certificate records by providing more in-depth information that is not otherwise available at the state level.

METHODOLOGY

The PRAMS study population includes all women with a live birth³ delivered in Texas in a given year. Each month, a complete file of recent births in Texas is obtained from DSHS vital statistics. A stratified sample of approximately 200 mothers per month is selected from the birth file based on race/ethnicity and infant birth weight. Race/ethnicity is divided into three categories of women: Hispanic, non-Hispanic Black, and non-Hispanic White/Other.⁴ Infant birth weight is divided into low birth weight (less than 2,500 grams) and normal birth weight (greater than or equal to 2,500 grams).

Sampled women are recruited to participate in PRAMS through two phases of data collection – mail and telephone. In the first phase, women are contacted through the mail when their infants are approximately 60 to 90 days old. They receive a letter that introduces the PRAMS project and encourages their participation. They are notified that they will be contacted through follow-up mailings that will include a copy of the PRAMS survey. Within six weeks of receiving the introductory letter, women receive a survey that they can complete and return. Women who do not respond receive two subsequent mailings. The mailed surveys include an infant forehead thermometer as an incentive for completion. The majority of responses are collected by mail.

Women who do not return the survey through the mail are moved into the telephone phase of data collection, which begins after the last mailed survey packet is sent. Over a six-week period, women are called and encouraged to complete the survey over the phone. There are up to 15 call attempts for each phone number provided before call attempts are stopped for a sample member. During all communications, women are informed that their participation is voluntary and that their data will remain confidential and anonymous.

All women have the option of completing the survey in English or Spanish. Women who complete the survey (via mail or telephone) receive a \$10 gift certificate to Target or Walmart. In previous PRAMS survey years, African American women had notably lower response rates than those of other racial/ethnic groups, thus, they are given a gift certificate of \$25 to further encourage participation.⁵

In Texas, there are two versions of the survey – one for adults and one for minors (under 18 years of age). They differ in that the survey for minors does not include questions related to physical abuse. Because child abuse reporting laws in Texas apply to PRAMS project staff, CDC allows abuse questions to be omitted from the survey that is sent to minors.

Although the sample is pulled from the birth record of all live births, there are instances of infant death between birth and recruitment for the project. Staff members and project documents are

³ Adoptive mothers are excluded from the sample. Additionally, the sampling procedures include coding that randomly selects only one infant from a multiple gestation. Multiple births of four or more are excluded.

⁴ In this report, White and other race/ethnicity were analyzed separately.

⁵ All monetary incentives are paid for using funding from the CDC.

sensitive to this possibility. These women are still encouraged to participate and they often have high rates of participation.

After all attempts are made to collect completed surveys from sampled women, the monthly data files are compiled into an annual file and sent to the CDC for cleaning and weighting. To make the data representative of all live births in Texas, the CDC calculates an analysis weight for each respondent. The analysis weight can be interpreted as the number of women in the population that each individual respondent represents. It consists of a sampling weight, a nonresponse weight, and a frame noncoverage weight. For further details about the weighting process used, refer to the CDC PRAMS web page titled “Detailed PRAMS methodology” at <http://www.cdc.gov/prams/methodology.htm>. The finalized PRAMS dataset contains survey variables, operational variables (such as method of survey completion), and linked birth certificate variables, including demographics and medical risk factors.

THE 2011 TEXAS PRAMS SURVEY

The 2011 Texas PRAMS survey includes 72 questions. All questions undergo extensive validity and reliability checks before they are included in the survey. There are two types of questions: “core” questions that must be asked by all states and “standard” questions chosen by states from a pretested list of questions developed by the CDC or developed by states on their own.

The PRAMS questionnaire is revised every three to four years. States have the option of updating their standard questions just prior to each new revision or “phase.” Standard questions are selected based on input from the Texas PRAMS Steering Committee and subject matter experts within DSHS.⁶ Within each phase, all questions remain the same. Texas has participated in Phase 4 (years 2002-2003), Phase 5 (years 2004-2008), and Phase 6 (years 2009-2011) of PRAMS. This report is not inclusive of all questions in the Texas PRAMS survey, as the survey covers more than can be concisely addressed here (refer to the questionnaire in the appendix to review all survey questions). Rather, this report serves as a general overview of the 2011 Texas PRAMS data.

HOW TO READ TABLES

SAS® Enterprise Guide version 4.3 was used for all analyses and appropriate statements were used to account for the complex sampling scheme of PRAMS. For each health indicator, descriptive statistics are reported overall; by maternal socio-demographic characteristics (race/ethnicity, age, annual household income, education, marital status, Medicaid status, residency (border vs. non-border)); and by infant characteristics (birth weight and gestational age). Detailed tables display prevalence estimates, standard errors, 95 percent confidence intervals, number of respondents, and population estimates. Understanding the following terms will help interpret the data presented in the tables.

Prevalence/Rate: The estimated percent of Texas women with the specified indicator. The term “rate” and “prevalence” are used interchangeably throughout the report.

⁶ Due to staffing changes, new members have been added to the Texas PRAMS Steering Committee and meetings will be convened in the near future.

Standard error: A measure of the sampling variability among all possible samples that could have been drawn from the sampling frame (birth certificate file). If all possible samples were drawn, then some would result in larger prevalence estimates and some would result in smaller estimates. The standard error is an average “distance” of each estimated prevalence from the true population prevalence. A large sample size will result in a smaller standard error (and more reliable results), because the larger the sample size, the closer the sample is to the actual population.

95 percent confidence interval: Each confidence interval presented here is a measure of the precision of its associated prevalence. Since the prevalence was calculated from a sample of the population, it is an *estimate* of the true value of the population. A larger sample size will result in a more precise prevalence estimate, and thus, a narrower confidence interval. If confidence intervals for two estimates do *not* overlap, then there is a statistically significant difference between the prevalence estimates. However, if confidence intervals *do* overlap, then there may or may not be a statistically significant difference between the prevalence estimates. Chi-square tests were computed for all tables. The tables note instances where subgroups have overlapping confidence intervals, but there is a statistically significant difference between the sub-groups.

Respondents: The total number of women who responded to the question. In some cases, mothers may not have responded to all questions even if they completed the survey; therefore, the number of respondents for each question will differ. Missing data for non-response were excluded from the analyses.

Estimated population affected: The estimated number of Texas women with the specified indicator.

Blank or suppressed numbers: PRAMS is a survey and, as such, not all questions are always answered by enough women to have the adequate sample size or the adequate variation to accurately statistically estimate the population. In this report, data for particular demographic groups are suppressed (not reported) when there are fewer than 10 women with a particular response and the group has a relative standard error that is greater than 30 percent. In these cases, the population and confidence intervals cannot be estimated with accuracy; therefore, the information for those groups is not reported.

LIMITATIONS

It is important to understand the limitations of PRAMS data. These limitations may contribute to unreliable estimates, as well as variations in prevalence when comparing PRAMS to other data sources such as birth certificate data. A limitation inherent to self-reported survey data is the potential for recall bias and/or misinterpretation of questions. Additionally, because of the sensitive nature of some of the questions (i.e., those assessing substance use or physical abuse), interpretation of the data must be done with caution, as participants may be hesitant to be completely truthful about certain subjects.

The overall and stratum-specific response rates for PRAMS must be 65 percent or higher to meet the suggested CDC guidelines for minimal non-response bias. States that do not meet this

minimum response rate threshold are not included in the national PRAMS sample. In 2011, Texas did not meet the response rate threshold, with the overall response rate being at 62.2 percent in 2011. However, the CDC is currently examining the possibility of reducing this threshold, since many states do not meet the 65 percent response rate.

For PRAMS, the minimum number of respondents needed for any subpopulation analysis is 30 respondents plus the number of strata in the survey. Since Texas has six strata, a minimum of 36 respondents in a subpopulation is needed in order to generalize to that subpopulation. Smaller sample sizes for subpopulations result in less precise estimates (and wider confidence intervals). In some cases the confidence intervals may be too wide to be useful for health planning. In these instances multiple years of data may need to be combined to obtain a larger sample size and more stable estimates. Lastly, the results presented in this report are unadjusted (i.e., not controlling for any other variables). Therefore, the results cannot speak to how much risk may be attributed to one variable (i.e., race/ethnicity) over another (i.e., income).

OVERALL SAMPLE DESCRIPTION

The 2011 Texas PRAMS sample included 1,316 women who responded to the survey. Maternal demographic characteristics and infant characteristics are displayed in Table 1. Non-Hispanic Whites comprised 35.4 percent of the weighted sample, whereas 10.9 percent were Black, 48.7 percent were Hispanic, and 5.0 percent were of other race/ethnicities. Over half (52.0 percent) of the weighted sample were between ages 25 and 34. Women aged 20 to 24 accounted for 23.3 percent, and 18-19 year olds, youth 17 years and younger, and women ages 35 and older comprised 7.7 percent, 2.8 percent, and 14.2 percent of the weighted sample, respectively. Over a third (38.4 percent) reported an annual household income below \$15,000 and 15.2 percent reported an annual household income between \$15,000 and \$25,000. Nearly half of the women (48.6 percent) had formal education past high school, 28.3 percent had completed high school and had no additional education, and 23.1 percent had less than 12 years of education. Married women comprised 61.4 percent of the weighted sample. Just over half of the weighted sample (50.9 percent) reported that their deliveries were paid by Medicaid. Residents of the Texas border area accounted for 11.9 percent of the weighted sample. Infants born preterm (less than 37 weeks gestation) and those with low birth weight (weighing less than 2,500 grams) accounted for 10.0 percent and 7.6 percent of the weighted sample, respectively.

Table 1. Socio-demographic Characteristics of Texas PRAMS Women, 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population
			Lower	Upper		
MATERNAL						
Race/ethnicity						
White	35.4	0.6	34.2	36.6	453	130,925
Black	10.9	0.1	10.6	11.2	333	40,330
Hispanic	48.7	0.1	48.5	48.9	451	180,126
Other	5.0	0.6	3.8	6.2	77	18,518
Age (years)						
≤17	2.8	0.6	1.6	3.9	37	10,266
18-19	7.7	0.9	6.0	9.5	105	28,626
20-24	23.3	1.4	20.5	26.1	317	86,278
25-34	52.0	1.7	48.7	55.2	673	192,531
≥35	14.2	1.2	11.9	16.5	184	52,662
Annual Household Income						
<\$15K	38.4	1.6	35.2	41.6	472	133,105
≥\$15K to <\$25K	15.2	1.3	12.7	17.7	179	52,633
≥\$25K to <\$50K	19.4	1.4	16.7	22.0	234	67,067
≥\$50K	27.0	1.3	24.4	29.6	336	93,430
Education (years)						
<12	23.1	1.4	20.4	25.9	260	85,628
12	28.3	1.5	25.2	31.2	351	104,321
>12	48.6	1.5	45.6	51.7	703	179,950
Marital Status						
Married	61.4	1.6	58.3	64.5	757	227,391
Unmarried	38.6	1.6	35.5	41.7	559	142,972
Medicaid Recipient^a						
No	49.1	1.6	45.9	52.3	589	179,408
Yes	50.9	1.6	47.7	54.1	701	185,857
Border Resident						
No	88.1	1.1	85.9	90.4	1,187	326,400
Yes	11.9	1.1	9.6	14.1	129	43,963
INFANT						
Birth Weight						
Low (<2500 g)	7.6	0.1	7.5	7.7	333	28,124
Normal (≥2500g)	92.4	0.1	92.3	92.5	983	342,239
Gestational Age						
< 37 Weeks (preterm)	10.0	0.7	8.6	11.5	291	37,209
≥ 37 Weeks	90.0	0.7	88.5	91.4	1,025	333,154

^a Delivery paid by Medicaid.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

PREGNANCY INTENTION

The CDC defines an unintended pregnancy as one that is mistimed (wanted later) or unwanted at the time of conception. Unintended pregnancies occur primarily due to the lack of birth control or because of incorrect or inconsistent use of birth control methods. Understanding the correlates of unintended pregnancy is essential to addressing its prevention, as well as to the development and evaluation of family planning programs.^{7,8} Unintended pregnancy has been associated with negative health behaviors and conditions, such as alcohol and tobacco use and delayed prenatal care. In turn, many of these behaviors have been linked to adverse outcomes for both mothers and their infants.⁹

The PRAMS survey is one of the best sources of data on unintended pregnancy. The 2011 Texas PRAMS survey asked the following question: “Thinking back to *just before* you got pregnant with your *new* baby, how did you feel about becoming pregnant?” The response options were: “I wanted to be pregnant sooner” (intended); “I wanted to be pregnant later” (mistimed); “I wanted to be pregnant then” (intended); and “I didn’t want to be pregnant then or at any time in the future” (unwanted).

Overall, 57.1 percent of pregnancies were intended (Table 2). Women of White and other race/ethnicities had the highest rates of intended pregnancy, at 64.9 percent and 67.5 percent, respectively. Black women were significantly less likely than all other racial/ethnic groups to report an intended pregnancy, at 40.7 percent. There was a general increase in the prevalence of intended pregnancies with increasing age and income. Women aged 25 years and older and those with an annual household income of \$50,000 per year or more had significantly higher rates of intended pregnancy than younger women and those with less household income. The following groups of women were also significantly more likely to report an intended pregnancy: those with more than 12 years of education (65.9 percent); those who were married (68.8 percent); and those who did not have their deliveries paid by Medicaid (70.5 percent).

Overall, 42.9 percent of pregnancies were unintended (data not shown) – with 34.0 percent of them being mistimed (Table 3) and 8.9 percent being unwanted (Table 4). Black and Hispanic women had higher rates of mistimed pregnancies, at 41.7 percent and 37.3 percent, respectively, when compared with White women (28.6 percent) and women of other (24.7 percent) race/ethnicities. The rate of mistimed pregnancies was generally lower for older women and those with higher incomes. Women with household incomes less than \$15,000 (42.0 percent), and with household incomes between \$15,000 and \$25,000 (42.1 percent) were more than twice as likely to report a mistimed pregnancy compared to women with household incomes of \$50,000 or more (19.6 percent). Women who were unmarried and those who had their deliveries paid by Medicaid were also significantly more likely to report a mistimed pregnancy.

The rate of unwanted pregnancy in the sample was 8.9 percent (Table 4), with Black women reporting a significantly higher rate (17.7 percent) compared to White women (6.5 percent).

⁷ Centers for Disease Control and Prevention. Unintended pregnancy prevention home page. Accessed on July 11, 2013, at <http://www.cdc.gov/reproductivehealth/unintendedpregnancy/index.htm>.

⁸ Santelli J, Rochat R, Hatfield-Timajchy K, et al. The measurement and meaning of unintended pregnancy. *Perspectives on Sexual and Reproductive Health*. 2003: 35; 94-101.

⁹ Finer L, Kost K. Unintended pregnancy rates at the state level. *Perspectives on Sexual and Reproductive Health*. 2011: 43; 78-87.

Among the different age groups, the oldest (35 years of age and older) reported the highest rate of unwanted pregnancy at 13.5 percent. The highest rates of unwanted pregnancy were among those reporting an annual household income less than \$15,000 and between \$25,000 and \$50,000, at 12.0 percent and 10.7 percent, respectively. Additionally, unmarried women (13.3 percent) and those who had their deliveries paid by Medicaid (12.1 percent) were significantly more likely to report an unwanted pregnancy. Women who delivered babies with low birth weight (13.4 percent) were more likely to report that their pregnancies were unwanted, compared to those that delivered babies of normal weight (8.5 percent).

Table 2. Characteristics of Women Reporting Intended Pregnancies, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	57.1	1.6	53.9	60.3	1,310	210,521
Race/Ethnicity*						
White	64.9	2.4	60.2	69.6	452	84,914
Black	40.7	2.7	35.3	46.1	331	16,308
Hispanic	54.0	2.8	48.6	59.4	449	96,633
Other	67.5	5.9	56.0	79.0	76	12,281
Age (years)*						
≤17	---	---	---	---	---	---
18-19	42.7	6.1	30.7	54.7	105	12,230
20-24	45.4	3.5	38.6	52.1	316	39,064
25-34	64.0	2.2	59.6	68.3	669	122,119
≥35	67.2	4.3	58.8	75.5	183	35,293
Annual Household Income*						
<\$15K	46.0	2.9	40.3	51.7	470	61,150
≥\$15K to <\$25K	50.3	4.6	41.3	59.4	179	26,486
≥\$25K to <\$50K	57.0	3.9	49.5	64.6	233	38,060
≥\$50K	77.0	2.6	71.9	82.2	335	71,513
Education (years)*						
<12	53.0	3.8	45.6	60.4	259	45,072
12	45.7	3.2	39.3	52.0	351	47,651
>12	65.9	2.1	61.8	70.0	698	117,797
Marital Status*						
Married	68.8	2.0	64.9	72.8	753	155,419
Unmarried	38.6	2.7	33.4	43.8	557	55,102
Medicaid Recipient^a*						
No	70.5	2.2	66.2	74.8	584	125,278
Yes	44.1	2.4	39.4	48.7	700	81,902
Border Resident						
No	57.0	1.7	53.6	60.3	1,181	184,912
Yes	58.3	5.4	47.7	68.8	129	25,609
INFANT						
Birth Weight						
Low (<2500 g)	52.2	2.7	46.9	57.6	332	14,653
Normal (≥2500 g)	57.5	1.8	54.1	61.0	978	195,868
Gestational Age						
<37 Weeks (preterm)	57.5	3.8	50.0	65.0	290	21,345
≥37 Weeks	57.1	1.8	53.6	60.6	1,020	189,176

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Table 3. Characteristics of Women Reporting Mistimed Pregnancies, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	34.0	1.6	30.9	37.1	1,310	125,403
Race/Ethnicity*						
White	28.6	2.3	24.1	33.0	452	37,380
Black	41.7	2.8	36.2	47.1	331	16,699
Hispanic	37.3	2.7	32.0	42.6	449	66,755
Other	24.7	5.4	14.1	35.2	76	4,489
Age (years)*						
≤17	---	---	---	---	---	---
18-19	53.0	6.1	41.0	65.0	105	15,165
20-24	48.5	3.5	41.8	55.3	316	41,811
25-34	26.8	2.1	22.8	30.8	669	51,194
≥35	19.4	3.6	12.2	26.5	183	10,172
Annual Household Income*						
<\$15K	42.0	2.9	36.4	47.6	470	55,855
≥\$15K to <\$25K	42.1	4.5	33.2	51.0	179	22,160
≥\$25K to <\$50K	32.3	3.6	25.2	39.5	233	21,568
≥\$50K	19.6	2.5	14.6	24.5	335	18,166
Education (years)*						
<12	39.7	3.7	32.4	46.9	259	33,757
12	42.1	3.2	35.8	48.4	351	43,878
>12	26.7	2.0	22.8	30.6	698	47,689
Marital Status*						
Married	25.1	1.9	21.4	28.8	753	56,705
Unmarried	48.1	2.7	42.9	53.4	557	68,698
Medicaid Recipient^a*						
No	24.1	2.1	20.0	28.2	584	42,837
Yes	43.9	2.4	39.2	48.5	700	81,484
Border Resident						
No	34.4	1.7	31.2	37.7	1,181	111,763
Yes	31.0	5.1	21.0	41.0	129	13,639
INFANT						
Birth Weight						
Low (<2500 g)	34.3	2.6	29.2	39.5	332	9,630
Normal (≥2500g)	34.0	1.7	30.7	37.3	978	115,773
Gestational Age						
<37 Weeks (preterm)	32.3	3.7	25.1	39.5	290	11,995
≥37 Weeks	34.2	1.7	30.9	37.6	1,020	113,408

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 4. Characteristics of Women Reporting Unwanted Pregnancies, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	8.9	0.9	7.1	10.6	1,310	32,620
Race/Ethnicity*						
White	6.5	1.2	4.2	8.9	452	8,552
Black	17.7	2.1	13.5	21.8	331	7,076
Hispanic	8.7	1.5	5.7	11.7	449	15,565
Other	---	---	---	---	---	---
Age (years) †						
≤17	---	---	---	---	---	---
18-19	---	---	---	---	---	---
20-24	6.1	1.3	3.7	8.6	316	5,264
25-34	9.2	1.3	6.6	11.9	669	17,646
≥35	13.5	3.1	7.4	19.5	183	7,087
Annual Household Income						
<\$15K	12.0	1.8	8.5	15.4	470	15,883
≥\$15K to <\$25K	7.6	2.3	3.1	12.0	179	3,987
≥\$25K to <\$50K	10.7	2.4	6.0	15.3	233	7,119
≥\$50K	---	---	---	---	---	---
Education (years)						
<12	7.3	1.9	3.6	11.0	259	6,212
12	12.3	2.0	8.3	16.2	351	12,792
>12	7.4	1.1	5.2	9.6	698	13,231
Marital Status*						
Married	6.1	1.0	4.0	8.1	753	13,666
Unmarried	13.3	1.7	10.0	16.6	557	18,954
Medicaid Recipient^{a*}						
No	5.4	1.1	3.2	7.5	584	9,552
Yes	12.1	1.4	9.2	14.9	700	22,392
Border Resident						
No	8.6	0.9	6.8	10.4	1,181	27,905
Yes	---	---	---	---	---	---
INFANT						
Birth Weight[†]						
Low (<2500 g)	13.4	1.9	9.8	17.1	332	3,762
Normal (≥2500g)	8.5	1.0	6.6	10.4	978	28,858
Gestational Age						
<37 Weeks (preterm)	10.2	1.7	7.0	13.4	290	3,790
≥37 Weeks	8.7	1.0	6.7	10.7	1,020	28,830

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

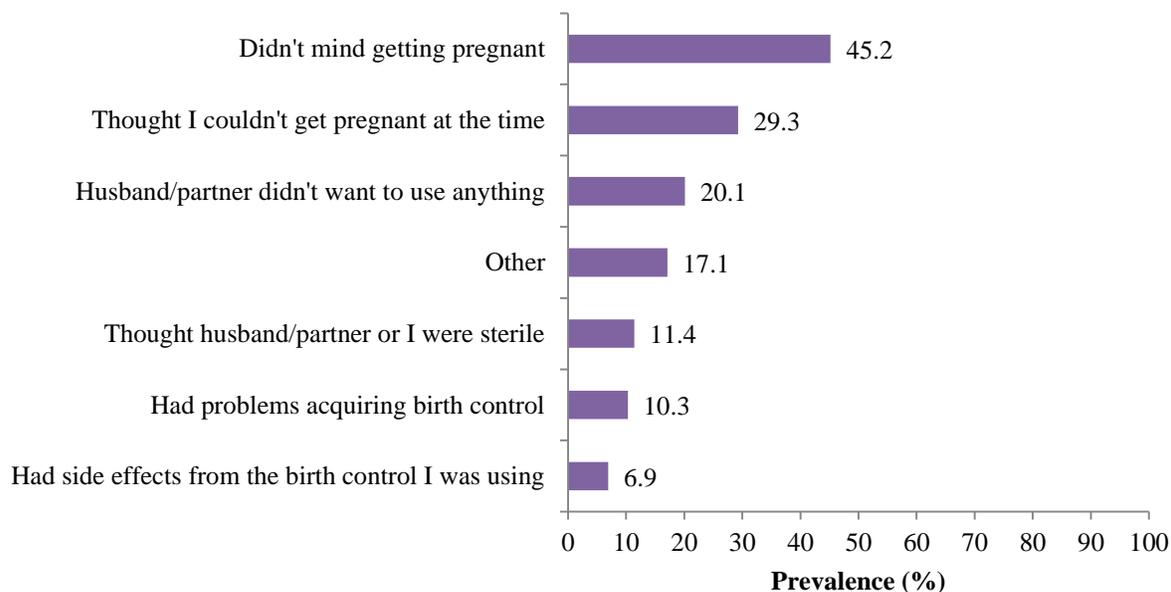
Estimated Population Affected: Estimated number of Texas women with the specified indicator.

CONTRACEPTION USE AT THE TIME OF PREGNANCY

The PRAMS survey also assessed the deliberate intent to get pregnant at the time of conception, as well as contraceptive use among those who were not intending to get pregnant, using the following questions: “When you got pregnant with your new baby, were you trying to get pregnant?” and “When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant?” Overall, 52.5 percent reported that they were not trying to get pregnant. Of these women, 55.4 percent said that they, their husbands, or partners were not using any form of contraception (data not shown).

As previously stated, unwanted and mistimed pregnancies often occur due to a lack of birth control use. To prevent these pregnancies, it is important to understand reasons behind the failure to use birth control methods when pregnancy is not desired. To assess these reasons, the PRAMS survey asked “What were your reasons or your husband’s or partner’s reasons for not doing anything to keep from getting pregnant?” The three most common reasons given for not using contraception were that the respondent did not mind if she got pregnant (45.2 percent); the respondent thought she could not get pregnant at the time (29.3 percent); and/or the respondent’s husband/partner did not want to use contraception (20.1 percent; Figure 1). Furthermore, 10.3 percent of women reported that they had problems acquiring birth control when they needed it.

Figure 1. Reported Reasons for Not Using Contraception before Pregnancy, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

VITAMINS AND FOLIC ACID

Vitamins and minerals provide our bodies the nutrients needed to stay healthy and repair damage. For pregnant women, especially, meeting the recommendations for vitamins and minerals through a healthy diet alone is often difficult. Therefore, prenatal vitamins are recommended as they contain folic acid and other important nutrients needed for healthy fetal development.¹⁰

Folic acid is a B vitamin that helps the body produce healthy new cells. Everyone needs folic acid, but it is especially important for pregnant women. Sufficient folic acid levels prior to conception aid in the prevention of neural tube defects (birth defects of the baby’s brain or spinal column). The CDC advises that women take 400 micrograms of folic acid every day starting at least one month before getting pregnant.^{11, 12} To ensure adequate folic acid intake, women should, on a daily basis, take a vitamin or eat a serving of breakfast cereal with 100 percent of the recommended daily intake of folic acid.¹³

The 2011 Texas PRAMS survey asked women the following questions about multivitamin use: “During the month before you got pregnant with your new baby, how many times a week did you take a multivitamin, a prenatal vitamin, or a folic acid vitamin?” The response options were, “I didn’t take a multivitamin, prenatal vitamin, or folic acid vitamin at all;” “1 to 3 times a week;” “4 to 6 times a week;” or “Every day of the week.”

Overall, 41.6 percent of women reported that they took a multivitamin or prenatal vitamin at least one to three times a week during the month before getting pregnant (Table 5). Women of White and other race/ethnicities had the highest rates of multivitamin or prenatal vitamin use, at 52.6 percent and 59.2 percent, respectively. Black and Hispanic women had the lowest rates, at 37.1 percent and 32.9 percent, respectively. Women between 20 and 24 years of age had the lowest rates of vitamin use at 27.1 percent. The highest rates of vitamin use were among the oldest age groups – 48.2 percent for those ages 25 to 34 and 49.2 percent for women ages 35 and older. Rates of multivitamin and prenatal vitamin use were higher among women with higher annual household incomes and more education. Women with household incomes greater than \$50,000 (64.1 percent) were more than twice as likely to report vitamin use as those with household incomes less than \$15,000 (30.7 percent). The rate of vitamin use was 51.6 percent among those with more than 12 years of education, compared to 30.9 percent among those with fewer than 12 years. Married women (47.6 percent compared to 32.2 percent for unmarried women) and those who did not have their deliveries paid by Medicaid (51.5 percent compared to 32.3 percent for those with deliveries paid by Medicaid) were more likely to have taken multivitamins and prenatal vitamins.

¹⁰ March of Dimes. Vitamins and minerals during pregnancy. Accessed on July 12, 2013, at http://www.marchofdimes.com/pregnancy/nutrition_vitamins.html.

¹¹ National Institutes of Health. MedlinePlus Health Topics: Folic Acid. Accessed on July 12, 2013, at <http://www.nlm.nih.gov/medlineplus/folicacid.html>.

¹² Centers for Disease Control and Prevention. Facts about Folic Acid. Accessed on July 12, 2013, at <http://www.cdc.gov/ncbddd/folicacid/about.html>.

¹³ March of Dimes. Vitamins and minerals during pregnancy. Accessed on July 12, 2013, at http://www.marchofdimes.com/pregnancy/nutrition_vitamins.html.

Women also were asked the following question: “Have you ever heard or read that taking a vitamin with folic acid can help prevent some birth defects?” Overall, 78.2 percent of women reported knowledge of the benefits of folic acid (Table 6). This knowledge did not differ by race/ethnicity, despite the racial and ethnic differences in actual folic acid and multivitamin use.

There generally were more women in the older age groups reporting knowledge of the benefits of folic acid. Women age 35 and older (89.3 percent) were over twice as likely as youth 17 and younger (41.6 percent) to report knowing about the benefits of folic acid. Income and education were also found to be related to this knowledge. Women with household incomes greater than \$50,000 had a knowledge rate of 89.0 percent compared to 70.3 percent for those with household incomes of \$15,000 or less. The knowledge rate was 85.6 percent among women with more than 12 years of education, compared to 70.6 percent for those with 12 years, and 72.1 percent for those with fewer than 12 years. Married women were more likely than unmarried women to report knowledge of folic acid benefits (83.7 percent vs. 69.5 percent). Women with non-Medicaid deliveries were more likely to report such knowledge compared to those whose deliveries were paid by Medicaid (86.9 percent vs. 69.7 percent). Knowledge rates were higher for women who gave birth to normal weight babies (79.2 percent) compared to those who gave birth to low birth weight babies (66.2 percent); and for those who had full-term pregnancies (79.1 percent) compared to those with pre-term deliveries (70.5 percent).

**Table 5. Characteristics of Women Reporting Multivitamin or Prenatal Vitamin Use
During the Month before Pregnancy, Texas PRAMS 2011**

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	41.6	1.6	38.5	44.8	1,311	153,498
Race/Ethnicity*						
White	52.6	2.5	47.7	57.5	453	68,886
Black	37.1	2.7	31.8	42.3	332	14,912
Hispanic	32.9	2.6	27.8	38.1	448	58,934
Other	59.2	6.2	47.0	71.3	76	10,766
Age (years)*						
≤17	37.7	10.7	16.6	58.7	37	3,866
18-19	29.3	5.5	18.5	40.1	105	8,390
20-24	27.1	3.0	21.2	33.0	317	23,384
25-34	48.2	2.3	43.8	52.6	669	92,243
≥35	49.2	4.5	40.4	57.9	183	25,615
Annual Household Income*						
<\$15K	30.7	2.6	25.5	35.9	472	40,909
≥\$15K to <\$25K	31.1	4.3	22.7	39.4	178	16,171
≥\$25K to <\$50K	41.7	3.8	34.2	49.3	232	27,809
≥\$50K	64.1	3.0	58.3	70.0	336	59,926
Education (years)*						
<12	30.9	3.5	24.0	37.8	257	26,065
12	33.4	3.1	27.4	39.4	351	34,850
>12	51.6	2.2	47.3	55.9	701	92,583
Marital Status*						
Married	47.6	2.1	43.5	51.6	753	107,626
Unmarried	32.2	2.5	27.3	37.1	558	45,873
Medicaid Recipient^a*						
No	51.5	2.3	46.9	56.1	584	91,592
Yes	32.3	2.2	27.9	36.6	701	59,949
Border Resident						
No	41.1	1.7	37.8	44.3	1,182	133,320
Yes	45.9	5.4	35.3	56.5	129	20,178
INFANT						
Birth Weight						
Low (<2500 g)	39.6	2.7	34.3	44.9	332	11,110
Normal (≥2500g)	41.8	1.7	38.4	45.2	979	142,388
Gestational Age						
<37 Weeks (preterm)	44.1	4.0	36.3	51.9	290	16,359
≥37 Weeks	41.4	1.7	38.0	44.7	1,021	137,139

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 6. Characteristics of Women Reporting Knowledge of Folic Acid Benefit, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	78.2	1.4	75.6	80.9	1,296	285,993
Race/Ethnicity						
White	79.7	2.0	75.7	83.7	450	103,606
Black	70.5	2.5	65.5	75.5	325	27,667
Hispanic	78.3	2.3	73.8	82.8	443	138,946
Other	83.7	4.6	74.8	92.7	76	15,389
Age (years)*						
≤17	41.6	10.7	20.6	62.5	37	4,267
18-19	57.5	6.1	45.6	69.4	103	16,289
20-24	73.4	3.0	67.5	79.2	311	62,082
25-34	82.5	1.8	79.0	85.9	663	156,686
≥35	89.3	2.7	84.0	94.6	182	46,670
Annual Household Income*						
<\$15K	70.3	2.6	65.3	75.4	469	92,702
≥\$15K to <\$25K	80.0	3.5	73.0	86.9	179	42,087
≥\$25K to <\$50K	83.5	2.9	77.9	89.1	233	55,714
≥\$50K	89.0	2.0	85.1	92.9	336	83,152
Education (years)*						
<12	72.1	3.3	65.5	78.7	257	61,120
12	70.6	2.9	64.8	76.3	342	72,215
>12	85.6	1.5	82.6	88.6	695	152,272
Marital Status*						
Married	83.7	1.6	80.5	86.8	750	188,897
Unmarried	69.5	2.4	64.7	74.3	546	97,096
Medicaid Recipient^{a*}						
No	86.9	1.6	83.8	90.0	589	155,969
Yes	69.7	2.2	65.4	73.9	697	128,362
Border Resident*						
No	76.5	1.5	73.6	79.4	1,168	246,440
Yes	91.2	2.8	85.7	96.7	128	39,553
INFANT						
Birth Weight*						
Low (<2500 g)	66.2	2.6	61.1	71.3	329	18,404
Normal (≥2500g)	79.2	1.5	76.4	82.1	967	267,589
Gestational Age[†]						
<37 Weeks (preterm)	70.5	3.7	63.3	77.6	286	25,539
≥37 Weeks	79.1	1.5	76.2	82.0	1,010	260,453

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

[†] Although confidence intervals overlap, $p < 0.05$ (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

TOBACCO USE

The harmful effects of smoking have been studied extensively and are well-established.¹⁴ Aside from the harmful effects on a woman's general health, smoking before pregnancy is associated with difficulties and delays in conception. Smoking during pregnancy puts a baby at higher risk of premature birth, low birth weight, and sudden infant death syndrome (SIDS). Exposure to secondhand smoke has been shown to cause premature death and disease in children and adults who do not smoke.¹⁵

Texas PRAMS survey asked mothers about their smoking status before, during, and after pregnancy using the following questions: "In the *three months before* you got pregnant, how many cigarettes did you smoke on an average day?" "In the *last three months* of your pregnancy, how many cigarettes did you smoke on an average day?" And, "How many cigarettes do you smoke on an average day *now*?" For all three questions, women's answers could range from "I didn't smoke then"/ "I don't smoke now" to "41 cigarettes or more." Overall, 19.3 percent of women reported smoking during the three months before pregnancy (Table 7), 7.4 percent of women reported smoking during the third trimester (Table 8) and 12.2 percent of women reported smoking during the postpartum period (Table 9). For all three time periods, White women had the highest rates of smoking.

Women in the highest income group (\geq \$50,000 per year) reported lower rates of smoking before and after pregnancy. Generally, rates of smoking across all the time periods were higher with decreasing household incomes. Women in the lowest household income group ($<$ \$15,000 per year) reported the highest rates of smoking during the third trimester and the postpartum period. The association between smoking and education did not parallel the findings for household income. For the period three months prior to pregnancy, no significant relationship was found between smoking and education. However, women who had only 12 years of education, compared to those with more or less, were the most likely to smoke in both the third trimester and the postpartum period. Unmarried women and Medicaid recipients had significantly higher rates of smoking during all three time periods.

Women were also asked the following question about smoking in the home, "Which of the following statements best describes the rules about smoking *inside* your home *now*?" The response options were: "No one is allowed to smoke anywhere inside my home;" "Smoking is allowed in some rooms or at some times" or "Smoking is permitted anywhere inside my home." Overall, only 3.4 percent of women responded that smoking is allowed inside their homes (Table 10). Black women (10.5 percent) were the most likely to report that smoking is allowed in their homes. Rates of allowing smoking inside were generally higher with younger age groups. Women in the 18-19 year old age range were the most likely to report smoking was allowed in the home at 9.7 percent. This rate is in contrast to the 2.0 percent of women age 35 and over who reported that smoking was allowed in the home. In-home smoking rates were also higher in the lower annual household income groups (1.0 percent versus 6.0 percent for the highest and lowest income brackets, respectively).

¹⁴ Centers for Disease Control and Prevention. Health Effects of Cigarette Smoking. Accessed on July 16, 2013 at http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm.

¹⁵ Centers for Disease Control and Prevention. Tobacco Use and Pregnancy. Accessed on July 16, 2013 at <http://www.cdc.gov/reproductivehealth/tobaccousepregnancy/index.htm>.

Table 7. Characteristics of Women Reporting Cigarette Smoking Three Months before Pregnancy, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	19.3	1.3	16.8	21.8	1,288	70,359
Race/Ethnicity*						
White	29.3	2.3	24.7	33.8	447	37,758
Black	17.3	2.2	13.1	21.6	322	6,745
Hispanic	12.5	1.8	8.9	16.1	442	22,174
Other	17.8	4.5	8.9	26.7	75	3,218
Age (years)*						
≤17	---	---	---	---	---	---
18-19	17.7	4.4	9.0	26.3	101	4,973
20-24	28.7	3.1	22.6	34.8	310	24,363
25-34	18.3	1.7	15.0	21.6	660	34,684
≥35	8.1	2.2	3.7	12.4	180	4,171
Annual Household Income*						
<\$15K	21.7	2.2	17.4	26.1	470	28,839
≥\$15K to <\$25K	28.4	4.1	20.4	36.4	177	14,886
≥\$25K to <\$50K	22.1	3.1	16.0	28.2	232	14,644
≥\$50K	10.0	1.8	6.6	13.5	334	9,254
Education (years)						
<12	15.1	2.5	10.3	20.0	254	12,851
12	23.0	2.6	17.9	28.2	340	23,461
>12	19.0	1.8	15.5	22.4	692	33,583
Marital Status*						
Married	13.7	1.4	10.9	16.4	745	30,634
Unmarried	28.4	2.3	23.8	32.9	543	39,725
Medicaid Recipient^a*						
No	12.5	1.5	9.6	15.4	585	22,201
Yes	25.8	2.0	21.9	29.7	697	47,699
Border Resident						
No	20.1	1.4	17.4	22.7	1,162	64,643
Yes	13.4	3.6	6.2	20.5	126	5,716
INFANT						
Birth Weight						
Low (<2500 g)	21.1	2.3	16.6	25.6	325	5,807
Normal (≥2500g)	19.2	1.4	16.5	21.8	963	64,552
Gestational Age						
<37 Weeks (preterm)	23.3	3.2	16.9	29.6	286	8,547
≥37 Weeks	18.9	1.4	16.2	21.5	1002	61,812

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 8. Characteristics of Women Reporting Cigarette Smoking During the Third Trimester, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	7.4	0.8	5.9	8.9	1,286	26,910
Race/Ethnicity						
White	14.9	1.8	11.4	18.5	447	19,264
Black	7.7	1.5	4.7	10.8	321	3,001
Hispanic	---	---	---	---	---	---
Other	---	---	---	---	---	---
Age (years)						
≤17	---	---	---	---	---	---
18-19	---	---	---	---	---	---
20-24	11.7	2.1	7.6	15.7	310	9,927
25-34	7.3	1.1	5.2	9.4	659	13,849
≥35	---	---	---	---	---	---
Annual Household Income*						
<\$15K	10.8	1.6	7.8	13.9	470	14,393
≥\$15K to <\$25K	8.1	2.1	4.0	12.1	176	4,185
≥\$25K to <\$50K	7.8	1.9	4.1	11.5	232	5,147
≥\$50K	---	---	---	---	---	---
Education (years)*						
<12	8.0	1.8	4.5	11.5	254	6,794
12	11.1	1.8	7.5	14.7	339	11,280
>12	4.7	0.8	3.1	6.4	691	8,373
Marital Status*						
Married	4.6	0.8	2.9	6.2	744	10,265
Unmarried	11.9	1.5	9.0	14.8	542	16,645
Medicaid Recipient^a*						
No	3.3	0.8	1.8	4.9	584	5,890
Yes	11.2	1.3	8.7	13.7	697	20,700
Border Resident						
No	8.1	0.8	6.4	9.8	1,160	26,004
Yes	---	---	---	---	---	---
INFANT						
Birth Weight						
Low (<2500 g)	10.5	1.7	7.1	13.8	325	2,873
Normal (≥2500g)	7.2	0.8	5.5	8.8	961	24,038
Gestational Age						
<37 Weeks (preterm)	6.6	1.3	4.0	9.2	286	2,418
≥37 Weeks	7.5	0.8	5.8	9.1	1000	24,492

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 9. Characteristics of Women Reporting Postpartum Cigarette Smoking, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	12.2	1.0	10.2	14.2	1,290	44,331
Race/Ethnicity*						
White	20.2	2.0	16.2	24.1	448	26,029
Black	13.8	2.0	10.0	17.7	321	5,355
Hispanic	6.0	1.3	3.4	8.6	444	10,676
Other	---	---	---	---	---	---
Age (years)*						
≤17	---	---	---	---	---	---
18-19	---	---	---	---	---	---
20-24	20.4	2.7	15.1	25.8	310	17,374
25-34	10.7	1.3	8.1	13.2	660	20,220
≥35	---	---	---	---	---	---
Annual Household Income*						
<\$15K	17.3	2.0	13.5	21.2	471	23,007
≥\$15K to <\$25K	13.4	2.9	7.6	19.1	179	7,049
≥\$25K to <\$50K	12.9	2.4	8.1	17.8	232	8,585
≥\$50K	4.7	1.2	2.2	7.1	334	4,319
Education (years)*						
<12	9.4	1.8	5.8	12.9	256	7,988
12	17.9	2.4	13.2	22.6	340	18,184
>12	10.0	1.3	7.4	12.6	692	17,695
Marital Status*						
Married	6.8	1.0	4.8	8.8	747	15,250
Unmarried	20.8	2.0	16.8	24.8	543	29,081
Medicaid Recipient^a*						
No	5.3	0.9	3.5	7.1	586	9,410
Yes	18.9	1.7	15.5	22.3	699	34,922
Border Resident						
No	13.6	1.1	11.3	15.8	1,163	43,620
Yes	---	---	---	---	---	---
INFANT						
Birth Weight						
Low (<2500 g)	15.3	2.0	11.4	19.3	328	4,254
Normal (≥2500g)	11.9	1.1	9.8	14.0	962	40,078
Gestational Age						
<37 Weeks (preterm)	15.7	2.8	10.2	21.3	287	5,801
≥37 Weeks	11.8	1.1	9.6	13.9	1,003	38,530

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 10. Characteristics of Women Reporting that Smoking is Allowed Inside the Home, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	3.4	0.6	2.4	4.5	1,283	12,470
Race/Ethnicity*						
White	3.1	0.9	1.3	4.8	446	3,925
Black	10.5	1.8	7.1	14.0	318	4,052
Hispanic	---	---	---	---	---	---
Other	---	---	---	---	---	---
Age (years)*						
≤17	3.6	2.2	0	7.8	37	368
18-19	9.7	3.5	2.9	16.5	102	2,742
20-24	3.6	1.0	1.5	5.6	308	2,992
25-34	2.8	0.7	1.5	4.2	656	5,353
≥35	2.0	1.3	0	4.5	180	1,015
Annual Household Income*						
<\$15K	6.0	1.2	3.6	8.3	468	7,891
≥\$15K to <\$25K	4.7	1.5	1.7	7.8	178	2,467
≥\$25K to <\$50K	1.5	0.9	0	3.3	232	976
≥\$50K	1.0	0.7	0	2.4	332	906
Education (years)						
<12	---	---	---	---	---	---
12	4.1	1.1	2.0	6.3	337	4,172
>12	3.0	0.7	1.5	4.4	691	5,254
Marital Status						
Married	---	---	---	---	---	---
Unmarried	5.7	1.0	3.7	7.7	542	7,967
Medicaid Recipient^a						
No	---	---	---	---	---	---
Yes	5.7	1.0	3.8	7.5	696	10,429
Border Resident						
No	3.5	0.6	2.4	4.6	1,157	11,297
Yes	---	---	---	---	---	---
INFANT						
Birth Weight						
Low (<2500 g)	3.8	1.1	1.7	5.9	327	1,045
Normal (≥2500g)	3.4	0.6	2.3	4.6	956	11,425
Gestational Age						
<37 Weeks (preterm)	3.1	0.9	1.3	4.8	285	1,124
≥37 Weeks	3.5	0.6	2.3	4.7	998	11,346

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

ALCOHOL USE

Alcohol use during pregnancy has been associated with several adverse outcomes for the baby, including Fetal Alcohol Syndrome (FAS) and other Fetal Alcohol Spectrum Disorders (FASD), birth defects, and low birth weight. The effects of maternal alcohol use on the baby can range from mild to severe and are often lifelong.^{16,17} Evidence suggests that maternal alcohol use in the months prior to conception may also lead to adverse birth outcomes.¹⁸ Medical experts maintain that there is no “safe” amount of alcohol consumption during pregnancy, as even small amounts may be harmful to fetuses.^{19,20}

To assess alcohol use before and during pregnancy, Texas PRAMS asked the following questions: “During the *three months before* you got pregnant, how many alcoholic drinks did you have in an average week?” and “During the *last three months* of your pregnancy, how many alcoholic drinks did you have in an average week?” For both questions, six possible answers ranged from “I didn’t drink then” to “14 drinks or more a week.” Overall, 48.5 percent of women reported drinking any alcohol during the three months before pregnancy (Table 11), and 7.8 percent reported drinking any alcohol during the third trimester (Table 12). For both time periods, White women had the highest rates of alcohol consumption before pregnancy (68.4 percent) and during the third trimester (10.9 percent). Hispanic women reported the lowest rates in the months before pregnancy (36.5 percent). Women in the other race/ethnicity category reported the lowest rates of drinking during the third trimester of pregnancy (3.5 percent). Women in the 20-24 and 25-34 age groups reported the highest rates of drinking prior to pregnancy (47.9 percent and 54.8 percent, respectively). The alcohol use rates were higher with greater annual household income and more years of education for both time periods. Married women and women who did not have their deliveries paid by Medicaid also had higher rates of any alcohol consumption for both time periods. Border residents had lower rates of alcohol use than non-border residents before pregnancy, but both border and non-border residents had low rates in the last trimesters.

The survey assessed binge drinking before pregnancy with the following questions: “During the *three months before* you got pregnant, how many times did you drink 4 alcoholic drinks or more in one sitting?” The five response options ranged from “I didn’t have 4 drinks or more in 1 sitting” to “6 or more times.” Overall, 26.0 percent of women reported ever binge drinking in the three months prior to pregnancy (Table 13). As with alcohol use, this rate was highest among White women at 33.7 percent. Also similar to the findings for general alcohol use, women in the 20-24 and 25-34 age groups were the most likely to report binge drinking before pregnancy (32.8 percent and 27.5 percent, respectively). Higher rates of pre-pregnancy binge drinking were also reported for women with 12 (30.6 percent) or more (29.5 percent) years of education.

¹⁶ National Institutes of Health. MedlinePlus Encyclopedia: Alcohol and pregnancy. Accessed on July 16, 2013 at <http://www.nlm.nih.gov/medlineplus/ency/article/007454.htm>.

¹⁷ Centers for Disease Control and Prevention. Alcohol consumption among women who are pregnant or who might become pregnant --- United States, 2002. *Morb Mortal Wkly Rep*. 2004; 53(50);1178-1181.

¹⁸ Whitehead N & Lipscomp L. Patterns of Alcohol Use Before and During Pregnancy and the Risk of Small-for-Gestational-Age Birth. *American Journal of Epidemiology*. 2003; 158 (7); 654-662.

¹⁹ Office of the Surgeon General. 2005 Press Release – Advisory on Alcohol Use during Pregnancy. Accessed July 16, 2016 at <http://www.surgeongeneral.gov/pressreleases/sg02222005.html>.

²⁰ Cheng D, Kettinger L, et al. Alcohol Consumption During Pregnancy. *Obstet Gynecol*. 2011;117(2);212-217.

Table 11. Characteristics of Women Reporting Alcohol Use Three Months Before Conception, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	48.5	1.6	45.3	51.7	1,289	176,592
Race/Ethnicity*						
White	68.4	2.4	63.7	73.0	448	88,271
Black	41.8	2.8	36.4	47.3	320	16,178
Hispanic	36.5	2.7	31.2	41.8	443	64,761
Other	39.7	6.2	27.5	52.0	76	7,303
Age (years)*						
≤17	33.0	10.4	12.6	53.3	37	3,386
18-19	27.7	5.5	16.8	38.5	102	7,807
20-24	47.9	3.5	41.1	54.7	310	40,711
25-34	54.8	2.3	50.4	59.3	660	103,676
≥35	40.7	4.4	32.2	49.3	180	21,012
Annual Household Income*						
<\$15K	35.1	2.7	29.8	40.4	471	46,706
≥\$15K to <\$25K	42.9	4.5	34.0	51.7	178	22,311
≥\$25K to <\$50K	59.7	3.9	52.2	67.3	232	39,604
≥\$50K	68.9	2.9	63.3	74.5	334	63,699
Education (years)*						
<12	21.8	3.0	15.8	27.7	256	18,535
12	41.7	3.2	35.4	48.1	338	42,197
>12	65.0	2.1	60.9	69.2	693	115,396
Marital Status[†]						
Married	51.6	2.1	47.5	55.8	747	187,510
Unmarried	43.5	2.7	38.3	48.7	542	115,800
Medicaid Recipient^{a*}						
No	53.9	2.3	49.3	58.4	585	95,582
Yes	43.5	2.3	38.9	48.1	699	80,600
Border Resident						
No	48.7	1.7	45.4	52.0	1,162	156,503
Yes	46.9	5.5	36.2	57.7	127	20,089
INFANT						
Birth Weight						
Low (<2500 g)	45.3	2.7	40.0	50.7	328	12,569
Normal (≥2500g)	48.8	1.7	45.3	52.2	961	164,022
Gestational Age						
<37 Weeks (preterm)	43.2	3.9	35.6	50.8	286	15,853
≥37 Weeks	49.1	1.8	45.6	52.5	1,003	160,739

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 12. Characteristics of Women Reporting Any Alcohol Use During the Third Trimester, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	7.8	0.9	6.0	9.5	1,289	28,293
Race/Ethnicity*						
White	10.9	1.6	7.9	14.0	450	14,215
Black	5.9	1.3	3.4	8.5	319	2,294
Hispanic	6.3	1.4	3.6	9.0	442	11,146
Other	3.5	2.4	0	8.2	76	639
Age (years)						
≤17	--	--	--	--	36	--
18-19	2.8	2.1	0	6.9	102	794
20-24	4.9	1.4	2.1	7.7	308	4,128
25-34	9.5	1.3	6.9	12.1	662	18,099
≥35	10.2	2.8	4.8	15.7	181	5,272
Annual Household Income*						
<\$15K	3.9	1.1	1.8	6.0	471	5,195
≥\$15K to <\$25K	6.2	2.2	1.8	10.6	176	3,181
≥\$25K to <\$50K	6.2	1.9	2.5	9.8	233	4,094
≥\$50K	16.4	2.4	11.7	21.1	335	15,324
Education (years)*						
<12	3.3	1.4	0.6	6.0	254	2,802
12	6.3	1.5	3.4	9.3	343	6,521
>12	10.7	1.4	7.9	13.5	690	18,971
Marital Status*						
Married	10.1	1.3	7.6	12.6	746	22,684
Unmarried	4.0	1.0	2.1	5.9	543	5,609
Medicaid Recipient^a*						
No	11.2	1.5	8.3	14.1	584	19,870
Yes	4.5	1.0	2.6	6.4	700	8,333
Border Resident						
No	7.1	0.9	5.4	8.8	1,162	22,805
Yes	12.8	3.8	5.5	20.2	127	5,488
INFANT						
Birth Weight						
Low (<2500 g)	6.1	1.3	3.5	8.8	327	1,688
Normal (≥2500g)	7.9	1.0	6.0	9.8	962	26,606
Gestational Age[†]						
<37 Weeks (preterm)	4.2	1.2	1.8	6.6	286	1,545
≥37 Weeks	8.2	1.0	6.2	10.1	1,003	26,748

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 13. Characteristics of Women Reporting Binge Drinking Three Months before Pregnancy, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	26.0	1.6	22.9	29.1	1,131	82,652
Race/Ethnicity*						
White	33.7	2.5	28.8	38.6	397	38,384
Black	16.0	2.2	11.6	20.3	281	5,401
Hispanic	23.5	2.5	18.5	28.5	386	35,979
Other	17.2	5.1	7.2	27.2	65	2,810
Age (years)*						
≤17	20.7	9.7	1.7	39.7	32	1,916
18-19	15.0	4.8	5.6	24.4	91	3,707
20-24	32.8	3.6	25.7	39.9	264	23,323
25-34	27.5	2.2	23.3	31.8	586	46,162
≥35	16.8	3.5	10.0	23.6	158	7,544
Annual Household Income						
<\$15K	22.7	2.6	17.6	27.9	411	26,242
≥\$15K to <\$25K	26.7	4.5	17.8	35.6	146	11,164
≥\$25K to <\$50K	30.7	3.9	23.1	38.2	208	17,839
≥\$50K	31.6	3.0	25.7	37.5	296	26,297
Education (years)*						
<12	12.9	2.7	7.6	18.2	226	9,574
12	30.6	3.4	23.9	37.2	285	25,803
>12	29.5	2.2	25.2	33.7	618	46,811
Marital Status						
Married	23.6	1.9	19.9	27.4	653	46,109
Unmarried	29.8	2.7	24.6	35.1	478	36,543
Medicaid Recipient^a						
No	25.9	2.2	21.7	30.2	513	40,029
Yes	26.3	2.3	21.8	30.8	613	42,623
Border Resident						
No	25.7	1.6	22.5	28.9	1,017	71,724
Yes	28.5	5.3	18.1	38.9	114	10,929
INFANT						
Birth Weight						
Low (<2500 g)	23.3	2.5	18.4	28.2	292	5,730
Normal (≥2500g)	26.2	1.7	22.9	29.6	839	76,923
Gestational Age						
<37 Weeks (preterm)	22.9	3.3	16.4	29.3	254	7,226
≥37 Weeks	26.4	1.7	23.0	29.7	877	75,426

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

INTIMATE PARTNER VIOLENCE

Intimate partner violence (IPV) refers to physical, sexual, psychological, or emotional abuse by a current or previous romantic partner or spouse.²¹ According to findings from the National Violence Against Women Survey, almost 25 percent of U.S. women reported that they were raped and/or physically assaulted by a current or former spouse/partner/date at some point in their lives.²² National estimates of IPV during pregnancy range from 4 to 8 percent.²³ Physical violence has been associated with numerous adverse perinatal outcomes including unintended pregnancy, late entry into prenatal care, preterm delivery, and low birth weight.²⁴

Texas PRAMS survey assessed physical IPV both before and during pregnancy with the following questions: “During the *12 months before* you got pregnant with your new baby, did your husband or partner push, hit, slap, kick, choke or physically hurt you in any other way?” and “During *your most recent* pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?” Overall, 5.6 percent of women reported experiences with physical IPV (Table 14). Women with the lowest annual household incomes (<\$15,000) had the highest rates at 9.7 percent. Women who were unmarried (9.6 percent vs. 3.4 percent for married women) were significantly more likely to report physical abuse during the 12 months before and/or during pregnancy.

The American Congress of Obstetricians and Gynecologists (ACOG) recommends IPV screening at routine obstetrics and gynecology visits, family planning visits, and preconception visits. Abused women often may not report abuse the first time they are asked about it by a healthcare professional. Additionally, IPV may begin later on in the pregnancy. Therefore, ACOG recommends that pregnant women be screened for IPV at the first prenatal care visit, at least once per trimester, and at the postpartum checkup.²⁵

The PRAMS survey asked, “*During any of your prenatal care visits*, did a doctor, nurse, or other health care worker talk with you about physical abuse to women by their husbands or partners?” Overall, 52.5 percent of women reported that they had this discussion (Table 15). Interestingly, the demographic groups with the highest rates of IPV – i.e., women who were younger, had lower annual household incomes, were unmarried, or had a Medicaid-paid delivery – were the most likely to report having had this discussion. These discussions were also more common among Black and Hispanic women, as well as those with the least amount of education.

²¹ Centers for Disease Control and Prevention. Intimate Partner Violence. Accessed on July 16, 2013 at <http://www.cdc.gov/violenceprevention/intimatepartnerviolence>.

²² National Institute of Justice – Findings from the National Violence Against Women Survey. Accessed on July 16, 2013 at <http://www.ncjrs.gov/pdffiles1/nij/181867.pdf>.

²³ Centers for Disease Control and Prevention. Intimate Partner Violence During Pregnancy. Accessed on July 16, 2013 at <http://www.cdc.gov/reproductivehealth/violence/IntimatePartnerViolence>.

²⁴ Campbell JC. Health consequences of intimate partner violence. *The Lancet*. 2002;359:1331-1336.

²⁵ Chamberlain L & Levenson R. Addressing Intimate Partner Violence, Reproductive, and Sexual Coercion: A Guide for Obstetric, Gynecologic and Reproductive Health Care Settings. Second Edition. Accessed on July 16, 2013 at http://www.acog.org/About_ACOG/ACOG_Departments/Violence_Against_Women/~//media/Departments/Violence%20Against%20Women/Reproguidelines.pdf.

Table 14. Characteristics of Women Reporting Physical Abuse by a Husband/Partner in the 12 Months before Pregnancy or During Pregnancy, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	5.6	0.8	4.1	7.2	1,251	20,034
Race/Ethnicity						
White	5.6	1.2	3.3	7.9	446	7,253
Black	6.4	1.4	3.6	9.2	312	2,393
Hispanic	5.2	1.3	2.7	7.7	418	8,838
Other	8.6	3.5	1.8	15.4	73	1,551
Age (years)						
≤17	Not Asked				Not Asked	Not Asked
18-19	---	---	---	---	---	---
20-24	7.9	1.8	4.3	11.5	309	6,716
25-34	4.4	1.0	2.5	6.3	660	8,437
≥35	---	---	---	---	---	---
Annual Household Income*						
<\$15K	9.7	1.7	6.4	13.0	448	12,247
≥\$15K to <\$25K	---	---	---	---	---	---
≥\$25K to <\$50K	6.2	1.8	2.6	9.8	230	4,085
≥\$50K	---	---	---	---	---	---
Education (years)						
<12	---	---	---	---	---	---
12	6.4	1.6	3.3	9.5	338	6,468
>12	5.3	1.0	3.2	7.3	687	9,330
Marital Status*						
Married	3.4	0.8	1.8	4.9	745	7,588
Unmarried	9.6	1.6	6.4	12.7	506	12,447
Medicaid Recipient^a						
No	---	---	---	---	---	---
Yes	9.7	1.4	6.9	12.5	663	17,003
Border Resident						
No	5.7	0.8	4.1	7.3	1,133	17,816
Yes	---	---	---	---	---	---
INFANT						
Birth Weight						
Low (<2500 g)	4.1	1.1	1.9	6.3	310	1,075
Normal (≥2500g)	5.8	0.8	4.1	7.4	941	18,959
Gestational Age						
<37 Weeks (preterm)	---	---	---	---	---	---
≥37 Weeks	5.8	0.8	4.1	7.4	979	18,462

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 15. Characteristics of Women Reporting Discussion of Physical Abuse with Provider During Prenatal Care Visit, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	52.5	1.6	49.3	55.7	1,278	189,348
Race/Ethnicity*						
White	38.2	2.4	33.4	43.0	445	49,296
Black	58.3	2.8	52.9	63.8	319	22,556
Hispanic	62.7	2.7	57.3	68.0	436	109,265
Other	42.3	6.2	30.1	54.4	76	7,767
Age (years)*						
≤17	56.4	11.0	34.8	78.0	36	5,457
18-19	66.4	5.8	55.1	77.7	100	18,312
20-24	61.0	3.5	54.2	67.8	308	51,266
25-34	47.2	2.3	42.8	51.7	657	88,948
≥35	49.4	4.5	40.6	58.3	177	25,364
Annual Household Income*						
<\$15K	64.3	2.8	58.9	69.8	458	83,325
≥\$15K to <\$25K	59.0	4.6	50.0	68.0	176	30,306
≥\$25K to <\$50K	50.8	3.9	43.2	58.4	233	33,755
≥\$50K	30.3	2.8	24.8	35.9	333	28,127
Education (years)*						
<12	70.6	3.5	63.9	77.4	251	58,468
12	57.2	3.3	50.8	63.6	335	57,738
>12	41.3	2.2	37.0	45.7	690	73,063
Marital Status*						
Married	45.0	2.1	40.8	49.1	739	99,913
Unmarried	64.4	2.6	59.3	69.5	539	89,435
Medicaid Recipient^{a*}						
No	46.3	2.3	41.8	50.9	583	82,496
Yes	58.4	2.4	53.7	63.1	684	105,578
Border Resident						
No	51.7	1.7	48.4	55.1	1,150	164,263
Yes	57.8	5.4	47.2	68.4	128	25,085
INFANT						
Birth Weight						
Low (<2500 g)	53.6	2.8	48.1	59.0	322	14,571
Normal (≥2500g)	52.4	1.8	48.9	55.8	956	174,777
Gestational Age*						
<37 Weeks (preterm)	63.3	3.6	56.2	70.5	281	22,704
≥37 Weeks	51.3	1.8	47.8	54.7	997	166,644

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

PRENATAL CARE

Early and adequate prenatal care is extremely important for the health of both the mother and baby. Compared to mothers who receive prenatal care, a mother who does not receive prenatal care is three times more likely to have a baby that is low birth weight and the baby is five times more likely to die.²⁶ Healthcare providers can identify health problems early when they see pregnant women regularly. Early prenatal care allows for early and timely treatment that can help manage many health problems and/or prevent others. Within the context of prenatal care, healthcare professionals can also provide women with valuable information to give their babies a healthy start. The U.S. Department of Health and Human Services Office on Women's Health recommends that pregnant women begin their prenatal visits in the first trimester of pregnancy.²⁷

Texas PRAMS survey assessed the timing of prenatal care with the following question: "How many weeks or months pregnant were you when you had your first visit for prenatal care?" Overall, 23.9 percent of women reported that they did *not* receive prenatal care during the first trimester (Table 16). The highest rates of late entry into prenatal care were among Black and Hispanic women (34.8 percent and 28.4 percent, respectively). There was a higher rate of late entry in the younger age group, with 48.8 percent of youth under 17 years reporting late entry into prenatal care, compared to 19.0 percent of women 25 years and older. The rate was higher with lower annual household income and education. Women with less than 12 years of education (41.1 percent) were more than 4 times as likely to have received late prenatal care compared to those with over 12 years of education (9.8 percent). Unmarried women (36.9 percent vs. 15.7 percent for married women) and those who had their deliveries covered by Medicaid (35.4 percent vs. 12.2 percent for non-Medicaid births) were also more likely have delayed entry into prenatal care. Women having a low birth weight infant reported higher rates of late prenatal care at 28.6 percent compared to women with normal birth weight babies.

PRAMS participants were also asked the following question: "Did you get prenatal care as early in your pregnancy as you wanted?" Overall, 19.9 percent of women reported that they did not receive prenatal care as early as wanted (Table 17). Unlike late entry, this rate did not differ by race/ethnicity. However, other demographic and infant-related differences were similar to those seen in rates of late entry, particularly age, annual household income, marital status, Medicaid status, and infant birth weight. Participants were also asked to indicate the barriers that prevented them from receiving prenatal care as early as they wanted. The most common barriers reported were not having enough money or insurance to pay for prenatal care visits (52.2 percent); not having a Medicaid card (51.2 percent); not being able to get an appointment (39.3 percent); and not knowing about the pregnancy (36.3 percent; Figure 2).

The PRAMS survey also included a question about discussions women had with their health care providers during prenatal care visits. Women were given a list of topics and were asked to indicate the ones discussed with a healthcare professional. The most commonly discussed topics

²⁶ U.S. Department of Health and Human Services Office on Women's Health. Prenatal care fact sheet. Accessed on July 16, 2013 at <http://womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.cfm>.

²⁷ Chamberlain L & Levenson R. Addressing Intimate Partner Violence, Reproductive, and Sexual Coercion: A Guide for Obstetric, Gynecologic and Reproductive Health Care Settings. Second Edition. Accessed on July 16, 2013 at http://www.acog.org/About_ACOG/ACOG_Departments/Violence_Against_Women/~//media/Departments/Violence%20Against%20Women/Reproguidelines.pdf.

concerned the medicines safe to take during pregnancy (91.8 percent); screening for birth defects (87.3 percent); breastfeeding (84.3 percent); and the dangers of alcohol use (72.8 percent), smoking (69.3 percent), and illegal drug use (66.6 percent) during pregnancy (Figure 3).

**Table 16. Characteristics of Women who Entered Prenatal Care Late
(After the First Trimester), Texas PRAMS 2011**

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	23.9	1.4	21.0	26.7	1,290	86,658
Race/Ethnicity*						
White	15.1	1.8	11.5	18.7	448	19,527
Black	34.8	2.7	29.5	40.1	323	13,589
Hispanic	28.4	2.5	23.4	33.3	441	49,861
Other	19.6	5.0	9.9	29.3	76	3,602
Age (years)*						
≤17	48.8	10.7	27.7	69.9	37	5,010
18-19	35.3	6.0	23.5	47.0	100	9,553
20-24	31.0	3.2	24.7	37.3	310	26,288
25-34	19.0	1.8	15.4	22.6	663	36,033
≥35	19.0	3.7	11.7	26.4	180	9,774
Annual Household Income						
<\$15K	41.4	2.9	35.7	47.0	461	54,182
≥\$15K to <\$25K	25.9	4.0	18.1	33.7	175	13,324
≥\$25K to <\$50K	17.9	3.0	12.0	23.8	231	11,738
≥\$50K	---	---	---	---	---	---
Education (years)*						
<12	41.1	3.8	33.7	48.5	254	34,327
12	34.2	3.1	28.2	40.3	342	34,884
>12	9.8	1.3	7.3	12.3	692	17,367
Marital Status*						
Married	15.7	1.6	12.5	18.9	746	35,096
Unmarried	36.9	2.6	31.8	42.1	544	51,561
Medicaid Recipient^a*						
No	12.2	1.7	8.9	15.5	579	21,530
Yes	35.4	2.3	30.9	39.9	689	64,632
Border Resident						
No	23.8	1.5	20.9	26.8	1,164	76,328
Yes	24.2	4.7	15.0	33.4	126	10,330
INFANT						
Birth Weight[†]						
Low (<2500 g)	28.6	2.5	23.8	33.5	328	7,939
Normal (≥2500g)	23.5	1.5	20.4	26.5	962	78,718
Gestational Age						
<37 Weeks (preterm)	22.5	3.2	16.2	28.7	285	8,237
≥37 Weeks	24.0	1.6	21.0	27.1	1,005	78,421

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 17. Characteristics of Women Indicating That She Did Not Receive Prenatal Care as Early as Desired, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	19.9	1.3	17.3	22.6	1,295	72,845
Race/Ethnicity						
White	17.4	1.9	13.6	21.2	444	22,346
Black	24.3	2.4	19.6	29.0	327	9,633
Hispanic	20.5	2.2	16.1	24.9	445	36,448
Other	23.4	5.3	12.9	33.9	77	4,339
Age (years)*						
≤17	---	---	---	---	---	---
18-19	27.5	5.5	16.8	38.3	101	7,636
20-24	25.4	2.9	19.7	31.2	311	21,628
25-34	18.4	1.8	14.8	22.0	665	35,089
≥35	10.1	2.5	5.1	15.0	182	5,248
Annual Household Income*						
<\$15K	29.9	2.6	24.8	35.0	462	39,049
≥\$15K to <\$25K	23.7	3.9	16.0	31.5	175	12,170
≥\$25K to <\$50K	21.2	3.2	15.0	27.4	234	14,230
≥\$50K	5.1	1.3	2.6	7.6	334	4,727
Education (years)*						
<12	23.4	3.2	17.1	29.6	254	19,584
12	26.4	2.8	20.8	32.0	343	27,095
>12	14.6	1.6	11.5	17.7	697	26,087
Marital Status*						
Married	14.2	1.5	11.2	17.1	749	31,948
Unmarried	29.3	2.5	24.4	34.1	546	40,898
Medicaid Recipient^{a*}						
No	10.8	1.5	7.9	13.7	583	19,247
Yes	29.3	2.2	25.0	33.5	690	53,459
Border Resident						
No	20.2	1.4	17.4	23.0	1,167	65,035
Yes	18.0	4.1	9.9	26.1	128	7,810
INFANT						
Birth Weight[†]						
Low (<2500 g)	25.9	2.4	21.1	30.7	326	7,129
Normal (≥2500g)	19.5	1.4	16.6	22.3	969	65,716
Gestational Age						
<37 Weeks (preterm)	21.2	3.1	15.0	27.3	284	7,739
≥37 Weeks	19.8	1.4	17.0	22.6	1,011	65,106

^a Delivery paid by Medicaid.

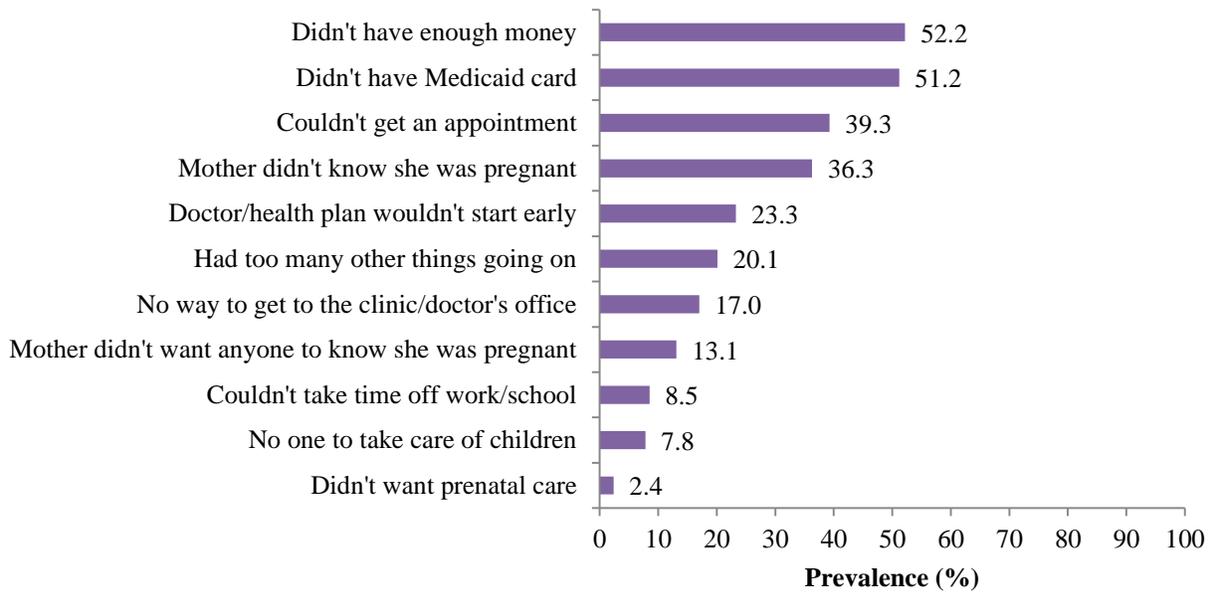
*Denotes a significant difference within the subgroup.

[†] Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

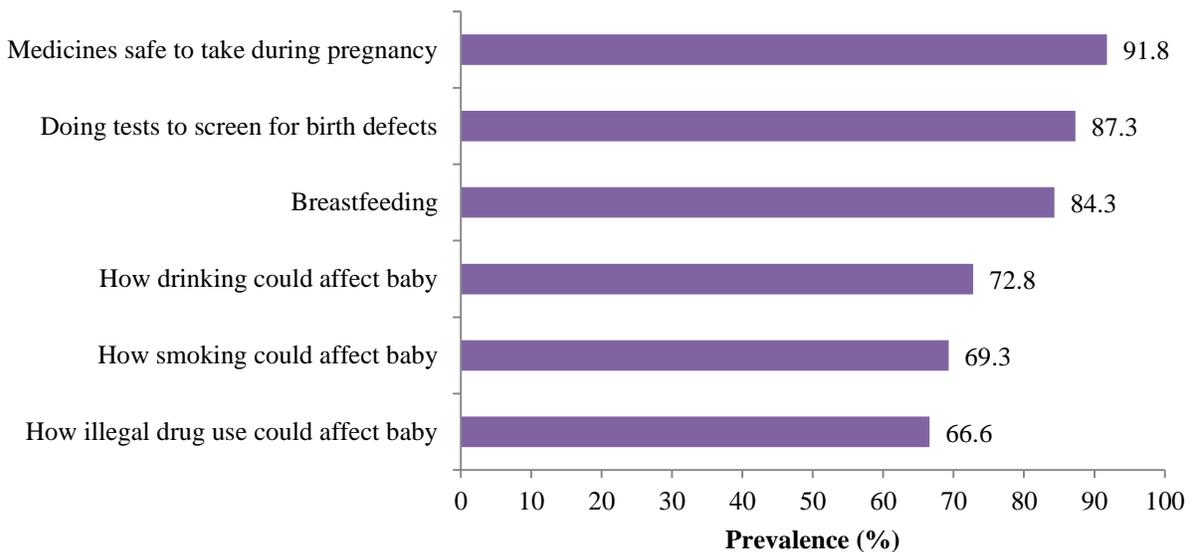
Respondents: Total number of mothers who responded to this question.

Figure 2. Reported Barriers to Prenatal Care, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

Figure 3. Reported Prenatal Care Visit Discussion Topics, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

LABOR INDUCTION

The rates of labor induction have increased markedly in the last two decades, with estimates more than doubling from 9.5 percent in 1990 to 23.2 percent in 2009.^{28,29} Labor induction is often recommended in cases of post-term pregnancy, certain medical conditions (i.e., high blood pressure or diabetes), and placental abruption.³⁰ The rise, however, cannot be completely explained by increases in such conditions alone. Research has suggested that women have increasingly opted for elective induction of labor over recent decades.³¹ The increase in labor inductions is cause for concern. When labor is induced prior to 39 weeks of gestation, the risks of infant and maternal morbidity increase. Thus, medical experts recommend against elective inductions prior to 39 weeks.³²

The 2011 Texas PRAMS survey assessed labor induction rates with the following question: “Did your doctor, nurse, or other health care worker try to induce your labor (start your contractions using medicine)?” Overall, 45.2 percent of women reported induction of labor (Table 18). Women who had babies with normal birth weights (46.4 percent vs. 30.9 percent for low birth weight deliveries) and those who delivered at a gestational age greater than or equal to 37 weeks (47.7 percent vs. 23.2 percent for a lesser gestational age) had significantly higher rates of labor induction.

Participants were subsequently asked the following: “Why did your doctor, nurse, or other health care worker try to induce your labor (start your contractions using medicine)?” Women were asked to indicate all applicable reasons of the eight listed. Among the most common reported were the participant’s desire to schedule the delivery (24.1 percent), the baby being overdue (19.0 percent), and a healthcare provider’s concern about the size of the baby (17.3 percent; Figure 4).

The most common reason indicated was “other” (29.4 percent). If a participant checked “other,” she was also asked to explain the reason. Women who completed the survey by mail gave written responses, and women who completed the survey by phone gave verbal responses that were transcribed by the telephone interviewer. There were many different explanations given for the “other” responses, including explanations that may fall into one of the listed reasons above (medical or non-medical/elective). There were also explanations that could not be categorized in a meaningful way (when a response was incoherent, incomplete, or not applicable to the question). Reviewing and categorizing each explanation for the “other” responses falls outside of the scope of this report.

²⁸ Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Kirmeyer S, Mathews TJ, Wilson EC. Births: Final data for 2009. National vital statistics reports; vol 60 no 1. Hyattsville, MD: National Center for Health Statistics. 2011.

²⁹ Caughey AB, et al. Maternal outcomes of elective induction of labor. AHRQ publication no. 09-E005. March 2009.

³⁰ ACOG Practice Bulletin No. 107: Induction of Labor. *Obstet Gynecol.* 2009; 114 (2 Pt 1); 386-97.

³¹ Zhang J, Yancey MK, Henderson CE. U.S. national trends in labor induction, 1989-1998. *J Reprod Med.* 2002;47(2);120-124.

³² Caughey AB, et al. Maternal outcomes of elective induction of labor. AHRQ publication no. 09-E005. March 2009.

Table 18. Characteristics of Women Who Reported Labor Induction, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	45.2	1.7	41.9	48.5	1,278	163,420
Race/Ethnicity						
White	46.7	2.5	41.8	51.6	451	60,898
Black	44.8	2.8	39.2	50.3	317	17,138
Hispanic	44.0	2.8	38.5	49.5	436	76,922
Other	46.6	6.5	33.8	59.4	72	8,077
Age (years)						
≤17	49.2	11.0	27.6	70.8	36	4,765
18-19	49.6	6.2	37.3	61.9	100	13,655
20-24	44.7	3.5	37.9	51.5	309	37,912
25-34	44.7	2.3	40.2	49.2	655	83,947
≥35	45.0	4.5	36.1	53.9	178	23,141
Annual Household Income						
<\$15K	46.3	2.9	40.6	52.0	465	60,510
≥\$15K to <\$25K	48.6	4.6	39.5	57.6	178	25,531
≥\$25K to <\$50K	48.3	3.9	40.6	56.0	230	31,581
≥\$50K	41.4	3.1	35.4	47.3	334	38,261
Education (years)						
<12	43.3	3.8	35.8	50.8	248	36,096
12	47.5	3.3	41.1	54.0	340	48,298
>12	45.0	2.2	40.6	49.4	688	79,027
Marital Status						
Married	41.2	2.1	37.0	45.3	739	91,438
Unmarried	51.7	2.7	46.4	57.1	539	71,982
Medicaid Recipient^a						
No	43.3	2.4	38.7	48.0	579	76,513
Yes	47.0	2.4	42.4	51.8	695	86,449
Border Resident						
No	44.6	1.8	41.2	48.1	1,154	142,693
Yes	49.9	5.6	39.0	60.8	124	20,728
INFANT						
Birth Weight*						
Low (<2500 g)	30.9	2.6	25.8	36.1	323	8,447
Normal (≥2500g)	46.4	1.8	42.9	50.0	955	154,974
Gestational Age*						
<37 Weeks (preterm)	23.2	3.3	16.6	29.7	282	8,420
≥37 Weeks	47.7	1.8	44.1	51.3	996	155,000

^a Delivery paid by Medicaid.

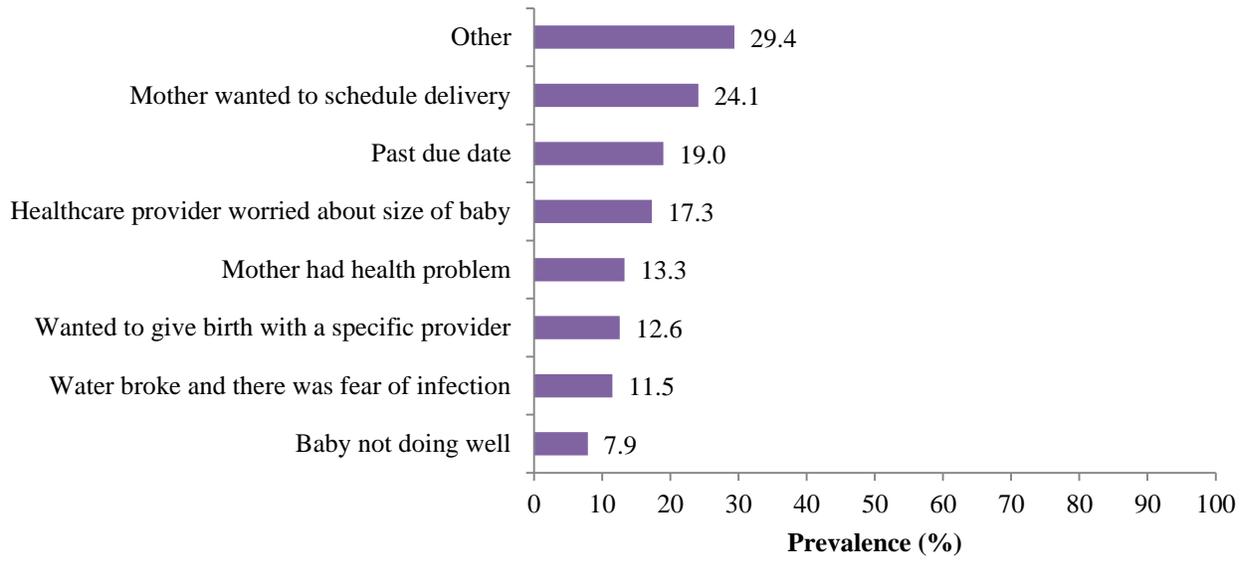
*Denotes a significant difference within the subgroup.

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Figure 4. Reported Reasons for Labor Induction, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

CESAREAN SECTION

Cesarean sections (C-sections) are recommended in lieu of vaginal births when the latter would put the mother or baby at risk. These circumstances include fetal problems, such as abnormal heart rate or abnormal position; maternal health problems, such as preeclampsia; problems with labor and delivery, such as the size of the baby; and problems with the placenta or umbilical cord.^{33,34} C-section rates rose steadily for over a decade among all age categories, racial and ethnic groups, and gestational ages, but have remained stable at 31.9 percent since 2009.^{35,36} Evidence suggests that this increase was likely due to a rise in more conservative interpretations of maternal and fetal risk as opposed to an increase in conditions requiring a C-section.³⁷ Compared to vaginal births, C-sections may increase the risk of adverse outcomes for both the mother and the baby, including longer hospital stays and/or re-hospitalizations, infant respiratory problems, and greater complications in future pregnancies.^{38,39}

The 2011 Texas PRAMS survey asked women to indicate whether they delivered vaginally or by C-section. Overall, 33.6 percent delivered via C-section (Table 19). Rates of C-section were higher among older women. Women with more than 12 years of education were the most likely to have had a C-section (38.3 percent), compared to those with 12 (29.0 percent) or less (29.2 percent) years of education. Rates were also higher among married women (37.1 percent compared to 27.8 percent for unmarried women), as well as for those who had babies with low birth weight (53.4 percent compared to 31.9 percent for normal birth weight) and those who delivered prior to 37 weeks of gestation (52.1 percent compared to 31.5 percent for full-term births).

Women were asked why a C-section was performed. They were given a list of reasons and asked to indicate *all* of the reasons that applied (Figure 5). Nearly half of applicable participants reported a previous C-section as the reason. Non-medical reasons included: “I wanted to schedule my delivery” (7.3 percent) and/or “I didn’t want to have my baby vaginally” (5.4 percent). Medical reasons included the following: “My baby was in the wrong position” (14.6 percent); “I had a medical condition that made labor dangerous for me” (13.4 percent); “Labor induction didn’t work” (12.3 percent); “Labor was taking too long” (11.9 percent); “The fetal monitor showed that my baby was having problems during labor” (11.8 percent); “My health care provider worried that my baby was too big” (11.2 percent); and/or “I was past my due date” (1.7 percent).

³³ Gabbe SG, Niebyl JR, Simpson JL, ed. *Obstetrics: Normal and Problem Pregnancies*. 5th ed. New York, NY: Churchill Livingstone; 2007: 945-1004.

³⁴ National Institutes of Health. MedlinePlus Health Topics: Cesarean Section. Accessed on July 26, 2013, at <http://www.nlm.nih.gov/medlineplus/cesareansection.html>.

³⁵ Menacker F, Hamilton BE. Recent trends in cesarean delivery in the United States. NCHS data brief, no 35. Hyattsville, MD: National Center for Health Statistics. 2010.

³⁶ Michelle JK, Osterman MHS, Martin JA. Changes in cesarean delivery rates by gestational age: United States, 1996-2011. NCHS data brief, no 124. Hyattsville, MD: National Center for Health Statistics. 2013.

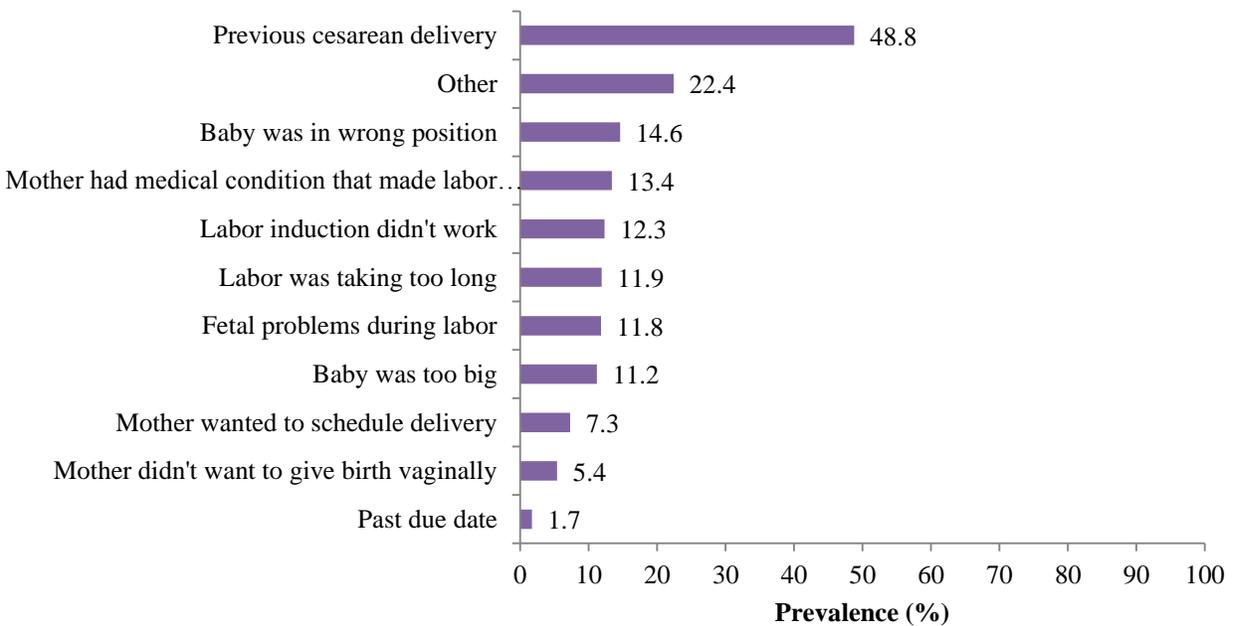
³⁷ Barber EL, Lundsberg LS, Belanger K, Pettker CM, Funai EF, Illuzi JL. Indications contributing to the increasing cesarean deliver rate. *Obstet Gynecol*. 2008; 118(1): 29-38.

³⁸ Committee on Obstetric Practice. Cesarean delivery on maternal request. Committee Opinion No.559. *Obstet Gynecol*. 2013;121; 904-907.

³⁹ Russo CA, Wier L, Steiner C. Hospitalizations related to childbirth, 2006. HCUP Statistical Brief # 71. U.S. Agency for Healthcare Research and Quality, Rockville, MD. April 2009.

The second most common reason for C-section was “other” (22.4 percent). If women checked “other” they were also asked to explain the reason. There were many different explanations given including ones that may have fallen into one of the listed reasons (medical or non-medical/elective) and ones that were incoherent, incomplete, or not applicable to the question. Reviewing and categorizing each explanation for the “other” responses falls outside of the scope of this report.

Figure 5. Reported Reasons for Cesarean Delivery, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

**Table 19. Characteristics of Women Who Reported Cesarean Section Delivery,
Texas PRAMS 2011**

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	33.6	1.5	30.5	36.6	1,290	122,792
Race/Ethnicity						
White	35.3	2.4	30.7	40.0	451	46,028
Black	40.0	2.8	34.5	45.4	317	15,307
Hispanic	30.3	2.5	25.4	35.3	444	54,164
Other	39.7	6.2	27.6	51.8	76	7,293
Age (years)*						
≤17	---	---	---	---	---	---
18-19	25.3	5.3	14.9	35.7	102	7,133
20-24	28.4	3.1	22.4	34.4	310	24,159
25-34	36.0	2.2	31.8	40.3	660	68,613
≥35	41.5	4.4	32.9	50.1	181	21,647
Annual Household Income						
<\$15K	34.5	2.7	29.1	39.9	470	45,871
≥\$15K to <\$25K	30.1	4.1	22.0	38.3	179	15,862
≥\$25K to <\$50K	27.4	3.3	20.9	33.9	234	18,369
≥\$50K	39.3	2.9	33.5	45.1	336	36,712
Education (years)†						
<12	29.2	3.4	22.4	36.0	255	24,828
12	29.0	2.9	23.4	34.7	342	29,862
>12	38.3	2.2	34.1	42.5	691	68,102
Marital Status*						
Married	37.1	2.0	33.1	41.1	747	83,727
Unmarried	27.8	2.4	23.2	32.4	543	39,065
Medicaid Recipient^a						
No	34.3	2.2	30.0	38.6	587	61,461
Yes	32.9	2.2	28.6	37.2	699	61,102
Border Resident						
No	32.7	1.6	29.6	35.9	1,162	105,558
Yes	39.7	5.2	29.4	50.0	128	17,233
INFANT						
Birth Weight*						
Low (<2500 g)	53.4	2.8	48.0	58.9	327	14,773
Normal (≥2500g)	31.9	1.7	28.7	35.2	963	108,019
Gestational Age*						
<37 Weeks (preterm)	52.1	4.0	44.1	60.0	285	19,062
≥37 Weeks	31.5	1.7	28.2	34.7	1,005	103,729

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

BREASTFEEDING

Breast milk is the best source of nutrition for infants, as it contains the essential nutrients and antibodies necessary to nourish and protect infants from disease. Furthermore, compared to formula, it is easier on the digestive systems of infants. Formula-fed babies may be at higher risk of numerous adverse outcomes, including necrotizing enterocolitis (a condition that affects the gastrointestinal tract of preterm infants), asthma, lower respiratory infections, obesity, and type 2 diabetes.⁴⁰ Breastfeeding has also been shown to be protective against SIDS.⁴¹

Breastfeeding also has numerous benefits for the mother. It is more cost-effective than purchasing formula; can help with postpartum weight loss; and helps to establish and strengthen the bond between mother and baby. Breastfeeding has been associated with a lower risk of type 2 diabetes, breast and ovarian cancers, and postpartum depression in mothers. Additionally, since breastfed infants are sick less often, women who breastfeed miss fewer days of work.⁴²

The American Academy of Pediatrics, among several other prominent health organizations, recommends that babies be exclusively breastfed for the first six months and should continue to be breastfed through the first year and for as long as is mutually desired by the mother and the baby.⁴³ Despite its known benefits, not all women follow these guidelines. Barriers to breastfeeding include lack of knowledge of the specific benefits of breastfeeding, social norms, poor family and social support, embarrassment, or lactation problems. Additionally, lack of flexibility in work hours and locations for breastfeeding, expressing milk, and storing milk; and lack of breastfeeding support and education in the hospital setting can negatively impact breastfeeding rates.⁴⁴

The 2011 Texas PRAMS survey assessed breastfeeding using the following question: “Did you ever breastfeed or pump breast milk to feed your new baby after delivery, even for a short period of time?” Overall 85.8 percent of women reported ever breastfeeding their most recent baby (Table 20). This exceeds the Healthy People 2020 target of 81.9 percent.⁴⁵ Black women reported the lowest rates at 73.6 percent, whereas Whites and Hispanics had comparably high rates (87.6 percent and 86.6 percent, respectively). Breastfeeding rates were also higher with greater annual household incomes. Just over 80 percent of those with household incomes of less than \$15,000 reported ever breastfeeding, compared to 90.4 percent for those with incomes at \$50,000 or greater. Married women (89.8 percent vs. 79.3 percent of unmarried women) and those who did not have their deliveries paid by Medicaid (90.6 percent vs. 81.1 percent of Medicaid recipients) were significantly more likely to report breastfeeding.

⁴⁰ U.S. Department of Health and Human Services Office on Women’s Health. Why Breastfeeding is Important. Accessed on July 30, 2013 at <http://www.womenshealth.gov/breastfeeding/why-breastfeeding-is-important>.

⁴¹ Hauck FR, Thompson JMD, et al. Breastfeeding and reduced risk of sudden infant death syndrome: a meta-analysis. *Pediatrics*. 2011; 128 (1).

⁴² Russo CA, Wier L, Steiner C. Hospitalizations related to childbirth, 2006. HCUP Statistical Brief # 71. U.S. Agency for Healthcare Research and Quality, Rockville, MD. April 2009.

⁴³ Gartner LM, Morton J, Lawrence RA, Naylor AJ, O’Hare D, Schanler RJ, Eidelman AI; American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2005;115:496–506.

⁴⁴ U.S. Department of Health and Human Services. The Surgeon General’s Call to Action to Support Breastfeeding. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011.

⁴⁵ U.S. Department of Health and Human Services. 2020 Topics & Objectives: Maternal, Infant, and Child Health. Accessed on July 30, 2013 at <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26>.

Participants were asked for their reasons for not breastfeeding. Among the most common reasons were not wanting to breastfeed (36.5 percent); not liking to breastfeed (31.9 percent); being sick or on medication (19.6 percent); having other children to care for (19.0 percent); finding breastfeeding to be too hard (17.1 percent); and having gone back to work or school (15.4 percent; Figure 6). Women commonly checked “other” (22.0 percent). If a participant noted “other” as a reason, she was asked to explain the reason. There were many different explanations given for these responses, including ones that may have fallen into one of the listed reasons, as well as ones that were incoherent, incomplete, or not applicable to the question. Reviewing and categorizing each explanation for the “other” responses falls outside of the scope of this report.

Women were also asked about their breastfeeding-related experiences while in the hospital shortly after giving birth (Figure 7). Of women who reported ever breastfeeding their most recent baby, the overwhelming majority of women were either provided with direct instructions on how to breastfeed or provided with resources if they should need help. Additionally, 90.1 percent reported breastfeeding while in hospital, and 46.2 percent reported that the baby was only fed breast milk during this time. Also notable, 71.4 percent of women reported that the hospital provided a gift pack with formula.

Table 20. Characteristics of Women Reporting Ever Breastfeeding, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	85.8	1.2	83.5	88.0	1,248	306,760
Race/Ethnicity*						
White	87.6	1.7	84.3	90.9	438	111,885
Black	73.6	2.6	68.5	78.7	306	27,308
Hispanic	86.6	1.9	82.9	90.4	432	151,695
Other	---	---	---	---	---	---
Age (years) †						
≤17	---	---	---	---	---	---
18-19	81.1	5.0	71.4	90.9	95	22,162
20-24	82.9	2.5	78.0	87.7	303	69,591
25-34	89.0	1.4	86.3	91.8	638	164,366
≥35	83.8	3.3	77.3	90.4	180	43,680
Annual Household Income*						
<\$15K	80.2	2.2	75.8	84.6	450	103,829
≥\$15K to <\$25K	89.2	2.5	84.2	94.1	175	45,960
≥\$25K to <\$50K	88.2	2.5	83.3	93.2	228	57,915
≥\$50K	90.4	1.9	86.7	94.1	331	83,732
Education (years)						
<12	82.7	2.8	77.1	88.2	246	69,130
12	84.7	2.3	80.3	89.1	319	83,046
>12	87.8	1.5	84.9	90.7	682	154,198
Marital Status*						
Married	89.8	1.3	87.2	92.3	729	198,882
Unmarried	79.3	2.2	75.0	83.5	519	107,877
Medicaid Recipient^{a*}						
No	90.6	1.4	87.9	93.3	571	158,850
Yes	81.1	1.8	77.5	84.7	677	147,909
Border Resident						
No	85.9	1.2	83.6	88.3	1,125	270,836
Yes	84.7	4.0	76.8	92.6	123	35,924
INFANT						
Birth Weight						
Low (<2500 g)	85.0	2.1	81.0	89.0	302	21,669
Normal (≥2500g)	85.8	1.2	83.4	88.3	946	285,090
Gestational Age						
<37 Weeks (preterm)	87.1	2.7	81.8	92.4	261	30,082
≥37 Weeks	85.6	1.3	83.2	88.1	987	276,678

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

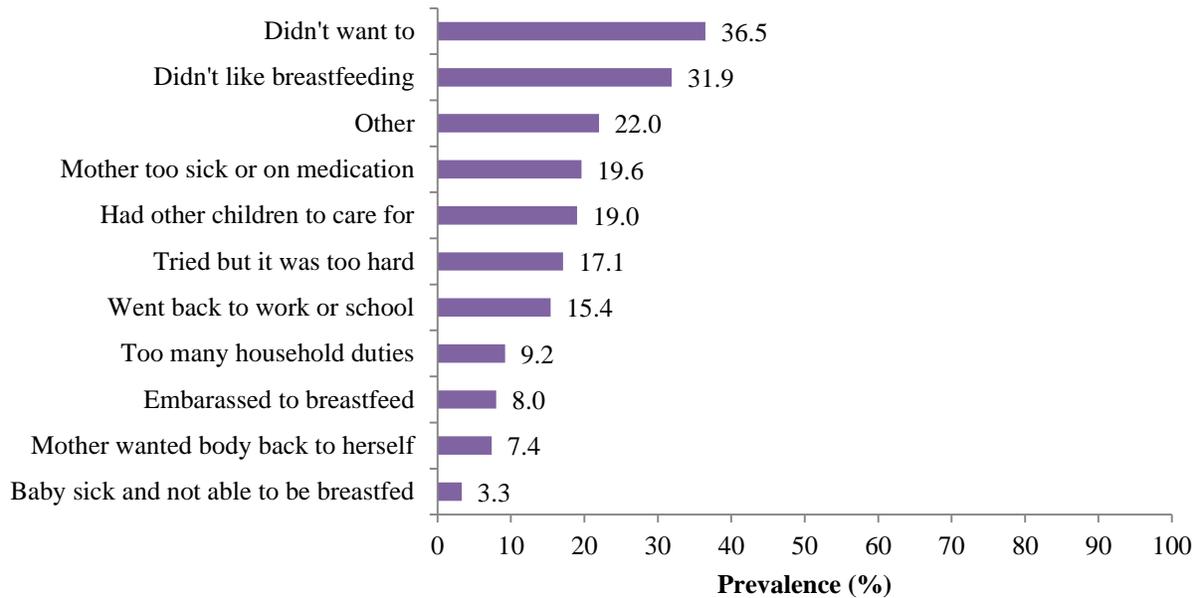
†Although confidence intervals overlap, $p < 0.05$ (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

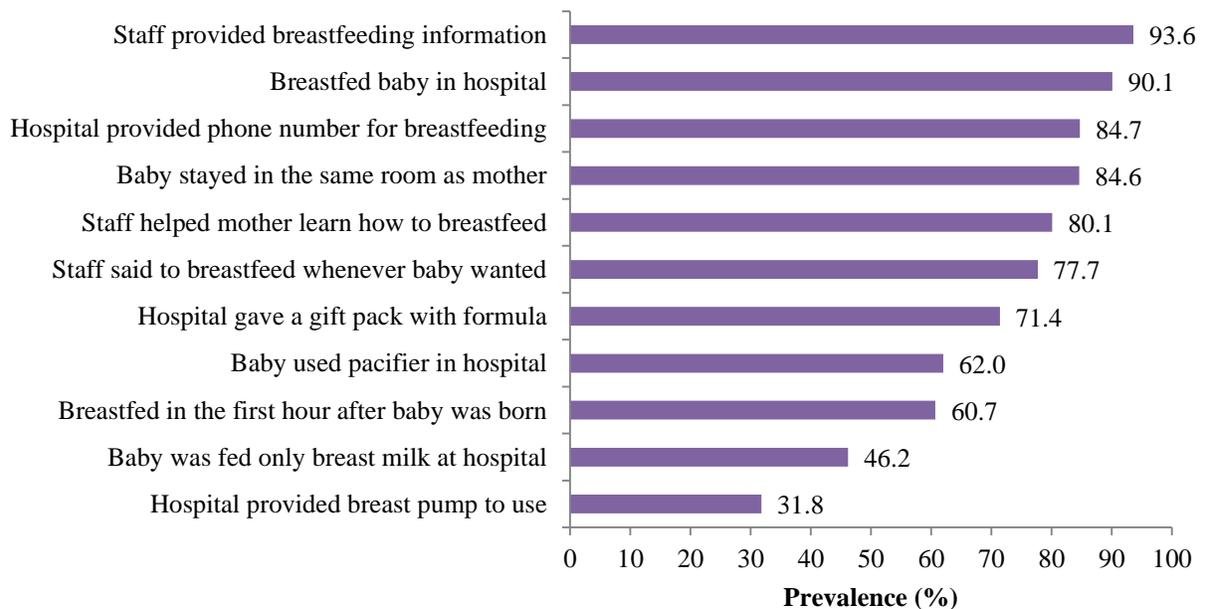
Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Figure 6. Reasons for Not Initiating Breastfeeding, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

Figure 7. Breastfeeding Experience in the Hospital, Texas PRAMS 2011



Note: Percentages do not add to 100 because respondents can check more than one reason.

ORAL HEALTH

Dental visits should be a routine part of prenatal health care. The two most common diseases of the mouth, caries (cavities) and periodontal disease, are associated with preterm birth and low birth weight. Also, cavities in a mother can affect her infant's risk of developing early dental cavities.⁴⁶ Unfortunately, oral health during pregnancy is often overlooked. Barriers to routine dental care during pregnancy include lack of dental insurance coverage; lack of knowledge of the effects of dental health on pregnancy; and concerns about fetal safety.⁴⁷ Evidence suggests that most women do not receive dental care during pregnancy. Previous national PRAMS data show that of those who experienced a dental problem while pregnant, only one-half reported receiving dental care for it.^{48, 49}

The 2011 PRAMS survey asked women if they had their teeth cleaned by a dentist or dental hygienist during three time periods. They were to note either yes or no for the 12 months before pregnancy, during pregnancy, and/or after pregnancy. For this report, responses to all three questions were combined to report the overall percent with teeth cleanings during *any* of the above time periods (before, during, and/or after pregnancy). Overall, 47.7 percent had not had their teeth cleaned during any of these time periods (Table 21). Hispanic women were the most likely to have not had their teeth cleaned at 53.3 percent, and those of other race/ethnicity were the least likely, at 33.1 percent. Blacks and Whites had comparable rates, at 44.1 percent and 43.3 percent, respectively. Among the different age groups, women aged 20 and older were more likely than women aged 19 and younger to report not having a teeth cleaning. Rates varied from 57.0 percent among women aged 20-24 to 37.3 percent among women aged 18-19. Rates of inadequate dental care decreased with increasing income. Women with the lowest annual household income (less than \$15,000 per year) were twice as likely (59.2 percent) as those with an annual household income of \$50,000 per year or more (29.6 percent) to report not getting their teeth cleaned. Similarly, women with 12 or fewer years of education had a lower prevalence of having their teeth cleaned, compared to women with more than 12 years. Unmarried women (52.4 percent vs. 44.7 percent of married women) and those who had their deliveries paid by Medicaid (57.2 percent vs. 38.6 percent of non-Medicaid recipients) also reported higher rates of inadequate dental care.

⁴⁶ Silk H, Douglass AB, et al. Oral health during pregnancy. *Am Fam Physician*. 2009;77(8):1139-1144.

⁴⁷ Silk H, Douglass AB, et al. Oral health during pregnancy. *Am Fam Physician*. 2009;77(8):1139-1144.

⁴⁸ Gaffield ML, Gilbert BJC, et al. Oral health during pregnancy: an analysis of information collected by the Pregnancy Risk Assessment Monitoring System. *J Am Dent Assoc*. 2001;132:1009-1016.

⁴⁹ Ressler-Maerlender J, Krishna R, Robison V. Oral health during pregnancy: current research. *J Women's Health* 2005;14(10):880-882.

Table 21. Characteristics of Women Without a Teeth Cleaning in the Past Two Years, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	47.7	1.7	44.4	51.0	1,283	173,484
Race/Ethnicity*						
White	43.3	2.5	38.4	48.2	449	56,075
Black	44.1	2.8	38.5	49.6	319	17,018
Hispanic	53.3	2.8	47.8	58.7	438	94,325
Other	33.1	6.0	21.4	44.9	75	5,986
Age (years)*						
≤17	38.0	10.4	17.5	58.4	37	3,899
18-19	37.3	6.1	25.4	49.3	97	10,352
20-24	57.0	3.4	50.3	63.7	313	48,717
25-34	46.9	2.3	42.4	51.5	657	88,382
≥35	42.5	4.5	33.8	51.3	179	22,134
Annual Household Income*						
<\$15K	59.2	2.8	53.6	64.7	468	78,275
≥\$15K to <\$25K	56.3	4.6	47.3	65.3	176	29,455
≥\$25K to <\$50K	48.0	3.9	40.2	55.7	227	31,372
≥\$50K	29.6	2.8	24.0	35.1	333	27,329
Education (years)*						
<12	54.9	3.8	47.4	62.4	254	46,458
12	57.1	3.2	50.8	63.5	337	57,991
>12	38.7	2.2	34.4	43.0	690	68,571
Marital Status[†]						
Married	44.7	2.1	40.5	48.9	740	99,783
Unmarried	52.4	2.7	47.1	57.7	543	73,701
Medicaid Recipient^{a*}						
No	38.6	2.3	34.0	43.2	580	68,336
Yes	57.2	2.4	52.6	61.9	689	105,148
Border Resident						
No	47.2	1.8	43.7	50.6	1,159	151,482
Yes	51.7	5.5	40.9	62.5	124	22,002
INFANT						
Birth Weight						
Low (<2500 g)	51.6	2.8	46.1	57.1	321	14,011
Normal (≥2500g)	47.4	1.8	43.8	50.9	962	159,473
Gestational Age						
<37 Weeks (preterm)	49.4	4.0	41.5	57.3	282	17,999
≥37 Weeks	47.5	1.8	44.0	51.0	1,001	155,484

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

INFANT HEALTH AND SAFETY

Well-baby exams are regular health check-ups that typically occur when an infant reaches two, four, and six months of age. They are essential to the health of the baby, as they involve administering vaccines and developmental evaluations necessary to prevent disease and ensure adequate growth. They also present a chance for new parents to develop a relationship with their baby's doctor.⁵⁰ The 2011 Texas PRAMS survey asked, "Has your new baby had a well-baby checkup?" Overall, 97.9 percent of women reported taking their baby for a well-baby checkup. Approximately 90 percent of participants also reported that their baby had received well-baby shots or vaccinations before three months of age (data not shown).

Nationally, SIDS is the leading cause of death among infants one to twelve months of age. Placing infants on their backs to sleep has been consistently identified as a way to reduce the risk of SIDS. Therefore, the AAP recommends that for all sleep, infants should be placed on their backs only.⁵¹ The 2011 Texas PRAMS survey asked, "In which *one* position do you *most often* lay your baby down to sleep now?" The response options were "On his or her side," "On his or her back," or "On his or her stomach." Overall, 69.5 percent of women reported laying their baby down to sleep on his/her back (Table 22). Black women had the lowest reported rate, at 45.5 percent, which was significantly lower than the rates for all other race/ethnicity groups. Rates generally increased with income (63.6 percent for the lowest income bracket and 78.5 percent for the highest) and education (63.3 percent among the least educated and 73.6 percent among the most). Married women (73.9 percent vs. 62.3 percent for unmarried women), those who did not have Medicaid pay for their births (74.7 percent vs. 64.4 percent for Medicaid-sponsored births), and non-border residents (70.8 percent vs. 60.1 percent for border residents) were also more likely to report laying babies on their backs.

⁵⁰ Mayo Clinic. Infant and Toddler Health. Accessed on July 31, 2013 at <http://www.mayoclinic.com/health/healthy-baby/PR00026>.

⁵¹ American Academy of Pediatrics. Policy Statement -- The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. *Pediatrics*. 2005;116(5):1245-1255.

Table 22. Characteristics of Women Reporting Placing Infant on Back to Sleep, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	69.5	1.5	66.5	72.5	1,241	248,746
Race/Ethnicity*						
White	76.4	2.2	72.1	80.6	439	97,856
Black	45.5	2.9	39.8	51.2	300	16,596
Hispanic	68.9	2.6	63.8	74.0	431	120,995
Other	74.6	5.7	63.5	85.8	70	12,913
Age (years)						
≤17	59.3	10.9	37.9	80.8	32	5,781
18-19	62.1	6.0	50.3	73.9	95	16,970
20-24	64.8	3.3	58.4	71.2	297	53,700
25-34	72.2	2.1	68.1	76.2	639	134,235
≥35	73.3	4.0	65.4	81.3	178	38,060
Annual Household Income*						
<\$15K	63.6	2.8	58.1	69.0	446	81,653
≥\$15K to <\$25K	73.4	3.9	65.7	81.1	173	37,901
≥\$25K to <\$50K	67.0	3.7	59.8	74.3	230	44,687
≥\$50K	78.5	2.5	73.6	83.4	331	72,893
Education (years)†						
<12	63.3	3.7	56.0	70.6	241	52,653
12	67.4	3.0	61.4	73.3	321	66,866
>12	73.6	2.0	69.8	77.4	678	128,842
Marital Status*						
Married	73.9	1.9	70.2	77.6	726	164,176
Unmarried	62.3	2.6	57.1	67.4	515	84,570
Medicaid Recipient^{a*}						
No	74.7	2.1	70.6	78.8	573	132,253
Yes	64.4	2.3	60.0	68.9	668	116,493
Border Resident*						
No	70.8	1.6	67.7	73.9	1,118	223,253
Yes	60.1	5.5	49.4	70.8	123	25,493
INFANT						
Birth Weight†						
Low (<2500 g)	63.2	2.8	57.7	68.7	296	15,797
Normal (≥2500g)	70.0	1.6	66.8	73.2	945	232,949
Gestational Age†						
<37 Weeks (preterm)	61.3	4.1	53.2	69.4	253	20,736
≥37 Weeks	70.4	1.6	67.1	73.6	988	228,009

^aDelivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

MATERNAL POSTPARTUM EXPERIENCE

Maternal postpartum health checkups are a critical component of women's healthcare. They typically occur within the six weeks after birth, and provide a crucial opportunity for the screening and addressing of common postpartum maternal morbidities, including fatigue, depression, breastfeeding problems, backaches, headaches, and other physical morbidities. However, maternal postpartum health is an often neglected part of women's health care, and there are missed opportunities for enhancing postpartum care for women.⁵² The typical postpartum checkup is limited to vaginal examination and contraceptive education. Improvements in the access and delivery of postpartum healthcare are necessary in light of evidence suggesting that poor maternal physical health is associated with a reduction in children's general physical health.

The 2011 Texas PRAMS participants were asked the following question to assess postpartum healthcare: "*Since your new baby was born, have you had a postpartum checkup for yourself?*" Overall, 11.2 percent of women reported that they had not had a checkup (Table 23). Whites were the least likely report that they had not receive postpartum care (7.8 percent), and Blacks were the most likely (14.3 percent). Postpartum checkups were most common among those with higher incomes. Nearly 19 percent of women with annual household incomes less than \$15,000 reported that they had not received a postpartum checkup. Education was also found to be associated with having a checkup. Women with fewer than 12 years of education were over three times more likely than those with more than 12 years to report that they did not have a postpartum checkup. Additionally, Medicaid recipients and border residents were both approximately twice as likely as their non-Medicaid and non-border resident counterparts to report not having a postpartum checkup. Participants were also asked if they and/or their partners were doing anything to keep from getting pregnant. Overall, 87.6 percent reported some form of postpartum contraceptive use (Table 24). This rate did not differ by any demographic factors.

The survey also asked women if they had a conversation with a healthcare worker about depression during pregnancy and postpartum. Overall, 73.9 percent reported that at some point during pregnancy or after delivery, a healthcare worker talked with them about depression (Table 25). These conversations were more common among the least educated women (82.3 percent vs. 69.7 percent among the most educated women). Unmarried women were also more likely to report having such conversations (78.5 percent vs. 71.1 percent among married women).

Postpartum depression questions were added in Phase 6 of the Texas PRAMS survey (years 2009-2011). Women were asked how often they felt or experienced the following after childbirth: "I felt down, depressed, or sad"; "I felt hopeless"; and "I felt slowed down." For each response, women were asked to use the following scale: never=1, rarely=2, sometimes=3, often=4, and always=5. Using an algorithm developed by the CDC's Division of Reproductive Health and researchers at the University of Iowa, a cutoff of ≥ 10 after summing each depression question was used as an indication of postpartum depressive symptoms.⁵³

⁵² Cheng CY, Fowles ER, et al. Postpartum maternal health care in the United States: a critical review. *J Perinat Educ.* 2006;15(3):34-42.

⁵³ A cut off of ≥ 10 is used when data is available for three questions; a cutoff of ≥ 7 is used when data is available for two questions; and a cutoff of ≥ 4 is used when data is available for only one question.

Overall, 10.6 percent of women reported postpartum depressive symptoms (Table 26). Risk increased as income decreased. Women with the lowest annual household incomes (less than \$15,000 per year) had significantly higher rates of postpartum depressive symptoms (13.7 percent) than those with incomes at or greater than \$50,000 per year (4.9 percent). Women who had their deliveries paid by Medicaid (14.2 percent vs. 6.8 percent of non-Medicaid recipients) also had significantly higher rates of postpartum depressive symptoms.

Table 23. Characteristics of Women Who did Not Receive a Maternal Postpartum Checkup, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	11.2	1.1	9.1	13.3	1,277	40,611
Race/Ethnicity[†]						
White	7.8	1.4	5.1	10.5	448	10,138
Black	14.3	2.0	10.4	18.3	314	5,435
Hispanic	13.0	1.9	9.4	16.7	438	22,878
Other	---	---	---	---	---	---
Age (years)						
≤17	---	---	---	---	---	---
18-19	---	---	---	---	---	---
20-24	13.2	2.3	8.7	17.8	305	11,113
25-34	11.4	1.5	8.4	14.5	655	21,493
≥35	---	---	---	---	---	---
Annual Household Income*						
<\$15K	18.8	2.2	14.4	23.1	467	24,699
≥\$15K to <\$25K	8.6	2.4	3.9	13.2	177	4,463
≥\$25K to <\$50K	9.7	2.4	5.0	14.4	234	6,500
≥\$50K	---	---	---	---	---	---
Education (years)*						
<12	18.2	2.9	12.5	23.9	249	15,178
12	14.5	2.2	10.1	18.9	339	14,695
>12	6.1	1.1	3.9	8.2	687	10,659
Marital Status						
Married	9.6	1.3	7.1	12.2	739	21,429
Unmarried	13.8	1.8	10.2	17.3	538	19,182
Medicaid Recipient^{a*}						
No	7.4	1.3	4.8	9.9	583	13,064
Yes	15.0	1.7	11.7	18.2	694	27,547
Border Resident[†]						
No	10.2	1.1	8.2	12.3	1,151	32,710
Yes	18.7	4.4	10.1	27.3	126	7,901
INFANT						
Birth Weight[†]						
Low (<2500 g)	15.6	2.0	11.7	19.6	323	4,268
Normal (≥2500g)	10.9	1.1	8.6	13.1	954	36,343
Gestational Age						
<37 Weeks (preterm)	14.9	3.1	8.8	21.0	282	5,424
≥37 Weeks	10.8	1.1	8.6	13.1	995	35,188

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

[†] Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 24. Characteristics of Women Who Reported Postpartum Contraceptive Use, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	87.6	1.1	85.5	89.7	1,280	318,165
Race/Ethnicity						
White	87.1	1.7	83.8	90.4	447	112,369
Black	83.2	2.1	79.0	87.4	313	31,471
Hispanic	89.2	1.7	85.9	92.6	442	158,265
Other	---	---	---	---	---	---
Age (years)						
≤17	---	---	---	---	---	---
18-19	85.1	4.0	77.2	92.9	102	23,996
20-24	91.1	2.0	87.3	94.9	307	77,068
25-34	88.2	1.4	85.4	91.0	654	165,803
≥35	82.1	3.4	75.4	88.8	180	42,751
Annual Household Income						
<\$15K	85.2	2.0	81.2	89.1	469	112,727
≥\$15K to <\$25K	---	---	---	---	---	---
≥\$25K to <\$50K	90.1	2.1	85.9	94.3	234	60,435
≥\$50K	86.7	2.1	82.7	90.7	334	80,439
Education (years)						
<12	87.7	2.4	82.9	92.5	252	73,854
12	86.6	2.1	82.4	90.8	340	88,834
>12	88.2	1.4	85.4	91.0	686	155,092
Marital Status						
Married	88.3	1.3	85.7	90.9	739	196,785
Unmarried	86.6	1.8	83.0	90.2	541	121,380
Medicaid Recipient^a						
No	88.8	1.4	86.0	91.6	584	158,272
Yes	86.5	1.6	83.4	89.6	696	159,893
Border Resident						
No	88.2	1.1	86.1	90.3	1,152	281,947
Yes	83.5	3.9	75.8	91.2	128	36,218
INFANT						
Birth Weight[†]						
Low (<2500 g)	82.6	2.1	78.4	86.8	325	22,679
Normal (≥2500g)	88.0	1.1	85.8	90.3	955	295,486
Gestational Age						
<37 Weeks (preterm)	84.0	2.7	78.7	89.4	283	30,623
≥37 Weeks	88.0	1.2	85.8	90.3	997	287,542

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 25. Characteristics of Women Who Reported Healthcare Worker Talk about Postpartum Depression, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	73.9	1.5	71.1	76.8	1,280	266,782
Race/Ethnicity						
White	70.9	2.3	66.5	75.4	446	91,744
Black	75.7	2.4	71.0	80.4	320	29,348
Hispanic	76.5	2.4	71.8	81.2	436	133,041
Other	66.7	6.0	55.0	78.4	76	12,264
Age (years)						
≤17	---	---	---	---	---	---
18-19	73.8	5.3	63.4	84.3	100	20,375
20-24	75.2	3.1	69.2	81.2	308	63,194
25-34	72.8	2.0	68.9	76.8	657	136,960
≥35	71.6	4.0	63.8	79.5	179	36,880
Annual Household Income						
<\$15K	77.8	2.4	73.2	82.5	459	100,518
≥\$15K to <\$25K	70.0	4.3	61.5	78.6	176	35,991
≥\$25K to <\$50K	74.5	3.3	68.0	81.0	233	49,538
≥\$50K	68.4	2.9	62.8	74.0	334	63,614
Education (years)*						
<12	82.3	2.9	76.6	87.9	252	68,171
12	74.4	2.9	68.8	80.0	335	75,136
>12	69.7	2.1	65.6	73.8	691	123,089
Marital Status[†]						
Married	71.1	1.9	67.3	74.9	741	157,865
Unmarried	78.5	2.2	74.2	82.7	539	108,916
Medicaid Recipient^a						
No	74.1	2.0	70.1	78.1	584	132,223
Yes	73.9	2.1	69.7	78.0	685	133,267
Border Resident						
No	74.3	1.5	71.3	77.3	1,152	235,822
Yes	71.4	4.9	61.7	81.0	128	30,960
INFANT						
Birth Weight						
Low (<2500 g)	69.5	2.6	64.5	74.6	323	18,973
Normal (≥2500g)	74.3	1.6	71.2	77.4	957	247,808
Gestational Age						
<37 Weeks (preterm)	71.6	3.5	64.7	78.4	282	25,713
≥37 Weeks	74.2	1.6	71.1	77.3	998	241,069

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

†Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 26. Characteristics of Women with Postpartum Depressive Symptoms, Texas PRAMS 2011

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1,316)	Estimated Population Affected
			Lower	Upper		
MATERNAL						
Overall	10.6	1.0	8.5	12.6	1,272	38,123
Race/Ethnicity						
White	9.4	1.5	6.6	12.3	447	12,156
Black	11.9	1.9	8.3	15.5	313	4,495
Hispanic	11.4	1.8	7.9	14.8	436	19,984
Other	---	---	---	---	---	---
Age (years)						
≤17	---	---	---	---	---	---
18-19	---	---	---	---	---	---
20-24	12.3	2.2	7.9	16.6	305	10,310
25-34	11.2	1.5	8.2	14.1	651	20,871
≥35	---	---	---	---	---	---
Annual Household Income*						
<\$15K	13.7	2.0	9.9	17.6	465	17,988
≥\$15K to <\$25K	13.1	3.2	6.8	19.4	178	6,855
≥\$25K to <\$50K	11.1	2.5	6.2	16.1	233	7,446
≥\$50K	4.9	1.1	2.6	7.1	334	4,500
Education (years)						
<12	9.2	2.2	5.0	13.5	247	7,702
12	12.7	2.1	8.5	16.9	338	12,906
>12	10.0	1.4	7.2	12.7	685	17,515
Marital Status						
Married	9.4	1.3	6.9	11.9	737	20,975
Unmarried	12.4	1.8	8.9	15.8	535	17,148
Medicaid Recipient^{a*}						
No	6.8	1.1	4.6	9.0	582	11,943
Yes	14.2	1.7	10.9	17.6	690	26,179
Border Resident						
No	10.3	1.1	8.2	12.4	1,147	32,927
Yes	12.3	3.6	5.3	19.4	125	5,196
INFANT						
Birth Weight[†]						
Low (<2500 g)	15.2	2.0	11.2	19.2	321	4,136
Normal (≥2500g)	10.2	1.1	8.0	12.4	951	33,987
Gestational Age[†]						
<37 Weeks (preterm)	16.3	3.0	10.4	22.3	279	5,900
≥37 Weeks	9.9	1.1	7.8	12.1	993	32,222

^a Delivery paid by Medicaid.

*Denotes a significant difference within the subgroup.

[†] Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Prevalence: Estimated percent of Texas women with the specified indicator for each characteristic.

Respondents: Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

SUMMARY

This report provides a general overview of factors associated with perinatal and infant health in Texas as assessed by the 2011 PRAMS survey. The primary purpose of Texas PRAMS is to provide valuable data that can be used to improve maternal and infant health. The survey is particularly useful for providing information on the general state of risk factors associated with poor pregnancy and infant health outcomes. This report, as have previous reports, highlights how many of these factors differ across demographic and infant characteristics. Such information can and should guide the focus of policy and intervention programs so that the most at-risk populations are prioritized and data is moved to well-informed action.

As expected, our findings suggest that women of low socioeconomic status and their infants may be at the highest risk for adverse outcomes. Women with lower annual household incomes and education levels were the most likely to report unintended and mistimed pregnancies; smoking before, during, and after pregnancy; allowing smoking in the home; experiencing intimate partner violence; and having depressive symptoms. They were also the least likely to report multivitamin or prenatal vitamin use; having knowledge of folic acid benefits; entering prenatal care on time or as early as desired; breastfeeding their babies at any point in time; having a postpartum checkup; and placing their babies on their backs to sleep. However, women with the highest annual incomes and education levels had the highest rates of alcohol use, both before and during pregnancy. Substance use appeared to be less tied to social disadvantage than other factors.

Many of the factors that were examined differed between race/ethnic groups. Black and Hispanic women reported the highest rates of unintended and mistimed pregnancies, and late entry into prenatal care. They also had the lowest rates of multivitamin and prenatal vitamin use and postpartum checkups. Of all participants, Black women were notably more likely to report having an unwanted pregnancy; allowing smoking in the home; having never breastfed; and placing their baby in a position other than on his/her back to sleep. Hispanic women were the least likely to have had a teeth cleaning in the two years prior to taking the survey. Substance use was most common among White women who had the highest rates of cigarette and alcohol use before, during, and after their most recent pregnancy.

As would be expected, rates of unintended, mistimed and unwanted pregnancies were particularly high among teenage participants. The youngest age groups were also the least likely to have knowledge of folic acid benefits; enter prenatal care on time or as early as desired; or report ever breastfeeding. While intimate partner violence was assessed only in participants aged 18 and over, those rates were highest among the youngest age group (ages 18-19) which suggests that it is a problem disproportionately affecting younger mothers. Unintended pregnancies were also common among women aged 35 and older, as were C-sections. Certain risk factors were most common among women in and around their peak childbearing years. In particular, women aged 20 to 24 reported the lowest rates of multivitamin or prenatal vitamin use. They were also the most likely to report smoking before, during, and after pregnancy. Participants aged 20 to 34 reported the highest rates of pre-pregnancy alcohol use and binge drinking.

The data also showed geographic differences in the patterns of risk factors. Specifically, women who live in counties on the Texas-Mexico border were the least likely to report having a

postpartum checkup, and had a lower incidence of placing their infants on their backs to sleep. These findings are generally similar to those of the previous year, when a border county oversample was drawn for the purpose of examining geographic differences in PRAMS indicators.⁵⁴

Since its inception, PRAMS has proven to be a rich source of data on the health of mothers and infants both state-wide and nationally. Data from the survey have been used to monitor the progress of state and national health goals specific to maternal and child health. For instance, Texas PRAMS data are used annually in the preparation of the Texas Title V Maternal and Child Health (MCH) Services Block Grant Application and Annual Report. The survey also is important in the Health Resources and Services Administration-sponsored Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality. This initiative aims to reduce infant mortality and improve birth outcomes through the collaborative efforts of experts and health departments in several states.⁵⁵ Texas PRAMS data are being used by CoIIN participants to assess infant safe sleep practices and perinatal tobacco use, as well as to track improvements in these areas. These are just a few of the numerous surveillance, research, and intervention projects that the PRAMS survey has helped guide. Researchers, policymakers, and MCH experts are encouraged to consult the survey in their efforts to understand and address the factors associated with the well-being of mothers and babies.

PRAMS data are valuable in that they supplement information obtained from birth certificates. As noted in previous annual reports, there have been noteworthy discrepancies between Texas PRAMS and state birth certificate data regarding rates of certain maternal and child health indicators.⁵⁶ Discrepancies in rates of key factors, which have ranged from labor induction to gestational diabetes, raise concern about the accuracy of reported measures. Through the comparison of indicator rates as measured in these two robust data sources, these inconsistencies can be clarified so that estimates are assessed and conclusions are drawn with greater accuracy and confidence.

It is important to reiterate that this report is not inclusive of all indicators assessed in the 2011 Texas PRAMS survey. The Texas Department of State Health Services encourages the reader to review the survey questions available in the Appendix that follows to gain a more complete sense of the survey's scope. Additionally, in the interest of brevity, this report provides a general overview of the covered topics. More detailed topical reports on the 2011 survey, complete with more in-depth analyses and background information, will be published in the near future. For questions regarding the information in this report or PRAMS more generally, please contact Dorothy Mandell at 512-776-2870 or Dorothy.Mandell@dshs.state.tx.us. You may also visit the DSHS PRAMS webpage at: www.dshs.state.tx.us/mch/default.shtm#PRAMS2.

⁵⁴ Texas Department of State Health Services, Division for Family and Community Health Services, Office of Program Decision Support. Texas Pregnancy Risk Assessment Monitoring System 2010 Annual Report. 2012.

⁵⁵ U.S. Department of Health and Human Services. Collaborative Improvement and Innovation Network to Reduce Infant Mortality Homepage. Accessed on August 8, 2013 at <http://mchb.hrsa.gov/infantmortality/coiin/>.

⁵⁶ Texas Department of State Health Services, Division for Family and Community Health Services, Office of Program Decision Support. Texas Pregnancy Risk Assessment Monitoring System 2010 Annual Report. 2012.

APPENDIX: 2011 TEXAS PRAMS SURVEY