Missouri Pregnancy Risk Assessment Monitoring System (PRAMS)

2009-2011 Surveillance Report

Suggested Citation: McBride DG, Mosley MJ, Chitima-Matsiga R, Garikapaty V. *Missouri Pregnancy Risk Assessment Monitoring System (PRAMS) 2009-2011 Surveillance Report.* Jefferson City, MO: Missouri Department of Health and Senior Services, Division of Community and Public Health, Section of Epidemiology for Public Health Practice, December 2014.

Missouri Department of Health and Senior Services • Office of Epidemiology
health.mo.gov/prams

Missouri Pregnancy Risk Assessment Monitoring System (PRAMS)

Maternal Health and Experiences During Pregnancy and the Early Infancy Period

2009-2011 Surveillance Report

Acknowledgments

Funding for the Missouri PRAMS project is provided in part by the U.S. Centers for Disease Control and Prevention (CDC), Atlanta, GA (Grant Number 5UR6DP000489-04), the Title V Maternal and Child Health Block Grant (Grant Number B04MC17010) and State Systems Development Initiative (SSDI) (Grant Number H18MC00028), Maternal and Child Health Bureau (MCHB), Health Resources and Services Administration (HRSA), and the U.S. Department of Health and Human Services. The views expressed in this report are the responsibility of the authors and may not reflect the official views of the CDC or MCHB/HRSA.

Among Missouri PRAMS staff, we would especially like to acknowledge Shirley Veit and Betty Powell, for doing the most difficult part of the work, distributing, tracking and receiving PRAMS survey mailings and keying data entry. Missouri PRAMS simply would not happen without their dedication and expertise. We are also grateful for the work of Office of Epidemiology intern, MPH Candidate Brittney Kramer, in developing the initial draft of this report.

We would also like to acknowledge the following individuals, programs and organizations for their contributions to Missouri PRAMS and the 2009-2011 Surveillance Report:

- Missouri Department of Health and Senior Services: Office of Epidemiology; Bureau of Vital Statistics; Bureau of Health Care Analysis and Data Dissemination; Office of Public Information; Cherri Baysinger and the Section of Epidemiology for Public Health Practice; Harold Kirbey and Melinda Sanders, Division of Community and Public Health
- Missouri Title V Agency and the Missouri State Systems Development Initiative (SSDI) Program
- University of Missouri–Columbia, Health and Behavioral Risk Research Center, for excellent management of the Missouri PRAMS Phone Phase interviews.
- CDC PRAMS Team, especially Martha Kapaya, Missouri PRAMS Project Manager
- CDC PIDS Development Team
- Missouri PRAMS Steering Committee

Last, and above all others, we extend our deepest gratitude to the new mothers who completed PRAMS questionnaires in 2009, 2010 and 2011, and contributed the information provided in this report.

Table of Contents

Executive Summary

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a collaborative project between the U.S. Centers for Disease Control and Prevention (CDC) and state health departments. The PRAMS survey is an ongoing, population-based survey of mothers who delivered a live infant within the past year. Mothers are selected at random to participate in the survey and the results are generalizable to the population of all Missouri resident mothers of live-born infants in each calendar year. States participating in PRAMS together represent 78% of all U.S. live births each year.

Results from PRAMS are used to advance understanding of maternal behavior how it relates to both positive and negative pregnancy outcomes. Missouri PRAMS consistently provides evidence-based support to monitor trends in health indicators, identify high-risk groups, assist in program planning and evaluation and many other applications. Data from PRAMS are regularly used as benchmarks from which to validate other data sources, and are often included in independent research of emerging maternal and infant health issues.

The following is a comprehensive report of results from the Phase 6 (2009-2011) Missouri PRAMS survey. The topics presented were selected for their relevance to current concerns in maternal and infant health. Missouri PRAMS had a total of 4,153 respondents for 2009-2011, with an aggregated weighted response rate of 71.6%.

Key PRAMS Findings for 2009-2011:

Pre-pregnancy

- *Pre-pregnancy Insurance status*: Nearly one in six Missouri mothers (16.6%) reported Medicaid health coverage before pregnancy, and approximately one-fourth (26.1%) had no health insurance.

- *Unintended pregnancy*: About 45% of births were from unintended pregnancies.

- *Multivitamin use*: More than half of mothers (55.7%) took no multivitamins or prenatal vitamins at all before pregnancy. About one-third (35.6%) took a multivitamin containing folate (folic acid) at least four times per week before pregnancy.

- *Obesity*: Overall, 26.8% of Missouri mothers were obese when they became pregnant.

Pregnancy

- *Prenatal care*: Nearly one in five mothers (18.9%) reported that they *did not* receive prenatal care during their first trimester.

- *Physical violence*: Overall, 3.1% of mothers reported being physically abused by their husband or partner during pregnancy.

Postpartum

- *Breastfeeding*: About three-fourths (77.7%) of mothers initiated breastfeeding. Half of all mothers (50.0%) continued to breastfeed beyond eight weeks.

- *Infant sleep position and location*: Nearly three-fourths of mothers (74.2%) reported placing their infants to sleep on their backs. Most (80.8%) do not co-sleep with their infants.

- *Postpartum depression*: Approximately 13% of mothers (13.2%) had symptoms of postpartum depression. Approximately half as many mothers who experienced adequate prenatal care reported symptoms of postpartum depression, compared to mothers who had inadequate prenatal care (11.5% and 21.3%, respectively).

Alcohol and Tobacco Use

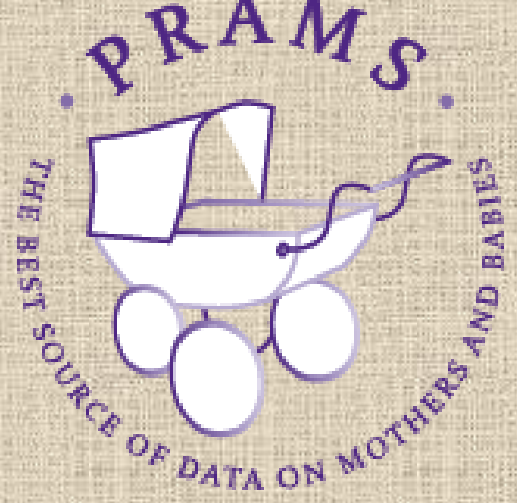
- *Tobacco*: Although 18.1% of mothers reported smoking tobacco during the last three months of pregnancy, 42.7% reported they quit during their pregnancies. Mothers enrolled in WIC were among those most likely to stop smoking during pregnancy (58.5%).

- *Alcohol*: Over half of mothers reported drinking alcohol during the last three months *before* becoming pregnant. During the last three months of pregnancy, 5.1% of mothers consumed alcohol.

Oral Health

- Overall, 48.3% of mothers had their teeth cleaned within one year of becoming pregnant, and 37.7% had their teeth cleaned during pregnancy. Nearly half of mothers reported they needed to see a dentist for a problem during their pregnancies but did not do so (43.5%).

Section 1. Introduction



The Pregnancy Risk Assessment Monitoring System (PRAMS) is a collaborative project between the U.S. Centers for Disease Control and Prevention (CDC) and the Missouri Department of Health and Senior Services (DHSS).

The PRAMS project utilizes an ongoing, population-based and representative survey designed to identify and monitor select maternal experiences, attitudes and behaviors that occur before, during and shortly after pregnancy among women delivering a live-born infant. The PRAMS survey provides unique information that may be combined with data from other sources, such as birth certificates, to obtain a more complete picture of the health and well-being of Missouri infants and mothers. Results from PRAMS are used to improve understanding of maternal behavior and how it relates to both positive and negative pregnancy outcomes. The PRAMS project provides empirical data that are used to monitor trends in health indicators, identify high-risk groups, assist in program planning and evaluation, and shape public health policy development. Data from PRAMS are also used as benchmarks for the validation of other data sources, and are often included in independent research of emerging maternal and infant health issues.

The PRAMS project began in 1987 as part of the CDC effort to reduce infant mortality and low birth weight. The program has been expanded in recent years to support the CDC's Safe Motherhood Initiative for the promotion of healthy pregnancies and delivery of healthy infants. Currently, 40 states and New York City participate in PRAMS. Missouri became a CDC PRAMS participant in 2006 and began data collection in 2007. States participating in PRAMS now represent 78% of all U.S. live births each year.

The following is a comprehensive report of results from the Phase 6 (2009-2011) Missouri PRAMS survey. A variety of topics are addressed, including pregnancy intention, folic acid consumption and awareness, prenatal care, alcohol and tobacco use, maternal stress, breastfeeding, postpartum depression and participation in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC).

A number of PRAMS indicators are compatible with the Healthy People 2020[1] objectives (HP 2020), the set of health objectives for the nation that will guide prevention efforts for the next five years. Compatibility between PRAMS and HP 2020 objectives allows the comparison of Missouri's maternal and infant health indicators with national objectives and provides data as benchmarks for measuring progress towards HP 2020.

Missouri PRAMS had a total of 4,153 respondents for 2009-2011, with an aggregated weighted response rate of 71.6%. Overall, the sample population characteristics are representative of the corresponding Missouri population. The sample consisted of White, non-Hispanic mothers (76.9%), Black, non-Hispanic mothers (14.2%), Hispanic mothers (5.5%) and mothers of Other races, which aggregates mothers who self-reported as Asian, Native Hawaiian or Pacific Islander, American Indian or Alaskan Native (5.0% total). Most mothers were between the ages of 20 and 29 years (57.6%), followed by those 30 years old and older (31.4%) and under 20 years old (10.6%). A majority of mothers had a high school education or at least some college experience (56.9%). Approximately 17% had less than a high school education. More than half of mothers were married (58.8%), and overall, 51.1% were enrolled in Medicaid at some time

before, during or after pregnancy. About three fourths of the respondents resided in an urban setting (74.6%), 23.8% of mothers had annual household income less than $10,000 and 32.5% had household income above $50,000. Table 1 shows summary statistics for the 2009-2011 PRAMS sample, in comparison with statewide estimates.

Table 1. Maternal Characteristics, Missouri PRAMS, 2009-2011

Characteristic	Sample *n*	Weighted *n*	Weighted %	State %
Overall	4,153	219,523	100.0	**
Age (Years)				
Under 20 years old	389	22,520	10.3	10.1
20-29 years old	2,441	128,116	58.4	57.6
30 years old or older	1,322	68,886	31.4	31.6
Education level				
Less than high school	635	37,424	17.2	16.9
High school or equivalent	1,046	55,852	25.6	26.2
More than high school	2,448	124,797	57.2	56.9
Race/ethnicity				
White, non-Hispanic	3,303	168,609	76.9	79.7
Black, non-Hispanic	503	31,109	14.2	15.2
Hispanic	144	9,071	4.1	5.5
Other	197	10,576	4.8	5.0
Marital status				
Married	2,592	129,003	58.8	59.6
Unmarried	1,558	90,429	41.2	40.3
Residence				
Urban	2,900	163,852	74.6	64.5
Rural	1,253	55,761	25.4	35.4
Insurance status				
Medicaid	2,072	109,435	50.1	46.5
Non-Medicaid	2,062	109,047	49.9	53.5
Household income				
Less than $10,000	902	50,330	23.8	8.6
$10,000 to $14,999	378	19,355	9.1	4.8
$15,000 to $19,999	278	14,687	6.9	4.9
$20,000 to $24,999	290	15,633	7.4	5.2
$25,000 to $34,999	415	20,676	9.8	9.9
$35,000 to $49,999	455	22,241	10.5	13.0
$50,000 or more	1,283	68,909	32.5	53.6

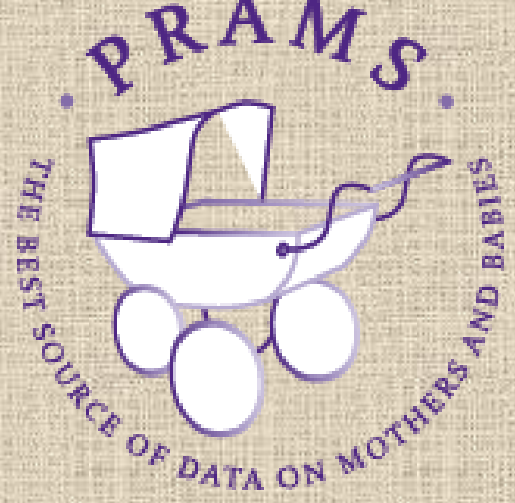
** There were 231,636 live births registered in Missouri, for 2009-2011.

Limitations

Although the PRAMS survey is carefully structured to be generalizable (statistically representative) for all mothers who gave birth to live infants each year in their respective states, it is important to note that many pregnancies do not end in live births, and that PRAMS data should not be assumed to be generalizable for all women who were *pregnant* during the survey period (regardless of pregnancy outcome), or for all Missouri women in general.

Results in tables are presented with 95% statistical confidence limits (CL). Confidence limits represent the upper and lower bounds of the range in which 95% of results would be expected to fall, if the test were repeated many times. They do not represent the range of 95% certainty about the "true" population value. Although statistically significant difference is often inferred whenever confidence intervals between two statistics do not overlap, significance and non-significance are not noted in this report. Such comparisons can serve as rough, "rule-of-thumb" tests for statistical significance, but they can be misleading when confidence intervals are wide or statistics with very different sample sizes are compared. It is more important to consider relative sizes (wider/narrower) of confidence intervals when making comparisons, because they indicate *precision*—the repeatability or reproducibility of the statistic.

Section 2. Pre-Pregnancy



Obesity

Pre-pregnancy weight is an important predictor of adverse pregnancy outcomes. Mothers who are obese before pregnancy (BMI of 30 or higher) have an increased risk of hypertensive disorders (preeclampsia), diabetes, delivery of a macrosomic (high birthweight) infant, caesarean section, pre-term birth, failure to initiate breastfeeding, shorter duration of breastfeeding and numerous other adverse birth outcomes.[2,3] Children of obese mothers have an increased risk for childhood obesity and childhood metabolic syndrome, a group of risk factors associated with early development of type 2 diabetes and cardiovascular disease.[4,5]

Missouri PRAMS shows 26.8% of mothers were obese before pregnancy, for 2009-2011, with higher percentages among Black, non-Hispanic mothers (35.4%), unmarried mothers (29.2%) and mothers on WIC during pregnancy (32.1%) (Table 2).

Underweight women (adult BMI less than 18.5) are more likely than normal-weight women (BMI 18.5-24.9) to have a low birthweight baby or preterm delivery.[6] They are not more likely to experience other complications during pregnancy. For 2009-2011, Missouri PRAMS shows 5.3% of mothers were underweight before pregnancy. Underweight women were most commonly under 20 years old (9.5%), had not completed high school (8.2%) or unmarried (7.2%).

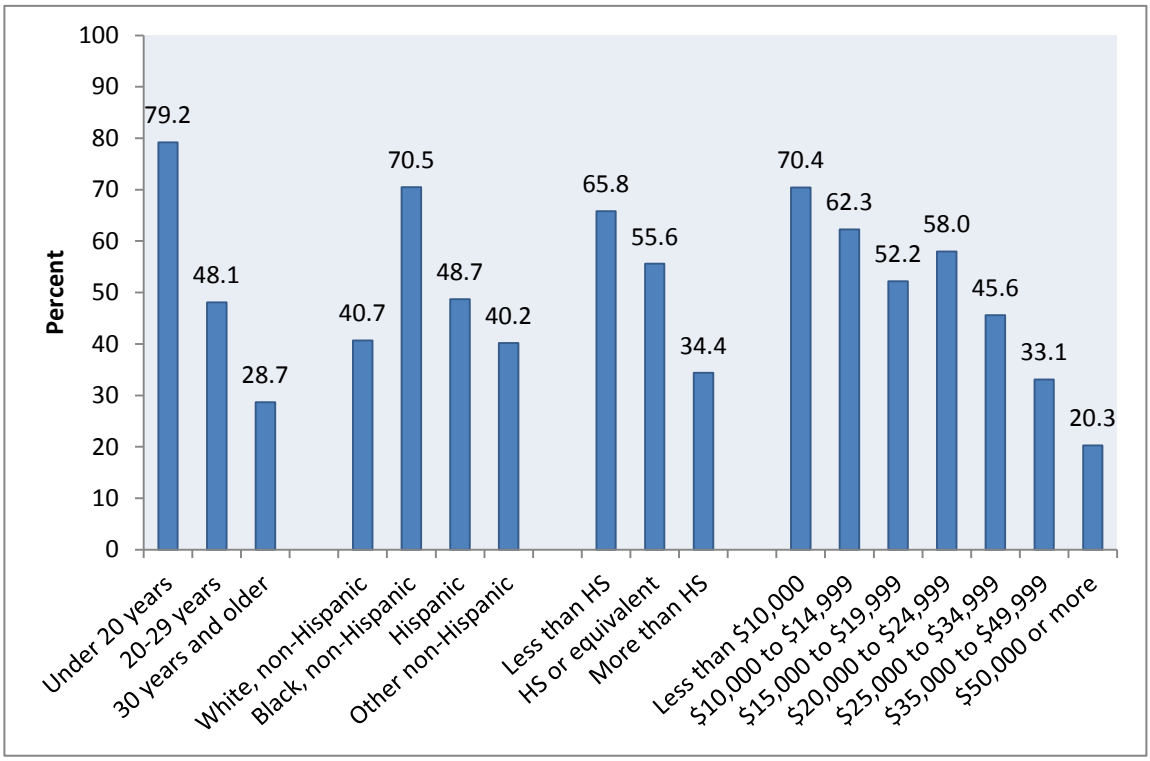
Table 2. Prevalence of obesity prior to pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	26.8	25.2	28.4
Maternal age			
Age <20	17.8	13.5	23.0
Age 20-29	27.3	25.2	29.5
Age 30+	28.8	25.9	31.8
Maternal education			
Less than high school	27.2	23.0	31.9
High school or equivalent	29.7	26.4	33.1
More than high school	25.4	23.4	27.5
Maternal race/ethnicity			
White, non-Hispanic	25.6	23.9	27.4
Black, non-Hispanic	35.4	30.2	41.0
Hispanic	23.5	15.6	33.7
Other, non-Hispanic	23.3	16.9	31.0
Marital status			
Married	25.1	23.2	27.1
Other	29.2	26.5	32.1
Household income			
$50,000 or more	24.6	21.2	28.3
$35,000 to $49,999	23.0	18.4	28.3
$25,000 to $34,999	32.7	26.5	39.6
$20,000 to $24,999	27.2	21.4	33.8
$15,000 to $19,999	26.6	21.7	32.1
$10,000 to $14,999	21.6	17.3	26.5
Less than $10,000	17.6	15.3	20.2
WIC participation			
On WIC during pregnancy	32.1	29.6	34.8
Not on WIC during pregnancy	22.1	20.1	24.3

Pregnancy Intention

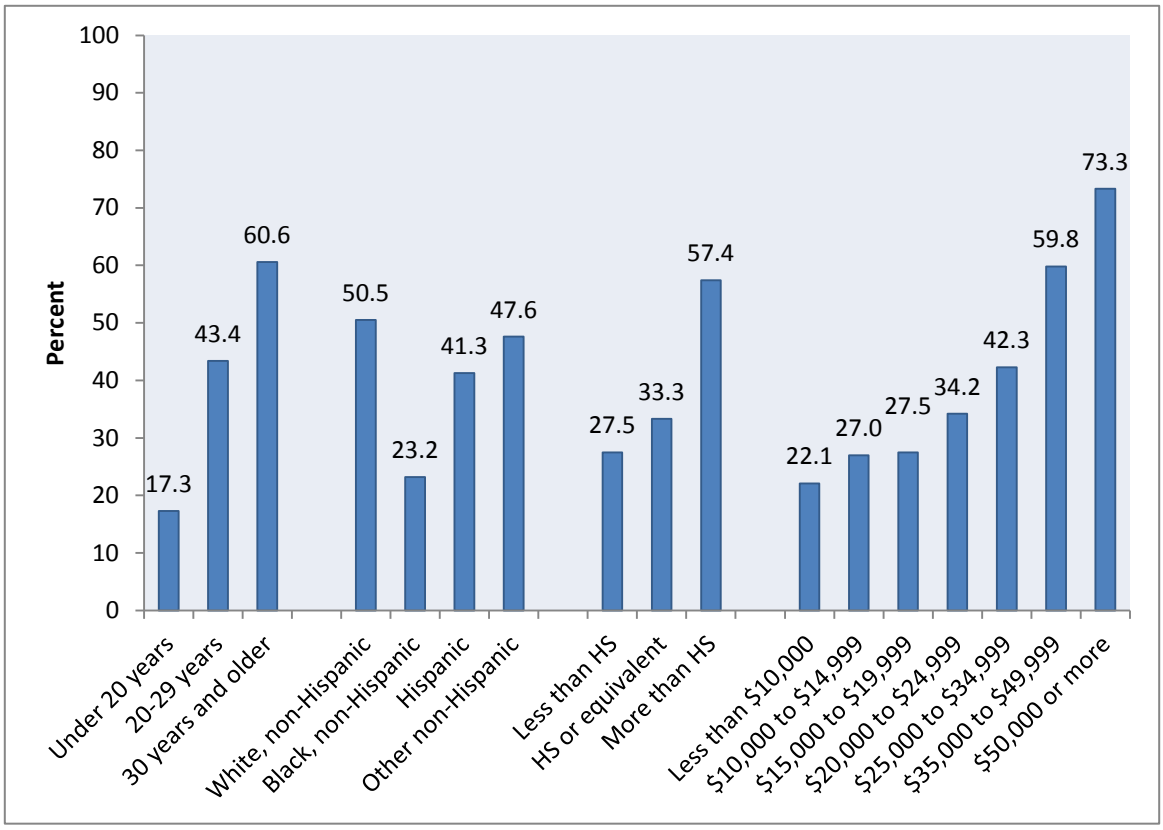
Compared to women with intended pregnancies, women who have unintended pregnancies are more likely to delay prenatal care, continue adverse behaviors into pregnancy (such as smoking and drinking), and to have adverse outcomes, including premature birth and postpartum depression.[7] Overall, for 2009-2011, 45.2% of mothers reported that their pregnancies were unintended. Proportions of mothers who had unintended pregnancies were highest among Black, non-Hispanic mothers (70.5%), those less than 20 years old (79.2%), unmarried (70.1%), and those on Medicaid prior to pregnancy (72%) (Figure 1).

Figure 1. Pregnancy not intended, by selected socioeconomic groups, Missouri PRAMS, 2009-2011



Conversely, 46.1% of Missouri mothers responded that they were trying to become pregnant, with the highest proportions among mothers who were 30 years old or older, White, non-Hispanic, had household income of $50,000 or more, or who had at least high school education (Figure 2).

Figure 2. Mothers who were trying to get pregnant at the time they conceived, by selected socioeconomic groups, Missouri PRAMS, 2009-2011



Contraceptive Use at Time of Pregnancy

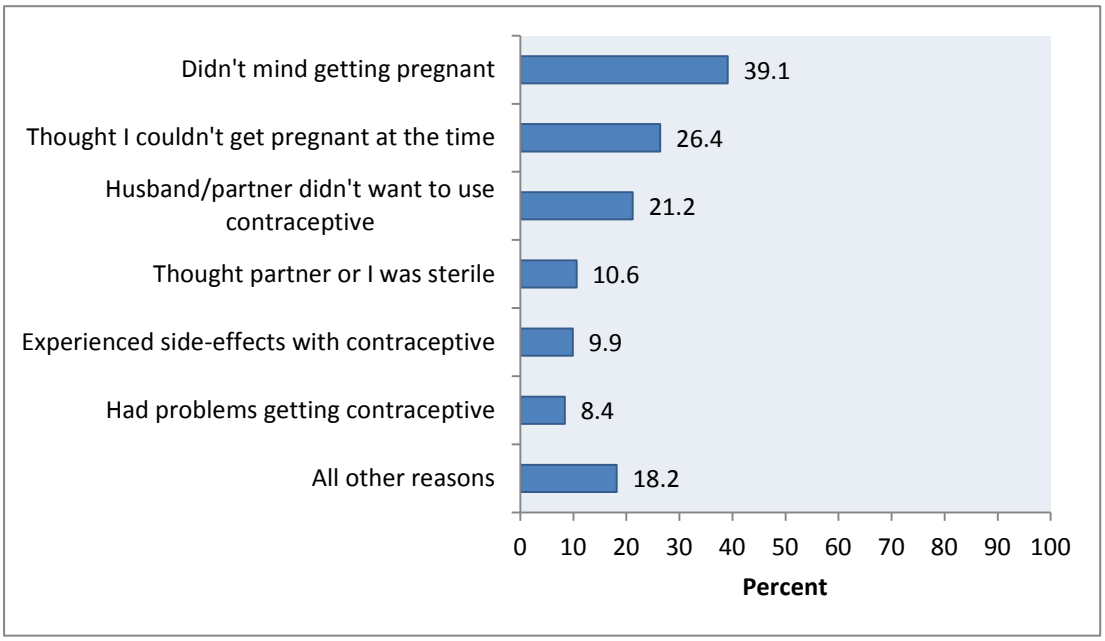
Among women who did not intend to become pregnant, 49.4% reported they were using some method of contraception when they became pregnant. The proportions were similar among socioeconomic groups by race and ethnicity (slightly more than 49% for each group), except among Hispanic women (35.0%) (Table 3).

Table 3. Mothers who were using some form of contraception when they became pregnant, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	45.7	43.2	48.3
Maternal age			
Under 20 years old	48.2	41.3	55.1
20-29 years old	48.6	45.0	52.2
30 years and older	49.7	43.5	56.0
Maternal race/ethnicity			
White, non-Hispanic	49.4	46.1	52.6
Black, non-Hispanic	49.3	42.5	56.1
Hispanic	35.0	23.1	49.0
Other non-Hispanic	49.6	36.1	63.1
Maternal education			
Less than high school	42.7	36.9	48.8
High school or equivalent	45.0	40.0	50.0
More than high school	55.1	50.9	59.2
Household income			
Less than $10,000	45.2	40.4	50.1
$10,000 to $14,999	45.5	37.8	53.4
$15,000 to $19,999	45.5	36.0	55.3
$20,000 to $24,999	48.5	38.9	58.2
$25,000 to $34,999	56.6	47.3	65.4
$35,000 to $49,999	51.7	41.4	61.8
$50,000 or more	55.2	48.1	62.1
Marital status			
Married	50.8	46.5	55.2
Other	47.4	43.8	51.1

Reasons for not using contraception are many and often uniquely personal. However, some are relatively common. Most commonly reported by mothers, for 2009-2011, was that they did not mind getting pregnant at the time (39.1%), followed by the belief that they could not get pregnant at the time (26.4%), and husband or partner refusing to use contraceptives (21.2%) (Figure 3).

Figure 3. Reasons for not using contraceptives at the time of pregnancy, Missouri PRAMS, 2009-2011



Prenatal Multivitamin Use

Taking multivitamins containing folic acid before conception and during the first six weeks of pregnancy reduces the risk of babies being born with neural tube defects, such as spina bifida (open spine) and anencephaly (open skull).[8] To help prevent such defects, the U.S. Preventive Services Task Force recommends that all women of childbearing age consume 400µg to 800µg (micrograms, equal to 0.4 to 0.8 milligrams) of folic acid daily.[9]

Table 4. Multivitamin use at least 4 times weekly, prior to pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	35.6	33.9	37.3
Maternal age			
Age <20	14.6	10.8	19.5
Age 20-29	31.2	29.1	33.5
Age 30+	50.5	47.4	53.7
Maternal education			
Less than high school	18.6	15.2	22.5
High school or equivalent	20.8	18.0	23.8
More than high school	47.5	45.2	49.8
Maternal race/ethnicity			
White, non-Hispanic	38.4	36.5	40.3
Black, non-Hispanic	21.0	16.9	25.8
Hispanic	29.6	21.4	39.3
Other, non-Hispanic	38.4	30.8	46.7
Marital status			
Married	48.5	46.2	50.7
Other	17.3	15.1	19.7
Household income			
Less than $10,000	17.7	14.9	21.0
$10,000 to $14,999	15.5	11.7	20.3
$15,000 to $19,999	23.7	18.3	30.3
$20,000 to $24,999	21.1	16.1	27.3
$25,000 to $34,999	33.2	28.1	38.7
$35,000 to $49,999	37.9	32.8	43.2
$50,000 or more	60.8	57.7	63.8
Pregnancy intention			
Unintended	18.7	16.6	20.9
Intended	49.8	47.4	52.2

Missouri PRAMS data for 2009-2011 show 35.6% of mothers reported that they took prenatal vitamins containing folic acid at least four times per week prior to pregnancy (Table 4), although 75.6% of mothers were aware of the benefits of folic acid (Table 5). Proportions taking folate prior to pregnancy were highest among women who were planning to become pregnant, as well as those who were married, older, and above $50,000 in family income.

Table 5. Maternal knowledge of the benefits of folate (folic acid), by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	75.6	74.1	77.4
Maternal age			
Age <20	54.7	48.5	60.7
Age 20-29	31.2	29.1	33.5
Age 30+	50.5	47.4	53.7
Maternal education			
Less than high school	53.9	49.0	58.6
High school or equivalent	67.1	63.5	70.4
More than high school	85.8	84.0	87.4
Maternal race/ethnicity			
White, non-Hispanic	79.1	77.4	80.7
Black, non-Hispanic	57.9	52.1	63.4
Hispanic	70.7	60.6	79.1
Other, non-Hispanic	71.6	63.4	78.6
Marital status			
Married	85.5	83.8	87.1
Other	61.3	58.3	64.3
Household income			
Less than $10,000	55.4	51.3	59.4
$10,000 to $14,999	69.5	63.6	74.8
$15,000 to $19,999	69.7	62.9	75.7
$20,000 to $24,999	70.2	63.1	76.5
$25,000 to $34,999	78.6	73.3	83.1
$35,000 to $49,999	82.2	77.1	86.3
$50,000 or more	92.0	90.0	93.6
Pregnancy intention			
Unintended	61.8	56.1	67.1
Intended	77.4	75.7	79.0

Prenatal Care Utilization

Adequate prenatal care is determined by identifying the month of pregnancy in which prenatal care began and frequency of prenatal care visits during pregnancy, as defined by the Kessner Index.[10] Under the Kessner Index, "Adequate" prenatal care begins within the first trimester and averages one to two additional prenatal visits per month, over the duration of pregnancy (shorter pregnancies require fewer visits to be classified as Adequate). "Inadequate" prenatal care is defined as having received no prenatal care or starting care in the third trimester, as well as those whose care began in the first or second trimester but who received fewer than five visits total, over a pregnancy lasting at least 34 weeks (pregnancies shorter than 34 weeks also include the number of weeks of gestation).

Timely and ongoing participation in prenatal care reduces risk of low birth weight and preterm delivery, delivery/medical costs, and improves early identification and management of other health risks during pregnancy, such as gestational diabetes.

Missouri PRAMS, for 2009-2011, shows 70.7% of new mothers received Adequate prenatal care. Among those less likely to receive adequate prenatal care were the Under-20 age group (52.2%), mothers who had not completed high school (49.8%) and Black, non-Hispanic mothers (54.6%) (Table 6). Relatively few women overall received Inadequate prenatal care (3.8%), although Black, non-Hispanic mothers and mothers who had not completed high school were above 10% (10.9% and 10.1%, respectively).

Late or no prenatal care is an alternate and generally more common measure of the adequacy of prenatal care. For 2009-2011, Missouri PRAMS shows the groups most likely to have started prenatal care late or not at all as mothers less than 20 years old (34.8%), Black, non-Hispanic mothers (32.6%), mothers with income below $15,000 per year and mothers who were not married (31.5%). Mothers with unintended pregnancies and young mothers under 20 years of age were significantly more likely to participate in the WIC program than those over 30 years and older (Table 7).

Table 6. Mothers who received "Adequate" and "Inadequate" prenatal care, based on Kessner Index, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	PercentAdequate Prenatal Care	Percent Inadequate Prenatal Care
Overall	70.7	3.8
Maternal age		
Under 20 years old	52.2	7.4
20-29 years old	70.6	4.2
30 years and older	76.8	2.0
Maternal race/ethnicity		
White, non-Hispanic	74.2	2.3
Black, non-Hispanic	54.6	10.9
Hispanic	64.5	5.0
Other non-Hispanic	67.9	6.5
Maternal education		
Less than high school	49.8	10.1
High school or equivalent	68.0	4.4
More than high school	78.4	1.7
Household Income		
Less than $10,000	54.5	6.8
$10,000 to $14,999	62.1	5.5
$15,000 to $19,999	71.8	3.6
$20,000 to $24,999	61.8	4.2
$25,000 to $34,999	72.0	2.5
$35,000 to $49,999	79.5	1.9
$50,000 or more	85.1	1.0

Table 7. Women who began prenatal care late or never, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

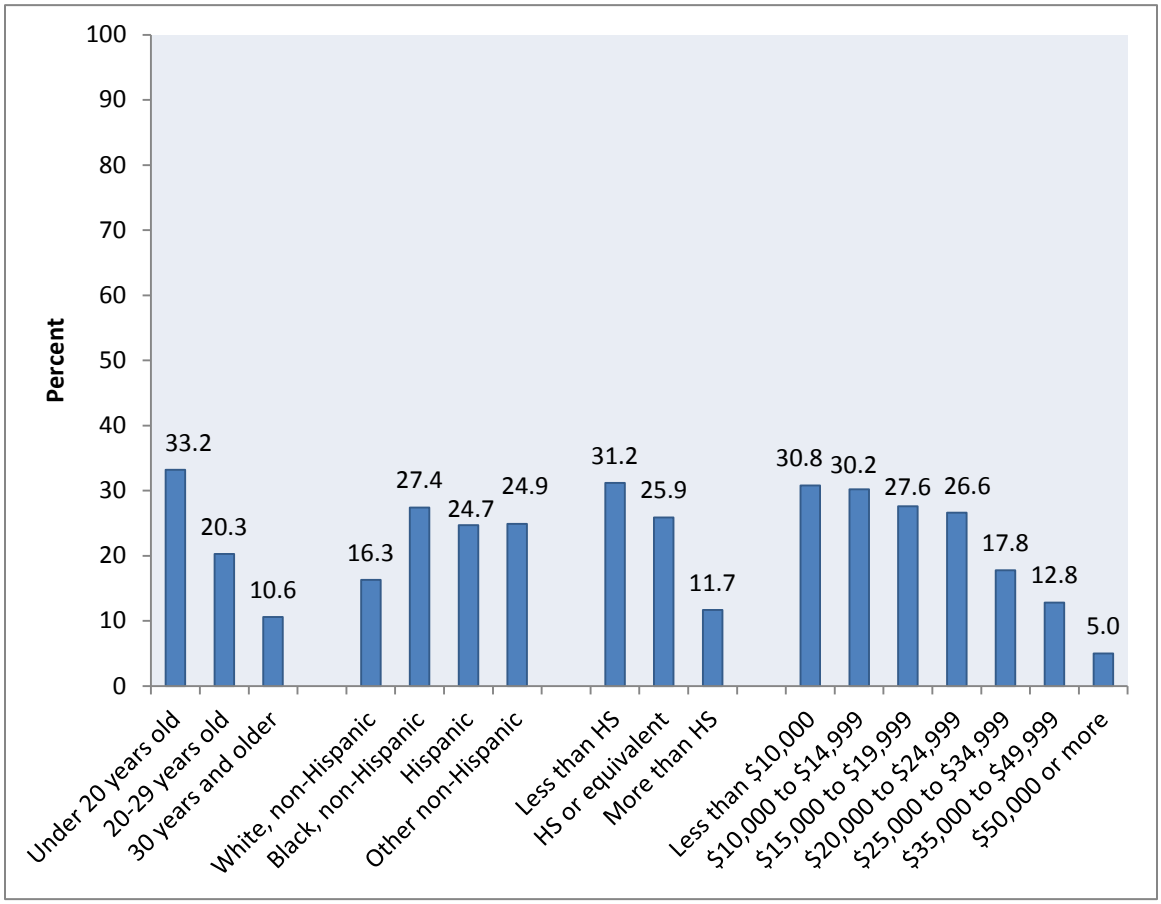
	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	18.9	17.5	20.5
Maternal age			
Under 20 years	34.8	29.1	41.0
20-29 years	20.6	18.6	22.7
30 years and older	10.9	9.0	13.0
Maternal race/ethnicity			
White, non-Hispanic	15.9	14.4	17.5
Black, non-Hispanic	32.6	27.4	38.2
Hispanic	26.2	18.3	36.1
Other non-Hispanic	21.6	15.3	29.5
Maternal education			
Less than high school	34.9	30.4	39.8
High school or equivalent	25.3	22.1	28.8
More than high school	11.5	10.0	13.1
Household Income			
Less than $10,000	32.9	29.1	36.9
$10,000 to $14,999	33.7	27.9	39.9
$15,000 to $19,999	23.3	17.7	30.0
$20,000 to $24,999	25.4	19.6	32.3
$25,000 to $34,999	16.0	12.1	20.9
$35,000 to $49,999	14.0	10.3	18.7
$50,000 or more	4.7	3.5	6.2
WIC participation			
On WIC during pregnancy	26.5	24.0	29.1
Not on WIC during pregnancy	12.5	10.9	14.3
Marital status			
Married	10.2	8.9	11.7
Other	31.5	28.7	34.5
Pregnancy intention			
Intended	10.6	9.1	12.3
Unintended	28.9	26.3	31.6

* indicates 95% confidence limits (CL)

Barriers to Prenatal Care

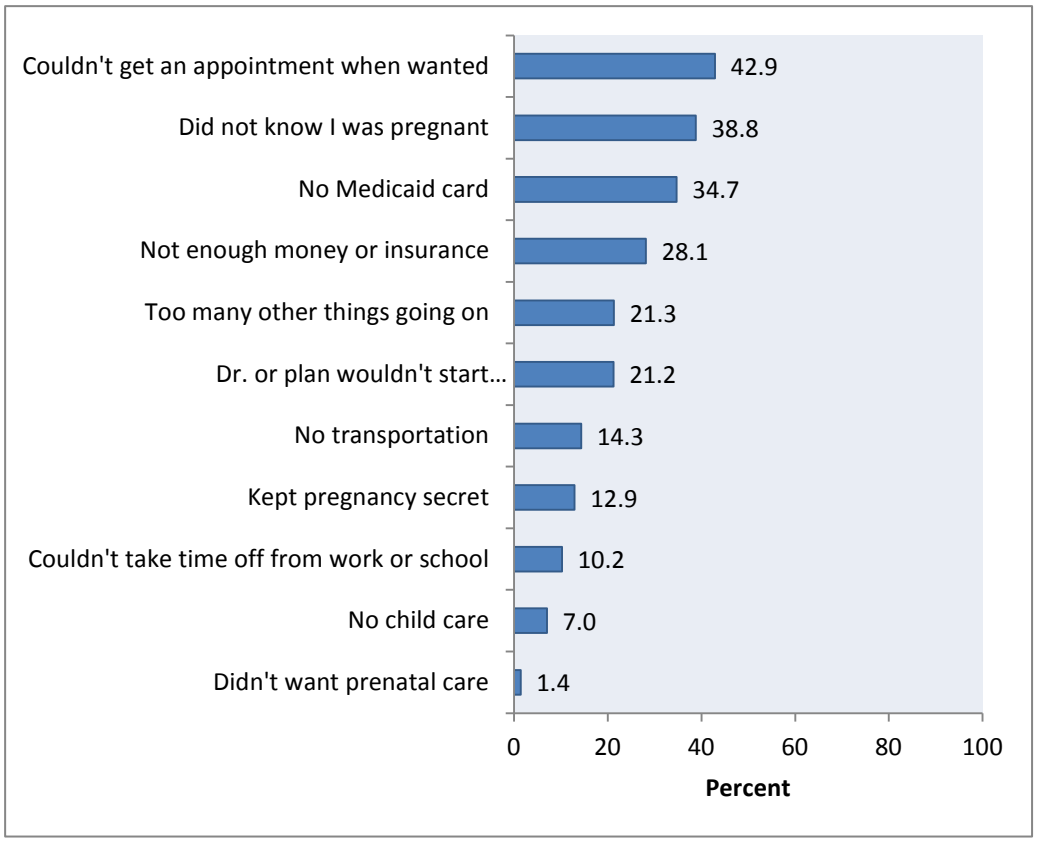
It is recommended that women begin prenatal care as soon as possible after they think they may be pregnant. Adequate prenatal care helps to ensure a healthy pregnancy and improves birth outcomes, and for 2009-2011, most women reported they were able to begin prenatal care as early as they wanted (81.4%). However, nearly one in five (18.6%) experienced one or more barriers that kept them from getting early prenatal care. Mothers with household income below $15,000, or who were under 20 years old most often reported they had not been able to start prenatal care as early as wanted. Black, non-Hispanic, Hispanic and Other, non-Hispanic mothers delayed prenatal care slightly less often, but still substantially more than White, non-Hispanic mothers (Figure 4).

Figure 4. Delayed start of prenatal care, by selected socioeconomic groups, Missouri PRAMS, 2009-2011



The most common reasons given for delayed prenatal care were the inability to get an appointment as early as wanted (42.9%), followed by being unaware of pregnancy (38.8%) and not having a Medicaid card (34.7%) (Figure 5).

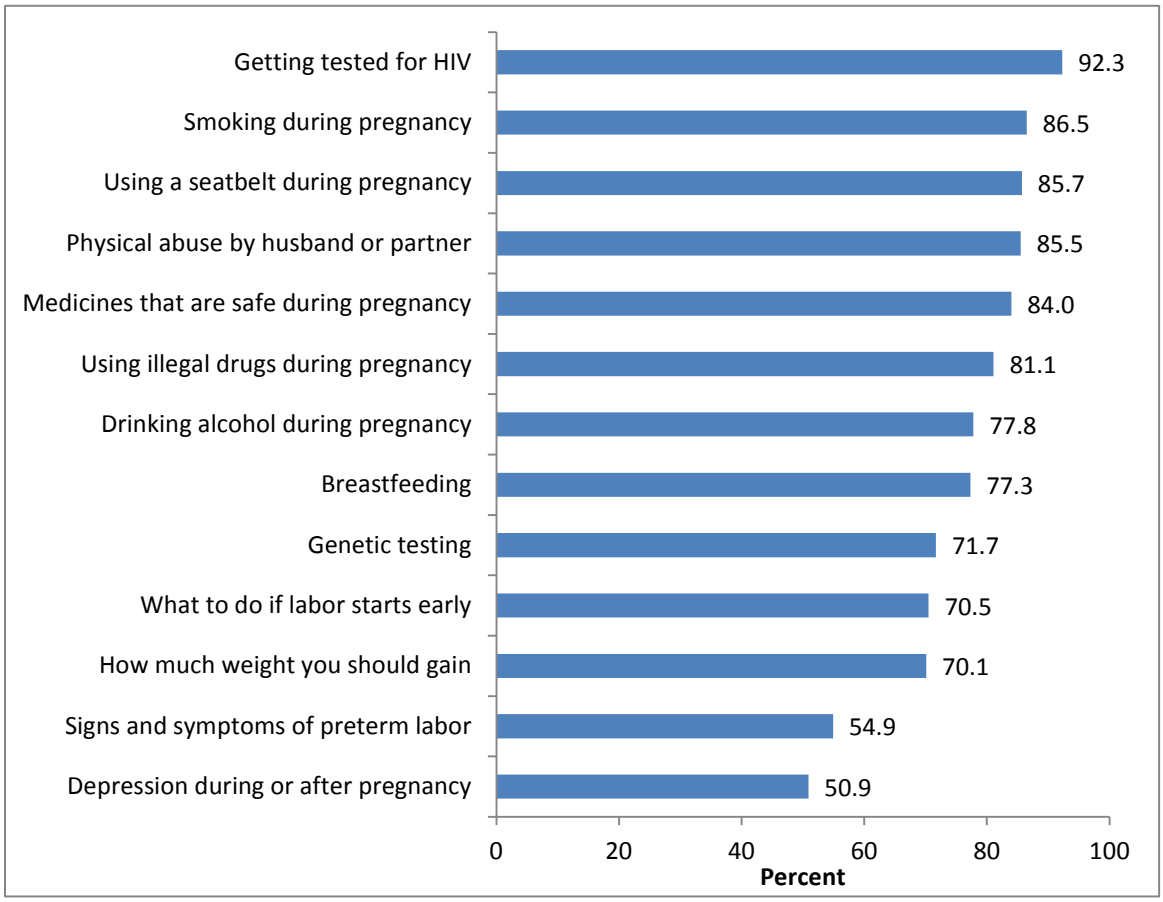
Figure 5. Common reasons for delay of prenatal care, Missouri PRAMS, 2009-2011



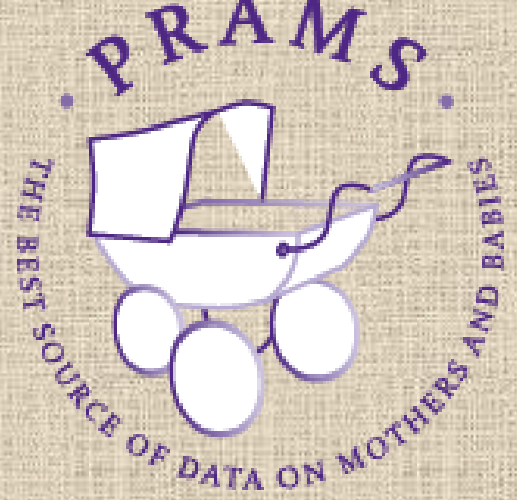
Content of Prenatal Care

In addition to physical examinations and biometric evaluations such as blood pressure, height and weight, it is generally recommended that prenatal care include discussions of smoking and drinking alcohol during pregnancy, medicines that are safe to take during pregnancy, what to do about depression, what to do if labor starts early and several other topics. Figure 6 shows the 13 topics measured by Missouri PRAMS, in order, from most to least frequently selected.

Figure 6. Topics discussed with doctor, nurse or other health care worker during prenatal care visits, Missouri PRAMS, 2009-2011



Section 3. Pregnancy



WIC Participation During Pregnancy

The Supplemental Nutrition Program for Women, Infants, and Children (WIC)[11,12] provides services for pregnant women, new mothers, infants and children up to 5 years of age, based on nutritional risk and income eligibility (185% of federal poverty levels, currently $29,101 for a pregnant woman who is not married and $36,612 for a family of three). Services included are health screening, risk assessment, nutrition education and counseling, breastfeeding promotion and referrals to health care.

Among mothers who responded to Missouri PRAMS, for 2009-2011, 46.7% reported participating in the WIC program during their recent pregnancy. Participation was highest among mothers under 20 years old (83.9%), Black, non-Hispanic mothers (74.4%) and those with less than high school education (79.3%) (Table 8). Nearly three times as many unmarried mothers participated in WIC as their married counterparts (75.7% and 26.3%, respectively).

Table 8. Participation in the Supplemental Nutrition Program for Women, Infants, and Children (WIC) during pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

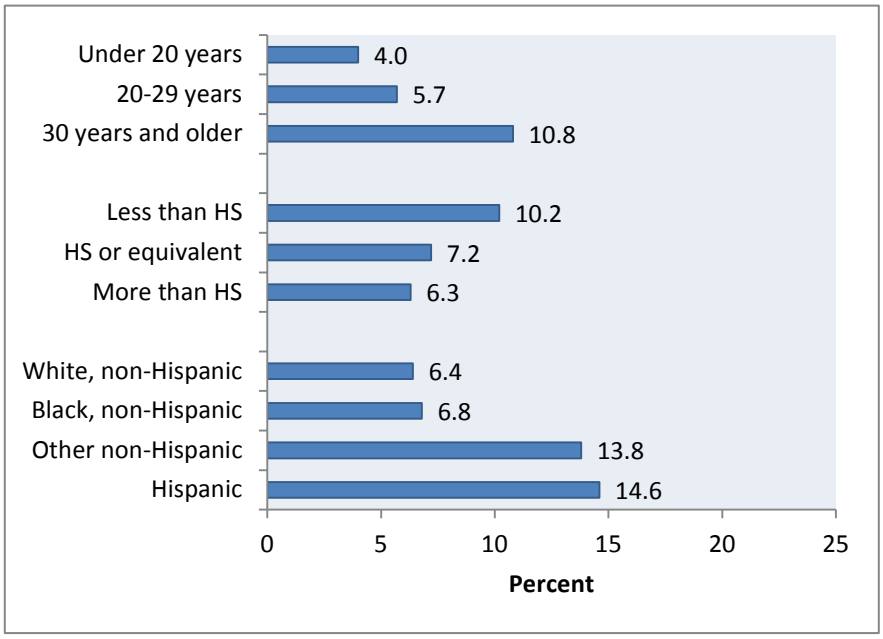
	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	46.7	44.9	48.5
Maternal age			
Under 20 years	83.9	79.1	87.8
20-29 years	52.2	49.9	54.6
30 years and older	24.1	21.4	27.1
Maternal race/ethnicity			
White, non-Hispanic	40.4	38.5	42.4
Black, non-Hispanic	74.4	69.3	79.0
Hispanic	64.8	55.2	73.3
Other non-Hispanic	51.3	43.0	59.5
Maternal education			
Less than high school	79.3	75.2	82.8
High school or equivalent	63.8	60.2	67.3
More than high school	29.1	27.0	31.3
Marital status			
Married	26.3	24.4	28.3
Other	75.7	73.0	78.3
Pregnancy intention			
Intended	31.5	29.3	33.9
Unintended	64.9	62.2	67.6

Gestational Diabetes Mellitus (GDM)

Pregnant women with no history of pre-pregnancy diabetes who develop high blood glucose (blood sugar) levels during pregnancy are said to have developed gestational diabetes mellitus, or GDM. While GDM symptoms may be mild or not noticeable, they may include blurred vision, fatigue, frequent infections, and nausea.[13,14,15] Blood sugar usually returns to normal after delivery, although the mother's risk is increased for preeclampsia and other adverse health conditions throughout the pregnancy. The baby will be more likely to be macrosomic (large for gestational age), which can lead to birth injuries and increase the need for Caesarian section. Other risks for the infant and mother include increased risk for obesity and cardiovascular issues, and the development of type 2 diabetes later in life. Gestational diabetes is generally manageable with diet and exercise, although a small percentage of women with gestational may require medication or insulin.

Overall, 7.2% of Missouri mothers reported being diagnosed with GDM during pregnancy. Those who were 30 years old or older were significantly more likely to report GDM diagnoses (10.8%), in contrast to the 20-29 and under 20 age groups (5.7% and 4.0%, respectively). Hispanic and Other/non-Hispanic mothers reported diagnoses of GDM more than twice as often as White/non-Hispanic and Black/non-Hispanic mothers (Figure 7).

Figure 7. Mothers diagnosed with gestational diabetes mellitus (GDM) during pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

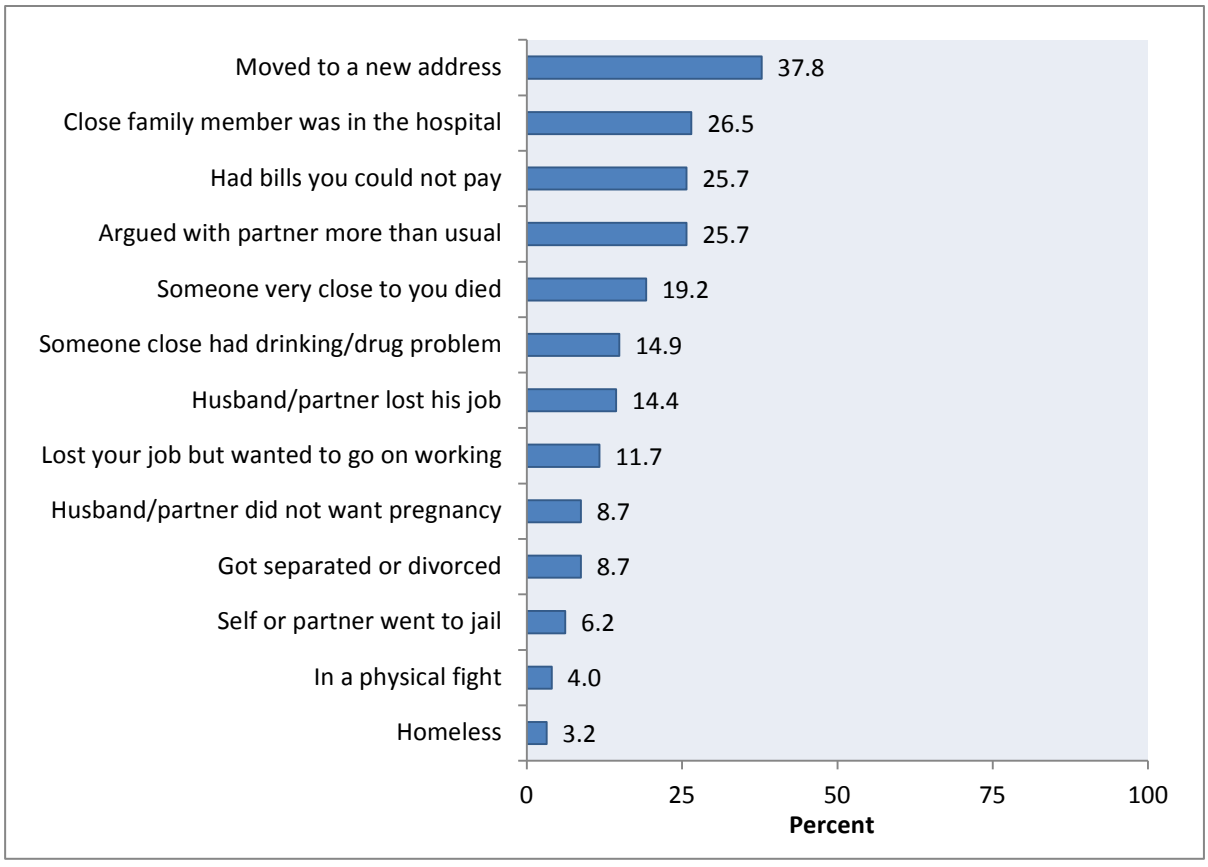


Stressful Life Events

Experiences that most people would consider stressful are fundamental to the life course model for health development, which recognizes that early life experiences are part of a cumulative, sum-total of individual health.[16,17] Stress experienced by a pregnant mother is passed along to the developing fetus and contributes to her baby's early life programming. That in turn affects the baby's developmental trajectory and potential, as well as adding to the mother's own health trajectory. Stressful experiences affect pregnancy outcomes directly and indirectly, and have been associated with higher levels of depression, obstetric complications, and preterm labor.

Among the maternal stressors measured by PRAMS, for 2009-2011, the most common were moving to a new address (37.8%), having a close family member who went to the hospital due to illness (26.5%), having bills that could not be paid (25.7%) and arguing with husband or partner more than usual (25.7%). Perhaps surprisingly, nearly one mother in five (19.2%) had experienced the death of someone close to her during her pregnancy (Figure 8).

Figure 8. Stressful life events experienced during pregnancy, Missouri PRAMS, 2009-2011

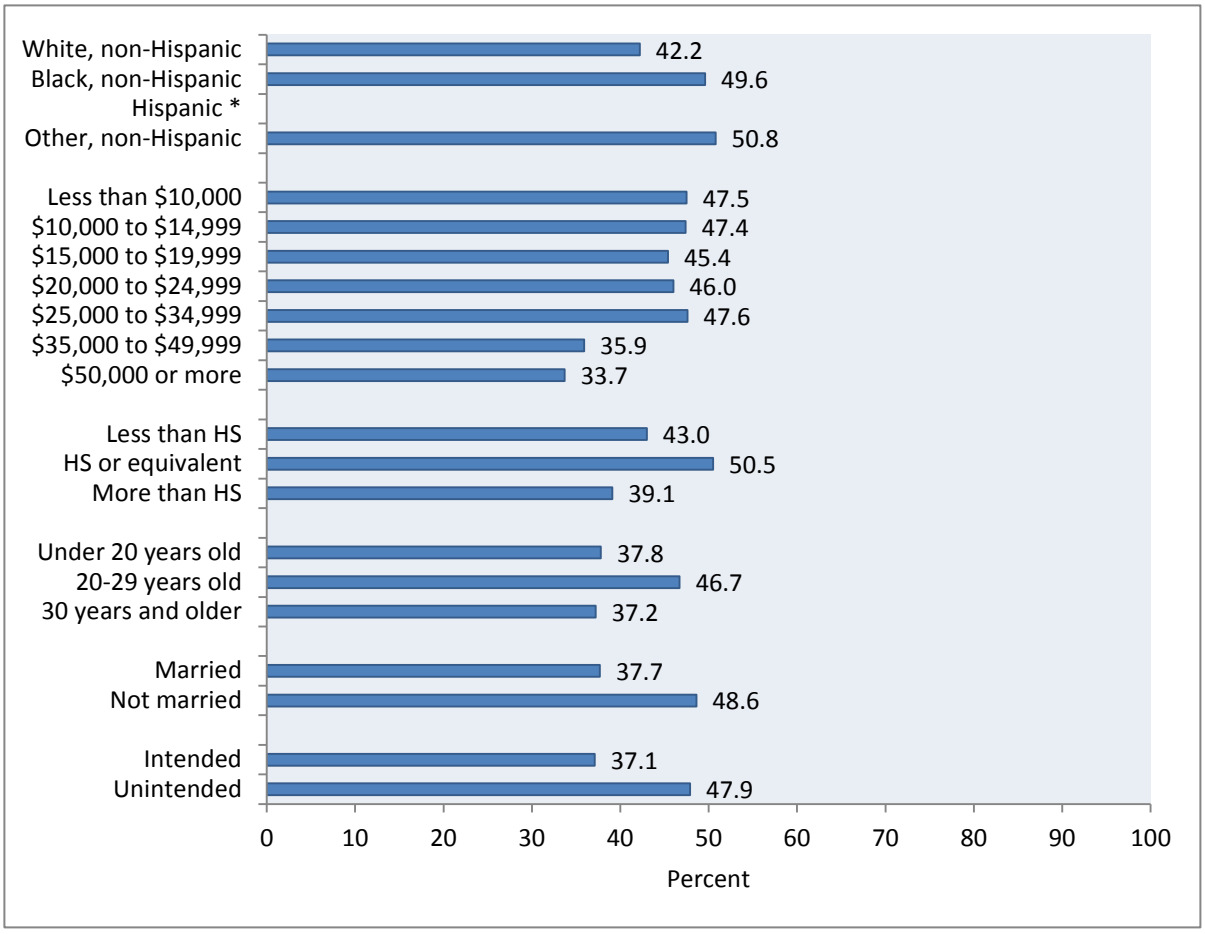


Dental Care

Seeking dental care such as teeth cleaning during pregnancy is known to improve the health of the mother and reduce adverse pregnancy outcomes. There is evidence that untreated inflammation can result in increased risk of preterm labor.[18,19] Overall, for 2009-2011, 48.3% of mothers reported having their teeth cleaned within the 12 months prior to becoming pregnant, and 37.7% reported having their teeth cleaned during pregnancy. Relatively few mothers (7.6%) reported never having had their teeth cleaned.

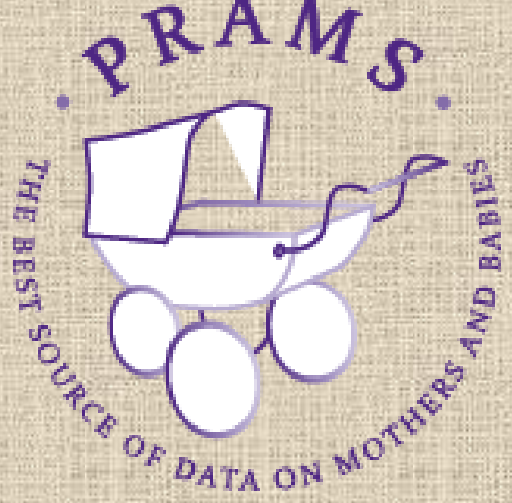
Nearly half of mothers who felt they needed to see a dentist for a problem during their pregnancies did not do so (43.5%). In general, there was no significant difference among mothers by age, race, education and income level. Unmarried mothers and those enrolled in prenatal Medicaid were less likely to seek dental care (Figure 9).

Figure 9. Mothers who needed to see a dentist for a problem during pregnancy, but did not do so, by selected socioeconomic groups, Missouri PRAMS, 2009-2011



* Hispanic percentage not available, due to small numbers of respondents.

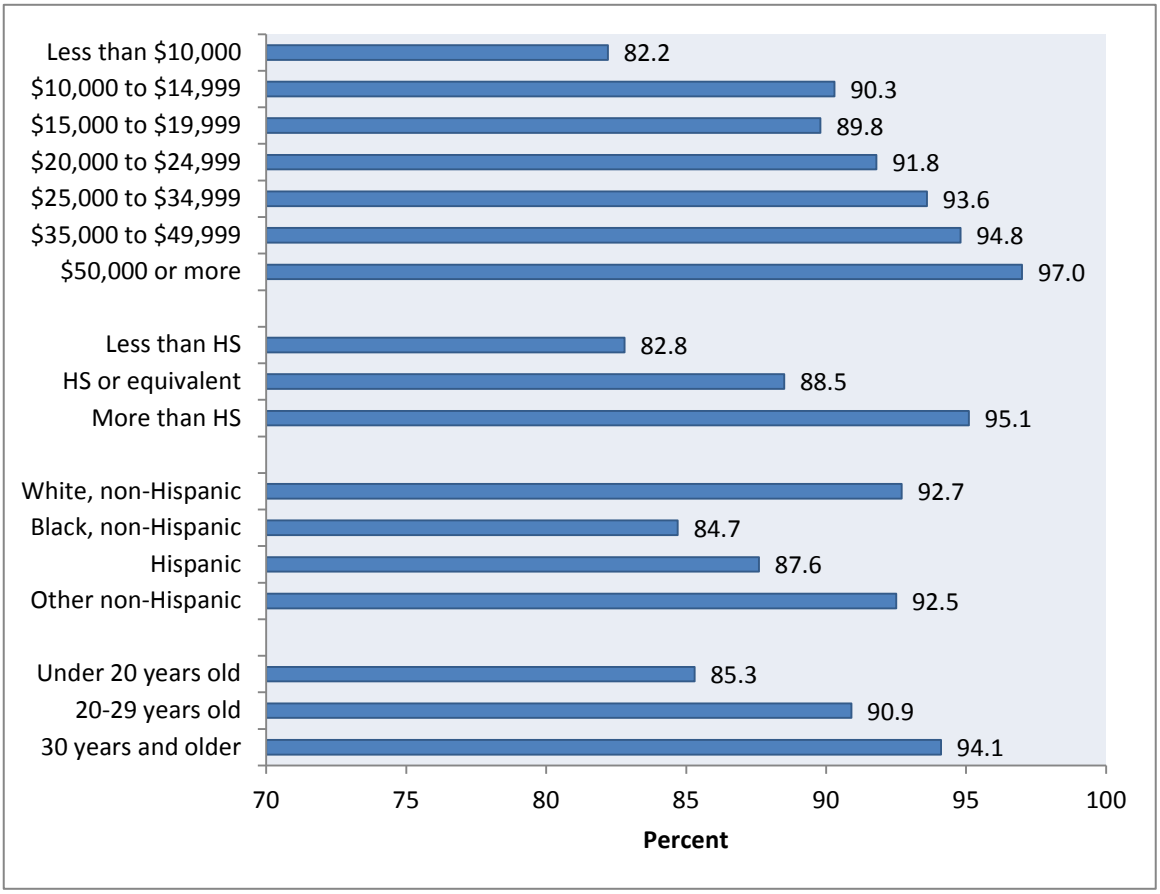
Section 4. Postpartum



Postpartum Check-up

The postpartum examination is an important medical examination that is recommended to occur about six weeks after delivering a baby, to assess recovery and health status. The checkup typically includes discussion of any problems that may have occurred during pregnancy, physical and biometric checks for elevated blood pressure and diabetes, discussions of postpartum depression symptoms, and other concerns. For 2009-2011, 91.4% of new mothers had a postpartum checkup. Figure 10 shows percentages of mothers who had a postpartum check-up, by selected demographic groups.

Figure 10. Postpartum check-up, by selected socioeconomic groups, Missouri PRAMS, 2009-2011



Breastfeeding

Breastfeeding is recommended for all mothers unless they are unable to do so.[20] Human milk is the ideal nutrition for most infants and it also provides antibodies which provide protection from infections. Mothers also benefit from breastfeeding by increased bonding with their infant, saving money, and increased rate of weight loss during the postpartum period. The American Academy of Pediatrics recommends that babies be breastfed exclusively for six months, and in combination with the gradual introduction of solid food for at least one year.

Overall, for 2009-2011, 77.7% of mothers reported that they had initiated breastfeeding, and half of all mothers continued to breastfeed at eight weeks (Figure 11). Several groups had lower

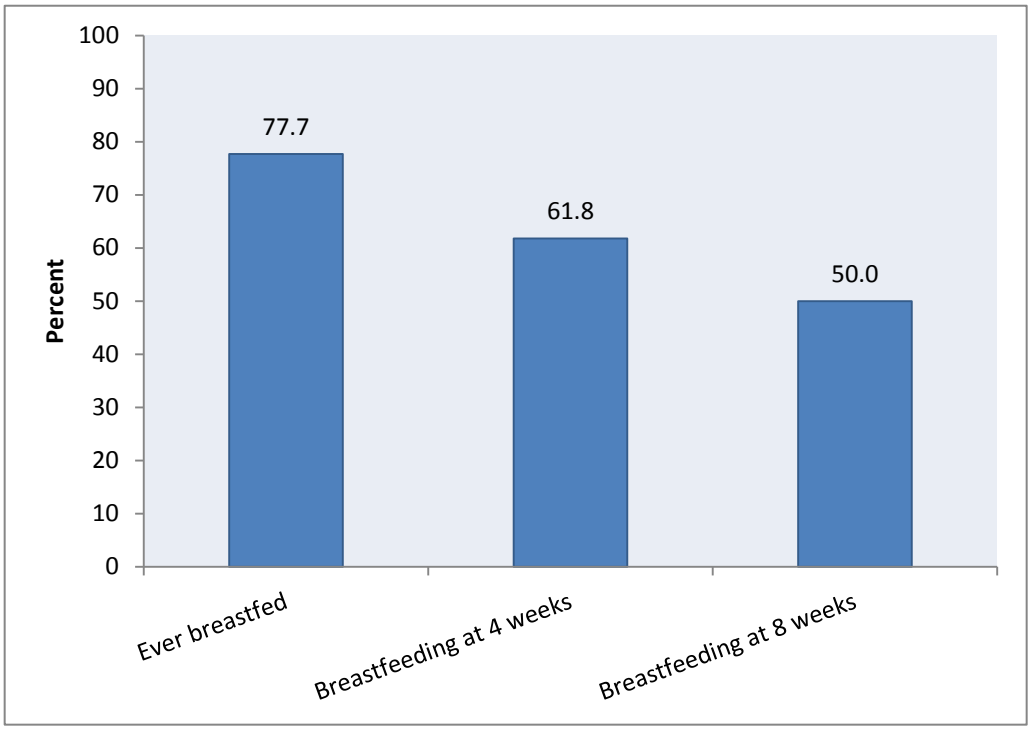
proportions, including mothers under 20 years old (64.9%), those who had less than a high school education (59.7%), Black, non-Hispanic mothers (65.5%), mothers who were not married (66.9%), women who were on Medicaid at delivery (67.3%) or WIC (68.5%), and mothers with income less than $10,000 per year (63.3%) (Table 9).

Table 9. Breastfeeding initiation, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

Characteristic	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	77.7	76.1	79.2
Maternal age			
Age <20	64.9	58.6	70.7
Age 20-29	77.1	75.0	79.1
Age 30+	82.9	80.3	85.2
Maternal education			
Less than high school	59.7	54.9	64.4
High school or equivalent	70.7	67.2	74.0
More than high school	86.3	84.6	87.8
Maternal race/ethnicity			
White, non-Hispanic	78.5	76.8	80.1
Black, non-Hispanic	65.5	59.9	70.8
Hispanic	89.4	81.9	94.0
Other non-Hispanic	90.5	83.6	94.6
Marital status			
Married	85.2	83.5	86.7
Other	66.9	63.9	69.8
Insurance Status			
Medicaid	67.3	64.7	69.8
No Medicaid	88.0	86.3	89.6
WIC participation			
On WIC during pregnancy	68.5	65.8	71.0
Not on WIC during pregnancy	86.1	84.2	87.7
Household Income			
Less than $10,000	63.3	59.3	67.2
$10,000 to $14,999	71.7	65.7	77.0
$15,000 to $19,999	71.5	64.6	77.4
$20,000 to $24,999	75.2	68.4	81.0
$25,000 to $34,999	76.2	70.9	80.7
$35,000 to $49,999	88.5	84.6	91.5
$50,000 or more	88.9	86.8	90.8

Characteristic	Weighted percent response	Lower 95% CL	Upper 95% CL
Pregnancy intention			
Unintended	62.1	56.4	67.4
Intended	79.5	77.8	81.0
Parity			
No previous live births	82.3	80.0	84.5
Previous live births	74.2	72.0	76.3

Figure 11. Proportions of mothers who ever breastfed, and who were breastfeeding at 4 weeks and 8 weeks after birth, Missouri PRAMS, 2009-2011



Postpartum Depression

Postpartum depression (PPD) can cause a new mother to feel down, depressed, hopeless, and to take little interest or pleasure in her usual activities. It often persists for weeks or months if untreated. While postpartum depression can affect any new mother, younger moms and those with a history of depression and/or poor social support are at particular risk.[21]

Overall, for 2009-2011, 13.2% of mothers reported that they had experienced symptoms of PPD, such as feeling down, depressed, sad, or hopeless after childbirth. Those least affected were mothers 30 years old and older (10.2%), those with at least a high school diploma (9.7%) or household income higher than $50,000 (7.1%). Black, non-Hispanic mothers were considerably more likely than White, non-Hispanic mothers to experience symptoms of postpartum depression (17.2% and 12.4%, respectively). The sharpest differences were apparent between mothers who experienced adequate or inadequate prenatal care (11.5% and 21.3%, respectively), and mothers whose deliveries were paid by Medicaid, or not (18.0% and 8.4%, respectively) (Table 10).

Table 10. Mothers who experienced symptoms of postpartum depression (PPD), by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	13.2	12.0	14.5
Maternal age			
Under 20 years	15.2	11.4	20.1
20-29 years	14.5	12.8	16.3
30 years and older	10.2	8.4	12.2
Maternal race/ethnicity			
White, non-Hispanic	12.4	11.2	13.8
Black, non-Hispanic	17.2	13.3	22.0
Hispanic	12.0	6.5	21.3
Other non-Hispanic	14.9	9.6	22.4
Maternal education			
Less than high school	17.6	14.3	21.5
High school or equivalent	18.2	15.4	21.4
More than high school	9.7	8.4	11.2
Household Income			
Less than $10,000	19.6	16.6	23.0
$10,000 to $14,999	18.3	14.0	23.6
$15,000 to $19,999	14.0	9.7	19.7
$20,000 to $24,999	14.8	10.4	20.7
$25,000 to $34,999	16.0	12.0	21.1
$35,000 to $49,999	9.9	7.1	13.8
$50,000 or more	7.1	5.6	8.9
Prenatal care			
Adequate prenatal care	11.5	10.2	13.0
Intermediate prenatal care	15.5	12.3	19.3
Inadequate prenatal care	21.3	14.0	31.0
Unknown prenatal care	18.9	14.7	24.0
Health coverage			
Pre-pregnancy health coverage	17.1	14.5	20.0
No pre-pregnancy health coverage	11.7	10.4	13.2
Insurance status			
non-Medicaid delivery	8.4	7.1	9.9
Medicaid delivery	18.0	16.1	20.2
Pregnancy intention			
Wanted to be pregnant sooner	9.6	7.4	12.3
Wanted to be pregnant later	15.8	13.6	18.4
Wanted to be pregnant at the time	8.8	7.3	10.7
Did not want to be pregnant	23.8	19.3	28.8
Husband/partner said he didn't want pregnancy	24.0	19.6	30.8

Infant Sleep Position

The American Academy of Pediatrics recommends that infants should be placed to sleep on their backs, among several other recommendations for safe infant sleep, including using a firm sleep surface, keeping soft objects and loose or heavy bedding out of the crib, and not sharing a bed between infants and adults.[22] The recommendations were developed to reduce occurrences of sudden unexplained infant death (SUID).

Overall, 74.2% of the mothers reported placing their infants on their backs to sleep, which is near the Healthy People 2020 target of 75.9%. In contrast, 24.0% of mothers reported that they most often place their infant down to sleep on the side (12.0%) or stomach (12.0%) (Figure 12).

Safe sleep practices vary by race, ethnicity, income, education and mother's age, but education and factors associated with it, such as mother's age and income level, show the highest percentages of safe sleep practices (Figures 13, 14).

Figure 12. Prevalence of infant sleep position, Missouri PRAMS, 2009-2011

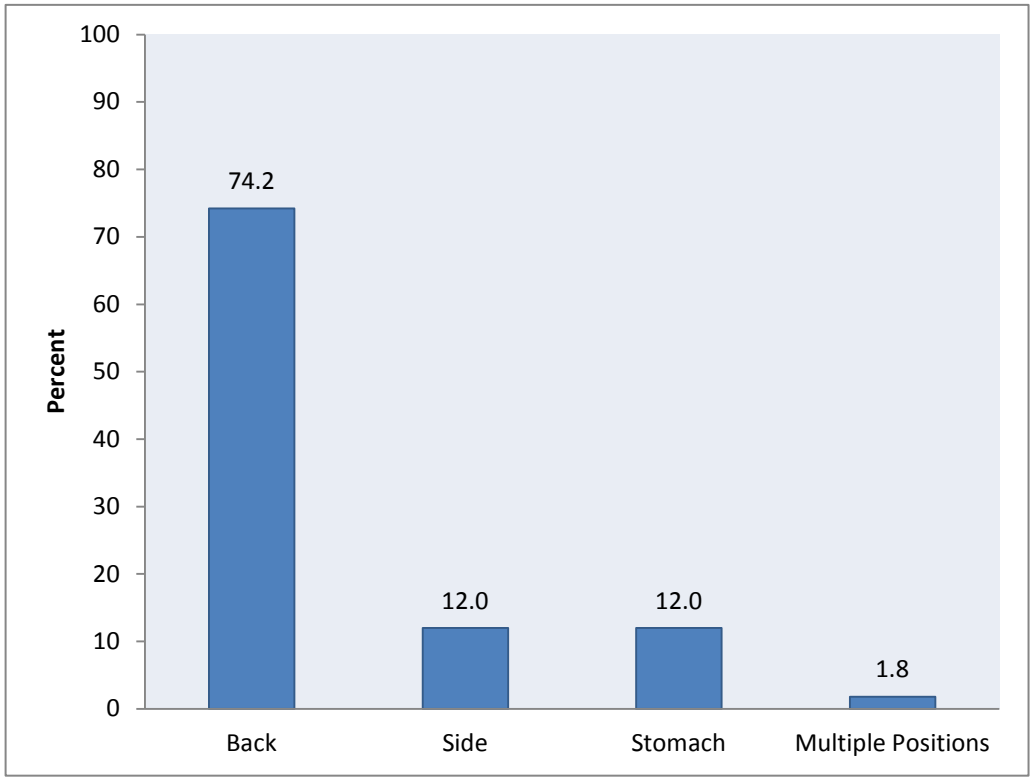


Figure 13. Mothers who placed their infants to sleep on their backs, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

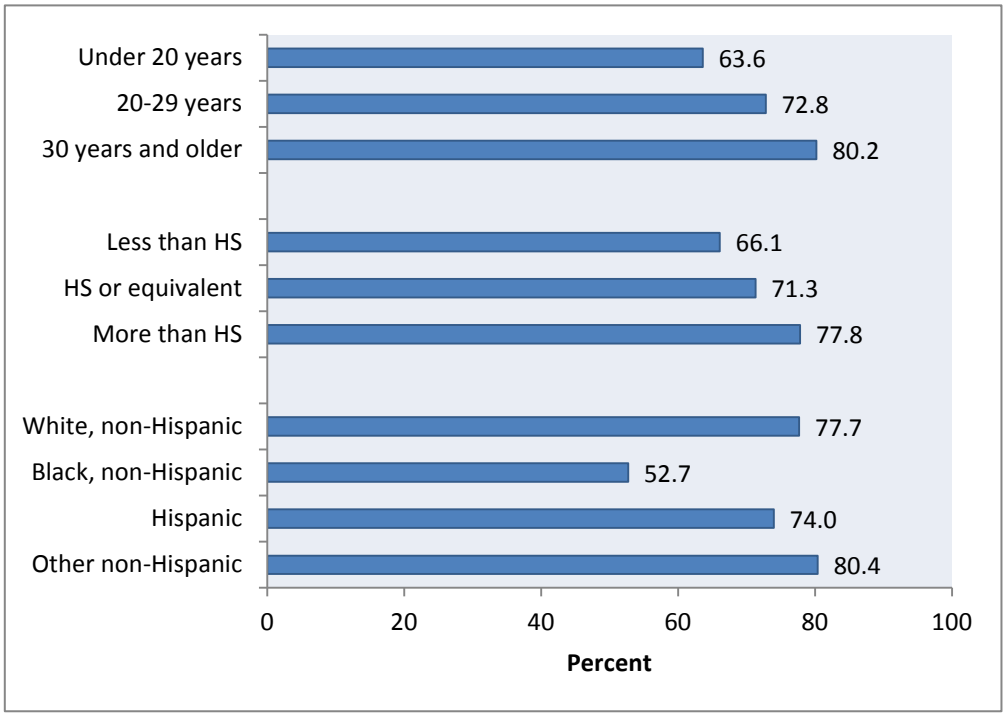
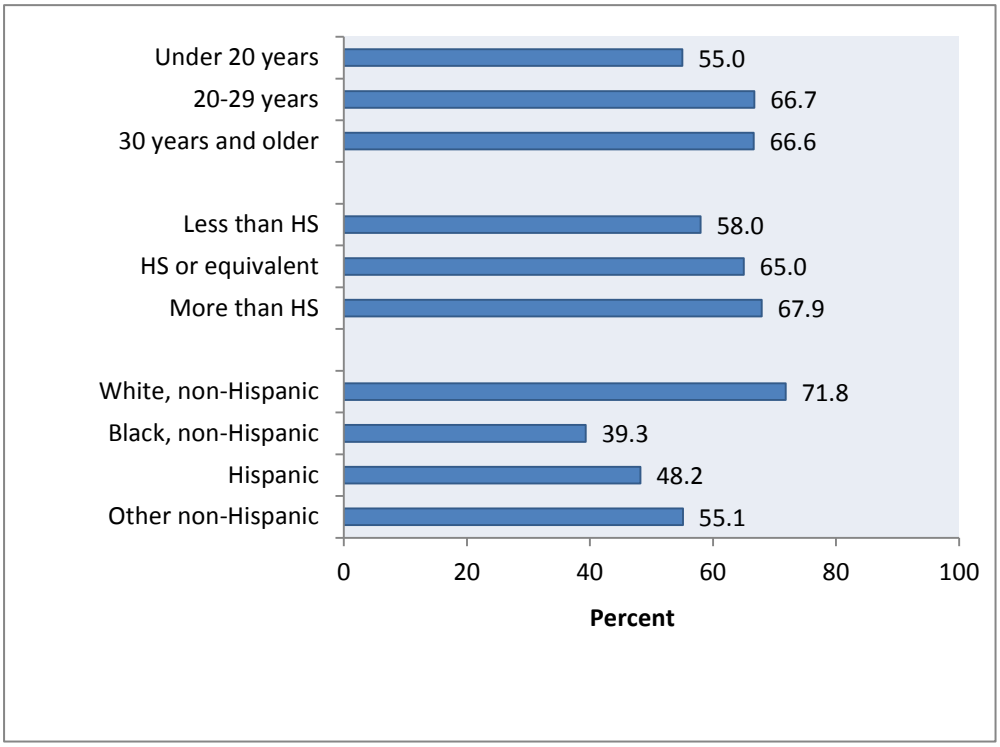


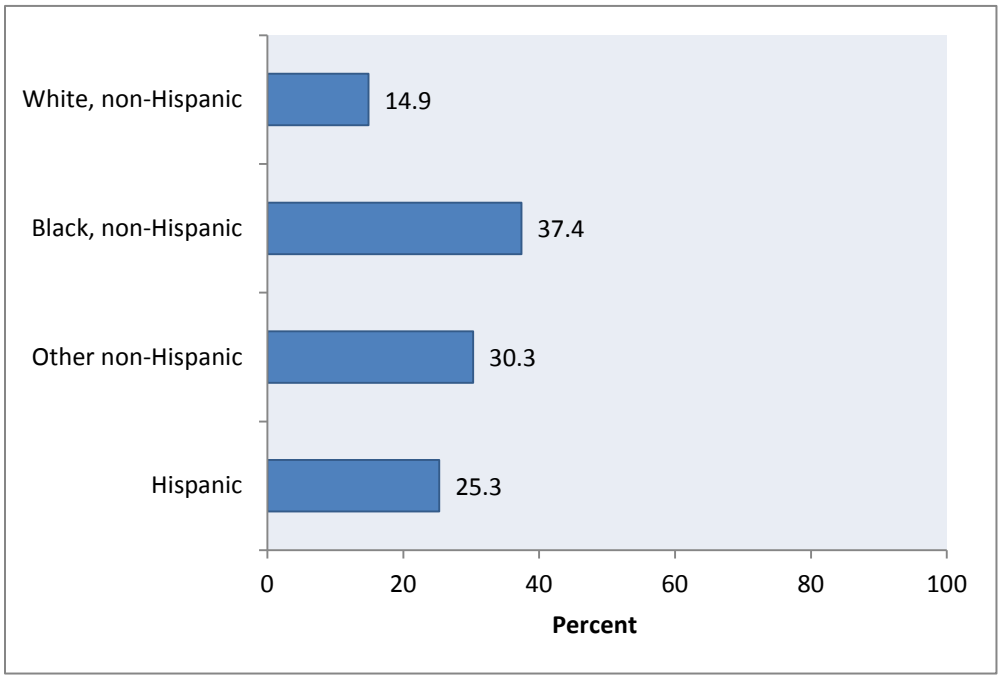
Figure 14. Percent of mothers who reported co-sleeping with infant "Rarely" or "Never," by selected socioeconomic groups, Missouri PRAMS, 2009-2011



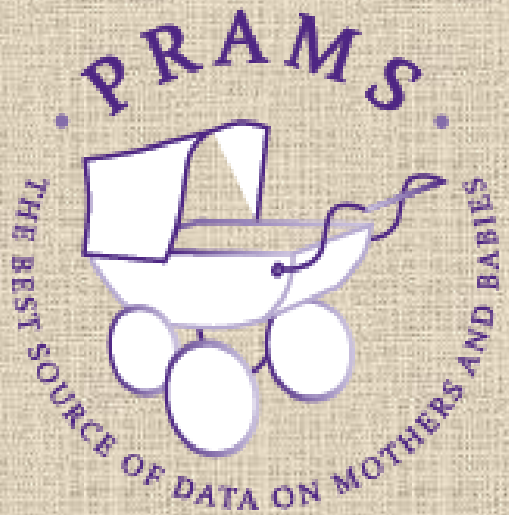
Infant Co-Sleeping

The American Academy of Pediatrics recommends against bed-sharing/co-sleeping, due to the danger of infants being suffocated or injured by an adult, other children or inappropriate bedding. However, many mothers choose to sleep with their babies for personal and cultural reasons. There is evidence that co-sleeping enhances bonding between mother and infant and it makes breastfeeding easier, which may help extend the period mothers continue breastfeeding.[23] The practice varies considerably by race and ethnicity, with 14.9% of White/ non-Hispanic mothers reporting they co-sleep with their infants either "Always" or "Often/almost always" (Figure 15). In contrast, 37.4% of Black/ non-Hispanic mothers, 25.3% of Hispanic mothers and 30.3% of Other/non-Hispanic mothers responded with "Always" or "Often/almost always."

Figure 15. Mothers who reported co-sleeping with their infant, by race and ethnicity, Missouri PRAMS, 2009-2011



Section 5. Alcohol and Tobacco Use



Maternal Alcohol Consumption

Alcohol use during pregnancy is associated with higher incidence of birth defects, vision or hearing problems, low birth weight and preterm birth, learning disabilities and fetal alcohol spectrum disorders, including the more specific fetal alcohol syndrome.[24]

For 2009-2011, 70.8% of Missouri PRAMS respondents reported consuming alcohol sometime in the two years prior to becoming pregnant, and 58.9% reported drinking during the last three months before becoming pregnant. Only 5.1% of mothers reported consuming alcohol during the last three months of pregnancy (Figure 16). Those who reported relatively higher rates of drinking during the last three months of pregnancy were White, non-Hispanic (5.6%) and Hispanic (8.3%) mothers. Black, non-Hispanic mothers were among the least likely to drink during the last three months of pregnancy (2.3%), as were young mothers under 20 years old (1.4%) and, generally, those with lower education and income levels. The highest levels of drinking during the last three months of pregnancy were among mothers over 30 years old and those with household income of $50,000 or more (Table 11).

Maternal Tobacco Use

Smoking during pregnancy causes preventable and irreversible damage to the fetus and results in infant morbidity and mortality. Smoking prior to pregnancy can cause a reduction in fertility and conception, while smoking during pregnancy can cause maternal complications such as placental abruption, preterm delivery, and restricted fetal growth and development.[25] Healthy People 2020 has set objectives pertaining to smoking during preconception and pregnancy, aiming to reduce the number of women smoking prior to pregnancy to 14% and reduce the prevalence of women smoking during pregnancy to 1%.

For Missouri PRAMS, from 2009-2011, approximately the same proportion of women reported smoking during the last three months prior to pregnancy as reported having smoked in the past year years. About half as many continued to smoke during the last three months of pregnancy (18.1%) (Figure 17). Those under 20 years old were most likely to smoke during the last three months of pregnancy (22.7%), particularly when compared to mothers over 30 (10.6%) (Table 12). Higher rates of smoking were more likely for mothers with less than a high school education (37.1%) and those with income below $10,000 per year (34.2%) (Table 12). In contrast, 47.2% of mothers reported that they quit smoking during their pregnancy. Mothers most likely to have stopped smoking during pregnancy were Hispanic (82.8%), those with household income from $35,000 to $49,999 (70.7%) or above $50,000 (67.5%) per year, and mothers over 30 years old (49.9%).

Figure 16. Proportions of mothers who reported drinking alcohol within the past 2 years, drinking within the 3 months before becoming pregnant and drinking during the last 3 months of pregnancy, Missouri PRAMS, 2009-2011

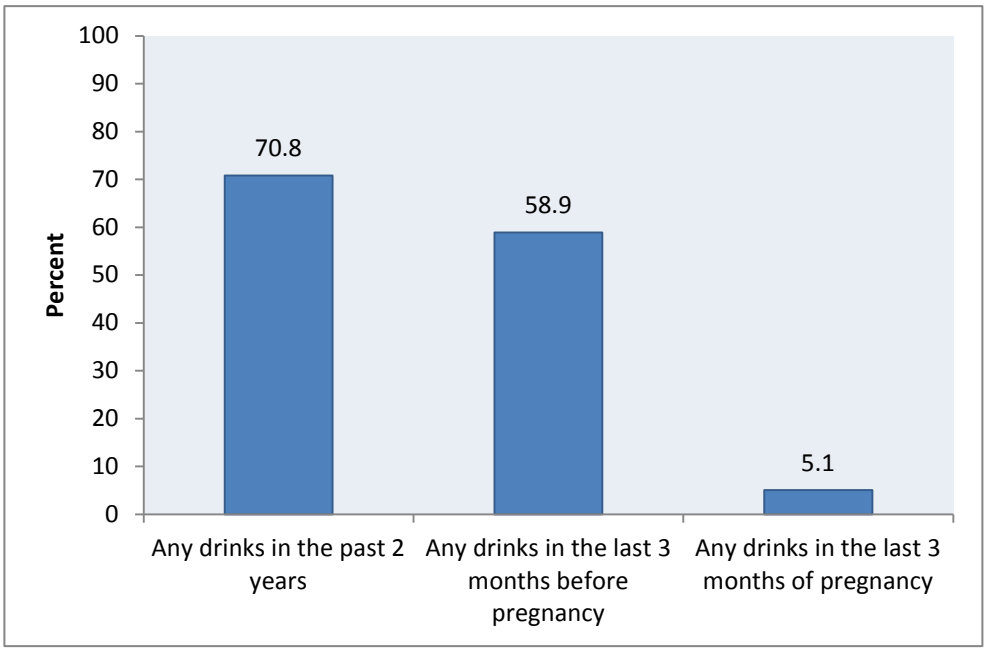


Figure 17. Proportions of mothers smoking during the past 2 years, 3 months before pregnancy, during the last 3 months of pregnancy and at the time of survey, Missouri PRAMS, 2009-2011

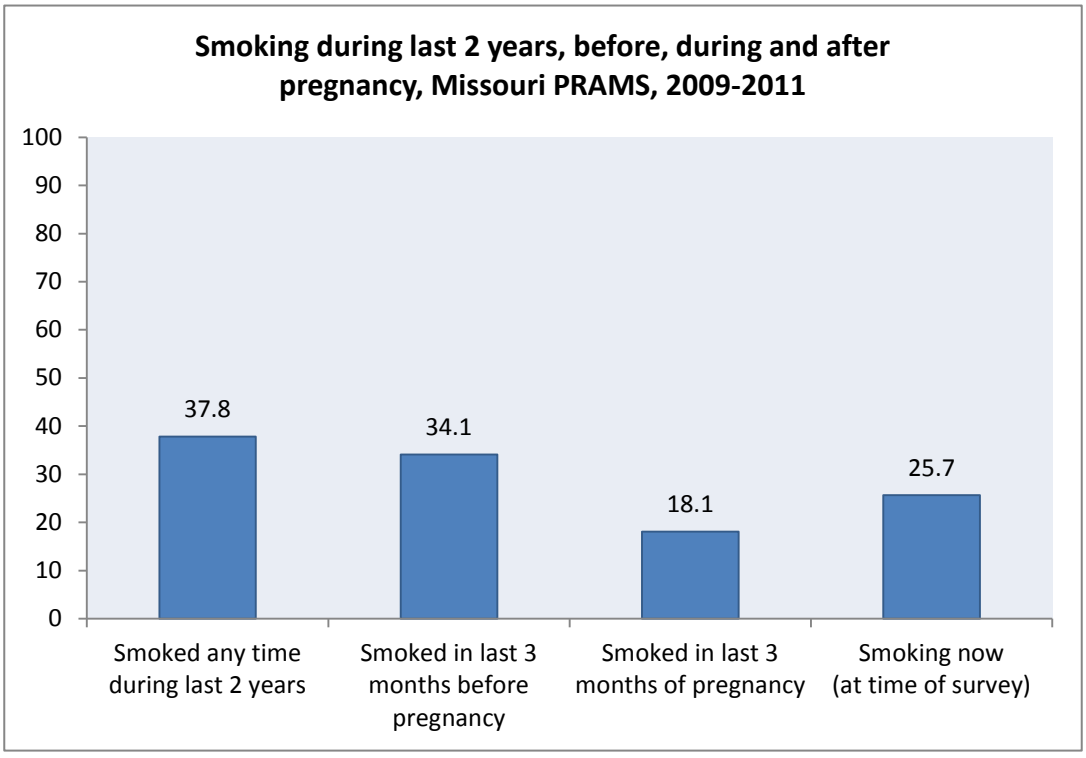


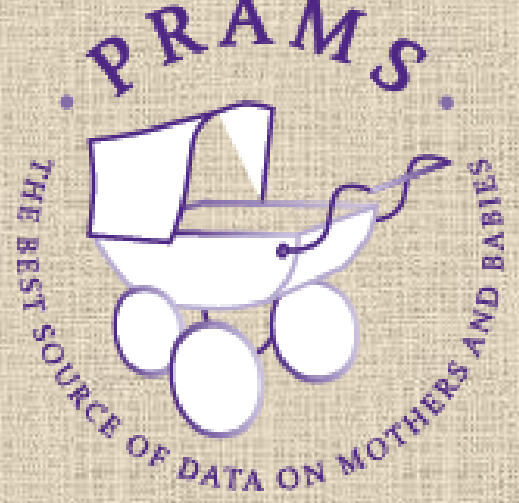
Table 11. Proportions of mothers who drank any alcohol during the last 3 months of pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	5.1	4.4	6.0
Maternal age			
Under 20 years old	1.4	0.5	4.0
20-29 years old	4.5	3.7	5.6
30 years and older	7.4	5.9	9.4
Maternal race/ethnicity			
White, non-Hispanic	5.6	4.7	6.6
Black, non-Hispanic	2.3	1.3	4.2
Hispanic	8.3	4.0	16.4
Other non-Hispanic	3.7	1.5	8.9
Maternal education			
Less than high school	2.9	1.6	5.1
High school or equivalent	3.5	2.4	4.9
More than high school	6.5	5.4	7.8
Household income			
Less than $10,000	3.6	2.5	5.1
$10,000 to $14,999	2.9	1.5	5.5
$15,000 to $19,999	4.2	1.9	8.8
$20,000 to $24,999	5.0	2.6	9.6
$25,000 to $34,999	2.5	1.3	5.0
$35,000 to $49,999	4.8	2.9	7.9
$50,000 or more	8.5	6.8	10.5

Table 12. Proportions of mothers who smoked during the last 3 months of pregnancy, by selected socioeconomic groups, Missouri PRAMS, 2009-2011

	Weighted percent response	Lower 95% CL	Upper 95% CL
Overall	18.1	16.7	19.5
Maternal age			
Under 20 years old	22.7	18.0	28.3
20-29 years old	21.2	19.4	23.2
30 years and older	10.6	8.7	12.8
Maternal race/ethnicity			
White, non-Hispanic	19.1	17.5	20.7
Black, non-Hispanic	16.6	12.8	21.2
Hispanic	3.9	1.7	8.8
Other non-Hispanic	18.1	12.3	25.8
Maternal education			
Less than high school	37.1	32.6	41.8
High school or equivalent	27.2	24.1	30.5
More than high school	7.9	6.8	9.3
Household income			
Less than $10,000	34.2	30.5	38.0
$10,000 to $14,999	28.9	23.7	34.8
$15,000 to $19,999	29.4	23.3	36.4
$20,000 to $24,999	20.0	15.1	25.9
$25,000 to $34,999	16.9	12.9	22.0
$35,000 to $49,999	8.3	5.7	11.9
$50,000 or more	4.8	3.6	6.4
WIC participation			
On WIC during pregnancy	28.4	26.0	30.9
Not on WIC during pregnancy	9.1	7.7	10.6

Section 6. References



1. Healthy People 2020 (2010). U.S. Department of Health and Human Services. Accessed 10/20/2014 from http://www.healthypeople.gov/2020/About-Healthy-People
2. Do you know some of the health risks of being overweight? (2012) National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK), Publication No. 07-4098. Retrieved March 15, 2014 from http://win.niddk.nih.gov/publications/PDFs/hlthrisks1104.pdf
3. Siega-Riz AM, Laraia B. (2006). The implications of maternal overweight and obesity on the course of pregnancy and birth outcomes. *Maternal and Child Health Journal*, 10(1), 153-156.
4. Boney CM., Verma A., Tucker R., & Vohr BR. (2005). Metabolic syndrome in childhood: association with birth weight, maternal obesity, and gestational diabetes mellitus. *Pediatrics*, 115(3), e290-e296.
5. Whitaker RC. (2004). Predicting preschooler obesity at birth: the role of maternal obesity in early pregnancy. *Pediatrics*, 114(1), e29-e36.
6. Han Z., Mulla S., Beyene J., Liao G., & McDonald SD. (2011). Maternal underweight and the risk of preterm birth and low birth weight: a systematic review and meta-analyses. *International Journal of Epidemiology*, 40(1), 65-101.
7. Gipson JD, Koenig MA, Hindin MJ. (2008). The effects of unintended pregnancy on infant, child, and parental health: a review of the literature. *Studies in Family Planning*, 39(1), 18-38.
8. *Spina Bifida and Anencephaly Before and After Folic Acid Mandate—United States, 1995-1996 and 1999-2000*. U.S. Centers for Disease Control, Morbidity and Mortality Weekly Report (MMWR). Retrieved March 15, 2014 from *http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5317a3.htm*
9. *Folic Acid to Prevent Neural Tube Defects: Preventive Medication*. (2009) U.S. Preventive Services Task Force. Accessed 10/20/14 from http://www.uspreventiveservicestaskforce.org/Page/Name/recommendations (keyword: folic acid).
10. Kotelchuck M. (1994). The adequacy of prenatal care utilization index: its U.S. distribution and association with low birth weight. *American Journal of Public Health*, 84(9), 1486-1489.
11. *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)*. U.S. Department of Agriculture, Food and Nutrition Service. Accessed 10/20/14 from http://www.fns.usda.gov/wic/women-infants-and-children-wic
12. *Missouri Women, Infants and Children (WIC) Program.* Missouri Department of Health and Senior Services. Accessed 10/20/14 from http://health.mo.gov/living/families/wic/index.php
13. *American Diabetes Association. (2013, July 2). What is Gestational Diabetes? Retrieved November 15, 2013, from www.diabetes.org/diabetes-basics/gestational/what-is-gestational- diabetes.html*

14. American College of Obstetricians and Gynecologists Committee on Practice Bulletins—Obstetrics. (2013). ACOG practice bulletin. Clinical management guidelines for obstetrician-gynecologists. Number 137, August 2013. Gestational Diabetes Mellitus. *Obstetrics & Gynecology* 122, 406-416

15. U.S. Preventative Task Force (USPSTF). (2014). Screening for Gestational Diabetes Mellitus. Retrieved on July 10, 2014 from http://www.uspreventiveservicestaskforce.org/uspstf/uspsgdm.htm.

16. Lu MC, Halfon N. (2003). Racial and ethnic disparities in birth outcomes: a life-course perspective. *Maternal and Child Health Journal* 7(1):13-30.

17. *Life Course State Tools & Resources*. Association of Maternal and Child Health Programs. Accessed 10/20/14 from http://www.amchp.org/programsandtopics/LifecourseFinal/Pages/StateToolsResources.aspx

18. Eke PI, Timothé P, Presson SM, Malvitz DM. Dental Care Use Among Pregnant Women in the United States Reported in 1999 and 2002. (2005) Preventing Chronic Disease 2(1):A10. Accessed 10/20/14 from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1323313/

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

20. AAP Reaffirms Breastfeeding guidelines. 2012. American Academy of Pediatrics. Accessed 10/19/2014, from http://www.aap.org/en-us/about-the-aap/aap-press-room/pages/AAP-Reaffirms-Breastfeeding-Guidelines.aspx

21. Field T. (2010). Postpartum depression effects on early interactions, parenting, and safety practices: a review. *Infant Behavior and Development*, 33(1), 1-6.

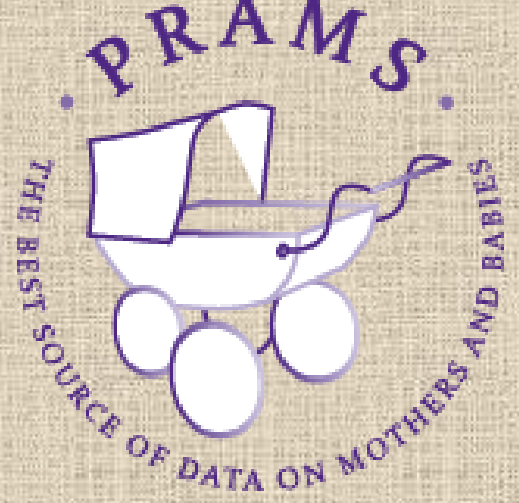
22. A Parent's Guide to Safe Sleep. American Academy of Pediatrics. Accessed September 29,2014, from http://www.healthychildren.org/English/ages-stages/baby/sleep/Pages/A-Parents-Guide-to-Safe-Sleep.aspx

23. Ward TCS. (2014). Reasons for mother-infant bed-sharing: a systematic narrative synthesis of the literature and implications for future research. Maternal and Child Health Journal, 1-16.

24. *Smoking, Alcohol and Drugs*. March of Dimes, 2012. Accessed 10/19/2012 from http://www.marchofdimes.org/pregnancy/alcohol-during-pregnancy.aspx

25. *PRAMS and smoking.* (2012) U.S. Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System (PRAMS). Accessed 7/18/14 from http://www.cdc.gov/prams/tobaccoandprams.htm

Appendix: Phase 6 Missouri Prams Survey



Please mark your answers. Follow the directions included with the questions. If no directions are presented, check the box next to your answer or fill in the blanks. Because not all questions will apply to everyone, you may be asked to skip certain questions.

BEFORE PREGNANCY

First, we would like to ask a few questions about *you* and the time *before* you got pregnant with your new baby.

1. At any time during the *12 months before* you got pregnant with your new baby, did you do any of the following things? For each item, circle **Y** (Yes) if you did it or circle **N** (No) if you did not.

		No	Yes
a.	I was dieting (changing my eating habits) to lose weight	N	Y
b.	I was exercising 3 or more days of the week	N	Y
c.	I was regularly taking prescription medicines other than birth control	N	Y
d.	I visited a health care worker to be checked or treated for diabetes.	N	Y
e.	I visited a health care worker to be checked or treated for high blood pressure	N	Y
f.	I visited a health care worker to be checked or treated for depression or anxiety	N	Y
g.	I talked to a health care worker about my family medical history	N	Y
h.	I had my teeth cleaned by a dentist or dental hygienist.	N	Y

2. During the *month before* you got pregnant with your new baby, were you covered by any of these health insurance plans?

Check all that apply

- ❑ Health insurance from your job or the job of your husband, partner, or parents
- ❑ Health insurance that you or someone else paid for (not from a job)
- ❑ Medicaid or MO HealthNet
- ❑ TRICARE or other military health care
- ❑ Other source(s) ⟶ Please tell us: _____
- ❑ I did not have any health insurance before I got pregnant

3. 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?

- ❑ 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
- ❑ Every day of the week

4. *Just before* you got pregnant with your new baby, how much did you weigh?

_____ Pounds **OR** _____ Kilos

5. How tall are you without shoes?

_____ Feet _____ Inches

OR _____ Meters

6. What is *your* date of birth?

Month ____ Day ____ 19____ Year

7. *Before* you got pregnant with your new baby, were you ever told by a doctor, nurse, or other health care worker that you had Type 1 or Type 2 diabetes? This is not the same as gestational diabetes or diabetes that starts during pregnancy.

- ❑ No
- ❑ Yes

8. During the *3 months before* you got pregnant with your new baby, did you have any of the following health problems? For each one, circle **Y** (Yes) if you had the problem or circle **N** (No) if you did not.

		No	Yes
a.	Asthma	N	Y
b.	High blood pressure (hypertension)	N	Y
c.	Anemia (poor blood, low iron)	N	Y
d.	Heart problems	N	Y
e.	Epilepsy (seizures)	N	Y
f.	Thyroid problems	N	Y
g.	Depression	N	Y
h.	Anxiety	N	Y

9. *Before* you got pregnant with your new baby, did you ever have any other babies who were born alive?

- ❑ No → **Go to Question 12**
- ❑ Yes

10. Did the baby born *just before* your new one weigh *more* than 5 pounds, 8 ounces (2.5 kilos) at birth?

- ❑ No
- ❑ Yes

11. Was the baby *just before* your new one born *more* than 3 weeks before his or her due date?

- ❑ No
- ❑ Yes

The next questions are about the time when you got pregnant with your *new* baby.

12. Thinking back to *just before* you got pregnant with your *new* baby, how did you feel about becoming pregnant?

Check one answer

- ❑ I wanted to be pregnant sooner
- ❑ I wanted to be pregnant later
- ❑ I wanted to be pregnant then
- ❑ I didn't want to be pregnant then or at any time in the future

13. When you got pregnant with your new baby, were you trying to get pregnant?

- ❑ No
- ❑ Yes → **Go to Question 16**

14. When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [natural family planning or rhythm] or withdrawal, and using birth control methods such as the pill, condoms, vaginal ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ❑ No
- ❑ Yes → **Go to Question 17**

Go to Question 15

15. What were your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant?

Check all that apply

- ❑ I didn't mind if I got pregnant
- ❑ I thought I could not get pregnant at that time
- ❑ I had side effects from the birth control method I was using
- ❑ I had problems getting birth control when I needed it
- ❑ I thought my husband or partner or I was sterile (could not get pregnant at all)
- ❑ My husband or partner didn't want to use anything
- ❑ Other → Please tell us:

_____

If you were not trying to get pregnant when you got pregnant with your new baby, go to Question 17.

16. Did you take any fertility drugs or receive any medical procedures from a doctor, nurse, or other health care worker to help you get pregnant with your *new* baby? (This may include infertility treatments such as fertility-enhancing drugs or assisted reproductive technology.)

- ❑ No
- ❑ Yes

DURING PREGNANCY

The next questions are about the prenatal care you received during your most recent pregnancy. Prenatal care includes visits to a doctor, nurse, or other health care worker before your baby was born to get checkups and advice about pregnancy. (It may help to look at the calendar when you answer these questions.)

17. How many weeks or months pregnant were you when you were *sure* you were pregnant? (For example, you had a pregnancy test or a doctor or nurse said you were pregnant.)

_____ Weeks **OR** _____ Months

- ❑ I don't remember

18. How many weeks or months pregnant were you when you had your first visit for prenatal care? Do not count a visit that was only for a pregnancy test or only for WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children).

_____ Weeks **OR** _____ Months

- ❑ I didn't go for prenatal care → **Go to Page 4, Question 20**

Go to Page 4, Question 19

19. Did you get prenatal care as early in your pregnancy as you wanted?

- ❑ No
- ❑ Yes → **Go to Question 21**

20. Did any of these things keep you from getting prenatal care at all or as early as you wanted? For each item, circle **T** (True) if it was a reason that you didn't get prenatal care when you wanted or circle **F** (False) if it was not a reason for you or if something does not apply to you.

		True	False
a.	I couldn't get an appointment when I wanted one	T	F
b.	I didn't have enough money or insurance to pay for my visits	T	F
c.	I had no transportation to get to the clinic or doctor's office	T	F
d.	The doctor or my health plan would not start care as early as I wanted	T	F
e.	I had too many other things going on	T	F
f.	I couldn't take time off from work or school	T	F
g.	I didn't have my Medicaid or MO HealthNet card	T	F
h.	I had no one to take care of my children	T	F
i.	I didn't know that I was pregnant	T	F
j.	I didn't want anyone else to know I was pregnant	T	F
k.	I didn't want prenatal care	T	F

If you did not go for prenatal care, go to Page 6, Question 27.

21. Where did you go *most of the time* for your prenatal care visits? Do not include visits for WIC.

Check one answer

- ❑ Hospital clinic
- ❑ Health department clinic
- ❑ Private doctor's office or HMO clinic
- ❑ Other → Please tell us:

_____

22. Did any of these health insurance plans help you pay for your *prenatal care*?

Check all that apply

- ❑ Health insurance from your job or the job of your husband, partner, or parents
- ❑ Health insurance that you or someone else paid for (not from a job)
- ❑ Medicaid or MO HealthNet
- ❑ TRICARE or other military health care
- ❑ Other source(s) → Please tell us:

_____

- ❑ I did not have health insurance to help pay for my prenatal care

23. *During any of your prenatal care visits*, did a doctor, nurse, or other health care worker talk with you about any of the things listed below? *Please count only discussions,* not reading materials or videos. For each item, circle **Y** (Yes) if someone talked with you about it or circle **N** (No) if no one talked with you about it.

		No	Yes
a.	How smoking during pregnancy could affect my baby	N	Y
b.	Breastfeeding my baby	N	Y
c.	How drinking alcohol during pregnancy could affect my baby	N	Y
d.	Using a seat belt during my pregnancy	N	Y
e.	Medicines that are safe to take during my pregnancy	N	Y
f.	How using illegal drugs could affect my baby	N	Y
g.	Doing tests to screen for birth defects or diseases that run in my family	N	Y
h.	The signs and symptoms of preterm labor (labor more than 3 weeks before the baby is due)	N	Y
i.	What to do if my labor starts early	N	Y
j.	Getting tested for HIV (the virus that causes AIDS)	N	Y
k.	What to do if I feel depressed during my pregnancy or after my baby is born	N	Y
l.	Physical abuse to women by their husbands or partners	N	Y

24. We would like to know how you felt about the prenatal care you got during *your most recent* pregnancy. If you went to more than one place for prenatal care, answer for the place where you got *most* of your care. For each item, circle **Y** (Yes) if you were satisfied or circle **N** (No) if you were not satisfied.

Were you satisfied with—

		No	Yes
a.	The amount of time you had to wait after you arrived for your visits	N	Y
b.	The amount of time the doctor, nurse, or midwife spent with you during your visits	N	Y
c.	The advice you got on how to take care of yourself	N	Y
d.	The understanding and respect that the staff showed toward you as a person	N	Y

25. *During any of your prenatal care visits*, did a doctor, nurse, or other health care worker ask you—

		No	Yes
a.	How much alcohol you were drinking	N	Y
b.	If someone was hurting you emotionally or physically	N	Y
c.	If you were using illegal drugs (marijuana or hash, cocaine, crack, etc.)	N	Y
d.	If you wanted to be tested for HIV (the virus that causes AIDS)	N	Y
e.	If you planned to use birth control after your baby was born	N	Y

26. *During any of your prenatal care visits*, did a doctor, nurse, or other health care worker talk with you about how much weight you should gain during your pregnancy?

- ❑ No
- ❑ Yes

27. At any time during *your most recent* pregnancy or delivery, did you have a test for HIV (the virus that causes AIDS)?

- ❑ No
- ❑ Yes
- ❑ I don't know

28. Have you ever heard or read that taking a vitamin with folic acid can help prevent some birth defects?

- ❑ No
- ❑ Yes

29. During *your most recent* pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?

- ❑ No → **Go to Question 31**
- ❑ Yes

30. When you went for WIC visits during *your most recent* pregnancy, did you receive information on breastfeeding?

- ❑ No
- ❑ Yes

31. During *your most recent* pregnancy, were you told by a doctor, nurse, or other health care worker that you had gestational diabetes (diabetes that started during *this* pregnancy)?

- ❑ No → **Go to Question 33**
- ❑ Yes

32. During *your most recent* pregnancy, when you were told that you had gestational diabetes, did a doctor, nurse, or other health care worker do any of the things listed below? For each item, circle **Y** (Yes) if it was done or circle **N** (No) if it was not done.

		No	**Yes**
a.	Refer you to a nutritionist	N	Y
b.	Talk to you about the importance of exercise	N	Y
c.	Talk to you about getting to and staying at a healthy weight after delivery	N	Y
d.	Suggest that you breastfeed your new baby	N	Y
e.	Talk to you about your risk for Type 2 diabetes	N	Y

33. Did you have any of the following problems during *your most recent* pregnancy? For each item, circle **Y** (Yes) if you had the problem or circle **N** (No) if you did not.

		No	Yes
a.	Vaginal bleeding	N	Y
b.	Kidney or bladder (urinary tract) infection	N	Y
c.	***Severe*** nausea, vomiting, or dehydration	N	Y
d.	Cervix had to be sewn shut (cerclage for incompetent cervix)	N	Y
e.	High blood pressure, hypertension (including pregnancy-induced hypertension [PIH]), preeclampsia, or toxemia	N	Y
f.	Problems with the placenta (such as abruptio placentae or placenta previa)	N	Y
g.	Labor pains more than 3 weeks before my baby was due (preterm or early labor)	N	Y
h.	Water broke more than 3 weeks before my baby was due (premature rupture of membranes [PROM])	N	Y
i.	I had to have a blood transfusion	N	Y
j.	I was hurt in a car accident	N	Y

34. During *your most recent* pregnancy, did a doctor, nurse, or other health care worker try to keep your new baby from being born too early by giving you a series of weekly shots of a medicine called Progesterone, Gestiva® or 17P (17 alpha-hydroxyprogesterone)**?**

- ❑ No
- ❑ Yes
- ❑ I don't know

The next questions are about smoking cigarettes around the time of pregnancy (before, during, and after).

35. Have you smoked any cigarettes in the *past 2 years*?

- ❑ No → **Go to Page 8, Question 39**
- ❑ Yes

36. In the *3 months before* you got pregnant, how many cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I didn't smoke then

37. In the *last 3 months* of your pregnancy, how many cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I didn't smoke then

38. How many cigarettes do you smoke on an average day *now*? (A pack has 20 cigarettes.)

- ❑ 41 cigarettes or more
- ❑ 21 to 40 cigarettes
- ❑ 11 to 20 cigarettes
- ❑ 6 to 10 cigarettes
- ❑ 1 to 5 cigarettes
- ❑ Less than 1 cigarette
- ❑ I don't smoke now

39. Which of the following statements best describes the rules about smoking *inside* your home *now*?

Check one answer

- ❑ No one is allowed to smoke anywhere inside my home
- ❑ Smoking is allowed in some rooms or at some times
- ❑ Smoking is permitted anywhere inside my home

The next questions are about drinking alcohol around the time of pregnancy (before, during, and after).

40. Have you had any alcoholic drinks in the *past 2 years*? A drink is 1 glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink.

- ❑ No → **Go to Question 43**
- ❑ Yes

41a. During the *3 months before* you got pregnant, how many alcoholic drinks did you have in an average week?

- ❑ 14 drinks or more a week
- ❑ 7 to 13 drinks a week
- ❑ 4 to 6 drinks a week
- ❑ 1 to 3 drinks a week
- ❑ Less than 1 drink a week
- ❑ I didn't drink

then → **Go to Question 42a**

41b. During the *3 months before* you got pregnant, how many times did you drink 4 alcoholic drinks or more in one sitting? A sitting is a two hour time span.

- ❑ 6 or more times
- ❑ 4 to 5 times
- ❑ 2 to 3 times
- ❑ 1 time
- ❑ I didn't have 4 drinks or more in 1 sitting

42a. During the *last 3 months* of your pregnancy, how many alcoholic drinks did you have in an average week?

- ❑ 14 drinks or more a week
- ❑ 7 to 13 drinks a week
- ❑ 4 to 6 drinks a week
- ❑ 1 to 3 drinks a week
- ❑ Less than 1 drink a week
- ❑ I didn't drink

then → **Go to Question 43**

42b. During the *last 3 months* of your pregnancy, how many times did you drink 4 alcoholic drinks or more in one sitting? A sitting is a two hour time span.

- ❑ 6 or more times
- ❑ 4 to 5 times
- ❑ 2 to 3 times
- ❑ 1 time
- ❑ I didn't have 4 drinks or more in 1 sitting

Pregnancy can be a difficult time for some women. The next questions are about things that may have happened *before* and *during* your most recent pregnancy.

43. This question is about things that may have happened during the *12 months before* your new baby was born. For each item, circle **Y** (Yes) if it happened to you or circle **N** (No) if it did not. (It may help to look at the calendar when you answer these questions.)

		No	Yes
a.	A close family member was very sick and had to go into the hospital	N	Y
b.	I got separated or divorced from my husband or partner	N	Y
c.	I moved to a new address	N	Y
d.	I was homeless	N	Y
e.	My husband or partner lost his job	N	Y
f.	I lost my job even though I wanted to go on working	N	Y
g.	I argued with my husband or partner more than usual	N	Y
h.	My husband or partner said he didn't want me to be pregnant	N	Y
i.	I had a lot of bills I couldn't pay	N	Y
j.	I was in a physical fight	N	Y
k.	My husband or partner or I went to jail	N	Y
l.	Someone very close to me had a problem with drinking or drugs	N	Y
m.	Someone very close to me died	N	Y

44. 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?

- ❑ No
- ❑ Yes

45. During *your most recent* pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?

- ❑ No
- ❑ Yes

The next questions are about your labor and delivery. (It may help to look at the calendar when you answer these questions.)

46. When was your baby due?

____ Month ▮ ____ Day ▮ 20____ Year

47. When did you go into the hospital to have your baby?

____ Month ▮ ____ Day ▮ 20____ Year

- ❑ I didn't have my baby in a hospital

48. When was your baby born?

Month ____ Day ____ 20 ____ Year

49. When were you discharged from the hospital after your baby was born?

Month ____ Day ____ 20 ____ Year

❑ I didn't have my baby in a hospital

50. Did any of these health insurance plans help you pay for the *delivery* of your new baby?

Check all that apply

❑ Health insurance from your job or the job of your husband, partner, or parents
❑ Health insurance that you or someone else paid for (not from a job)
❑ Medicaid or MO HealthNet
❑ TRICARE or other military health care
❑ Other source(s) → Please tell us:

_____

❑ I did not have health insurance to help pay for my delivery

AFTER PREGNANCY

The next questions are about the time since your new baby was born.

51. After your baby was born, was he or she put in an intensive care unit?

❑ No
❑ Yes
❑ I don't know

52. After your baby was born, how long did he or she stay in the hospital?

❑ Less than 24 hours (less than 1 day)
❑ 24 to 48 hours (1 to 2 days)
❑ 3 to 5 days
❑ 6 to 14 days
❑ More than 14 days
❑ My baby was not born in a hospital
❑ My baby is still in the hospital → **Go to Question 55**

53. Is your baby alive now?

❑ No → **Go to Page 12, Question 64**
❑ Yes

54. Is your baby living with you now?

❑ No → **Go to Page 12, Question 64**
❑ Yes

55. Did you ever breastfeed or pump breast milk to feed your new baby after delivery, even for a short period of time?

❑ No
❑ Yes

If you did not breastfeed your new baby, go to Question 58b.

56. Are you currently breastfeeding or feeding pumped milk to your new baby?

- ❑ No
- ❑ Yes → **Go to Question 58a**

57. How many weeks or months did you breastfeed or pump milk to feed your baby?

_____ Weeks **OR** _____ Months

- ❑ Less than 1 week

58a. How old was your new baby the first time he or she drank liquids other than breast milk (such as formula, water, juice, tea, or cow's milk)?

_____ Weeks **OR** _____ Months

- ❑ My baby was less than 1 week old
- ❑ My baby has not had any liquids other than breast milk

58b. How old was your new baby the first time he or she ate food (such as baby cereal, baby food, or any other food)?

_____ Weeks **OR** _____ Months

- ❑ My baby was less than 1 week old
- ❑ My baby has not eaten any foods

If your baby is still in the hospital, go to Page 12, Question 64.

59. In which *one* position do you *most often* lay your baby down to sleep now?

Check one answer

- ❑ On his or her side
- ❑ On his or her back
- ❑ On his or her stomach

60. How often does your new baby sleep in the same bed with you or anyone else?

- ❑ Always
- ❑ Often
- ❑ Sometimes
- ❑ Rarely
- ❑ Never

61. Was your new baby seen by a doctor, nurse, or other health care worker for a *one week check-up* after he or she was born?

- ❑ No
- ❑ Yes

62. Has your new baby had a well-baby checkup? (A well-baby checkup is a regular health visit for your baby usually at 1, 2, 4, and 6 months of age.)

- ❑ No
- ❑ Yes → **Go to Page 12, Question 64**

Go to Page 12, Question 63

63. Did any of these things keep your baby from having a well-baby checkup?

Check all that apply

- ❑ I didn't have enough money or insurance to pay for it
- ❑ I had no way to get my baby to the clinic or office
- ❑ I didn't have anyone to take care of my other children
- ❑ I couldn't get an appointment
- ❑ My baby was too sick to go for routine care
- ❑ Other ⟶ Please tell us:

_____

64. Are you or your husband or partner doing anything *now* to keep from getting pregnant? (Some things people do to keep from getting pregnant include not having sex at certain times [natural family planning or rhythm] or withdrawal, and using birth control methods such as the pill, condoms, vaginal ring, IUD, having their tubes tied, or their partner having a vasectomy.)

- ❑ No
- ❑ Yes ⟶ **Go to Question 66**

65. What are your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant *now*?

Check all that apply

- ❑ I am not having sex
- ❑ I want to get pregnant
- ❑ I don't want to use birth control
- ❑ My husband or partner doesn't want to use anything
- ❑ I don't think I can get pregnant (sterile)
- ❑ I can't pay for birth control
- ❑ I am pregnant now
- ❑ Other ⟶ Please tell us:

_____

66. *Since your new baby was born*, have you had a postpartum checkup for yourself? (A postpartum checkup is the regular checkup a woman has about 6 weeks after she gives birth.)

- ❑ No
- ❑ Yes

67. Below is a list of feelings and experiences that women sometimes have after childbirth. Read each item to determine how well it describes your feelings and experiences. Then, write on the line the number of the choice that best describes how often you have felt or experienced things this way *since your new baby was born*. Use the scale when answering:

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

a. I felt down, depressed, or sad. . . ___

b. I felt hopeless . . . . . ___

c. I felt slowed down . . . . . ___

OTHER EXPERIENCES

The next questions are on a variety of topics.

68. During the *3 months before* you got pregnant with your new baby, how often did you participate in any physical activities or exercise for 30 minutes or more? (For example, walking for exercise, swimming, cycling, dancing, or gardening.)

- ❑ Less than 1 day per week
- ❑ 1 to 2 days per week
- ❑ 3 to 4 days per week
- ❑ 5 or more days per week
- ❑ I was told by a doctor, nurse, or other health care worker not to exercise

If you did not smoke during the 3 months before you got pregnant, go to Question 70.

If you did not get prenatal care, go to Question 70.

69. Listed below are some things about quitting smoking that a doctor, nurse, or other health care worker might have done *during any of your prenatal care visits*. For each thing, circle **Y** (Yes) if it applied to you during any of your prenatal care visits or circle **N** (No) if it did not.

***During any of your prenatal care visits*, did a doctor, nurse, or other health care worker—**

		No	Yes
a.	Spend time with you discussing how to quit smoking	N	Y
b.	Suggest that you set a specific date to stop smoking	N	Y
c.	Suggest you attend a class or program to stop smoking	N	Y
d.	Provide you with booklets, videos, or other materials to help you quit smoking on your own	N	Y
e.	Refer you to counseling for help with quitting	N	Y
f.	Ask if a family member or friend would support your decision to quit	N	Y
g.	Refer you to a national or state quit line	N	Y
h.	Recommend using nicotine gum	N	Y
i.	Recommend using a nicotine patch	N	Y
j.	Prescribe a nicotine nasal spray or nicotine inhaler	N	Y
k.	Prescribe a pill like Zyban® (also known as Wellbutrin® or Bupropion®) or Chantix® (also known as Varenicline) to help you quit	N	Y

70. During *your most recent* pregnancy, did a doctor, nurse, or other health care worker tell you that you had a urinary tract infection (UTI), a sexually transmitted disease (STD), or any vaginal infection, including bacterial vaginosis or Group B Strep (Beta Strep)?

- ❑ No → **Go to Question 72**
- ❑ Yes

71. What infection or disease were you told that you had?

Check all that apply

- ❑ Genital warts (HPV)
- ❑ Herpes
- ❑ Chlamydia
- ❑ Gonorrhea
- ❑ Pelvic inflammatory disease (PID)
- ❑ Syphilis
- ❑ Group B Strep (Beta Strep)
- ❑ Bacterial vaginosis
- ❑ Trichomoniasis (Trich)
- ❑ Yeast infections
- ❑ Urinary tract infection (UTI)
- ❑ Other → Please tell us:

72. This question is about the care of your teeth during your *most recent* pregnancy. For each item, circle **Y** (Yes) if it is true or circle **N** (No) if it is not true.

		No	Yes
a.	I needed to see a dentist for a problem	N	Y
b.	I went to a dentist or dental clinic	N	Y
c.	A dental or other health care worker talked with me about how to care for my teeth and gums	N	Y

73. Have *you* ever had your teeth cleaned by a dentist or dental hygienist?

- ❑ No → **Go to Question 75**
- ❑ Yes

74. Did you have your teeth cleaned by a dentist or dental hygienist during the time periods listed below? For each time period, circle **Y** (Yes) if you had your teeth cleaned then or circle **N** (No) if you did not have your teeth cleaned then.

		No	Yes
a.	During my most recent pregnancy . . .	N	Y
b.	After my most recent pregnancy.	N	Y

75. *Since your new baby was born*, have you *asked for help* for depression from a doctor, nurse, or other health care worker?

- ❑ No
- ❑ Yes

The last questions are about the time during the *12 months before* your new baby was born.

76. During the *12 months before* your new baby was born, what was your yearly total household income before taxes? Include your income, your husband's or partner's income, and any other income you may have received. (All information will be kept private and will not affect any services you are now getting.)

- ❑ Less than $10,000
- ❑ $10,000 to $14,999
- ❑ $15,000 to $19,999
- ❑ $20,000 to $24,999
- ❑ $25,000 to $34,999
- ❑ $35,000 to $49,999
- ❑ $50,000 or more

77. During the *12 months before* your new baby was born, how many people, *including yourself*, depended on this income?

_____ People

78. What is today's date?

_____ / _____ / 20_____

Month Day Year


PRAMS
THE BEST SOURCE OF DATA ON MOTHERS AND BABIES