LOUISIANA DEPARTMENT OF HEALTH

LOUISIANA PRAMS
Your voice. Your baby's voice.

LOUISIANA PRAMS SURVEILLANCE REPORT 2017

Louisiana Pregnancy Risk Assessment Monitoring System

Key Findings

Preface

Since 1997, the Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS) has provided vital information on women's behaviors and experiences before, during and after pregnancy. Louisiana PRAMS is a population-based survey of Louisiana resident women who deliver a live-born infant in the state within a given calendar year. Louisiana PRAMS data can be used by program planners, healthcare providers, policy makers, and public health leaders to design, implement and evaluate programs and services relevant to women and infants in Louisiana. The 2017 Louisiana PRAMS Surveillance Report, a compilation of Louisiana PRAMS results for selected indicators, highlights data for births occurring in 2017.

In 2017, there were 55,017 live births that satisfied the Louisiana PRAMS inclusion criteria, of which 1,332 were sampled. Of this sample, there were 894 respondents, resulting in a 66% overall weighted response rate. The number of respondents is somewhat smaller than recent prior years, and this was expected. From 2012-2015, Louisiana PRAMS had participated in a Kellogg-funded oversample of African American mothers in Orleans parish. The project ended with the 2016 birth year, thus resulting in the sampling of fewer mothers statewide.

The Louisiana PRAMS 2017 questionnaire is available as a separate file at the Partners for Family Health website listed below.

Louisiana PRAMS is funded by the U.S. Centers for Disease Control and Prevention (CDC) under Cooperative Endeavor Agreement #U01 DP6227-04 and administered by the Louisiana Department of Health (LDH), Office of Public Health (OPH), Bureau of Family Heath (BFH).

More information about PRAMS can be found at cdc.gov/prams/index.htm or under Louisiana PRAMS on the Partners for Family Health website: partnersforfamilyhealth.org/prams/.

Acknowledgements

Special thanks to the following contributors for their collaborative effort on this report:

Project Staff

Amy Zapata, M.P.H.: Title V Director

Jane Herwehe, M.P.H.: Data Action Team Lead, PRAMS Principal Investigator

Rosaria Trichilo, M.P.H.: Louisiana PRAMS Coordinator

U. Vance: Louisiana PRAMS Data Manager

Shirley Washington: Louisiana PRAMS Program Assistant

Ana Dal Corso: Louisiana PRAMS Program Assistant

Jennifer Le, M.P.H.: PRAMS Epidemiologist

Lyn Kieltyka, Ph.D., M.P.H.: Lead MCH Epidemiologist

Chloe Lake, M.P.H.: Health Education and Communication Coordinator

Technical Support

PRAMS Team at the Centers for Disease Control and Prevention (CDC)

Louisiana Department of Health, Office of Public Health

Bureau of Family Health Data Action Team

Bureau of Family Health Strategy, Policy, Alignment, Communication and Equity Team

Louisiana Vital Records and Statistics

Katharine Bruce, M.P.H.: CDC/CSTE Applied Epidemiology Fellow

Thank you to the women who shared their experiences so we could better understand the circumstances impacting the health status of mothers and infants in Louisiana.

Table of Contents

Executive Summary

Louisiana PRAMS Background

The goal of the Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS) is to reduce infant and pregnancy-related maternal morbidity and mortality by informing maternal and child health programs and policies, and supporting healthy maternal behaviors. Louisiana PRAMS works toward this goal by: collecting high quality population-based data, conducting analyses of maternal behaviors and experiences and their relationship to health outcomes, and translating those data and analyses into information that can be used to guide and evaluate health-related programs and policies.

The Louisiana Department of Health (LDH), Office of Public Health (OPH), Bureau of Family Health (BFH), administers Louisiana PRAMS in conjunction with the U.S. Centers for Disease Control and Prevention (CDC). Louisiana PRAMS is funded by the CDC under Cooperative Endeavor Agreement #U01 DP6227 – 04. PRAMS collects state-specific, population-based data on maternal attitudes, behaviors and experiences around the time of pregnancy and childbirth and is linked to Louisiana Vital Records birth data files.

Key Findings

In 2017, Louisiana PRAMS sampled about 2% of the roughly 61,000 births in Louisiana. Each month, a stratified random sample of approximately 130 live births was selected. In 2017, 1,332 mothers were sampled and 894 responded. Key findings from frequently-requested data are highlighted below.

Family Planning:

- **55%** of women in Louisiana **did not intend to become pregnant or were unsure** if they wanted to become pregnant. **58%** of the women who were not trying to get pregnant **reported not doing anything to prevent a pregnancy**.
- Among women who reported **not using any contraceptive methods** to prevent an unintended pregnancy, the most common reasons were: **I thought I couldn't get pregnant (32%), I didn't mind if I got pregnant (31%)** and **forgot to use birth control (16%)**.

Prenatal Care:

- **91%** of women reported they **received prenatal care during their first trimester**. **8%** of mothers began prenatal care **after their first trimester** and about **1%** of mothers reported **not receiving any prenatal care** during their pregnancy.
- The most commonly reported **barriers to receiving prenatal care** during pregnancy as early as desired were: not knowing they were pregnant (43%), couldn't get an appointment when desired (34%), not having a Medicaid or LaMoms card (23%) and not having money or insurance to pay (23%).

Prenatal Risk Factors:

- **11%** of women reported that they **smoked cigarettes during the last three months of pregnancy**. **18%** of women reported that they were **currently smoking cigarettes** (at the time of the survey).
- **6%** of women reported they **consumed at least one alcoholic drink during the last three months of pregnancy**.

Breastfeeding and Infant Care:

- **69%** of women **breastfed or fed pumped milk** to their new baby **at least once**. Of women who initiated breastfeeding, **68% were still breastfeeding** at the time of the survey.
- **68%** of women reported that their **new baby is placed to sleep most often on his/her back**.

More information on maternal and child health topics can be found within this report. This information informs policy and decision-making, and is central to the health education of providers and the public.

Methodology

Sampling and Data Collection

Women are selected to participate in PRAMS from Louisiana's Vital Records birth certificate files. To participate in Louisiana PRAMS, mothers must be Louisiana residents who gave birth to a live-born infant in the state. Each month, a stratified random sample of approximately 130 live births are selected. In 2017, the sampling was stratified by race: African American* and Non-African American

Each monthly sample follows a 90-day cycle of scheduled contact attempts, including a mailed questionnaire with multiple follow-ups and an attempted phone interview for all non-respondents after the failed mail contact attempts. The day after the sample is selected, an introductory letter is mailed. An initial questionnaire packet is mailed to women within the sample within seven days of the introductory letter. The packet contains the questionnaire, an informed consent, a calendar, a Louisiana PRAMS informational page, and a small incentive gift provided by federal funds.

If the questionnaire is not returned, a reminder letter is sent 7 to 10 days after the initial questionnaire is mailed, a second questionnaire is mailed approximately 12 days after the reminder letter. If the second questionnaire is not returned, a third and final questionnaire is mailed approximately 2 weeks after the second questionnaire. Telephone follow-up is used for women who have not responded by mail by day 63 and continues until day 90. Several methods are used to identify phone numbers for women entering the telephone phase, and a maximum 15 attempts are made on each identified phone number before the participant is considered unreachable.

More detailed information on PRAMS methodology, including weighting procedures, may be found on the CDC website at cdc.gov/prams/methodology.htm.

*Note: African American and Black are both used within this report to reflect terms that were used in original documentation and data collection. Maternal race and ethnicity data for Louisiana PRAMS can be categorized by the following: Non-Hispanic White, Non-Hispanic Black, Hispanic, and Other.

Data Analysis and Dissemination

Each year, Louisiana PRAMS develops a state analysis plan. This plan is based on the Healthy People 2020 goals and objectives relating to maternal and child health; the expressed analytic needs of the Bureau of Family Health (BFH); and the guidance of the Louisiana PRAMS Steering Committee, which is comprised of internal BFH staff and external stakeholders who have an interest in using PRAMS data for maternal and child purposes. This plan is ultimately approved by the BFH Management Team and the Louisiana PRAMS Coordinator.

Additional analyses occur in response to data requests made by BFH program staff and other researchers. Data dissemination occurs on a statewide and national basis. Current dissemination activities include presentations at national meetings and data factsheets. This Louisiana PRAMS Surveillance Report is an annual publication of the Louisiana PRAMS, and presents detailed results of data collection for the most currently available year of data. Data reports, which present Louisiana PRAMS data without additional analysis or interpretation, are also available on an annual basis.

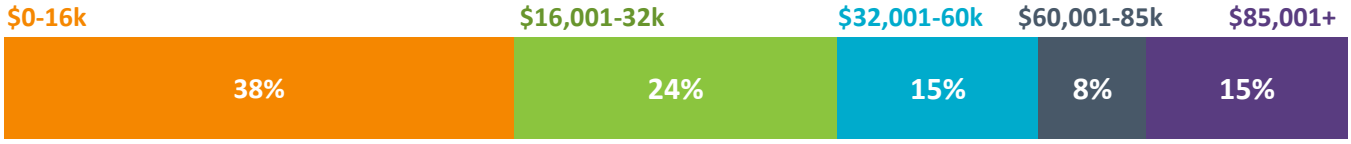
Louisiana PRAMS Response Rates

Louisiana PRAMS data are weighted to be reflective of all Louisiana mothers delivering a live-born singleton, twin or triplet in Louisiana. The CDC recommends a response rate of at least 55% for data to be considered representative of the population. Louisiana's 2017 weighted response rate was 66% and successfully met this threshold.

Maternal Demographics

Louisiana differs from many U.S. states in its demographic and socioeconomic profile. In 2017, 37% of all Louisiana resident births were to non-Hispanic black mothers, compared with 15% nationally. 48% of births were to mothers with a high school degree or lower, compared with 39% nationally. 46% of PRAMS respondents were married and 98% of respondents delivered singleton births. Louisiana's consistently low health ranking and persistent racial health disparities indicate the need for continued, reliable assessment of women's health, behaviors and experiences before, during and after their pregnancies.

More than 1 in 3 (38%) Louisiana women live in homes with a yearly household income of $16,000 or lower



49%

of Louisiana mothers are WIC participants

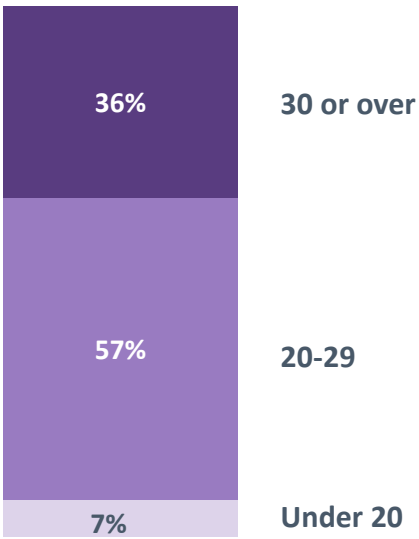
The **Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)** provides supplemental foods, healthcare referrals and nutritional counseling for low-income pregnant and breastfeeding women, infants, and children up to age 5. To be WIC eligible, the family income must be at or below 185% of the Federal poverty level (**under $46,435** for a family of four).

52%

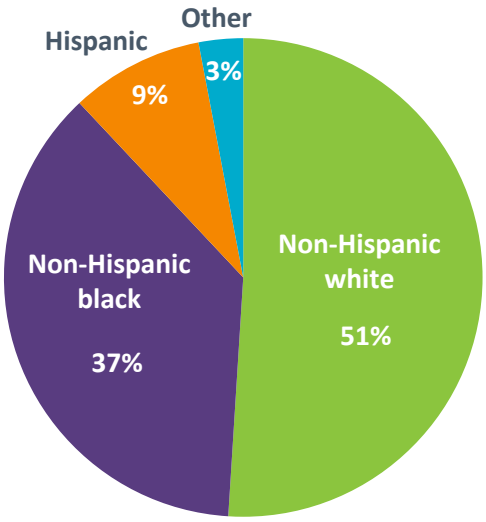
of Louisiana mothers have more than a high school education

- **33%** reported a high school degree/GED as their highest level of education completed
- **15%** have less than a high school education

Over half (57%) of Louisiana mothers are in their 20s



The majority of Louisiana mothers are non-Hispanic white and non-Hispanic black

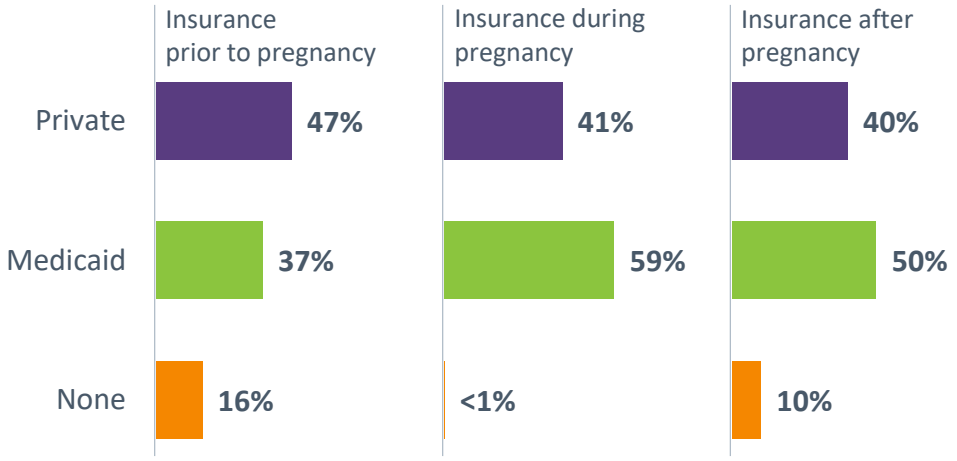


Insurance

Adequate insurance coverage is essential for the receipt of high quality prenatal and delivery care to support a mother's and baby's health. As of 2014, the Affordable Care Act made health insurance for pregnancy, labor, delivery and newborn care mandatory. On June 1, 2016, Louisiana residents with incomes up to 138% of the federal poverty level became eligible to enroll in the state's expanded Medicaid program. In 2017, Medicaid provided prenatal coverage for 59% of Louisiana women, compared with 43% nationally.

Health insurance coverage: prior to, during and after pregnancy

Health insurance coverage gaps exist, especially among those without private insurance prior to pregnancy.
Less than 1% of mothers were uninsured during pregnancy

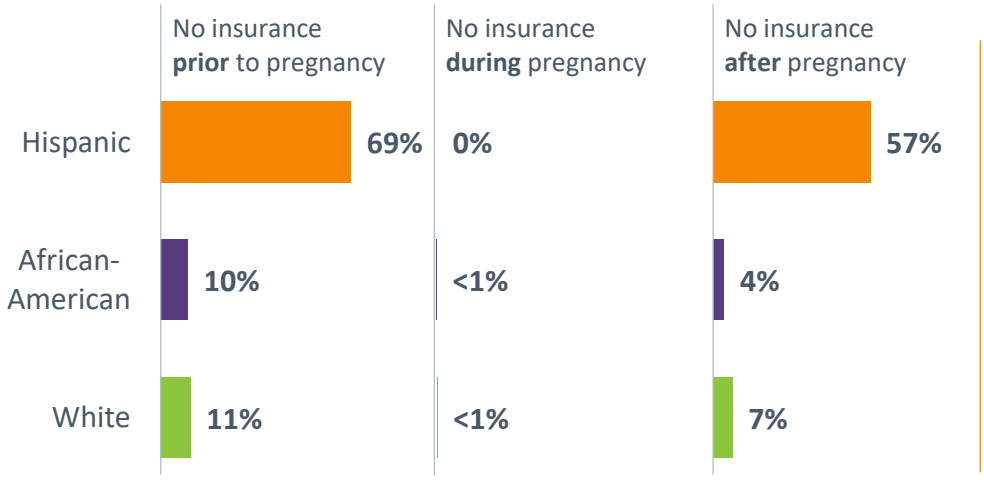


"I was unable to see a doctor for 8 weeks waiting on benefits from Medicaid. Once I became established with my OB, I received excellent care."

- PRAMS Mom

Racial disparities* among uninsured populations

**Denominator is the racial group*



Hispanic women in Louisiana were **most likely to be uninsured**.

While almost all Hispanic women had some form of insurance during pregnancy, **69% were uninsured prior to pregnancy** and **57% were uninsured after pregnancy**.

Public Health Implications

While Medicaid covers over half of Louisiana births prenatally, fewer mothers had postpartum insurance coverage. Additionally, there is a large racial disparity in insurance coverage. Fewer Hispanic women have access to insurance coverage both prior to and after pregnancy compared to women of other ethnicities. Continuous access to health insurance and healthcare for women could improve maternal and infant health by providing opportunities to manage or treat conditions before, during and between pregnancies (The Henry J. Kaiser Family Foundation, 2010).

Preconception Health

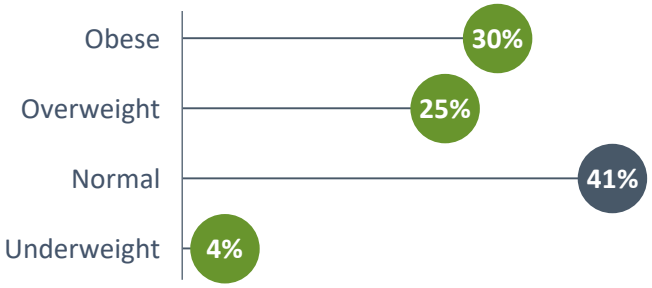
Adverse birth outcomes in Louisiana are linked to poor maternal health status at conception. Poor preconception health, pre-pregnancy weight, pre-pregnancy medical conditions (including diabetes and hypertension), and lack of interconception care are key drivers of low birth weight in infants, preterm births and infant mortality. According to AmericasHealthRankings.org, Louisiana ranked 42nd in the nation for diabetes, 46th for obesity, and 49th for overall health in 2017.

NATIONAL HEALTH GOALS

Healthy People 2020 Goal: Increase the proportion of women delivering a live birth who took multivitamins/folic acid every day in the month prior to pregnancy.

- Healthy People 2020 target: **33.3%**
- 2017 Louisiana status: **24.1%**

Prior to pregnancy, the majority of women (59%) had BMIs* outside of the normal weight range



**Weight criteria based on national Body Mass Index (BMI) categories and calculated from self-reported height and weight on PRAMS Survey*

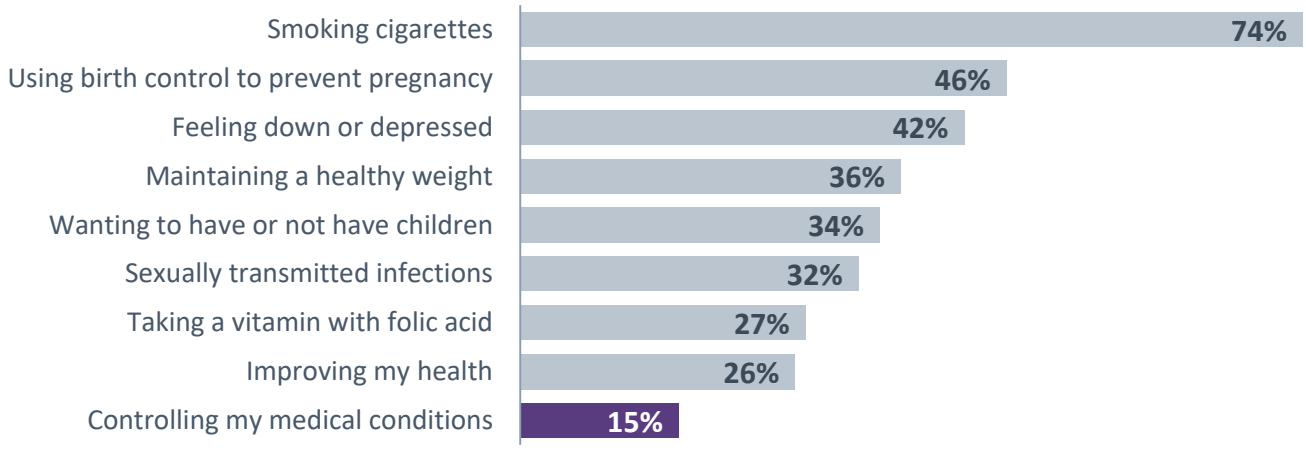
Pre-pregnancy Conditions

14% had depression

6% had high blood pressure

2% had diabetes

Of the women who reported speaking to a healthcare worker at any healthcare visit before pregnancy, fewer than 1 in 6 (15%) reported discussing controlling their medical conditions.



Public Health Implications

Maternal and Child Health programs seeking to improve preconception health and birth outcomes may benefit from focusing on improving women's overall health and preventing chronic disease. Healthcare providers can play an important role by talking to patients about how they can manage chronic conditions. Furthermore, health and wellness programming should not necessarily be guided by pregnancy intention, as over half (55%) of pregnancies in Louisiana are unplanned (Louisiana PRAMS, 2017).

Family Planning: Prior to Pregnancy

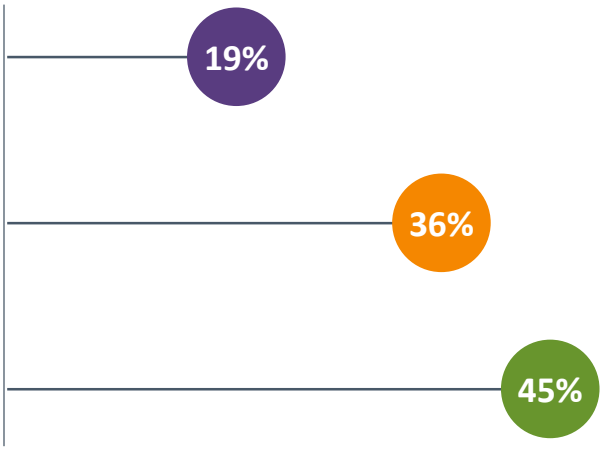
55% of new mothers in Louisiana were unsure if they wanted to become pregnant or did not intend to become pregnant (Louisiana PRAMS, 2017). When compared to intended pregnancies, unintended pregnancies have been associated with behavioral and health outcomes such as late initiation of prenatal care, lower rates of breastfeeding, unsafe infant sleep practices, maternal postpartum depression, and low birth weight (Guttmacher Institute, 2016). 63% of women with unintended pregnancies were not using any form of contraception when they became pregnant (PRAMS, 2017). Providing contraception and counseling around family planning improves maternal and infant health outcomes by helping people achieve their desired family size while maintaining healthy birth spacing.

Less than half (45%) of mothers intended to become pregnant

Unsure: Mother wasn't sure what she wanted

Unintended: Mother wanted to be pregnant later or never

Intended: Mother wanted to be pregnant sooner or then

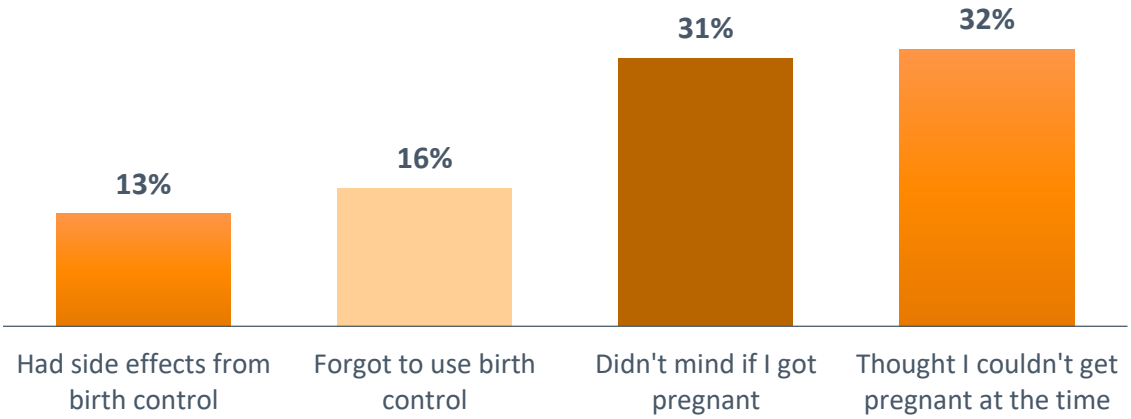


"I was told I couldn't get pregnant, [then] I found out I was 6 weeks and 2 days pregnant. I was very scared. In that moment, when the doctors told me I had conceived a child I was mix of emotions; lost, happy, scared and excited."

- PRAMS Mom

Among women who were not trying to get pregnant, 3 in 5 reported that they did not use any form of contraception prior to pregnancy

Mothers' top reasons* for not using contraception *(Participants checked all that apply)*



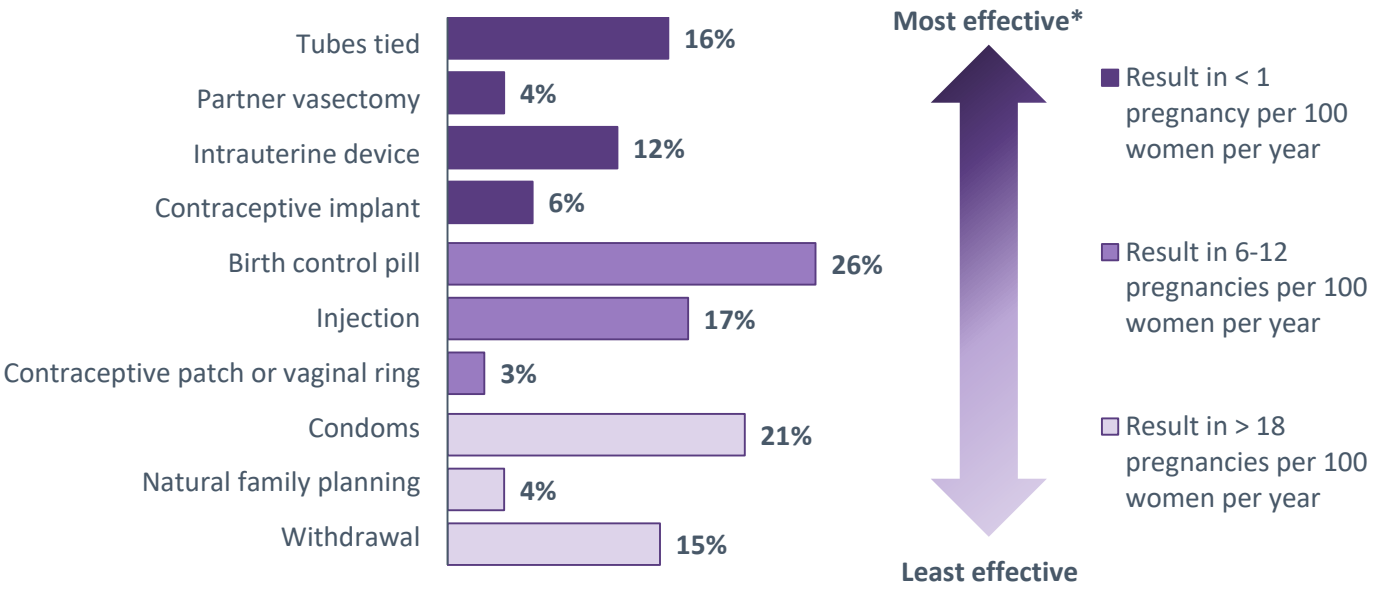
Family Planning: Postpartum

Healthy People 2020 Goal: Increase the proportion of women delivering a live birth who used contraception postpartum to plan their next pregnancy.

- Healthy People 2020 target: **97.5%**
- 2017 Louisiana status: **74.3%**

3 in 4 mothers used contraception

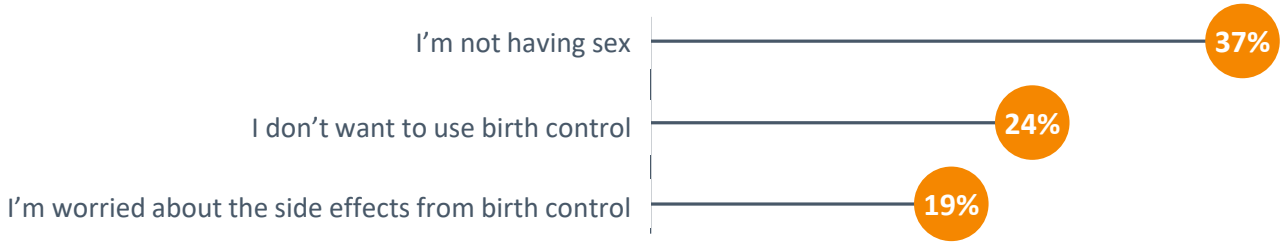
Among mothers who used contraception, many reported using the least effective contraception methods* after they had their baby *(Participants checked all that apply)*



Data source: Effectiveness of Family Planning Methods, CDC, 2011.

Top three reasons reported for not using contraception after having the baby

(Participants checked all that apply)



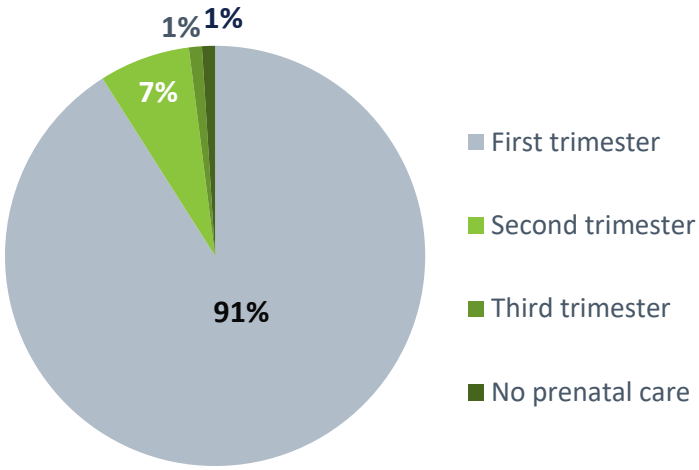
Public Health Implications

Louisiana PRAMS data highlight opportunities to address unintended pregnancies. When developing programs, educational materials and clinical guidelines, family planning and reproductive health programs may benefit from examining the most commonly cited barriers to contraception use. As mentioned on the previous page, two top barriers prior to pregnancy included women's belief that they could not get pregnant at the time and that they did not mind if they got pregnant. This could potentially be addressed through counseling on the effectiveness of different contraceptive methods and encouraging provides to work with patients to determine the right type of contraceptive methods for each woman.

Prenatal Care

One of the Healthy People 2020 goals is to increase the proportion of pregnant women who receive early and adequate prenatal care beginning in the first trimester. Early, regular, and adequate prenatal care can lead to improved health outcomes for mothers and infants through the timely assessment of maternal risk behaviors, genetic risk factors, health education, and management of chronic and pregnancy-associated conditions.

About 1 in 10 (9%) Louisiana mothers do not receive prenatal care in the first trimester

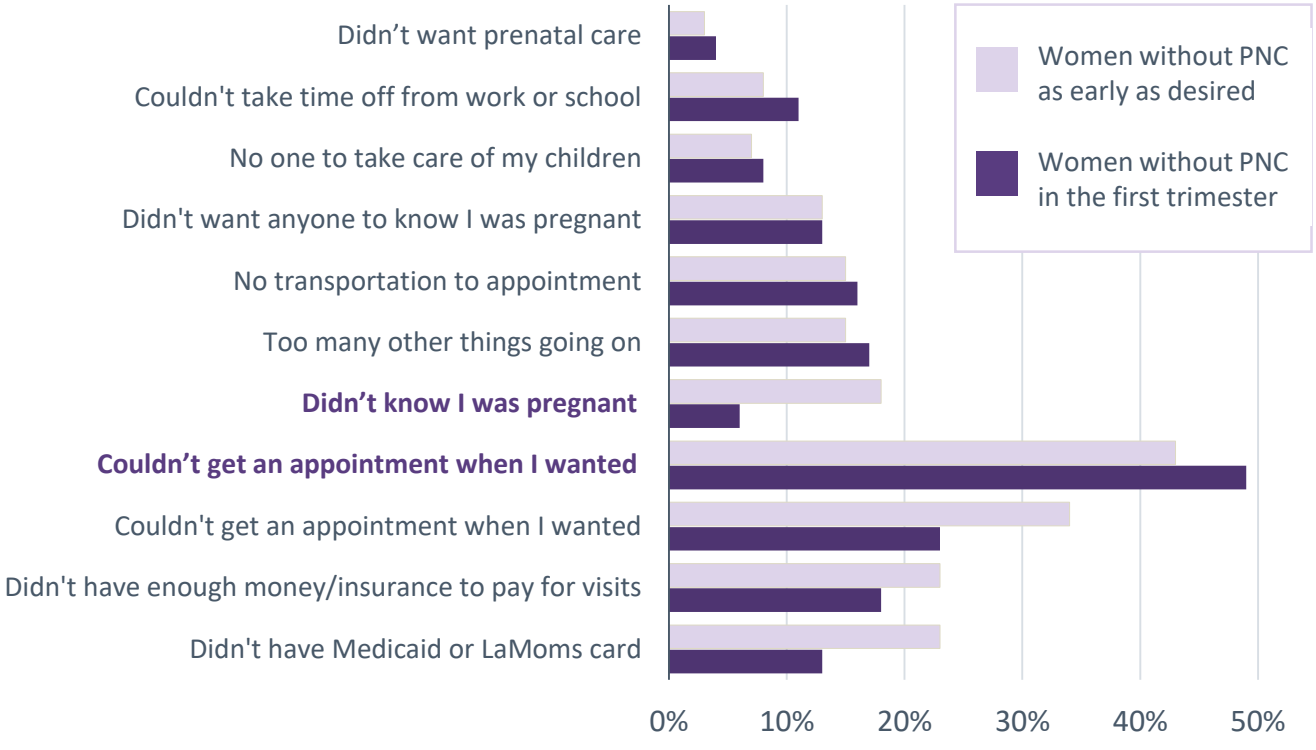


"During my pregnancy I moved to Louisiana while being 4 months pregnant. I had 1 month of no prenatal care because of the Medicaid transition and process."

- PRAMS Mom

The top two factors preventing women from getting early prenatal care were: not knowing they were pregnant and inability to get an early appointment

All reported barriers to early prenatal care (PNC):



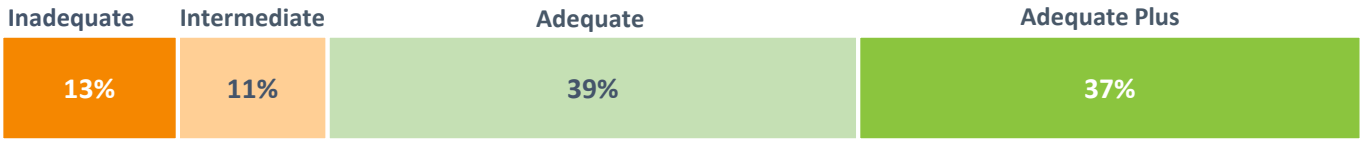
Prenatal Care – Part 2

Nearly 1 in 4 (24%) women received less than adequate* prenatal care

Adequacy of Prenatal Care Utilization Index (Kotelchuck Index) scores two elements:

- the timing of initial prenatal care visit
- the number of prenatal visits from initiation until delivery

The index defines adequate prenatal care as having received 80% or more of the recommended prenatal visits for gestational age based on standards set by the American Congress of Obstetricians and Gynecologists. It is important to note that this index does not measure quality of care.



Less than adequate includes "inadequate" and "intermediate" responses.

> ***"I feel like I was not questioned enough about my knowledge of proper prenatal care. I am a research buff to an extent . . . but felt also that my information (the majority of it) came from my own research and not the medical staff."***
>
> **- PRAMS Mom**

Conditions during Pregnancy

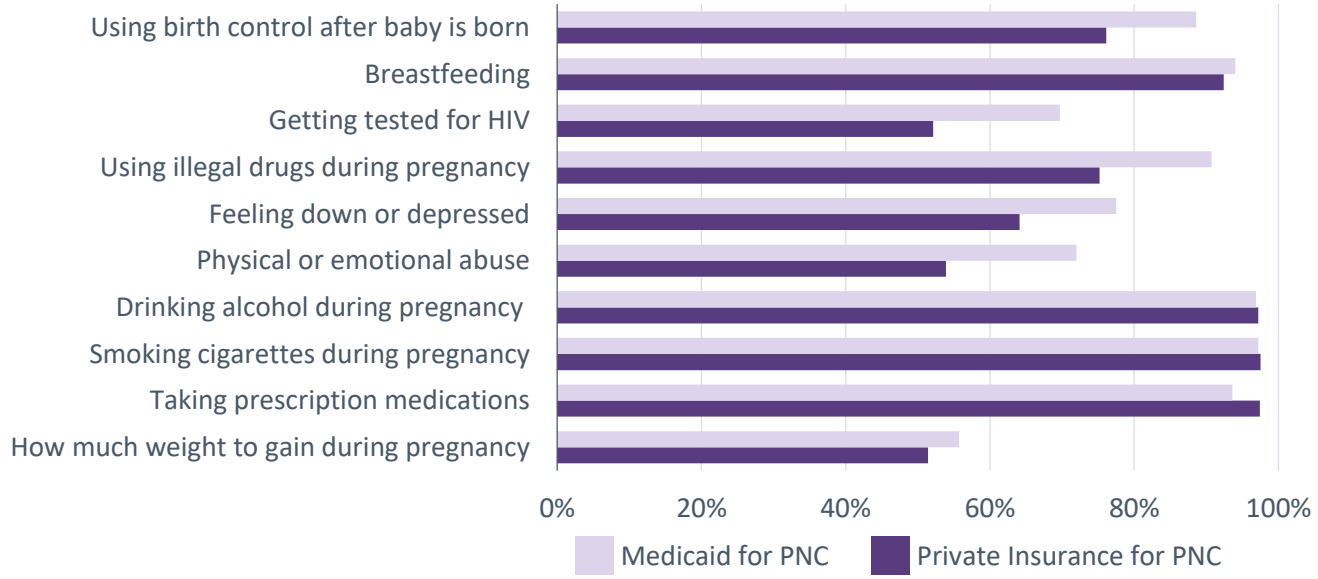
15% **had depression**

14% **had high blood pressure, pre-eclampsia or eclampsia**

Hypertensive disorders *of pregnancy (**pre-eclampsia and eclampsia**) are one of the **top causes of maternal deaths** in Louisiana among confirmed pregnancy-related deaths (Louisiana MMR Report, 2011-2016).*

7% **had gestational diabetes**

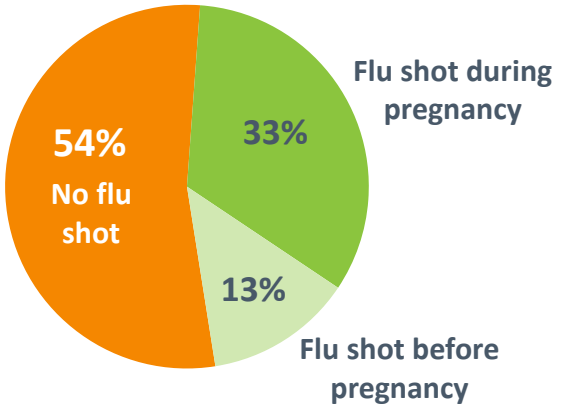
Louisiana mothers with Medicaid reported discussing various topics with a doctor during prenatal care more frequently than mothers with other types of insurance



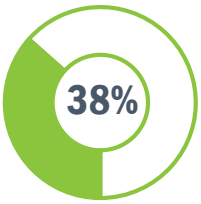
Prenatal Risk Factors

Certain medical factors, including viruses and previous adverse birth outcomes, increase the risk of health complications during pregnancy. It is recommended that all pregnant women receive a flu shot, as flu is more likely to cause severe illness in pregnant women than in women who are not pregnant (CDC, 2018). Also, the American College of Obstetrics and Gynecology (ACOG) recommends certain routine blood tests be included in prenatal care to detect infections and other conditions in pregnancy, including tests for HIV and Hepatitis B.

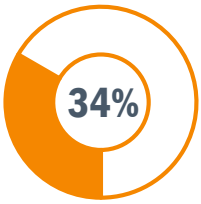
Over half (54%) of mothers did not receive a flu shot the year before or during their most recent delivery



Just over a third of mothers were tested for HIV (35%) or Hepatitis B (34%) prior to pregnancy



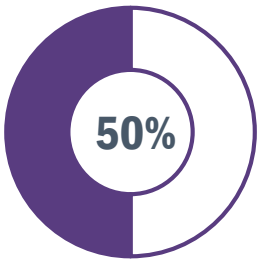
Received an **HIV test** prior to pregnancy



Received a **Hepatitis B** test prior to pregnancy

Half (50%) of mothers who had a prior preterm birth received 17P injections during pregnancy

17P, also called progesterone, Makena® or 17 alpha-hydroxyprogesterone, is a series of weekly injections administered to prevent preterm birth.



Half (50%) of mothers who **had a prior preterm birth received 17P**

1 in 20 (6%) mothers who **did not have** a prior preterm birth **received 17P**

"I would have liked more information on pre-term labor. My baby was born 12 weeks early. Knowing the signs may have helped prevent that."

- PRAMS Mom

Public Health Implications

Increased patient-provider dialogue during prenatal care visits may help pregnant women and their care providers determine what steps should be taken to ensure the health and safety of both mother and baby. It is important that women know if they have an infection or are at increased risk for preterm birth so they can receive necessary special care during pregnancy and delivery. Additionally, all women should be made aware of common risk factors, including influenza. In 2017, less than half (46%) of pregnant women in Louisiana got a flu shot, leaving the majority of women and babies unprotected from the flu.

Maternal Tobacco Use

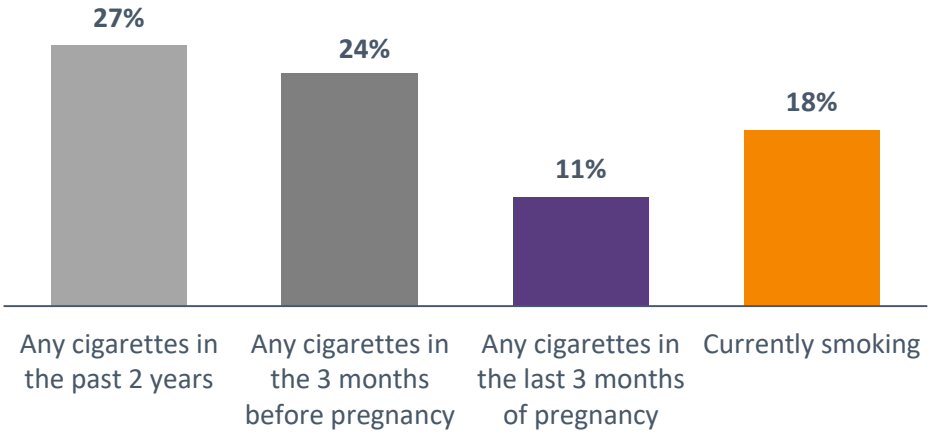
Tobacco use during and after pregnancy can put a woman and her baby at risk for health complications. In the United States, 9% of women reported smoking during the last three months of pregnancy (CDC PRAMS, 2016). According to the Centers for Disease Control and Prevention (CDC), smoking during pregnancy or being around cigarette smoke can put both a mother and infant at increased risk for poor health outcomes such as birth defects. Smoking while pregnant can cause gum disease to worsen more quickly than in non-smokers and can increase the chance of miscarriage, premature birth or low birth weight (March of Dimes Foundation, 2016).

NATIONAL HEALTH GOALS

Healthy People 2020 Goal: Increase abstinence from cigarette smoking among pregnant women:

- Healthy People 2020 target: 98.6%
- 2017 Louisiana status: 88.9%

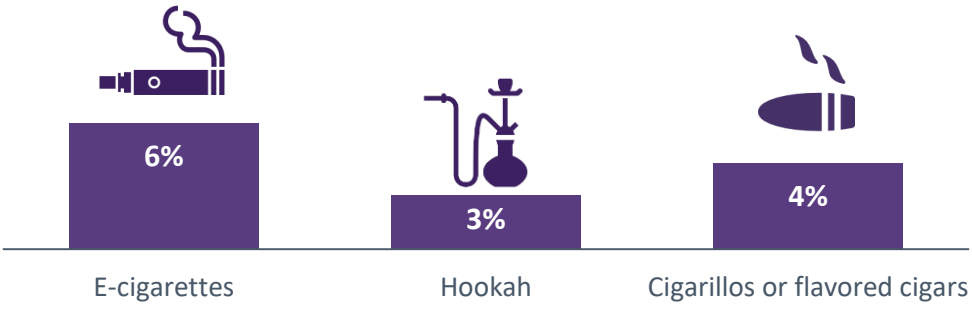
About 1 in 10 (11%) women reported any smoking during their last trimester whereas about 1 in 5 (18%) women reported smoking postpartum



"It would have been nice to get help with not smoking cigarettes while I was pregnant."

- PRAMS Mom

Women reported using other tobacco products during the past two years



Public Health Implications

While over half of women (53%) who smoked before pregnancy quit by their last trimester, nearly half of those women (42%) reported relapsing after delivery. Smoking postpartum may expose infants to secondhand smoke, putting them at increased risk for ear infections, asthma and Sudden Unexpected Infant Death (SUID) (CDC, 2018). Pregnancy and prenatal care may serve as an opportunity for women to speak with healthcare providers about smoking cessation resources and support options, which may reduce the likelihood of women resuming smoking after pregnancy.

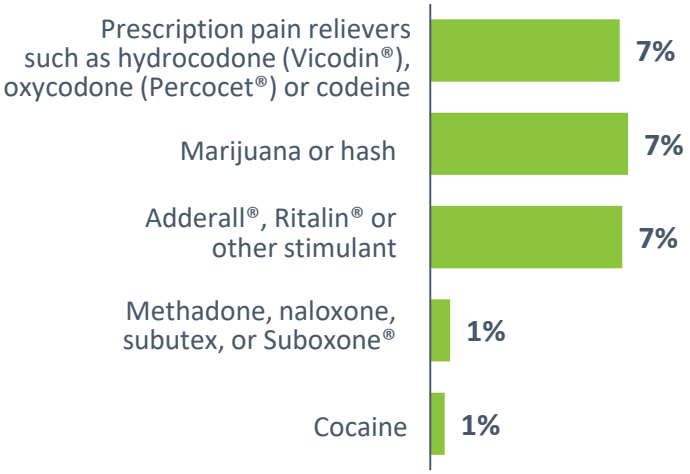
Maternal Drug & Alcohol Use

Drinking alcohol during pregnancy can cause miscarriage, stillbirth, and a range of physical, behavioral, and intellectual disabilities (CDC, 2018). In general, drugs should not be used during pregnancy unless medically necessary, as they can cause preterm birth, miscarriage, low birthweight, heart defects and neonatal abstinence syndrome (NAS) (March of Dimes, 2016).

64% of women used over-the-counter (OTC) pain relievers* such as aspirin, Tylenol®, Advil®, or Aleve® during pregnancy.

Not all OTC medicines are safe to use during pregnancy. Women should talk to their health provider before taking OTC medicines (March of Dimes, 2015).

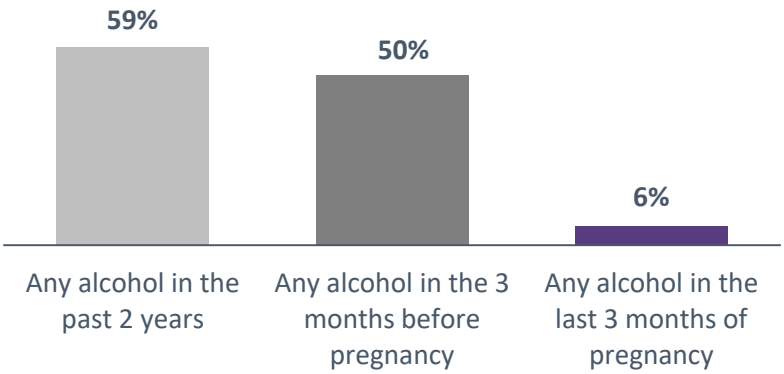
Women's use of prescription and illegal drugs in the month before pregnancy



"My child was born addicted to methadone . . . He was released 5.5 weeks after birth. He is a strong and intelligent 3 month old and I'm very happy to have him home now. If I had continued heroin during my pregnancy he may not be here. Starting the methadone clinic at 2 weeks pregnant helped."

- PRAMS Mom

Women's alcohol consumption before and during pregnancy



77%

of mothers who reported drinking during pregnancy consumed less than one drink per week

Public Health Implications

PRAMS data illustrate the severity and frequency of prenatal risk factors experienced by women in the state. There is no known safe amount of alcohol use during pregnancy or while trying to get pregnant (CDC, 2018), and even prescription drugs may be harmful when used during pregnancy (March of Dimes, 2018). Pregnancy may provide an opportunity for healthcare providers to discuss patterns of alcohol and substance use with their patients and offer resources and referrals to substance use disorder treatment when appropriate.

Breastfeeding

Evidence consistently shows that breastfeeding has numerous health benefits for infants. Breastfeeding carries antibodies from the mother that help combat disease, lowering babies' risk of asthma, allergies, ear infections, respiratory illnesses, and bouts of diarrhea (American Academy of Pediatrics, 2014). Breastfeeding has also been found to have a protective effect against Sudden Infant Death Syndrome (SIDS) (American Academy of Pediatrics, 2016). The American Academy of Pediatrics recommends exclusive breastfeeding for the first six months of a baby's life.

69%

of mothers in Louisiana initiate breastfeeding

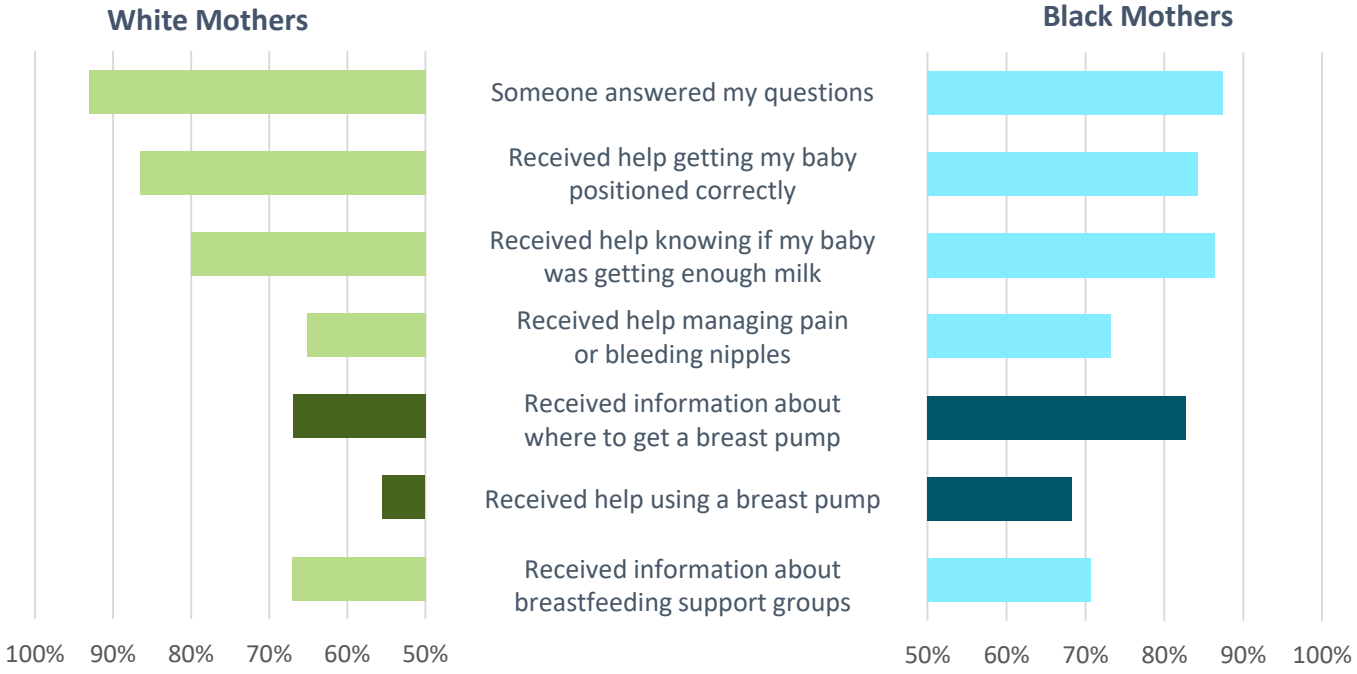
*Below national average of 81%

Most commonly cited reasons for not breastfeeding

1.	**I didn't want to**	**48%**
2.	I tried but it was too hard	15%
2.	I didn't like breastfeeding	13%
3.	I had other children to take care of	12%

Most women who started breastfeeding continued for 8 weeks or more

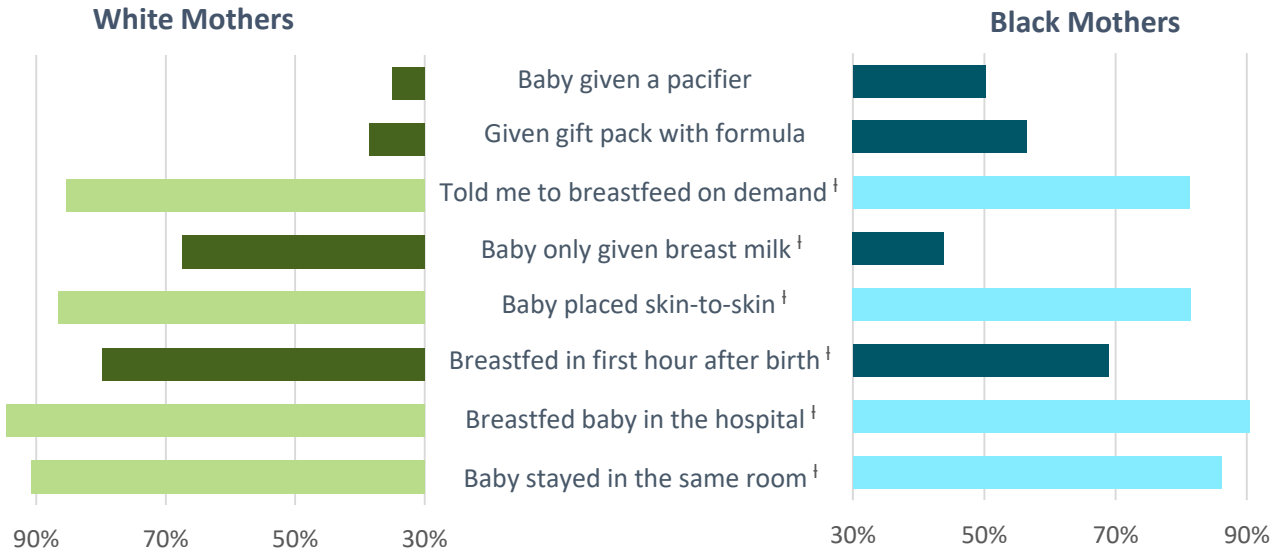
Racial differences* in breastfeeding preparation activities after birth



Darker colors indicate a **difference of 10% or more between groups. Data represent non-Hispanic populations.*

Breastfeeding - Part 2

Black mothers have different* hospital breastfeeding experiences than white mothers



Darker colors indicate a **difference of 10% or more between groups*

ǂ Denotes breastfeeding-friendly practice

Racial disparities in breastfeeding

50% of black babies used a pacifier in the hospital in comparison to **35% of white babies.**

57% of black mothers were given a gift pack with formula at the hospital in comparison to **39% of white mothers**.

"Almost all of the breastfeeding materials I was given were a result of asking for it. Information on baby formula was much more prevalent and readily available… I did not feel very supported in my choice to exclusively breastfeed by hospitals or medical professionals."

- PRAMS Mom

"Breastfeeding has been the best choice I've ever made for my baby. I now have a healthy baby girl. I would definitely recommend every mom to at least try to breastfeed and use formula as a last resort."

- PRAMS Mom

Public Health Implications

Louisiana's breastfeeding initiation rate falls short of the Healthy People 2020 goal of 82%. Evidence shows that maternity care practices in the hospital can be a predictor of breastfeeding initiation (babyfriendlyusa.org). It is important to teach hospital staff that giving infants formula and pacifiers are practices that negatively impact a mother's level of preparation for breastfeeding, overall breastfeeding rates, and infants' health (Baby Friendly Hospital Initiative, 2016). Increased lactation support in the hospital and throughout the postpartum period (see previous page), promoting breastfeeding-friendly work environments and expanding maternity leave policies are other important ways to support women in their efforts to start and continue breastfeeding.

Infant Sleep Environment

In 2017, about 100 infants in Louisiana died suddenly and unexpectedly. Deaths caused by Accidental Suffocation and Strangulation in Bed, SIDS (Sudden Infant Death Syndrome) or other unexplained causes are included in a category called SUID (Sudden Unexpected Infant Death).

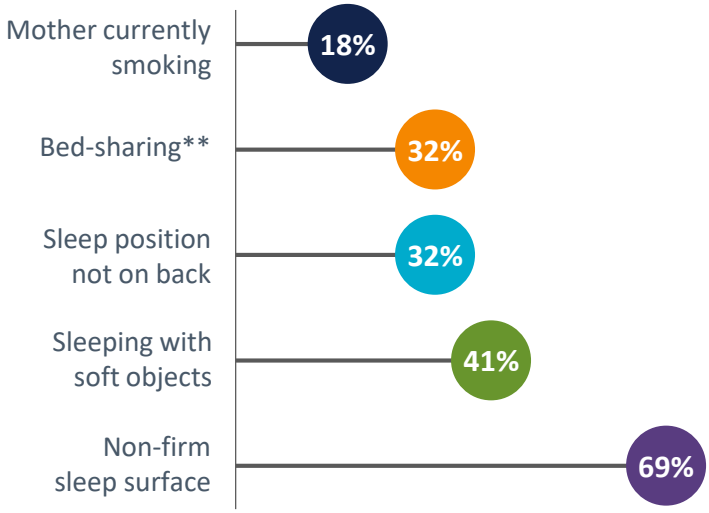
- In 2017, the national SUID rate was **91.4** per 100,000 live births (National Child Death Review, 2017)
- In 2017, the SUID rate in Louisiana was **162.5** per 100,000 live births (Louisiana Child Death Review, 2017)

The American Academy of Pediatrics cites **bed-sharing** as the greatest risk factor for sleep-related infant deaths.

32% **About one third of Louisiana mothers say their infant sometimes, often or always bed-shares.**

Safe Sleep Risk Factors*

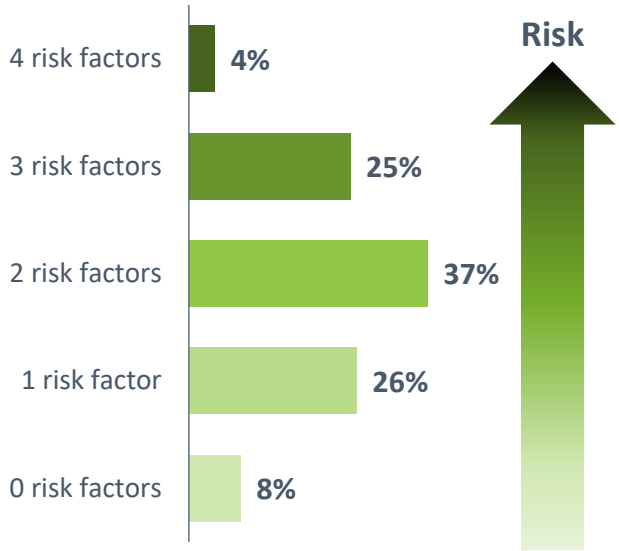
Almost 7 out of 10 (69%) mothers reported that their **babies sleep on a non-firm surface**



**Mothers reported how infants most often sleep in the past two weeks.*
***Calculated by mothers' reports of infants sometimes, often or always bed-sharing.*

Infant Exposure to Risk Factors***

More than 1 in 4 (29%) babies are **exposed to 3 or more risk factors for sleep-related death.**



****Risk factors include: bed-sharing, stomach or side sleeping position, mother currently smoking, non- sleep surface and sleeping with soft objects.*

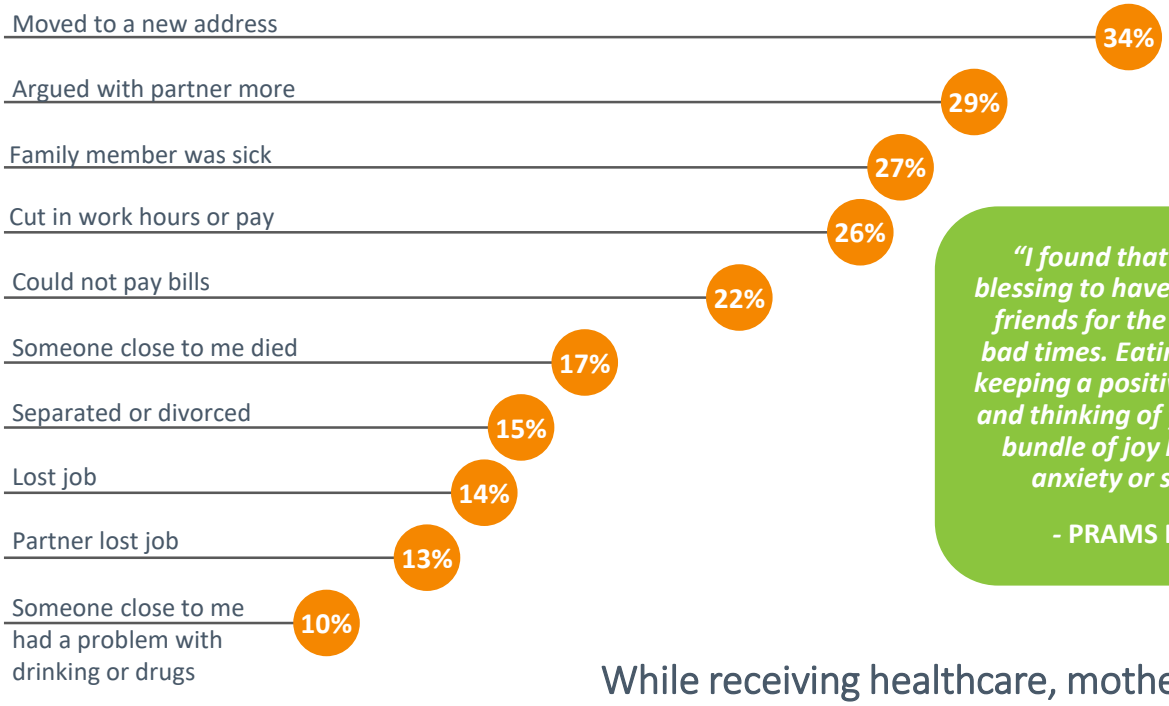
Public Health Implications

PRAMS data bring to light which SUID risk and protective factors occur most frequently in Louisiana homes. These data can be used to inform and narrow the focus of infant safe sleep interventions. Further investigation into the barriers that prevent Louisiana families from consistently practicing safe sleep will help healthcare providers and public health professionals more effectively support Louisiana families in their efforts to increase protective factors and decrease risk factors for SUID.

Stressors & Discrimination

Prenatal maternal stress can be caused by both chronic and acute experiences and events in a woman's life. These stressors are associated with negative outcomes in fetal and infant development. According to the March of Dimes Foundation, high cortisol levels caused by stress during pregnancy can affect an infant's growth in the womb and increase the infant's risk for negative health outcomes later in life.

Top 10 stressors reported by Louisiana mothers



"I found that it was a blessing to have family and friends for the good and bad times. Eating healthy, keeping a positive attitude, and thinking of your future bundle of joy help with anxiety or stress."

- PRAMS Mom

75%

of mothers report experiencing at least one stressor* during pregnancy.

**PRAMS collects data on 14 different experiences of stress*

While receiving healthcare, mothers reported experiencing discrimination for the following reasons:

Type of health insurance or lack of insurance	**6%**
Race or skin color	**5%**
Age	**5%**
Because of pregnancy	**4%**
Income	**3%**
Sex/gender	**2%**
Religion	**1%**

Public Health Implications

Prenatal maternal stress is an important consideration when looking at the overall health of both mothers and infants. According to ACOG, experiencing stress during pregnancy has a negative influence on birth outcomes. Because emotional health can affect fetal development, physicians can expand the treatment and care they provide to address women's stress and anxiety. This may help to reduce negative birth outcomes and improve quality of life for women.

Intimate Partner Violence (IPV)

LOUISIANA PRAMS
Your voice. Your baby's voice.

According to the National Coalition Against Domestic Violence, intimate partner violence accounts for 15% of all violent crime in the United States. In 2017, Louisiana had the second highest homicide rate among female victims murdered by males. 81% of homicides of a female victim in Louisiana are committed by a partner or ex-partner (CDC Intimate Partner Violence: Risk and Protective Factors, 2017).

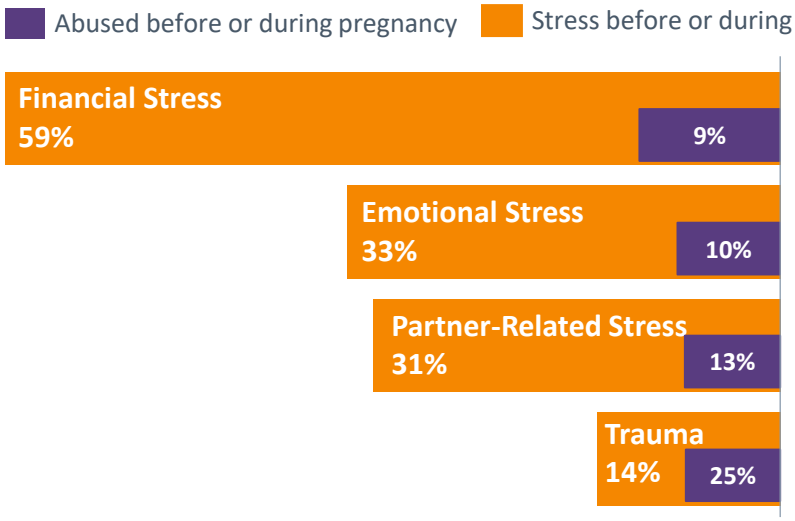
1 in 18 women* reported being physically abused by someone in the year before or during their most recent pregnancy.

Among those women:

- **Over 1 in 5 (22%)** reported that her partner tried to **control her daily activities** — 22%
- **Over 1 in 7 (15%)** reported that her partner **threatened her** or **made her feel unsafe** — 15%
- **Over 1 in 10 (11%)** reported feeling **frightened for her or her family's safety** because of **anger or threats from her partner** — 11%
- **Nearly 1 in 14 (7%)** reported that her partner **forced her to take part in touching or any sexual activity** when she did not want to — 7%

**Mothers included were 18 years or older*

Mothers' experience of stressors and abuse



*Many mothers experience **stress**. Some also experience **abuse**.*

The compounding effects of stress and abuse during pregnancy put both mother and infant at risk of poor health outcomes (March of Dimes, 2014).

The American College of Obstetrics and Gynecologists (ACOG) recommends that physicians: (1) screen all patients for intimate partner violence (2) counsel patients on healthy stress management.

Public Health Implications

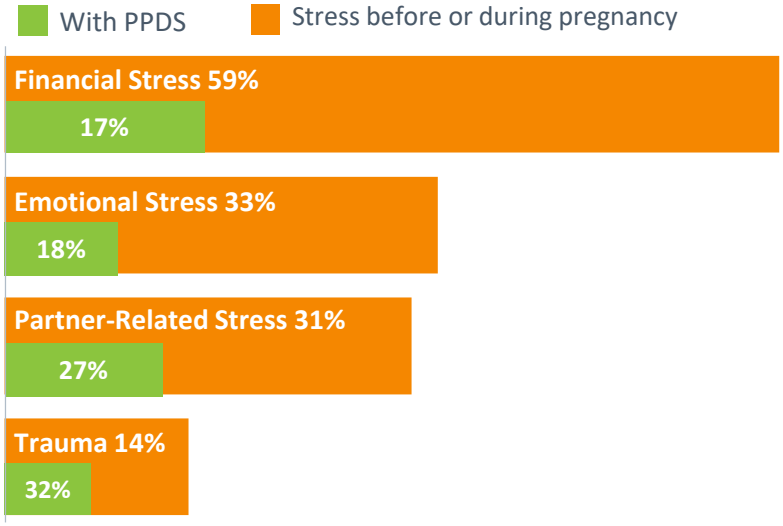
Domestic abuse is often life threatening for those who experience it directly, and their dependents are also at increased risk of physical harm. Furthermore, people who experience domestic abuse are at increased risk for losing housing and employment (Louisiana Coalition Against Domestic Violence, 2016). Domestic violence during pregnancy has been linked to maternal depression, substance use and misuse, smoking, anemia, first and second trimester bleeding, and lower birth weight in infants (National Coalition Against Domestic Violence, 2016). Increased patient-provider dialogue and consistent screening may help ensure individuals at risk for domestic or intimate partner violence are connected to resources.

Postpartum Depressive Symptoms

The Centers for Disease Control reports that approximately 1 in 9 women experience postpartum depressive symptoms (PPDS) in the United States. PPDS can lead to clinically diagnosed postpartum depression (PPD), which is associated with altered mother-infant interaction, reduced cognitive development in infants, and overall reduced duration of breastfeeding (Maternal Child Health Journal, 2015). Decreasing the proportion of women who experience postpartum depression is a Healthy People 2020 goal.

More than 1 in 7 Louisiana mothers experienced PPDS

Mothers' experience of stressors and postpartum depressive symptoms

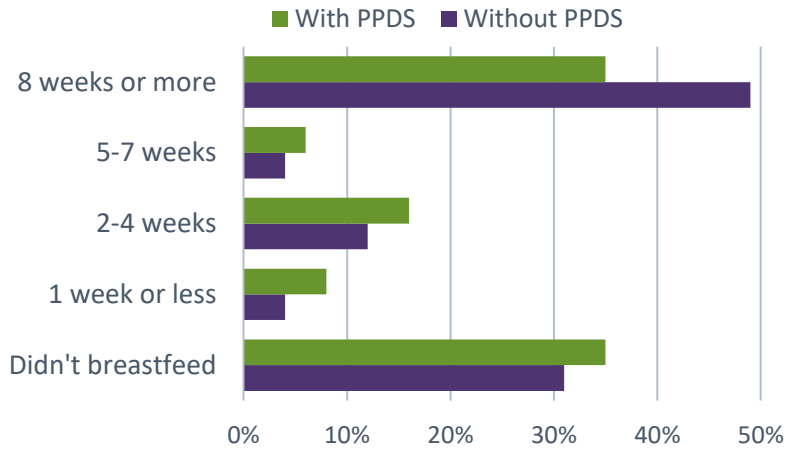


74% of women who **experienced postpartum depression symptoms spoke with a healthcare worker** about their symptoms during a prenatal care appointment.

82% of all women spoke with a healthcare worker during or after their pregnancy about **postpartum depressive symptoms**.

> ***"There isn't enough help for moms that may be suffering with postpartum depression. Louisiana needs more outreach avenues for moms. [There are] too many prompts that you may have to go through just to get an answer . . . [and] not [enough] local support groups either. I hope this information helps."***
>
> **- PRAMS Mom**

Average breastfeeding duration was shorter for women with postpartum depressive symptoms



Public Health Implications

PPDS and anxiety may reduce breastfeeding rates and duration. More than 1 in 7 (15%) of Louisiana mothers report experiencing postpartum depressive symptoms. Of these women, 35% never breastfed. Increasing public health education and patient-provider dialogue around PPD/PPDS and related resources, as well as decreasing stigma around maternal depression are important steps to improve mothers' mental health.

Maternity Leave

The United States is currently the only industrialized country without mandatory paid family leave, although some states have laws granting it. The Louisiana Fair Employment Practices (FEP) Act requires that employers with more than 25 employees provide unpaid leave for up to six weeks for "normal" pregnancies, and up to 4 months for more "seriously disabling" pregnancies. In accordance with the Family and Medical Leave Act (FMLA), a federal law, all FMLA-eligible employees in the United States are entitled to 12 work weeks of unpaid leave per year. During this time, employees are entitled to the same health benefits provided by their employer at the same cost they pay while working. When an employee's FMLA leave ends, the employee has the right to return to the same or equivalent position.

63%

of Louisiana mothers **worked during pregnancy**

68%

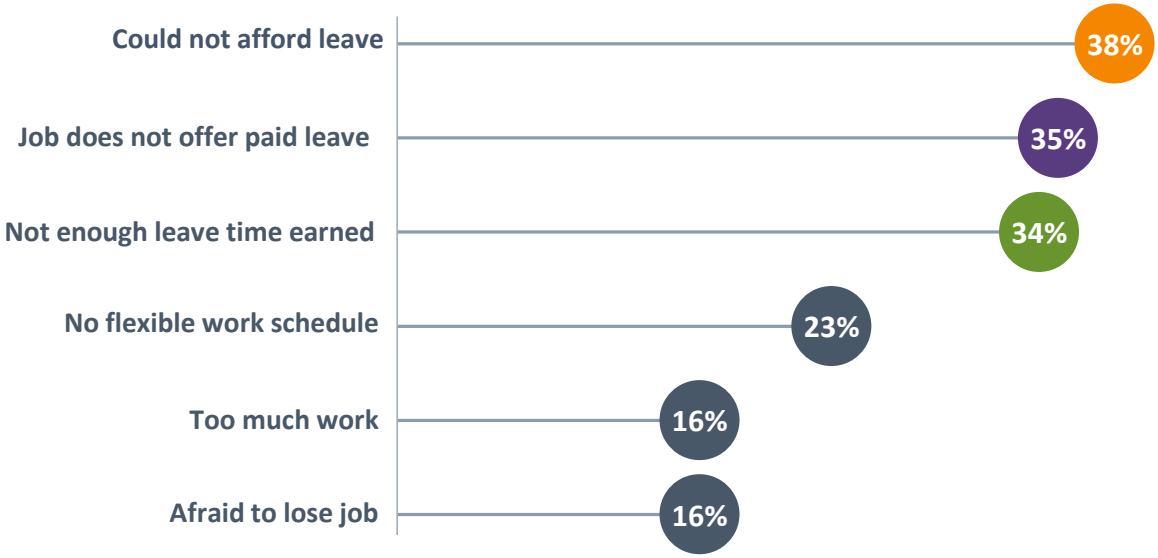
of mothers who worked during their pregnancies had **returned to work or planned to return** at the time they completed the survey*

**PRAMS participants take the survey between 8 weeks and 6 months postpartum.*

Over half of Louisiana mothers reported taking only unpaid maternity leave

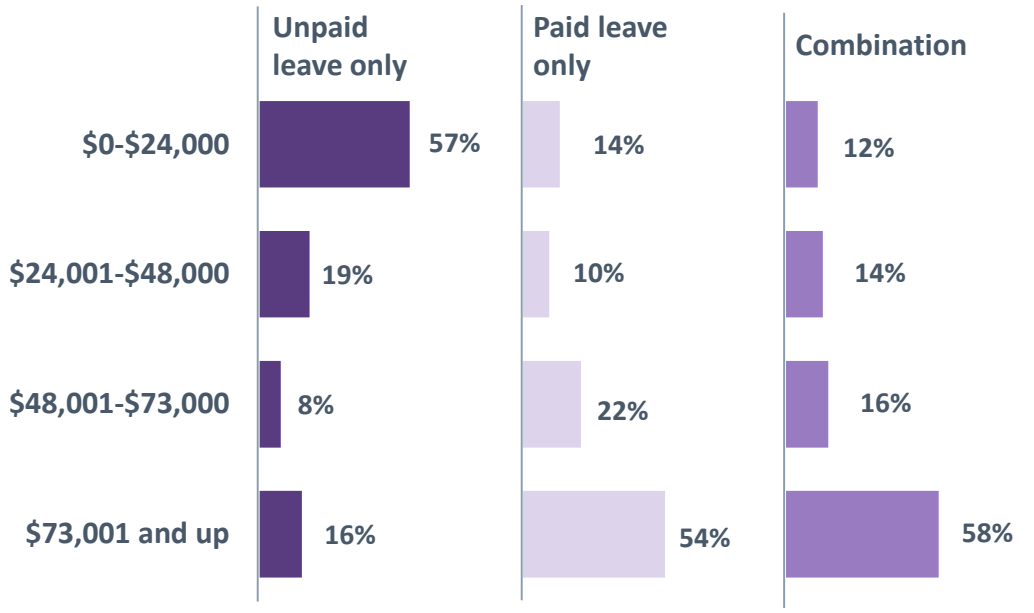
Inability to afford leave, lack of paid leave and insufficient earned leave time were the top factors affecting leave decisions

All factors affecting mothers' leave decision:



Maternity Leave- Part 2

Maternity leave type and household income among women who worked prior to pregnancy

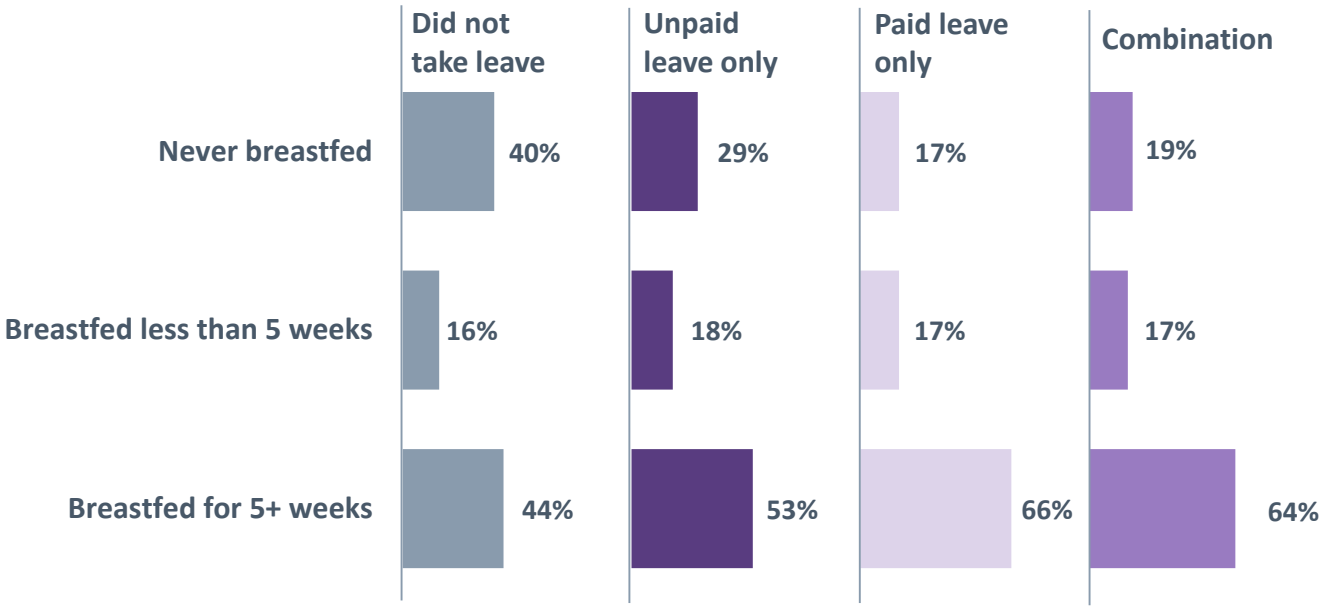


Among mothers who reported taking **only unpaid leave,** most reported an annual household income of **$24,000 or less**.

Among mothers who reported taking a **combination of paid and unpaid leave**, most reported an annual household income of **$73,001 and up.**

Maternity leave type and breastfeeding duration

A greater percentage of mothers reported **never initiating breastfeeding** if they **did not take leave (40%)** or had **only unpaid leave (29%)** from work.



Maternity Leave- Part 3

"The lack of maternity leave options for women in the United States is, in my opinion, a huge problem.

Too often women have to return to work much earlier than they should because our country doesn't place any value in the role of being a mother."

- PRAMS Mom

"I felt that I got wonderful care from the doctors and nurses who took care of me. Also my co-workers (fellow nurses and doctors were supportive). I just hated that I was worried about job security and how soon I should return to work from the company's management team that I work for. Thankfully, I did get short term disability, which was nice.

I just hate that in the United States maternity leave is not paid and there is no job security. I was fortunate that I could take off 10 weeks, but not all women are as lucky as I was. I really hope that this is something that might change. I think fathers should be able to get paid leave to be with their families. Hope some of this helps."

- PRAMS Mom

Public Health Implications

PRAMS responses show that access to maternity leave is an important issue for mothers in Louisiana. Maternity leave is associated with a variety of individual and public health benefits which include prolonged gestation, fewer cesarean deliveries, and decreased infant mortality (March of Dimes Foundation, 2016). Maternity leave gives mothers and babies more time to bond, and longer maternity leave is associated with increased breastfeeding duration, improved child development, and better mental health outcomes for both mothers and babies (March of Dimes Foundation, 2016).

Louisiana PRAMS data show that women's inability to financially afford taking leave was the top factor influencing their leave decisions, and most women who took unpaid leave only had an annual household income of $24,000 or less. In 2017, the federal poverty level for a four-person household was $24,600 (U.S. Department of Health and Human Services, 2017). Lack of paid maternity leave could contribute to worse health outcomes among lower income women and children (compared to those in higher income brackets), thereby perpetuating health disparities among Louisiana families.

PRAMS Moms Say Thank You!

"I think it's great that you are having programs and support to help mothers have healthy pregnancies and babies. Thank you and I appreciate the help! "

"Thanks for choosing me to participate in your survey. I hope my answers help."

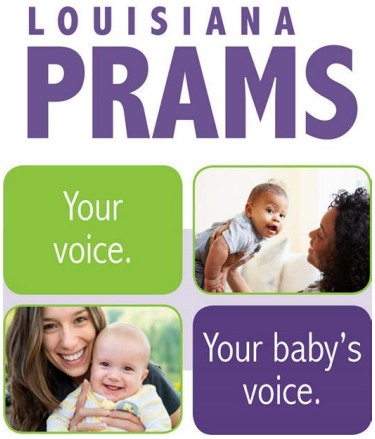
"I enjoyed taking the survey. Thank you for having research projects such as PRAMS."

"There are a lot of things that I wish could have went different, even though I thank God for my amazing son. But motherhood is very difficult and harder than I thought it would be. Thanks for taking out time to ask me these questions."

"Well for the most of everything it's not an easy thing, but it's the best thing that a mother can experience is having a baby. Watching them grow every day is wonderful. But take it one day at a time and don't be afraid to ask for help or anything cause everyone cares for you and the baby you have or giving life to. Congrats to anyone and everyone and never forget love your baby. Thank you for all the support, help and love."

"I'm glad y'all are trying to get the most info to have research to find answers for something that matters."

"Thank you for working to keep babies healthy in Louisiana."



Appendices: Overview

The following appendices include a series of subgroup analyses for select indicators, a guide to key variables used and a summary of 2016 Louisiana PRAMS survey response rates. The key variables used for the subgroup analyses were maternal race, maternal age, maternal education, marital status, Medicaid insurance coverage and infant birth weight. The categories for these variables can be found in Appendix A.

Appendix B includes data trends between 2015-2017 for certain key variables. Selected variables experienced no change in survey question during the transition from Phase 7 to Phase 8 of survey versions. 2015 was the final year of the Phase 7 PRAMS survey.

The various subgroup analyses can be found in Appendix C and include the survey question from which the indicator is derived. Please refer to the footnotes for any additional information about interpretation of the findings. Included analyses are:

- Multivitamin use
- Pregnancy intention
- Preconception use of contraception by couples not trying to get pregnant
- Preconception diabetes diagnosis
- Timing of prenatal care
- HIV testing during pregnancy
- Cigarette and alcohol use three months prior to pregnancy
- Physical abuse before and during pregnancy
- Drug use in the month prior to pregnancy

Finally, the summary of annual response rates can be found in Appendix C. This page includes weighted and unweighted response rates for the strata used during 2016 as well as the total number of respondents and participants sampled by select maternal characteristics.

Appendix A: Key Variables for Subgroup Analyses

Variable	Categories
Maternal Race	Non-Hispanic White
	Non-Hispanic Black
	Hispanic
	Non- Hispanic Other (including: American Indian, Japanese, Filipino, Hawaiian, other non-White, and other Asian)
Maternal Age (in years)	Less than 20 years (<20)
	20 years - 29 years
	30 years and older (30+)
Maternal Education	Less than High School (<HS)
	High School Graduate (HS)
	More than High School (>HS)
Marital Status	Married
	Other (including: never married, living together, separated, widowed and divorced)
Medicaid Insurance Coverage	At Preconception
	For Prenatal Care
Infant Birth Weight	Low Birth Weight (LBW, < 2,500 grams)
	Normal Birth Weight (NBW)

Appendix B: Trends 2015-2017

Health Indicator	2015 % (95% CI)	2016 % (95% CI)	2017 % (95% CI)
Multivitamin Use			
≥4 days/week in month before pregnancy	33.1 (30.1 – 36.2)	32.3 (29.0 – 35.5)	28.9 (25.7 – 32.2)
Pre-pregnancy Weight			
Underweight	4.3 (3.0 – 5.7)	4.5 (3.0 – 6.0)	4.1 (2.6 – 5.6)
Healthy	39.3 (36.1 – 42.5)	38.5 (35.1 – 42.0)	40.5 (37.0 – 44.1)
Overweight	25.3 (22.5 – 28.1)	23.8 (20.9 – 26.8)	25.2 (22.1 – 28.4)
Obese	31.0 (28.1 – 34.0)	33.1 (29.9 – 36.4)	30.1 (26.9 – 33.3)
Substance Use			
Any cigarette smoking during the 3 months before pregnancy	22.7 (20.0 – 25.5)	21.6 (18.8 – 24.5)	24.6 (21.5 – 27.7)
Any cigarette smoking during the last 3 months of pregnancy	12.3 (10.1 – 14.4)	11.0 (8.8 – 13.2)	12.0 (9.6 – 14.4)
Any cigarette smoking postpartum	17.2 (14.7 – 19.6)	16.4 (13.8 – 18.9)	18.8 (16.0 – 21.6)
Any alcohol use during the 3 months before pregnancy	50.3 (47.1 – 53.5)	52.6 (49.3 – 56.2)	53.8 (50.3 – 57.4)
Any alcohol use during the last 3 months of pregnancy	6.5 (4.8 – 8.2)	5.2 (3.6 – 6.7)	5.7 (4.0 – 7.4)
Postpartum Contraception Use			
Used any form of contraception postpartum	74.2 (71.4 – 77.1)	75.3 (72.3 – 78.3)	73.8 (70.7 – 76.9)
Pregnancy Intention			
Intended	51.1 (48.0 – 54.2)	49.5 (46.1 – 52.9)	44.9 (41.4 – 48.4)
Unintended	48.9 (45.8 – 53.0)	50.5 (47.1 – 53.9)	55.1 (51.6 – 58.6)

Trends 2015-2017

Health Indicator	2015 % (95% CI)	2016 % (95% CI)	2017 % (95% CI)
Depression			
Postpartum depressive symptoms	15.3 (13.0 – 17.6)	11.3 (9.2 – 13.4)	15.1 (12.6 – 17.6)
Health Care Services			
Began prenatal care in 1st trimester	77.4 (74.8 – 80.0)	88.3 (86.1 – 90.5)	86.6 (84.2 – 88.9)
Had flu shot before or during pregnancy	47.3 (44.1 – 50.5)	48.5 (45.0 – 51.9)	47.3 (43.8 – 50.9)
Had maternal postpartum checkup	89.3 (87.2 – 91.3)	86.2 (83.8 – 88.6)	84.9 (82.3 – 87.4)
Pre-pregnancy Health Insurance			
Private insurance	50.0 (46.8 – 53.2)	51.4 (48.0 – 54.7)	47.4 (43.9 – 50.9)
Medicaid	24.4 (21.9 – 26.9)	28.2 (25.3 – 31.1)	36.8 (33.6 – 40.1)
No insurance	25.6 (22.7 – 28.5)	20.4 (17.6 – 23.2)	15.8 (13.1 – 18.5)
Health Insurance During Pregnancy			
Private Insurance	45.9 (42.8 – 49.0)	46.1 (42.7 – 49.5)	40.5 (37.0 – 44.0)
Medicaid	52.8 (49.7 – 55.9)	53.4 (50.0 – 56.9)	59.3 (55.8 – 52.8)
No insurance	1.24 (0.5 – 2.0)	**	**
Health Insurance Postpartum			
Private Insurance	46.3 (43.2 – 49.4)	45.9 (42.5 – 49.3)	39.8 (36.3 – 43.2)
Medicaid	39.6 (36.6 – 42.5)	44.4 (41.1 – 47.6)	50.2 (46.8 – 53.6)
No insurance	14.1 (11.8 – 16.4)	9.7 (7.5 – 11.9)	10.1 (7.8 – 12.3)
Infant Sleep Practices			
Baby most often laid on back to sleep	66.2 (63.3 – 69.2)	67.4 (64.2 – 70.6)	67.9 (64.6 – 71.3)
Breastfeeding Practices			
Ever breastfed	65.7 (62.8 – 68.5)	72.9 (70.0 – 75.8)	69.2 (66.0 – 72.3)
Any breastfeeding at 8 weeks	42.8 (39.7 – 45.9)	44.8 (41.5 – 48.2)	44.9 (41.4 – 48.4)

*** Insufficient data to report*

Appendix C: Subgroup Analyses

Multivitamin use at least four times a week during the month prior to pregnancy*, survey question 5

	% Multivitamin	95% CI
Total	28.9	25.7, 32.2
Race/Ethnicity		
Non-Hispanic White	36.8	31.5, 42.1
Non-Hispanic Black	20.5	16.6, 24.4
Other	26.0	6.8, 45.2
Hispanic	19.8	9.0, 30.6
Age		
<20	12.9	4.1, 21.7
20-29	25.5	21.3, 29,7
30+	37.5	31.7, 43.3
Education		
<HS	21.4	13.9, 28.9
HS	17.3	12.6, 22.0
>HS	38.6	33.6, 43.5
Marital Status		
Married	43.6	38.1, 49.1
Other	16.6	13.1, 20.0
Insurance Status		
Medicaid before pregnancy	18.4	14.0, 22.9
Medicaid for prenatal care	17.7	14.1, 21.2
Birth Weight		
LBW	28.3	18.9, 37.7
NBW	29.0	25.5, 32.5

** Denominator is the total sub-analysis group. For example: Among married respondents, 43.6% reported multivitamin use at least four times a week during the month prior to pregnancy.*

Pregnancy intention*, survey questions 12-13

	% Unintended	95% CI	% Trying	95% CI
Total	55.1	51.6, 58.6	44.9	41.4, 48.4
Race/Ethnicity				
Non-Hispanic White	54.5	49.0, 59.9	45.5	49.0, 59.9
Non-Hispanic Black	70.2	65.7, 74.7	28.8	25.3, 34.3
Other	59.0	37.0, 81.1	41.0	18.9, 63.0
Hispanic	45.1	31.8, 58.4	54.9	41.6, 68.2
Age				
<20	86.7	77.2, 96.2	13.3	3.7, 22.8
20-29	54.7	50.0, 59.3	45.3	40.7, 50.0
30+	49.4	43.6, 55.3	50.6	44.7, 56.4
Education				
<HS	59.6	50.7, 68.5	40.4	31.5, 49.3
HS	64.9	59.0, 70.8	35.1	29.2, 41.0
>HS	47.2	42.3, 52.2	52.8	47.8, 57.7
Marital Status				
Married	38.5	33.3, 43.8	61.5	56.2, 66.7
Other	69.1	64.7, 73.4	30.9	26.6, 35.3
Insurance Status				
Medicaid before pregnancy	72.3	67.2, 77.5	27.7	22.5, 32.8
Medicaid for prenatal care	65.5	61.1, 70.0	34.5	30.0, 38.9
Birth Weight				
LBW	63.0	53.0, 73.0	37.0	27.0, 47.0
NBW	54.1	50.4, 57.8	45.9	42.2, 49.6

** Denominator is the total sub-analysis group. For example: Among married respondents, 38.5% reported an unintended pregnancy while 61.5% reported trying to get pregnant.*

Preconception contraception use by couples not trying to get pregnant*, survey question 14

	% Using Contraception at Time of Conception	95% CI
Total	37.2	32.5, 42.0
Race/Ethnicity		
Non-Hispanic White	39.0	30.7, 47.2
Non-Hispanic Black	32.7	27.0, 38.4
Other	41.7	9.3, 74.0
Hispanic	55.5	34.1, 76.9
Age		
<20	37.0	22.2, 51.9
20-29	36.3	30.1, 42.6
30+	39.0	30.6, 47.3
Education		
<HS	38.7	26.9, 50.6
HS	33.3	25.9, 40.7
>HS	40.3	33.0, 47.7
Marital Status		
Married	42.8	33.9, 51.8
Other	34.7	29.2, 40.2
Insurance Status		
Medicaid before pregnancy	31.6	25.2, 38.1
Medicaid for prenatal care	36.1	30.4, 41.8
Birth Weight		
LBW	42.8	30.0, 55.6
NBW	36.4	31.4, 41.5

** Denominator is the total sub-analysis group. For example: Among married respondents, 42.8% reported using contraception at the time of contraception.*

Preconception diabetes diagnosis*, survey question 4

	% Diagnosed with diabetes	95% CI
Total	2.5	1.4, 3.6
Race/Ethnicity		
Non-Hispanic White	2.2	0.6, 3.7
Non-Hispanic Black	3.4	1.6, 5.1
Other	**	**
Hispanic	**	**
Age		
<20	**	**
20-29	2.9	1.3, 4.5
30+	2.3	0.7, 4.0
Education		
<HS	1.9	0.8, 8.3
HS	1.3	0.2, 2.6
>HS	2.7	1.0, 4.3
Marital Status		
Married	2.3	0.7, 3.8
Other	2.7	1.2, 4.2
Insurance Status		
Medicaid before pregnancy	3.9	1.7, 6.2
Medicaid for prenatal care	2.6	1.1, 4.1
Birth Weight		
LBW	**	**
NBW	2.4	1.3, 3.5

** Denominator is the total sub-analysis group. For example: Among married respondents, 2.3% reported being diagnosed with diabetes before pregnancy.*
*** Insufficient data to report*

Prenatal care began during first trimester*, survey question 16

	% Prenatal Care in First Trimester	95% CI
Total	86.6	84.2, 88.9
Race/Ethnicity		
Non-Hispanic White	91.2	88.1, 94.3
Non-Hispanic Black	78.7	74.6, 82.9
Other	90.0	75.8, 100.0
Hispanic	91.1	83.5, 98.7
Age		
<20	73.7	62.3, 85.1
20-29	85.4	82.1, 88.6
30+	91.0	87.7, 94.3
Education		
<HS	72.9	64.9, 80.9
HS	85.0	80.7, 89.3
>HS	91.2	88.4, 94.0
Marital Status		
Married	92.0	89.1, 95.0
Other	81.9	78.4, 85.5
Insurance Status		
Medicaid before pregnancy	80.5	76.2, 84.9
Medicaid for prenatal care	82.1	78.6, 85.6
Birth Weight		
LBW	76.5	68.2, 84.9
NBW	87.8	85.3, 90.2

** Denominator is the total sub-analysis group. For example: Among married respondents, 92.0% reported receiving prenatal care in the first trimester.*

Received prenatal care as early as wanted in pregnancy*, survey question 17

	% Yes	95% CI
Total	86.8	84.4, 89.3
Race/Ethnicity		
Non-Hispanic White	86.4	82.6, 90.1
Non-Hispanic Black	87.3	83.9, 90.6
Other	90.9	78.1, 100.0
Hispanic	85.8	76.5, 95.2
Age		
<20	82.2	71.6, 92.8
20-29	85.5	82.2, 88.9
30+	89.8	86.1, 93.4
Education		
<HS	81.0	73.8, 88.2
HS	85.8	81.4, 90.2
>HS	89.4	86.3, 92.6
Marital Status		
Married	90.1	86.8, 93.4
Other	84.0	80.6, 87.5
Insurance Status		
Medicaid before pregnancy	83.6	79.3, 87.9
Medicaid for prenatal care	82.9	79.3, 86.4
Birth Weight		
LBW	85.5	78.3, 92.6
NBW	87.0	84.4, 89.6

** Denominator is the total sub-analysis group. For example: Among married respondents, 90.1% reported receiving prenatal care as early as they wanted.*

Received a HIV test in the 12 months before pregnancy*, survey question 8

	% HIV Test	95% CI
Total	38.5	34.2, 42.7
Race/Ethnicity		
Non-Hispanic White	25.4	19.7, 31.2
Non-Hispanic Black	60.6	54.1, 67.2
Other	**	**
Hispanic	49.0	28.4, 69.6
Age		
<20	64.6	45.9, 83.4
20-29	41.8	35.9, 47.8
30+	29.9	23.6, 36.2
Education		
<HS	56.6	43.3, 69.8
HS	52.5	43.9, 61.1
>HS	28.0	23.1, 32.9
Marital Status		
Married	23.3	18.1, 28.5
Other	56.3	49.9, 62.8
Insurance Status		
Medicaid before pregnancy	57.2	49.6, 64.8
Medicaid for prenatal care	51.8	45.4, 58.2
Birth Weight		
LBW	50.7	36.6, 64.7
NBW	37.2	32.8, 41.7

Denominator is the total sub-analysis group. For example: Among married respondents, 23.3% reported receiving a HIV test in the year before pregnancy.
*** Insufficient data to report*

Cigarette and alcohol use three months prior to pregnancy*, survey questions 29 & 36

	% Smoked Cigarettes	95% CI	% Drank Alcohol	95% CI
Total	23.7	20.6, 26.8	53.8	50.3, 57.4
Race/Ethnicity				
Non-Hispanic White	31.7	26.6, 36.8	64.7	59.5, 69.9
Non-Hispanic Black	15.7	12.1, 19.3	45.1	40.2, 50.1
Other	30.5	10.4, 50.6	56.5	34.9, 78.2
Hispanic	8.9	1.2, 16.5	26.6	14.7, 38.5
Age				
<20	24.3	12.7, 36.0	32.2	19.3, 45.1
20-29	25.2	21.0, 29.4	51.2	46.5, 56.0
30+	21.3	16.3, 26.2	62.3	56.5, 68.1
Education				
<HS	32.5	23.8, 41.1	25.8	17.8, 33.8
HS	30.3	24.6, 35.9	46.3	40.1, 52.5
>HS	17.3	13.3, 21.2	66.9	62.1, 71.6
Marital Status				
Married	18.1	13.7, 22.4	64.5	59.3, 69.8
Other	28.5	24.3, 32.7	44.7	40.1, 49.4
Insurance Status				
Medicaid before pregnancy	29.8	24.8, 34.9	40.0	34.4, 45.6
Medicaid for prenatal care	28.2	24.0, 32.4	43.1	38.5, 47.8
Birth Weight				
LBW	26.0	16.6, 35.3	48.0	37.4, 58.5
NBW	23.5	20.2, 26.7	54.5	50.8, 58.3

Denominator is the total sub-analysis group. For example: Among married respondents, 18.1% reported smoking cigarettes and 64.5% reported drinking three months prior to pregnancy.

Abused in 12 months before pregnancy, during most recent pregnancy*, survey questions 40-41

	% Abused Before	95% CI	% Abused During	95% CI
Total	4.0	2.6, 5.4	3.9	2.5, 5.3
Race/Ethnicity				
Non-Hispanic White	3.4	1.4, 5.3	3.7	1.6, 5.7
Non-Hispanic Black	4.5	2.4, 6.6	3.5	1.6, 5.3
Other	**	**	**	**
Hispanic	**	**	**	**
Age				
<20	7.9	0.9, 14.8	10.1	2.0, 18.1
20-29	4.7	2.7, 6.7	4.8	2.8, 6.9
30+	2.1	0.4, 3.9	**	**
Education				
<HS	9.2	3.8, 14.5	6.1	1.6, 10.6
HS	4.1	1.7, 6.6	4.5	2.0, 7.1
>HS	2.2	0.7, 3.6	2.7	1.0, 4.4
Marital Status				
Married	1.4	0.1, 2.7	**	**
Other	6.2	3.9, 8.5	6.4	4.0, 8.8
Insurance Status				
Medicaid before pregnancy	8.5	5.2, 11.7	7.2	4.1, 10.2
Medicaid for prenatal care	5.4	3.3, 7.6	4.7	2.7, 6.8
Birth Weight				
LBW	6.7	1.3, 12.2	5.0	0.5, 9.5
NBW	3.7	2.2, 5.1	3.8	2.3, 5.3

** Denominator is the total sub-analysis group. For example: Among married respondents, 1.4% reported abuse in the 12 months before pregnancy.*
*** Insufficient data to report*

Drug use in month before pregnancy*, survey question 68

	% Over-the-counter drug use	95% CI	% Non over-the-counter drug use	95% CI
Total	63.3	59.9, 66.6	17.1	14.4, 19.8
Race/Ethnicity				
Non-Hispanic White	73.9	69.1, 78.7	21.2	16.7, 25.6
Non-Hispanic Black	55.1	50.2, 59.9	13.9	10.5, 17.2
Other	56.6	34.9, 78.3	**	**
Hispanic	39.0	25.9, 52.1	8.9	1.2, 16.5
Age				
<20	46.0	32.5, 59.6	23.2	11.6, 34.7
20-29	66.2	61.9, 70.6	18.7	15.0, 22.5
30+	61.9	56.2, 67.7	13.3	9.2, 17.3
Education				
<HS	56.4	47.6, 65.3	14.7	8.1, 21.2
HS	59.2	53.3, 65.2	20.8	15.8, 25.9
>HS	68.0	63.3, 72.7	15.9	12.1, 19.6
Marital Status				
Married	70.2	65.2, 75.2	12.3	8.7, 16.0
Other	57.4	52.8, 62.0	21.1	17.3, 25.0
Insurance Status				
Medicaid before pregnancy	59.9	54.5, 65.3	21.2	16.5, 25.9
Medicaid for prenatal care	59.7	55.3, 64.2	19.3	15.6, 23.0
Birth Weight				
LBW	66.5	57.2, 75.9	21.9	13.2, 30.6
NBW	62.9	59.2, 66.5	16.5	13.7, 19.4

** Denominator is the total sub-analysis group. For example: Among married respondents, 70.2% reported over-the-counter drug use and 12.3% reported non over-the-counter drug use in the month before pregnancy.*
*** Insufficient data to report*

Appendix C: Response Rates

Stratum	% Responding (Unweighted)	% Responding (Weighted)
Black	64.4	64.4
Non-Black	66.9	66.9
Healthy Start	88.4	88.4

Characteristic	# Sampled	Respondents	% Response (Unweighted)	% Response (Weighted)
Overall	1,332	894	67.1	66.0
Race/Ethnicity				
Non-Hispanic White	516	350	67.8	66.6
Non-Hispanic Black	690	457	66.2	64.5
Other	42	28	66.7	65.7
Hispanic	84	59	70.2	69.7
Hispanic Ethnicity				
Hispanic	84	59	70.2	69.7
Non-Hispanic	1,248	835	66.9	65.7
Age				
<20	110	67	60.9	61.3
20-29	780	502	64.4	63.3
30+	442	325	73.5	71.5
Education				
<HS	224	142	63.4	62.4
HS	463	306	66.1	65.5
>HS	630	436	69.2	67.5
Marital Status				
Married	506	349	69.0	68.5
Other	826	545	66.0	64.0
Previous Births				
No Prev. Live Births	473	309	65.3	65.4
1+ Prev. Live Births	859	585	68.1	66.4