LOUISIANA DEPARTMENT OF HEALTH

LOUISIANA PRAMS
Your voice. Your baby's voice.

LOUISIANA PRAMS SURVEILLANCE REPORT 2014

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 2014 Louisiana PRAMS Surveillance Report, a compilation of Louisiana PRAMS results for selected indicators, highlights data for births occurring in 2014.

In 2014, there were 62,469 live births that satisfied the Louisiana PRAMS inclusion criteria, of which 2,833 were sampled. Of this sample, there were 1,673 respondents, resulting in a 58% overall weighted response rate. The Louisiana PRAMS 2014 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 DP6227-02 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, Principal Investigator

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

Megan O'Connor, M.P.H.: Louisiana PRAMS Coordinator (2014-2016)

U. Vance: Louisiana PRAMS Data Manager

Shirley Washington: Louisiana PRAMS Program Assistant

Ana Dal Corso: Louisiana PRAMS Program Assistant

Sumrita Bindra, M.P.H.: PRAMS Epidemiologist

Jane Herwehe, M.P.H.: Data Action Team Supervisor

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

Technical Support

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

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Louisiana Vital Records and Statistics

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

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Executive Summary

Louisiana PRAMS Background

The goal of the Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS) is to reduce infant 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 polices.

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 DP6227-02. 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

Each year Louisiana PRAMS samples about 4% of the average 64,000 births in Louisiana. Each month a stratified random sample of approximately 200 live births are selected. In 2014, 2,833 mothers were sampled and 1,673 responded. Key findings for frequently requested data are highlighted below.

Family Planning:

- 56% of mothers in Louisiana did not intend to become pregnant or were unsure if they wanted to become pregnant. 60% 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 didn't mind if I got pregnant (32%), I thought I couldn't get pregnant (26%) and my husband/partner didn't want to use anything (12%).

Prenatal Care:

- 80% of mothers reported they received prenatal care during the first trimester. 19% 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 having a Medicaid or LaMoms card (42%), not having money or insurance to pay (42%) and not knowing they were pregnant (30%).

Prenatal Risk Factors:

- 13% of women reported that they smoked cigarettes during the last three months of pregnancy. 19% of women reported that they were currently smoking cigarettes at the time of the survey.
- 7% of women reported they consumed at least one alcoholic drink during the last three months of pregnancy.

Breastfeeding and Infant Care:

- 66% of women breastfed or fed pumped milk to their new baby at least once. 41% of women who initiated breastfeeding were still breastfeeding at the time of the survey.
- 66% of women reported that their new baby is put to sleep most often on his/her back.

More information on maternal and child health topics that are vital to informed policy and decision-making, and central to the health education of providers and the public can be found within this report.

Methodology

Sampling and Data Collection

Women are selected to participate in PRAMS from Louisiana's Vital Records birth certificate data files. To participate in Louisiana PRAMS, mothers must be Louisiana residents who gave birth to a live born infant in Louisiana. Each month a stratified random sample of approximately 200 live births are selected. In 2014, the strata used in sampling were birth weight, race and geographic area in the following arrangement:

Orleans Parish [County], African American
Other, African American, Low Birth Weight (<2500 grams)
Other, African American, Normal Birth Weight (>2500 grams)
Other, Non-African American, Low Birth Weight (<2500 grams)
Other, Non-African American, Normal Birth Weight (>2500 grams)

African American mothers in Orleans Parish were oversampled, beginning in 2012, as part of Louisiana's participation in the W.K. Kellogg Foundation's partnership with CDC PRAMS.

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 unsuccessful mail contact attempts. The day after the sample is selected, an introductory letter is mailed followed by the initial questionnaire packet within 7 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 for 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 and a third and final questionnaire is mailed approximately two weeks after the second questionnaire. Telephone follow up is utilized 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 of 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.

Data Analysis and Dissemination

Each year, a state data analysis plan is developed by Louisiana PRAMS. 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 concerns of the Louisiana PRAMS Steering Committee, which is comprised of internal BFH staff and external stakeholders who have an interest in maternal and child health and using Louisiana PRAMS data. This plan is ultimately approved jointly 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 to action factsheets. This Louisiana PRAMS Surveillance Report is the project's annual publication and presents the results of data collection for the most-recently available year of data.

Louisiana PRAMS Response Rates

It is important to remember that while Louisiana PRAMS samples potential respondents and data are weighted to be reflective of all Louisiana moms delivering a live-born singleton, twin or triplet in Louisiana, the CDC recommends a response rate of at least 60% for data to be considered representative of the population. Louisiana's 2014 weighted response rate was 58%. Because Louisiana did not meet the recommended minimum threshold, data should be interpreted with caution. It is recommended that data be used as a guideline for program activities, understanding that the data represent estimates of population behavior and experiences.

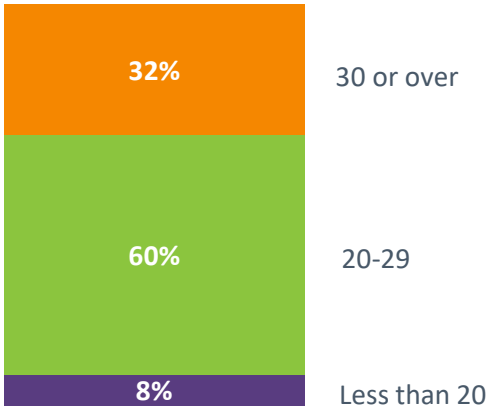
Maternal Characteristics

Louisiana differs from many U.S. states in its demographic and socioeconomic profile. In 2014, 37% of all Louisiana resident births were to non-Hispanic black mothers, compared with 15% nationally. 48% of births were to moms with a high school degree or lower, compared with 38% nationally. 49% of PRAMS respondents were married women 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.

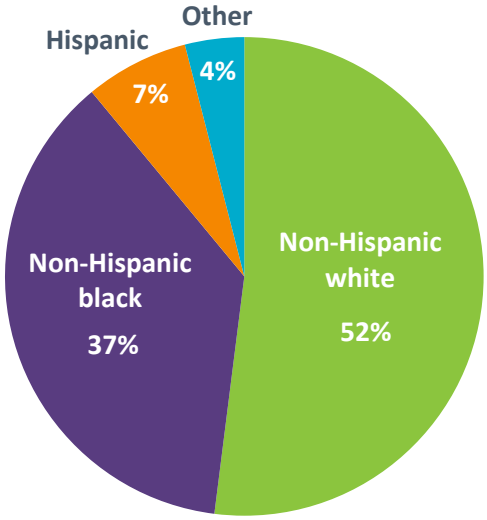
About half (51%) of women were WIC participants

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides federal grants to states for supplemental foods and healthcare referrals, for low-income pregnant and postpartum women, and to infants and children up to age five found to be at nutritional risk.

Most Louisiana mothers were in their 20s



The majority of Louisiana mothers were non-Hispanic white or non-Hispanic black



52%

of mothers in Louisiana had more than a high school education

29% were high school graduates/GED

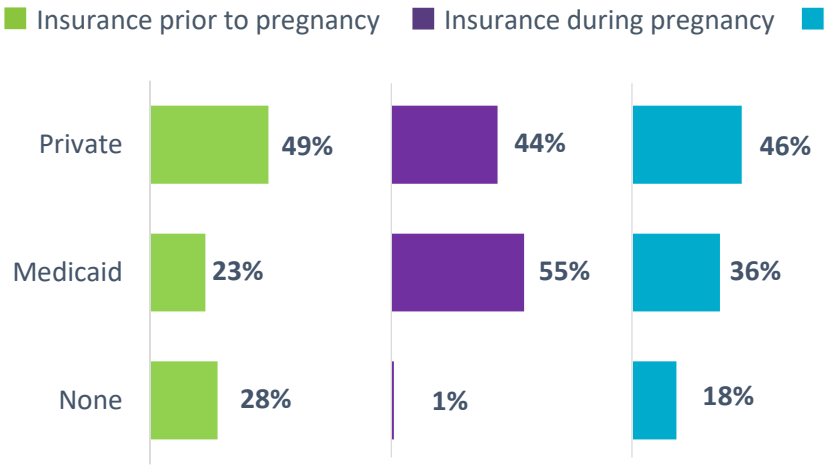
19% had less than a high school education

Insurance

Adequate insurance coverage is essential to 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. In 2014, Medicaid provided prenatal coverage for 55% of Louisiana women, compared to 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

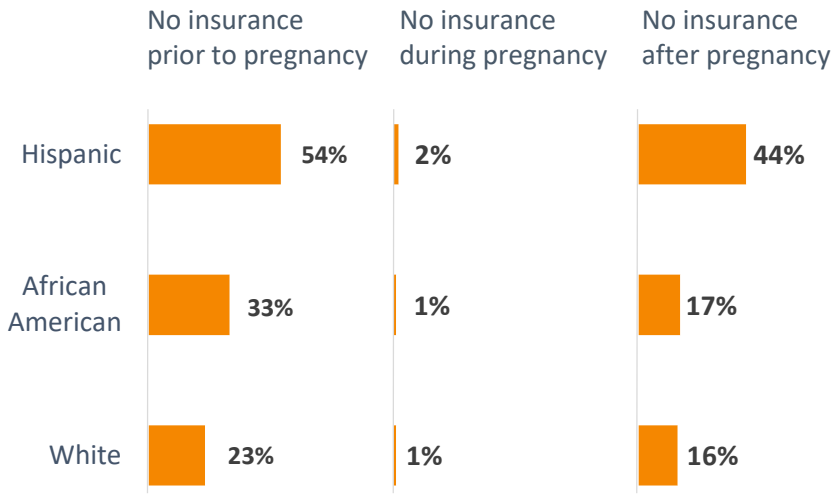


"The only reason I had to wait until 19 weeks for prenatal care was Medicaid took 9 weeks to approve my application. I would have started prenatal care sooner."

- PRAMS Mom

Racial disparities* among uninsured populations

**Denominator is the racial group*



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

During pregnancy, close to 65% of Hispanic women were covered through Medicaid, but **44% of Hispanic women no longer qualified after giving birth**, making them the **highest uninsured group after pregnancy**.

Public Health Implications

While Medicaid covered over half of Louisiana births prenatally, substantially fewer mothers had postpartum insurance coverage. Additionally, there is a large racial disparity in insurance coverage. More white women have insurance coverage both prior to and after pregnancy compared to women of other races and 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 Risk Factors & Outcomes

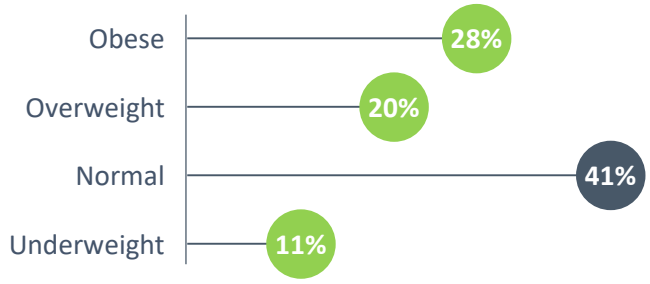
Adverse birth outcomes in Louisiana are linked to poor maternal health status at conception. Poor preconception health, pre-pregnancy weight, pre-pregnancy conditions (including diabetes and hypertension), and lack of interconception care are key drivers of low birth weight in infants, preterm births and infant mortality, particularly for women who have had prior adverse birth outcomes. According to AmericasHealthRankings.org, Louisiana ranks 45th in the nation for diabetes and 50th for obesity.

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%**
- Current Louisiana status: **25.1%**

Prior to pregnancy, the majority of women 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

10% had depression

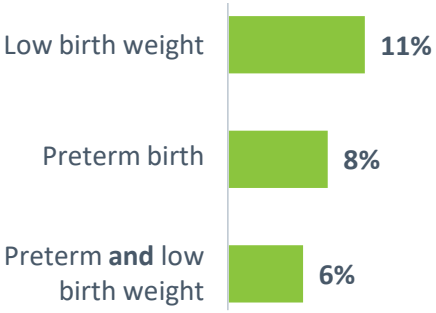
7% had high blood pressure

3% had diabetes

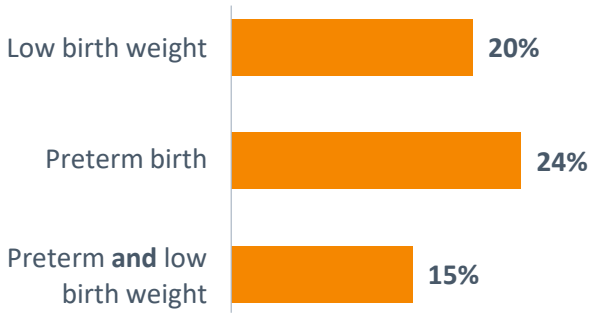
Previous adverse birth outcomes, such as preterm and low birth weight, can be risk factors for future adverse birth outcomes.

Of those mothers who had previously given birth, **75% had normal weight, full-term births.**

25% of mothers who had previously given birth experienced some kind of adverse birth outcome for **that prior pregnancy.**



Of those 25% of mothers who had previously given birth, **59%** experienced some kind of adverse birth outcome for **this latest pregnancy.****



***Calculated from birth certificate records*

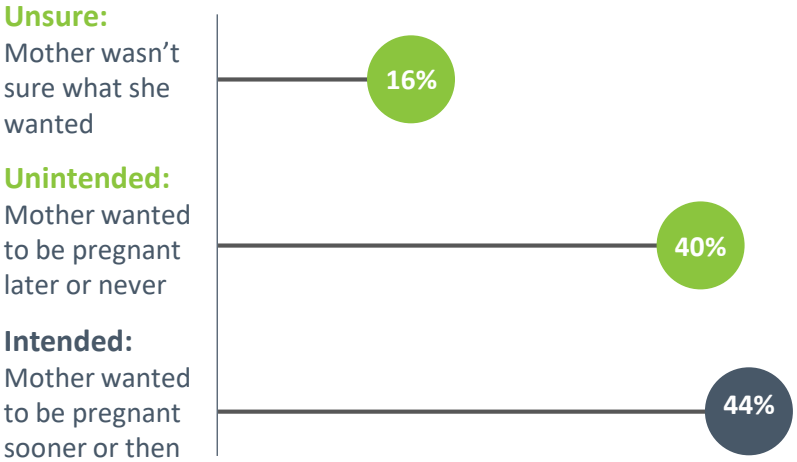
Public Health Implications

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. Furthermore, because nearly half of pregnancies in Louisiana are unplanned (Louisiana PRAMS, 2014), health and wellness programming should not necessarily be guided by pregnancy intention.

Family Planning: Prior to Pregnancy

56% of mothers in Louisiana did not intend to become pregnant or were unsure if they wanted to become pregnant (Louisiana PRAMS, 2014). 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). 60% of women with unintended pregnancies were not using any form of contraception when they became pregnant (Louisiana PRAMS, 2014). Providing contraception and counseling around family planning improves maternal and infant health outcomes by helping people space their births and achieve their desired family size.

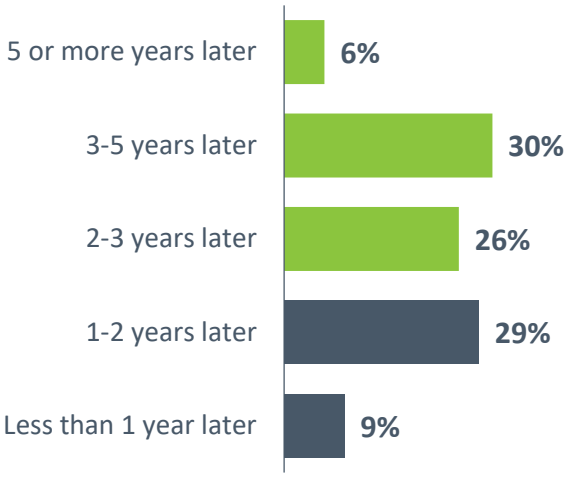
Less than half of mothers intended to become pregnant



"My pregnancy was totally unexpected. My fiancé and I had been trying to get pregnant for 3 years with no success. We decided to take a break; 3 months later I was pregnant. I did have problems in the past, that made me think that I couldn't get pregnant."

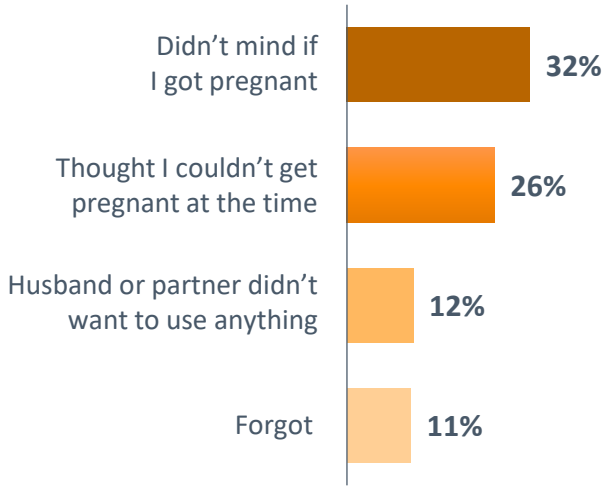
- PRAMS Mom

Nearly two thirds of mothers reported wanting a pregnancy 2 or more years later*



**Among women that reported wanting to be pregnant later*

Mothers' top reasons* for not using contraception



**Participants checked all that apply*

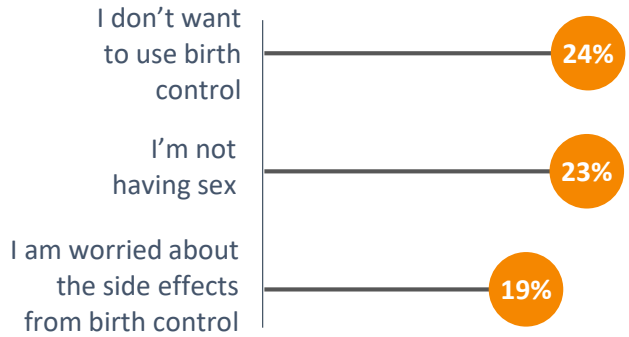
Family Planning: Postpartum

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%**
- Current Louisiana status: **79.6%**

8 out of 10 moms use contraception

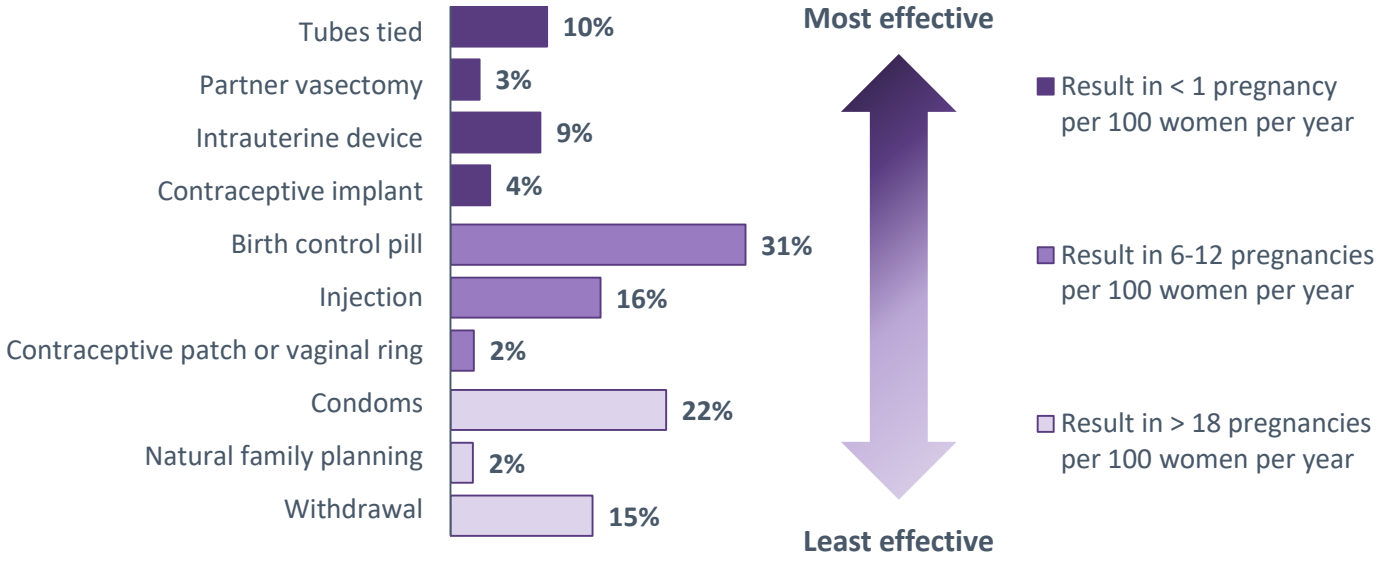
Top three reasons* reported for not using postpartum contraception



**Participants checked all that apply*

Many mothers reported using the least effective methods* of contraception postpartum

**Participants checked all that apply*



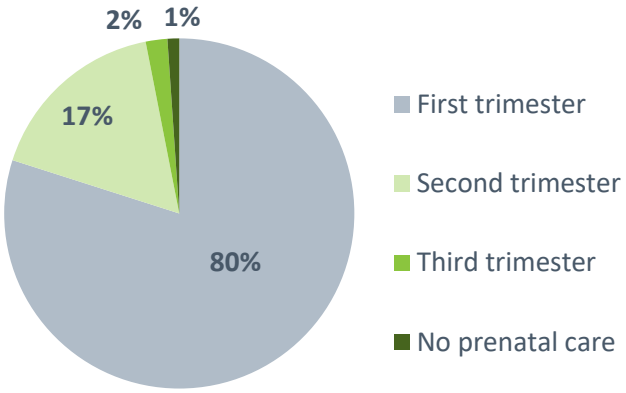
Public Health Implications

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 in the previous page, two top barriers prior to pregnancy include women's belief that they could not get pregnant, as well as their partners' unwillingness to use contraception. This could potentially be addressed through health education, regular reproductive healthcare, and efforts to build better communication and contraception negotiation skills between women and their male partners.

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.

One in five Louisiana mothers do not receive prenatal care in the first trimester

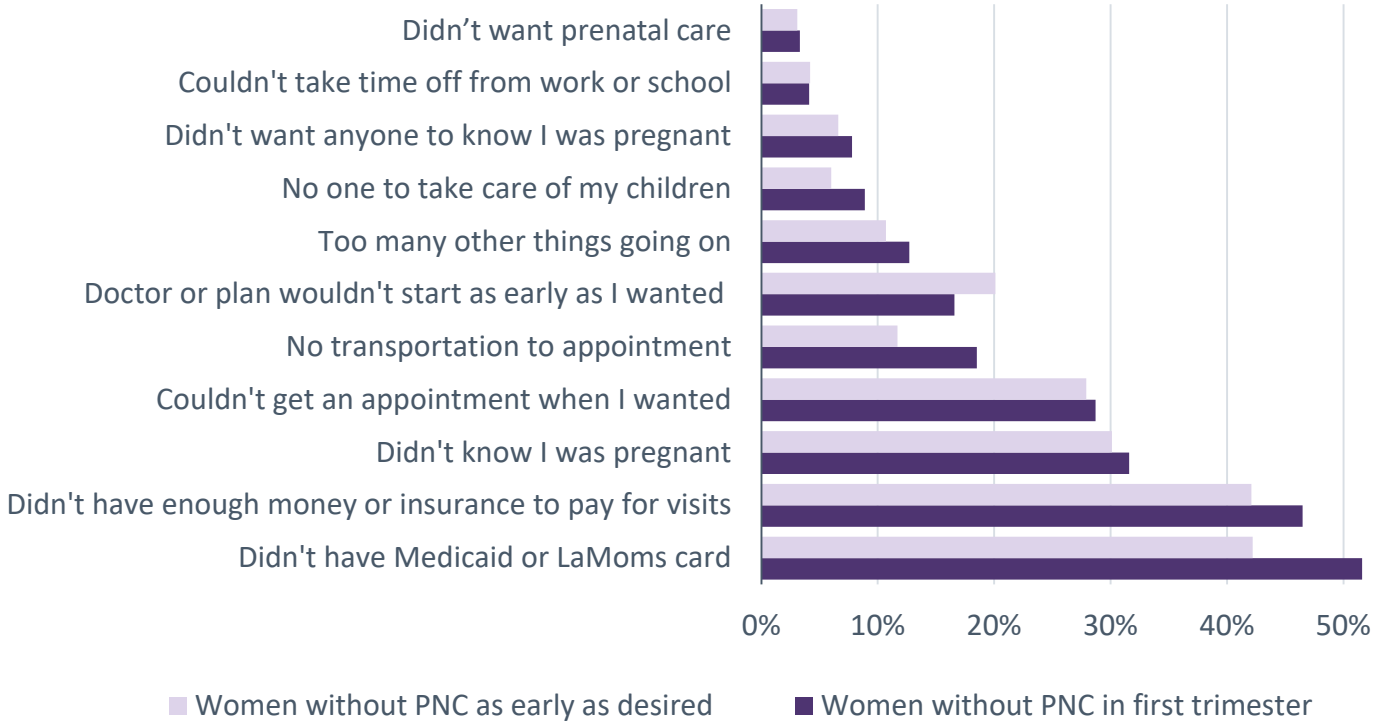


"I had to wait 1 month and a week to get my 1st prenatal appointment."

- PRAMS Mom

All reported barriers to early prenatal care:

Lack of health insurance frequently prevented women from getting early prenatal care (PNC)



Prenatal Care – Part 2

1 in 5 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.

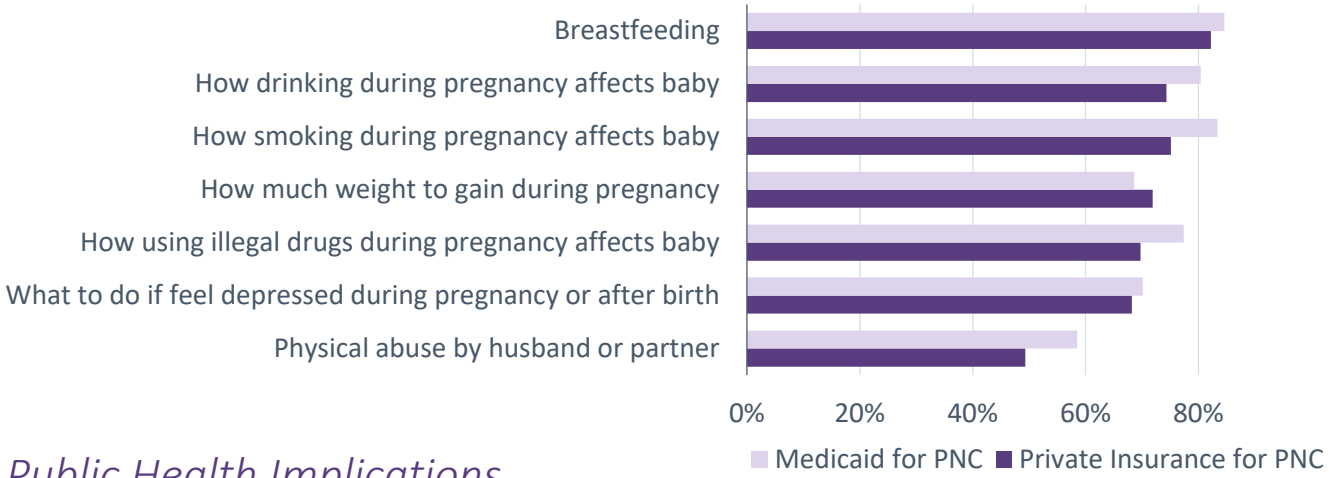
*Less than adequate prenatal care includes "inadequate" and "intermediate" responses.

5 out of 6 mothers received an HIV Test during pregnancy

"I love information and I love being informed on anything I can do to make my pregnancy as safe and healthy as possible. But my doctor's office just wasn't understanding me. I actually had a nurse tell me to 'google it yourself.'"

- PRAMS Mom

Louisiana mothers with Medicaid reported discussing various topics with a doctor during prenatal care more often than mothers with private insurance



Public Health Implications

Ensuring that all Louisiana women have access to early and regular prenatal care can help women have healthier pregnancies and better birth outcomes. Qualitative Louisiana PRAMS responses indicate that pregnant women would like to receive more health advice directly from their physicians. Increased dialogue between patients and providers during prenatal care visits provides an opportunity to help ensure the health and safety of women and their babies during and after pregnancy.

Prenatal Risk Factors: Risk Behaviors

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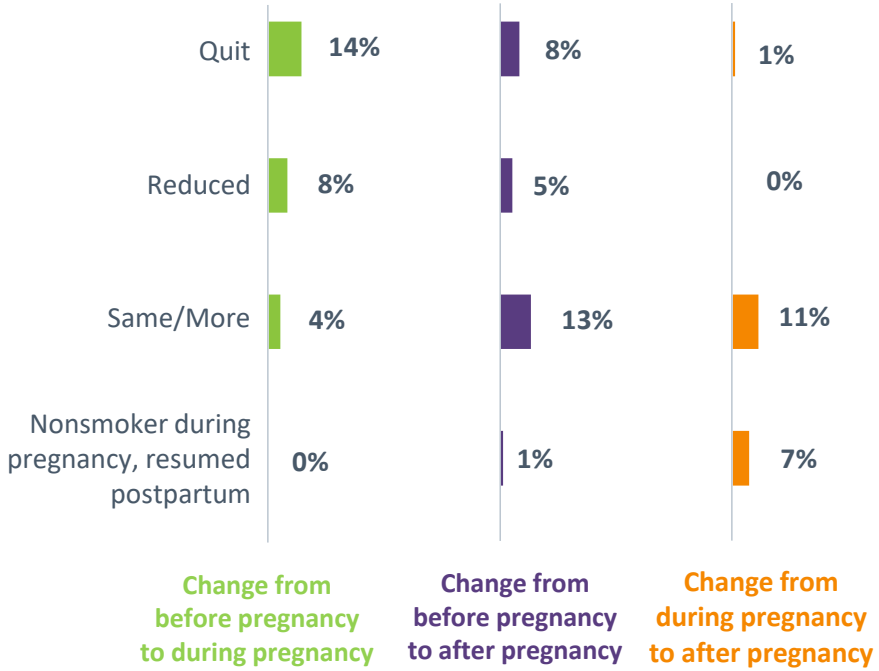
A variety of factors can put a woman and her baby at risk for health complications during pregnancy. Prenatal risk factors vary from existing maternal health conditions to environmental exposures and risk behaviors such as using tobacco and alcohol during pregnancy.

NATIONAL HEALTH GOALS

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

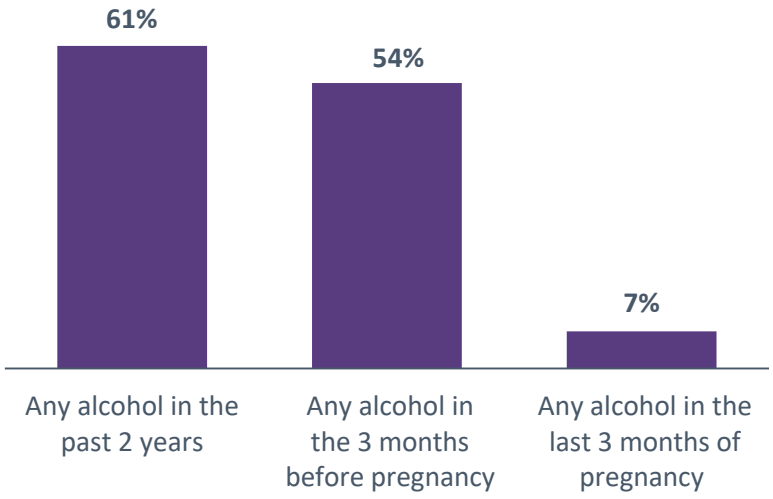
- Healthy People 2020 target: **98.6%**
- Current Louisiana status: **87.5%**

Change in Cigarette Smoking Behavior



- **14% of women** who smoked in the 3 months before pregnancy **quit during their pregnancy.**
- **4% of women** who smoked prior to their pregnancy **continued to smoke throughout their pregnancy.**
- **7% of women** who quit during their pregnancy **resumed smoking after giving birth.**
- **13% of women** who smoked in the three months before pregnancy **currently smoke the same number or more of cigarettes.**

Maternal alcohol use before & during pregnancy



"I used to smoke before my pregnancy. It was documented in my chart. I was never asked if I smoked during my pregnancy even though I had quit the day I had a positive pregnancy test."

- PRAMS Mom

Prenatal Risk Factors: Oral Health

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NATIONAL RECOMMENDATIONS

- The American Dental Association recommends that **all** pregnant women see a dentist or dental hygienist for a cleaning while pregnant.
- In Louisiana, **only 33.8%** of women visited a dentist or dental hygienist to have their teeth cleaned while pregnant.

38% of women reported that a dental or healthcare worker talked with them about how to care for their teeth and gums during their pregnancies.

According to the American Dental Association, **maternal oral hygiene during the perinatal period** helps to decrease oral bacteria transmitted to the infant which may have a **positive effect on cardiovascular disease, diabetes and other chronic conditions**. Discussions with providers can be a useful method of assessing a woman and infant's risk for these conditions.

"I wish Louisiana had a free dental program for mothers (as they had WIC). Although I had dental insurance with my private insurance, I had a high risk pregnancy and the co-pays were so expensive, I could not afford to see a dentist."

- PRAMS Mom

Over half (63%) of pregnant women who had a dental problem did not see a dentist

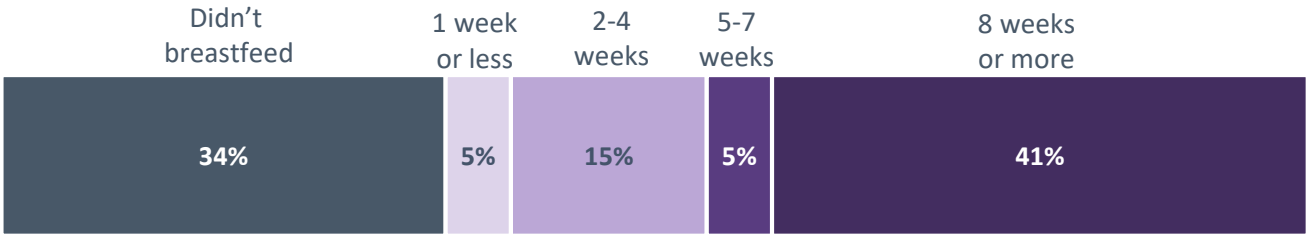
Public Health Implications

Louisiana PRAMS data illustrate the severity and frequency of prenatal risk factors experienced by women in the state. Poor oral health can lead to various dental diseases and infections which can result in adverse birth outcomes (American Dental Association, 2016). 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). The Bureau of Family Health will continue to investigate the intersection and compounding effects of prenatal risk factors on health in an effort to develop and support initiatives to improve the health of women and families across the life course.

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 having asthma or 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.

Most women who started breastfeeding continued for 8 weeks or more



Most commonly cited reasons for not breastfeeding

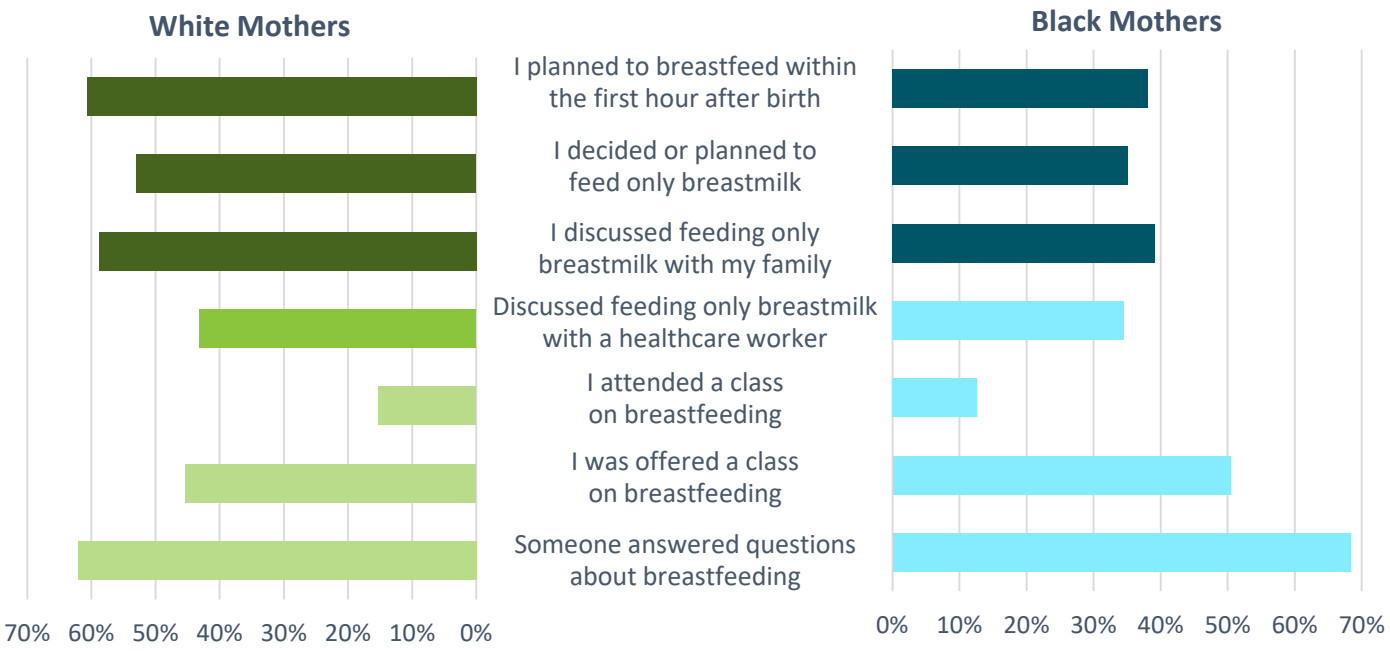
1.	**I didn't want to**	**42%**
2.	I didn't like breastfeeding	17%
3.	I had other children to take care of	14%
4.	I was sick or on medicine	12%

66%

of mothers in Louisiana initiated breastfeeding

Below national average of 76%

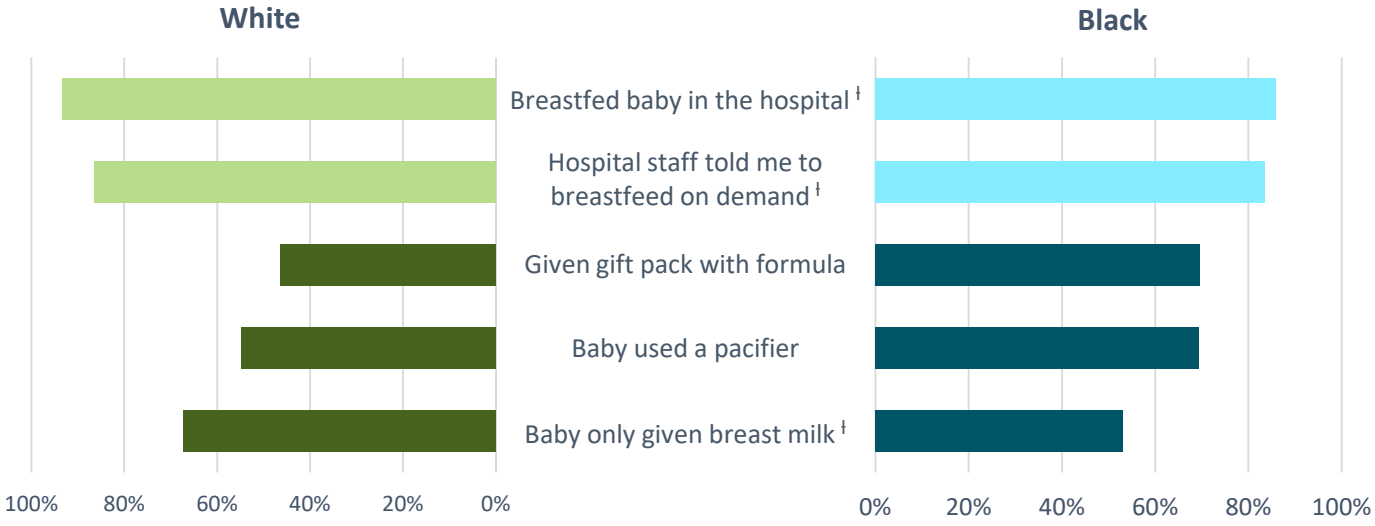
Racial disparities* in breastfeeding readiness and preparation activities prior to birth



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

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: a closer look

69% of black babies used a pacifier in the hospital in comparison to **55% of white babies.**

79% of black moms were given a gift pack containing formula at the hospital in comparison to **47% of white moms**.

"Breastfeeding Communities/Groups would have made breastfeeding easier. I stopped breastfeeding after 5 weeks because the stress of returning to work so soon affected my milk supply … if more time off was given to new moms, there may be more mothers who would breastfeed their babies for a longer period of time."

- PRAMS Mom

"I consider breastfeeding to be the most important factor in infant health. In Louisiana it seems breastfeeding is generally unsupported. This issue is more social than anything."

- PRAMS Mom

Public Health Implications

Louisiana's breastfeeding initiation rate falls short of the Healthy People 2020 goal of 75%. Evidence shows that maternity care practices in the hospital can be a predictor of breastfeeding initiation (www.tensteps.org/). It is important to teach hospital staff that giving infants formula and pacifiers are practices that negatively affect a mother's level of preparation for breastfeeding, overall breastfeeding rates, and infants' health (Baby Friendly Hospital Initiative, 2016). Increased lactation support throughout the postpartum period, promotion of breastfeeding-friendly work environments and expanded maternity leave policies are other important ways to help women in their efforts to start and continue breastfeeding.

Infant Sleep Environment

In 2014, 94 infants in Louisiana died suddenly and unexpectedly. In Louisiana, 44% of these deaths were attributable to accidental suffocation or strangulation in the sleep environment and 49% were attributable to SIDS (Sudden Infant Death Syndrome) (Louisiana Child Death Review, 2014). Deaths caused by Accidental Suffocation and Strangulation in Bed, SIDS, or other unexplained causes are included in a category called SUID (Sudden Unexpected Infant Death).

- In 2014, the national SUID rate was **87.0** per 100,000 live births (National Child Death Review, 2014)
- In 2014, the SUID rate in Louisiana was **146.8** per 100,000 live births (Louisiana Child Death Review, 2014)

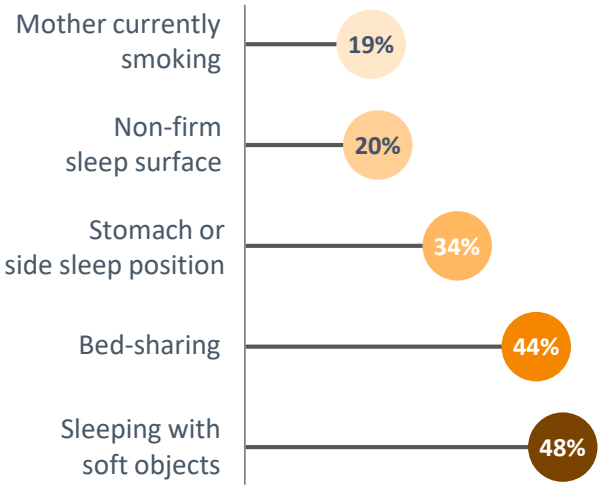
44%

Almost half of Louisiana mothers said they sometimes, often or always bed-share

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

Safe Sleep Risk Factors*

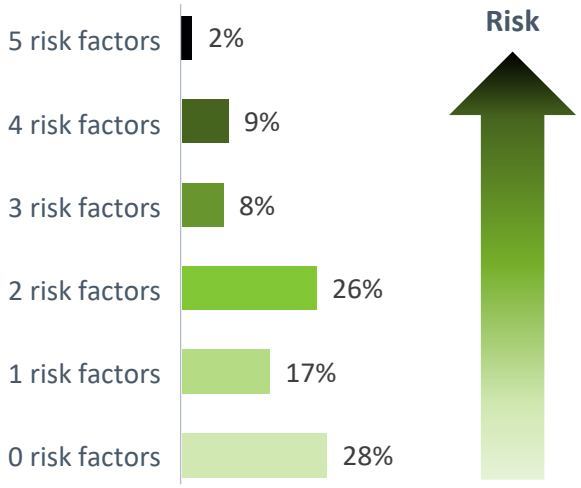
Nearly half of mothers reported that their **babies sleep with soft objects**



**Mothers reported how infants most often sleep in the past two weeks.*

Infant Risk Exposure

1 in 5 babies in Louisiana were **exposed to 3 or more risk factors*** for unexpected infant death.



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

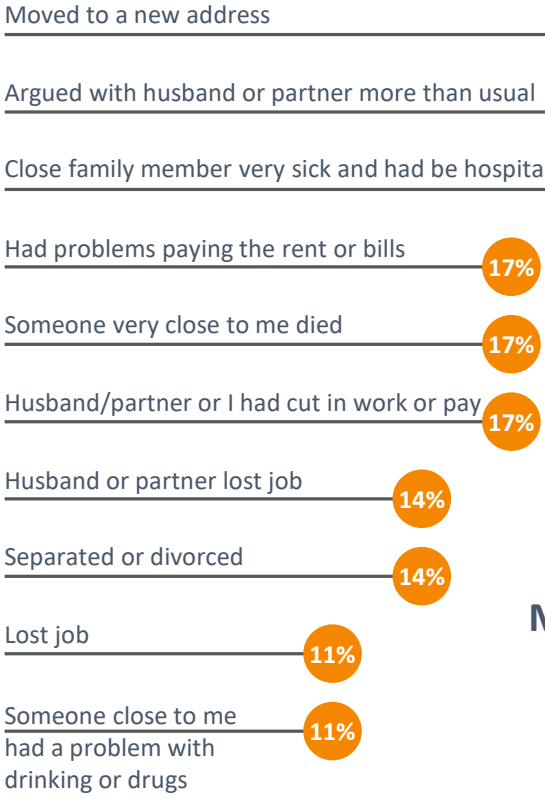
Public Health Implications

Louisiana 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 barriers that prevent Louisiana families from practicing safe 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.

Maternal Stressors

Prenatal maternal stress can be caused by both chronic and acute 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, as well as increase the infant's risk for cardiovascular disease and metabolic syndrome. 76% of Louisiana mothers reported experiencing at least one stressor during their pregnancy.

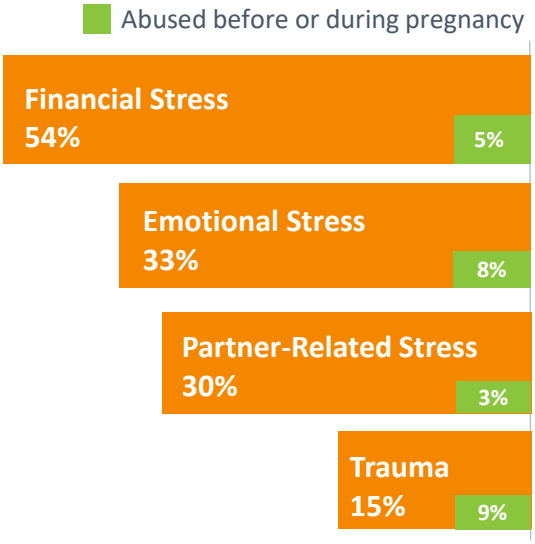
Top 10 stressors reported by Louisiana mothers



"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

Mothers' experience of stressors and abuse*



**Abuse is defined as mothers who report experiencing physical abuse from a husband/partner.*

Many mothers experience **stress**. Some also experience **abuse**. The American Congress of Obstetricians and Gynecologists (ACOG) recommends that physicians screen all patients for intimate partner violence, as well as encourage patients to manage stress in a healthy manner.

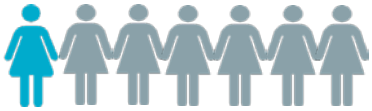
Public Health Implications

Prenatal maternal stress is an important consideration when looking at the overall health of both mothers and babies. According to ACOG, the experience of stress and/or abuse during pregnancy has a negative influence on birth outcomes. By understanding that emotional health can affect fetal development, physicians can expand the treatment and care they provide to address stress and anxiety that can contribute to negative birth outcomes, and improve quality of life for women.

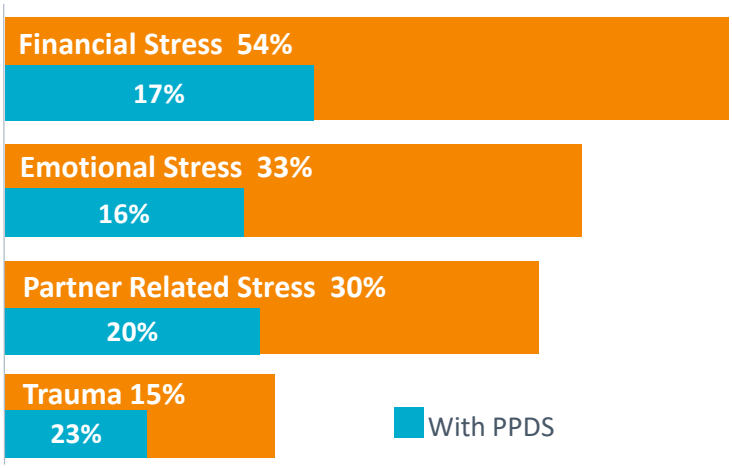
Postpartum Depressive Symptoms

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 depressive symptoms is a Healthy People 2020 goal.

About 1 in 7 Louisiana moms experience PPDS



Mothers' experience of stressors and Postpartum Depressive Symptoms

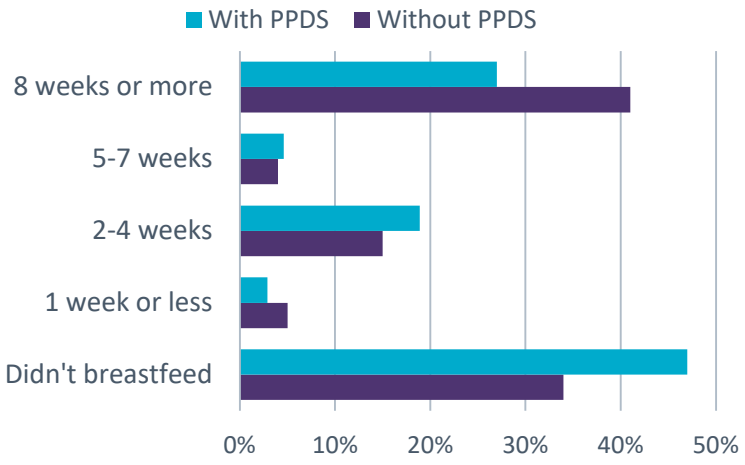


- **52% of women who experienced postpartum depressive symptoms spoke with a healthcare worker** about postpartum depression during a prenatal care appointment.
- **63% of all women spoke with a healthcare worker during or after their pregnancy** about postpartum depression or "baby blues".

"I'm a mother who is still coping with postpartum depression … I think women should be more educated about postpartum. It is a serious matter and a lot of women have it and don't realize it and often don't get treated."

- PRAMS Mom

Average breastfeeding duration was shorter for women with Postpartum Depressive Symptoms



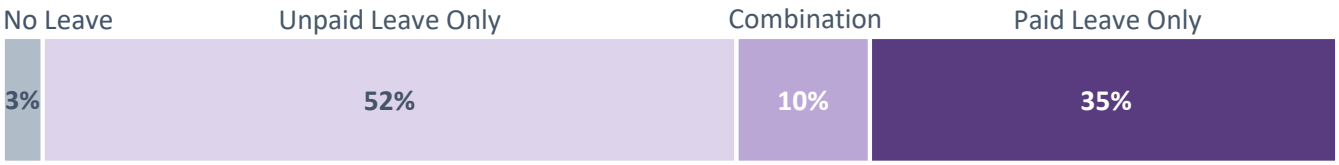
Public Health Implications

PPDS and anxiety may affect rates of breastfeeding and may also reduce breastfeeding duration. Approximately 14% of Louisiana moms reported experiencing postpartum depressive symptoms. Of these women, 38% never breastfed. Increasing public health education and patient-provider dialogue about PPD/PPDS resources and decreasing stigma around PPD/ PPDS are important steps needed to improve mothers' mental health in Louisiana.

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.

About half of Louisiana mothers only took unpaid maternity leave



- **62% of Louisiana mothers worked** during their pregnancy.
- **70%** of women who worked during their pregnancies had **returned to work or planned to return to work** at the time they completed the survey (infant age 2-6 months).

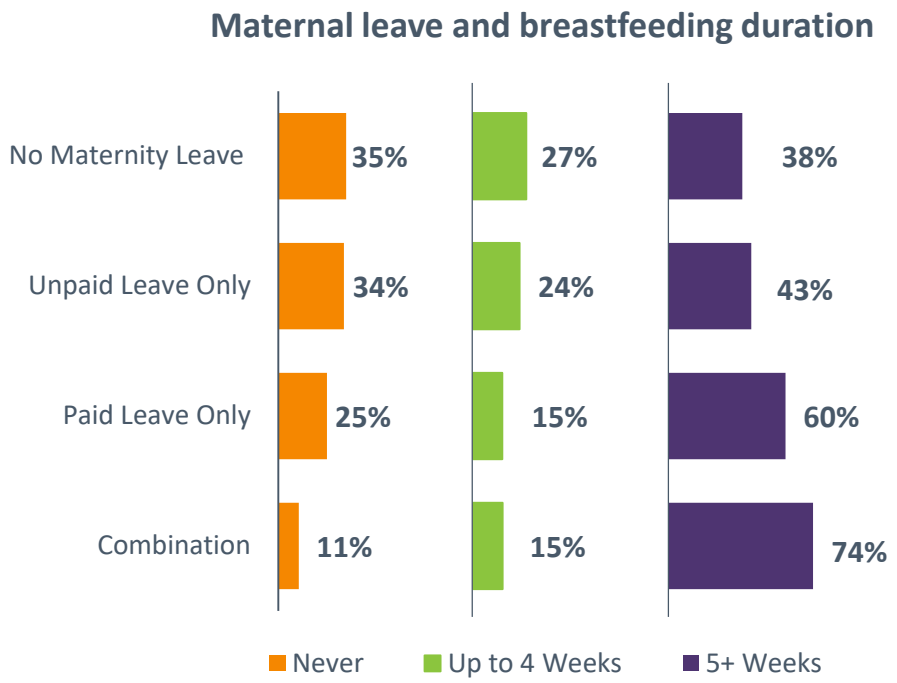
Lack of paid leave was the #1 factor affecting leave decisions

All factors affecting mothers' leave decision:

"A push for longer paid leave would be amazing. I was allowed 6 weeks paid leave (which most women don't even get); however I chose to take an additional 2 weeks without pay. Those two weeks made [a] difference in my ability to return to work without feeling like a bad mom. I needed that bonding time as much as he needed me."

- PRAMS Mom

Maternity Leave - Part 2



A greater percentage of moms reported **never initiating breastfeeding** if they had only unpaid leave or no maternity leave at all.

"After having my first experience as a new mother - and working full time before and after pregnancy - it would be a great addition to my life experience to have had paid leave from my job! Also, I was only allowed 6 weeks of unpaid leave from my job - that is not enough time to have bonded with my baby before I had to leave him for 10 hours everyday - and I'm still expected to breastfeed & pump breastmilk. There were too many necessities that are part of the mother-baby bond within the first 6 months of a child's life. I feel this needs to be better acknowledged by our community, society as a whole and our government."

- PRAMS Mom

Public Health Implications

Louisiana 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). Lack of paid maternity leave could perpetuate health inequities among lower income women who cannot afford unpaid time off, increasing health disparities among Louisiana mothers.

Appendices

The following appendices include a series of subgroup analyses for select indicators, a guide to key variables used, and a summary of 2014 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.

The various subgroup analyses can be found in Appendix B 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
- Previous pregnancy outcomes
- Pregnancy intention
- Preconception use of contraception by couples not trying to get pregnant
- Preconception diabetes diagnosis
- Timing of prenatal care
- Respondent awareness of the importance of oral health during pregnancy
- HIV testing during pregnancy or delivery
- Cigarette and alcohol use three months prior to pregnancy
- Physical abuse before and during pregnancy

Finally, the summary of annual response rates can be found in Appendix C. This page includes weighted and unweighted response rates for the stratums used during 2014 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 (20-29)
	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: Subgroup Analyses

Multivitamin use at least four times a week during the month prior to pregnancy,* survey question 9

	% Multivitamin	95% CI
Total	30.7	27.4, 33.9
Race/Ethnicity		
Non-Hispanic White	36.8	31.7, 42.0
Non-Hispanic Black	20.1	16.4, 23.8
Other	47.6	26.7, 68.6
Hispanic	32.5	18.4, 46.6
Age		
<20	12.2	3.7, 20.7
20-29	27.0	23.0, 31.1
30+	40.0	35.3, 45.1
Education		
<HS	24.3	17.6, 31.1
HS	17.9	13.0, 22.7
>HS	26.4	20.4, 32.3
Marital Status		
Married	43.8	38.5, 49.2
Other	18.3	14.8, 21.8
Insurance Status		
Medicaid Before Pregnancy	26.5	20.5, 32.5
Medicaid for Prenatal Care	19.2	15.6, 22.7
Birth Weight		
LBW	29.9	26.2, 33.6
NBW	30.7	27.2, 34.3

**Denominator is the total sub-analysis group. For example: Among married respondents, 43.8% reported multivitamin use at least four times a week during the month prior to pregnancy.*

Outcomes of previous pregnancies (LBW/PTB),* survey questions 5-6

	% Prior LBW	95% CI	% Prior PTB	95% CI
Total	10.5	8.0, 13.1	7.6	5.3, 9.9
Race/Ethnicity				
Non-Hispanic White	6.1	2.9, 9.3	6.8	3.3, 10.4
Non-Hispanic Black	14.8	10.7, 18.8	9.8	6.4, 13.2
Other	33.9	5.0, 62.9	0.0	0.0, 0.0
Hispanic	4.8	0.0, 13.1**	4.8	0.0, 13.0**
Age				
<20	25.3	0.0, 53.3**	0.0	0.0, 0.0
20-29	10.3	7.1, 13.5	6.6	3.9, 9.3
30+	9.9	5.7, 14.1	9.6	5.4, 13.7
Education				
<HS	9.5	4.8, 14.3	8.5	3.6, 13.4
HS	12.0	7.2, 16.9	8.9	4.5, 13.3
>HS	10.0	6.2, 13.8	6.5	3.3, 9.6
Marital Status				
Married	9.3	5.7, 12.8	8.4	4.8, 12.1
Other	12.0	8.3, 15.6	6.7	4.1, 9.4
Insurance Status				
Medicaid Before Pregnancy	13.3	8.0, 18.6	10.3	5.7, 14.9
Medicaid for Prenatal Care	10.9	7.7, 14.2	7.5	4.7, 10.3
Birth Weight				
LBW	17.4	13.2, 21.6	10.1	6.8, 13.4
NBW	9.8	7.0, 12.6	7.4	4.9, 9.9

**Denominator is the total sub-analysis group. For example: Among married respondents, 9.3% reported a prior LBW and 8.4% reported a prior PTB.*

***Confidence interval includes 0; interpret with caution.*

Pregnancy intention,* survey questions 14-15

	% Unintended	95% CI	% Trying	95% CI
Total	55.9	52.5, 59.3	44.1	40.7, 47.5
Race/Ethnicity				
Non-Hispanic White	45.2	38.0, 52.4	54.8	47.6, 62.0
Non-Hispanic Black	71.6	66.3, 76.8	28.4	23.2, 33.7
Other	45.2	15.1, 75.2	54.8	24.8, 84.9
Hispanic	48.0	27.9, 68.1	52.0	31.9, 72.1
Age				
<20	76.5	47.6, 100.0	23.5	0.0, 52.4**
20-29	62.7	57.0, 68.4	37.3	31.6, 43.0
30+	45.1	37.9, 52.3	54.9	47.7, 62.1
Education				
<HS	65.0	55.9, 74.1	35.0	25.9, 44.1
HS	65.5	57.9, 73.1	34.5	26.9, 42.1
>HS	45.7	39.1, 52.3	54.3	47.7, 61.0
Marital Status				
Married	44.2	37.6, 50.8	55.8	49.2, 62.4
Other	69.1	63.4, 74.7	30.9	25.3, 36.6
Insurance Status				
Medicaid Before Pregnancy	68.2	60.6, 75.9	31.7	24.1, 39.4
Medicaid for Prenatal Care	63.7	58.1, 69.2	36.3	30.8, 41.9
Birth Weight				
LBW	66.6	61.4, 71.7	33.4	28.3, 38.6
NBW	54.9	50.1, 59.8	45.1	40.2, 49.9

**Denominator is the total sub-analysis group. For example: Among married respondents, 44.2% reported an unintended pregnancy while 55.9% reported trying to get pregnant.*
***Confidence interval includes 0; interpret with caution.*

Preconception contraception use by couples not trying to get pregnant,* survey question 16

	% Using Contraception at Time of Conception	95% CI
Total	43.1	37.0, 49.1
Race/Ethnicity		
Non-Hispanic White	47.7	36.4, 59.0
Non-Hispanic Black	41.2	34.1, 48.2
Other	19.9	0.0, 62.4**
Hispanic	40.3	8.3, 72.3
Age		
<20	27.7	0.0, 63.7**
20-29	43.2	35.8, 50.6
30+	44.7	33.5, 55.9
Education		
<HS	33.1	21.5, 44.6
HS	35.0	25.4, 44.6
>HS	57.0	47.1, 67.0
Marital Status		
Married	47.6	37.1, 58.2
Other	39.9	32.6, 47.3
Insurance Status		
Medicaid Before Pregnancy	44.4	34.5, 54.3
Medicaid for Prenatal Care	41.4	34.1, 48.6
Birth Weight		
LBW	34.4	27.5, 41.2
NBW	44.1	37.4, 50.9

**Denominator is the total sub-analysis group. For example: Among married respondents, 47.6% reported using contraception at the time of contraception.*
***Confidence interval includes 0; interpret with caution.*

Preconception diabetes diagnosis,* survey question 12

	% Diagnosed with diabetes	95% CI
Total	3.2	2.0, 4.3
Race/Ethnicity		
Non-Hispanic White	3.2	1.3, 5.0
Non-Hispanic Black	3.9	2.2, 5.6
Other	0.7	0.0, 1.8**
Hispanic	0.5	0.0, 1.1**
Age		
<20	2.2	0.0, 6.4**
20-29	3.8	2.2, 5.4
30+	2.2	0.5, 4.0
Education		
<HS	4.0	0.9, 7.2
HS	3.2	1.0, 5.3
>HS	2.8	1.3, 4.4
Marital Status		
Married	2.6	1.0, 4.2
Other	3.7	2.0, 5.3
Insurance Status		
Medicaid Before Pregnancy	5.7	2.5, 8.9
Medicaid for Prenatal Care	3.3	1.7, 4.8
Birth Weight		
LBW	4.4	2.7, 6.1
NBW	3.0	1.8, 4.3

**Denominator is the total sub-analysis group. For example: Among married respondents, 2.6% reported being diagnosed with diabetes before pregnancy.*
***Confidence interval includes 0; interpret with caution.*

Prenatal care began during first trimester,* survey question 19

	% Prenatal Care in First Trimester	95% CI
Total	79.9	77.2, 82.6
Race/Ethnicity		
Non-Hispanic White	87.0	83.3, 90.6
Non-Hispanic Black	71.8	67.6, 76.0
Other	89.7	77.3, 100.0
Hispanic	64.0	49.4, 78.7
Age		
<20	67.4	55.6, 79.2
20-29	78.6	75.0, 82.2
30+	85.4	81.3, 89.4
Education		
<HS	66.2	58.7, 73.7
HS	69.9	64.0, 75.8
>HS	90.1	87.4, 92.8
Marital Status		
Married	89.7	86.6, 92.9
Other	70.6	66.4, 74.7
Insurance Status		
Medicaid Before Pregnancy	77.7	72.1, 83.3
Medicaid for Prenatal Care	70.8	66.7, 75.0
Birth Weight		
LBW	78.7	75.3, 82.2
NBW	80.1	77.1, 83.0

**Denominator is the total sub-analysis group. For example: Among married respondents, 89.7% reported receiving prenatal care in the first trimester.*

Received prenatal care as early as wanted in pregnancy,* survey question 20

	% Yes	95% CI
Total	82.6	80.1, 85.2
Race/Ethnicity		
Non-Hispanic White	85.8	82.1, 89.5
Non-Hispanic Black	78.0	74.1, 81.9
Other	98.2	96.8, 99.7
Hispanic	73.6	60.0, 87.2
Age		
<20	74.4	63.4, 85.4
20-29	80.9	77.4, 84.4
30+	87.9	84.1, 91.8
Education		
<HS	79.3	73.0, 85.6
HS	77.8	72.6, 83.0
>HS	86.5	83.1, 89.8
Marital Status		
Married	88.3	85.0, 91.6
Other	77.2	73.3, 81.1
Insurance Status		
Medicaid Before Pregnancy	84.4	79.5, 89.2
Medicaid for Prenatal Care	77.3	73.5, 81.1
Birth Weight		
LBW	81.4	78.1, 84.7
NBW	82.8	79.9, 85.6

**Denominator is the total sub-analysis group. For example: Among married respondents, 88.3% reported receiving prenatal care as early as she wanted.*

Knew it was important to care for teeth and gums during pregnancy,* survey question 30a

	% Yes	95% CI
Total	85.7	83.3, 88.2
Race/Ethnicity		
Non-Hispanic White	87.7	84.1, 91.2
Non-Hispanic Black	84.8	81.4, 88.1
Other	89.2	76.9, 100.0
Hispanic	75.2	62.2, 88.3
Age		
<20	70.6	59.3, 81.8
20-29	85.1	81.8, 88.3
30+	90.7	87.0, 94.3
Education		
<HS	80.3	74.2, 86.4
HS	80.1	74.9, 85.3
>HS	90.9	88.0, 93.8
Marital Status		
Married	89.5	86.2, 92.8
Other	82.2	78.7, 85.8
Insurance Status		
Medicaid Before Pregnancy	78.4	72.7, 84.2
Medicaid for Prenatal Care	82.1	78.5, 85.7
Birth Weight		
LBW	86.8	84.0, 89.7
NBW	85.6	82.9, 88.3

**Denominator is the total sub-analysis group. For example: Among married respondents, 89.5% reported knowing it was important to care for teeth and gums during their pregnancy.*

Received a HIV test during pregnancy or delivery,* survey question 26

	% HIV Test	95% CI
Total	83.0	80.1, 86.0
Race/Ethnicity		
Non-Hispanic White	75.5	70.4, 80.7
Non-Hispanic Black	92.7	90.3, 95.1
Other	71.3	50.5, 92.1
Hispanic	87.4	76.7, 98.0
Age		
<20	85.1	75.4, 94.8
20-29	83.5	79.8, 87.2
30+	81.7	76.3, 87.1
Education		
<HS	89.3	84.1, 94.6
HS	86.9	82.2, 91.6
>HS	78.5	73.9, 83.1
Marital Status		
Married	77.0	71.9, 82.1
Other	88.1	84.9, 91.4
Insurance Status		
Medicaid Before Pregnancy	86.6	81.5, 91.6
Medicaid for Prenatal Care	86.5	83.1, 90.0
Birth Weight		
LBW	83.8	80.7, 87.0
NBW	82.9	79.7, 86.2

**Denominator is the total sub-analysis group. For example: Among married respondents, 77.0% reported receiving a HIV test during pregnancy or delivery.*

Cigarette and alcohol use three months prior to pregnancy,* survey questions 38 & 43

	% Smoked Cigarettes	95% CI	% Drank Alcohol	95% CI
Total	26.2	23.1, 29.4	53.7	50.4, 57.1
Race/Ethnicity				
Non-Hispanic White	37.0	31.8, 42.2	67.6	62.6, 72.5
Non-Hispanic Black	15.8	12.5, 19.1	37.3	32.9, 41.8
Other	9.5	0.0, 21.9**	49.7	28.9, 70.6
Hispanic	10.0	1.0, 19.1	38.3	23.5, 53.2
Age				
<20	35.7	25.0, 46.4	28.1	16.6, 39.6
20-29	30.9	26.7, 35.0	52.6	48.2, 56.9
30+	15.3	11.0, 19.7	62.0	56.2, 67.7
Education				
<HS	34.2	26.9, 41.5	27.8	20.7, 35.0
HS	34.0	28.0, 39.9	46.1	39.9, 52.3
>HS	19.0	15.0, 23.1	67.3	62.9, 71.7
Marital Status				
Married	19.9	15.5, 24.2	63.6	58.7, 68.6
Other	32.2	28.0, 36.3	44.3	39.9, 48.8
Insurance Status				
Medicaid Before Pregnancy	31.5	25.4, 37.6	33.9	27.5, 40.3
Medicaid for Prenatal Care	33.3	29.1, 37.5	41.3	36.8, 45.8
Birth Weight				
LBW	28.8	25.1, 32.4	42.0	38.1, 46.0
NBW	26.0	22.5, 29.4	55.0	51.3, 58.6

**Denominator is the total sub-analysis group. For example: Among married respondents, 19.9% reported smoking cigarettes and 63.6% reported drinking three months prior to pregnancy.*
***Confidence interval includes 0; interpret with caution.*

Abused in 12 months before pregnancy, abused during most recent pregnancy,* survey question 47-48

	% Abused Before	95% CI	% Abused During	95% CI
Total	2.1	1.1, 3.0	1.8	0.9, 2.7
Race/Ethnicity				
Non-Hispanic White	2.2	0.7, 3.7	2.1	0.6, 3.6
Non-Hispanic Black	1.6	0.6, 2.6	1.4	0.5, 2.2
Other	0.4	0.0, 1.1**	0.4	0.0, 1.1**
Hispanic	5.0	0.0, 11.6**	2.6	0.0, 7.4**
Age				
<20	0.3	0.0, 0.7**	2.7	0.0, 7.0**
20-29	2.4	1.1, 3.8	1.9	0.8, 3.1
30+	1.9	0.2, 3.6	1.3	0.0, 2.7
Education				
<HS	2.4	0.0, 4.8**	3.3	0.3, 6.3
HS	2.6	0.4, 4.8	2.5	0.4, 4.5
>HS	1.7	0.6, 2.8	0.9	0.2, 1.7
Marital Status				
Married	1.9	0.5, 3.2	1.4	0.2, 2.6
Other	2.3	0.9, 3.7	2.2	0.9, 3.5
Insurance Status				
Medicaid Before Pregnancy	4.9	1.7, 8.2	4.3	1.3, 7.3
Medicaid for Prenatal Care	2.7	1.2, 4.2	2.7	1.2, 4.2
Birth Weight				
LBW	3.5	2.1, 5.0	3.3	1.9, 4.7
NBW	1.9	0.9, 3.0	1.6	0.7, 2.6

**Denominator is the total sub-analysis group. For example: Among married respondents, 1.9% reported abuse 12 months before pregnancy and 1.4% reported abuse during their pregnancy.*
***Confidence interval includes 0; interpret with caution.*

Appendix C: Response Rates

Stratum	% Responding (Unweighted)	% Responding (Weighted)
Orleans Parish, Black	62.1	62.1
Other, Black, Low Birth Weight	54.5	54.5
Other, Black, Normal Birth Weight	56.4	56.4
Other, Non Black, Low Birth Weight	60.5	60.5
Other, Non Black, Normal Birth Weight	59.4	59.4
Overall	59.1	58.5

Characteristic	# Sampled	Respondents	% Response (Unweighted)	% Response (Weighted)
Overall	2833	1673	59.1	58.5
Race/Ethnicity				
Non-Hispanic White	928	572	61.6	62.5
Non-Hispanic Black	1735	913	52.6	52.4
Other	88	50	56.8	63.7
Hispanic	108	55	50.9	56.0
Hispanic Ethnicity				
Hispanic	121	69	57.0	57.4
Non-Hispanic	2706	1601	59.2	58.5
Age				
<20	934	564	50.6	53.1
20-29	1726	1015	58.8	57.7
30+	844	525	62.2	61.5
Education				
<HS	604	340	56.3	57.0
HS	946	543	57.4	55.8
>HS	1268	783	61.8	61.0
Marital Status				
Married	992	600	60.5	61.1
Other	1841	1073	58.3	56.2
Previous Births				
No Prev. Live Births	1017	628	61.8	61.8
1+ Prev. Live Births	1793	1033	57.6	56.6

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!"

"To the mothers or up coming others, my advice to you would just be [...] take good care of yourself, and stay on your doctor's visits, and you would be okay! Thank you for this survey!"

"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 very 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 its 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."