

WISCONSIN PRAMS

2018–2019 SURVEILLANCE REPORT

Wisconsin Pregnancy Risk Assessment Monitoring System (PRAMS) is a population-based survey of individuals who recently gave birth in Wisconsin and collects state-specific data on maternal attitudes and experiences before, during, and shortly after pregnancy. Wisconsin PRAMS aims to use what we learn to increase access to local and statewide resources; educate providers and the public on topics related to maternal, child, and infant health; and improve maternal and infant health outcomes.

It is important to remember that health experiences and behaviors do not exist in a vacuum. Social and environmental factors, such as access to safe and stable housing, quality of available educational opportunities, access to transportation, connection to social support systems, and experiences of discrimination, have a significant impact on individual and population health outcomes. These and other social determinants of health affect different groups in very different ways and affect people's access to resources and ability to make choices that lead to good health.

This surveillance report shares information about topics in the pre-pregnancy, pregnancy, and postpartum periods, and includes relevant social determinants of health that put health outcomes and behaviors into a larger social context. All data are from the Wisconsin PRAMS survey and linked birth record data from respondents who gave birth in 2018 or 2019, unless otherwise noted.

The data from PRAMS have strengths and limitations that come with self-reported survey data. Wisconsin PRAMS is grateful to everyone who took the time to fill out a survey, and is proud to have maintained consistently high response rates since data collection began in 2007. More information on data collection, sampling, and response rates can be found in the appendix.

It is important to note that while this report uses female-gendered terms such as "woman," "women," "mother(s)," and "she/her" pronouns, the population represented in these data also includes gender non-conforming people and transgender men who have the ability to become pregnant and give birth.

How do we look at these data?

Throughout the report, there are up (↑) and down (↓) arrows which indicate statistically significant increases or decreases between 2016–2017 PRAMS data and 2018–2019 PRAMS data.

Stratifications, or groups of sub-populations, are often used to separate data into more visible patterns. For the purpose of this report, stratifications that are relevant, actionable, and statistically significant are shown. There are many ways to look at data, including by social and economic factors, different identities, and geographical locations. Stratifications are available in the appendix, and other stratifications can be requested using the contact information in the footer below.

Results reported by race and ethnicity include non-Hispanic white, non-Hispanic Black, Hispanic, and mothers of other races. Whenever you see a number reported for individuals of "other race," the data represent people who do not identify with the three previously named groups.

CONTACT WISCONSIN PRAMS

Email: dhsdphprams@wi.gov

Website: <https://dhs.wisconsin.gov/stats/prams/index.htm>



Table of Contents



Introduction	i
Pre-Pregnancy	
Pre-Pregnancy Health	1
Pre-Pregnancy Health Care	2
Pregnancy History	4
Social Factors	5
Pregnancy	
Social Factors	6
Pregnancy Health	8
Prenatal Care	10
Dental Care	14
Pregnancy Outcomes	16
Postpartum	
Post-Pregnancy Health Care	17
Breastfeeding	19
Safe Sleep	20
Perinatal Depression	21
Parental Employment and Leave	22
Additional Information on PRAMS	24
Appendices	
Appendix A: Methodology	25
Appendix B: References	27
Appendix C: Tables (available for download separately)	

Each section is linked!

You can easily navigate to different parts of this report by clicking on the topic you'd like to view!

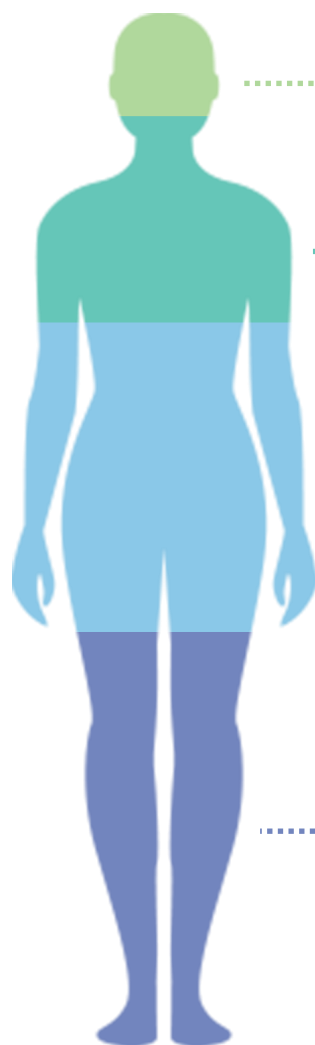
If you want to come back to the Table of Contents after clicking on a section, hold down the Alt key + the left arrow key and that will bring you back here.

What Makes Up Our Health?



There are many factors in our everyday lives that have an impact on our health.

According to the County Health Rankings Model, 10% of what affects our health is our physical environment, 20% is the clinical care we receive, 30% is our health behaviors, and the majority, 40%, is social and economic factors.¹ These social factors combined with our physical environments, contribute significantly to the health of our population. These conditions help explain why some communities are healthier than others. In this report, health experiences and outcomes are framed around the many social factors to highlight the important context that surrounds the health of mothers and infants in Wisconsin.



10% Physical Environment

Our environment is everything that surrounds us, including the air we breathe, the water in our tap, our housing, and transportation.

20% Clinical Care

Clinical care refers to both access and quality of health care. It includes whether there are health care facilities that meet all of one's needs, including cultural beliefs and practices. The ability to access quality care is impacted by other factors including transportation means and affordable health insurance.

30% Health Behaviors

Health behaviors encompass individual behaviors that contribute to health, including tobacco and other substance use, diet, exercise, sexual activity, and many others. Although behaviors refer to the individual, they do not exist in a vacuum and are influenced by the social, economic, and environmental factors that surround us.

40% Social and Economic Factors

The social and economic factors that affect our health include education, employment, income, family and social support, and community safety. These factors affect our health in a variety of ways. For example, employment and income impact financial stability and determine how we meet our basic needs, including food and housing.

Across Wisconsin, there are many organizations, groups, communities, and individuals working to **improve the health of all people.**



Pre-Pregnancy Health

A variety of factors can put women and babies at risk for health complications.¹ Pre-pregnancy risk factors include existing maternal health conditions and food security.^{2,6} Although not all prenatal risk factors can be eliminated, early, regular, and adequate health care is an important aspect of comprehensive care. The data below show select risk factors for mothers in Wisconsin.



94% of Wisconsin mothers self-report excellent, very good, or good health prior to pregnancy.



58% of Wisconsin mothers are overweight or obese (BMI 25+) prior to pregnancy.



27% of Wisconsin mothers have anxiety and **20%** of Wisconsin mothers have depression {↑ 3.7% from 2016–2017}.



14% of all Wisconsin mothers have anemia (low iron in their blood) prior to pregnancy, while 37% of Black mothers have anemia.



14% of all Wisconsin mothers have asthma prior to pregnancy, while 21% of Black mothers have asthma.



10% of Wisconsin mothers have thyroid problems prior to pregnancy.



6.3% of all Wisconsin mothers have high blood pressure prior to pregnancy, while 12% of Black mothers have high blood pressure.



7.8% of Wisconsin mothers have polycystic ovarian syndrome (PCOS).



4.5% of Wisconsin mothers have Type 1 or Type 2 diabetes prior to pregnancy.

As body mass index (BMI) increases, mothers are less likely to self-report excellent health. BMI is a measure based on a person's weight and height.

■ Excellent ■ Very good ■ Good ■ Fair/Poor

Note: Order in legend matches order data appear below.

Underweight*

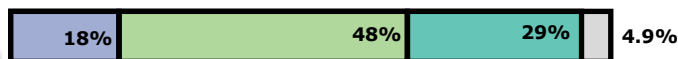


*Estimates should be interpreted with caution due to low counts.

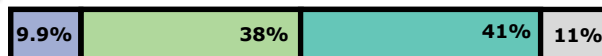
Normal weight



Overweight



Obese



Social Contexts of Health

Living in a food insecure household places women at increased risk of unhealthy pregnancy weight gain and pregnancy complications.⁶

Economic Food Insecurity



9.3%

of Wisconsin mothers report eating less in the 12 months before the birth of their new baby because of not having enough money to buy food.

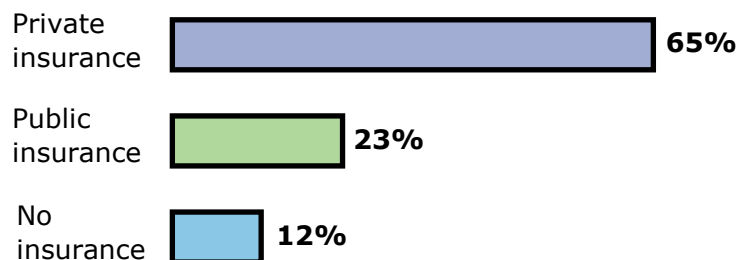


Pre-Pregnancy Health Care

Early, regular, and adequate health care is an important part of a comprehensive strategy for a healthy life. Preconception care can have significant effects on maternal and infant health outcomes,¹ but not everyone has equal access to services.²

Health Insurance Coverage

Women are more likely to access care if they have insurance coverage.³ The data below show health insurance status of Wisconsin women.



Prior to pregnancy, Wisconsin mothers are more likely to be **uninsured** than the general adult population age 18-44 years in the state (7%).⁴



“Mi experiencia antes del embarazo, que es muy importante alimentarse sanamente y hacerse un chequeo físico y tomar vitaminas prenatales[.]”

My experience before pregnancy, is that it's very important to eat healthy and have a physical checkup and take prenatal vitamins[.]

- PRAMS mom



“En general pienso que la atención prenatal es excelente ya que existe muy buena coordinación del equipo medico, se brinda mucha información al paciente sobre los factores de riesgos existentes en cada embarazo y se brinda la ayuda necesaria.”

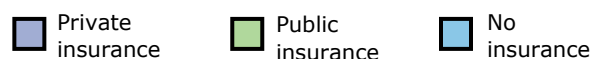
In general, I think that prenatal care is excellent since there is very good coordination by the medical team, a lot of information is provided to the patient about existing risk factors in each pregnancy and the necessary help is provided.

- PRAMS mom

Health Care Visits

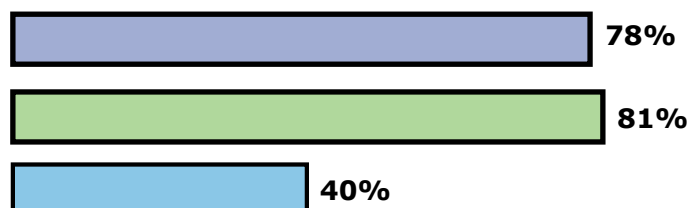
Almost three-quarters of Wisconsin mothers see a health care professional in the year before getting pregnant with their most recent baby.

However, the types of health care visits mothers have in the 12 months prior to pregnancy varies by health insurance status.

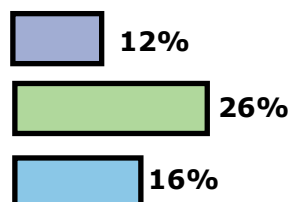


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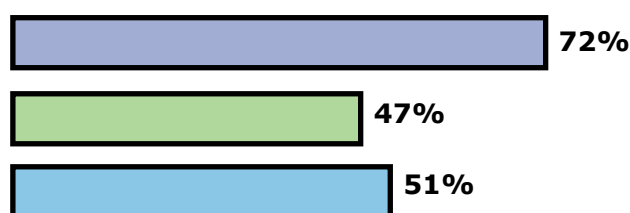
Preventive health care visit



Visit for depression or anxiety

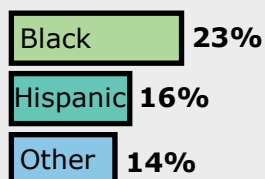


Teeth cleaning by dentist or dental hygienist



Social Contexts of Health

Approximately one quarter of mothers of color experience interpersonal racism in the 12 months before their baby is born.



Racial Discrimination

Experiences of racial discrimination are linked to high blood pressure, low birth weight, and poor health status.⁵⁻⁷ Racism also impacts other determinants of health, such as access to employment and housing opportunities.^{8,9}

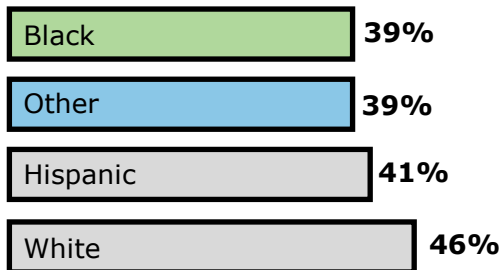


Pre-Pregnancy Health Care

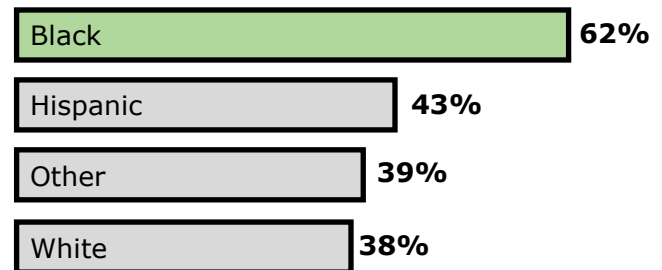
Provider Counseling

When women do receive health care services, often the content of the visits varies by race and ethnicity.¹⁰⁻¹² The PRAMS survey asks women about pre-pregnancy counseling, and the responses highlight the different experiences women of color have when speaking with their providers. Data below represent the percentage of women whom providers talked with about select topics.

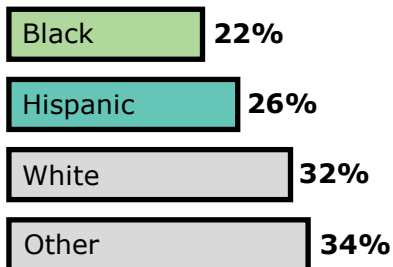
Providers are **less likely** to talk to **Black** and **other race mothers** about their **desire to have or not have children** than white mothers.



Providers are **more likely** to talk to **Black mothers** about **birth control use to prevent pregnancy** than mothers of other races.

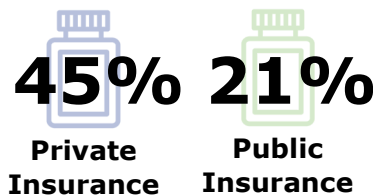


Providers are **less likely** to talk to **Black** and **Hispanic mothers** about taking a vitamin with folic acid than mothers of other races.



Folic Acid Supplementation

It is recommended that women take prenatal vitamins with folic acid prior to and during pregnancy.¹³ Insufficient folic acid has been linked to neural tube and congenital heart defects in the fetus, as well as heightened risk of preterm birth.¹⁴⁻¹⁸



Mothers with **public insurance** are **less likely** to take prenatal vitamins daily in the month before pregnancy than mothers with private insurance.

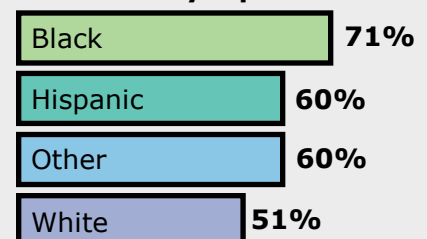
Social Contexts of Health

Intimate Partner Violence

Intimate partner violence affects both the short- and long-term safety of mom and baby.^{19,20}

54% of Wisconsin mothers are asked if someone is hurting them during pre-pregnancy health care visits, although the U.S. Department of Health and Human Services recommends screening **all** women during preventive health care visits.

Screened by a provider



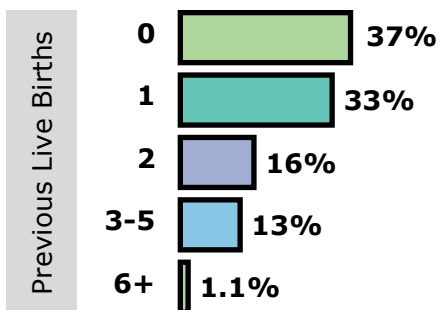


Pregnancy History

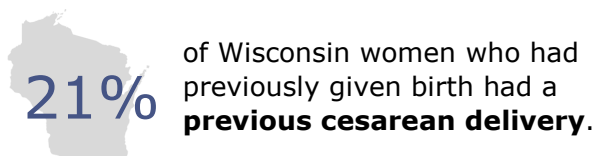
Experiences and outcomes of previous pregnancies are very much related to later pregnancies.¹ Women with no previous live births may also experience health care services differently from women on a second or later pregnancy.

Parity, Previous Live Births

Almost two-thirds of Wisconsin women who gave birth in 2018 or 2019 had a previous live birth.



Previous Cesarean Delivery

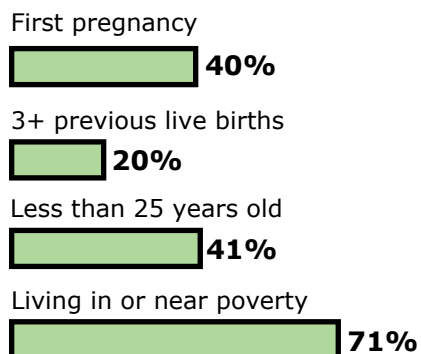


Pregnancy Intention

The desire or decision to become pregnant is highly personal, and unintended pregnancies affect people in diverse life circumstances.

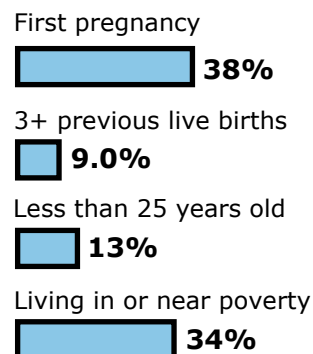
Unintended ●●● 23%

Among women who wanted to get pregnant later than they did or never:



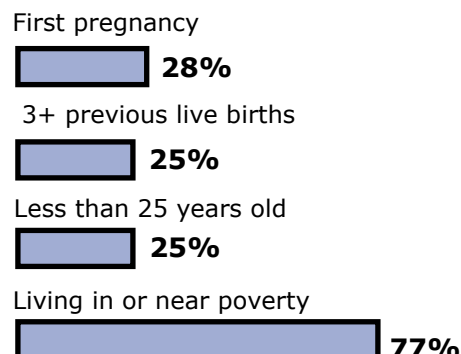
Intended ●●● 61%

Among women who wanted to get pregnant when they did or sooner:



Unsure ●●● 16%

Among women who were uncertain about pregnancy timing:



Note: Intention is for most recent pregnancy. Only includes pregnancies that were carried to term and resulted in a live birth.

Previous Preterm Birth

Among women who had previously given birth, 9.5% had at least one **previous preterm birth**.

Previous preterm births increase the risk of preterm labor and delivery of future pregnancies.²

Time Between Pregnancies

At the time they became pregnant, 22% of Wisconsin mothers had given birth less than 18 months before, 19% had given birth between 18 and 36 months before, which is considered optimal for healthy outcomes, and 21% had given birth more than three years before, but not since then. 38% of mothers had their first born child.



During the time of my pregnancy I was extremely anxious because I had a miscarriage 2 months before I became pregnant with my son.

- PRAMS mom

Social Contexts of Health

Poor: household income less than 100% of the federal poverty level (FPL)

Near poor: household income 100% to 199% of the FPL

Not poor: household income 200% or more of the FPL

Household Income

BEFORE GIVING BIRTH ●●●

42% of women are living in poor or near poor households.

AFTER GIVING BIRTH ●●●

49% of women are living in poor or near poor households.



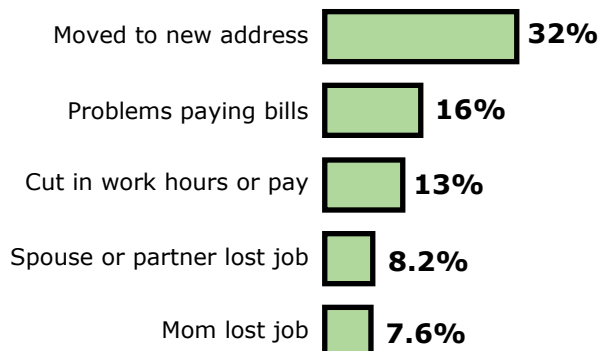
Social Factors

Article 25 of the Universal Declaration of Human Rights states that “[e]veryone has the right to a standard of living adequate for the health and well-being of himself and his family[.]”¹ It is estimated that social, economic, and environmental conditions contribute about 50% of the risk for health outcomes on average.²

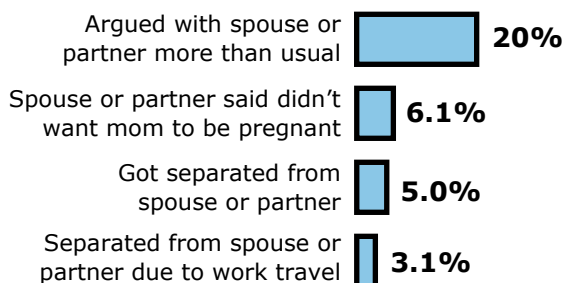
Stressful Life Events

Stressful life events can have many effects on a pregnancy, including affecting access to health care, shaping health behaviors, and increasing risk of disease by affecting hormone levels and lowering the immune system.³ PRAMS respondents are asked if they experienced any of the following events in the 12 months prior to giving birth and the percentages are out of all mothers surveyed.

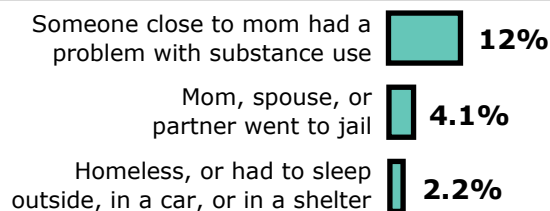
FINANCIAL



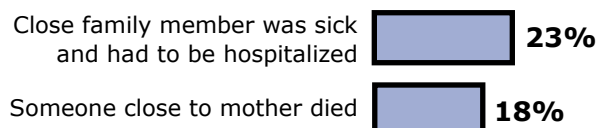
PARTNER



TRAUMATIC



EMOTIONAL



FINANCIAL | 41% of mothers living in poverty and 37% of mothers living near poverty moved to a new address.



FINANCIAL | Mothers under the age of 25 or their partner are more likely to lose their job than women over age 25.



FINANCIAL | Black mothers are more likely than mothers of other races to have problems paying the rent, mortgage, or other bills.



PARTNER | Mothers living in poverty are more likely to have their spouse or partner say they did not want them to be pregnant than mothers who are not poor.



PARTNER | Black mothers are twice as likely as mothers of other races to have gotten separated or divorced from their spouse or partner.



TRAUMATIC | 21% of mothers younger than 25 years old have someone close to them with a substance use problem.



TRAUMATIC | Black mothers and their spouses or partners are more likely to have been incarcerated than mothers of other races.



TRAUMATIC | Mothers living in the Southeast region of the state are more likely to experience homelessness than mothers in other regions.



EMOTIONAL | Black mothers are more likely than mothers of other races to have someone close to them die.

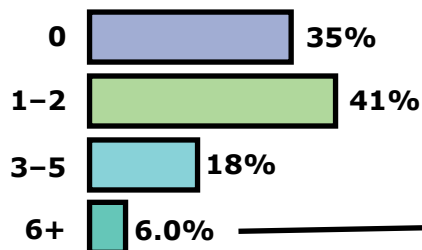


Social Factors

Stressful Life Events

While every stressful life event is different, experiencing multiple stressful events can make it even harder for a person to stay healthy and cope effectively.⁴ The likelihood of experiencing multiple stressors is associated with a mother's race, age, and poverty status.

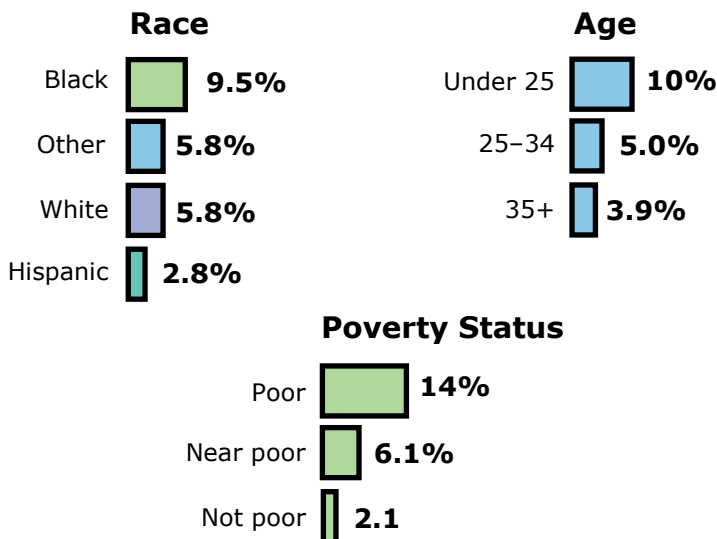
Number of stressful events reported in the year prior to giving birth among all mothers



"We should not have to worry about money when adjusting and trying to take care of a new baby."

- PRAMS mom

Black, young, and poor mothers are more likely to report experiencing six or more stressful life events.



Intimate Partner Violence

Intimate partner violence tends to intensify during pregnancy, and partner violence has been identified as a leading cause of maternal death nationwide.⁵ Abuse can happen to anyone and is never their fault. Resources are available online from the [Well Badger Resource Center](#) or by phone at 2-1-1.

4.0%

of mothers experience **physical abuse** by their spouse, partner, or ex before or during pregnancy.

6.5%

of mothers experience **emotional or sexual abuse** by their spouse or partner during pregnancy.



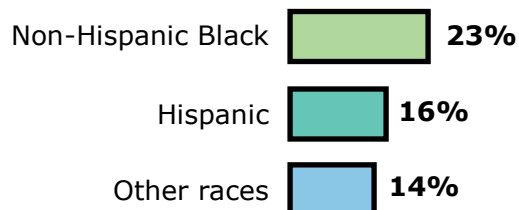
"We need to know that there are resources if we need help financially and mentally, emotionally."

- PRAMS mom

Racial Discrimination

Experiences of racism affect psychological and physical health.⁶ The PRAMS question on racism captures only experiences of interpersonal racism, but structural and internalized racism also affect the lives of many Wisconsin mothers.

Among mothers of color in Wisconsin, about **1 in 5** reported experiencing interpersonal racism in the 12 months prior to giving birth.





Social Factors

Neighborhood Safety

8.2% of mothers always, often, or sometimes feel **unsafe** in the neighborhood where they are living.

Mothers living in **poverty** (14%) or **near poverty** (9.6%) are **more likely** than mothers who are **not poor** (4.1%) to report feeling always, often, or sometimes unsafe.



Food Insecurity

5,500 Wisconsin mothers eat less than they feel they should every year because there isn't enough money to buy food.



Mothers reporting food insecurity are **more likely** to give birth to a baby that is small for gestational age compared to other mothers.



“Mother and infant survival/health often depend on financial status. Without my health insurance/work, it would have been very difficult to go through pregnancy and that still included a decent amount of out of pocket monies.

- PRAMS mom

Substance Use Before Pregnancy

Regular use of substances such as alcohol, tobacco, and caffeine, even before pregnancy, can affect the health of women and their future children.⁷ Moreover, among unintended pregnancies in Wisconsin each year, these behaviors can directly affect a fetus in the early stages of development.



6.1% of Wisconsin mothers **drink alcohol in excess** (8 or more drinks per week) during the three months before pregnancy. At 68%, moms in Wisconsin have higher rates of drinking **any** alcohol in the same period than moms nationally (57%).⁹



9.7% of Wisconsin mothers smoke marijuana during the month before pregnancy.



3.3% of Wisconsin mothers use prescription pain relievers during the month before pregnancy.



1.3% of Wisconsin mothers use illicit drugs (amphetamines, cocaine, heroin, hallucinogens, or tranquilizers) during the month before pregnancy.

Decrease in Smoking

Smoking cigarettes in the three months before pregnancy decreased by

↓4.4%



from 20.6% in 2016–2017 to 16.2% in 2018–2019.



Pregnancy Health

A variety of health complications can arise during pregnancy that are critical to the health of the developing infant and mother. Although not all pregnancy complications can be eliminated, comprehensive physical and mental care throughout the mother's life course is vital to maintaining a healthy pregnancy. Understanding pregnancy-related issues such as gestational diabetes and healthy weight gain are important aspects of education for mothers and their families.

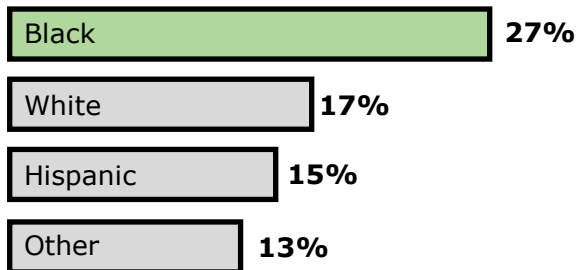


21% of Wisconsin mothers are anemic, not having enough red blood cells to carry oxygen, during their pregnancy {↑ 3.3% from 2016–2017}.



17% of Wisconsin mothers have depression during their pregnancy {↑ 3.8% from 2016–2017}.

Black mothers are more likely to have depression during pregnancy than women of other races.

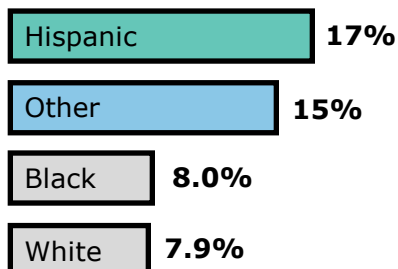


14% of Wisconsin mothers have high blood pressure during pregnancy.



9.4% of Wisconsin mothers have gestational diabetes that started during their most recent pregnancy.

Hispanic mothers and **mothers of other races** are more likely to have gestational diabetes than Black and white mothers.



Because I was diagnosed with gestational diabetes, I was able to control it with strict diet and no medications.

- PRAMS mom

Pregnancy Weight Gain



26% of Wisconsin mothers gain **less** weight than recommended during pregnancy.



1 in 5 **white** mothers gain less than the recommended weight.

2 in 5 **Black** mothers gain less than the recommended weight.

Mothers who are underweight before pregnancy are more likely than other BMI groups to gain a healthy amount of weight, as recommended by the CDC.

☐ Too little ☒ Healthy ☐ Too much

Note: Order in legend matches order data appear below.

Underweight



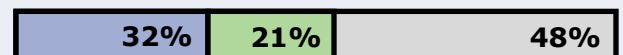
Normal weight



Overweight



Obese



CDC recommendations for healthy pregnancy weight gain:¹

Underweight: 28–40 lbs.

Normal weight: 25–35 lbs.

Overweight: 15–25 lbs.

Obese: 11–20 lbs.



Pregnancy Health

Health Behaviors

Substance use during pregnancy can put a woman and her baby at risk for health complications, including increased risk of miscarriage, premature birth, low birthweight, birth defects, and neonatal abstinence syndrome.²⁻⁸

decrease in smoking

Smoking cigarettes in the last three months of pregnancy decreased by

↓3.8%



from 12% in 2016–2017 to 8.2% in 2018–2019. Smoking during pregnancy is also significantly lower than smoking in the three months prior to pregnancy (16%), indicating that some moms quit or pause smoking during pregnancy.



3.6% of Wisconsin mothers use e-cigarettes during the last three months of pregnancy.



4.4% of Wisconsin mothers use prescription pain relievers during pregnancy, which is slightly higher than the 3.3% of mothers who use before pregnancy.

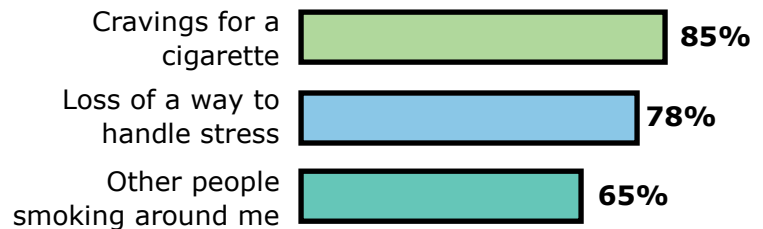


5.5% of Wisconsin mothers use marijuana during pregnancy, which is lower than the 9.7% of mothers who use before pregnancy.

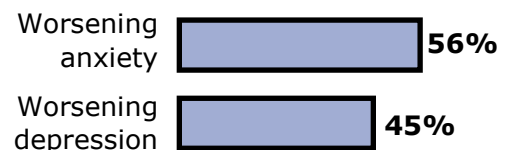


0.8% of Wisconsin mothers use illicit drugs during pregnancy, which is lower than the 1.3% of mothers who use before pregnancy.

Top three barriers to quitting smoking cigarettes during pregnancy, reported by smokers:



Mental health is also commonly cited as a barrier to quitting smoking.



Intimate Partner Violence

5.8% of mothers experience physical abuse **during** their pregnancy.

This is likely an underestimate of the true prevalence of intimate partner violence due to stigmatization of abuse and reporting.

Intimate partner violence is associated with low birth weight, premature birth, and intra-uterine growth retardation.⁹

Social Contexts of Health

Social support helps people better manage the stress and negative effects of adverse childhood experiences (ACEs) on pregnancy. It increases maternal wellbeing, as well as the chance of longer gestation length and increased birth weight of baby.¹⁰

Social Support



98% of Wisconsin mothers have at least one person who could help them in an emergency.



90% of Wisconsin mothers have a spouse or partner who could help them in an emergency.



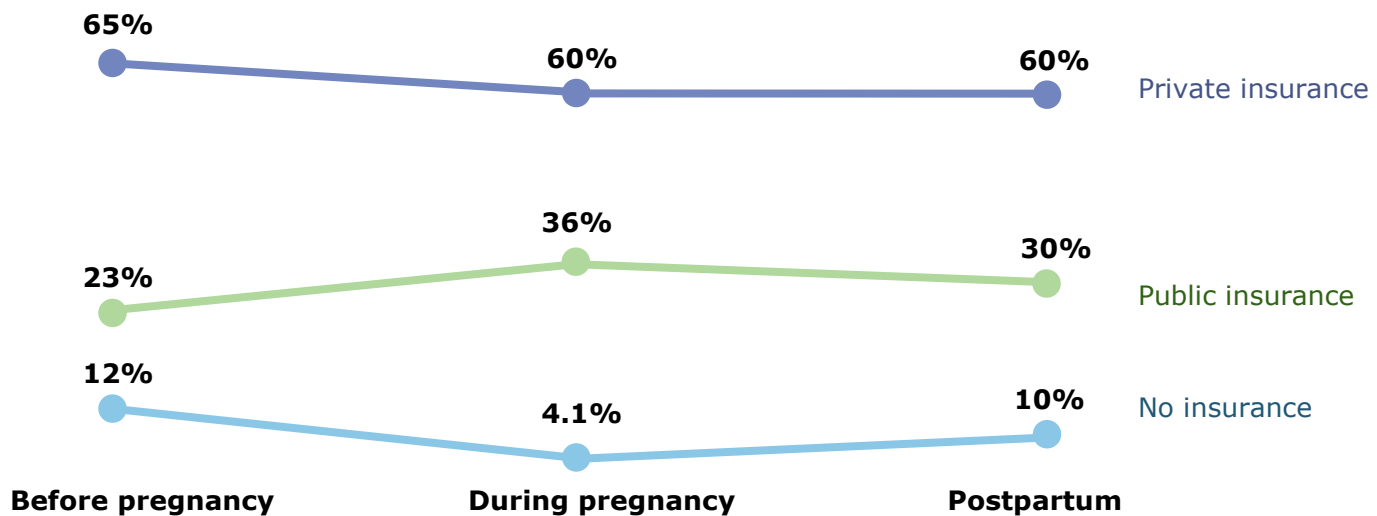
Prenatal Care

Prenatal care is an integral part of the U.S. medical care system. Prenatal care can help prevent and identify complications, as well as provide information to women on ways they can help ensure a healthy pregnancy and infant. Topics include healthy diet, avoiding exposure to toxins, and controlling existing health complications such as high blood pressure.¹

Health Insurance Coverage

Women are more likely to access care if they have insurance coverage and a relationship with their primary care provider.² People are more likely to have public insurance during their pregnancy due to expanded eligibility during this period and nearly all mothers reported having insurance during pregnancy in Wisconsin.

There are significant changes in public insurance use and uninsured rates before and during pregnancy. During pregnancy, more women are able to access public insurance and fewer women have no insurance coverage.



Initiation of Prenatal Care

Most everyone that received prenatal care reported they received it as early as they wanted. While the majority of Wisconsin mothers started prenatal care as early as they wanted to, this differed by insurance type. Mothers with **private insurance** were more likely to receive prenatal care as early as they wanted than mothers with **public insurance**. This may be due to the lack of available providers that accept public insurance or other barriers to accessing care among people with lower incomes.



Preventing Repeat Preterm Birth

The American College of Obstetricians and Gynecologists currently recommends a weekly injection of the **hormone progesterone (17p)** for pregnant women carrying only one child who have had a previous spontaneous preterm birth.³

36% of pregnant women with a previous preterm birth receive **injections of 17p**.

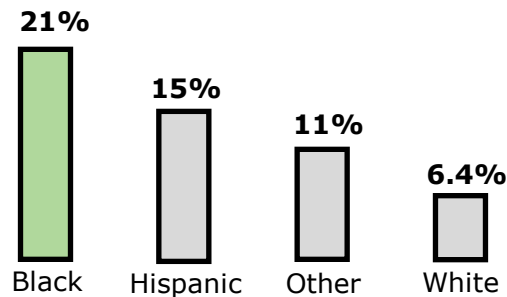


Prenatal Care

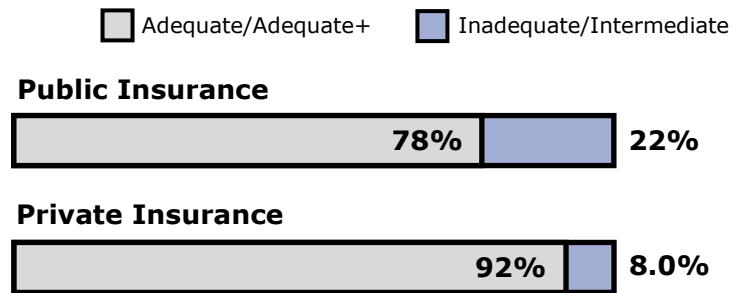
Adequacy of Prenatal Care

The Kotelchuck Index scores adequacy of prenatal care by the date prenatal care started and number of visits. Adequacy of services received is determined by first trimester entry to care and number of prenatal care visits a pregnant person has in comparison to the expected number of visits based on the length of the pregnancy.⁴

Black mothers are more likely to receive **inadequate** prenatal care than mothers of other races.

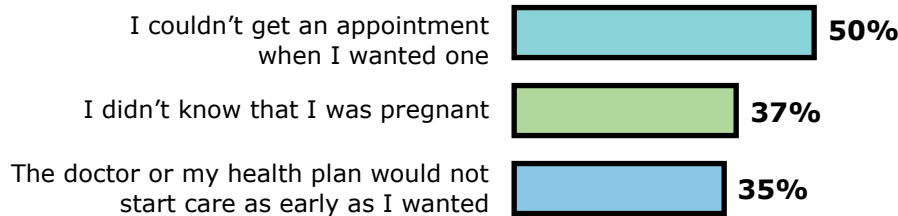


Mothers with **public insurance** are more likely to receive **inadequate or intermediate** prenatal care frequency than mothers with private insurance.

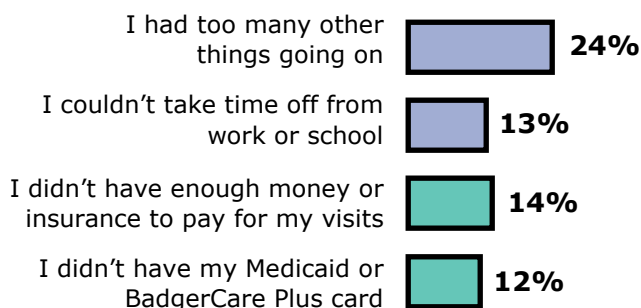


Barriers to Prenatal Care

12% of Wisconsin mothers did not get prenatal care as early as they wanted it. Those who did not receive care as early as they wanted it reported the following barriers:



These three barriers are important public health issues and point to structural needs for more health education around reproduction, increased provider availability, and a more streamlined process for public insurance coverage to begin. Mothers also expressed concerns with **scheduling conflicts** and **money and insurance** getting in the way of early prenatal care.



Lack of transportation can be a **barrier** to accessing health care services.

11% of women in urban areas and
3.6% of women in rural areas

cite lack of transportation to the clinic or doctor's office as a reason for not getting early prenatal care.





Prenatal Care

Prenatal Counseling

Prenatal counseling provides a safe space for women and their partners to talk about concerns that are not typically discussed in social spaces as well as a unique opportunity to share resources and skills. The most commonly reported topics discussed during prenatal counseling are concerns around body image, stress and expectations, anxiety or depression, and trauma from a previous birth or other experience.⁵



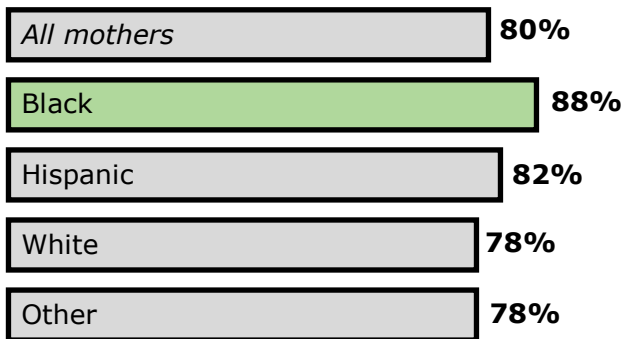
I saw the midwives through [name of facility], who were very attentive and cared for me throughout my pregnancy, during delivery and post partum. The doctors/pediatricians also were kind, caring and attentive with my children, including my newborn.

- PRAMS mom

Prenatal care visits give expectant mothers the opportunity to learn about how to have a healthy pregnancy, birth, and baby. However, **not all Wisconsin women are being given the same information or asked the same questions by their health care providers during their**

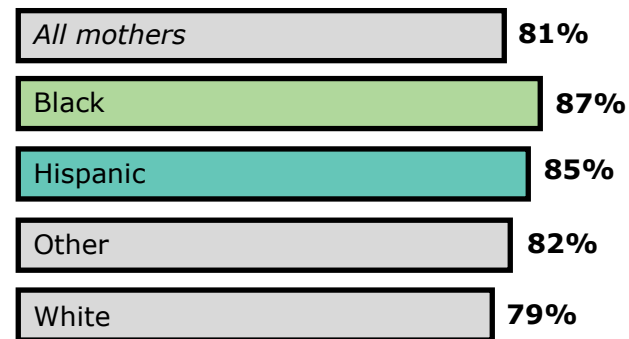
Emotional or physical abuse

Providers are more likely to ask **Black mothers** about abuse than mothers of other races.



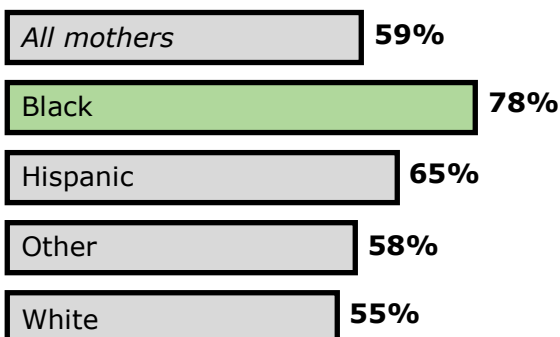
Drug use

Providers are more likely to ask **Black and Hispanic mothers** about drug use than mothers of other races.



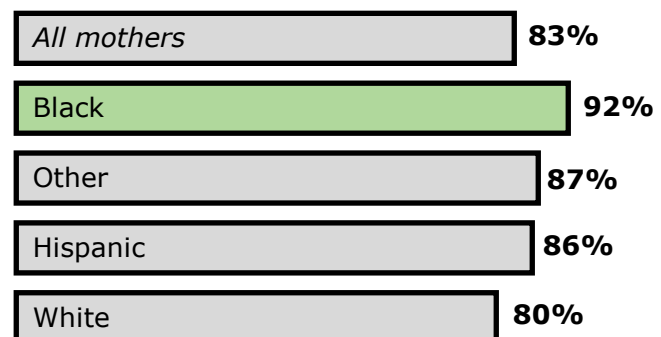
Testing for HIV (the virus that causes AIDS)

Providers are more likely to ask **Black mothers** about HIV testing than mothers of other races.



Birth Control

Providers are more likely to ask **Black mothers** about postpartum contraceptive use than mothers of other races.





Prenatal Care

Satisfaction with Prenatal Care

Research has shown that when providers and patients share similar identities such as race, ethnicity, and gender, the patients feel more open lines of communication.⁶ Twice as many Black mothers (6.1%) report being dissatisfied with the respect shown to them as a person compared with white mothers (3.0%). These discrepancies in patients' views of care highlight the need for more diverse providers. **The goal for prenatal care satisfaction measures is 100%.**



89% of Wisconsin mothers are satisfied with the **amount of time they have to wait** for prenatal care appointments.



92% of Wisconsin mothers are satisfied with the **amount of time the doctor, nurse, or midwife spends with them.**



92% of Wisconsin mothers are satisfied with the **advice they get on how to take care of themselves.**



96% of Wisconsin mothers are satisfied with the **level of understanding and respect shown toward them as a person.**



“Once my nurses found out I was biracial, I was treated differently. No one took my pain levels seriously and I had to advocate for myself constantly.”
- PRAMS mom



WIC Enrollment During Pregnancy

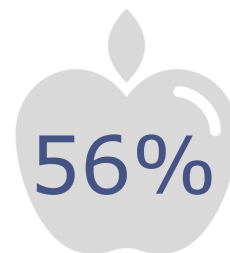
The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides health care and nutritional support for pregnant and postpartum women and their infants and children. WIC supports approximately half of all infants born in the United States.⁷

While families who are enrolled in Medicaid are automatically eligible for WIC services, only 56% of them reported being enrolled in WIC during pregnancy.

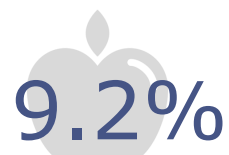


“I also sought out support through the WIC program. They went through the importance of food + nutrition with the nutritionist which was amazing. They offered me so many resources with my toddler and newborn.”
- PRAMS mom

WIC enrollment by Medicaid status



**Medicaid
enrolled**



**Non-Medicaid
enrolled**

Social Contexts of Health

Women with a lower level of education have more children on average, at younger ages, and are at a higher risk for negative birth outcomes.⁸⁻¹⁰

Education



1 in 10 Wisconsin mothers have less than a high school diploma when they give birth.



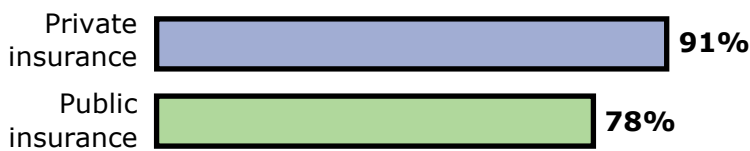
Dental Care

During pregnancy, there is an increased production of hormones. These changes in hormonal balance cause a shift in oral bacteria and change the body's reaction to infections, which can lead to gum inflammation. It is estimated that about 50% of pregnant women have some form of gum disease.¹ Oral health is part of overall well-being of pregnant women, and if left untreated, oral health conditions and infections can negatively impact pregnancy outcomes.²

Dental Care Insurance



The majority of Wisconsin mothers have insurance to cover the cost of dental care, but this varies by health insurance type:



[The] dentist didn't want to see me until after pregnancy once he found out I was [pregnant].

- PRAMS mom

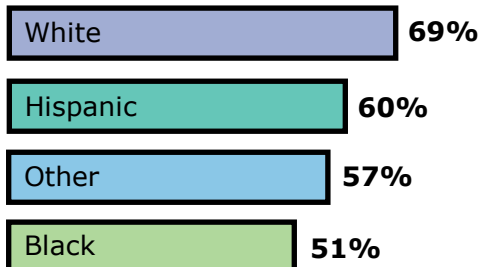
Preventive Dental Care

Mothers who had **insurance** to cover dental care are more likely than those with **no insurance** to have a dental visit in the year prior to pregnancy.

Dental visit in the year prior to pregnancy



White mothers are significantly more likely to have a dental visit in the 12 months before pregnancy than mothers of other races.



Mothers living in **urban counties** are more likely to have a dental cleaning during pregnancy than mothers living in **rural counties**, which may be due, in part, to the availability and density of dental providers in the state.



Social Contexts of Health

Health Insurance Coverage

53% of mothers have employer-provided health insurance, either through their employer or the spouse or partner's employer, in the month before getting pregnant.

The Wisconsin state budget for the 2019–2021 biennium included a modest increase in funding for safety net dental providers.³

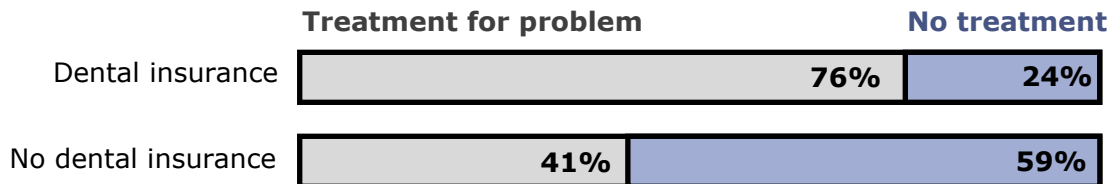


Dental Care

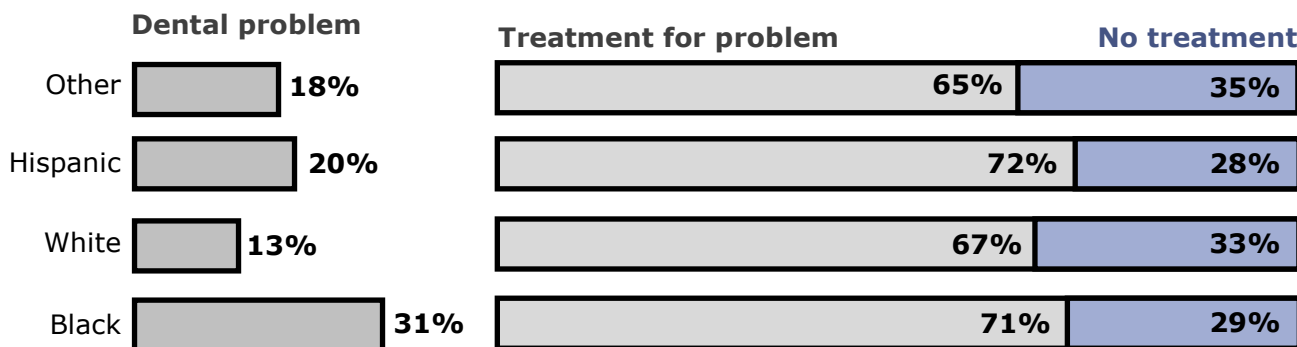
Dental Treatment

17% of mothers report needing to see a dentist for a problem during their most recent pregnancy. However, access to treatment for dental problems varies by dental insurance coverage.

Of mothers reporting needing to see a dentist for a problem, mothers with dental insurance coverage are **nearly 2 times** as likely than mothers with no dental insurance to see a dentist for treatment of a problem.



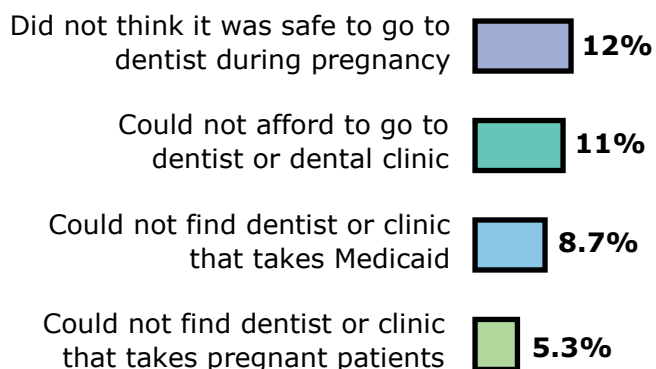
At 31%, Black mothers are more likely to need to see a dentist for a problem than white mothers (13%). Mothers of other races are least likely to receive treatment for dental problems during pregnancy.



Barriers to Dental Care



1 in 4 Wisconsin mothers report at least one barrier to dental care during pregnancy. In addition to individual barriers, many parts of Wisconsin have a shortage of dental care providers.⁴ To learn more, please visit the [Wisconsin Oral Health Program's Resource Center](#).



Increasing Access

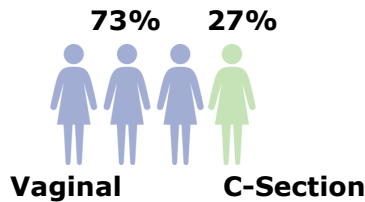
In June of 2017, the Wisconsin State Legislature passed Act 20, which allows dental hygienists to provide preventive dental care in hospitals, medical clinics, group homes, correctional facilities, shelters, nursing homes, and day care centers for children and adults. Act 20 also allows registered dental hygienists to be integrated into medical care teams, with the potential of being integrated into prenatal care for pregnant women.⁵



Pregnancy Outcomes

There are about 63,700 births each year in the state of Wisconsin.¹ Racial inequities in pregnancy outcomes persist in Wisconsin.

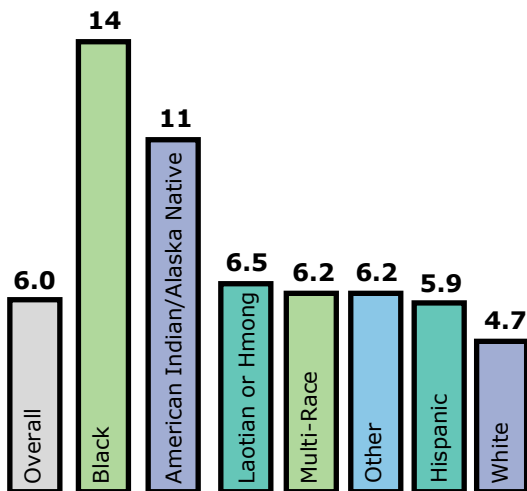
Delivery Method



At 33%, American Indian/Alaska Native mothers are more likely to have a C-Section than mothers of other races.

Infant Mortality

Infant mortality rates are calculated based on the number of infant deaths in the first year of life per 1,000 live births. Infants of **Black mothers** are more likely to die in their first year of life than infants of other races.



Note: Rates are from 2015–2019.

36% of mothers with a prior live birth have an inter-pregnancy interval shorter than the recommended 18 months.

6.6% of infants stay in the hospital more than five days after delivery.

Social Contexts of Health

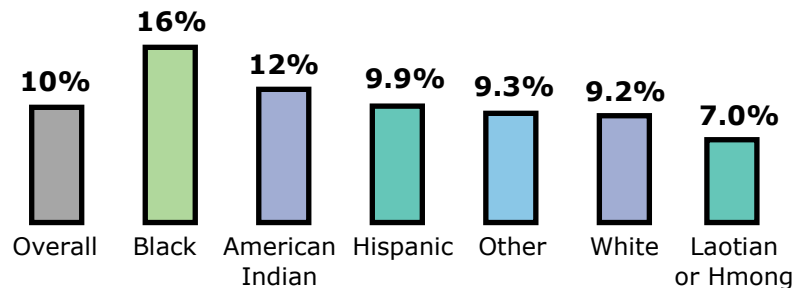
Stress

Multiple stressful events can make it even harder for a person to stay healthy and cope effectively.²

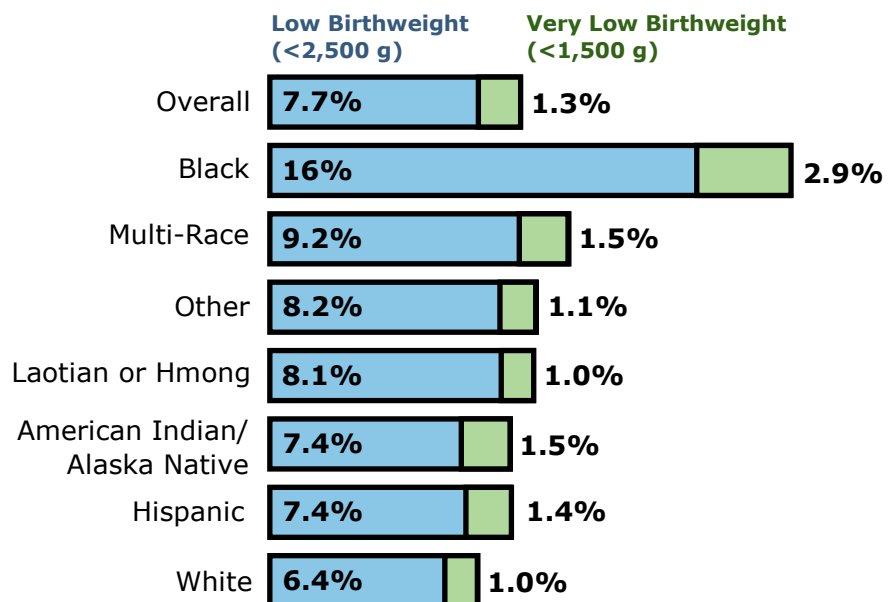
Black mothers are more likely to experience six or more stressful events in the year before the birth of their baby than mothers of other races.

Note: Data on this page are from PRAMS and birth and death records from the Wisconsin Vital Records Office.

Preterm Birth (<37 weeks gestation)



Low Birthweight



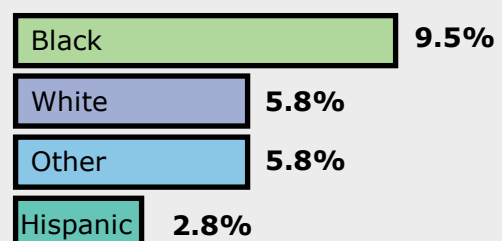
Maternal Outcomes



0.7% of mothers are transferred after delivery.



1.9% of mothers have a fever after delivery.





Post-Pregnancy Health Care

Postpartum visits are vital to promoting women's health. These visits provide both a clinical examination to potentially detect and prevent life-threatening health problems and create time for providers and patients to discuss social and environmental concerns.

Postpartum Visit

Women are more likely to access care if they have insurance coverage and a relationship with their primary care provider.¹

91% of Wisconsin mothers receive a postpartum checkup after giving birth.

New mothers who have **public insurance** are less likely than mothers with private insurance to receive a postpartum visit.

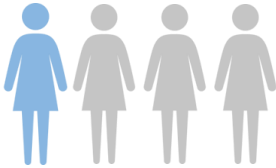
Did not have a postpartum visit

Private insurance **2.7%**

Public insurance **16%**

{↑ 6.4% from 2016–2017}

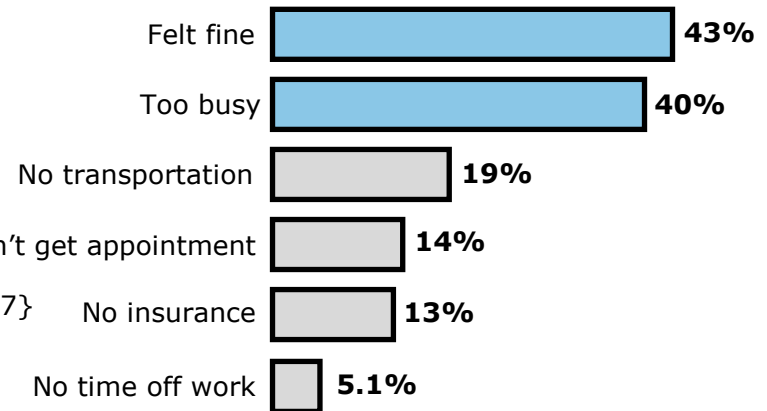
1 in 4 mothers without insurance after their pregnancy **do not** receive a postpartum checkup.



Barriers to Postpartum Care

43% of mothers who did not receive a postpartum visit reported that they felt fine so they did not think they needed one.

Additionally, **40%** were too busy, which may be due to the many roles mothers often take on including taking care of other children, working, pursuing education, maintaining a household, etc.



Post partum is a very challenging time for not just mothers but families all together.

- PRAMS mom

Need for more support groups for mom in postpartum period.

- PRAMS mom

Postpartum Counseling

The American College of Obstetricians and Gynecologists recommends a comprehensive postpartum visit four to six weeks after delivery.² Provider counseling during the postpartum visit should include a full assessment of physical, social, and psychological well-being. Overall, postpartum counseling was similar in 2018–2019 and 2016–2017.



92% of Wisconsin mothers are asked about feeling depressed.



68% of Wisconsin mothers are asked if they are smoking cigarettes.



65% of Wisconsin mothers are asked if someone is hurting them emotionally or physically.



53% of Wisconsin mothers are told about healthy eating and exercise {↓ 4.5% from 2016–2017}.



52% of Wisconsin mothers are told to take a vitamin with folic acid.



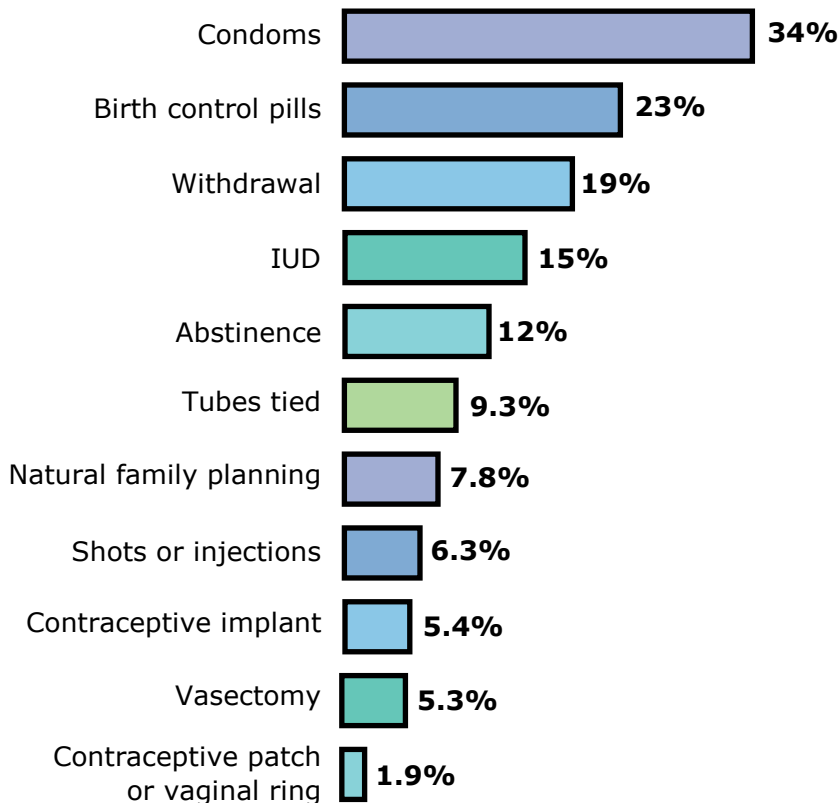
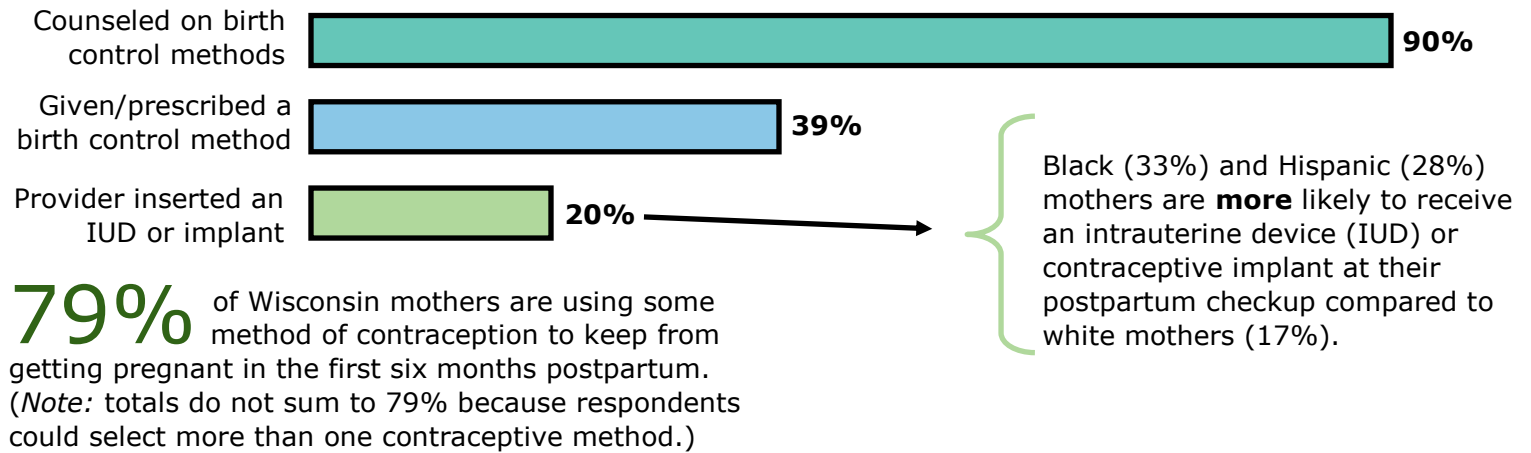
14% of Wisconsin mothers are tested for diabetes {↓ 3.2% from 2016–2017}.



Post-Pregnancy Health Care

Postpartum Contraception

Postpartum visits provide important information on contraception options and education on the importance of pregnancy spacing for the health of the mother and future pregnancies.^{3,4} Contraception use is an important way to ensure spacing of future pregnancies.

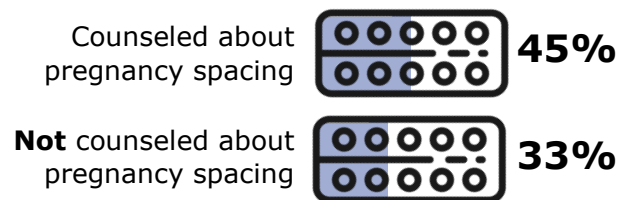


Pregnancy Spacing

Half of Wisconsin mothers are counseled on how long to wait before getting pregnant again.

Mothers who are **counseled** about pregnancy spacing are **more likely** to be **prescribed birth control** during their postpartum visit than mothers who are not counseled.

Percent prescribed birth control at postpartum visit

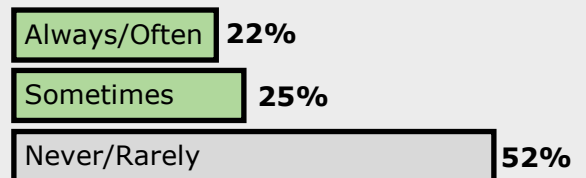


Social Contexts of Health

Financial insecurity is one of the most commonly reported sources of stress for pregnant women, and is associated with increased risk of preterm birth.⁴⁻⁶

Financial Insecurity

1 in 2 new mothers are always, often, or sometimes worried about having enough money to pay their bills.





Breastfeeding

Since 2009, breastfeeding initiation has increased overall and among all racial groups. The percent of parents who ever breastfed increased from 83% in 2009 to 89% in 2018–2019. However, increasing trends have flattened over the last five years.

Initiation and Duration

9 in 10 white mothers ever breastfed their new baby.



Breastfeed 4+ weeks **83%**

Breastfeed 8+ weeks **77%**

9 in 10 Hispanic mothers ever breastfed their new baby.



Breastfeed 4+ weeks **76%**

Breastfeed 8+ weeks **63%**

7.5 in 10 Black mothers ever breastfed their new baby.

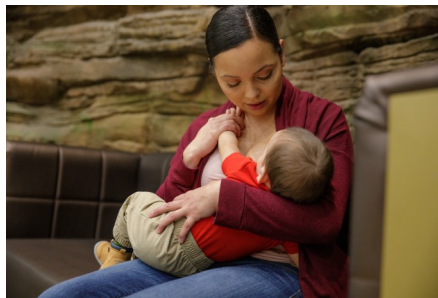


Breastfeed 4+ weeks **53%**

Breastfeed 8+ weeks **41%**

Breastfeeding Information

65% of mothers receive information about breastfeeding from their **family or friends** and **77%** receive information from their **doctor**.



Deberían haber más programas para motivar a las madres a amamantar a sus bebés.

There should be more programs to encourage mothers to breastfeed their babies.

- PRAMS mom

Hospital Practices

Overall, **Black** and **Hispanic** mothers are less likely than **white** mothers to report that their hospital experience followed best practices for establishing breastfeeding.

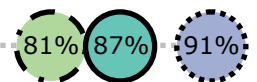
Given a gift pack with formula



Baby given a pacifier in the hospital



Mom instructed to feed baby on demand



Baby fed only breastmilk at the hospital



Social Contexts of Health

Family Leave

56% of mothers who work are able to take paid leave after the birth of their new baby. They are slightly more likely to breastfeed their babies for four weeks or more than mothers who can not take paid leave.

Breastfeeding four or more weeks

Paid leave **85%**

No paid leave **63%**



Safe Sleep

The American Academy of Pediatrics (AAP) recommends the following practices every time an infant sleeps: alone; on their back; on a flat, firm surface free of loose objects; and in a smoke-free space.¹ Breastfeeding is also considered a protective factor for sleep-related infant death.

Alone

2 in 5 Wisconsin infants do **not** always sleep alone in their own bed or crib.



Mothers **living in poverty** (48%) and **near poverty** (47%) are more likely to not always have their baby sleep alone in their own bed or crib than mothers not living in poverty (31%).

3 in 4 Wisconsin mothers room share with their baby.

59% of Wisconsin mothers receive counseling from their health care provider about room sharing with their new baby {↑ 9.7% from 2016–2017}.

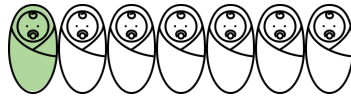
2 in 5 Wisconsin infants sleep with a blanket {↓ 5.8% from 2016–2017}.

1 in 10 infants sleep with crib bumper pads {↓ 4.2% from 2016–2017}.

88% of Wisconsin mothers report receiving counseling about things that should and should not be in their baby's sleep environment. The AAP recommends that blankets, bumper pads, and other loose objects should *not* be in the sleep environment.

Back

1 in 7 Wisconsin infants are **not** usually placed on their back to sleep.



95% of Wisconsin mothers report receiving counseling from their health care provider about laying their baby on their back to sleep.



Mothers **living in poverty** (78%) and **near poverty** (82%) are less likely to place their baby on their back to sleep than mothers not living in poverty (91%).

Breastfeeding

2 in 3 Wisconsin mothers are breastfeeding two to six months postpartum.



86% of Wisconsin mothers who ever breastfed reported that staff at the birth hospital helped them establish breastfeeding.

Crib

2 in 5 Wisconsin infants regularly sleep in a car seat or swing, which is not recommended by the AAP.



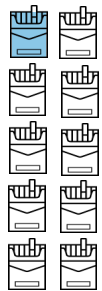
90% of Wisconsin mothers receive counseling from their health care provider about placing their baby to sleep in a crib, bassinet, or play yard.

Smoke-Free

68% of Wisconsin mothers are asked about smoking cigarettes at their postpartum visit.

1 in 10

Wisconsin mothers smoke cigarettes after their baby is born.



Mothers **living in poverty** (19%) and **near poverty** (8.5%) are more likely to smoke cigarettes postpartum than mothers not living in poverty (2.1%).

Social Contexts of Health

Homelessness can impact a family's ability to provide a safe sleep environment for their new baby.

2.2% of Wisconsin mothers experience homelessness in the 12 months before their baby is born.

Homelessness

Baby always sleeps alone in own crib or bed





Perinatal Depression

Women with perinatal depression experience intense feelings of extreme sadness and anxiety. This can interfere with a mother's ability to care for herself, her newborn, and her family.¹ There is no single cause of perinatal depression and it can affect anyone. The American College of Obstetricians and Gynecologists recommends that pregnant women be screened at least once during pregnancy, and then at one, two, four, and six months postpartum.²

Depression History

Pre-pregnancy history of depression is the strongest predictor of perinatal depression risk.³

20% of Wisconsin mothers report experiencing depression in the three months prior to becoming pregnant, and

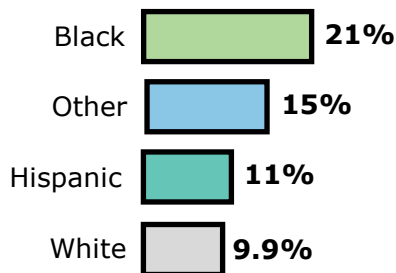
17% of Wisconsin mothers report experiencing depression during their pregnancy, marking an increase over 2016–2017.

Postpartum Depression



12% of Wisconsin mothers report experiencing postpartum depressive symptoms after giving birth compared to 13% nationally.⁴

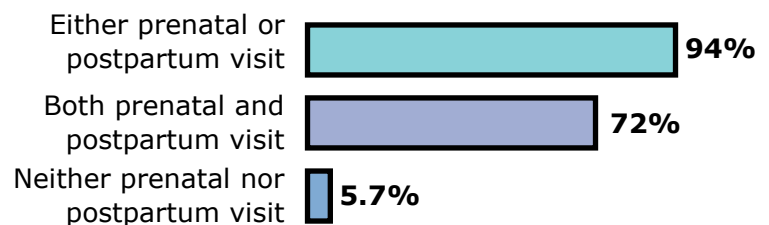
Women of color are much more likely to experience symptoms of postpartum depression than white mothers.



Depression Screening

At 12%, the prevalence of postpartum depressive symptoms is similar for those who are screened and those who are not. This indicates providers are missing people who could benefit from screening.

Timing of depression screening



I wish postpartum depression symptoms were discussed more. It doesn't always present as "weeping and feeling little pleasure in doing stuff." There's more symptoms.

- PRAMS mom

Mothers living in **poverty** and **near poverty** are much more likely to experience symptoms of postpartum depression than mothers who are not living in poverty.

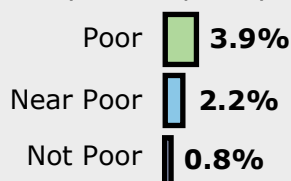


Social Contexts of Health

Social Support

Less than 1% of mothers do not have anyone in their life who could help them in a time of need.

However, mothers living below the federal poverty line are much more likely to completely lack social support.



Wisconsin **mothers living in poor households** are also much **less likely** to receive support from a parent or other family member.





Parental Employment and Leave

Newborn infants require nearly round-the-clock care, and many parents prefer to provide this care themselves in the first weeks and months of life. However, sometimes this family responsibility can conflict with employment.

Employment

Employment during pregnancy and postpartum has both benefits and risks. Working for pay offers social and economic benefits, but some jobs may expose pregnant people to toxins or physical and psychological strain.¹

3 in 4 Wisconsin mothers work at a job for pay during their pregnancy.



1 in 5 Wisconsin mothers do not plan to return to work after giving birth.



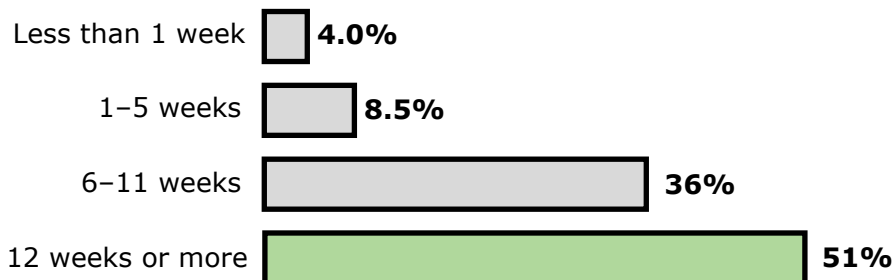
“Even with a decent job, I could not afford to be away long without pay. I can't imagine what some families go through. Paid leave needs to be mandated for new mothers for the minimum 6-week recovery time.”

- PRAMS mom

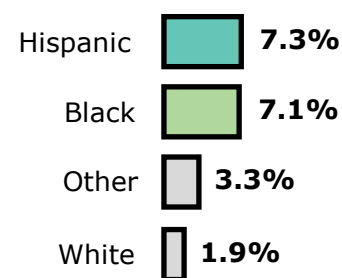
Maternity Leave

Leave from work following birth is beneficial to the physical recovery process for the mother, as well as for parental bonding with the new baby. It is also very helpful for establishing breastfeeding, if this is something a family wants to do.²

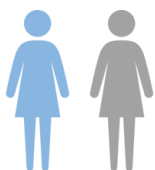
96% of working mothers took some form of leave after giving birth, though the amount of time varied significantly.



Although a small percent of working mothers did not take leave after giving birth, **Hispanic** and **Black mothers** are more likely to **not take any leave** than other race and white mothers.



Paid parental leave allows new parents time to bond with their babies without risking economic well-being that could impact the family's health.



Among working mothers who took *any* leave after their baby was born, only **half** took some amount of **paid leave**.



Only **43%** of all working Wisconsin dads took **paid leave** after the birth of their

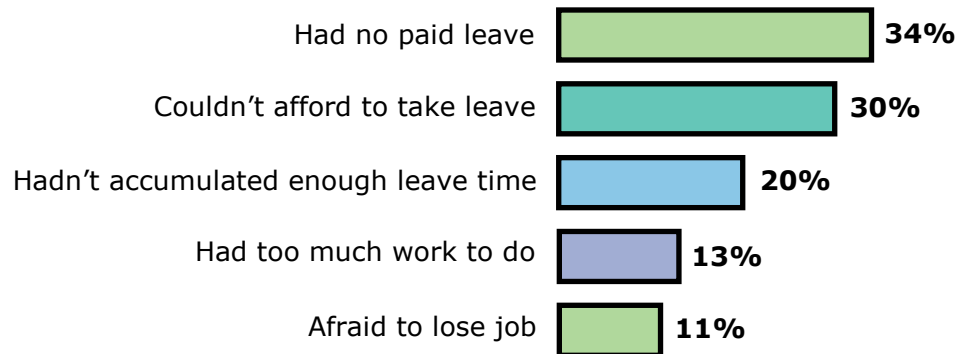
However, not everyone has access to paid leave or has the amount of paid leave they would like to recover from birth. Of working Wisconsin mothers who took leave after giving birth, 66% reported taking unpaid leave, either on its own or in addition to paid leave {a significant ↑ from 2016–2017}.



Parental Employment and Leave

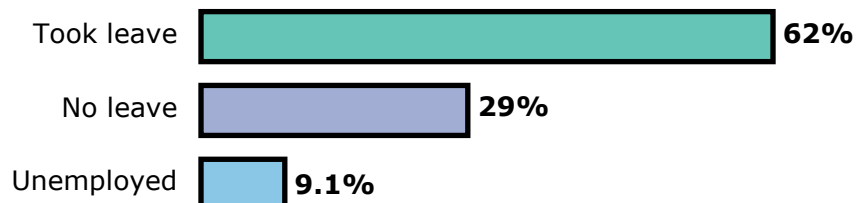
Barriers to Taking Leave

All PRAMS respondents are asked which factors influenced their decision to take leave following the birth of their baby. Economic factors are the most commonly reported as influencing the decision.



Paternity Leave

Time with an infant is also important for the co-parenting partner to bond with their baby. However, a smaller proportion of families report that the father of the baby took leave from work.



Financial Stress

Having a new baby means additional expenses for a family. When families do not have access to paid leave from work, the financial stress can be made worse by lost income or having to pay for childcare.



Half of Wisconsin mothers always, often, or sometimes worry or stress about having enough money to pay their bills after their baby is born {↓ 5.8% from 2016-2017}.

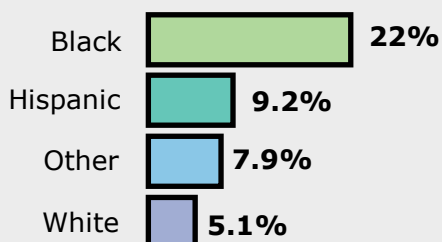
New parents who do not take paid leave (57%) after the birth of their new baby are more likely to be always, often, or sometimes stressed about paying bills than parents who do take paid leave (40%).

Social Contexts of Health

Unemployment

People who are unemployed are more likely to have fair or poor health, develop chronic conditions such as cardiovascular disease, or be diagnosed with depression.³

Black mothers are more likely to lose their job in the 12 months prior to giving birth.



There is **no significant difference** by race or ethnicity in how likely mothers and their partners are to **experience a cut in work hours or pay** in the 12 months before giving birth.



No mother should be in fear of losing her job to have a baby.

- PRAMS mom

Additional Information on PRAMS



To learn more about Wisconsin PRAMS, please visit the Wisconsin Department of Health Services [webpage](#).



WISCONSIN DEPARTMENT
of **HEALTH SERVICES**



WISCONSIN
PRAMS
PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

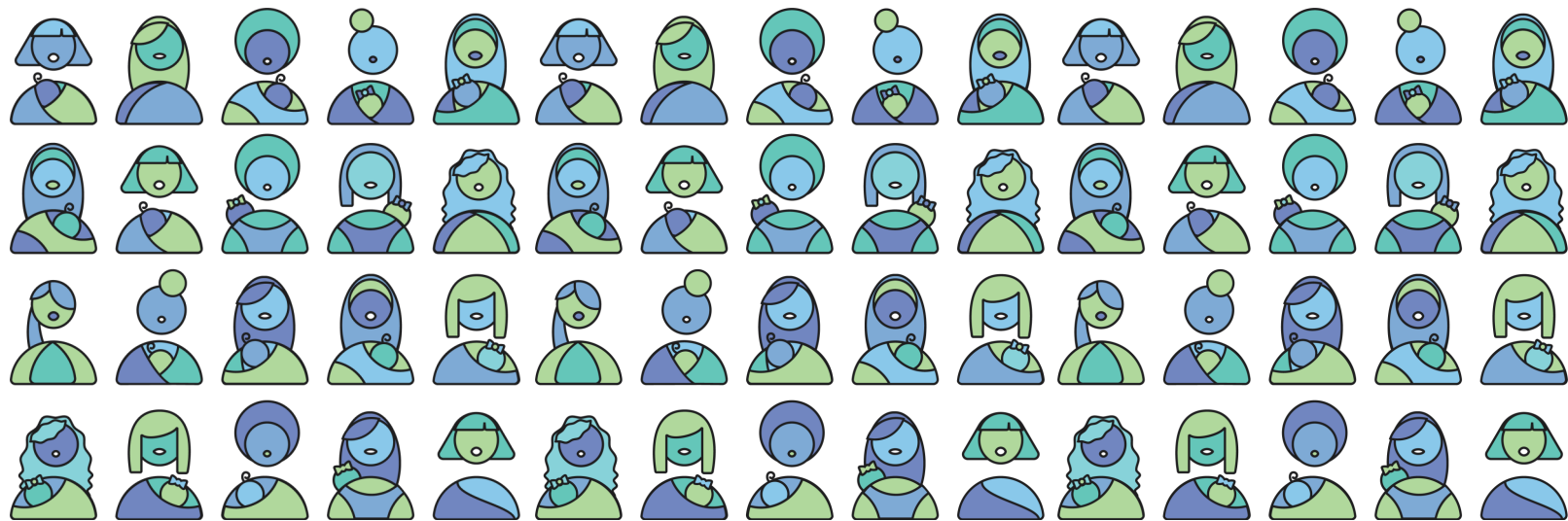
To learn more about PRAMS, please visit the Centers for Disease Control and Prevention [webpage](#).



Centers for Disease
Control and Prevention



PRAMS
PREGNANCY RISK ASSESSMENT MONITORING SYSTEM





Appendix A: Methodology

PRAMS is a sequential mixed mode survey that collects data first by mail and then follows up by phone with non-responders. Each month, a stratified sample of new moms is randomly selected from recent Wisconsin birth certificates. The following information about sampling, data collection, and response rates includes specific information related to 2018 and 2019 data.

Sampling

Each month, a random sample of mothers is selected from birth certificates of infants born two to three months earlier. The sample excludes adoptive mothers, surrogates, Act 2 or safe haven infants, and multiple births of four or more. The sample also excludes out of state residents who gave birth in Wisconsin, as well Wisconsin residents who gave birth in other states. All mothers of live-born infants are eligible to be sampled. However, this means that a few mothers of deceased infants are included in each year's sample. The survey questions are the same, but the letters to these mothers are worded slightly differently and are handled with the utmost respect and sensitivity.

2018 Sample Design

1. White, non-Hispanic mothers (1:85)
2. Black, non-Hispanic mothers (1:7)
3. 'Other' mothers, including Hispanic mothers (1:18)

2019 Sample Design

1. White, non-Hispanic mothers (1:99)
2. Black, non-Hispanic mothers (1:9)
3. 'Other' mothers (1:18)

2018 and 2019 Wisconsin PRAMS Sample Sizes and Respondents

	White, non-Hispanic		Black, non-Hispanic		Other		Overall	
	Sample	Responses	Sample	Responses	Sample	Responses	Sample	Responses
2018	509	296	1,021	479	595	283	2,125	1,058
2019	397	243	769	235	546	232	1,712	710

2018 and 2019 Wisconsin PRAMS Weighted Response Rates

	White, non-Hispanic	Black, non-Hispanic	Other	Overall
2018	63.1%	46.9%	47.4%	55.0%
2019	61.2%	30.6%	42.5%	60.4%

Appendix A: Methodology



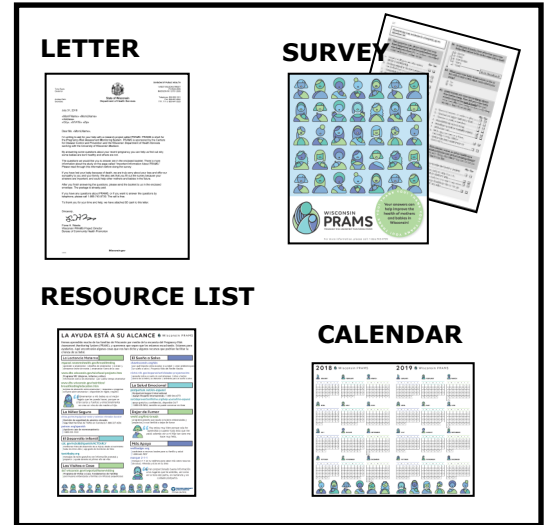
Mail Data Collection

Two to four months after the baby's birth, each mother in the sample is sent an introductory letter about the project. The PRAMS survey packet is mailed a week later, and includes a cover letter explaining more about PRAMS, the survey, a list of resources for new parents, and a calendar to help aid in filling out the survey. For any mother who indicates Hispanic ethnicity on the baby's birth certificate, all materials are provided in both English and Spanish.

A reminder letter, as well as a second and third survey packet, are sent to sample members who do not complete and return the survey from the first packet. Those who do not respond by mail after seven weeks are followed up by phone.

Address information for sample members are located from a variety of sources including Wisconsin birth certificates, Medicaid records, WIC records, internet sites, and USPS.

mail materials



Phone Data Collection

Trained telephone interviewers, all of whom are women, call sample members who do not respond to the mailed survey. As with mailing materials, any mother who indicated Hispanic ethnicity on the baby's birth certificate is called by interviewers fluent in both English and Spanish.

Telephone numbers for sample members are located from a variety of sources including Wisconsin birth certificates, Medicaid records, WIC records, and internet sites.

Pre-Incentives and Rewards

In 2018, Black mothers received a \$20 reward for participation, which corresponded to a significant increase in the response rate of Black moms. Other sampled moms were offered a \$5 reward for participation in the PRAMS survey. No pre-incentive was given to sample members in 2018.

In 2019, while the first two months of births had no pre-incentive, Black moms received a \$10 reward for participation. For the next three months, a \$5 pre-incentive was offered to all moms, and no reward was given. For the rest of the year, a \$5 pre-incentive and \$10 reward for participation were offered to all moms, resulting in increased mail response rates for white and other race mothers compared to 2018.



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