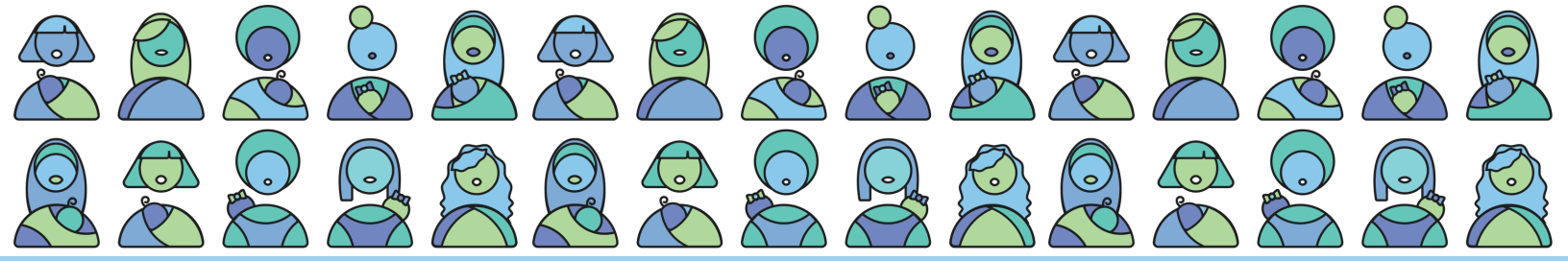


WISCONSIN PRAMS
2016-2017 SURVEILLANCE REPORT

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 education opportunities, access to transportation, social support systems, and 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 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 2016 or 2017, unless otherwise noted.

The data from PRAMS have all the 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," and "mother(s)," the population represented in these data also includes gender non-conforming people and transgender men who still have the ability to become pregnant and give birth.

How do we look at the 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.

Results reported by race/ethnicity include non-Hispanic white, non-Hispanic black, Hispanic, and women 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.

Racial/ethnic stratifications are available in the appendix and other stratifications can be requested.

CONTACT WISCONSIN PRAMS

Email: dhsdphprams@wi.gov
Website: https://dhs.wisconsin.gov/stats/prams/index.htm

Division of Public Health
P-02500 (10/2019)

WISCONSIN DEPARTMENT of HEALTH SERVICES

Table of Contents

Each section is linked!

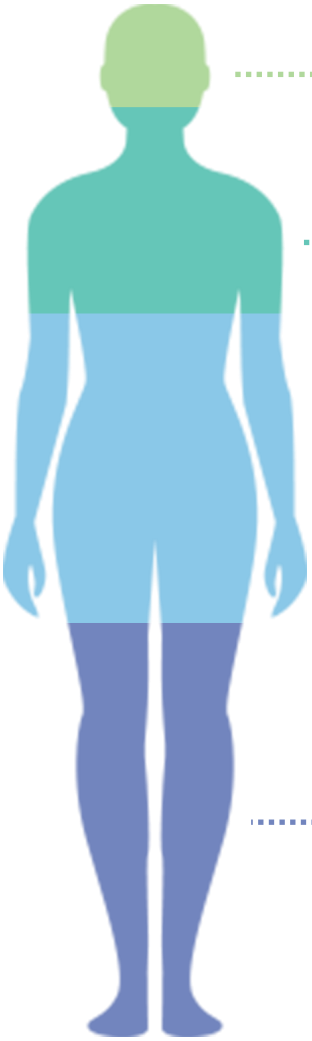
You can easily navigate to different parts of this report by clicking on the topic you'd like to view!

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.

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, environmental exposures, and risk behaviors such as substance use.[2] Although not all prenatal risk factors can be eliminated, early, regular, and adequate health care is an important aspect of comprehensive care.

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

56% of Wisconsin mothers are overweight or obese (BMI 25+) prior to pregnancy.

24% of Wisconsin mothers have anxiety, and **16%** of Wisconsin mothers have depression.

14% of all Wisconsin mothers have anemia or low iron in their blood prior to pregnancy, while 33% of black mothers have anemia.

13% of all Wisconsin mothers have asthma prior to pregnancy, while 21% of black mothers have asthma.

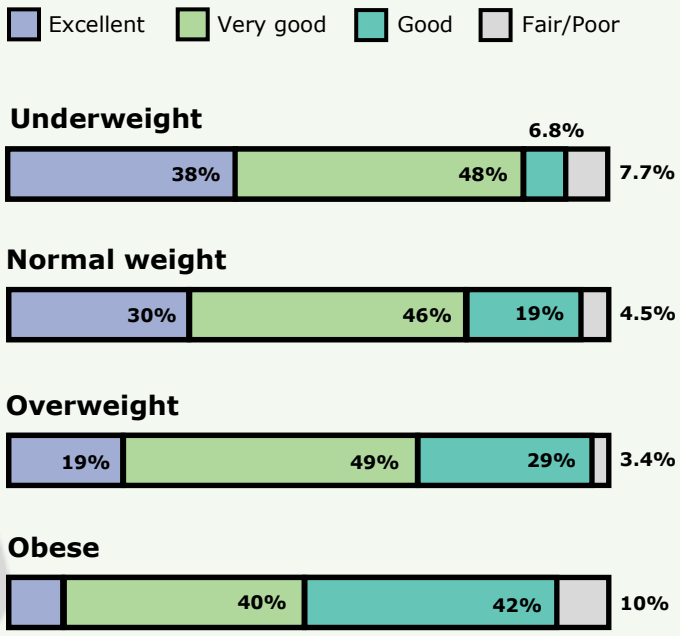
6.9% of Wisconsin mothers have thyroid problems prior to pregnancy.

5.5% of all Wisconsin mothers have high blood pressure prior to pregnancy, while 11% of black mothers have high blood pressure.

5.5% of Wisconsin mothers have polycystic ovarian syndrome (PCOS).

3.8% of Wisconsin mothers have Type 1 or Type 2 diabetes prior to pregnancy.

As BMI increases, mothers are less likely to self-report excellent health.



Is there a relationship between someone's self-reported health status and a clinical evaluation of health?

Yes! Research shows there is a relationship between being clinically overweight or obese and having poorer self-reported health. However, this relationship tends to have a larger influence on physical health than mental health.[3,4,5]

Social Contexts of Health *economic food insecurity*

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

8.3% 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.

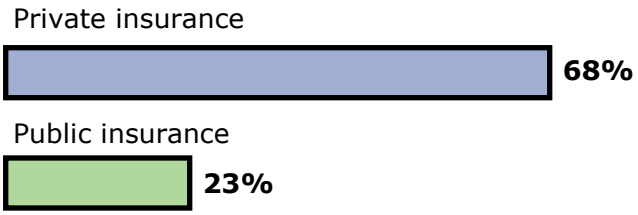
Pre-Pregnancy Health Care

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 and a relationship with their primary care provider.[3]

Prior to pregnancy, more than two-thirds of Wisconsin women have private health insurance, but 9% are uninsured.



1 in 10 Wisconsin mothers **do not** have health insurance in the month prior to becoming pregnant.

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

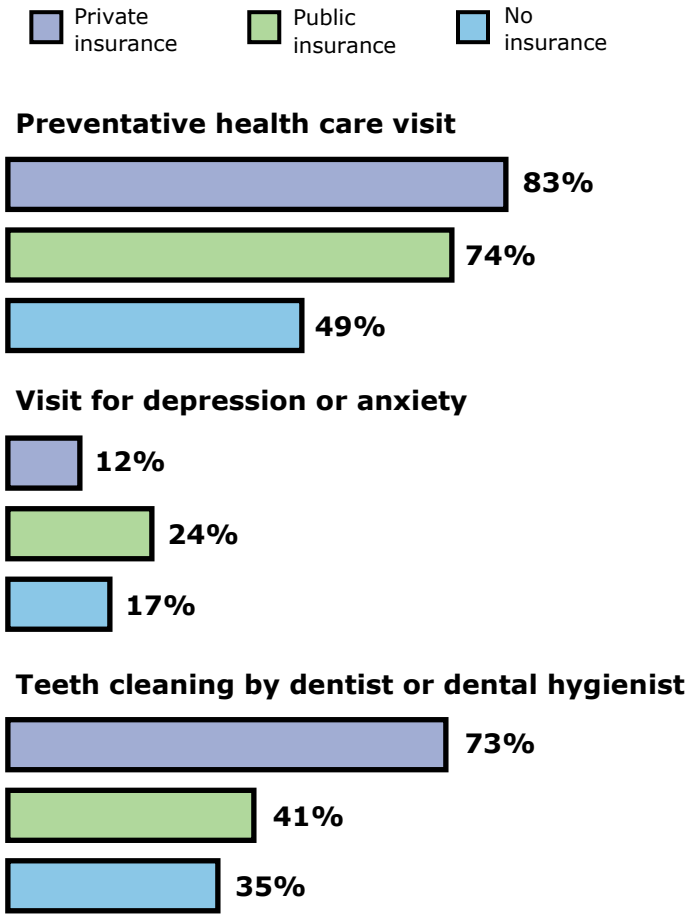
"I was seen by an OB/GYN MD prior to becoming pregnant for a true "pre-natal" assessment. This helped my husband and I build a trusting relationship with our provider. It's unfortunate that not all women take or have the opportunity to just sit and talk about a future pregnancy before it happens.

- PRAMS mom

Health Care Visits

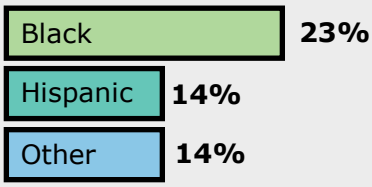
Almost three-quarters of Wisconsin mothers see a health care professional in the year before getting pregnant with their most recent baby.

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



Social Contexts of Health — *racial discrimination*

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



Experiences of racial discrimination are linked to high blood pressure, low birth weight, and poor health status.[5,6,7] Racism also impacts other determinants of health, such as access to employment and housing opportunities.[8,9]

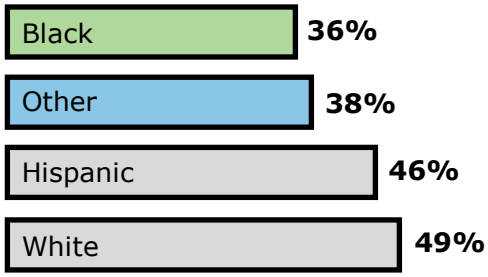
Pre-Pregnancy Health Care

Provider Counseling

When women do receive health care services, often the content of the visits vary by race and ethnicity.[10,11,12] The PRAMS asks women about pre-pregnancy counseling, and the responses highlight the different experiences women of color have when speaking with their providers.

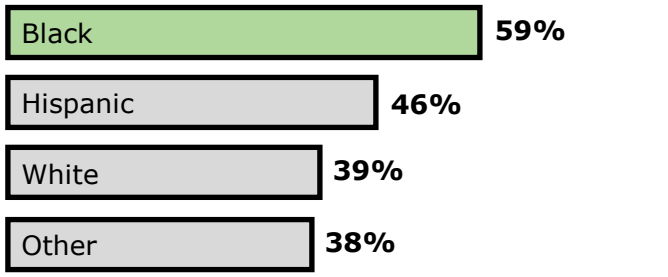
Talk to me about my desire to have or not have children

Black and **other minority race mothers** are **less** likely to be counseled on family planning than white mothers.



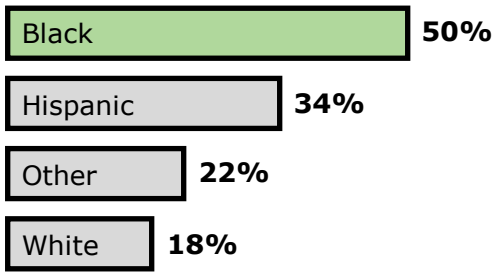
Talk to me about using birth control to prevent pregnancy

Black mothers are **more** likely to be counseled on birth control use than mothers of other races.



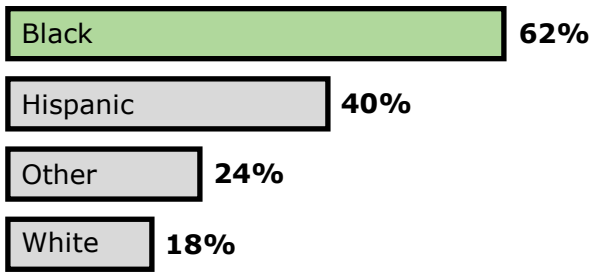
Talk to me about sexually transmitted infections (STIs)

Black mothers are **more** likely to be counseled on STIs than mothers of other races.



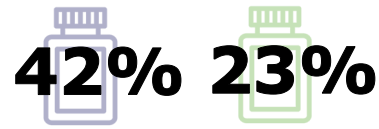
Test me for HIV (the virus that causes AIDS)

Black mothers are **more** likely to be tested for HIV 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.[14,15,16,17,18]



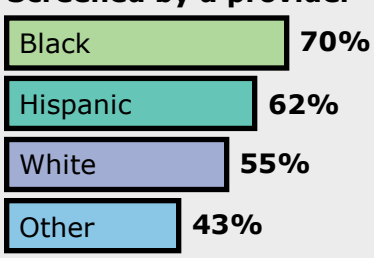
Mothers with **public insurance** are much **less likely** to take prenatal vitamins daily in the month before pregnancy than mothers with private insurance.

Social Contexts of Health — *intimate partner violence*

Intimate partner violence affects both the short- and long-term safety of mom and baby.[19,20]

56% 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 preventative healthcare visits.

Screened by a provider

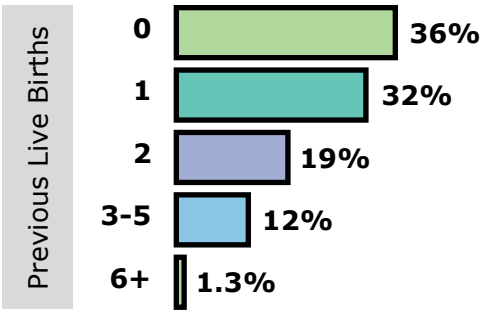


Pregnancy History

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

Almost two-thirds of Wisconsin women who gave birth in 2016-2017 have had a previous live birth.



Previous Preterm Birth

Among women who had previously given birth, 9.3% had at least one **previous preterm birth**.

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

At the time they became pregnant, 20% of Wisconsin women had given birth in the past 18 months, 18% had given birth between 18 and 36 months before, and 21% had given birth more than three years before, but not since then.

Previous Cesarean Delivery

of Wisconsin women who had previously given birth had a **previous cesarean delivery**.

"Just know every woman, pregnancy and baby are different, no matter how many times you have been through it."

- PRAMS mom

Pregnancy Intention

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

Unintended 23%

Wanted to be pregnant later than they did or never

First pregnancy **38%**

3+ previous live births **19%**

Married **44%**

Living in or near poverty **70%**

Intended 63%

Wanted to get pregnant when they did or sooner

First pregnancy **38%**

3+ previous live births **9.3%**

Married **78%**

Living in or near poverty **37%**

Unsure 14%

Uncertain about pregnancy timing

First pregnancy **31%**

3+ previous live births **21%**

Married **41%**

Living in or near poverty **79%**

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

Social Contexts of Health *household income*

BEFORE GIVING BIRTH

44% of women are living in poor or near poor households.

AFTER GIVING BIRTH

50% of women are living in poor or near poor households.

The **Earned Income Tax Credit** is a federal and state program where families get an additional tax return. It is a promising policy approach to positively impact maternal and infant health.[3]

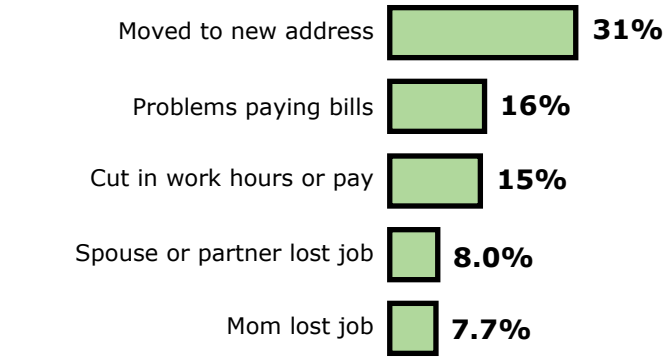
Social Factors

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]

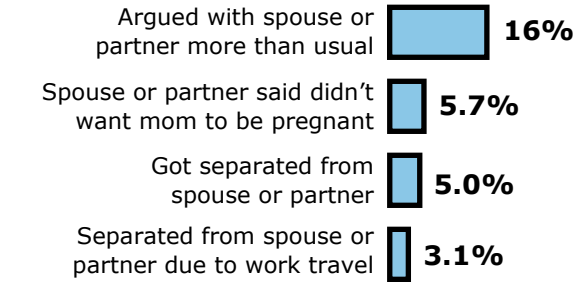
Stressful Life Events

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 in the 12 months prior to giving birth.

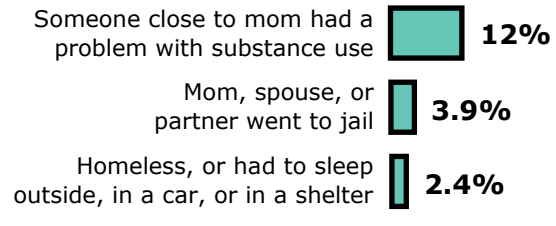
FINANCIAL



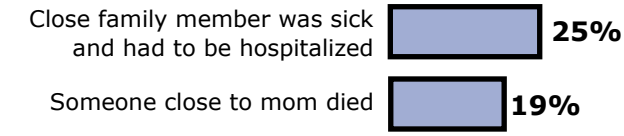
PARTNER



TRAUMATIC



EMOTIONAL



FINANCIAL | 43% of mothers living in poverty and 37% of mothers living near poverty moved to a new address.

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

PARTNER | Mothers living in poverty are more likely to have their spouse or partner say they didn't want mom 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 | 25% of mothers age 19 and younger had someone close to them have a problem with drinking or drugs.

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 twice as likely as mothers of other races to have someone close to them die.

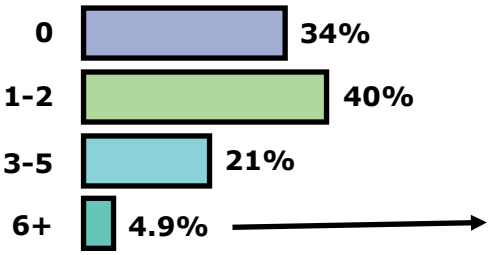
EMOTIONAL | Mothers living in poverty or near poverty are more likely to have someone close to them die than mothers who are not poor.

Social Factors

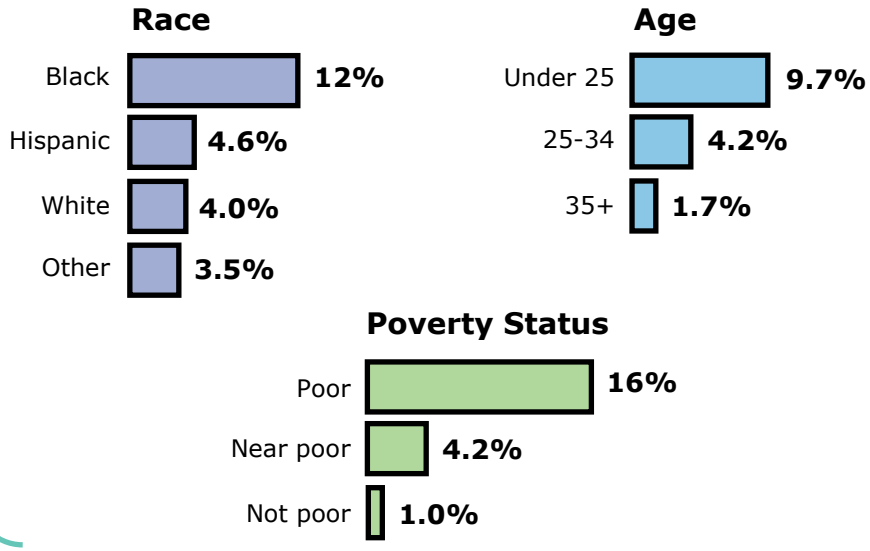
Stressful Life Events

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] Race, age, and poverty status are associated with level of risk of experiencing multiple stressors.

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



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



"My last pregnancy was hard on me because I lost my job & car so I am currently struggling and trying to make ends meet."
- PRAMS mom

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]

3.5% of mothers experience **physical abuse** by their spouse or partner before or during pregnancy.

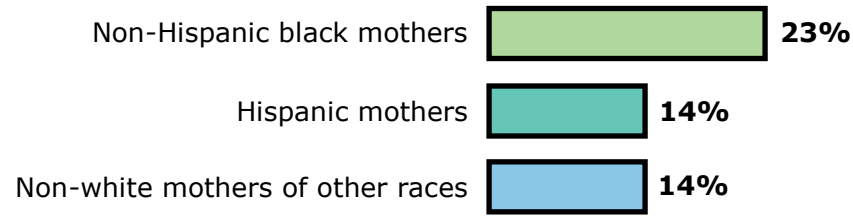
4.9% of mothers experience **emotional or sexual abuse** by their spouse or partner during pregnancy.

"I would like to say I went through a lot of emotional and physical abuse and mental abuse and my baby wasn't born very big."
- PRAMS mom

Racial Discrimination

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

Among non-white mothers in Wisconsin, about a quarter reported experiencing interpersonal racism in the 12 months prior to giving birth, though that differed by race.



Social Factors

Neighborhood Safety

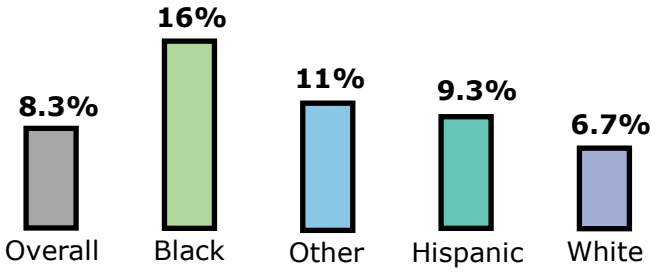
8.8% of mothers always, often, or sometimes feel **unsafe** in the neighborhood where they are living.

However, mothers living in **poverty** or **near poverty** are more likely than mothers who are **not poor** to report feeling always, often, or sometimes unsafe.

Poor: household income <100% of the federal poverty level.
Near poor: household income between 100% and 200% of the federal poverty level.
Not poor: household income >200% of the federal poverty level.

Food Insecurity

5,000 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 times more likely to give birth to a baby that is small for gestational age (SGA) compared to other mothers.

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 the 15,000 unintended pregnancies in Wisconsin each year, these behaviors can directly affect a fetus in the early stages of development.

4.3% of Wisconsin mothers drink excessively during the three months before pregnancy.
Excessive drinking: more than 7 drinks/week

At 70%, Wisconsin has significantly higher rates of drinking **any** alcohol in the three months before pregnancy than national rates (55%).[9]

21% of Wisconsin mothers smoke cigarettes during the three months before pregnancy.

7.9% of Wisconsin mothers smoke marijuana during the three months before pregnancy.

5.5% of Wisconsin mothers use prescription pain medication during the three months before pregnancy.

2.1% of Wisconsin mothers use illicit drugs such as amphetamines, heroin, hallucinogens, and tranquilizers during the three months before pregnancy.

smoking and stress

Of mothers who experience six or more stressful life events,

75%

smoke cigarettes in the three months before their most recent pregnancy.

"Every situation is different. When I became pregnant my partner was a recovering drug addict, and still technically is[.] [I]t's a mental disease that I, myself, will truly never understand; but he does work and pays the bills."

- PRAMS mom

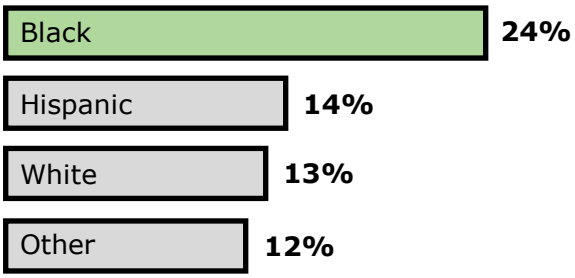
Pregnancy Health

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.

18% of Wisconsin mothers are anemic during their pregnancy.

14% of Wisconsin mothers have depression during their pregnancy.

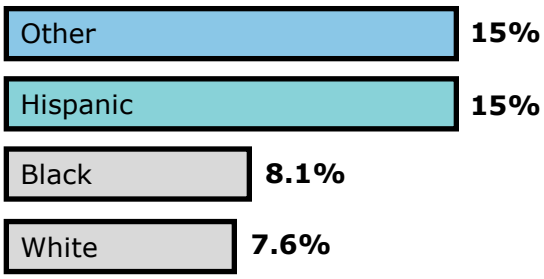
Black mothers are more likely to have depression during pregnancy than women of other races.



11% of Wisconsin mothers have high blood pressure during pregnancy.

8.9% of Wisconsin mothers have gestational diabetes that started during their most recent pregnancy.

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



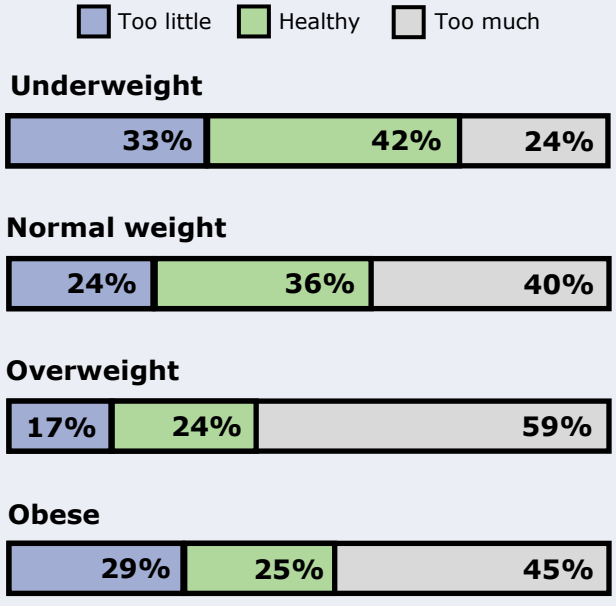
Pregnancy Weight Gain

25% of Wisconsin mothers gain **less** weight than recommended during pregnancy.

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

1 in 3 **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).



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.

"Yo casi no comía; tuve una dieta por la diabetes gestacional.

I didn't really eat during my pregnancy because I was put on a diet due to having gestational diabetes.

- PRAMS mom

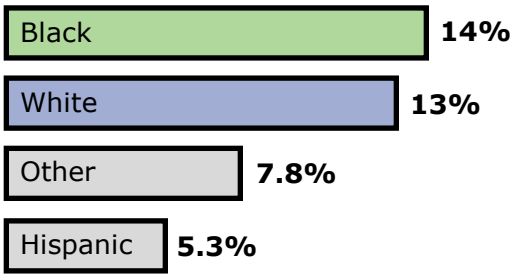
Pregnancy Health

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.[2,3,4,5,6,7,8]

12% of Wisconsin mothers smoke cigarettes during the last three months of pregnancy.

Black and **white mothers** are more likely than mothers of other races to smoke during the last three months of their pregnancy.



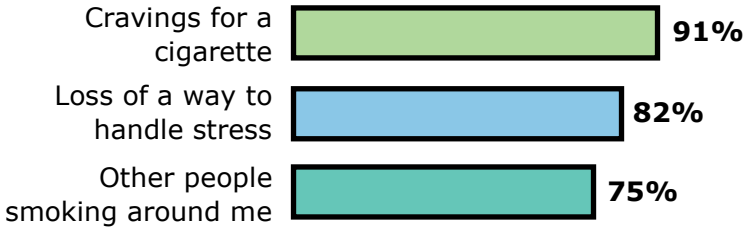
1.4% of Wisconsin mothers smoke e-cigarettes during the last three months of pregnancy.

6.2% of Wisconsin mothers use prescription pain medication during their pregnancy.

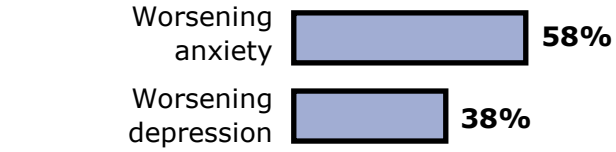
4.5% of Wisconsin mothers smoke marijuana during pregnancy.

1.1% of Wisconsin mothers use illicit drugs **other than marijuana** during pregnancy.

Top three barriers to quitting smoking cigarettes during pregnancy:



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



Intimate Partner Violence

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

4.0% 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.

Social Contexts of Health *social support*

Social support provides a buffer against the 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]

99% of Wisconsin mothers have at least one person who could help them in an emergency.

90% of Wisconsin mothers have a husband or partner who could help them in a moment of need.

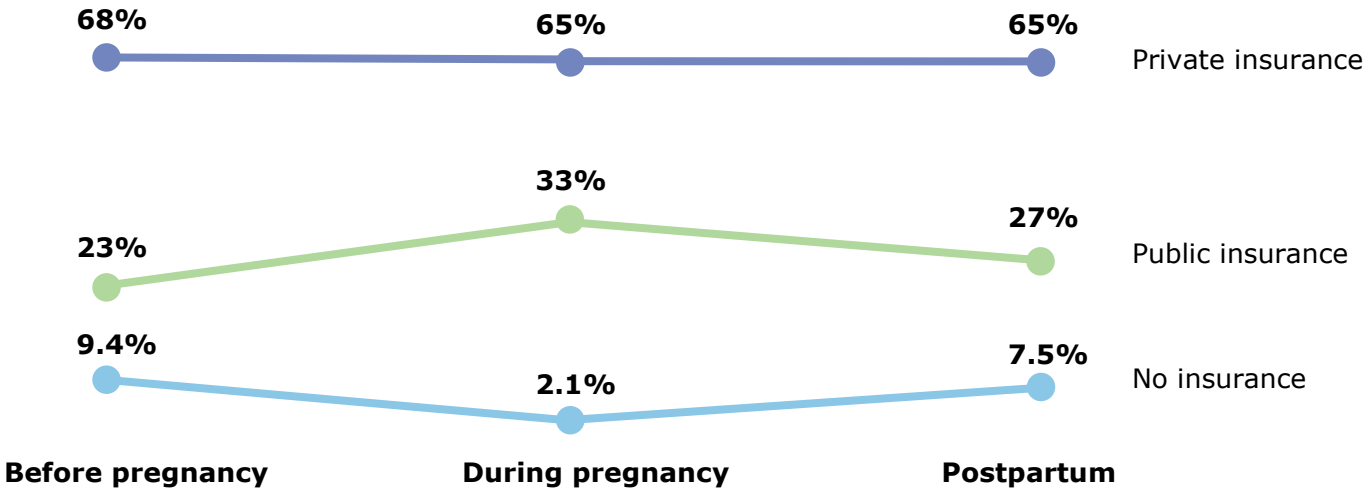
Prenatal Care

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] Public insurance coverage increased the most for pregnant women, 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 would have liked. 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 compared to mothers with **public insurance**. This is likely due to the lack of available providers that accept public insurance.

Preventing Repeat Preterm Birth

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

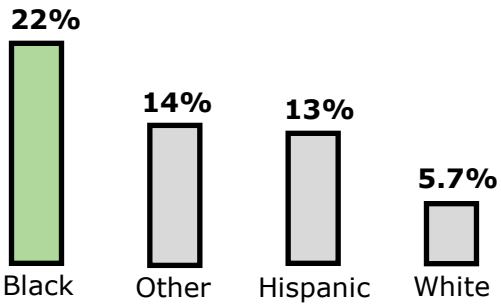
42% of pregnant women with a previous preterm birth reported receiving **injections of 17p**.

Prenatal Care

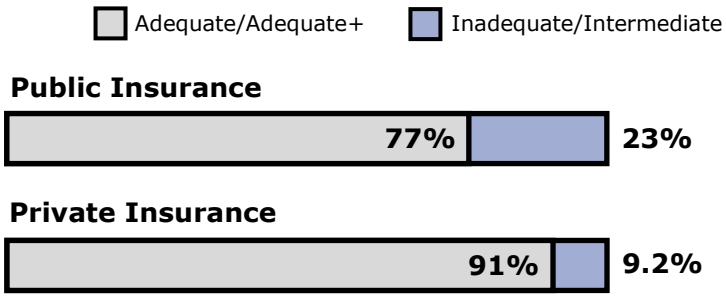
Adequacy of Prenatal Care

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 women has in comparison to the expected number of visits based on the length of the pregnancy.[4]

At 22%, **black mothers** are more likely to receive **inadequate** prenatal care than mothers of other races.



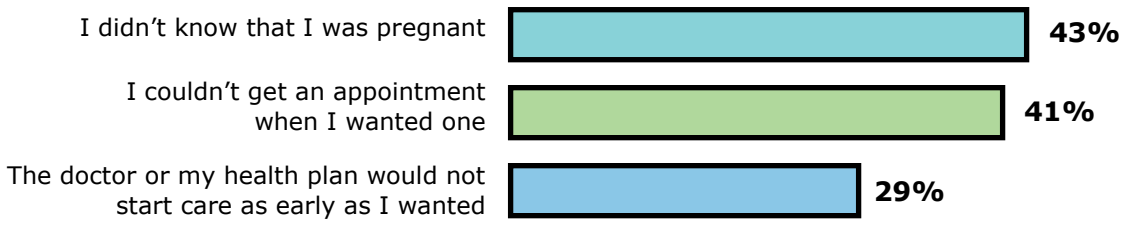
Mothers with **public insurance** are more likely to receive **inadequate or intermediate** quality prenatal care than mothers with private insurance.



Barriers to Prenatal Care

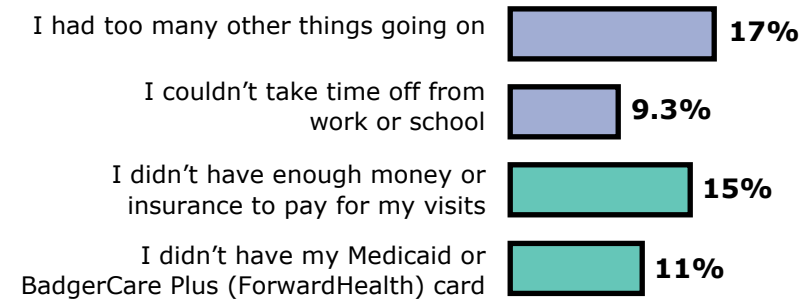
13% of Wisconsin mothers did not get prenatal care as early as they wanted it.

Those who did not receive care when they wanted it reported the following barriers:



All three of these 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.

Wisconsin mothers also expressed concerns with **scheduling conflicts** and **money and insurance** getting in the way of early prenatal care.



Transportation can be a barrier to accessing health care services.

10% of women in urban areas, and

3.5% 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 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'm grateful that I was able to get prenatal visits because it was helpful and knowledgeable. If I wouldn't had those visits I would have not learned so much and I don't think my baby would have been healthy. So I'm very appreciative of my experiences!

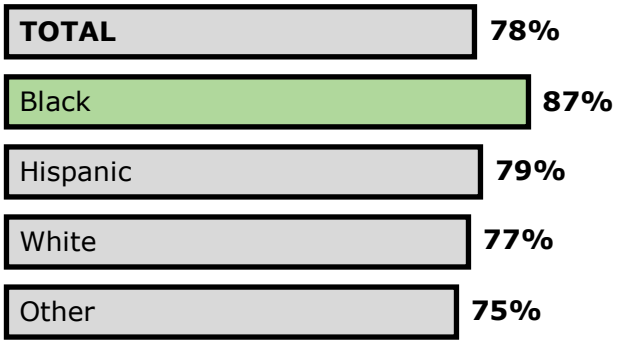
- PRAMS mom

Prenatal Counseling

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 pregnancy.

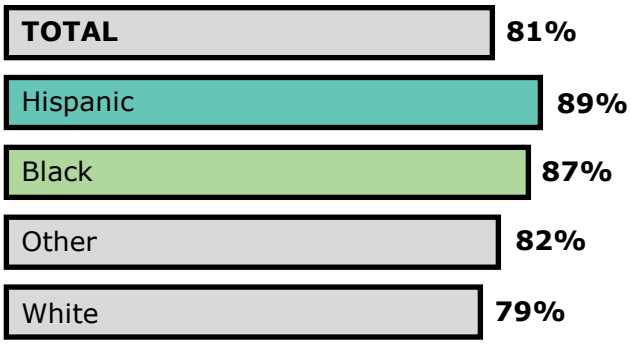
Asked if someone was hurting me emotionally or physically

Black mothers are **more** likely to be asked about abuse than mothers of other races.



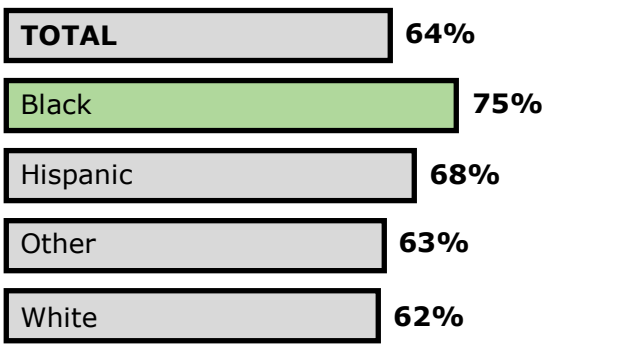
Asked if I was using drugs such as marijuana, cocaine, crack, or meth

Hispanic and **black mothers** are **more** likely to be asked about drug use than mothers of other races.



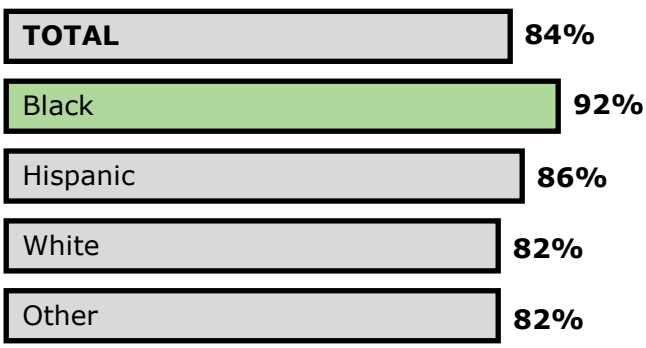
Asked if I wanted to be tested for HIV (the virus that causes AIDS)

Black mothers are **more** likely to be asked about HIV testing than mothers of other races.



Asked if I planned to use birth control after my baby was born

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



Prenatal Care

Satisfaction with Prenatal Care

Twice as many black mothers (5.2%) report being dissatisfied with the respect shown to them as a person than white mothers (2.3%). 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] These discrepancies in patient's views of care highlight the need for more diverse providers.

10% of Wisconsin mothers are dissatisfied with the **amount of time they have to wait** for prenatal care appointments.

7.2% of Wisconsin mothers are dissatisfied with the **amount of time the doctor, nurse, or midwife spends with them**.

6.6% of Wisconsin mothers are dissatisfied with the **advice they get on how to take care of themselves**.

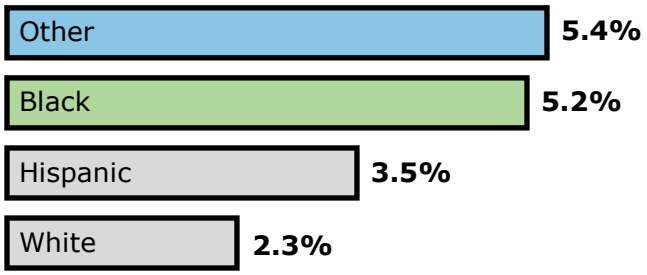
3.0% of Wisconsin mothers are dissatisfied with the **level of understanding and respect shown toward them as a person**.

"Me gustaría que las parteras del cuidado prenatal respondieran las dudas más adecuadamente acerca del embarazo o de los síntomas que se están preguntando. Mejorar la interpretación del diagnosticado.

I would have liked it if the prenatal care providers could respond better to the worries/ doubts that I had regarding my pregnancy the symptoms they ask about. Improve the interpretation of the diagnosis.

- PRAMS mom

Black mothers and **mothers of other minority races** are more likely to be dissatisfied with the level of understanding and respect shown toward them during their prenatal care visits.

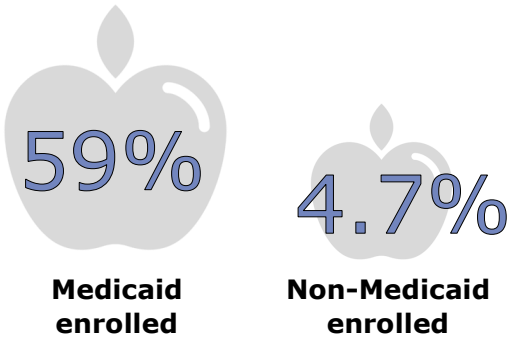


WIC Enrollment During Pregnancy

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 U.S.[7]

While families who are enrolled in Medicaid are automatically eligible for WIC services, only 59% of them reported being enrolled in WIC during pregnancy.

WIC enrollment by Medicaid status



Medicaid enrolled | **Non-Medicaid enrolled**

Social Contexts of Health *education*

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.[8,9,10]

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

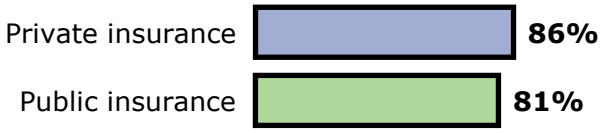
Dental Care

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 type of provider.

Dental insurance coverage by insurance type



Preventative 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.

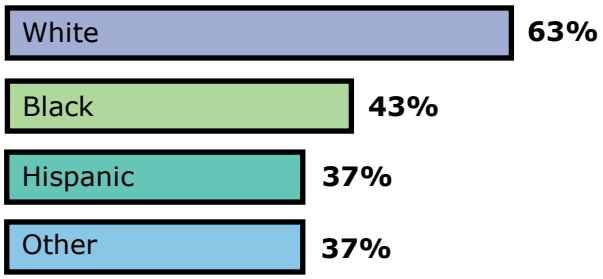
Dental visit in the year prior to pregnancy

"[Y]o tuve problemas en mis encías durante mi embarazo y cuando encontré un lugar donde pudieron atenderme me dijeron que [el seguro que tenía] era solo para citas relacionados con el embarazo y no con los dentistas. Por ese motivo tuve que aguantar durante mi embarazo el dolor de mis encias y más de 4 meses ya que no contaba con dinero suficiente para atenderme.

I had problems with my gums during my pregnancy and when I found a place where they could see me, they told me that [the insurance I had] was only for appointments related to my pregnancy, not with dentists. Because of this, I had to deal with the pain through my pregnancy and more than 4 months now that I haven't had the money for the appointment.

- PRAMS mom

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



There were no differences by race for mothers with public insurance.

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 — *insurance coverage*

56% of mothers receive employer-provided insurance, either through their employer or the spouse or partner's employer.

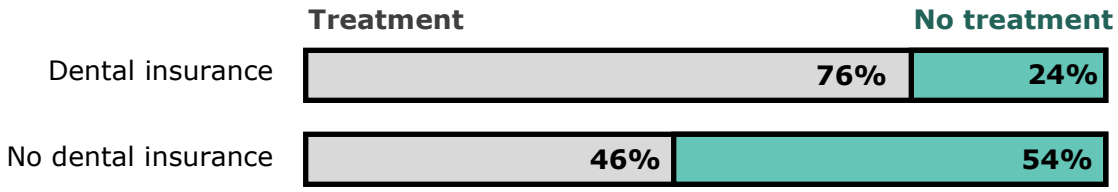
The Wisconsin state budget for the 2019-2021 biennium included a modest increase in funding for safety net dental providers.[3]

Dental Care

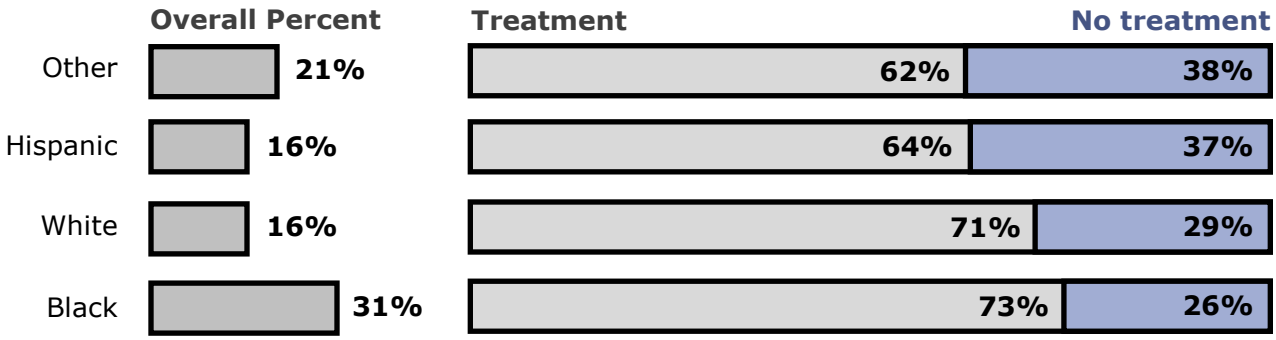
Dental Treatment

18% 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 **1.5 times** more likely than mothers with no dental insurance to see a dentist for treatment of a problem.

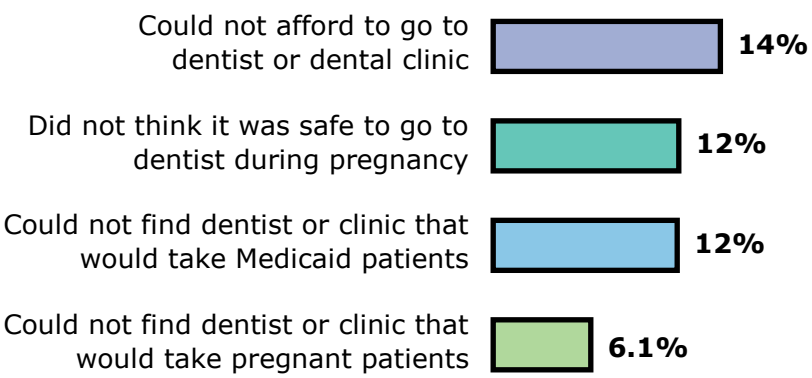


At 31%, black mothers are more likely to need to see a dentist for a problem. However, mothers of other races and Hispanic mothers are less likely to receive treatment for dental problems than white and black mothers.



Barriers to Dental Care

28% of all 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 see the Wisconsin Oral Health Program's 2019 report on supporting preventative and treatment programs in the state.



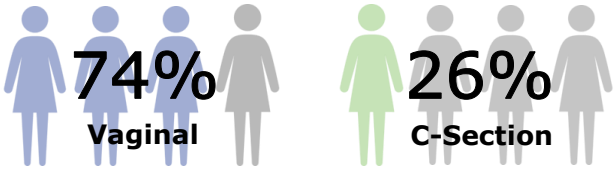
increasing access

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

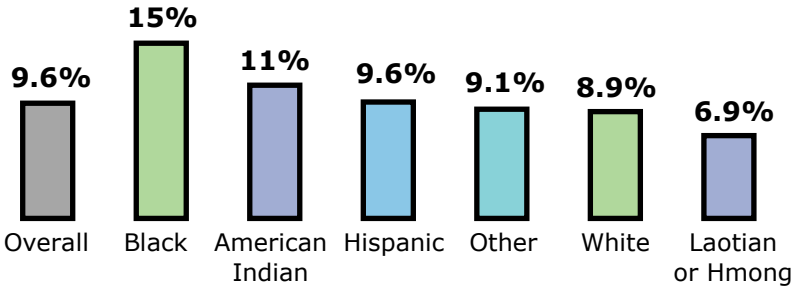
There are about 65,000 births each year in the state of Wisconsin.[1]

Delivery Method



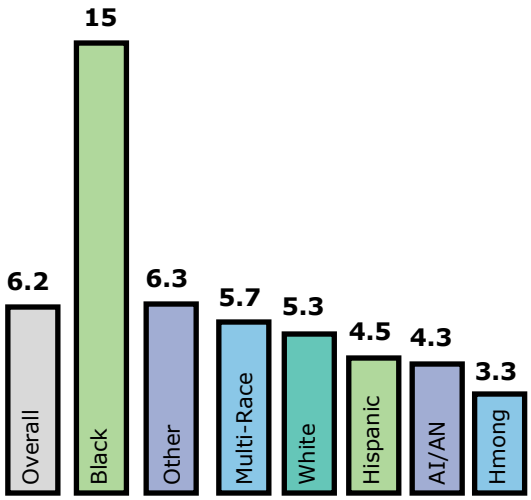
At 32%, American Indian/Alaska Native mothers are more likely to have a C-Section than mothers of other races.

Preterm Birth

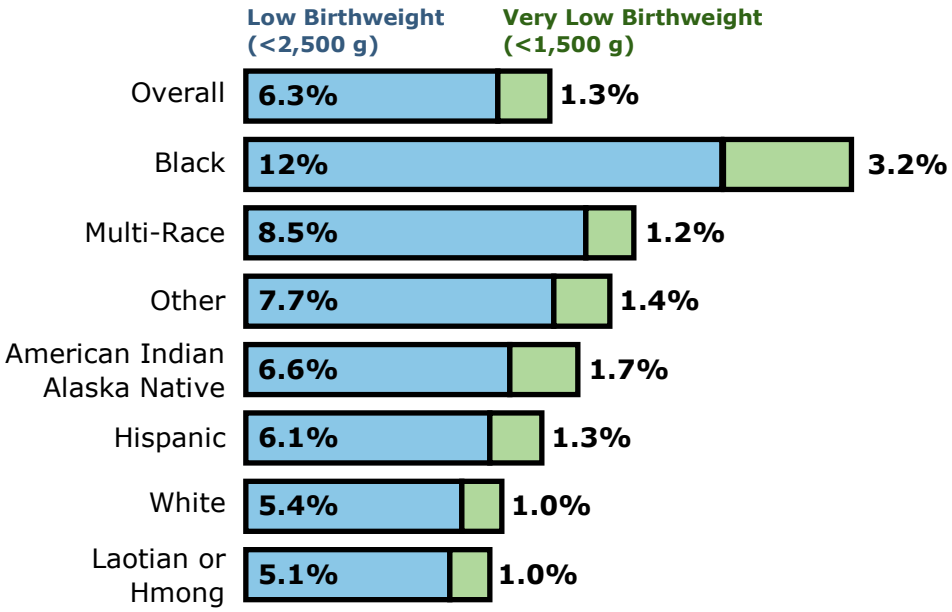


Infant Mortality

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



Low Birthweight



Maternal Outcomes

20.2% of mothers have an inter-pregnancy interval less than the recommended 18 months.

8.6% of infants stay in the hospital more than five days after delivery.

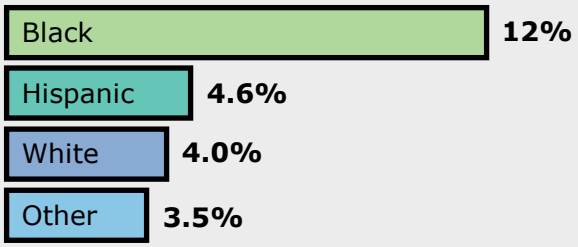
0.5% of mothers were transferred after delivery.

1.6% of mothers had a fever 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.



Post-Pregnancy Health Care

Postpartum visits are vital to promoting women's health, as they provide not only a clinical examination to potentially detect and prevent life-threatening health problems, but also create time for providers and patients to discuss social and environmental concerns.

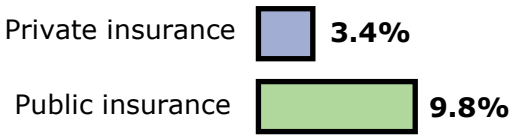
Postpartum Visit

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

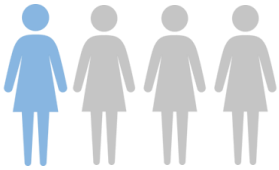
93% of Wisconsin mothers receive a postpartum checkup four to six weeks after giving birth.

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

Did not have a postpartum visit



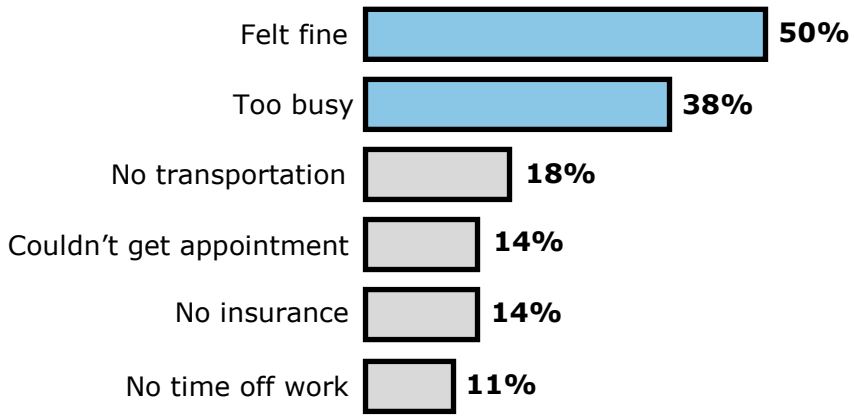
1 in 4 mothers without insurance after their pregnancy **do not** receive a postpartum checkup.



Barriers to Postpartum Care

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

Additionally, **38%** 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.



"I want to suggest more than one post-partum check. That post-partum check is right in the beginning when everything is brand new. But I have noticed that after a while things take a toll on me emotionally.

- 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.

90% of Wisconsin mothers are asked about feeling depressed.

58% of Wisconsin mothers are told about healthy eating and exercise.

69% of Wisconsin mothers are asked if they are smoking cigarettes.

54% of Wisconsin mothers are told to take a vitamin with folic acid.

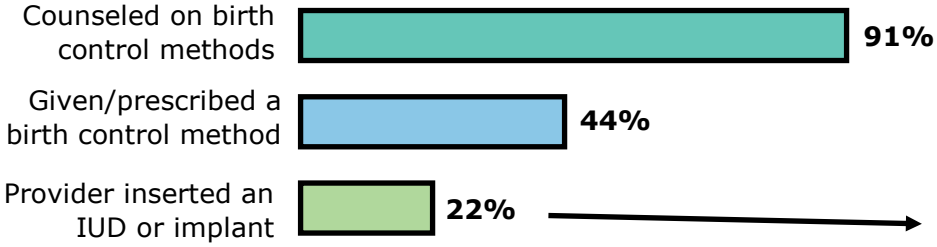
64% of Wisconsin mothers are asked if someone is hurting them emotionally or physically.

17% of Wisconsin mothers are tested for diabetes.

Post-Pregnancy Health Care

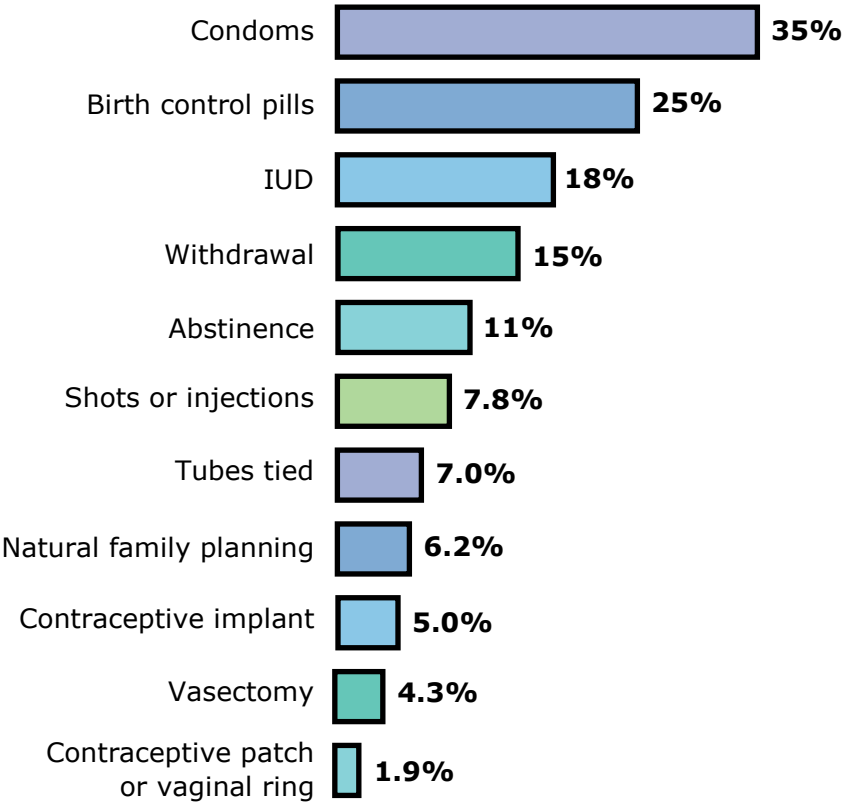
Postpartum Contraception

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.



Black (33%) and Hispanic (26%) mothers are **more** likely to receive an IUD or contraceptive implant at their postpartum checkup than white mothers (21%).

81% of Wisconsin mothers are using some method of contraception to keep from getting pregnant in the first six months postpartum. (Totals do not sum to 81% because respondents could select more than one contraceptive method.)

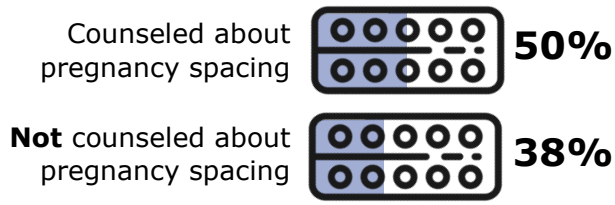


Pregnancy Spacing

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.

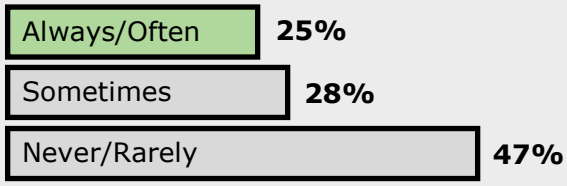
Percent prescribed birth control at postpartum visit



Social Contexts of Health *financial insecurity*

Financial insecurity is one of the most commonly reported sources of stress for pregnant women, and is associated with increased risk of preterm birth.[4,5,6]

1 in 4 new mothers are always or often worried about having enough money to pay their bills.



Breastfeeding

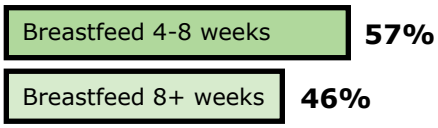
Since 2009, breastfeeding initiation and duration has increased overall and among racial groups. The percent of parents who ever breastfed increased from 83% in 2009 to 88% in 2016-2017, and the percent of parents continuing to breastfeed for at least eight weeks increased from 62% to 69%. However, these increasing trends have flattened in the last four years.

Initiation and Duration

9 in 10 white mothers ever breastfeed their new baby.

9 in 10 Hispanic mothers ever breastfeed their new baby.

7.5 in 10 black mothers ever breastfeed their new baby.

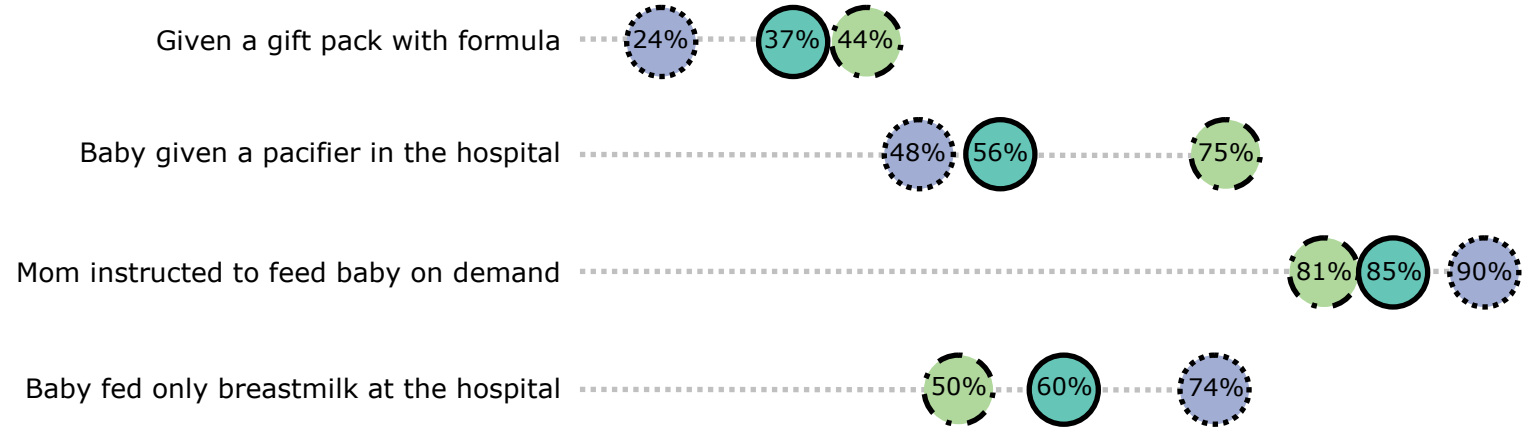


Breastfeeding Information

64% of Wisconsin mothers report receiving information about breastfeeding from their family or friends.

Hospital Practices

There are **significant differences** in the hospital practice experiences by **white**, **black**, and **Hispanic** mothers.



Social Contexts of Health — *family leave*

1 in 2 working mothers 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 do not take paid leave.

Breastfeeding four or more weeks

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

1 in 3 Wisconsin mothers co-sleep with their baby.

Mothers **living in poverty** (63%) and **near poverty** (60%) are less likely to have their baby always sleep alone in their own crib or bed than mothers not living in poverty (73%).

3 in 4 Wisconsin mothers room share with their baby.

50% of Wisconsin mothers report receiving counseling from their health care provider about room sharing with their new baby.

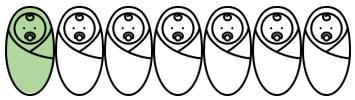
Half of Wisconsin infants sleep with loose blankets.

2 in 15 infants sleep with bumper pads.

86% of Wisconsin mothers report receiving counseling about things that should and should not be in their baby's sleep environment.

Back

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



98% of Wisconsin mothers report receiving counseling from their health care provider about laying their baby on their back to sleep.

Mothers **living in poverty** (80%) and **near poverty** (80%) are less likely to place their baby on their back to sleep than mothers not living in poverty (93%).

Breastfeeding

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

85% of Wisconsin mothers who ever breastfed reported that staff at the birth hospital helped them establish breastfeeding.

Crib

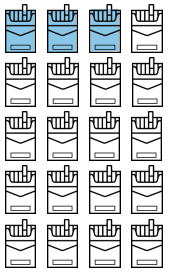
1 in 2 Wisconsin infants regularly sleep in a car seat or swing, which is not recommended by AAP.

92% of Wisconsin mothers report receiving counseling from their health care provider about placing their baby to sleep in a crib, bassinette, or play yard.

Smoke-free

69**%** of Wisconsin mothers are asked about smoking cigarettes at their postpartum check-up.

3 in 20 Wisconsin mothers smoke cigarettes after their baby is born.



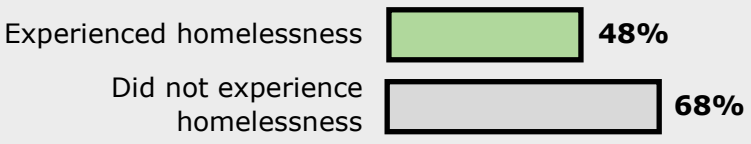
Mothers **living in poverty** (26%) and **near poverty** (13%) are more likely to smoke cigarettes postpartum than mothers not living in poverty (3.6%).

Social Contexts of Health — *homelessness*

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

3% of Wisconsin mothers experience homelessness in the 12 months before their baby is born.

Baby always sleeps alone in own crib or bed



Perinatal Depression

Women with perinatal depression experience intense feelings of extreme sadness and anxiety which can interfere with the 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 best predictor of perinatal depression risk.[3]

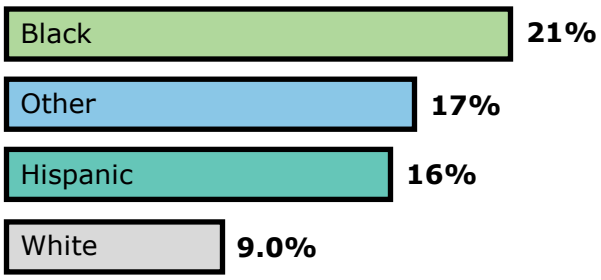
16% of Wisconsin mothers report experiencing depression in the three months prior to becoming pregnant, and

14% of Wisconsin mothers report experiencing depression during their pregnancy.

Postpartum Depression

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

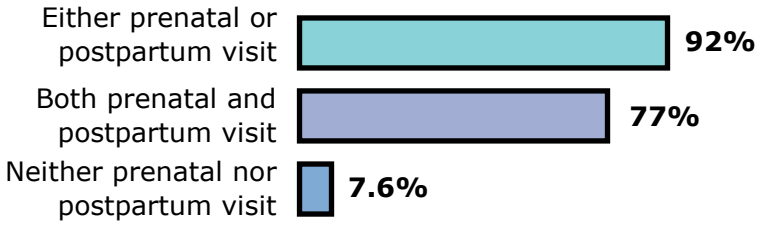
Women of color are much more likely to experience symptoms of postpartum depression than white mothers.



Depression Screening

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

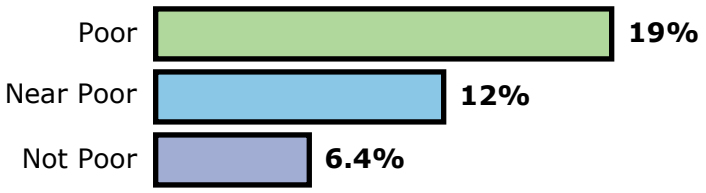
Timing of depression screening



"With my first daughter I experienced postpartum [depression] pretty severely. I thought it was the "baby blues" but soon discovered my depression. It lasted for about [one] year.

- PRAMS mom

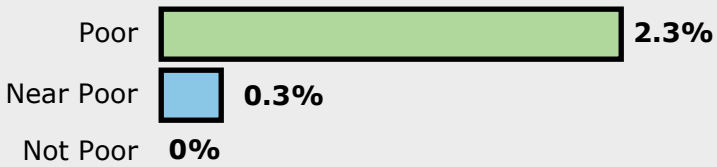
Mothers living in **poverty** and **near poverty** are much more likely to experience symptoms of postpartum depression than mothers who are not living in poverty.



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 return to their job after giving birth.

Mothers under 20 years of age are less likely to work during their pregnancy than older mothers.

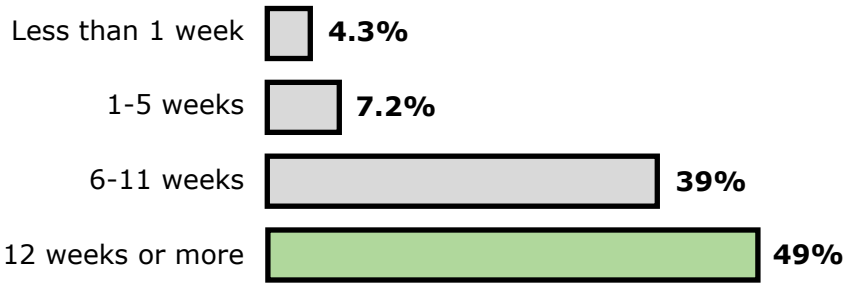
"The most disappointing and only disappointing part about my pregnancy is that I was laid off from work 7 weeks before my daughter was born. I believe I was laid off because of my pregnancy and worried tremendously about it throughout my pregnancy.

- PRAMS mom

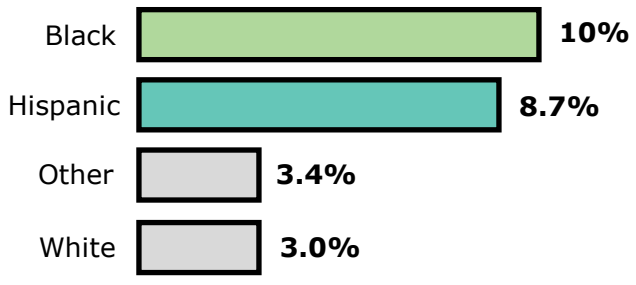
Maternity Leave

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 essential for establishing breastfeeding, if this is something a family wants to do.[2]

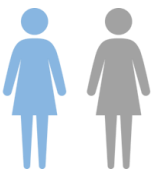
96% of working mothers took some form of leave after giving birth, though the amount of time varied significantly.



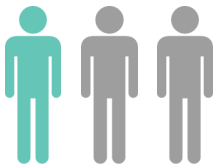
Although a small percent of working mothers did not take leave after giving birth, **black** and **Hispanic mothers** are more likely to **not take any leave** than other race and white mothers.



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



Only **half** of working Wisconsin mothers took paid leave after giving birth.



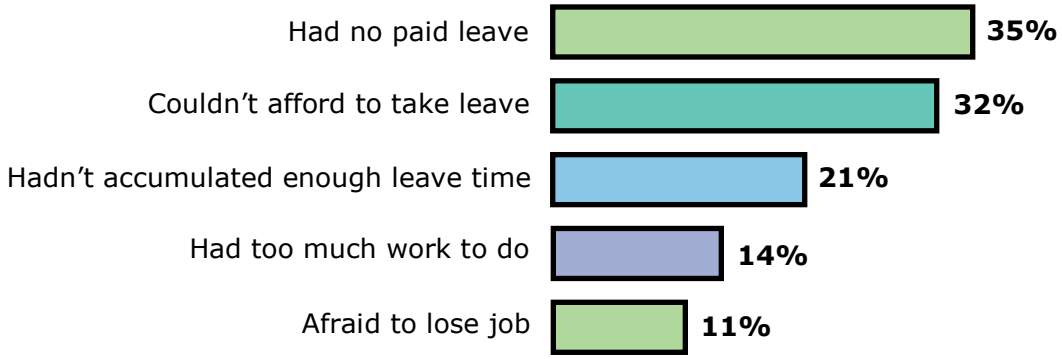
Only a **third** of all Wisconsin dads took paid leave after the birth of their baby.

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, 64% reported taking unpaid leave, either on its own or in addition to paid leave.

Parental Employment and Leave

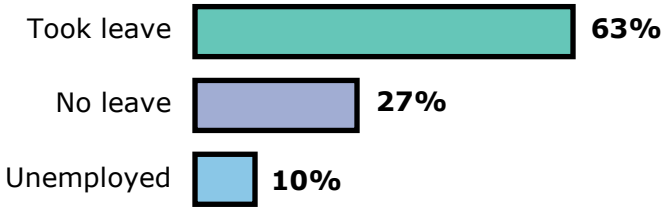
Barriers to Taking Leave

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.

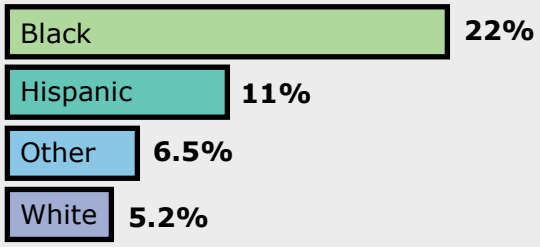
1 in 2 Wisconsin mothers are always, often, or sometimes worried or stressed about having enough money to pay their bills after their baby is born.

New parents who do not take paid leave (29%) after the birth of their new baby are more likely to be always or often stressed about paying bills than parents who did take paid leave (19%).

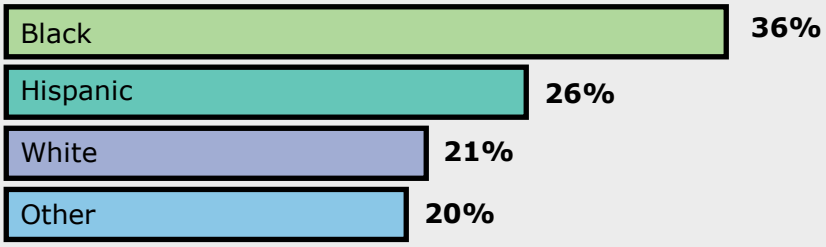
Social Contexts of Health *unemployment*

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

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



Black mothers and their partners are more likely to experience a cut in work hours or pay in the 12 months before giving birth.



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 2016 and 2017 data.

Sampling

Each month, a random sample of mothers is selected from birth certificates of infants born 2-3 months earlier. The sample excludes adoptive mothers, surrogates, Act 2 or safe haven infants, and multiple births of 4 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 letters to these mothers are worded slightly differently and are handled with the utmost respect and sensitivity, but the survey questions are the same.

2016-2017 Sample Design (includes African-American enhanced oversample)

1. White, non-Hispanic mothers (1:83)
2. Black non-Hispanic mothers from Kenosha, Rock and Racine counties (1:1)
3. Black non-Hispanic mothers from all counties excluding Kenosha, Rock and Racine (1:8)
4. 'Other' mothers, including Hispanic mothers (2:35)

2016 and 2017 Wisconsin PRAMS Sample Sizes and Respondents

	White, non-Hispanic		Black, non-Hispanic		Other		Total	
	Sample	Responses	Sample	Responses	Sample	Responses	Sample	Responses
2016	549	329	1656	587	628	314	2833	1230
2017	528	333	1708	678	611	326	2847	1337

2016 and 2017 Wisconsin PRAMS Weighted Response Rates

	White, non-Hispanic	Black, non-Hispanic	Other	Total
2016	60.1%	35.5%	50.0%	55.9%
2017	63.1%	39.7%	53.4%	58.9%

Appendix A: Methodology

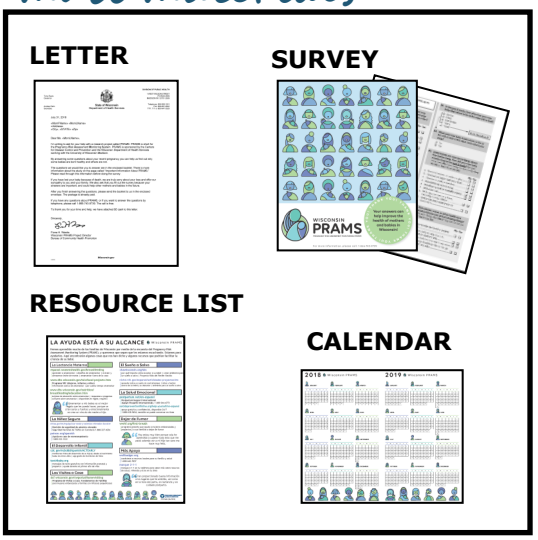
Mail data collection

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 the Wisconsin birth certificate, 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 the Wisconsin birth certificate, Medicaid records, WIC records, and internet sites.

Incentives

African American sample members received a $5 cash incentive with the first survey packet during the entirety of 2016 data collection, and through the first four samples of 2017 data collection.

Rewards

For the first 10 samples of 2016 data collection, respondents received a nursery rhymes CD for completing the survey. Due to changes in technology, Wisconsin PRAMS decided to conduct a rewards experiment to test out other options. The experiment ran from February 2017 (2016 data collection, 11th sample of the year) to October 2017 (2017 data collection, 4th sample of the year). During the experiment, mothers were randomly assigned to one of three reward treatment groups:

1. Nursery rhyme CD
2. $10 Visa gift card
3. Sleep sack and safe sleep board book

With the exception of a slight preference for sleep sacks in the "Other race" group during the mail phase, postpartum women offered a gift card reward for responding to PRAMS responded at higher rates across the board than those offered one of the other rewards.

Gift cards or cash in the amount of $10 were offered as rewards for the rest of 2017.

rewards experiment

Appendix B: References

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