Wisconsin PRAMS
For Native Mothers, 2020

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 have a significant impact on individual and population health outcomes. Historical injustices committed by federal and state governments have caused historical trauma that continues to play a role in poor health outcomes for American Indian and Alaska Native (AI/AN) communities. Dr. Yellow Horse Brave Heart defines historical trauma as, "the cumulative emotional and psychological wounding over the lifespan and across generations … from massive group trauma."[2] AI/AN mothers face historical trauma due to ancestors' experiences with cultural genocide, forced removal from ancestral lands, and the boarding school system. [1,2]

The impact of the historical trauma is clear today. Stress-related genetic changes occur due to traumatic events and can pass from generation to generation. These changes increase the risk of many chronic diseases.[3] The social and economic effects of historical trauma, including low socioeconomic status and experiences of racism, also limit access to health services and cause further stress.[3] Comparisons between AI/AN mothers and other racial and ethnic groups in this report should be interpreted in the context of historical trauma and its effects.[4]

All Wisconsin PRAMS survey data are self-reported and linked to birth record data. All people who self-identified as AI/AN and gave birth in 2020 were invited to participate in Wisconsin PRAMS, including those who identified as Hispanic or another race. The data from PRAMS have strengths and limitations that come with self-reported survey data. 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?

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.

PRAMS results reported by race and ethnicity include AI/AN (including mothers of Hispanic background), non-Hispanic white, non-Hispanic Black, Hispanic (but not AI/AN), 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. Results from the Wisconsin Interactive Statistics on Health (WISH) system include more specific racial and ethnic groups. Unlike PRAMS results, mothers reported as AI/AN in WISH are not Hispanic.

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

WISCONSIN DEPARTMENT of HEALTH SERVICES
P-02500A (05/2025)

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"Thanks for being concerned and involved. I'm glad I was able to give my experience and feedback.

- PRAMS mom

What Makes Up Our Health?

Health is not just related to the foods we eat or how much we exercise.
A variety of factors play an important role in the health outcomes we experience.[1]

The National Institute on Minority Health and Health Disparities offers a framework to explore the unique factors affecting health in Indigenous communities. This framework serves as a basis to understand how biological, behavioral, physical, environmental, sociocultural, and health care-related influences exist on the individual, interpersonal, community, and societal levels. The combined impact of these influences affects health outcomes for individuals, families, communities, and populations.

The diagram below provides examples of factors at each domain and level of influence that can affect health. PRAMS provides insight into the influence of factors across the domains of influence, mainly at the individual and interpersonal level. Community and societal levels of influence are included to provide a broader picture of factors influencing the health of Indigenous mothers.

		Levels of influence			
		Individual	**Interpersonal**	**Community**	**Societal**
Domains of influence (over the lifecourse)	**Biological**	Genetics and biological mechanisms	Caregiver and child interaction	Community environmental hazard or illness exposure	Immunization and sanitation
	Behavioral	Spirituality, health behaviors, and coping methods	Extended family, school, and work functioning	Language revitalization, collective resilience	Policies and laws (for example, American Indian Religious Freedom Act)
	Physical environment	Access to transportation	Household environment, boarding school education	Natural resources and community resources	Cultural practice, societal structure
	Sociocultural environment	Cultural identity, historical trauma, household income, food security	Social networks, traditional social norms, racial prejudice	Community norms, neighborhood safety	Stereotypes, societal structural discrimination
	Health care system	Health literacy and insurance coverage	Medical provider bias, cultural perspective of health	Health service availability and safety net services	Reimbursement of Tribal healing ceremonies
Health outcomes		**Individual health**	**Family and organizational health**	**Community health**	**Population health**

The factors in this diagram are examples and do not reflect every factor that impacts health.

Adapted from National Institute on Minority Health and Health Disparities Research Framework[2] and an adaptation for American Indian and Alaska Native Nations by Spero M. Manson, Ph.D., University of Colorado [3]

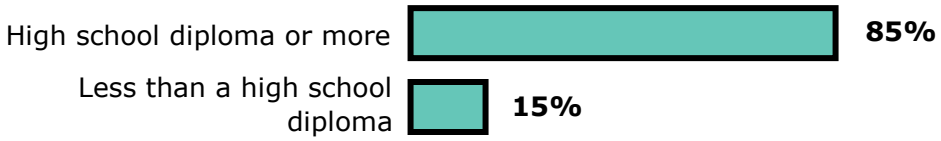
Social Contexts of Health

The social and cultural environment an individual lives in has an impact on health outcomes before, during, and after pregnancy. Research shows that factors like racial discrimination and food insecurity are related to important health outcomes.

Socioeconomic factors

Education

Among AI/AN mothers

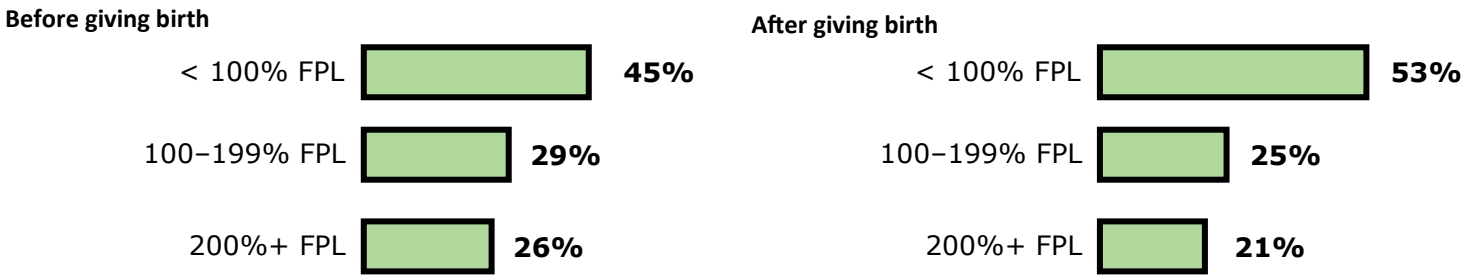


Women with a lower level of education have more children on average, at younger ages, and are at a higher risk for negative birth outcomes.[1-3]

Household income

Poverty(<100% FPL): household income less than 100% of the federal poverty level (FPL)
Near poverty (100-199% FPL): household income 100% to 199% of the FPL
Not in poverty(200%+ FPL): household income 200% or more of the FPL

Among AI/AN mothers

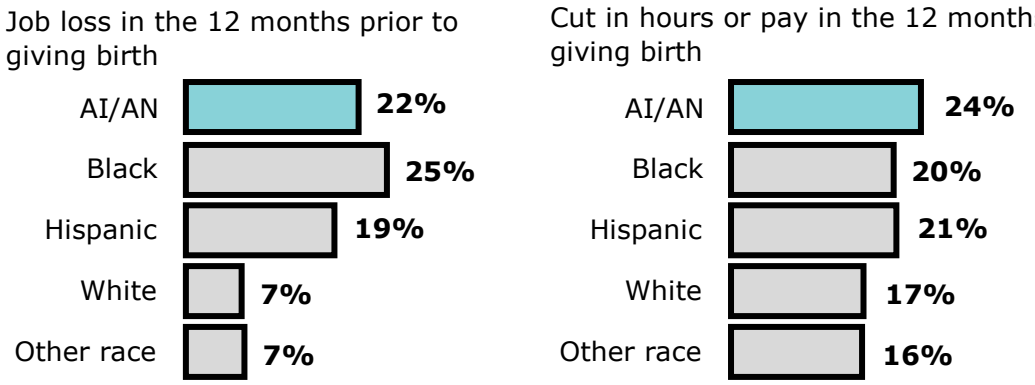


Food insecurity

16% of AI/AN mothers report eating less in the 12 months before the birth of their new baby because of not having enough money to buy food. Living in a food insecure household places women at increased risk of unhealthy pregnancy weight gain and pregnancy complications.[4]

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.[5] AI/AN mothers are most likely of all races to experience a cut in hours or pay within a year of before giving birth.



Social Contexts of Health

Physical environment

Homelessness

9% of AI/AN mothers experience homelessness in the 12 months before their baby is born.

Neighborhood safety

18% of AI/AN mothers always, often, or sometimes feel **unsafe** in the neighborhood where they are living.

AI/AN mothers living in **poverty** (24%) are **more likely** than AI/AN mothers who are near poverty (14%) or not poor (6%) to report **feeling always, often, or sometimes unsafe**.

Social experiences

Social support

Social support helps people better manage the stress of pregnancy and early parenthood. It increases maternal wellbeing, as well as the chance of longer gestation length and increased birth weight of baby.[6]

97% of all AI/AN mothers have at least one person who could help them in an emergency.

79% of all AI/AN mothers have a spouse or partner who could help them in an emergency.

AI/AN mothers living below the federal poverty level (FPL) report receiving support from a parent or other family member less often than those living at or above the FPL.

Racial discrimination

Experiences of racial discrimination are linked to high blood pressure, low birth weight, and poor health status.[7-9] 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 AI/AN mothers in Wisconsin, almost **1 in 5** reported experiencing interpersonal racism in the 12 months prior to giving birth.

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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 AI/AN mothers in Wisconsin.

Self-reported health conditions prior to pregnancy:

51% of AI/AN mothers have anxiety and
37% of AI/AN mothers have depression.

24% of AI/AN mothers have anemia (low iron in their blood).

19% of AI/AN mothers have asthma.

7% of AI/AN mothers have thyroid problems.

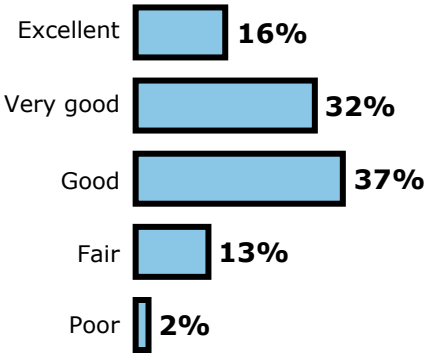
8% of AI/AN mothers have high blood pressure.

9% of AI/AN mothers have polycystic ovarian syndrome (PCOS).

7% of AI/AN mothers have Type 1 or Type 2 diabetes.

Most AI/AN mothers self-report excellent, very good, or good health prior to pregnancy.

Self-reported general health prior to pregnancy among AI/AN mothers:



"Stay healthy and stay hydrated. Every mother should know it's different outcomes for different people."

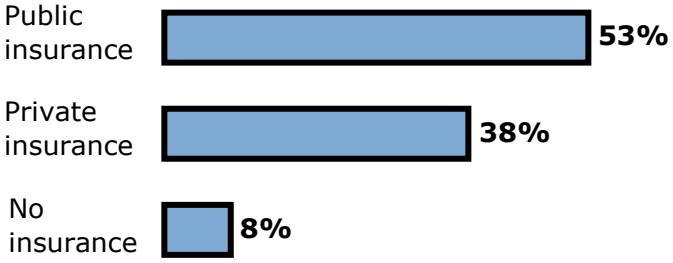
- PRAMS mom

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 coverage for AI/AN women before pregnancy.



In 2020, 28% of AI/AN mothers had coverage through the Indian Health Service or other Tribal health care during the month before pregnancy.

"The health care received fro[m] prenatal care and delivery was excellent. I was well educated by my providers and nurses and felt supported in this journey to becoming a mother.

- PRAMS mom

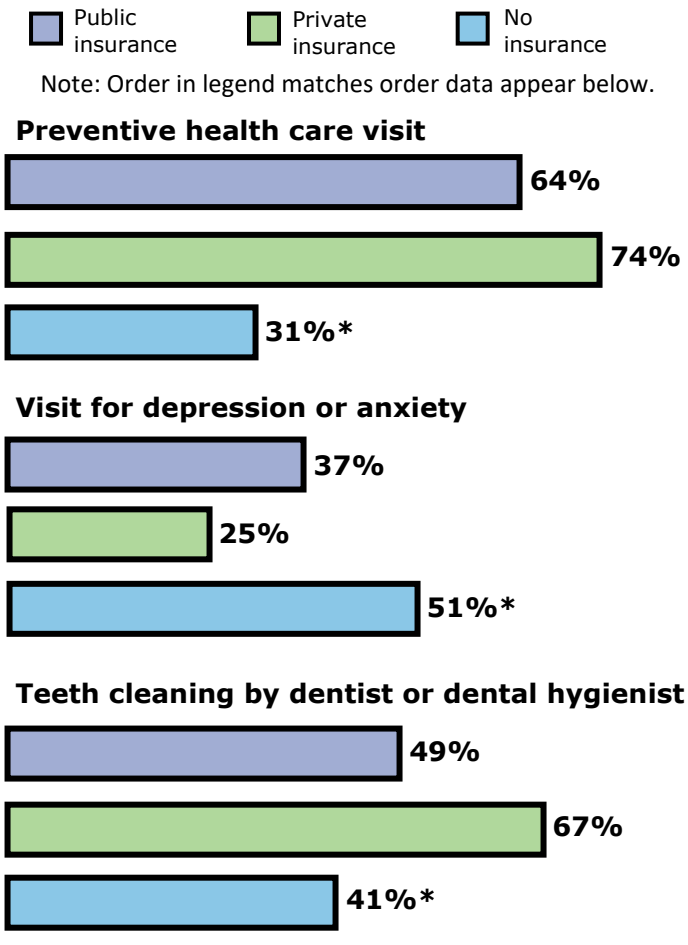
Home visiting programs

Home visiting programs provide families with support before, during, and after pregnancy. Professionals, like nurses or social workers, provide services such as connection to prenatal care, assessments, and health education to help support the health of mother and baby. Wisconsin's home visiting program is voluntary and no cost to families. [4–5]

7% of AI/AN mothers are visited by a home visitor during pregnancy.

Health care visits

Two-thirds (66%) of AI/AN mothers see a health care professional in the year before getting pregnant with their most recent baby. However, the types of health care visits AI/AN mothers have in the 12 months prior to pregnancy varies by health insurance status.



"I did not have the support of my significant other during my prenatal visits because he was not allowed to come. This added stress.

- PRAMS mom

Public insurance: Coverage through a government service, such as Medicaid, BadgerCare Plus, Indian Health Service, or other Tribal health care
Private insurance: Coverage through a private company, TRICARE, or other military health care
No insurance: No insurance coverage

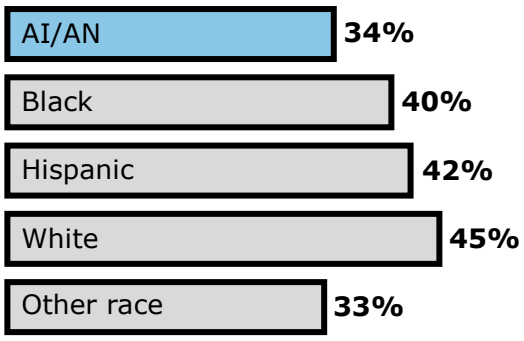
*Estimate based on small numbers. Interpret with caution.

Pre-Pregnancy Health Care

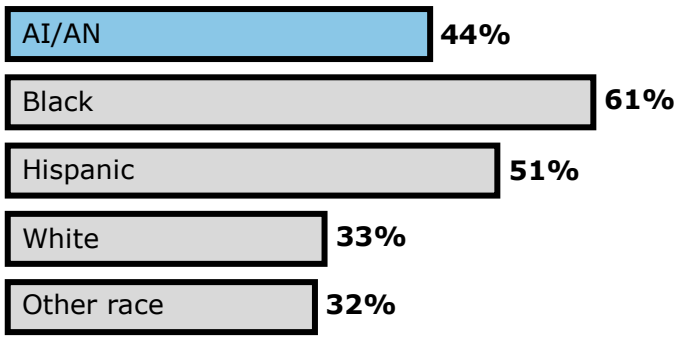
Provider counseling

When women do receive health care services, the content of the visits often varies by race and ethnicity.[6-8] 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.

Percentage of mothers whose provider talked to them about their **desire to have or not have children**:



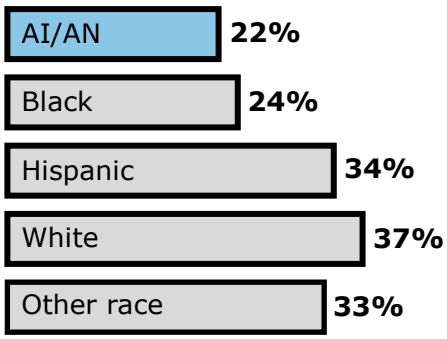
Percentage of mothers whose provider talked to them about **birth control use to prevent pregnancy**:



Folic acid supplementation

It is recommended that women take prenatal vitamins with folic acid prior to and during pregnancy.[9] Insufficient folic acid has been linked to neural tube and congenital heart defects in the fetus, as well as heightened risk of preterm birth.[10-14]

Percentage of mothers whose provider talked to them about **taking a vitamin with folic acid**:



20% of AI/AN mothers **took a multivitamin, a prenatal vitamin, or a folic acid vitamin daily** during the month before getting pregnant.

Vitamin use differed by insurance coverage. Among AI/AN mothers with private insurance, 29% took a daily vitamin. Among AI/AN mothers with public insurance, 14% took a daily vitamin.

Screening for intimate partner violence

Intimate partner violence affects both the short- and long-term safety of mom and baby.[15, 16]

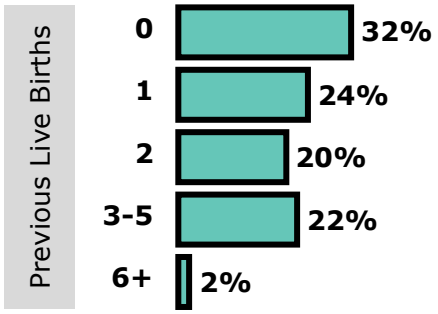
71% of AI/AN mothers are asked if someone is hurting them during pre-pregnancy health care visits, although the U.S. Department of Health and Human Services recommends screening **all** women during preventive health care visits.

Pregnancy History

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

Previous live births

Two-thirds of AI/AN women who gave birth in 2020 had a previous live birth.



Previous cesarean delivery

of AI/AN women who had previously given birth had a **previous cesarean delivery**.

Previous preterm birth

Among AI/AN women who had previously given birth, 14% 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, 19% of AI/AN mothers had given birth less than 18 months before, 15% had given birth between 18 and 36 months before–which is considered optimal for healthy outcomes–and 38% had given birth more than three years before, but not since then. 28% of AI/AN mothers had their first born child.*

*Results from WISH system.

"One thing that did happen which I was not happy about. I felt like the health care team pressured me to have a child through labor when I had a scheduled c-section.

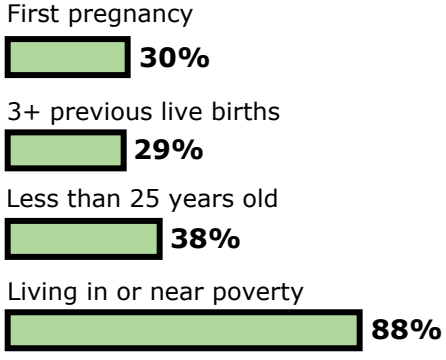
- PRAMS mom

Pregnancy intention

The desire or decision to become pregnant is highly personal, and differs across life circumstances.

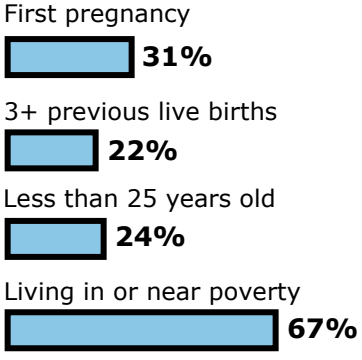
Unintended 29%

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



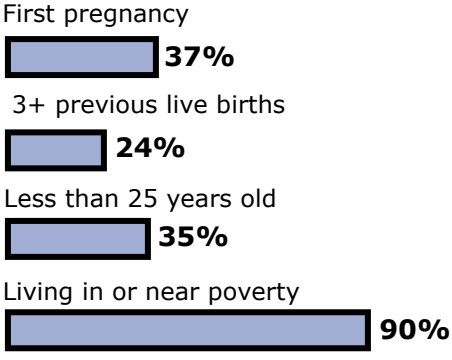
Intended 47%

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



Unsure 24%

Among AI/AN 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.

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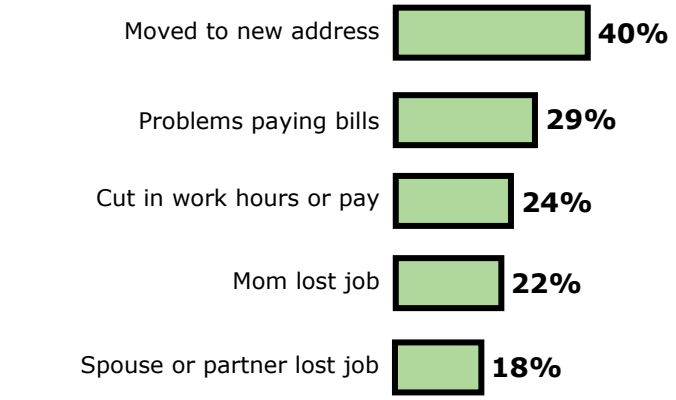
Stressful Life Events

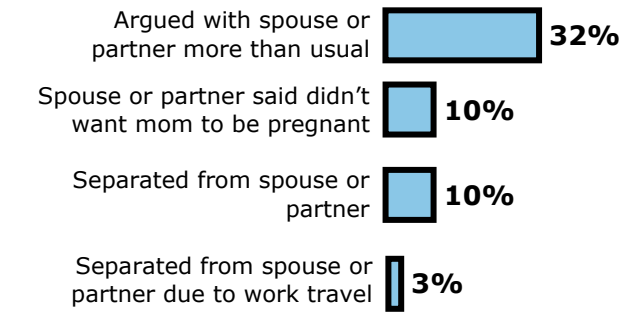
Article 25 of the Universal Declaration of Human Rights states that "[e]veryone has the right to a standard of living adequate for the health and well-being of himself and his family[.]"[1] It is estimated that social, economic, and environmental conditions contribute about 50% of the risk for health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

Stressful life events 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 weakening 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 AI/AN mothers surveyed.

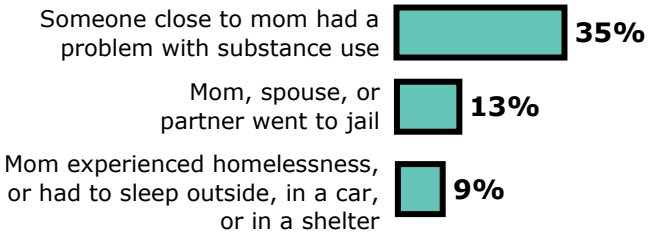
Financial



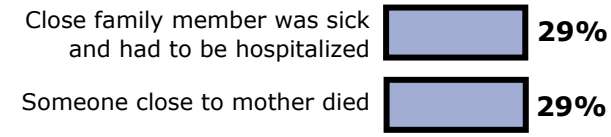
Partner



Traumatic



Emotional



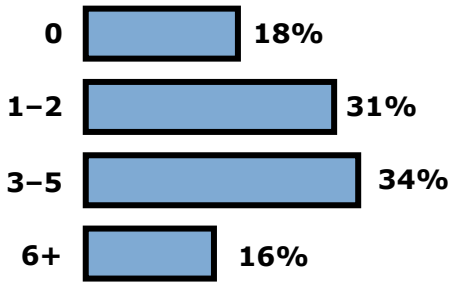
"I want you all to know I went through so much for two years from being kicked out from my parents home and literally being homeless for a while. I really want to be happy and have a home for my family but its not easy being me since I'm Native American and feeling alone plus feeling dumb that I can't be a good parent.

- PRAMS mom

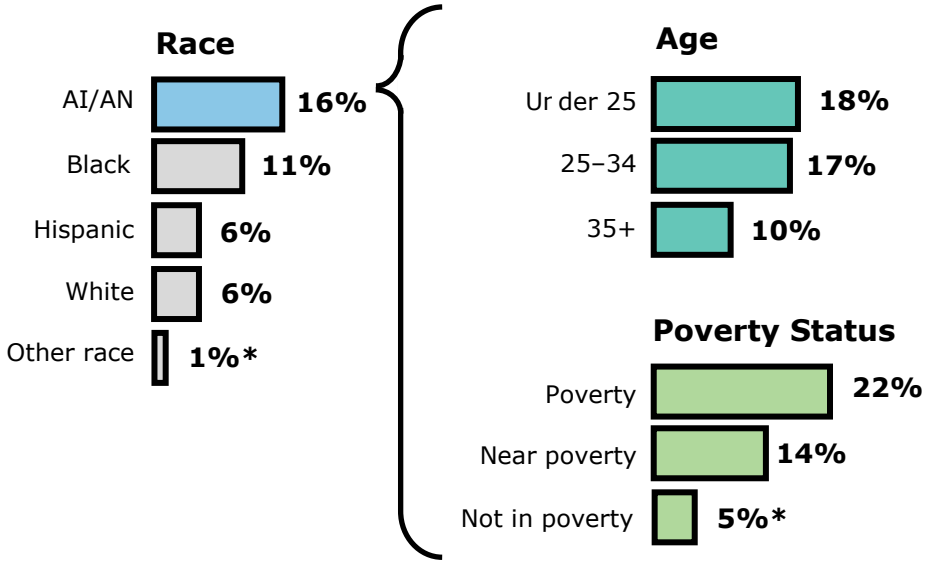
Stressful Life Events

Intense or ongoing stress makes it challenging 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 AI/AN mothers



Young and poor AI/AN mothers are more likely to report experiencing six or more stressful life events.



"I lost my job due to COVID-19 and applied for health care through the state as well as Food Share and unemployment."

- PRAMS mom

*Estimate based on small numbers. Interpret with caution.

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.

13% of AI/AN mothers experience **physical abuse** by their spouse, partner, or ex before or during pregnancy.

16% of AI/AN mothers experience **emotional or sexual abuse** by their spouse or partner during pregnancy.

"I had alot going on in both of my pregnancies. I was trying to warn one of the nurses basically stating I didn't want to leave the hospital with the father, I was going to go straight to my mama's house with my babies. Then, we would of been at peace. He would have been out of the picture."

- PRAMS mom

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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.[1] Moreover, among unintended pregnancies in Wisconsin each year, these behaviors can directly affect a fetus in the early stages of development.

Previous research indicates that traumatic early life events, often referred to as adverse childhood experiences (ACEs), can increase the risk of substance use. ACEs include abuse, parental substance use, and death of a loved one.[2] Historical trauma can create a cycle of ACEs within a community as parents use substances to cope with trauma, further increasing the risk of substance use among their children.[3]

11% of AI/AN mothers **drink alcohol in excess** (eight or more drinks per week) during the three months before pregnancy, while 60% of AI/AN moms in Wisconsin drink **any** alcohol in the same period.

26% of AI/AN mothers smoke marijuana during the month before pregnancy.

5% of AI/AN mothers use prescription pain relievers during the month before pregnancy. (Note: PRAMS survey question does not specify a reason for prescription pain reliever use.)

9% of AI/AN mothers use illicit drugs (amphetamines, cocaine, heroin, hallucinogens, or tranquilizers) during the month before pregnancy.

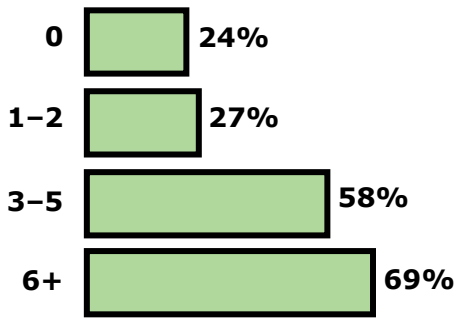
Traditional tobacco is and has been used in ceremonial ways by American Indians for thousands of years. Many Native communities use traditional tobacco as a sacred medicine for healing or as an offering in prayer and gratitude. In contrast, commercial tobacco is a corruption of traditional tobacco into dangerous recreational commodities that exploits culture for profit.[4]

(Note: PRAMS survey questions ask about cigarette use and do not differentiate between traditional and commercial tobacco.)

44% of AI/AN mothers use cigarettes during the three months before pregnancy.

Mothers who experienced stressful life events were **more likely** to smoke cigarettes during the three months before pregnancy.

Cigarette use among AI/AN mothers by number of stressful life events:



Pregnancy Health

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

Pregnancy weight gain

30% of AI/AN mothers gain **less** weight than recommended during pregnancy.

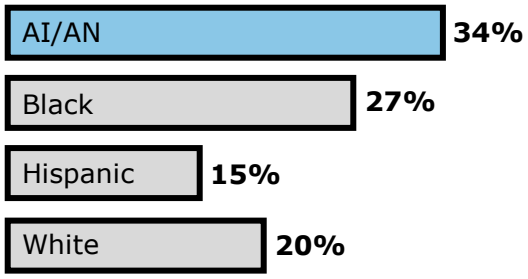
49% of AI/AN mothers gain **more** weight than recommended during pregnancy.

Recommendations for pregnancy weight gain come from the CDC and are not specific to AI/AN mothers.

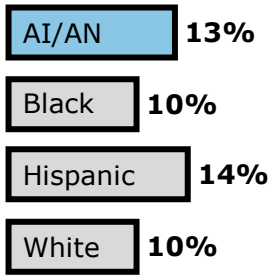
"I was also told I had gestational diabetes and was only on the cusp. Normal for non-pregnant people but diabetic for pregnant people. Dr. was awful! Pushed me to take insulin when I wanted to try diet and exercise. Used bullying and blaming tactics … And was tested early because of weight, but I also think race (American Indian) and often felt talked down to by nutritionist and endocrinologists.

- PRAMS mom

AI/AN mothers are more likely to have depression during pregnancy than women of other races.



Hispanic mothers and **AI/AN mothers** are more likely to have gestational diabetes than Black and white mothers.



18% of AI/AN mothers have high blood pressure during pregnancy.

24% of AI/AN mothers are anemic, not having enough red blood cells to carry oxygen, during their pregnancy.

13% of AI/AN mothers have gestational diabetes that started during their most recent pregnancy.

34% of AI/AN mothers have depression during their pregnancy.

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]

29% of AI/AN mothers use cigarettes during the last three months of pregnancy.

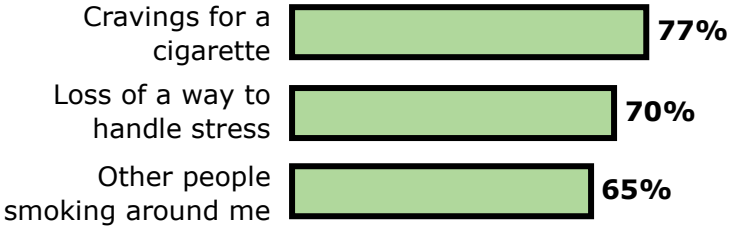
6% of AI/AN mothers use e-cigarettes during the last three months of pregnancy.

6% of AI/AN mothers use prescription pain relievers during pregnancy.

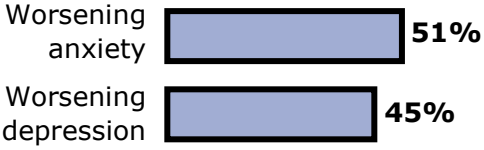
18% of AI/AN mothers use marijuana during pregnancy.

4% of AI/AN mothers use illicit drugs during pregnancy.

Top three barriers to quitting smoking cigarettes during pregnancy, reported by AI/AN mothers who smoked cigarettes:



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



Intimate partner violence

14% of AI/AN 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 restriction.[9]

"I was a homeless drug addict up until they day I found out I was pregnant (I found out at two weeks). I became sober on my own without any help from treatment, counseling or medication. I have now been clean from drugs for over a year and live in a stable home with my boyfriend and baby.

- PRAMS mom

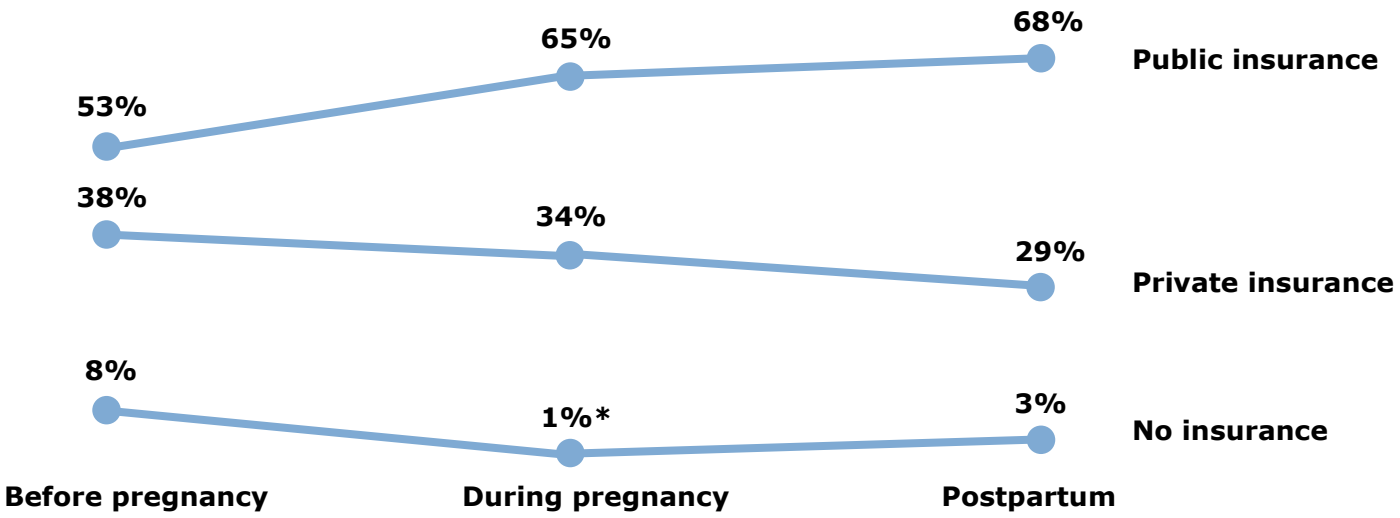
Prenatal Care

Prenatal care is a vital 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 AI/AN women are able to access public insurance and fewer AI/AN women have no insurance coverage.



Initiation of prenatal care

81% of AI/AN mothers receive prenatal care as early as they want.

"I'd like to note that I believe the OB doctors can spend a little more time with moms especially first time moms. They should have more pamphlets handed out that mentions anything and everything or get it emailed to save paper. I felt sometimes I didn't have enough information with what information was given and what was spoken with me.

- PRAMS mom

Preventing Repeat Preterm Birth

The American College of Obstetricians and Gynecologists 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]

23% of pregnant AI/AN women with a previous preterm birth receive **injections of 17p**.

Public insurance: Coverage through a government service, such as Medicaid, BadgerCare Plus, Indian Health Service, or other Tribal health care
Private insurance: Coverage through a private company, TRICARE, or other military health care
No insurance: No insurance coverage

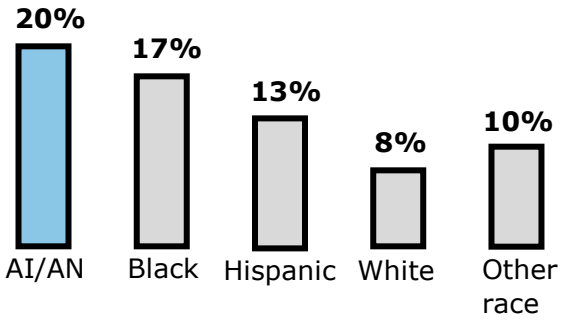
*Estimate based on small numbers. Interpret with caution.

Prenatal Care

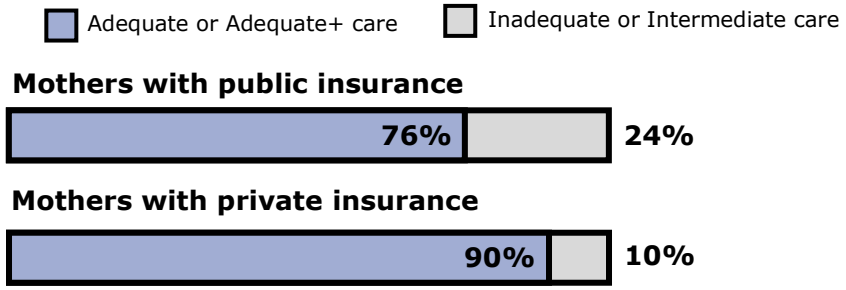
Adequacy of prenatal care

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] The Kotelchuck Index categorizes a person's prenatal care as one of the following: Adequate plus, Adequate, Intermediate, or Inadequate.

AI/AN mothers are more likely to receive **inadequate** prenatal care than mothers of other races.

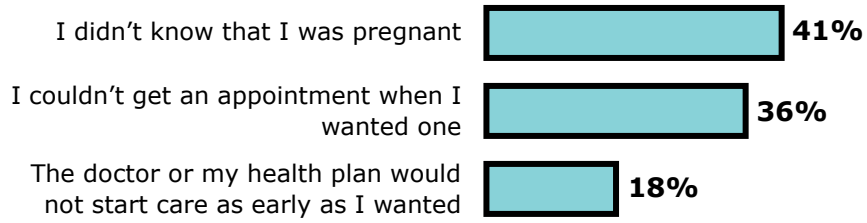


AI/AN mothers with **public insurance** report to receiving **inadequate or intermediate** prenatal care more frequently than AI/AN mothers with private insurance.



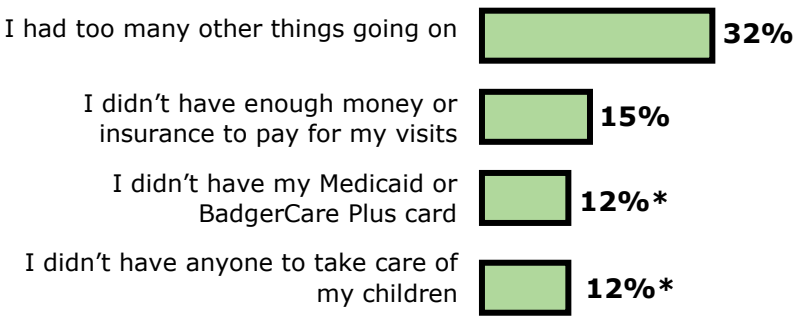
Barriers to prenatal care

19% of AI/AN 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 point to structural needs for more reproductive health education, increased provider availability, and a more streamlined process for public insurance coverage to begin.

AI/AN 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. **26%** of AI/AN women in urban areas and **15%*** of AI/AN women in rural areas cite lack of transportation to the clinic or doctor's office as a reason for not getting early prenatal care.

Public insurance: Coverage through a government service, such as Medicaid, BadgerCare Plus, Indian Health Service, or other Tribal health care
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No insurance: No insurance coverage

*Estimate based on small numbers. Interpret with caution.

Prenatal Care

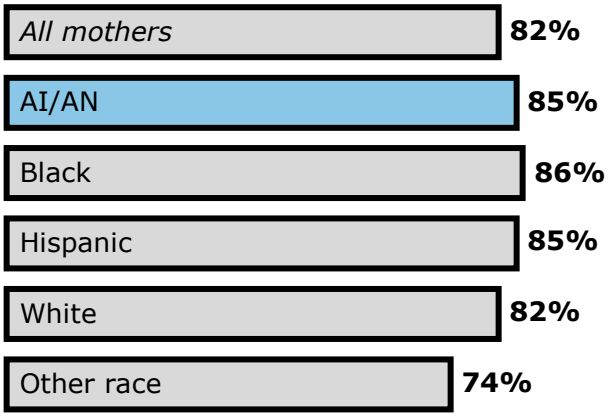
Prenatal counseling

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]

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.**

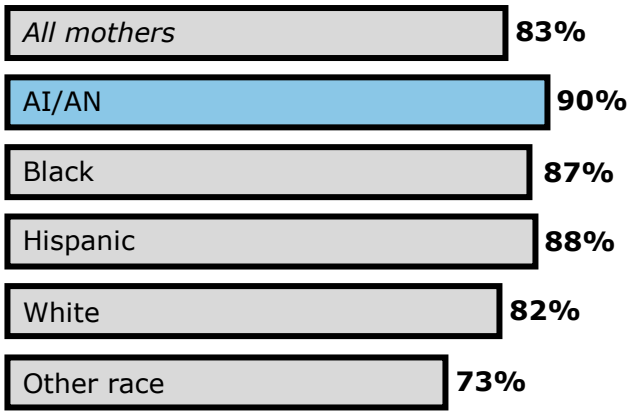
Screening for motional or physical abuse

85% of AI/AN mothers see a provider who asks about abuse.



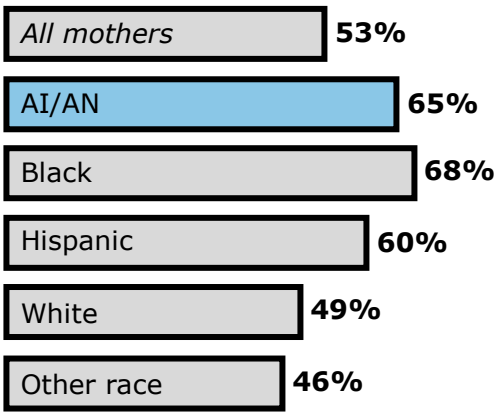
Screening for drug use

90% of AI/AN mothers see a provider who asks about drug use.



Testing for HIV (the virus that causes AIDS)

65% of AI/AN mothers see a provider who asks about HIV testing.



Asking about birth control

85% of AI/AN mothers see a provider who asks about postpartum contraceptive use.

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 AI/AN mothers (9%) report being dissatisfied with the respect shown to them as a person compared with white mothers (5%). These discrepancies in patients' views of care highlight the need for more diverse providers. **The goal for prenatal care satisfaction measures is 100%.**

85% of AI/AN mothers are satisfied with the **amount of time they have to wait** for prenatal care appointments.

86% of AI/AN mothers are satisfied with the **amount of time the doctor, nurse, or midwife spends with them**.

90% of AI/AN mothers are satisfied with the **advice they get on how to take care of themselves**.

91% of AI/AN mothers are satisfied with the **level of understanding and respect shown toward them as a person**.

"Midwifery care and doulas are needed. … I would rather pay out of pocket costs so I don't have to go to the hospital and suffer from institutional racism. My previous hospital birth was traumatic as an Indigenous woman.

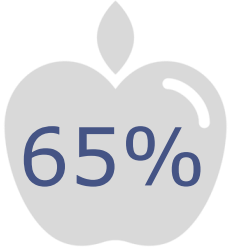
- PRAMS mom

WIC enrollment during pregnancy

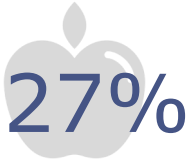
The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides health care and nutritional support for pregnant and postpartum women and their infants and children. WIC supports approximately half of all infants born in the United States.[7]

While families who are enrolled in Medicaid are automatically eligible for WIC services, only 65% of them reported being enrolled in WIC during pregnancy.

WIC enrollment by Medicaid status among AI/AN mothers



Medicaid enrolled



Non-Medicaid enrolled

"I wish I could have taken this survey about [m]y first pregnancy when I was homeless, undernourished, and my son's father left me and joined the military. I relied on WIC to give him food and ended up living in [a] trailer park that I found out later had contaminated water.

- PRAMS mom

Dental Care

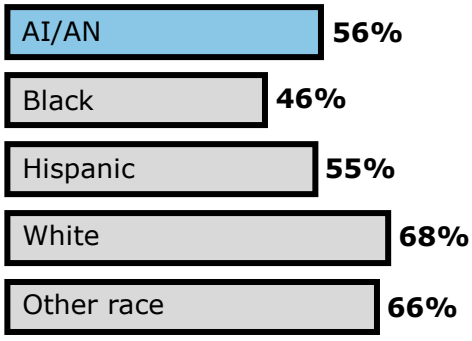
During pregnancy, there is an increased production of hormones. These changes in hormonal balance cause a shift in oral bacteria and change the body's reaction to infections, which can lead to gum inflammation. It is estimated that about 50% of pregnant women have some form of gum disease.[1] Oral health 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 AI/AN mothers have insurance to cover the cost of dental care, but this varies by health insurance type:

Preventive dental care

Percent of mothers who had a dental visit in the 12 months before pregnancy:

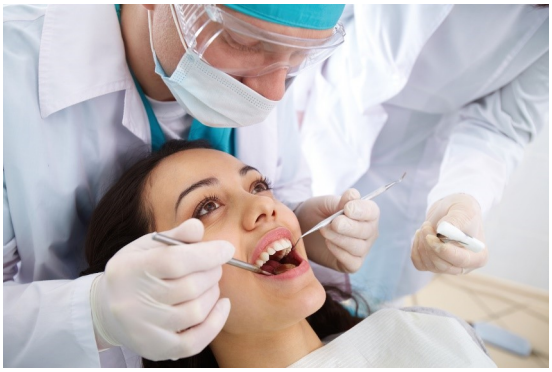


AI/AN mothers who had insurance to cover dental care report a dental visit in the year prior to pregnancy than those without dental insurance.

Dental visit in the year prior to pregnancy

AI/AN mothers living in rural counties are more likely to have a dental cleaning during pregnancy than AI/AN mothers living in urban counties.

Dental cleaning during pregnancy



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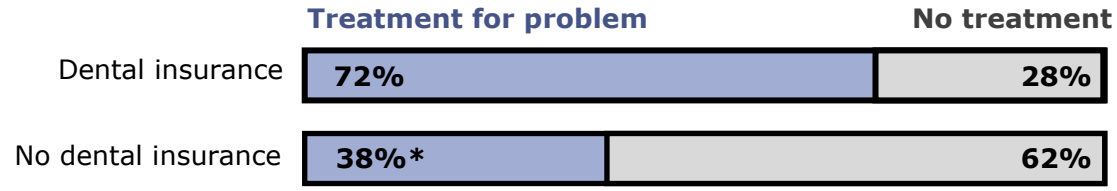
No insurance: No insurance coverage

Dental Care

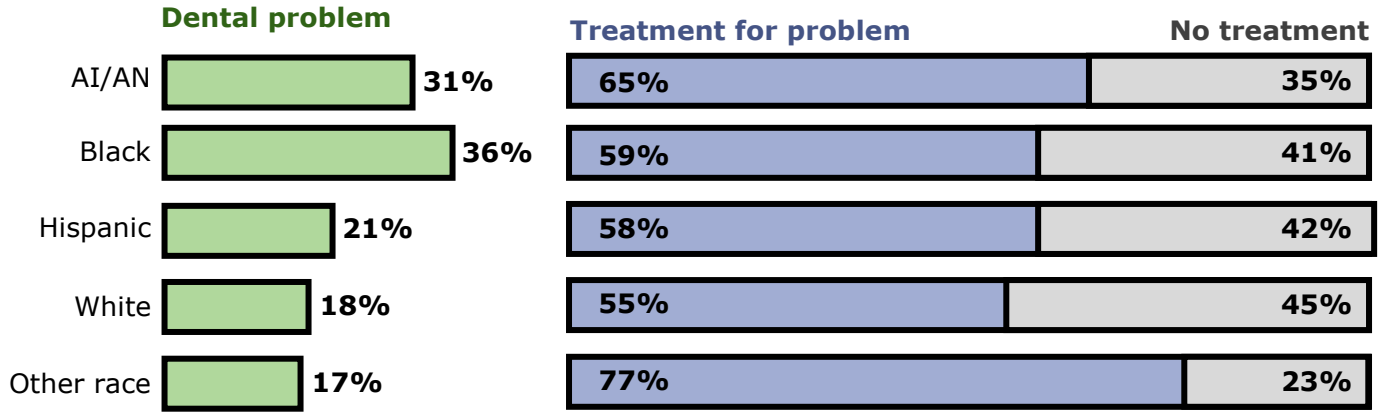
Dental treatment

31% of AI/AN 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 AI/AN mothers reporting needing to see a dentist for a problem, those with dental insurance coverage are **nearly two times** as likely than those with no dental insurance to see a dentist for treatment of a problem.

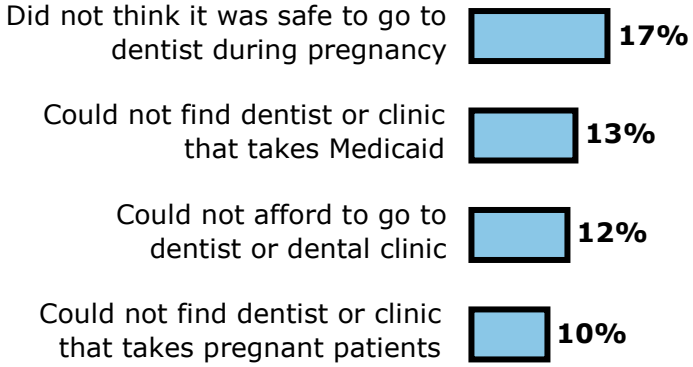


At 31%, AI/AN mothers are more likely to need to see a dentist for a problem than white mothers (18%). AI/AN mothers are more likely to receive treatment for dental problems during pregnancy.



Barriers to dental care

1 in 3 AI/AN 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.[3] To learn more, please visit the Wisconsin Oral Health Program's Resource Center.



Increasing Access

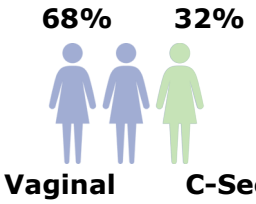
In June of 2017, the Wisconsin State Legislature passed Act 20[4], which allows dental hygienists to provide preventive dental care in hospitals, medical clinics, group homes, correctional facilities, shelters, nursing homes, and day care centers for children and adults . Act 20 also allows registered dental hygienists to be integrated into medical care teams, with the potential of being integrated into prenatal care for pregnant women.

*Estimate based on small numbers. Interpret with caution.

Pregnancy Outcomes

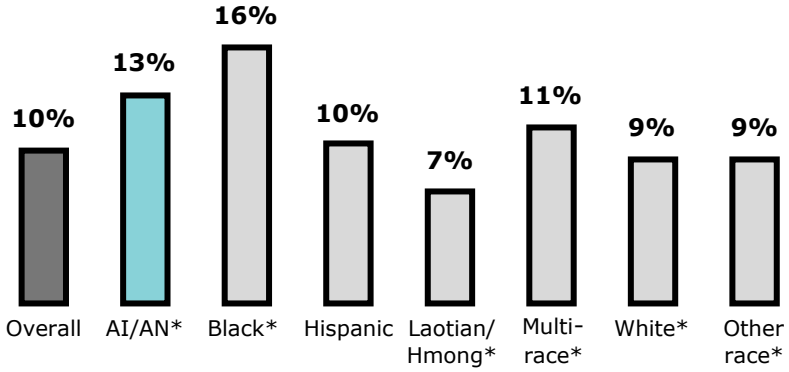
There are around 62,000 births each year in the State of Wisconsin.[1] Racial inequities in pregnancy outcomes persist in Wisconsin.

Delivery method



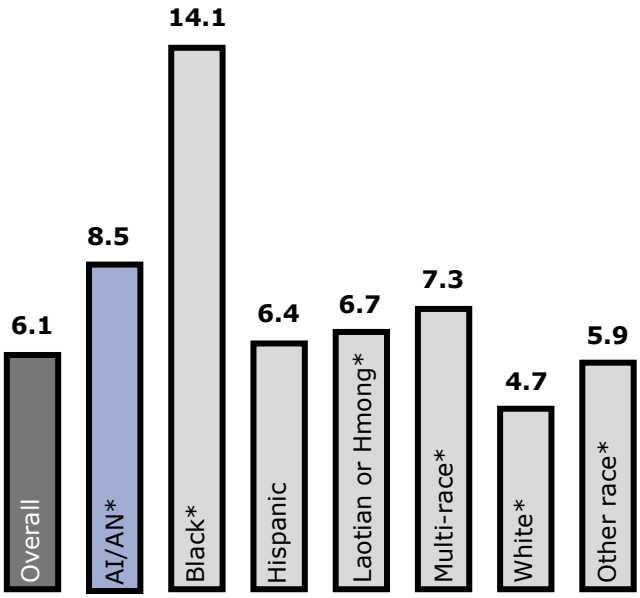
At 32%, non-Hispanic AI/AN mothers are more likely to have a C-Section than mothers of other races. C-Sections can be higher risk and more expensive than vaginal delivery.[2]

Preterm birth (<37 weeks gestation)



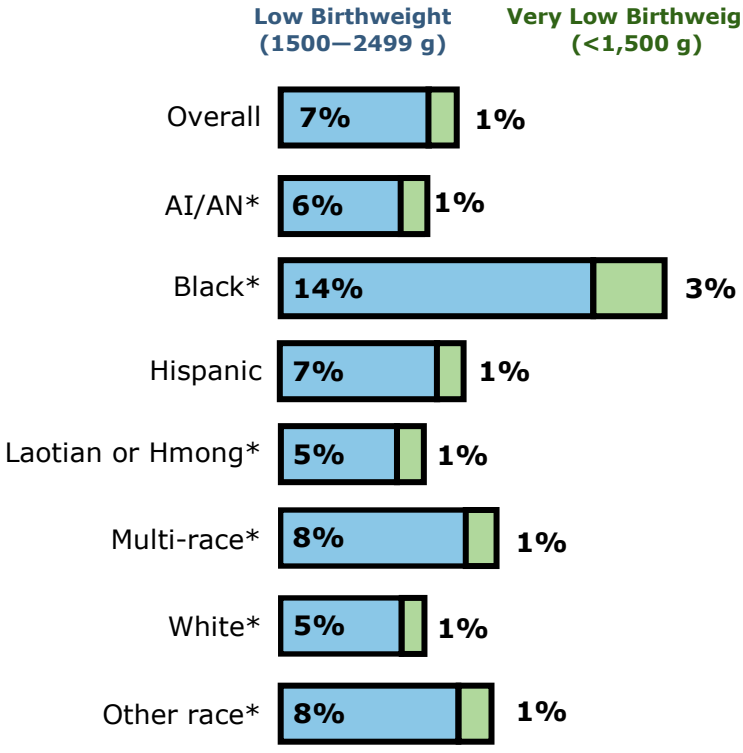
Infant mortality

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 and AI/AN mothers** are more likely to die in their first year of life than infants of other races.



Note: Rates are from 2016–2020.

Low birthweight



19% of non-Hispanic AI/AN mothers with a prior live birth have an inter-pregnancy interval—the time between pregnancies—shorter than the recommended 18 months.

11% of AI/AN infants stay in the hospital more than five days after delivery.

Maternal outcomes

2% of AI/AN mothers are transferred to another facility after delivery.

2% of AI/AN mothers have a fever after delivery.

*Non-Hispanic

Note: Data on this page are from PRAMS and birth and death records available through the Wisconsin Interactive Statistics on Health (WISH) query system.

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.

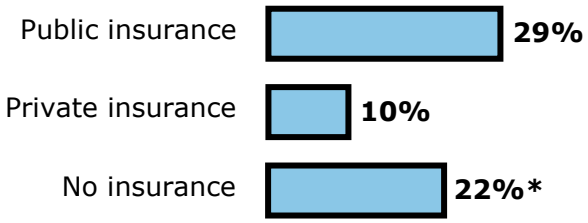
Postpartum visit

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

77% of AI/AN mothers receive a postpartum checkup after giving birth.

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

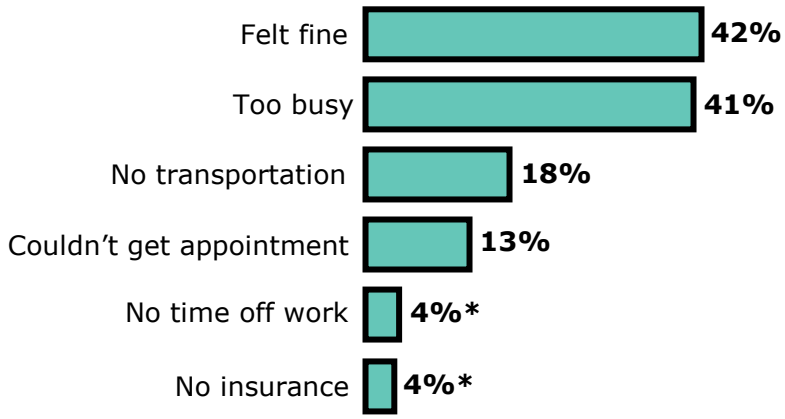
No postpartum visit, by insurance status



Barriers to postpartum care

42% of AI/AN mothers who did not receive a postpartum visit reported that they felt fine so they did not think they needed one.

Additionally, **41%** 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.



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.

93% of AI/AN mothers are asked about feeling depressed.

69% of AI/AN mothers are asked if they are smoking cigarettes.

74% of AI/AN mothers are asked if someone is hurting them emotionally or physically.

56% of AI/AN mothers are told about healthy eating and exercise.

52% of AI/AN mothers are told to take a vitamin with folic acid.

21% of AI/AN mothers are tested for diabetes.

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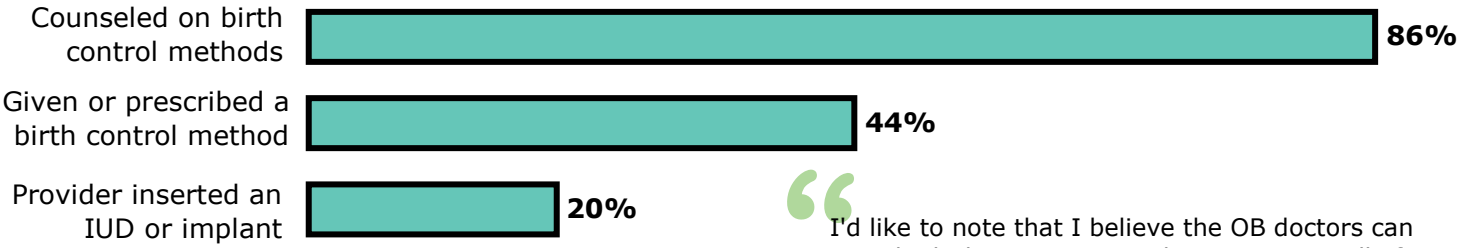
Post-Pregnancy Health Care

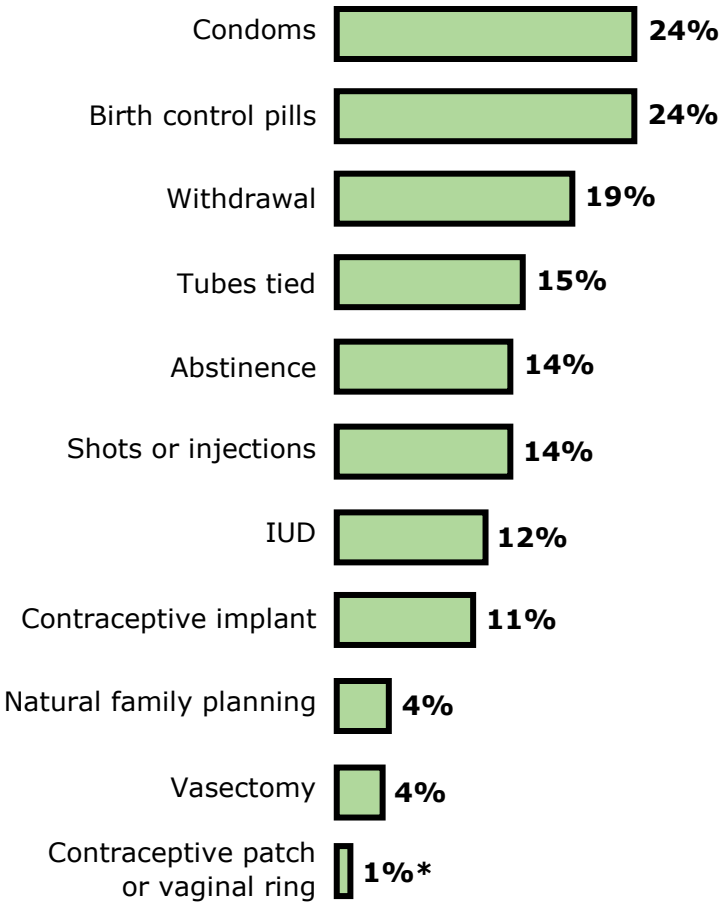
Postpartum contraception

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.



> I'd like to note that I believe the OB doctors can spend a little more time with moms especially first time moms. ... I felt sometimes I didn't have enough information with what information was given and what was spoken with me. - PRAMS mom

74% of AI/AN mothers are using some method of contraception to keep from getting pregnant in the first six months postpartum. (*Note:* totals do not sum to 100% because respondents could select more than one contraceptive method.)



*Estimate based on small numbers. Interpret with caution.

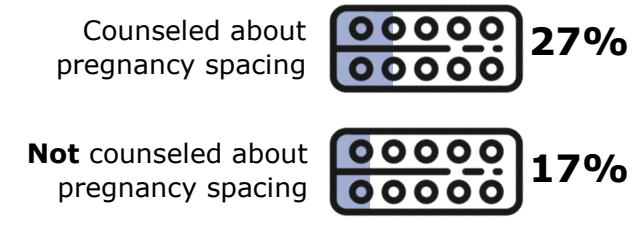
> I experienced the care of a midwife. ... the midwife became almost like a therapist postpartum, taking extra visits and at least 60/90 mins a visit talking about how I felt about the birth and the baby. This really saved me from bad depression that I normally experience it was 100% different than regular care. - PRAMS mom

Pregnancy spacing

50% of AI/AN mothers are counseled on how long to wait before getting pregnant again.

AI/AN mothers who are **counseled** about pregnancy spacing more frequently report being **prescribed birth control** during their postpartum visit than AI/AN mothers who are not counseled.

Percent prescribed birth control at postpartum visit

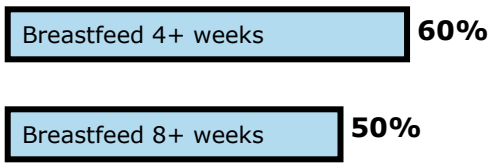


Breastfeeding

Breastfeeding benefits both mother and baby. Infants who breastfeed are at lower risk of obesity, sudden infant deaths syndrome (SIDS), ear infections, and type 1 diabetes.[1] Mothers who breastfeed their babies are less likely to have high blood pressure, type 2 diabetes, and certain types of cancers.[1] In Wisconsin, 84% of all mothers ever breastfeed their babies, but only 34% of mothers are exclusively breastfeeding at six months as recommended by the American Academy of Pediatrics.[2]

Initiation and duration

8 in 10 AI/AN mothers ever breastfeed their new baby.

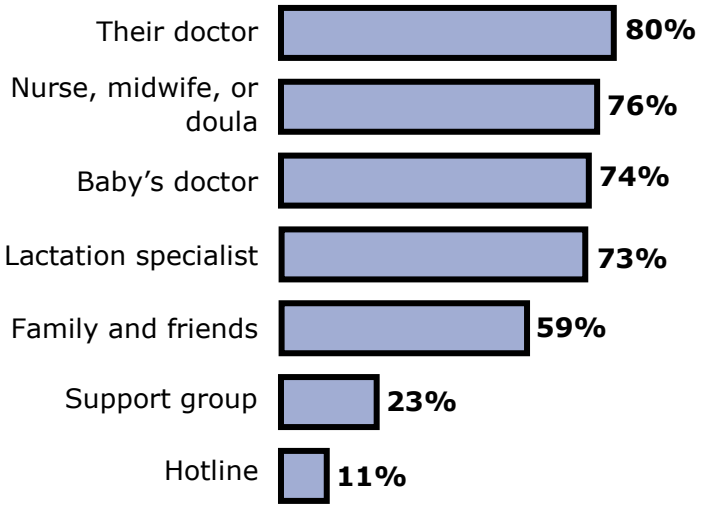


"Wish I had more breastfeeding support. … Lactation consultants should be more "hands on" at the hospitals. A scheduled visit with a lactation consultant post-birth should be mandatory...the first few weeks were very hard I can see why many would quit trying.

- PRAMS mom

Breastfeeding information

AI/AN mothers receive information about breastfeeding from various sources. (*Note:* totals do not sum to 100% because respondents could select more than one source.)



Hospital practices

For many mothers, breastfeeding begins in the hospital setting. Hospital staff play an important role in supporting mothers as they establish breastfeeding.

30% of AI/AN mothers are given a gift pack with formula. According to guidelines from the World Health Organization (WHO), hospital staff should provide formula when medically necessary or if the parent decides to use it instead of breast milk.[3]

84% of AI/AN mothers are instructed to feed baby on demand. Medical staff can help mothers identify baby's hunger cues.[3]

62% of AI/AN babies are given a pacifier in the hospital. WHO guidelines suggest hospital staff guide mothers on how to use pacifiers, teats, and bottles.[3]

59% of AI/AN babies are fed only breastmilk at the hospital. Only breastfeeding for the first six months protects babies against GI infections and can help mothers lose weight after delivery.[4]

Family leave

50% of AI/AN mothers who work are able to take paid leave after the birth of their baby. They are slightly more likely to breastfeed their babies for four weeks or more than mothers who can not take paid leave.

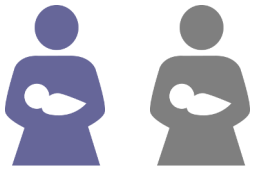
Breastfeeding four or more weeks

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 2 AI/AN infants do **not** always sleep alone in their own bed or crib.



AI/AN mothers **living in poverty** (55%) and **near poverty** (52%) report not putting their baby down to sleep alone in their own bed or crib than more often than mothers not living in poverty (38%).

9 in 10 AI/AN mothers room share with their baby.

59% of AI/AN mothers receive counseling from their health care provider about room sharing with their new baby.

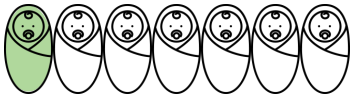
3 in 5 AI/AN infants sleep with a blanket.

1 in 10 AI/AN infants sleep with crib bumper pads.

89% of AI/AN 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 AI/AN infants are **not** usually placed on their back to sleep.



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

AI/AN mothers **living in poverty** (83%) are less likely to place their baby on their back to sleep than AI/AN mothers living in near poverty (89%) or not living in poverty (89%).

Breastfeeding

1 in 2 AI/AN mothers who started breastfeeding are still doing so two to six months postpartum.

80% of AI/AN mothers who ever breastfed reported that staff at the birth hospital helped them establish breastfeeding.

Crib

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

91% of AI/AN mothers receive counseling from their health care provider about placing their baby to sleep in a crib, bassinette, or play yard.

Smoke-free

69% of AI/AN mothers are asked about smoking cigarettes at their postpartum visit.

35% of AI/AN mothers smoke cigarettes after their baby is born.

AI/AN mothers **living in poverty** (47%) and **near poverty** (25%) more frequently report smoking cigarettes postpartum than AI/AN mothers not living in poverty (16%).

(Note: PRAMS survey questions ask about cigarette use and do not differentiate between traditional and commercial tobacco.)

Poverty (<100% FPL): household income less than 100% of the federal poverty level (FPL)
Near poverty (100-199% FPL): household income 100% to 199% of the FPL
Not in poverty (200%+ FPL): household income 200% or more of the FPL

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]

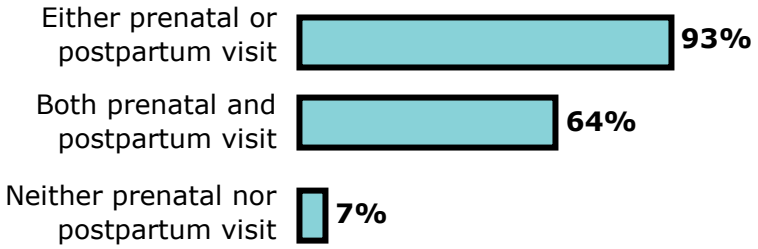
37% of AI/AN mothers report experiencing depression in the three months prior to becoming pregnant.

34% of AI/AN mothers report experiencing depression during their pregnancy.

Depression screening

Among AI/AN mothers who are not screened for depression at either a prenatal or postpartum visit, **34% experience symptoms of post-partum depression**. This indicates providers are missing people who could benefit from screening.

Timing of depression screening



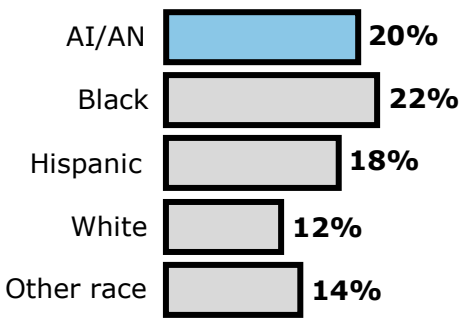
Postpartum depression

20% of AI/AN mothers report experiencing postpartum depressive symptoms after giving birth compared to 14% among all mothers.

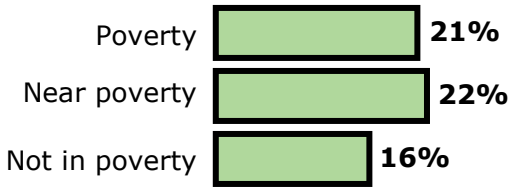
"Most, if not all, of my anxiety and depression issues were/are due to isolation because of COVID-19. I took unpaid leave when the Safer at Home order was placed, had my child, and planned on a two month leave (unpaid). I cannot afford child care and do not have anyone to watch my baby, therefore, I had to quit

- PRAMS mom

Women of color report symptoms of postpartum depression more often than white mothers.



AI/AN mothers living in poverty and near poverty report symptoms of postpartum depression more often than mothers who are not living in poverty.



Poverty (<100% FPL): household income less than 100% of the federal poverty level (FPL)
Near poverty (100-199% FPL): household income 100% to 199% of the FPL
Not in poverty (200%+ FPL): household income 200% or more of the FPL

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]

2 in 3 AI/AN mothers work at a job for pay during their pregnancy.

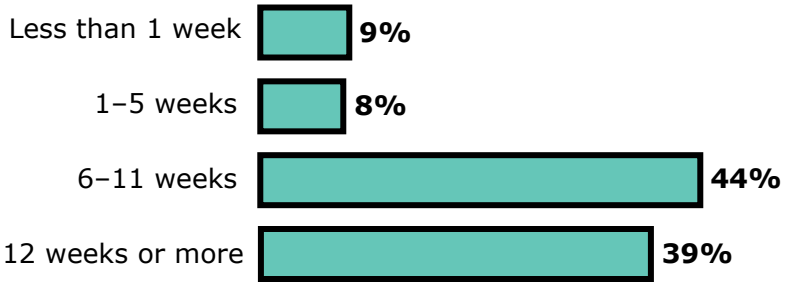
1 in 3 AI/AN mothers do not plan to return to work after giving birth.

> My employer only allows/gives one week of paid leave for women and men who have or adopt babies. I found this to be the biggest disappointment of my pregnancy and post-partum experience. I wish I had more time to bond and adopt to motherhood.
>
> - PRAMS mom

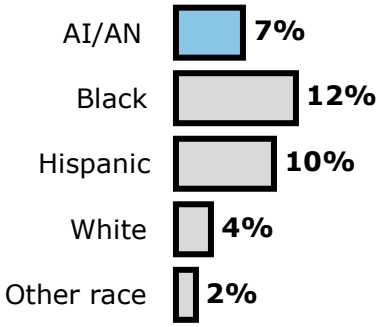
Maternity leave

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]

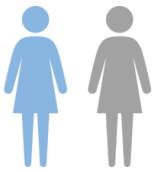
93% of working AI/AN mothers took some form of leave after giving birth, though the amount of time varied significantly.



Although a small percent of working mothers did not take leave after giving birth, the likelihood of **not taking any leave** is not the same across all racial and ethnic groups.



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 AI/AN mothers who took *any* leave after their baby was born, only **half** took some amount of **paid leave**.

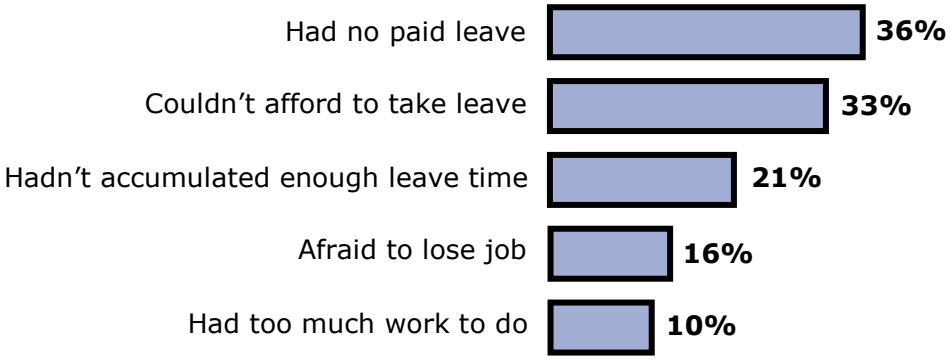
Only **36%** of all working AI/AN dads took **paid leave** after the birth of their baby.

However, not everyone has access to paid leave or has the amount of paid leave they would like to recover from birth. Of working AI/AN mothers who took leave after giving birth, **63%** 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. Among AI/AN mothers, economic factors are most commonly reported as influencing the decision.

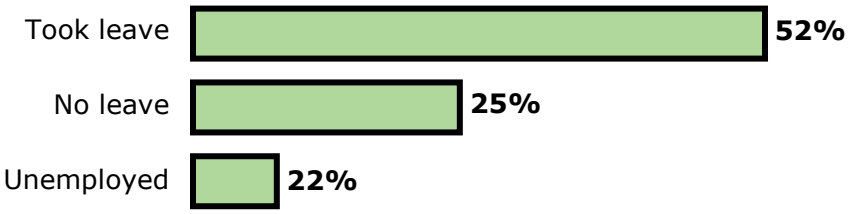


"Just would like to add that I know how hard it is for any mother, whether she has a working partner, to make ends meat [sic] some days.

- PRAMS mom

Paternity leave

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



Financial stress

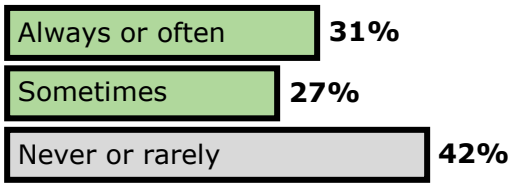
Having a new baby means additional expenses for a family. When families do not have access to paid leave from work, the financial stress can be made worse by lost income or having to pay for child care.

58% of AI/AN mothers always, often, or sometimes worry or stress about having enough money to pay their bills after their baby is born.

New AI/AN parents who do not take paid leave after the birth of their new baby (62%) are more likely to be always, often, or sometimes stressed about paying bills than AI/AN parents who do take paid leave (39%).

Financial insecurity

3 out of 5 of new AI/AN mothers are always, often, or sometimes worried about having enough money to pay their bills.



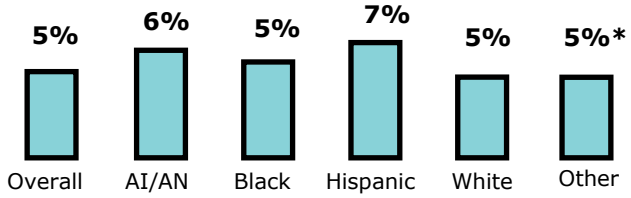
Financial insecurity is one of the most commonly reported sources of stress for pregnant women, and is associated with increased risk of preterm birth.[3-5]

COVID-19 Experiences

The start of the COVID-19 pandemic in early 2020 caused widespread social and economic effects as medical providers, health agencies, and businesses responded to the emerging virus. Pregnant and recently pregnant mothers faced the stress of social isolation, economic challenges, and abrupt shifts in medical care from prenatal appointments through delivery and postnatal care. The data in this report reflects experiences of mothers in the first year of the pandemic (2020).

Illness

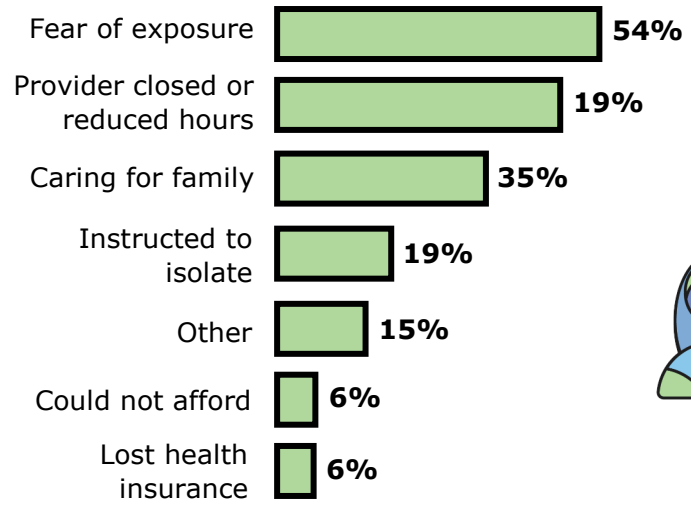
AI/AN mothers and Hispanic mothers were most likely to test positive for or be told they had COVID-19.



Impact on care

53% of AI/AN mothers missed or had to delay an appointment in 2020.

Among AI/AN mothers who missed or delayed an appointment, the most commonly reported reason was fear of exposure to COVID-19.

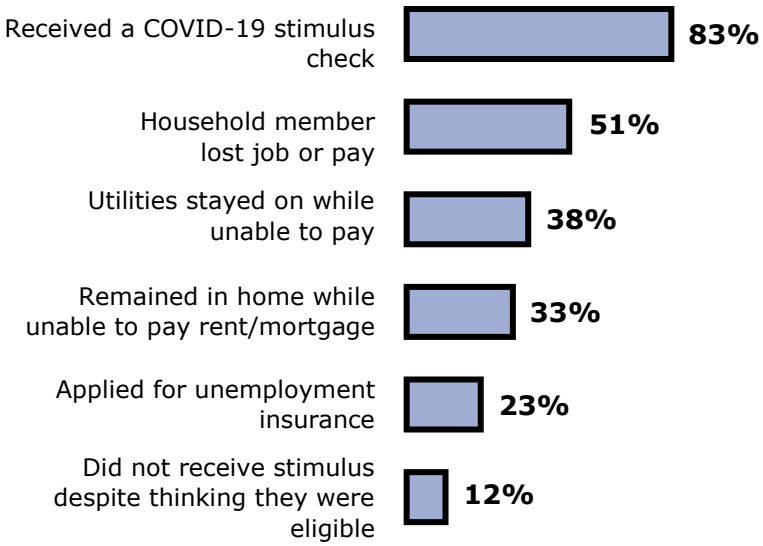


38% of AI/AN mothers had a virtual health care visit (on a computer or telephone).

*Estimate based on small numbers. Interpret with caution.

COVID-19 experiences

Among AI/AN mothers:



Personal stories

"Took vitamin D and Omega 3's throughout pregnancy. Did not seek dental services due to COVID-19. Did not take maternity leave because my positions and because of COVID-19, I was/am able to work remotely at home. - PRAMS mom

"I am currently working and trying to get my family and myself into a new home by Christmas. Recovering from the effects that COVID-19 had on my life will take some time. I'm also still waiting on unemployment in which I applied for back in April. I have yet to receive anything. - PRAMS mom

"It just seemed toward the end of my pregnancy, during the COVID-19 outbreak, it didn't matter to doctors that I was high risk they would cancel appointment or had to schedule out appointments 2-3 weeks longer. - PRAMS mom

"During my pregnancy, COVID-19 hit. My significant other was no longer able to come with me to doctor visits. It was very sad and heartbreaking the father of our baby couldn't hear his child's heart beat. He couldn't be there for support during doctor visits, so I wasn't lonely. - PRAMS mom

Moving Data to Action

Thank you for taking the time to read this report. Now that you have data on the experiences and outcomes of Native mothers and their infants, it is time to move that data to action. We have created the following discussion questions to support organizations and communities engaging in meaningful dialogue about how to translate this information into action in their own spheres of influence.

We encourage you to reflect on these questions independently or with a larger group. After you complete the questions, please consider emailing us your answers. We would love to hear from you at DHSDPHPRAMS@dhs.wisconsin.org.

For review and reflection: Seven key questions to improve health for Native mothers and infants in Wisconsin

1. After reviewing this report, what are some of the trends that stood out to you?

2. We know racism and generational trauma can play a role in maternal and infant health. In what ways have you seen this in your own community or organization? What are tangible steps you can take to help combat this?

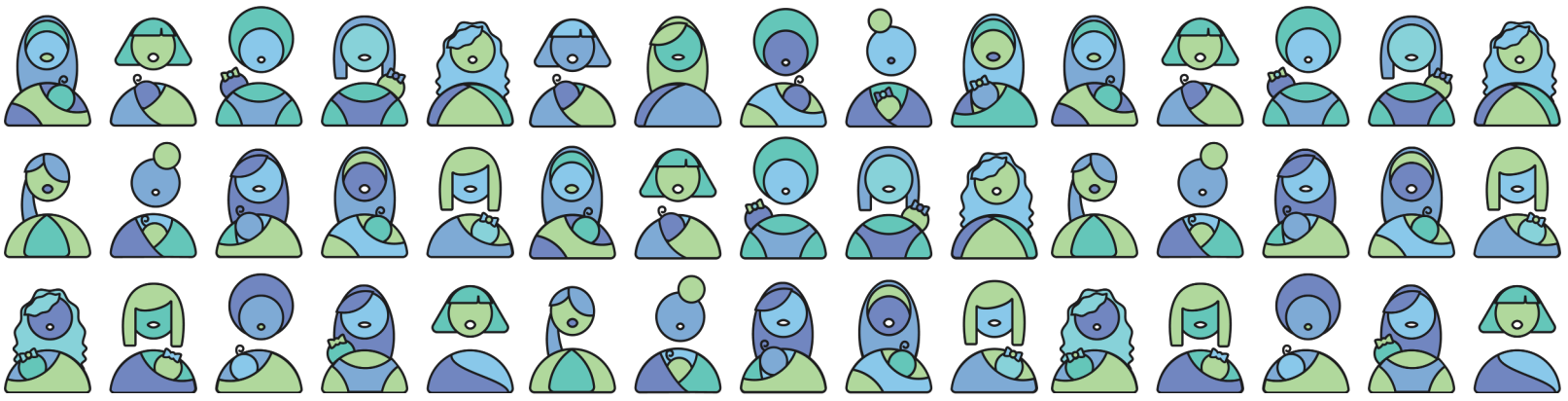
3. What do these data tell us about areas of strength for Native maternal and infant health? What are other strengths you have seen in your work or community? How can they be supported and uplifted?

4. After reviewing this report, what are areas of opportunity to improve maternal and infant health outcomes for Native communities? What are tangible steps you can take to help promote optimal health?

5. What community-based organizations or systems can you commit to developing or strengthening a relationship with in order to promote the health of Native mothers and infants?

6. What barriers do you anticipate encountering as you work to accomplish the action steps you have committed to above? What strategies will you utilize to overcome them?

7. What are areas of promise or hope you see happening in your organization or surrounding community related to Native maternal and infant health? What is working well that you can support and/or bring more awareness to?



About PRAMS and Partners

PRAMS is a data collection system conducted jointly by the Centers for Disease Control and Prevention and health departments. Wisconsin began participating in PRAMS in 2007. To learn more about Wisconsin PRAMS or access additional data, please visit the Wisconsin Department of Health Services webpage (dhs.wisconsin.gov/stats/prams).

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 (cdc.gov/prams).

CDC Centers for Disease Control and Prevention

PRAMS
PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

This work would not be possible without a partnership between Wisconsin PRAMS and the Great Lakes Inter-Tribal Epidemiology Center (GLITEC), a program of Great Lakes Inter-Tribal Council, Inc. To learn more about GLITEC, please visit their webpage (glitc.org/epi).

This report was supported in part by an appointment to the Applied Epidemiology Fellowship Program administered by the Council of State and Territorial Epidemiologists (CSTE) and funded by the Centers for Disease Control and Prevention (CDC) Cooperative Agreement Number 1NU38OT000297-03-00.

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 2020 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.

All mothers who gave birth in 2020 and self-identified as AI/AN on their baby's birth record received a PRAMS survey.

2020 sampling weights

1. American Indian/Alaska Native (1:1)
2. Black, non-Hispanic (1:7)
3. White, non-Hispanic (1:73)
4. Other race/ethnicity (1:13)

2020 Wisconsin PRAMS sample sizes and respondents

	Sample	Responses	Weighted Response Rate
AI/AN (including Hispanic)	1112	547	49%
Black, non-Hispanic	968	359	37%
White, non-Hispanic	544	386	71%
Other	711	400	56%
Overall	3335	1692	64%

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.

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 2020, all mothers received a $20 reward for participation. Additionally, a $5 pre-incentive was offered to all moms for participation in the PRAMS survey.

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