



THRIVING BABIES START WITH STRONG MOMS: RIGHT START 2020

Amber Bellazaire, Health Policy Analyst | February 2020

Introduction

Moms and babies make up Michigan's foundation, so maternal and infant health outcomes are good measures of our state's priorities. If Michigan is going to move forward as a state that values families, we have work to do when it comes to the health of mothers and their babies. And policy's role in these outcomes is more important than ever.

Gov. Gretchen Whitmer recently released her [2021 state budget recommendations](#), which include a new investment to advance maternal and infant health. The Healthy Moms, Healthy Babies initiative would support women's health not solely when a woman is pregnant, but throughout her reproductive years. The initiative recognizes the critical connection between the health of a woman and the health of her baby and would expand efforts shown to benefit infant health and development. While the governor's budget is only a starting point in the state budget process, the League enthusiastically supports the maternal and child health investments that have been proposed. We hope the Michigan Legislature does, too.

Right Start 2020 presents data on the health of infants and mothers with a focus on outcomes in Michigan. The report notes comparisons to other states and the United States as a whole when it is useful. The report also incorporates demographic data that is consistently associated with infant and maternal health outcomes, such as age, race and education level. *Right Start 2020* highlights disparities—that is, preventable differences in outcomes—across demographic groups and any significant changes in those disparities over time. The report begins with an overview of current data on maternal and infant mortality. The remaining information is organized into three categories: healthcare, health behaviors and other determinants of health.



The aim of *Right Start 2020* is to provide readers with an understanding of the many factors that advance and hinder maternal and infant health. *Right Start 2020* advocates for financed policies and programs that consider the medical and socioeconomic experiences of expectant women with the goal of achieving better maternal and infant health outcomes in the future.

A NOTE ON POPULATION HEALTH DATA

Data allows us to observe changes over time, which helps us to better understand whether a population is doing well, improving or facing challenges. Data also helps us to identify patterns and draw connections between various factors. Sometimes data indicates a cause-and-effect relationship between factors. Other times, causality is harder to determine and instead data suggests that factors are simply associated or correlated. Population health data provides us with a high-level view of outcomes as well as evidence indicating which factors tend to support and which tend to hinder positive outcomes. Population data does not offer insight into the health of an individual.

Recommendations: Build Up What Works

There are a number of strategies that advocates, providers, employers, policymakers and elected officials can invest in to advance maternal and infant health for all Michiganders.

- Help to fortify the Affordable Care Act and Michigan's rates of health insurance coverage. Protecting women's access to comprehensive care before, during and after pregnancy supports positive maternal and infant health outcomes.
- Extend Medicaid coverage to 12 months postpartum. Adverse infant and maternal health outcomes cannot be addressed by focusing only on the nine months of pregnancy. Extending Medicaid coverage from 60 days to 12 months postpartum will ensure publicly insured women have access to the care they need to heal after childbirth and manage physical and mental health conditions that could jeopardize their or their infant's well-being. Because Medicaid covers approximately [44%](#) of births in Michigan, extending Medicaid postpartum coverage is a tremendous opportunity to improve rates of continuous healthcare coverage for Michigan women and reduce rates of maternal death.^{1,2}
- Allow for and enhance reimbursement rates—the amount a health plan pays a healthcare provider or facility for a particular health service—for care shown to benefit maternal and infant health. For example, allowing reimbursement for doula services and lactation support as well as broadening reimbursements to rural health facilities and for services such as group prenatal care would yield considerable returns on investment.
- [Expand home visiting programs](#). High-quality home visiting programs consistently show benefits for families, including improved maternal and infant health. Home visiting programs establish healthy starts for families by offering moms and their children valuable health screenings, connecting families to other needed services and encouraging positive parenting practices shown to increase bonding between parent and child and early language development in young children.³
- [Restore Michigan's Earned Income Tax Credit](#) (EITC). Doing so would benefit many of the state's working families.⁴ Research finds that states with a generous EITC see reductions in preterm birth and low-birthweight infants.^{5,6,7} These effects are most pronounced among infants born to non-Hispanic Black women, suggesting that a robust state EITC may help to reduce racial disparities in infant health outcomes.⁸
- [Advocate for paid parental leave policies](#). More women are working late into pregnancy and returning to work sooner. Did you know that in the U.S., 1 in 4 women return to work within 10 days of giving birth? Paid parental leave policies offer families peace of mind, economic security and time to bond with their new child. Such benefits are shown to improve the health of children and their families.⁹

Overview: Infant and Maternal Mortality in Michigan

The health and longevity of newborn babies are common measures of a society's overall well-being. That's because infant health is a powerful proxy for examining whether families are able to meet their basic needs, such as accessing appropriate nutrition, sanitation, healthcare and education. Places where infants survive their first year of life generally have better population health than those where they do not. The same is true for women's health. Societies with healthier women enjoy economic and humanitarian benefits that persist for generations.¹⁰ Investing in the health of women and young children should therefore be a top priority for all communities.

Infant health outcomes are, on average, improving around the world, including in the United States. However, the infant mortality rate in the U.S. continues to lag behind similarly wealthy nations. For example, in 2017, the rate of U.S. infants dying during their first year of life was 5.8 for every 1,000 live births. In the same year, the average infant mortality rate across other high-income nations was 3.6 for every 1,000 live births.¹¹

Michigan's infant mortality rate has also improved over time. But, while Michigan continues to show overall improvements in infant mortality, the state's rate remains above that of the U.S. as a whole.¹² In 2017, the U.S. infant mortality rate was 5.8 for every 1,000 live births.¹³ In Michigan, the rate was 6.8 for every 1,000 live births. Additionally, the state continues to combat persistent racial disparities in infant mortality. Black and Native American babies are less likely to survive their first year of life.^{14,15} For example, Black infants are more than twice as likely to die before age one than non-Hispanic White infants.¹⁶

Infant mortality rates vary, sometimes significantly, by geography. This is true across the United States and in Michigan. Compared to other states, Michigan ranks 36th in infant mortality.¹⁷ The following table presents infant mortality rates for each Michigan county. Rates range from 3.0 per 1,000 live births in Midland County to 16.2 per 1,000 in Presque Isle County.

Infant Mortality Rates Per 1,000 Live Births by Michigan County							
	2014-2018		2014-2018		2014-2018		2014-2018
County	Average Infant Mortality Rate	County	Average Infant Mortality Rate	County	Average Infant Mortality Rate	County	Average Infant Mortality Rate
Michigan	6.7	Delta	5.6	Keweenaw	*	Oakland	5.6
Alcona	*	Dickinson	4.7	Lake	*	Oceana	8.9
Alger	*	Eaton	5.1	Lapeer	4.4	Ogemaw	*
Allegan	4.9	Emmet	*	Leelanau	*	Ontonagon	*
Alpena	4.5	Genesee	8.2	Lenawee	5.8	Osceola	6.1
Antrim	*	Gladwin	6.8	Livingston	4.2	Oscoda	*
Arenac	*	Gogebic	9.3	Luce	*	Otsego	5.6
Baraga	*	Grand Traverse	6.3	Mackinac	*	Ottawa	4.4
Barry	3.4	Gratiot	4.6	Macomb	6.0	Presque Isle	16.2
Bay	5.5	Hillsdale	6.3	Manistee	6.8	Roscommon	7.6
Benzie	*	Houghton	4.9	Marquette	3.6	Saginaw	8.6
Berrien	6.7	Huron	4.1	Mason	4.1	St. Clair	5.6
Branch	8.8	Ingham	6.1	Mecosta	5.2	St. Joseph	5.4
Calhoun	6.8	Ionia	5.0	Menominee	*	Sanilac	7.0
Cass	8.9	Iosco	9.3	Midland	3.0	Schoolcraft	*
Charlevoix	6.1	Iron	*	Missaukee	*	Shiawassee	6.0
Cheboygan	6.6	Isabella	6.3	Monroe	4.5	Tuscola	4.7
Chippewa	3.5	Jackson	6.4	Montcalm	4.2	Van Buren	5.6
Clare	7.3	Kalamazoo	6.0	Montmorency	*	Washtenaw	5.4
Clinton	4.6	Kalkaska	6.8	Muskegon	7.6	Wayne	9.8
Crawford	11.4	Kent	5.7	Newaygo	6.6	Wexford	6.6

*Data unavailable or available data set too small to be reliable

Source: [2014 - 2018 Michigan Resident Birth and Death Files](#), Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services

Similar to infant mortality, maternal mortality has declined globally over the last several decades. However, over the past 20 years, while similarly wealthy nations saw their maternal mortality rates decrease, the United States has experienced an increase in its rate. Since 2000, the U.S. maternal mortality rate has increased by approximately 27%.¹⁸ The Centers for Disease Control and Prevention estimate that 700 women in the U.S. die from pregnancy-related causes each year.¹⁹

It is possible the increase in maternal deaths witnessed in the United States in recent decades is a result of improvements in data collection.²⁰ However, some experts argue that even [the latest maternal mortality estimates](#) fall short of the actual number of maternal deaths in the U.S.²¹

The U.S. maternal mortality rate may fail to mirror rates of like countries because of persistent and considerable racial disparities in reproductive health outcomes. In the United States, between 2011 and 2015, the maternal mortality rate for non-Hispanic Black women was approximately 43 per 100,000 live births. For Native American women, the rate was 33 deaths per 100,000 live births. Among non-Hispanic White women the rate was approximately 13 per 100,000.²² Non-Hispanic Black women and Indigenous women consistently bear the greatest burden of adverse birth-related outcomes.²³

Fortunately, the maternal mortality rate in the state of Michigan is below that of the U.S. In 2019, for example, the U.S. maternal mortality rate was estimated to be approximately 30 deaths for every 100,000 live births compared to Michigan's rate of approximately 28 for every 100,000 live births. Unfortunately, however, in the same year, Michigan ranked 30th in maternal mortality when compared to other states.²⁴

Efforts to reduce maternal death in Michigan are ongoing and include participation in [Michigan's Alliance for Innovation on Maternal Health \(AIM\) program](#) and the release of the 2020-2023 [Mother Infant Health & Equity Improvement Plan](#), which leverages nine regional perinatal quality collaboratives from across the state. Michigan also has one of the longest-standing maternal mortality review committees—70 continuous years—which reviews all deaths that occur during pregnancy or within one year of pregnancy.

Leading Causes of Pregnancy-related Mortality^{26,27}

- ☐ Heart conditions, including cardiomyopathy and cardiovascular disease
- ☐ Other often pre-existing conditions, such as diabetes and high blood pressure
- ☐ Infection
- ☐ Hemorrhage (heavy bleeding)
- ☐ Preeclampsia and eclampsia
- ☐ Stroke
- ☐ Pulmonary embolism
- ☐ Amniotic fluid embolism

Data from the Michigan Maternal Mortality Surveillance Committee found that between 2011 and 2016, 79 Michigan women died from pregnancy-related causes, nearly 53% of which were determined to have been preventable. Maternal mortality rates varied by race and age, and primary causes of pregnancy-related death were cardiomyopathy, infection and hemorrhage.²⁵ The committee continues to develop recommendations to prevent maternal mortality for Michigan women.

Healthcare

Nearly 4 million women give birth in the United States every year.²⁸ And while not every woman will become a mom, a woman receiving appropriate and timely healthcare does ensure the best outcomes for herself and for her baby should she choose to become a parent. Therefore, supporting women's health is particularly important for improving maternal and infant outcomes.

In general, there are three factors that influence whether a person obtains the healthcare they need: proximity, affordability and the experience an individual has while interacting with their provider.

If a person lives in a community far from a healthcare facility or lacks reliable transportation, accessing needed medical services becomes more challenging. March of Dimes estimates that 5 million U.S. women live in a community without a doctor or facility that provides obstetrics (OB) care.²⁹ This is particularly salient in rural areas because more than half of all rural counties in the U.S. do not have a hospital that offers OB services.³⁰ Worse still, maternal and infant mortality rates tend to be greater in rural areas than more urban areas.³¹

Cost is another factor many people, pregnant or not, consider when deciding whether to see a doctor. If a woman is concerned about whether she can afford the cost of regular visits to the doctor during her pregnancy, she may delay or miss recommended care, which could have implications for her health and the ultimate cost of her care if a medical condition worsens as a result of it going untreated.

Comprehensive health insurance is the main way people protect themselves from exorbitant medical bills, and it encourages those with coverage to seek necessary, routine care. Fortunately, Michigan does well in providing health insurance coverage to its residents. Approximately 95% of Michiganders have some type of health insurance.³² From 2013 to 2017, Michigan experienced a 10% decline in the uninsured rate for women ages 18-44.³³ Researchers attribute this decrease to the Affordable Care Act and the adoption of Medicaid expansion, which in Michigan is called the Healthy Michigan Plan. However, for women who remain uninsured and even for women with employer-sponsored coverage, out-of-pocket spending on pregnancy and childbirth can be incredibly burdensome.³⁴ Reducing the high cost of receiving maternity care in the U.S. may help to improve maternal and infant health for all families.

It is also worth noting that parental insurance status influences the insurance status of their child. In other words, a child is more likely to have health insurance if their parent has health insurance.³⁵ Children's health, as with adults' health, benefits from healthcare coverage. For example, children with health insurance coverage are more likely to attend [well-child visits](#), which offer important assessments, immunizations and developmental screenings.

Lastly, accessibility of medical services includes the quality and experience of receiving care. For example, providing services in the

RECOMMENDATION:

Extend Medicaid postpartum coverage. Adverse infant and maternal health outcomes cannot be addressed by focusing only on the nine months of pregnancy. Extending Medicaid coverage from 60 days to 12 months postpartum will ensure publicly insured women have access to the care they need to heal after childbirth and manage physical and mental health conditions that could jeopardize their or their infant's well-being. Because Medicaid covers approximately 44% of births in Michigan, extending Medicaid postpartum coverage is a tremendous opportunity to improve rates of continuous healthcare coverage for Michigan women and reduce rates of maternal death.

RECOMMENDATION:

Protect healthcare coverage. Help to fortify the Affordable Care Act and Michigan's rates of health insurance coverage. Protecting women's access to comprehensive care before, during and after pregnancy supports positive maternal and infant health outcomes.

language with which a patient feels most comfortable makes the experience truly accessible. Reasonable accommodations such as this not only improve the doctor-patient relationship but also encourage consistent medical care. This is because doctors and other healthcare professionals who are responsive to patient needs and preferences provide better, more respectful care.

While a majority of people receiving medical care have positive experiences, not all do. In a survey of women from across the U.S., nearly 30% who gave birth in a hospital reported mistreatment from a healthcare provider. Experiences of mistreatment varied by race and ethnicity. The concern about negative medical care experiences goes beyond worry over uncomfortable interactions and involves the potential implications for care quality and provider responsiveness.

A study that examined the prevalence of five types of childbirth complications showed that when compared to non-Hispanic White women, non-Hispanic Black women were no more likely to experience any of the five childbirth complications, yet they were two to three times more likely to die when a complication arose.³⁷ Moreover, data analyzed by California's maternal mortality review committee indicated that ineffective care and delayed responses to clinical warning signs were primary contributors to maternal death.³⁸ Such findings are difficult to understand and untangle, but they provide an opportunity to interrogate how healthcare delivery may contribute to adverse outcomes.

It is thus important to encourage access to educational, person-centered and supportive healthcare as well as to address unconscious beliefs and stereotypes that may contribute to differential care for women and women of color in particular. Increasing opportunities for doctors and other healthcare professionals to learn about the health issues that are most relevant to the populations they serve and to unlearn implicit biases, which we all carry, may improve the quality and effectiveness of maternity care in the U.S. and in Michigan.

Preconception

A woman's health status before she becomes pregnant, sometimes referred to as preconception health, is an important determinant of the health of her pregnancy and future infant. Ensuring that women have continuous access to high-quality, patient-centered care before pregnancy allows women to address any underlying chronic conditions, plan for pregnancy, get routine dental services and receive behavioral health support—all of which contribute to maternal health.

Prenatal

The health of an expectant woman and her baby are affected by the care she receives during pregnancy. Prenatal care, the medical care received throughout pregnancy, provides women and their families with education, nutritional guidance and important immunizations and health screenings. Expectant women are commonly screened for depression and anxiety, substance use disorder, intimate partner violence and sexually transmitted infections. The existence of any of these conditions during pregnancy increases the risk of adverse birth outcomes, making it incredibly valuable for expectant women to receive early and comprehensive care. For example, 40% of infants born to a

woman with untreated syphilis are stillborn or die soon after birth, and infants born to women with unmanaged chronic conditions are at greater risk of poor growth, preterm birth and stillbirth.³⁹ Women who receive [inadequate](#) prenatal care experience infant mortality rates three times as high as women who receive more prenatal care.⁴⁰ Addressing a woman's health needs throughout her pregnancy is an opportunity to optimize health and provide her and her baby with the best chance of having a positive birth experience.

Recent research has examined the impact of the type of healthcare professional who provides maternity care on maternal and infant outcomes. Care can be delivered one-on-one with a doctor or a midwife or in a [group](#) setting with a midwife or community health worker. Evaluations of midwifery and group prenatal care find that these models are more participatory and less directive, which allows women greater opportunity to talk through not only physical health concerns but a variety of topics such as family life and fears about expecting in a supportive and unhurried environment. Midwifery care has also been shown to be cost saving.⁴¹ Additionally, midwifery and group care support better outcomes for women and their infants, including lower rates of preterm birth, low-birthweight babies and birth interventions.^{42,43,44}

Labor and Delivery

Babies are delivered vaginally or through a procedure called a [cesarean section](#) (C-section) during which an infant is surgically removed from the birthing woman. Approximately one-third of deliveries in the United States are C-sections. This percentage has increased over the past three decades from about 24% in 1990 to approximately 32% in 2018.^{45,46} Rates of cesarean delivery vary by state and locality. In 2018, Michigan's rate of cesarean births was 32.1 for every 100 births—a rate that ranked 31st when compared to other states.⁴⁷

Cesarean sections cost 50% more on average than vaginal births. This is true for privately and publicly insured women.⁴⁸ It is common for a woman who has had a previous cesarean section to have a cesarean in future deliveries. Rates of vaginal birth after cesarean (VBAC) remain low.^{49,50} Cesarean deliveries, in many cases, are medically necessary and save the lives of women and infants. However, there are risks associated with the procedure. Across all ages and racial groups, women who have a cesarean delivery have higher rates of severe complications than women who deliver vaginally.⁵¹ Therefore, the procedure is not recommended to be performed electively or for low-risk women.^{52,53,54}

[Severe complications during labor and delivery](#), referred to as "near misses" because they are life-threatening, have steadily increased in recent years. Between 2006 and 2015, near misses increased by 45%.⁵⁵ Today, for every pregnancy-related death in the U.S., approximately 70 women experience a near miss.⁵⁶ Some research suggests that severe complications during childbirth occur disproportionately among older women, women of color and women from rural communities.^{57,58,59} Establishing and broadening standardized clinical responses to severe complications at delivery is of [one of the goals of Michigan's AIM program](#) and is shown to reduce rates of maternal death.⁶⁰

RECOMMENDATION:

Improve provider payments. Allow for and enhance reimbursement rates—the amount a health plan pays a healthcare provider or facility for a particular health service—for care shown to benefit maternal and infant health. For example, allowing reimbursement for doula services and lactation support as well as broadening reimbursements to rural health facilities and for services such as group prenatal care would yield considerable returns on investment.

What Is a Doula?

A doula is a non-medical support specialist for women during labor. Some doulas also provide support and education before and after childbirth, helping families to prepare for birth and adjust to the early days once babies are brought home.

Childbirth is a dynamic and intense experience for women and their families. Having continuous physical and emotional support during labor and delivery can enhance a woman's confidence in her ability to direct her medical care and the likelihood that she reports having a positive birth experience.⁶¹ Women with continuous labor support are also at lower risk of costly interventions such as cesarean section and labor induction when compared with women who do not have such support. The use of doula services may also increase breastfeeding rates and measures of infant health immediately following birth (i.e., Apgar scores).^{62,63}

Although doula support can improve health outcomes for mom and baby, a survey of 2,400 women who gave birth in a U.S. hospital found that only about 6% used the help of a doula during labor and delivery.⁶⁴ This may be in part because doula services are not typically covered by health insurance and without coverage, costs range from \$800 to \$2,500. However, four states currently cover doula services for certain Medicaid-enrolled women. [Oregon](#) was the first in 2012 followed by [Minnesota](#) in 2014. [New York](#) and [Indiana](#) instituted similar initiatives in 2018 and 2019, respectively. Additionally, in 2019, [several states as well as Congress](#) introduced legislation related to Medicaid coverage for doula services. Such efforts recognize that the improved outcomes associated with doula support also reduce overall medical spending.

While doulas cannot by themselves combat the myriad factors contributing to adverse maternal and infant health outcomes, they are equipped to counter some of these factors such as having limited health education and social support. Having a trained support specialist present during labor and birth helps increase a woman's understanding of what's happening throughout the process, which instills a sense of assurance and reduces damaging fear and stress.

Postpartum

More than half of pregnancy-related deaths occur postpartum—that is, after childbirth.⁶⁵ Postpartum care is therefore incredibly valuable for women and their families. Postpartum medical visits allow women to continue to address conditions that may have existed prior to pregnancy and that may have been exacerbated by pregnancy and childbirth. This includes mental health concerns, such as postpartum depression and substance use disorder. Untreated maternal depression can impact the likelihood that a mom and her baby form a positive attachment.⁶⁶ And substance use disorder threatens public health in Michigan and across the country, making it particularly important for those in need to have access to treatment and recovery support.

Having [access to ongoing care during the postpartum period](#) also allows women time to speak with a provider about important topics, including sleep, physical recovery, contraceptive options and [recommended birth spacing](#). Birth spacing is the time between when a woman delivers a baby and when she becomes pregnant again.

Improving access to intrauterine devices (IUDs) and contraceptive implants, also referred to as [long-acting, reversible contraception](#) (LARC), is a strategy to reduce the prevalence of short birth spacing, which can increase the risk of adverse birth outcomes.⁶⁷ In October of 2018, Michigan began allowing for separate payments to hospitals for immediate postpartum LARC insertion.⁶⁸ This ensures that hospitals receive the full cost of the procedure and are better able to provide care to women interested in a LARC option.

Health Behaviors

In general, human behavior can be categorized as either protective or risky. Health researchers sometimes refer to these categories as “health protective” and “health risk” behaviors. As is true for other health conditions, there are behaviors that clearly support positive maternal and infant health outcomes and others that harm.

Nutrition

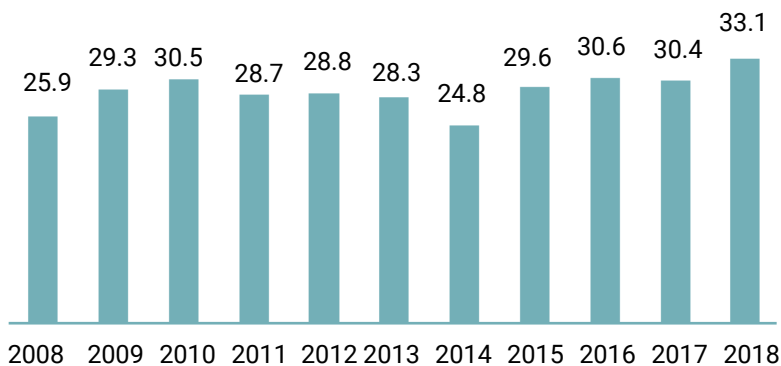
Nutrition is an important contributor to health for all people, especially those who are pregnant. A healthy diet supports an expectant woman throughout pregnancy as well as a baby's growth and development. Drinking plenty of water and eating nutrient-dense foods—vegetables, fruits, protein, healthy fats and whole grains that provide calcium, vitamin D, iron and folate—is invaluable. Some expectant women supplement their diet with a prenatal vitamin to ensure adequate intake of these important nutrients.

For women with low incomes, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is highly beneficial for improving nutritional intake for mom and baby. WIC has been shown to reduce the occurrence of preterm birth and infant mortality.^{69,70} And, for women who choose to breastfeed, WIC provides free breastfeeding support and supplies.

In contrast, a lack of appropriate nutrition may be a health risk. Thus, there is some concern about the growing number of Americans considered to be overweight or obese. This is because excess body fat increases a person's risk of developing a chronic condition such as heart disease, high blood pressure and diabetes. Having one or more of these conditions during pregnancy is of particular concern.

In 2018, 59% of Michigan women ages 18-44, often referred to as reproductive age, were considered overweight or obese.⁷¹ It is estimated that within a decade, severe obesity will become the most common body mass index (BMI) category among women in the U.S.⁷²

Obesity Among Women of Reproductive Age: Michigan, 2008-2018



Data Source: [March of Dimes](#)

Note: Data after 2010 are not comparable to earlier years due to methodological changes.

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RECOMMENDATION:

High-quality home visiting programs consistently show benefits for families, including improved maternal and infant health. Home visiting programs establish healthy starts for families by offering moms and their children valuable health screenings, connecting families to other needed services and encouraging positive parenting practices shown to increase bonding between parent and child and early language development in young children.

Breastfeeding

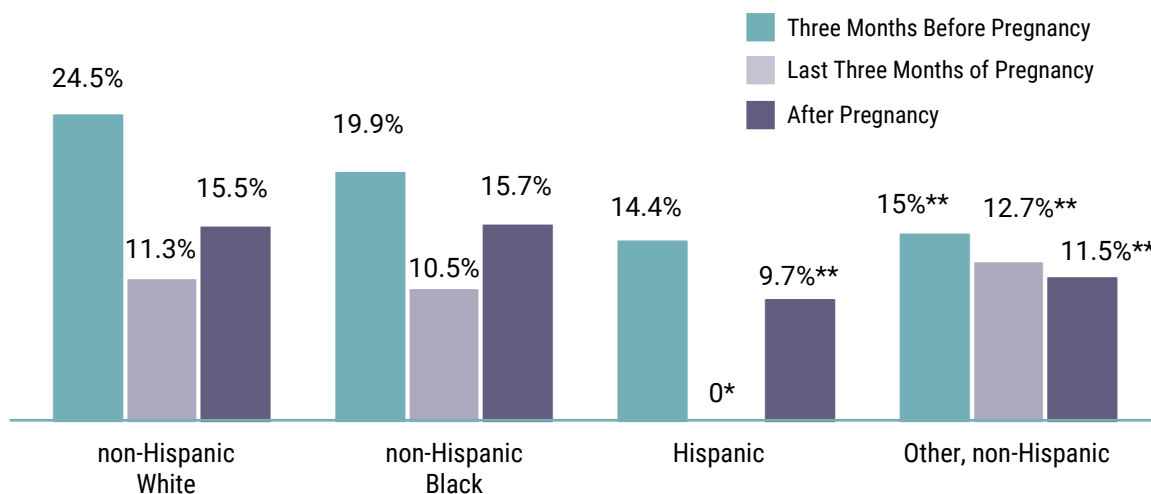
Not every woman can or desires to breastfeed, and pressure to breastfeed should never trump a mother's well-being. Infant feeding decisions are personal decisions. But for women who choose to breastfeed, there are unique benefits. Breastfeeding builds an infant's immune system and lowers the breastfeeding woman's risk of developing breast and ovarian cancers.⁷³

A majority of women choose to breastfeed, yet many later report not breastfeeding for as long as they had intended.⁷⁴ In 2019, 67% of Michigan women initiated breastfeeding, but by six months only 11% had continued.⁷⁵ There are many [reasons women stop breastfeeding](#), including concerns about sufficient production, but it remains important to consider how clinical, community and [workplace support](#) and policies help or hinder breastfeeding duration. (Did you know that breastfeeding in public did not become legal in all 50 states until July 2018?) Efforts to improve access to affordable lactation counseling and supplies as well as broadening workplace protections for women who choose to breastfeed may support improvements in breastfeeding duration and the health of mothers and newborns.

Substance Use

Consuming tobacco, drugs or excessive amounts of alcohol during pregnancy jeopardizes infant health. While these behaviors do not guarantee a poor health outcome for a baby, years of data shows that they significantly increase the risk. Tobacco, drug and alcohol use during pregnancy are associated with birth defects, preterm birth (birth before 37 weeks gestation) and low birthweight (weighing less than 5 pounds, 8 ounces). In 2018, 34% of infant deaths were a result of being born too soon; 17% of deaths were due to birth defects. Even secondhand smoke exposure increases the likelihood that a baby will die during their first year of life. Pregnant women exposed to secondhand smoke had an infant death rate of approximately 8 for every 1,000 live births compared to 6 among women who were not exposed to secondhand smoke during pregnancy.⁷⁶

Prevalence of Smoking Before, During and After Pregnancy by Race and Ethnicity



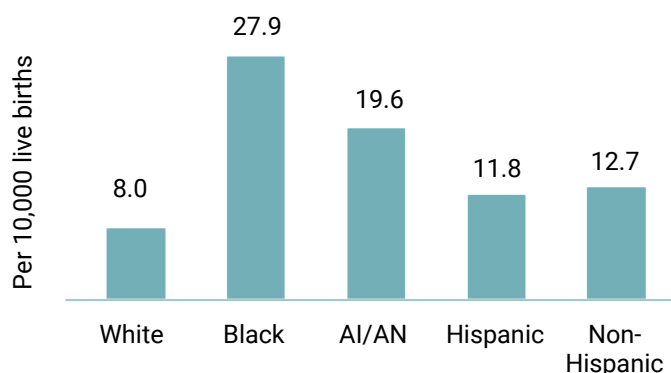
*Available data set is too small. **Error rate may diminish reliability.

Source: [MI PRAMS, 2018](#)

Safe Sleep

Sudden unexpected infant death (SUID) is the death of an infant that results from accidental suffocation in a sleeping environment. Sudden infant death syndrome (SIDS) and deaths from unknown causes are also included in the SUID category. To reduce the occurrence of sudden unexpected infant death, [safe sleep recommendations](#) specify the value of protective behaviors such as placing babies on their backs to sleep in a firm, flat, uncluttered and separate space.⁷⁷ To promote infant health and reduce the risk of sleep-related infant mortality, recommendations also state that tobacco smoke should be kept away from newborns and their sleep environment.

Sleep-Related Infant Death Rates by Race/Ethnicity, MI 2010-2015



Source: CDC SUID Case Registry, MPH, 2017; Division for Vital Records & Health Statistics, MDHHS, 2010-2015

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Other Factors that Influence Health

Our environment and the social and economic resources available to us inform our health. Social support fosters health. Poverty inhibits it. Incorporating a focus on upstream factors—factors that influence health and exist beyond the walls of doctor’s office—in our efforts to prevent maternal and infant illness and death are likely to produce greater results than efforts that focus solely on clinical or behavioral interventions.

Paid Family Leave

Paid family leave is a workplace policy that provides employees job security and at least a proportion of their regular pay during time spent away from their daily job duties to care for a new or ill family member. In 2018, approximately 17% of the U.S. labor force had access to paid family leave.⁷⁸ This is an unfortunately low percentage given that research suggests paid parental leave supports increased breastfeeding rates and lower infant mortality rates, even after controlling for other known factors contributing to infant death.⁷⁹ Paid leave has also been shown to reduce the number of women who leave the workforce after welcoming a new child into their family.⁸⁰ Retaining employees—in the short and long term—is advantageous for employers as well as employees who may be less likely to experience financial hardship as a result of consistent employment.

Current federal law guarantees *unpaid* leave and only applies to some employees. Beginning on Oct. 1, 2020, employees of the federal government—less than 2% of the total United States workforce—will be eligible for 12 weeks of paid parental leave.⁸¹ At least four states—California, New Jersey, New York and Rhode Island—currently provide for partially paid family leave.⁸² In Michigan, in her 2021 state budget proposal, Gov. Whitmer recommended establishing a 12-week paid parental leave benefit for all state employees.

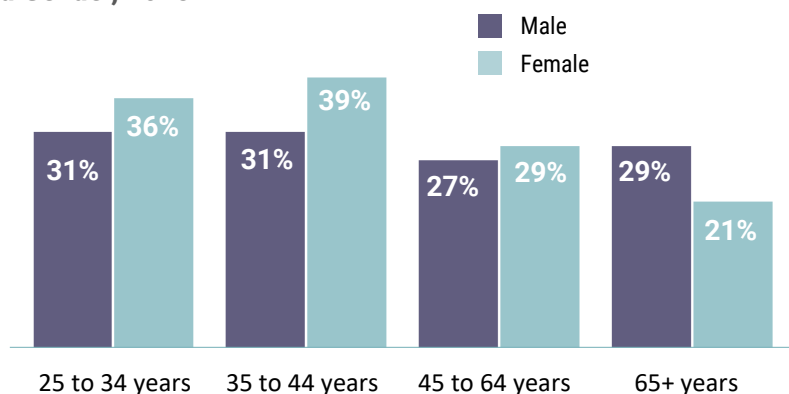
RECOMMENDATION:

Restore Michigan's Earned Income Tax Credit (EITC). Doing so would benefit many of the state's working families. Research finds that states with a generous EITC see reductions in preterm birth and low-birthweight infants. These effects are most pronounced among infants born to non-Hispanic Black women, suggesting that a robust state EITC may help to reduce racial disparities in infant health outcomes.

Education

Data continually highlights the connection between educational attainment and improved health. Having more education has been shown to prevent or postpone health problems and has been linked to a greater likelihood of receiving preventive medical care.^{83,84} Women with some college education, a college degree or an advanced degree tend to be healthier throughout their lives and go on to have healthier children. They often have lower rates of infant mortality, preterm birth and low-birthweight babies.^{85,86} The connection between educational attainment and infant birth outcomes is true for fathers, too.⁸⁷ It is promising, then, that in recent decades, higher education attendance has grown.

Percent in Michigan with a Bachelor's Degree or Higher by Age and Gender, 2018



Source: [United States Census Bureau](#)

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Education's consequential influence on health outcomes may be due to the income, employment, and lifestyle changes associated with more education or the fact that more education provides people with greater resources, which helps to buffer them from exposure to chronic stress.⁸⁸ And while the relationship between education and better health is valuable to recognize, it is important to note that greater educational attainment may not benefit all racial and ethnic groups equally. Research has found that non-Hispanic Black adults experience fewer health benefits from greater educational attainment when compared to non-Hispanic White adults,

including fewer protective effects against adverse birth outcomes.⁸⁹ This phenomenon is sometimes referred to as the "diminishing returns" hypothesis.^{90,91}

Racism

While there are many [social determinants of infant and maternal health](#), it is hard to ignore the seemingly intractable issue of racism in the United States. However challenging it may be to acknowledge the continued presence of entrenched racial bias in our systems and communities, it is vital that such truths be recognized and interrogated. If as a state and as a nation we fail to ask ourselves hard questions—why the maternal mortality rate for Black women is three to four times that of White women and why this disparity has remained unchanged for [more than six decades](#)—and do the work to implement solutions to those questions, we are unlikely to reverse the trend of past decades, which have seen increasing maternal mortality and discrepancies by race in infant and maternal outcomes.

Researchers continue to examine mechanisms that lead to racial disparities in health, yet expected explanations often come up short. For example, smoking during pregnancy is a known risk factor, yet non-Hispanic White women who report smoking tobacco during pregnancy have lower infant mortality rates than non-Hispanic Black women who do not.

These outcomes disrupt suggestions that differences by race in infant mortality result from differences in unhealthy behaviors during pregnancy. Even in “low-risk” women, [racial disparities persist](#).

It is also important to combat the assertion that differences in maternal and infant outcomes by race can be explained by genetics. Non-Hispanic Black women are not genetically predisposed to have higher occurrences of adverse pregnancy outcomes. In fact, the “because genetics” argument has been debunked. Doctors Richard David and James Collins [observed](#) that foreign-born women of African descent have infant mortality rates similar to those of non-Hispanic U.S.-born White women. (Significantly lower than the rates among U.S.-born Black women.) Notably however, within one generation, rates of preterm birth and low birthweight—leading contributors of infant death—among foreign-born women of African descent in the U.S. begin to reflect those of U.S.-born Black women. Such findings suggest that living in a socially stratified society has significant implications for the health of marginalized groups.

Arline Geronimus, a professor and researcher at the University of Michigan, identified this phenomenon as “[weathering](#).” Her research finds that exposure to chronic stress—often the result of racial discrimination and highest among non-Hispanic Black women—leads to early health deterioration. Continual attempts to cope with cumulative stress—not just one negative experience but a combination over the life course—leads to a high allostatic load or “wear and tear” on the body. This wear and tear leads to racial health disparities across a range of medical conditions, including disadvantages in pregnancy and childbirth.^{92,93,94} Strikingly, racial differences in health outcomes are not explained by poverty alone. Poor and non-poor Black women experience high allostatic loads.

While it is difficult to grapple with and identify solutions to the wicked problem of racism, focusing on structural change and the many non-medical factors that influence health may elicit more sustainable, fruitful improvements in maternal and child health outcomes in the U.S. and in Michigan.

Conclusion

Investments in maternal health are a two-generational strategy to advance the health of our nation and our state. That’s because the health of mom and baby are interconnected. Continuing efforts to provide women with consistent health insurance coverage and access to affordable and responsive healthcare will help families thrive. Beyond healthcare and coverage, strategies aimed at increasing protective health factors among expectant women are likely to support improved birth outcomes for women and their children. Most importantly, it is imperative that stakeholders—parents, doctors, social scientists, advocates and elected leaders alike—continue to seek a deeper understanding of the systemic influences that contribute to persistent health disparities and inhibit the advancement of maternal and infant health in Michigan and the U.S. In doing so, our state and nation may achieve its goal of ensuring that all women, regardless of race, education or income level, can enter parenthood safely and with support and that all babies are given the best opportunity to be born well and to flourish into childhood.

RECOMMENDATION:

Advocate for paid parental leave policies. More women are working late into pregnancy and returning to work sooner. Did you know 1 in 4 U.S. women return to work within 10 days of giving birth? Paid parental leave policies offer families peace of mind, economic security and time to bond with their new child. Such benefits are shown to improve the health of children and their families.

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