



MATERNAL MORTALITY AND TRAUMA-INFORMED CARE

NWA'S MISSION

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MATERNAL MORTALITY

The Centers for Disease Control and Prevention (CDC) utilize the World Health Organization's definition of maternal mortality—the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.¹

Another important term to know about the pregnancy and postpartum period is “pregnancy-related death.” The CDC’s Pregnancy Mortality Surveillance System (PMSS) defines this as a death during or within one year of the end of the pregnancy from any cause related to or aggravated by the pregnancy.^{2,3} More than 80% of pregnancy-related deaths are preventable if there was at least some chance that death could have been avoided with reasonable changes to

patient, family, provider, facility, system, and/or community factors.⁴

The United States (U.S.) continues to have the highest rate of maternal deaths of any high-income nation, despite a decline since the COVID-19 pandemic. In 2022, there were 22 maternal deaths for every 100,000 live births, more than double and sometimes triple the rate for most other high-income nations.⁵

Factors contributing to maternal mortality include social determinants of health, lack of prenatal care in rural areas and maternity care deserts, and racial/ethnic discrimination. To learn more about maternal mortality and its contributing factors, read NWA’s Infant and Maternal Mortality Task Force’s *handout, WIC’s Role in Addressing Maternal Mortality.*

WHAT IS TRAUMA?

The U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) explains that “individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being.”⁶ Some examples of experiences that may be traumatic include: physical, sexual, and emotional abuse, childhood neglect, poverty, racism, discrimination, and oppression, violence in the community, war, or terrorism, sudden, unexplained separation from loved ones, or living with a family member with mental health or substance use disorder.⁷



Various forms of trauma can have a major impact on maternal mortality. These forms of trauma include intergenerational trauma, historical trauma, and adverse childhood experiences (ACEs).

Intergenerational Trauma – the transmission of trauma or its legacy, in the form of a psychological consequence of an injury or attack, poverty, and so forth, from the generation experiencing the trauma to subsequent generations.⁸

Historical Trauma – multigenerational trauma experienced by a specific cultural, racial or ethnic group. It is related to major events that oppressed a particular group of people because of their status as oppressed, such as colonialism and slavery, forced migration, and the violent colonization of indigenous peoples.⁹ Historical trauma is intergenerational trauma experienced by a specific cultural group that has a history of being systematically oppressed.¹⁰

Adverse Childhood Experiences (ACEs) – potentially traumatic events that occur in childhood (0-17 years).¹¹ These traumatic events can include violence, abuse, and growing up in a family with mental health or substance use problems.¹² ACEs can have lasting effects on a person’s health and well-being.

Three trauma-related definitions that are important to understand how trauma affects health and how protective factors can help:¹³

- Toxic Stress – strong, frequent, and/or prolonged adversity that stimulates the body’s natural protections against stress and can have a long-term negative impact on neurobiology, psychology, and physical health.
- Allostatic Load – wear-and-tear on the body from toxic stress that can lead to poor health and health risk behaviors.
- Protective Factors – social conditions or personal attributes that help lessen the risks of trauma for an individual, family, or community.

TRAUMA-INFORMED CARE (TIC)

A trauma-informed approach calls for a change in organizational culture, where an emphasis is placed on understanding, respecting, and appropriately responding to the effects of trauma at all levels. This shift also requires organizations to gain a complete picture of a participant's life situation—past and present—to provide effective services with a healing orientation. It is of extreme importance that environments in the health care system are created to foster trust and support for mothers and families to ultimately reduce maternal mortality rates. TIC is also about building a relationship with the participant, a skill in which many WIC staff are strong.

TIC is a framework that considers the effect that past trauma can have on current behavior and the ability to cope. It can help minimize re-traumatization during health care encounters. When meeting with mothers and caregivers who have experienced trauma, it is important to understand the entire picture of their emotional, psychological, and physical health. To establish a supportive environment that encourages open communication and trust, it is essential to consistently acknowledge and respect the unique experiences and boundaries of each mother. Overall, creating an empowering, safe space to help address concerns can work to reduce the rate of maternal mortality.

Trauma-informed care seeks to:¹⁴

- Realize the widespread impact of trauma and understand paths for recovery.
- Recognize the signs and symptoms of trauma in patients, families, and staff;
- Integrate knowledge about trauma into policies, procedures, and practices; and
- Actively avoid re-traumatization.

TIC understands and considers the pervasive nature of trauma and promotes environments of healing and recovery rather than practices and services that may inadvertently re-traumatize.¹⁵

Additionally, an organization that provides trauma-informed care will create a safe, caring, and inclusive environments for all, patients and staff. Trauma-informed care can also help reduce the burnout of staff and improve staff wellness.¹⁶



HOW WIC ADDRESSES MATERNAL MORTALITY THROUGH A TIC LENS

WIC not only offers nutritional and breastfeeding support but also provides referrals to health and social services and is a beacon for community support. As trusted providers of care for WIC participants, staff play a vital role in ensuring participants feel valued, safe, and respected when discussing various aspects of their lives. The importance of affirming small positive behavior changes is imperative for building a trusting relationship with participants, also known as meeting participants where they're at.

For example, if a mom is smoking marijuana but has reduced it to once a week, acknowledging the steps taken to reduce smoking versus judging or shaming is important. TIC is an opportunity for staff to provide compassionate care rather than reopening or causing more trauma through negative responses. Therefore, understanding how individuals deal with trauma is an invaluable tool. With that being said, WIC staff already have limited time to meet with program participants and thus, it's important to acknowledge that staff can provide support over multiple appointments to allow for proper documentation of the issue and facilitate effective continuity of care. It's also important to remember that not everyone deals with trauma the same way. In other words, one individual may turn to substance misuse whereas another may struggle with disordered eating while someone else struggles with depression.

For WIC staff, it's important to recognize the need for, and provide, appropriate referrals. The following tips can be used to help assess referral needs for WIC participants:

- Utilize WIC screening tools such as questions about substance use during the certification appointment.
- Discuss harmful substances and their effects on women and baby's health.
- Provide printed education materials.
- Foster trust by using the principles of TIC, such as explaining procedures, offering options, and establishing networks of peer support (e.g., WIC Peer Counselors)¹⁷.
- Refer participants for treatment or counseling for substance use or prescription medication misuse¹⁸ when needed.
- Use resources from trusted sources. These resources are a great start:
 - [Lactation and Substance Use Guidance for Health Care Professionals](#)
 - [Key Resources and Recommended Reading for Information on Drugs during Lactation](#)
 - [WIC Substance Use Prevention Guide | WIC Works Resource System \(usda.gov\)](#)
 - [Substance Use Screening Tools | WIC Works Resource System \(usda.gov\)](#)

¹ How NCHS Measures Maternal Deaths, 2020. Natl. Cent. Health Stat.

² Guaja, M., Gumas, E., Mashitha, R., Zephyrin, L., 2024. Insights into the U.S Maternal Mortality Crisis: An International Comparison. Common. Fund.

³ Data from the Pregnancy Mortality Surveillance System | Maternal Mortality Prevention | CDC

⁴ Preventing Pregnancy-Related Deaths | Maternal Mortality Prevention | CDC

⁵ Guaja, M., Gumas, E., Mashitha, R., Zephyrin, L., 2024. Insights into the U.S Maternal Mortality Crisis: An International Comparison. Common. Fund.

⁶ Trauma, 2021. TRAUMAINFORMED.

⁷ Understanding the Effects of Trauma on Health, 2019. Cent. Health Care Strategies.

⁸ Intergenerational Trauma, 2023. Am. Psychol. Assoc.

⁹ Trauma, 2014. Adm. Child. Fam.

¹⁰ Trauma, 2014. Adm. Child. Fam.

¹¹ About Adverse Childhood Experiences, 2024. Cent. Disease Control Prev.

¹² Adverse Childhood Experiences (ACEs) | VitalSigns | CDC

¹³ Understanding the Effects of Trauma on Health. The Center for Health Care Strategies, Inc.

¹⁴ What is Trauma-informed care? 2021. Trauma-Inf. Care Implementation Resour. Cent.

¹⁵ What is Trauma-informed Care, 2023. Univ. Buffalo.

¹⁶ What is Trauma-Informed Care? - Trauma-Informed Care Implementation Resource Center. The Center for Health Care Strategies, Inc.

¹⁷ What is Trauma Informed Care? 2025. Natl. Cent. for Rel. Health & Trauma-Informed Care.

¹⁸ Your Words Matter – Language Showing Compassion and Care for Women, Infants, Families, and Communities Impacted by Substance Use Disorder, 2021. Natl. Inst. Drug Abuse.



UNDERSTANDING MATERNAL MORTALITY

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MATERNAL MORTALITY RATE

Year	Maternal Mortality Rate
2020	23.8
2021	32.9 ³
2022	22.3
2023	18.6 ⁴



MATERNAL MORTALITY RATE BASED ON RACE^{5, 6, 7, 8}

Race and Hispanic origin	2020 Maternal Mortality	2021 Maternal Mortality	2022 Maternal Mortality
Non-Hispanic White	19.1	26.6	19.0
Non-Hispanic Black	55.3	69.9	49.5
Hispanic	18.2	28.0	16.9
American Indian/Alaska Native	63.4	118.7	77.6
Native Hawaiian/Pacific Islanders	N/A***	N/A***	N/A***

NOTE ON LACK OF DATA ON AMERICAN INDIAN/ALASKA NATIVE AND NATIVE HAWAIIAN AND PACIFIC ISLANDER (NHPI) MATERNAL MORTALITY RATES:

AI and NHPIs are underrepresented in maternal health research despite increased evidence of poor maternal health outcomes and inequities in this population. Regarding NHPI, Dr. Rebecca Delafield of the University of Hawai'i shared there is little research into the specific experiences of NHPIs in the context of pregnancy and childbirth.⁹ March of Dimes 2023 Report Card for the United States stated that the 2018-2021 aggregate maternal mortality rate for suppressed groups, such as Native Hawaiian or Pacific Islander is 49.65.¹⁰[WC1] [DB2]

FACTORS CONTRIBUTING TO MATERNAL MORTALITY

According to 2017-2019 data from States' Maternal Mortality Review Committees (MMRCs), 4 out of 5 of pregnancy-related deaths were preventable.¹¹ Given that 80% of pregnancy-related deaths can be prevented, this highlights the need for systemic change along with quality improvement initiatives in states, hospitals, and communities across the country to ensure that all pregnant and postpartum persons receive the right care at the right time.



Systemic factors contributing to maternal mortality in the US include:

Social Determinants of Health

Defined as the conditions in which people are born, grow, live, work, and age, the social determinants of health also profoundly influence health outcomes. Influenced by the distribution of money, power, and resources, the social determinants of health are primarily responsible for health inequities.¹²

Lack of Prenatal Care in Rural Areas and Maternity Care Deserts.

The American College of Obstetricians and Gynecologists (ACOG) reports that women living in rural areas experience poorer health outcomes and have less access to healthcare.¹³ Many rural areas have limited numbers of healthcare providers, especially those focusing on women's health.

According to March of Dimes' Where You Live Matters: Maternity Care Deserts and the Crisis of Access and Equity, 5.6 million women live in U.S. counties with limited or no access to maternity care services¹⁴. In fact, 36% of the nation's counties are

considered maternity care deserts that do not have a hospital with birthing centers or obstetric care, and 80% of women with limited access to maternal care face a higher burden of pre-existing chronic health issues that increase likelihood of preeclampsia and preterm birth. Additionally, areas with maternal care deserts also have a population with higher rates of low socioeconomic status, unsafe and unhealthy environments, including high crime rates, pollution, and lack of affordable housing.

Racial/Ethnic Discrimination

Research shows that stress, racism, and racial discrimination all influence maternal mortality and morbidity in Black, Indigenous, and Native Hawaiian/Pacific Islander populations. In fact, women of color in the US are disproportionately at risk for pregnancy complications, poor birth outcomes, and maternal death.¹⁵

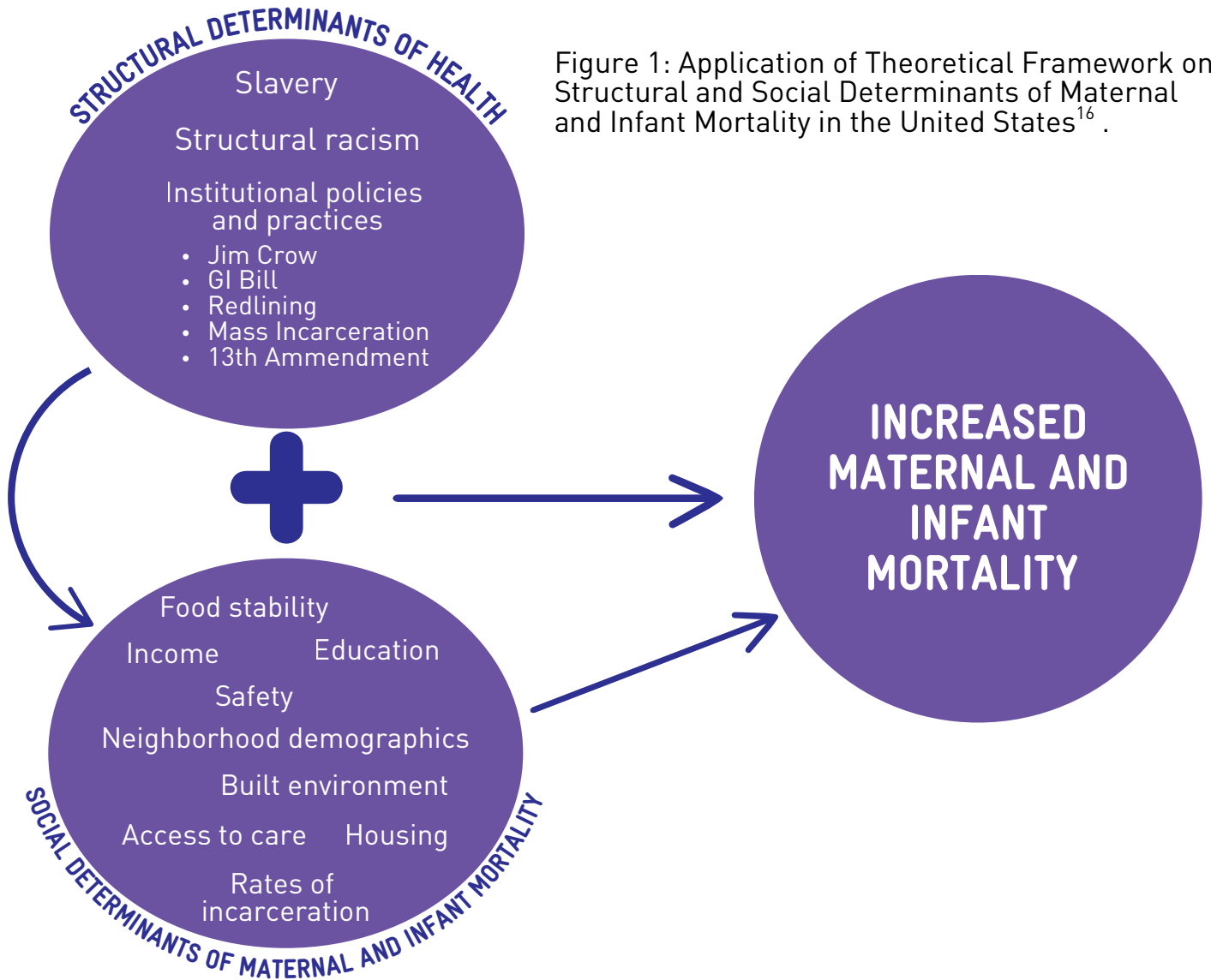


Figure 1: Application of Theoretical Framework on Structural and Social Determinants of Maternal and Infant Mortality in the United States¹⁶.

HOW WIC CAN HELP

To provide holistic care specific to populations disproportionately impacted by maternal mortality and morbidity, WIC staff should consider the following recommendations:

- » Listen to these populations.
- » Recognize the historical experiences and expertise of these individuals and their families.
- » Disentangle care practices from the racist beliefs in modern medicine.
- » Replace white supremacy and patriarchy with a new care model.
- » Empower all patients with health literacy and autonomy.
- » Empower and invest in paraprofessionals.
- » Recognize that access does not equal quality, and equitable, care.

WHY WIC MATTERS

Although WIC staff can feel hesitant when addressing the topic of maternal mortality, it's important that staff provide meaningful support and referrals to program participants. While WIC staff are not experts on maternal mortality, WIC remains an important program during this critical time in a participant's life.

WIC is seen by families as a trusted provider in their community. Often, WIC is the only point of contact after a participant has their child in which they can receive breastfeeding education, postpartum nutrition counseling, referrals to health and social services, and other community resources. This perfectly positions WIC to be a protective factor for participants.

For more information about maternal mortality and WIC, read the Infant and Maternal Mortality Task Force Report [The Role of WIC in Reducing Maternal Mortality](#).

¹How NCHS Measures Maternal Deaths, 2020. Natl. Cent. Health Stat.

²Guaja, M., Gumas, E., Mashitha, R., Zephyrin, L., 2024. Insights into the U.S Maternal Mortality Crisis: An International Comparison. Common. Found.

³Hoyert, D.L., 2023. Maternal Mortality Rates in the United States, 2021. Natl. Cent. Health Stat. Health E-Stats 1-5.

⁴Hoyert, D.L., 2024. Maternal Mortality Rates in the United States, 2022. Natl. Cent. Health Stat. Health E-Stats 1-6.

⁵Hoyert, D.L., 2024. Maternal Mortality Rates in the United States, 2022. Natl. Cent. Health Stat. Health E-Stats 1-6.

⁶Pregnancy Mortality Surveillance System, 2024. US Cent. Dis. Control.

⁷Provisional Maternal Mortality rates, 2024. Natl. Cent. Health Stat

⁸Hoyert, D.L., 2024. Maternal Mortality Rates in the United States, 2022. Natl. Cent. Health Stat. Health E-Stats 1-6.

⁹Delafield, R., 2023. NationIncome on Minority Health and Health Disparities. Voices Pac. Adv. Matern. Health Equity Together.

¹⁰2023 March of Dimes Report Card For United States, 2023. . March Dimes Peristats.

¹¹Four in 5 pregnancy deaths in the U.S. are preventable, 2022. CDC.

¹²About social determinants of health. World Health Organization., 2017. World Health Organ.

¹³ACOG Seeks to Expand Access, Increase Quality, and Improve Outcomes for Maternal Health in Rural Communities, 2020. Am. Coll. Obstet. Gynecol.

¹⁴Smith, S., 2023. New March of Dimes Research Shows Access to Maternity Care Worsening for Millions of Women in the U.S. March Dimes.

¹⁵McDonald, K., 2016. Maternal Health and Rights in the United States: Inequity in the Land of Plenty. Matern. Health Task Force.

¹⁶Njoku, A., Evans, M., Nimo-Sefah, L., Bailey, J., 2023. Listen to the Whispers before They Become Screams: Addressing Black Maternal Morbidity and Mortality in the United States. Health.



WHY IS POSTPARTUM CARE IMPORTANT?

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THE ROLE OF WIC PROGRAM IN ADDRESSING ADEQUATE POSTPARTUM CARE

Every month, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves 1.5 million low-income pregnant and postpartum participants by providing nutritious foods, nutrition education, breastfeeding support, and referrals to health and social services.¹ Not only does WIC improve the dietary intake of pregnant and postpartum participants but pregnant participants receive prenatal care earlier.²

For the past 50 years, WIC has contributed to healthier pregnancies and improved birth outcomes for mothers, babies, and young children up to age five. WIC does this by ensuring that the nutritional requirements of both mothers and infants are adequately met, creating a positive impact on their health.

Given that WIC plays such a monumental role in ensuring the health and well-being of many of the nation's women, infants, and children, it's imperative that WIC staff understand the impact that adequate postpartum care can have on program participants. After all, it's common for postpartum women to come to their WIC

appointment before their first postpartum visit with a health care provider (HCP). Providing support and resources to these women helps ensure they are receiving the necessary follow-up care.

DOCTORS VISITS AFTER BIRTH

Appointments after birth, also known as postnatal visits, are vital in helping ensure women receive adequate postpartum care. It is a critical period for a woman and her infant, helping to set the stage for long-term health and well-being. The American College of Obstetrics and Gynecology (ACOG) recommends 12 weeks of postnatal support after delivery, with the first evaluation taking place within 3 weeks post-delivery, either in-person or by phone. ACOG recommends that the second visit (i.e., comprehensive well-woman visit which includes a full assessment of physical, social, and psychological well-being) be no later than 12 weeks postpartum.³

However, WIC participants often face barriers when attending postnatal visits ranging from not having an OBGYN to transportation issues. As previously stated, this is why participants often visit the WIC clinic before their first postpartum appointment. Therefore, WIC plays a significant role in ensuring the health and well-being of this population.



THE IMPORTANCE OF POSTPARTUM CARE

The reality is that the risk of pregnancy-related complications continues for one year after pregnancy ends with one in three pregnancy-related deaths occurring within the year after pregnancy.[i],[ii],[iii],[iv] Thus, it's important that WIC participants be encouraged and supported in obtaining adequate postpartum care from the physical, mental, and emotional aspects. WIC staff can do this by listening to pregnant and postpartum participants when they express concerns and providing the appropriate referrals. During certification appointments, staff can help support participants by sharing the urgent maternal warning signs handout thereby helping participants recognize when they need to seek more immediate medical attention. Asking about pregnancy status and recognizing maternal warning signs can help save lives.[v]

Physical Impact

The birthing process has major effects on the body and thus, it's important for the participant to visit their HCP to ensure recovery from childbirth. Very often after birth, attention is shifted from a woman to their infant thus increasing the likelihood that medical issues are overlooked.



Emotional/Mental Impact

Along with the physical toll on the body both during and after pregnancy, those who give birth may experience a mental and emotional toll as well. Postpartum depression can have serious implications for the mother and baby. Nationally, about 1 in 8 women experience symptoms of postpartum depression after giving birth. However, this rate can be as high as 1 in 5 women in some states.[1] Therefore, the nutrition assessment process and referral services provided by WIC link participants with, and at risk of, depression to the appropriate support and services.

Baby Blues or Postpartum Blues:

Postpartum blues is a prevalent condition occurring within the initial week after childbirth. In most cases, these symptoms usually go away within 2 weeks. Common symptoms include mood swings, feeling sad, anxious or overwhelmed, crying spells, loss of appetite, and trouble sleeping.[2]

Postpartum Depression:

Postpartum depression lasts longer than baby blues and is more severe, thus requiring treatment by a HCP. Postpartum depression typically begins within the first month after birth. Untreated postpartum depression can affect a woman's ability to parent and can impact the development of the child.[3]

WHY WIC MATTERS

In the United States, too many women experience serious and life-threatening health complications in the days and weeks after birth.[1] Currently, as many as 40% of women do not attend a postnatal visit.[2] And in some rural areas, the WIC clinic might be the only maternal and child health program in the area.

Although WIC staff can feel hesitant when addressing the topic of adequate postpartum care, it's important that staff provide meaningful support and referrals to program participants. While WIC staff are not experts on adequate postpartum care, WIC remains an important program during this critical time in a participant's life.

- ¹ Zvavitch, P., Beckerman-Hsu, J., Huret, N., Perez- Zetune, V., Reischmann, P., Calvin, K., Thorn, B., 2024. WIC Participant and Program Charateristics 2022 Final Report. US Dep. Agric. 5-133.
 - ² How WIC Helps, 2024. . Food Nutr. Serv.
 - ³ Optimizing Postpartum Care, 2018. . Am. Coll. Obstet. Gynecol.
 - ⁴ Health Care Professionals, 2024. . US Cent. Dis. Control Prev.
 - ⁵ Maternal Mortality Prevention, 2024. . US Cent. Dis. Control Prev.
 - ⁶ Other Health Care Professionals, 2024. US Cent. Dis Control Prev. HEAR HER
 - ⁷ Other Health Care Professionals, 2024. US Cent. Dis Control Prev. HEAR HER
 - ⁸ Health Care Professionals, 2024. US Cent. Dis Control Prev.
 - ⁹ Statistics on Postpartum Depression, 2025. PostpartumDepression.org
 - ¹⁰ Lopez-Gonzalez, D.M., Kopparapu, A.K., 2024. Postpartum Care of the New Mother, in: StatPearls. StatPearls Publishing, Treasure Island (FL).
 - ¹² Postpartum Depression, 2023. . Off. Womens Health.
 - ¹³ Your Postpartum Checkups, 2023. . March Dimes.
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