



THE ROLE OF WIC IN REDUCING MATERNAL MORTALITY FULL REPORT

THE WIC PROGRAM

Every month, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves almost 2 million low-income pregnant and postpartum women.¹ WIC offers nutritious foods to supplement diets, nutrition counseling, breastfeeding support, and access to health services for the nation's low-income women, infants, and children. With a mission to safeguard the health of this population, WIC is in a position to play a vital role in helping mothers recognize key risk factors associated with maternal mortality.

The National WIC Association (NWA) is the nonprofit education arm and advocacy voice of the WIC program, the over 6 million mothers and young children served by WIC, and the 12,000 service provider agencies who are the front lines of WIC's public health nutrition services for the nation's

nutritionally at-risk mothers and young children. NWA's efforts on behalf of WIC have been effective in gaining broad support for the program, including bipartisan support of the US Congress, successive administrations, advocacy groups and coalitions, the healthcare sector, religious organizations, and CEOs of Fortune 500 corporations. NWA's vision is a nation of healthier women, children, and their families. One way to achieve this vision is to address the issues surrounding maternal mortality.

NWA's Maternal Mortality Task Force created this report to consider ways in which maternal mortality is addressed and discussed with program participants throughout the WIC appointment, as well as explore opportunities for additional focus on the topic. The Maternal Mortality Task Force fully recognizes that WIC clinic staff already have busy workloads and often work in fast-paced environments. The intention of this

report is not to create an additional burden for staff, but to identify and highlight opportunities during the WIC appointment wherein staff can help to address issues surrounding maternal mortality.

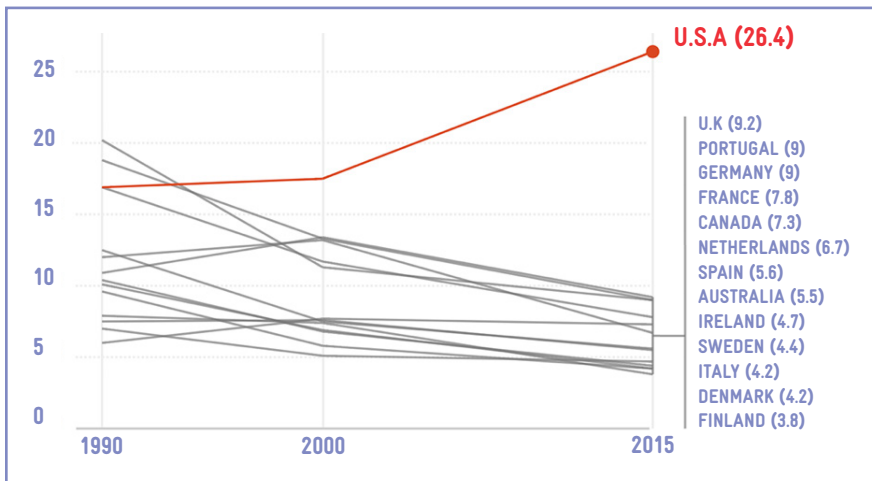
MATERNAL MORTALITY

Maternal mortality is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.² With 26.4 deaths per 100,000 live births in 2015, the United States has the highest maternal mortality rate of any industrialized country.³ And, while the maternal mortality rate has been steadily decreasing in other industrialized nations, the rate has been increasing in the US. Between 1990 and 2015, the maternal mortality rate increased by 56%.⁴ Even more unsettling is the fact that considerable racial disparities clearly exist with respect to maternal mortality.

From 2011 – 2016, the pregnancy-related mortality ratios were:⁵

- » Black non-Hispanic women: 42.4 per 100,000 live births
- » American Indian/Alaska Native women: 30.4 per 100,000 live births
- » Asian/Pacific Islander non-Hispanic women: 14.1 per 100,000 live births
- » White women: 13.0 deaths per 100,000 live births
- » Hispanic women: 11.3 deaths per 100,000 live births

FIGURE 1. MATERNAL MORTALITY RATES: 1990–2015



Source: Graph originally published online: <https://www.npr.org/2017/05/12/528098789/u-s-has-the-worst-rate-of-maternal-deaths-in-the-developed-world>. Data for this graph: GBD 2015 Maternal Mortality Collaboration. (2016) Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The Lancet: Vol. 388 Issue 10053, pp.1775–1812. Accessed online: [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)31470-2.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)31470-2.pdf).

MAJOR CAUSES OF MATERNAL MORTALITY IN THE US

Causes of death within 42 days postpartum were similar for US-born White and Black women. Cardiovascular disease, cardiomyopathy, and other pre-existing medical conditions emerged as chief contributors to mortality. Hypertensive disorders, hemorrhage, and embolism were the most important causes of pregnancy-related deaths for all other groups of women.⁶ The number of women entering pregnancy with chronic medical conditions has increased. Consequently, the impact of chronic medical conditions on maternal mortality has increased, as well. This may be due to a shift toward older maternal age and an increase in maternal obesity, all of which have associated adverse health effects.⁷

Although experts disagree on the exact percentage, there is strong consensus that a substantial proportion of maternal deaths are preventable.⁸ *In fact, the CDC estimates that 59% of the maternal deaths in the United States should be preventable.*⁹

The Pregnancy Mortality Surveillance System (PRAMS)¹⁰ is a surveillance project of the Centers for Disease Control and Prevention (CDC) and

state health departments that collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. PRAMS provides data not available from other sources. Consequently, these data can be used to identify groups of women and infants at high risk of health problems, monitor changes in health status, and measure progress toward goals in improving the health of mothers and infants. Additionally, PRAMS reports on the percentages of pregnancy-related deaths in the US. According to PRAMS, from 2011 to 2016, the percentages of pregnancy-related deaths were as follows:¹¹

- » Other cardiovascular conditions: 15.7%
- » Other non-cardiovascular medical conditions: 13.9%
- » Infection or sepsis: 12.5%
- » Cardiomyopathy: 11.0%
- » Hemorrhage: 11.0%
- » Thrombotic pulmonary or other embolism: 9.0%
- » Cerebrovascular accidents: 7.7%
- » Hypertensive disorders of pregnancy: 6.9%
- » Amniotic fluid embolism: 5.6%
- » Anesthesia complications: 0.3%

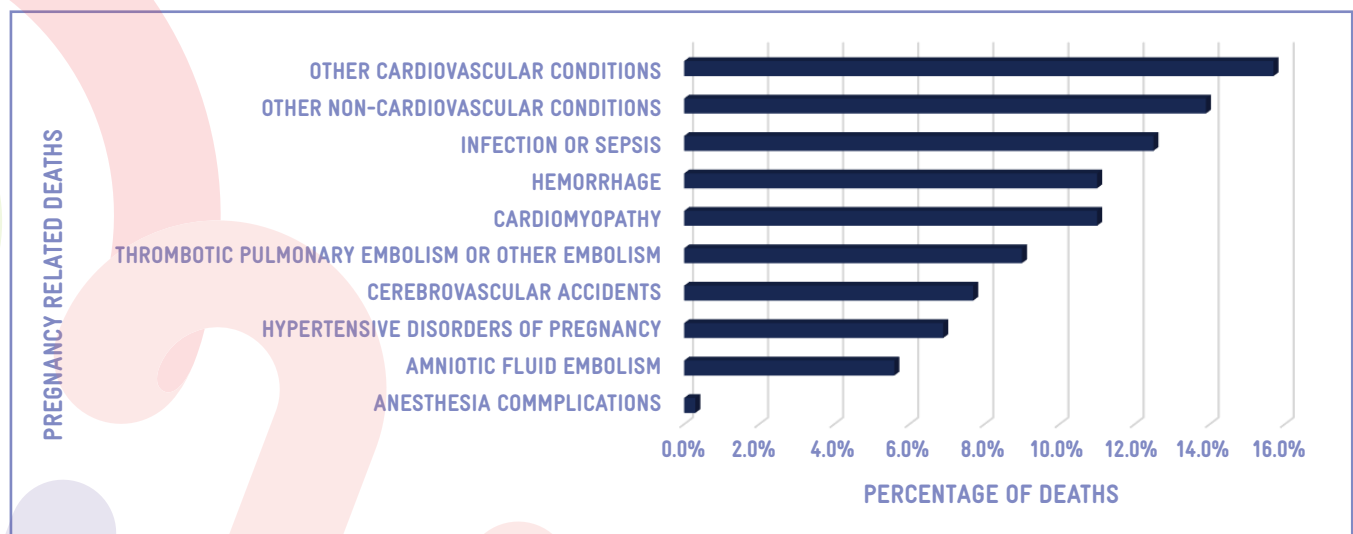
The cause of death is unknown for 6.4% of all 2011–2016 pregnancy-related deaths.

» SEVERE MATERNAL MORBIDITY (SMM)

Severe maternal morbidity (SMM) refers to serious complications that are potentially life threatening if not identified, monitored, or treated efficiently and appropriately. Defined as unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman's health, these complications include hemorrhage, embolism, acute renal failure, stroke, and acute myocardial infarction, among others. SMM has been steadily increasing in recent years and affected more than 50,000 women in the US in 2014.^{12, 13} Some SMM risk factors include the following:¹⁴

- » Advanced maternal age
- » Pre-pregnancy obesity
- » Pre-existing chronic medical conditions
- » Cesarean delivery

FIGURE 2. PERCENTAGES OF PREGNANCY-RELATED DEATHS IN THE US: 2011–2016



Data for this graph: Centers for Disease Control and Prevention (2020) Pregnancy Mortality Surveillance System. Accessed online: <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>.

FACTORS CONTRIBUTING TO MATERNAL MORTALITY

The fact remains that over half of maternal deaths in the US are preventable. A report by CDC based on reviews by Maternal Mortality Review Committees (MMRC) shows that of 237 maternal deaths across nine states, 63% were preventable.¹⁵ Most deaths were related to clinician, facility, and system factors such as inadequate training, missed or delayed diagnosis of complications, delayed or ineffective responses to obstetric emergencies, or poor communication among clinicians.¹⁶ Therefore, reducing

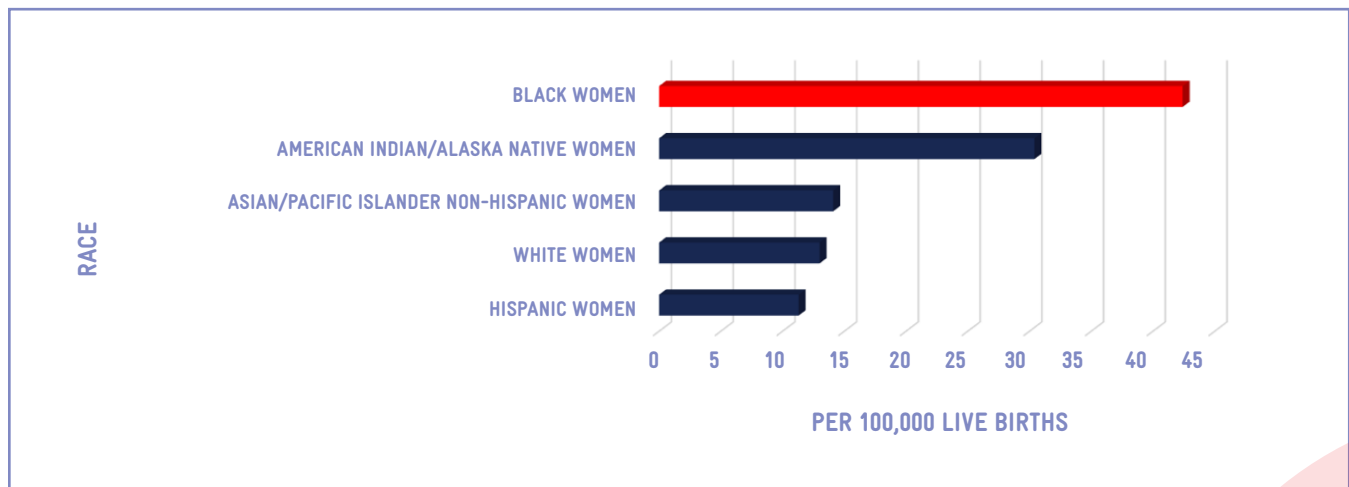
maternal mortality requires concerted efforts to ensure the highest quality and safety of healthcare, including maternity care, for all women.¹⁷ Some contributing factors regarding maternal mortality are listed below.

» RACIAL AND ETHNIC CONSIDERATIONS

There is a growing body of evidence that shows stress, racism, and racial discrimination all influence maternal mortality and morbidity in Black women. In addition to racism and racial discrimination, contributors to poor maternal health outcomes

in the Black community include systemic inequities and social determinants of health.^{18,19,20} Research indicates that this is not a genetic flaw or inherent biological inevitability. Instead, it directly relates to “weathering”, toxic stress, and inadequate and disrespectful healthcare.^{21,22,23,24} The chronic exposure to racism-related stress²⁵ over the life course is associated with complications during pregnancy and birth.²⁶ Racism—not race—is a critical factor in maternal deaths in the US.²⁷

FIGURE 3. PREGNANCY-RELATED MORTALITY RATIOS BY RACE/ETHNICITY PER 100,000 LIVE BIRTHS: 2011–2016



Data for this graph: Centers for Disease Control and Prevention (2020) Pregnancy Mortality Surveillance System. Accessed online: <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>.

The recommendations for addressing these inequities are made clear in a new black paper released in 2018 from the Black Mamas Matter Alliance (BMMA) titled, *Setting the Standard for Holistic Care of and for Black Women*.^{28,29} In order to provide holistic care specific to Black women, the current and future public health workforce, including WIC, should consider the following recommendations:

- » Listen to Black women
- » Recognize the historical experiences and expertise of Black women and families
- » Provide care through a reproductive justice framework^{30,31}
- » 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 care^{32,33}

Even though these recommendations are specific to the care of Black women, they have the ability to positively impact the health outcomes of all women through intentional change.

» 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.³⁴ With respect to maternal mortality, women of color tend to (1) have less access to high-quality reproductive health information and services, compared with White women; (2) experience discrimination within the healthcare system; and (3) experience higher rates of disrespect and abuse.³⁵ Additionally, maternal mortality rates vary significantly by socioeconomic status and geography.

Lack of Prenatal Care in Rural Areas and Maternity Care

Deserts. Families in rural areas are more likely to experience barriers including access to public transportation, fewer healthy food options, and closures of local hospitals. 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.³⁶ Many rural areas have limited numbers of healthcare providers, especially those focusing on women's health needs. The March of Dimes defines maternity care deserts as counties in which access to maternity healthcare services is absent or limited and which often lack services for, or are inaccessible to, families.³⁷ WIC can partner with local healthcare professionals and community organizations to

bring these issues to light and to advocate for reducing health disparities for women in rural areas.

» GENERATIONAL AND SOCIAL FACTORS

While practicing inclusiveness and acknowledging the factors that contribute to maternal mortality can help reduce its incidence, a broader perspective must be taken to look at the whole picture. Some factors, such as affluence, don't necessarily protect a woman from maternal mortality. Currently, women in the US are at a 50% increased risk of maternal mortality during childbirth, compared with the previous generation. Besides the deaths themselves, maternal mortality is also an indicator of maternal morbidity and the quality of healthcare received. In fact, maternal mortality reviews consistently find that racial, ethnic, socioeconomic, and geographic disparities persist in maternal healthcare. Thus, historical trends show that women of color experience maternal mortality at a rate of three to four times more often than White women, regardless of their socioeconomic status and education.

Findings of Washington State's Maternal Mortality Reviews of 2014 and 2015 highlight the intricacies of maternal mortality and the social, economic, and health factors that contributed to these deaths. There is a great need for providers to understand the complexity of a woman's social, mental, and physical health in order to appropriately address these issues and treat underlying conditions, while effectively managing her pregnancy. These trends highlight the need for greater

understanding of the problem, as well as the development of culturally appropriate solutions. For example, partnering with other community programs that provide direct services to pregnant and postpartum women could be beneficial because they take a different approach that shares a community-based orientation rooted in culture. Therefore, considering generational and social factors and promoting healthy practices before, during, and after pregnancy are critical in ensuring that a woman's children have a chance to begin life in good health.

These factors—coupled with adverse childhood experiences (ACEs), morbidities, toxic stress, and intergenerational trauma—are all generational and social factors that must be considered.

Adverse Childhood Experiences (ACEs).

ACEs are common across all socioeconomic lines, have a cumulative effect throughout the life course, and are the most powerful determinants of health. A source of toxic stress, ACEs are associated with adverse experiences during pregnancy and can have catastrophic neurobiological, social, emotional, and life-course effects on the individual.³⁸ However, research reveals that positive role models can buffer toxic stress and mitigate the harmful effects of childhood trauma.³⁹ Engagement and solid relationships can help improve the health of children. Participation in WIC is one way families can engage with community resources and promote positive childhood experiences.

HOW WIC ADDRESSES MATERNAL MORTALITY

Research shows that WIC participants are more likely to receive adequate prenatal care.⁴⁰ In a recent study, researchers found that mothers who received the revised WIC food package had a reduced prevalence of both preeclampsia and excessive gestational weight gain.⁴¹ Findings from outside of WIC have identified substance abuse, lack of social support, homelessness, intimate partner violence, lack of prenatal care during pregnancy, and mental health issues as contributing factors for maternal mortality.⁴² Thus, through its services and referral system, WIC

plays a vital role in helping pregnant women who are at risk of maternal morbidity and mortality.

» INCREASED AWARENESS OF WIC

Women are not accessing WIC for a variety of reasons. The primary one is lack of awareness about the program.⁴³ Collaborating with providers and other organizations to inform women about WIC participation could help improve awareness of, and education about, WIC. In addition, WIC staff can play an important role in establishing these partnerships, thereby creating lasting relationships that positively impact referral

rates. State and local coordination among WIC, Medicaid, and the Special Supplemental Nutrition Assistance Program (SNAP), more commonly known as food stamps, is another way to reach a large number of potentially eligible participants.⁴⁴ Thus, WIC staff are encouraged to pursue these partnerships.

WIC addresses issues surrounding maternal mortality through efforts at the local, state, and federal levels. The following chart details the program's current activities, while providing promising suggestions for improved efforts to tackle maternal mortality.

CURRENT STRATEGIES AND PROMISING SUGGESTIONS FOR TACKLING MATERNAL MORTALITY IN WIC AT THE LOCAL, STATE, AND FEDERAL LEVELS

LOCAL

Current Strategy: Participating in the community through forming partnerships, hosting events, and conducting outreach. Also, WIC staff are often members of the community.

Current Strategy: Being a trusted provider of care in the community. WIC offers continuity of care to pregnant women and delivers participant-centered services that help participants feel safe and cared for.

Current Strategy: Providing nutrition services at no cost to program participants. WIC removes and reduces the barriers to, and challenges of, receiving services that low-income pregnant women often experience.

Current Strategy: Providing healthy foods, thus meeting one of the most basic physiological needs. In conjunction with these healthy foods, WIC also offers individual nutrition assessments and counseling to meet each woman's goals and interests. Support for healthy weight gain during pregnancy and postpartum, including the interconception period, is provided as well.

Current Strategy: Educating participants to help ensure successful breastfeeding, thereby creating strong bonds between mother and infant, while providing early support of maternal health postpartum.

Current Strategy: Connecting women with peers in the community prenatally and postpartum for breastfeeding support and other nutrition education, such as group classes.

Current Strategy: Building partnerships with local birthing hospitals and obstetricians (OBs). Better coordination and support of women during pregnancy allows for continuity of care. These partnerships also inform pregnant women's expectations for care in the hospital during delivery.

Current Strategy: Offering referrals to preventive health and social services, while following up with participants. According to the NPR article, *The Last Person You'd Expect To Die In Childbirth*,⁴⁵ women are routinely discharged with information about how to breastfeed and what to do if their newborn is sick, but not necessarily on how to tell if they need medical attention themselves. WIC plays a vital role in bringing the focus back to the mother and providing the necessary referrals. WIC's referral services improve prenatal and maternal health and include referrals for substance abuse and counseling, shelters, and housing.

Current Strategy: Funding to provide implicit bias training for nutrition and breastfeeding professionals.

Current Strategy: Developing state education materials to address the maternal health issue.

STATE

Current Strategy: Partnering with state health departments (perinatal nursing consultants and other partners) to conduct learning sessions on maternal mortality and morbidity.

Promising Suggestion: WIC staff should be included in state and local maternal mortality task forces to foster partnerships and expand the role WIC can play in helping to prevent maternal mortality.

Current Strategy: Supporting the Maternal Care Access and Reducing Emergencies Act, also known as the Maternal CARE Act (H.R. 2902). This proposed legislation provides grants for implicit bias training for healthcare professionals and grant funds for maternity care that encompasses integrated healthcare services to prenatal and postnatal women. It also encourages the National Academies of Sciences, Engineering, and Medicine (NASEM) to make recommendations for racial bias training in medical schools.

Promising Suggestion: The United States Department of Agriculture (USDA) and legislators should review the curricula at medical schools and recommend the inclusion of more classes on nutrition through the life cycle, community nutrition, public health, and medical nutrition therapy. Most medical schools do not provide adequate education on the importance of nutrition throughout the life cycle. This knowledge could be invaluable to those medical professionals who complete residencies in inner-city hospitals.

FEDERAL

Promising Suggestion: All healthcare providers should be mandated to refer women to WIC early in their pregnancy. WIC participants view their medical provider as the *only* source of valid education. Medical professionals should have more information about the link between medicine and food intake, and they should refer patients to nutrition professionals for needed support.

Promising Suggestion: Support federal mandates of Medicaid reimbursements, including doula and lactation support.

Promising Suggestion: Refine WIC's scope of practice to be more inclusive of WIC's preventative role in maternal mortality and morbidity awareness and prevention.

Promising Suggestion: USDA's Food and Nutrition Service (FNS) should consider supporting and promoting NWA's maternal mortality position paper and report.

Promising Suggestion: USDA's FNS should consider funding local and state agency projects, programs, and activities aimed at preventing maternal mortality and morbidity in WIC.

Promising Suggestion: USDA's FNS should consider releasing an official statement on WIC's role in reducing maternal mortality and release guidelines and funding opportunities to state and local agencies.

DATA AND RESEARCH CONSIDERATIONS FOR WIC

There are a multitude of ways in which WIC already helps pregnant women at risk of maternal mortality, as demonstrated in the preceding chart. The program's research and data collection methods provide additional opportunities to enhance WIC's efforts in tackling this issue.

» WIC RESEARCH AND DATA

More research needs to be done in connecting WIC participation with maternal health outcomes. Many of the findings that exist link WIC to improved birth outcomes for baby, which leaves a lot of the research about maternal health outdated. To fill this void, many organizations are implementing programs to address high maternal and infant mortality by collecting accurate data and conducting needs assessments of communities.

WIC management information systems (MIS) technology can establish systems to accurately document self-identified race, ethnicity, and primary language.⁴⁶ The following are some ways that MIS can help with data collection:

- » Provide system-wide staff education and training on how to ask demographic intake questions
- » Ensure that participants understand why race, ethnicity, and language data are being collected
- » Ensure that race, ethnicity, and language data are accessible in the electronic medical record
- » Provide staff-wide education regarding peripartum racial and ethnic disparities and their root causes

Additionally, promotion of PRAMS will help to strengthen WIC's role in addressing maternal mortality. Currently covering about 83% of all US births, numerous state WIC agencies use PRAMS data to gain insights into the health of their participants throughout pregnancy and postpartum. It also provides information regarding infant birthweights, water safety, and pregnancy information sources, among other data.

» DATA COLLECTION CONSIDERATIONS FOR INDIGENOUS* WOMEN: AMERICAN INDIAN/ALASKA NATIVE (AI/AN)

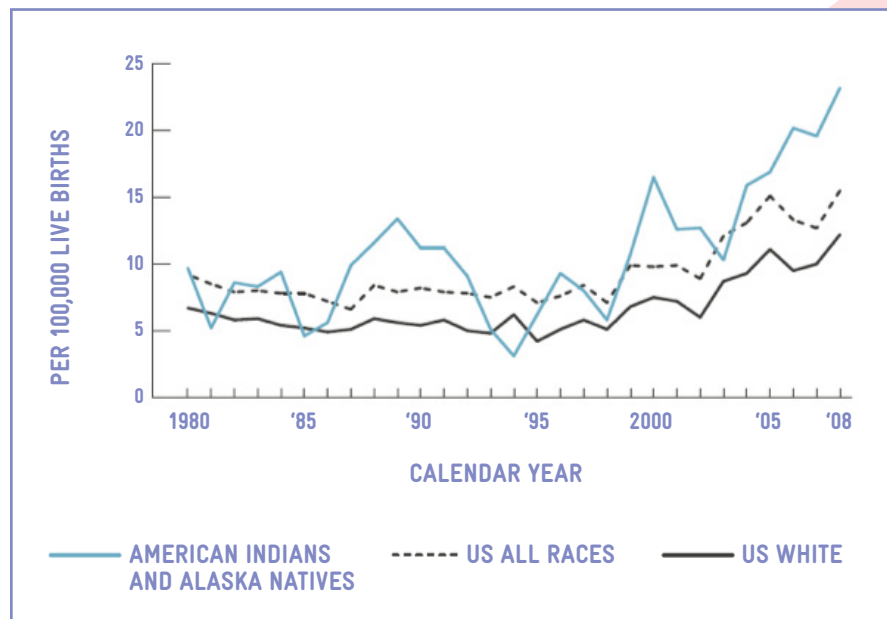
For indigenous women living in Urban Indian Health Program (UIHP) service areas, the maternal mortality rate was 46.2 per 100,000 births, from 2008 to 2012.⁴⁷ This is significantly higher than the rate for non-Hispanic White (NHW) women, at 10.3 per 100,000 births.⁴⁸ Furthermore, the 2010 Census reveals that 78% of indigenous women live outside of tribal statistical areas. Moreover, the indigenous population makes up only 2% of the total

US population. Therefore, data collection challenges make it difficult to both measure maternal mortality and make progress toward reducing it within the indigenous community.

Additionally, indigenous medical records such as birth and death certificates are filled with racial misreporting and racial misclassification. Therefore, indigenous maternal mortality is undercounted and underestimated. Smaller numbers also decrease the reliability of officially calculated results. The small population size and racial misclassification make it difficult to conduct research and collect accurate data within the indigenous community.⁴⁹ The following graph includes indigenous maternal death rates. Data have been adjusted to compensate for misreporting of indigenous race on state death certificates.

The 2007–2009 indigenous maternal mortality rate of 23.2 is 90.2% higher than the 2008 rate of 12.2 for US White women.⁵⁰

FIGURE 4. MATERNAL DEATH RATES: 1980–2008



Source: Graph originally published online: <https://www.ihs.gov/dps/publications/trends2014/>.
Data for this graph: Indian Health Service (2014) Trends in Indian Health: 2014 Edition.

*** NWA RECOGNIZES THE FEDERAL GOVERNMENT'S USE OF THE TERM AMERICAN INDIAN/ALASKA NATIVE TO DEFINE A PERSON WHO HAS ORIGINS IN ANY OF THE ORIGINAL PEOPLES OF NORTH AND SOUTH AMERICA (INCLUDING CENTRAL AMERICA), AND WHO MAINTAINS TRIBAL AFFILIATION OR COMMUNITY ATTACHMENT.⁵¹ HOWEVER, OUT OF RESPECT FOR THE NATIVE AMERICAN COMMUNITY AND THE TRIBES OF THIS NATION, AS WELL AS ACKNOWLEDGEMENT REGARDING THE CONTROVERSY OF THIS TERM, INDIGENOUS WILL BE USED IN PLACE OF AI/AN. PLEASE VISIT THE GLOSSARY SECTION TO SEE HOW THE TERM INDIGENOUS IS DEFINED IN THE CONTEXT OF THIS REPORT.**

THE 12 TASK FORCE RECOMMENDATIONS: ADDRESSING MATERNAL MORTALITY IN WIC

The fact is that a woman's physical, emotional, mental, and spiritual well-being are interconnected with the health outcome of her baby. ACEs, historical and intergenerational trauma, institutional racism, and epigenetics—among other factors—all play a role in a pregnant woman's physical, emotional, mental, and spiritual well-being. By practicing inclusiveness and acknowledging how these factors impact the health outcomes of both mom and baby, maternal mortality can be better addressed in WIC. Therefore, the WIC community needs to consider health outcomes within the current generation by focusing on perinatal, preconception, and interconception health.

Below are recommendations for the WIC community that can help staff address maternal mortality within the clinic environment. The recommendations are organized into three overarching buckets:

- » STAFF TRAINING
- » DIRECT SERVICES TO FAMILIES
- » ADVOCACY & PARTNERSHIPS

The task force hopes that local agencies will select 2 to 3 recommendations from each bucket that can be implemented immediately.

» STAFF TRAINING

In order to address maternal mortality and provide high levels of service, it's important that WIC staff receive training through avenues that best fit their agency. Numerous resources and community organizations can facilitate training sessions during a staff meeting, in-service, professional development meeting, conference, or team meeting.

Training and hiring WIC staff. Training WIC staff on the effects of toxic stress and racial inequities, including implicit bias, will strengthen WIC's role in addressing maternal mortality. Additionally, training WIC staff on maternal mortality in the US and how it affects the WIC population will also help to strengthen the role that WIC plays in this area. Furthermore, hiring from within the community that WIC serves—to improve cultural congruency, like that seen in the Breastfeeding Peer Counseling Program—will further strengthen WIC's role in the realm of maternal mortality prevention.

1. Increase staff awareness of maternal mortality and maternal health outcomes

- » Incorporate maternal health information at professional training opportunities for local agency WIC staff and the larger public
- » Consider adding maternal mortality awareness to WIC local agency program planning, development, evaluation, and administration training sessions
- » Ensure that all local agency staff who provide WIC benefits to families receive information on maternal health
- » Add maternal mortality and maternal health topics to WIC staff training catalogs and continuing education courses
- » Coordinate and host local provider regional training sessions, live webcasts, and specialized training and initiatives based on maternal mortality data in your state
- » Incorporate health equity, racial equity, and maternal mortality tracks during statewide annual conferences
- » Combine maternal mortality and maternal health training sessions with nutrition and breastfeeding programs, classes, and events
- » Partner with local health departments to present local and state maternal mortality prevention and reduction strategies that incorporate WIC's perspective
- » Add maternal mortality information, fact sheets, and position papers to your internal staff training and resources websites
- » Add this report, *The Role of WIC in Reducing Maternal Mortality*, to the agenda of district, local, regional, and state directors meetings and calls

- » Incorporate maternal health outcome and health equity topics to general WIC orientation training sessions for new employees

2. Become culturally competent role models

It's important to improve staff's understanding of people from different backgrounds. Most, if not all, WIC agencies provide staff with cultural competency training. In order to improve maternal health outcomes within WIC, staff must be willing to develop and practice the process of self-awareness and reflection. Drs. Melanie Tervalon and Jann Murray-Garcia define cultural humility as the lifelong process of self-reflection and self-critique.⁵²

A survey prepared by the California Health Advocates provides some self-reflection activities. The following items can be discussed individually, or with staff and colleagues:⁵³

- » Identify your own cultural and family beliefs and values
- » Define your own personal culture and identity: ethnicity, age, experience, education, socioeconomic status, gender, sexual orientation, and religion
- » Are you aware of your personal biases and assumptions about people with values different from yours?
- » Describe a time when you became aware of being different from other people

Another way in which WIC staff can be more culturally competent is by applying the Culturally Congruent Care model⁵⁴ to address issues surrounding maternal mortality within the WIC setting. Providing

culturally congruent care involves applying knowledge of how culture influences one's health beliefs, health practices, and communication. Knowledge of cultural customs and values is important in understanding the nuances of a culture and its verbal and nonverbal communication patterns. By understanding these nuances, WIC staff are able to convey the necessary respect and tailor their messaging accordingly. Originally designed for nurses, this model can also be used as a guide to ensure that WIC staff implement cultural diversity and inclusion practices.

In order to provide this type of care, the first visit needs to include a cultural assessment of the client. A variety of easy to use tools are available to aid in performing the assessment. These tools also help identify the levels of acculturation of the client and any effects of discrimination and oppressive experiences.⁵⁵ Here are a few examples of characteristics and traits that WIC staff can assess and incorporate into training sessions.

Does the client:

- » Have an awareness of one's own cultural assumptions, values, and beliefs, as well as conscious and unconscious (implicit) biases?
- » Consider the effects and impact of discrimination and oppression within and among vulnerable cultural groups?
- » Advocate for policies that promote health equity and prevent harm among culturally diverse, underserved, or underrepresented families?

3. Weave Life Course Perspective into WIC agency programs and projects

Life Course is a framework that local agencies can use to develop interventions to address ethnic, racial, and socioeconomic disparities in health outcomes, for example, in maternal mortality.⁵⁶ Contra Costa County used the Life Course Initiative utilizing a 12-Point Plan to close the Black-White gap in birth outcomes.⁵⁷ The county also partnered with local WIC agencies to address the social determinants of health.

Although the road map from the framework specifically refers to Black Americans, improvements in both access and care can positively impact all. Fortunately, WIC is already addressing many of the 12 points. To implement the Life Course Initiative, local agencies can use the following road map:

- » Provide interconception care to women with prior adverse pregnancy outcomes
- » Increase access to preconception care for Black women
- » Improve the quality of prenatal care for Black women
- » Expand healthcare access over the life course for Black women
- » Strengthen father involvement in Black families
- » Enhance systems coordination and integration for family support services
- » Create reproductive social capital in Black communities
- » Invest in community building and urban renewal
- » Close the education gap
- » Reduce poverty among Black families
- » Support working mothers and families
- » Undo racism

4. Acknowledge historical and intergenerational trauma

Learning about historical and intergenerational trauma can help when providing holistic and compassionate care to pregnant women. Historical trauma refers to the cumulative exposure to traumatic events that affects an individual and continues to affect subsequent generations. Intergenerational trauma occurs when trauma is not resolved, but internalized and passed from one generation to the next. By acknowledging how historical and intergenerational trauma can negatively impact health outcomes, WIC staff are better prepared to address the issues surrounding maternal mortality in WIC participants. Trauma-informed experts recommend that staff demonstrate the following traits when working with families affected by trauma:⁵⁸

- » Empathy
- » Compassion
- » Ability to speak openly
- » Self-awareness
- » Self-care and wellness
- » Flexibility
- » Comfort with the unknown
- » Willingness to learn from families
- » Willingness to connect emotionally with client's experiences of trauma
- » Willingness to step into the world of the client
- » Ability to regulate one's own emotions
- » Ability to treat the client as an equal and a collaborator
- » Ability to be a good listener
- » Willingness to debrief

5. Educate staff on the effects of toxic stress and community trauma

Communities living in poverty are constantly facing challenges, from meeting their families' daily needs to obtaining healthcare and education. For populations living in poverty, social and political issues tied to their race, ethnicity, language, disability, and immigration status, among other characteristics, intensify these challenges. Furthermore, these challenges cause stress that impacts each individual's mind and body, plus the community as a whole.

The Prevention Institute defines community trauma as a condition that harms neighborhoods and negatively shapes the health, mental well-being, safety, and equity of its residents.⁵⁹ For women of reproductive age living in such communities, these challenges are even more detrimental to pregnancy and infant outcomes. For staff working to improve maternal and infant health, it's important to understand the effects of these stressors and to work with women and families to address these challenges and reduce their consequences.⁶⁰

The following are some examples of how to address these challenges:

- » Listen to each mother and offer support
- » Provide referrals that meet one's basic needs, such as safe and affordable housing, plus access to healthy foods, diapers, and safe environments
- » Consider partnerships with community and local organizations to address Adverse Community Environments (ACEs) around WIC clinics. Adverse

Community Environments accompany Adverse Childhood Experiences and together, they comprise the pair of ACEs.^{61,62} The 12 factors listed below can create adverse environments and can contribute and compound the adversities experienced within households by children and families if not adequately addressed.

- » Lack of social networks and trust
- » Participation and willingness to act for the common good
- » Norms and culture that contribute to ACEs
- » What's sold and how it's promoted
- » Environments, that are unsafe or feel unsafe
- » Limited presence of parks and open space
- » Inadequate access to transportation
- » Limited access to safe and affordable housing
- » Poor air, water, and soil quality
- » Limited exposure to arts and cultural expression
- » Barriers to education
- » Inability to earn living wages and limited local wealth

6. Promote the positive impact of resilience and protective factors

It is important that WIC staff keep in mind the power of resilience when talking about toxic stress and ACEs. Resilience is the process by which a person goes through a traumatic event or a very stressful situation using different protective factors for support. Resilience can be fostered and developed by promoting such protective factors as social connections, concrete

and tangible help in times of need, and social and emotional strength. The primary factor in resilience is having caring and supportive relationships within and outside of the family.⁶³

WIC is perfectly positioned to be a protective factor for participants. It has a strong referral network of healthcare providers, community organizations, and government programs, all of which offer various types of assistance. In addition, WIC provides nutrition education, breastfeeding support, and food benefits.

The following are some of WIC's strategies to support resilience and protective factors:⁶⁴

- » Motivational interviewing and strength-based counseling
- » Positive interactions with WIC staff during appointments, support groups, community events, and special programs
- » Self-care and wellness tips that provide encouragement and relieve stress
- » Follow-ups on and encouragement of self-identified goals
- » Referrals; early intervention; and screenings of chronic stress, such as depression, intimate partner violence, grief, and disaster
- » Access to health insurance and preventative services
- » Outreach activities, such as social media, educational materials, promotion of websites, and links to resources for families

» DIRECT SERVICES TO FAMILIES

7. Incorporate cultural inclusion into the WIC clinic

WIC participants represent diverse communities. Thus, it's vital to create a supportive and

inclusive environment wherein each perspective is an important part of the individual's healthcare experience.

The following actions nurture cultural inclusion:

- » Accept, respect, and value differences
- » Adapt to diversity and the cultural contexts of the communities served
- » Actively learn about different cultures, beliefs, and attitudes
- » Embrace the principles of equal access and non-discriminatory practices
- » Work in conjunction with other culturally appropriate organizations and refer WIC participants to them
- » Provide client-centered care
- » Practice cultural humility
- » Actively pay attention to both verbal and nonverbal communication⁶⁵

8. Encourage pre- and inter-conception care

The health and well-being of mom and infant affect not only the present generation, but also future generations. In other words, a mother's health and well-being before, during, and after pregnancy can have direct and lifelong consequences for her health and that of her child.

Encouraging pre- and inter-conception health and the importance of optimizing health prior to pregnancy is important. Preconception and interconception care provide opportunities to identify existing health risks and prevent future health problems for women and their children. WIC is well positioned to help with the paradigm shift in preconception and interconception care. As Dr. Daniel Frayne stated, "Each

person and professional is encouraged to relook at what they might be doing differently in their unique setting that could influence preconception wellness. Preconception healthcare is really intergenerational healthcare. A healthy woman leads to a healthier pregnancy, which leads to healthier birth outcomes, which lead to healthier children and families, which lead to healthier communities, which lead, ultimately, to a healthier nation."⁶⁶ Community stakeholders can explore opportunities to learn about the challenges women experience when accessing postpartum care and services, as well as mothers' ideas for action steps to enhance wellness. Leaders can begin to build relationships across health-related sectors to simplify the steps that women must take to access healthcare and needed services (e.g., WIC and family planning).⁶⁷ Additionally, work must be done to define the content of postpartum care and then build metrics to assess the quality of care provided. Mother-centered care also hinges on two key factors: (1) the capacity of healthcare professionals to provide culturally and linguistically appropriate services to the individuals they serve and (2) the ways in which healthcare organizations adapt their services and supports to the everyday lives of women.⁶⁸

9. Create Circles of Support for pregnant women and continue through postpartum⁶⁹

WIC has the unique ability to collaborate with partners, families, friends, co-workers, and the neighbors of prenatal and postpartum families. Black Women Birthing Justice recommends that the community create a hedge and Circle of Support around pregnant women to reduce stress and isolation.⁷⁰

These Circles of Support are critical and involve dads, partners, grandparents, doulas, and friends. WIC programs can set up support circles where families can discuss breastfeeding, prenatal care, postpartum care, and parenting.⁷¹ The National Institute for Children's Health Quality (NICHQ) states that fathers are particularly vital in the child's health, development, and overall well-being.⁷² WIC has numerous programs that support the role of men and dads and acknowledge them as powerful allies toward improving maternal and infant health outcomes.^{73, 74, 75, 76, 77, 78, 79, 80}

Community-based programs that incorporate doulas are also vital to the Circle of Support. Doulas provide emotional, informational, and physical support before, during, and after labor and birth. Research has shown that doula care improves outcomes of the childbirth and breastfeeding experiences.⁸¹ Doulas are critical members of the care team and Circle of Support, and doula care helps to improve health outcomes in under-resourced communities. Although doulas are not routinely covered by health insurance, some states are piloting a program with Medicaid to obtain reimbursement. Doula care and WIC create a great partnership to ensure positive birth and maternal health outcomes. According to Ancient Song Doula Services, "Most community-based doulas are members of the community they serve, sharing the same background, culture, and/or language with their clients and have additional training that supplements the traditional doula education curriculum."⁸²

Improve support and care for women with known health risk factors. WIC agencies should examine the nutrition and breastfeeding materials that are being used to counsel WIC

families on obesity, gestational weight gain, gestational diabetes, and hypertension.⁸³ Additionally, local agencies should revisit referral and screening protocols for women who have the aforementioned conditions. WIC could then create partnerships with local physicians to discuss a referral process for women with these conditions during pregnancy and postpartum. Finally, it is imperative to work with state and local WIC agencies to develop materials with messages and guidance for counseling related to these conditions.

10. Promote self-advocacy

It's imperative to train WIC staff in common pregnancy-related signs, symptoms, and complications in order to immediately refer a woman to her healthcare provider. Although WIC staff are not required to delve into clinical elements surrounding gestation and delivery, it's important for them to be aware of any concerns that can have an adverse impact on health outcomes.

Additionally, empowering WIC participants to promote self-advocacy is one means of supporting those with known health risks. When mothers and families are provided with resources and support, their self-confidence in making healthcare decisions is likely to increase.⁸⁴ Promoting prenatal education for pregnant and postpartum women and families and encouraging postpartum visits and checkups are additional ways that WIC staff can empower women to advocate for themselves and their health. WIC staff are well positioned to provide tips and strategies to participants during the WIC appointment. However, it's important that clinics assess their approach to sharing information,

to avoid overloading participants. Providing informative signs and symptoms that women should be aware of prenatally and postpartum is most beneficial. Staff can also encourage WIC participants to (1) record any notable signs or symptoms to discuss with their healthcare provider, (2) keep a journal of questions and concerns, and (3) ask or repeat questions for additional clarity.

Along with the participant discussion that takes place during the nutrition education portion of the WIC appointment, supportive handouts and educational tools—including, for example, how to recognize key signs and symptoms—can promote informed decision making and self-advocacy. WIC staff can also provide participants with referrals and resources for additional support in their local areas.

For more information related to the following two resources, please see their respective endnote citations.

- » Preferences for Labor and Birth: A Plan to Guide Decision Making and Inform My Care Team⁸⁵
- » Save Your Life: Get Care for These Post-Birth Warning Signs⁸⁶

Improved referral networks.

Growing partnerships in WIC means improved referral networks between prenatal providers and local pregnancy resource agencies, all of which can help increase the enrollment of women into WIC early in their pregnancy. Research has shown that care coordination between medical providers and social service organizations can improve birth outcomes.⁸⁷ WIC can also work with organizations such as March of Dimes; Association of

Women's Health, Obstetric and Neonatal Nurses (AWHONN); My Birth Matters; and Maternal Mental Health Now to provide pregnant participants with educational materials on such subjects as postpartum care and what to watch for. These resources can be shared at the last appointment prior to a participant's due date and at her WIC postpartum certification appointment.

11. Incorporate staff diversity

In order to further address the issues of maternal mortality in WIC, programs at WIC clinics across the nation need to make a concerted effort to incorporate diversity. Taking the following actions can achieve this goal:

- » Partner with organizations that serve communities of color to improve access to WIC
- » Recruit and train more staff of color, including Black women⁸⁸
- » Educate staff and the community regarding the crisis in maternal health and commit to concrete action steps⁸⁹
- » Mentor and train all staff to become competent maternal health advocates

» ADVOCACY & PARTNERSHIPS

12. Advocate for legislation related to maternal mortality

The current maternal mortality crisis has resulted in a groundswell of national interest in maternal health. On the federal landscape, proposed legislation would provide federal support for state Maternal Mortality Review Committees (MMRCs). WIC providers can play a critical role as members of these committees.

However, federal support is needed to ensure that all states are able to implement successful MMRCs. Other legislative pieces have proposed implicit bias training for health professionals, requiring states to work with community-based organizations, like WIC. Additional legislation focuses on the high rates of maternal mortality among women of color. WIC staff can help with advocacy efforts by taking these two key steps:

- » Recommend support for legislation that would fund MMRCs
- » Ensure that any training regarding MMRCs be available to WIC staff

NWA has supported and provided feedback on several proposed bills, including the Maternal Health Accountability Act and the Mothers and Offspring Mortality and Morbidity Awareness Act (also called the MOMMA's Act).⁹⁰ For guidance, support, and more information about taking action on legislation and contacting your members of Congress, visit the following website: <https://www.nwica.org/advocacy>. Below are two more legislative efforts that warrant attention:

- » **Wise Investment in our Children Act** (also called the WIC Act; Sens. Bob Casey, D-PA, and Susan Collins, R-ME): This legislation would extend eligibility in WIC for children (to age six) and postpartum women (to two years postpartum), while removing paperwork barriers for infants at the one-year mark.⁹¹
- » **Community Access, Resources, and Education for Families Act** (also called the CARE for Families Act; Reps. Alma Adams, D-NC; Lauren Underwood, D-LA; and Bobby Scott, D-VA): This legislation

would create a \$15 million grant program for local WIC agencies to enhance referral networks with healthcare providers and ensure access to healthcare.

Improved health outcomes for the participant.

Enrolling women in WIC early in their pregnancy provides them with the greatest benefits because the positive effects associated with program participation will support them for a longer duration of their pregnancy. It's also vital for WIC to retain postpartum women as participants, to reduce their risk of pregnancy-related complications after delivery by helping moms return to a healthy weight and maintain a healthy nutrition status. With national enrollment at 54.8% of eligible participants, a large percentage of pregnant women who are eligible for the program are not yet in WIC.⁹²

Access to healthy foods, adequate prenatal care, and guidance on healthy maternal weight gain are all key components of a healthy pregnancy and positive birth outcomes for mom and baby. WIC plays a role in all of these areas by issuing benefits for healthy foods, referrals to healthcare providers, and nutrition education. WIC increases participants' access to more fruits and vegetables, whole grains, and dairy foods.^{93,94} This improved access to nutritious foods, coupled with WIC nutrition education, can help protect women from the pregnancy-related complications associated with increased maternal mortality, such as gestational diabetes, hypertension, and excessive weight gain.⁹⁵

WIC can also build relationships with culturally appropriate and community-driven home visiting programs, including the Family Spirit® program, the Healthy Start

program, and the Nurse–Family Partnership. These evidence-based home visiting programs work with pregnant women and their families to ensure healthy outcomes. By partnering with local community organizations and healthcare providers, WIC gains multiple opportunities to highlight its prenatal program benefits and potentially increase the early enrollment of prenatal women.

CONCLUSION

The roles that WIC plays—now and in the future—in addressing maternal mortality are paramount. As a program that serves almost 2 million low-income pregnant and postpartum women, WIC is a vital mechanism to help reduce maternal mortality. WIC already devotes attention to many of the factors contributing to maternal mortality, including those relevant to the social determinants of health and health equity. However, it will involve a concerted and collaborative effort from individuals, organizations, programs, and legislators nationwide to reduce maternal mortality and improve maternal and birth outcomes.

ACEs, historical and intergenerational trauma, institutional racism, and epigenetics, among other factors, play a role in a pregnant woman’s physical, emotional, mental, and spiritual well-being—all of which impact the health outcome of her baby. Although WIC addresses maternal mortality in myriad ways, the program can enhance its focus through inclusiveness, staff training, direct services, and partnerships. It’s time for the US to be on par with its peer nations and end the preventable deaths of pregnant and postpartum women nationwide.

GLOSSARY

ADVERSE CHILDHOOD EXPERIENCES (ACES)

Some of the most intensive and frequently occurring sources of stress that children may suffer early in life. Such experiences include multiple types of abuse; neglect; violence between parents or caregivers; and other kinds of serious household dysfunction, such as alcohol and substance abuse, plus peer, community, and collective violence.⁹⁶

ADVERSE COMMUNITY ENVIRONMENTS (ACES)

Environmental factors such as lack of opportunity, limited economic mobility, community violence, and the associated effects of poverty and joblessness that contribute to – and compound – the adversities experienced within households by children and families.⁹⁷

CULTURALLY CONGRUENT CARE MODEL

Describes both provider- and client-level elements that must be considered in order to begin to capture the complexities of culturally congruent healthcare. Cultural congruence is a process of effective interaction between the provider and client. The model is based on the idea that cultural competence is always evolving. Providers must continue to improve their quality of communication, leading to improved quality of care. However, the care offered is not always equal to the care received. Program participants and families bring their own values, perceptions, and expectations to healthcare encounters, which also influence the creation and destruction of cultural congruence.⁹⁸

CULTURAL HUMILITY

A humble and respectful attitude toward individuals of other cultures that pushes one to challenge one’s own cultural biases, realize that one cannot possibly know everything about other cultures, and approach learning about other cultures as a lifelong goal and process.

ECLAMPSIA

An occurrence of one or more convulsions, not attributable to other cerebral conditions, such as epilepsy or cerebral hemorrhage, in a patient with preeclampsia.⁹⁹

INDIGENOUS

In the context of this report, indigenous refers to those groups that the US federal government defines as American Indian/Alaska Native. The Office of Management and Budget defines American Indian/Alaska Native as a person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.¹⁰⁰ In this report, NWA uses the term indigenous to refer to those who may also prefer to be called American Indian/Alaska Native, Native American, or identify as belonging to a tribe whether federally recognized or terminated.

The United Nations defines indigenous as descendants of those who have inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived.¹⁰¹ Indigenous peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Despite their cultural differences, indigenous peoples from around the world share common problems related to the protection of their rights as

distinct peoples. Indigenous peoples today, are arguably among the most disadvantaged and vulnerable groups of people in the world.¹⁰²

INSTITUTIONAL RACISM

Policies and practices within and across institutions that, intentionally or not, produce outcomes that chronically favor or put a racial group at a disadvantage. Poignant examples of institutional racism can be found (1) in school disciplinary policies, in which students of color are punished at much higher rates than their White counterparts; (2) in the criminal justice system; and (3) within many employment sectors in which day-to-day operations, as well as hiring and firing practices, can significantly disadvantage workers of color.¹⁰³

MATERNAL DEATH

The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. This is the definition used by the International Classification of Disease or ICD-10.¹⁰⁴

MATERNAL MORBIDITY

The physical and psychological conditions that result from or are aggravated by pregnancy and have an adverse effect on a woman's health.¹⁰⁵ There is no standard definition for maternal morbidity because of the broad range of complications and conditions and a broad range of severity, spanning the full spectrum between a healthy mom and maternal death.¹⁰⁶

MATERNAL MORTALITY RATE

Derived from death and birth certificate data and defined as the number of women who die from a

pregnancy-related cause within 42 days postpartum (numerator), divided by the number of live births in that year (denominator), multiplied by 100,000.¹⁰⁷

PAIR OF ACES

Combines Adverse Childhood Experiences and Adverse Community Environments to illustrate the relationship between adversity within the family and adversity within the community.¹⁰⁸

POSTPARTUM HEMORRHAGE

Hemorrhage from the birth canal in excess of 500 mL after a vaginal delivery, or in excess of 1,000 mL after a cesarean delivery, during the first 24 hours after birth.¹⁰⁹

PREECLAMPSIA

A pathologic condition of late pregnancy characterized by edema, proteinuria, and hypertension. It's a precursor to eclampsia if not successfully treated.¹¹⁰

PREGNANCY-RELATED DEATH

The death of a woman while pregnant or within one year of the end of a pregnancy— regardless of the outcome, duration, or site of the pregnancy—from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.¹¹¹

RACE

Federal Register Notice (October 30, 1997), Revision to the Standards for the Classification of Federal Data on Race and Ethnicity has five minimum categories for data on race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. There are two categories for data on ethnicity: "Hispanic or Latino" and "Not Hispanic or Latino." Persons can select one or more races.¹¹²

SEVERE MATERNAL MORBIDITY

Serious complications that are potentially life threatening if not identified, monitored, or treated efficiently and appropriately, for example, hemorrhage, embolism, acute renal failure, stroke, and acute myocardial infarction, among others.¹¹³

SOCIAL DETERMINANTS OF HEALTH

The complex, integrated, and overlapping social structures and economic systems that are responsible for most health inequities. These social structures and economic systems include the social environment, physical environment, health services, and structural and societal factors. Social determinants of health are shaped by the distribution of money, power, and resources throughout local communities, nations, and the world.¹¹⁴

TOXIC STRESS

The excessive or prolonged activation of the physiological stress response systems, in the absence of the buffering protection afforded by stable, responsive relationships.¹¹⁵

WEATHERING EFFECTS HYPOTHESIS

Asserts that the health of Black women may begin to deteriorate in early adulthood as a physical consequence of cumulative socioeconomic disadvantage.¹¹⁶



WIC: EMPOWERING FAMILIES, STRENGTHENING COMMUNITIES

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