REPORT TO CONGRESS

Addressing the Maternal Health Crisis in the United States

An Update from the U.S. Department of Health and Human Services

July 2024

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Executive Summary

Purpose of Report

This report has been prepared by the Office of the Assistant Secretary for Health (OASH), Office on Women's Health (OWH) and the Assistant Secretary for Planning and Evaluation (ASPE) in concert with other HHS agencies within the U.S. Department of Health and Human Services (HHS), in response to House Report 117-96 accompanying the Fiscal Year 2022 Consolidated Appropriations Act (P.L. 117-103), enacted on March 15, 2022 to produce an annual progress report that reports on activities and outcomes of the HHS programs directed toward improving maternity outcomes.

> *The Committee includes $2,000,000 for the OWH to convene an Interagency Coordinating Committee on the Promotion of Optimal Birth Outcomes to oversee and coordinate the HHS Action Plan to Improve Maternal Health in America. The Coordinating Committee shall meet biannually and shall include, but not be limited to, the Administrators of HRSA, CDC, CMS, ACF, ACL, SAMHSA, the Indian Health Service, and the Secretaries of the VA and DOD.* ***The Coordinating Committee shall produce an annual progress report that reports on activities and outcomes of the HHS programs directed toward improving maternity outcomes (emphasis added).***

This report discusses activities and outcomes of HHS programs addressing the maternal health crisis including:

- Trends in U.S. maternal health outcomes,
- Drivers contributing to the maternal health crisis,
- How HHS is addressing these drivers, and
- A measurement framework to assess progress in addressing the maternal health crisis.

An Appendix to this report provides updates on HHS maternal health activities included in the White House Blueprint for Addressing the Maternal Health Crisis, which reflects HHS' current priorities for improving maternal health, and select related initiatives launched since its release. The Appendix also includes a summary of maternal health proposals in the FY 2025 President's Budget.

Trends in Maternal Health Outcomes

There were more than 3.6 million births in the U.S. in 2022. Each year, hundreds of women giving birth experience maternal mortality and thousands experience severe maternal morbidity due to causes that are mostly preventable. The U.S. maternal mortality rate far exceeds the maternal mortality rate of other high-income countries. Moreover, certain racial/ethnic groups such as Native Hawaiian and Other Pacific Islander, Black, and American Indian or Alaskan Native (AI/AN) are disproportionately impacted by poor maternal health outcomes.

Research has indicated that changes in the overall health of women entering pregnancy may be a contributing factor to rates of complications, including mortality. This report describes HHS's efforts to address three of the leading causes of maternal mortality: mental health and substance use disorder, cardiovascular conditions, and infections and related conditions. Examples of these efforts are highlighted in the body of the report with further details on HHS efforts listed in the Appendix.

Mental Health and Substance Use Disorders

HHS is working to improve care for those who have mental health and substance use disorders by working collaboratively with external partners through the Task Force on Maternal Mental Health to develop a national strategy to address maternal mental health conditions and substance use disorders during the pregnancy and postpartum periods; improving systems of care by providing funding to establish, improve, and/or maintain statewide or regional programs to provide real-time psychiatric consultation and care coordination support services; providing ongoing 24/7 call- and text-based hotline support for women before, during, and after pregnancy; and by supporting research to generate evidence on topics such as evaluating the impact of doulas on postpartum mood and anxiety disorders, preventing perinatal depression, and identifying barriers to, and models for recovery-oriented, family-centered care for opioid use disorder (OUD) treatment among pregnant and postpartum people.

Cardiovascular Conditions

HHS is supporting efforts to improve cardiovascular health and care by offering tools and educational material for clinicians, patients, and public health professionals to improve timely detection and control of hypertension during and following pregnancy; identifying effective programs for blood pressure monitoring and follow-up for women during pregnancy and the postpartum period; and testing the effectiveness of a home visiting intervention to promote and address disparities in maternal and early childhood cardiovascular health.

Infections and Related Conditions

HHS is working with external partners to improve infectious disease prevention, screening, and treatment. These efforts include a variety of strategies to reduce rates of primary, secondary, and congenital syphilis. HHS and its partners are providing training resources to healthcare leaders to educate their staff on recognizing infection risks and taking action to limit the transmission of infection. HHS has increased public messaging to enhance vaccination rates among pregnant women, improved surveillance of maternal sepsis, and supported the development of the Sepsis in Obstetrical Care patient safety bundle.

Drivers of Maternal Health Outcomes/Conditions

While many factors have contributed to the current U.S. maternal health crisis, this report focuses on three key drivers that are affecting the nation's maternal health trends: (1) care delivery, (2) access to care, and (3) social factors. Each of these drivers connects to goals outlined in the White House Blueprint for Addressing the Maternal Health Crisis.

Care delivery

The clinical maternity care experience can vary widely based on a patient's race, state, ZIP code, and the clinicians and hospitals who serve them. Disparities in patient experience and quality of maternal health care can be driven by implicit bias, racism, stigma, and other forms of mistreatment. Given the rate of preventable pregnancy-related deaths and other related concerns, there is a need for quality improvement in the delivery of maternity care.

HHS is taking a number of actions to address maternal health care delivery including launching a new Innovation Center model, Transforming Maternal Health (TMaH) Model, to improve pregnancy, childbirth, and postpartum care for those with Medicaid and Children's Health Insurance Program (CHIP) coverage; supporting a collaborative of state experts, local providers, community partners, and federal experts to change the trajectory of maternal morbidity and mortality in six participating states; bolstering maternal health quality improvement efforts through programs such as the Alliance for Innovation on Maternal Health (AIM) that develops maternal health patient safety bundles and Perinatal Quality Collaboratives (PQCs) that provide infrastructure to support quality improvement efforts; and working directly with hospitals to implement evidence-based interventions and measure their impact. HHS is also supporting research on integrated community health worker interventions, community quality improvement bundles, and doula-clinician models.

Access to care

Millions of women find it challenging to access high quality maternal health care because they live in areas with limited availability of maternity care providers and delivery facilities. For instance, fewer than half of all rural counties have a practicing obstetrician. Service availability is a particular challenge for AI/AN women who live in remote tribal areas. However, workforce shortages also exist in urban areas. There is also a need to increase the diversity of maternity care providers and increase capacity to provide patient-centered respectful maternity care.

HHS actions to improve access to maternity care include implementing extension of Medicaid postpartum coverage to one year in 46 states, the District of Columbia, and the U.S. Virgin Islands; providing training to help ensure Indian Health Service facilities in areas without obstetric services can safely triage, stabilize, and transfer pregnant persons and newborns; training primary care physicians (PCPs) in enhanced obstetric care; providing support through loan repayment and scholarships for nurses working in areas with critical shortages of maternal health providers; providing scholarships for a diverse cadre of midwifery students; placing National Health Service Corps participants in areas experiencing a shortage of maternity health care professionals; and developing remote technologies to improve access to postpartum care in maternity care deserts.

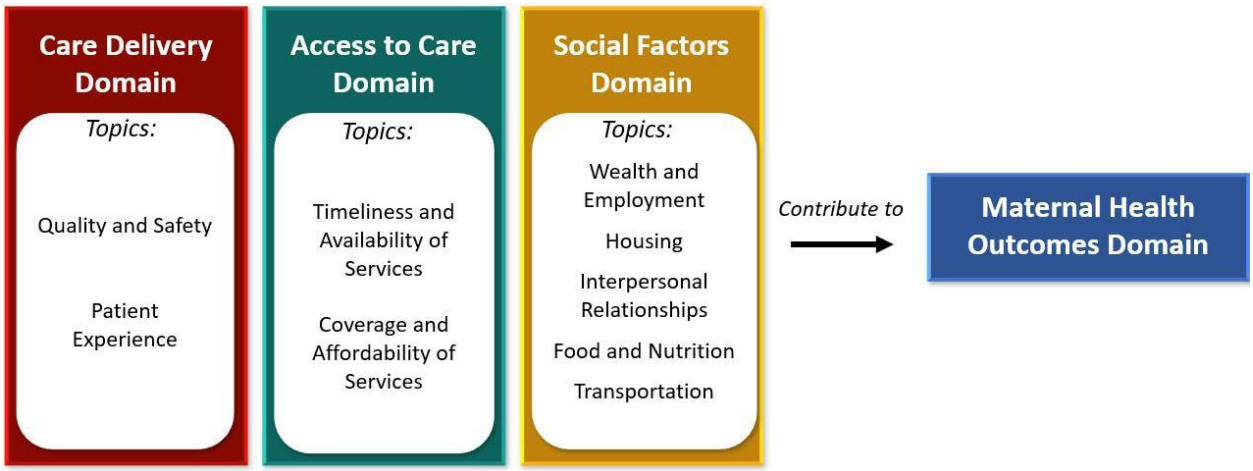
Social factors

Research has shown that an individual's personal social circumstances can have substantial impacts on their health outcomes. Social factors that include challenges related to poverty and employment, housing, interpersonal relationships, food and nutrition, and transportation have been linked to worse maternal and infant health outcomes. Given the numerous tie-ins between social factors and maternal outcomes, programs and policies designed to address social factors are an integral part of the solution to addressing the maternal health crisis.

To address these social factors impacting maternal health, HHS is requiring hospitals and clinicians to report on their screening rates for health-related social needs; allowing payment to address health-related social needs in certain circumstances through various healthcare financing programs; training substance use disorder treatment providers in identifying and addressing intimate partner violence; supporting research on the intersection of intimate partner violence and maternal health; expanding home visiting services in tribal areas; providing newborn supply kits; and establishing a diaper distribution pilot program.

Each of these drivers is captured in the below Maternal Health Measurement Framework which was developed to assess progress on addressing the overall maternal health crisis, including the health outcomes and the key drivers affecting these outcomes.

HHS Maternal Health Measurement Framework



The HHS framework includes a maternal health outcome domain and the three domains of outcome drivers and is characterized as a desired set of measures since it includes measures where nationally representative data may not yet exist today. Each domain is further characterized below:

Care Delivery Domain: focuses on how providers, systems, and institutions provide maternal health care and how patients experience the receipt of such care.

Access to Care Domain: provides a picture of the maternal health care infrastructure that exists to support pregnant and postpartum people.

Social Factors Domain: describes elements of a person's social circumstances that can impact their health.

Maternal Health Outcomes Domain: consists of selected health outcome measures categorized by the period(s) within the maternal health continuum within which they are primarily applicable (e.g., over the course of pregnancy and through the postpartum period) and is driven by factors encompassed within each of the three aforementioned domains.

Identifying specific data sources, gaps in measurement (such as a lack of data relevant to a measure), whether data are timely and nationally representative, and whether they can be disaggregated by demographics, socioeconomics, and geography, and opportunities to close such gaps will be the subject of future HHS work. To assess progress in addressing the maternal health crisis, as part of its future work, HHS plans to develop key performance measurement practices using national and programmatic measures from the Maternal Health Measurement Framework and setting near term goals for these measures similar to how progress was assessed for the Agency Priority Goals.

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The White House Blueprint for Addressing the Maternal Health Crisis (the Blueprint), released in June 2022, reflects HHS's current priorities for improving maternal health. The Blueprint conveys the Biden-Harris Administration's commitment to cutting rates of maternal mortality and morbidity, reducing disparities in maternal health outcomes, and improving the overall experience of pregnancy, birth, and the postpartum period for women across the United States (U.S.). It describes health system and community-level barriers driving the maternal health crisis and federal strategies to intervene. It encompasses five goals, which are underpinned by a continual focus on advancing health equity. Within the five goals, the Blueprint identifies 50 actions that public and private partners will take to help improve maternal health in the U.S.

White House Maternal Health Blueprint Goals

This report discusses activities and outcomes of HHS programs addressing the maternal health crisis including:

- Trends in U.S. maternal health outcomes,
- Drivers contributing to the maternal health crisis,
- How HHS is addressing these drivers, and
- A measurement framework to assess progress in addressing the maternal health crisis.

An Appendix to this report provides updates on HHS activities included in the Blueprint and select initiatives launched since its release. The Appendix also includes a summary of maternal health proposals in the FY 2025 President's Budget.

Trends in Maternal Health Outcomes

There were 3.6 million births in the U.S. in 2022.[1] Each year, thousands of women[a] giving birth experience maternal complications during pregnancy, labor and delivery or the postpartum period, such as maternal mortality[b] or severe maternal morbidity (SMM), due to causes that are mostly preventable.[2] It has been estimated that over 80 percent of pregnancy-related deaths[c] and approximately half of SMM events are potentially preventable.[3,4] Compared to other high-income countries, the U.S. has the highest maternal mortality rate and the gap between the U.S. other high-income countries is widening.[5] SMM are unexpected life-threatening complications of labor that can have both short-term and long-term health consequences for women's health. The rate of SMM has steadily increased between 2010 and 2020[d] and is estimated to affect 30,000 women.[6]

Significant disparities in maternal mortality and SMM are observed by race and ethnicity.[7,8,9,10,11] Native Hawaiian and Other Pacific Islander, Black, American Indian and Alaska Native (AI/AN) women disproportionately experience high rates of pregnancy-related mortality.[12,13] A number of factors contribute to maternal health outcomes including age, obesity, other pre-existing health conditions, insufficient access to health care providers, interpersonal factors such as provider implicit bias, racism, and underlying community factors such as living in neighborhoods that struggle with poverty, lack of high paying jobs, unaffordable housing, lack of nutritious food options, and other social determinants of health.[14,15,16,17,18,19]

This section discusses trends in maternal mortality (maternal deaths and pregnancy-related deaths), SMM outcomes, and comorbidities that contribute to these outcomes. This section also lists examples of specific actions HHS is taking to address three sets of comorbidities—Mental Health Conditions, Cardiovascular Conditions, and Infections—that are significant contributors to maternal mortality and SMM. A number of maternal health outcomes and conditions related to mortality and SMM are included

[a] While this report generally refers to women, the content of this report is inclusive of every person giving birth, irrespective of gender identity or demographic background.
[b] Maternal mortality captures both maternal deaths and pregnancy-related deaths. Maternal deaths are defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of duration and site of the pregnancy, from any cause related to/aggravated by the pregnancy or its management, but not from accidental/incidental causes.
[c] Pregnancy-related deaths is a broader measure of maternal mortality than maternal deaths. Pregnancy-related deaths is defined as the death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.
[d] 2020 is the latest year of available data

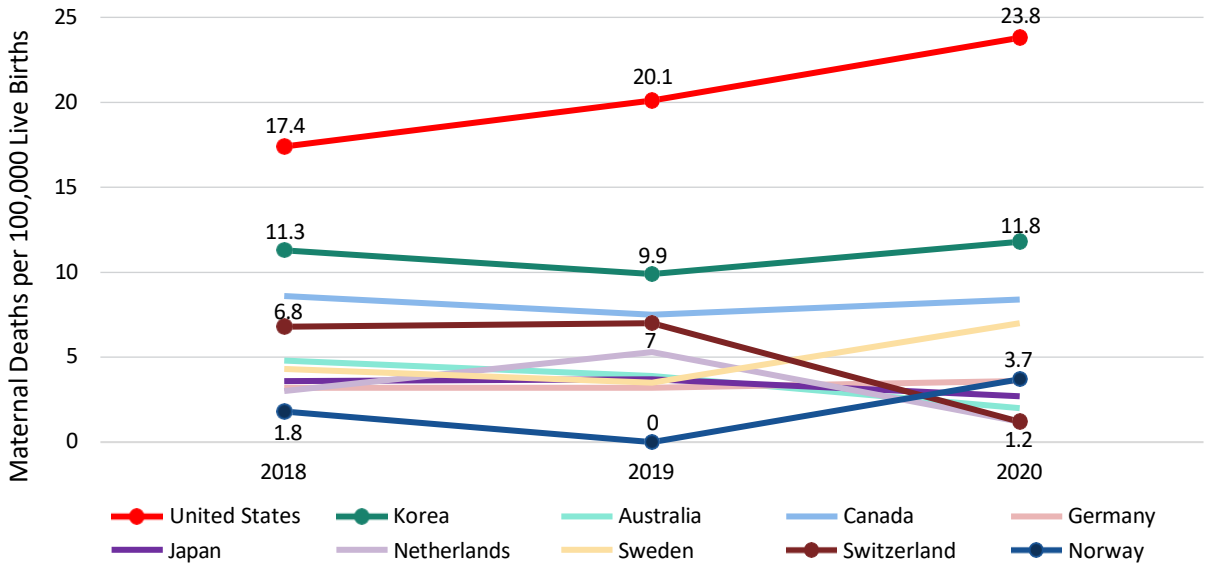
in the Maternal Health Measurement Framework, described later in this report. This framework presents a current and desired set of outcome and process measures to assess progress in addressing the overall U.S. maternal health crisis.

Maternal Deaths and Severe Maternal Morbidity

Maternal Mortality

The U.S. maternal mortality rate far exceeds the maternal mortality rate of other high-income countries (Figure 1). Pregnancy-related deaths are especially high for Native Hawaiian and Other Pacific Islander, non-Hispanic Black, and AI/AN women (Figure 2).[20] Maternal mortality statistics released by the Centers for Disease Control and Prevention (CDC) indicate that rates of maternal death increased through 2021 but declined in 2022 to near pre-pandemic levels.[21] These levels are still high relative to other high-income nations. A Government Accountability Office (GAO) analysis of mortality data between 2020-2021 showed 25 percent of maternal deaths during this time were attributable to COVID-19. The study also reported social risk factors, access issues, psychological distress and other non-medical factors that may drive disparate impacts by race and ethnicity that may have been further exacerbated by the pandemic.[22]

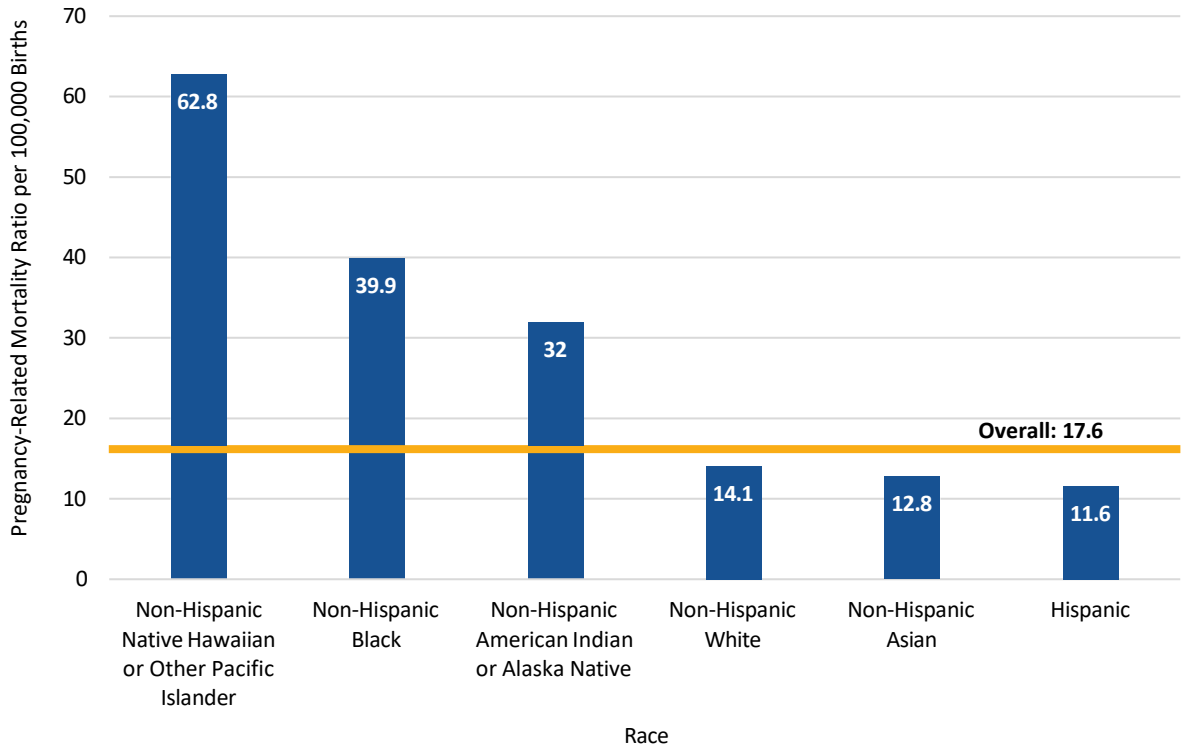
Figure 1. The Gap between Maternal Mortality Rates in the U.S. and Other High-Income Countries has been Widening in Recent Years



Notes: Maternal mortality is defined by the World Health Organization 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

Data: Data for all countries except US from OECD Health Statistics 2022. Data for US from Donna L. Hoyert, *Maternal Mortality Rates in the United States, 2020* (National Center for Health Statistics, September 2022).

Figure 2. Pregnancy-Related Mortality Ratio by Race and Ethnicity, 2017-2019



Notes: A pregnancy-related death is defined as the death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.

Source: PMSS, 2017-2019, 2019 Pregnancy-Related Mortality Ratio across all births was 17.6 per 100,000 births

A report by Maternal Mortality Review Committees (MMRCs) in 36 states deemed 84 percent of pregnancy-related deaths in these states as preventable, with 53 percent of deaths occurring one-week to one-year after delivery, 12 percent occurring 1 to 6 days after delivery, 13 percent during delivery, and 22 percent during pregnancy (Figure 3). MMRCs have developed recommendations to address preventable pregnancy-related death such as improving access to clinical care, addressing unstable housing, improving provider confidence with obstetric emergencies, development of guiding protocols or tools to help ensure quality of care provision, expanding knowledge of warning signs or need to seek care, preventing missed or delayed diagnosis, and strengthening continuity of care and care coordination.[23]

A cross-sectional study of delivery hospitalization discharges and deaths during hospitalization using the Premier PINC AI Healthcare Database, representing about 25 percent of U.S. hospitalizations, found a 57 percent decrease in in-hospital deaths, from 10.6 per 100,000 discharges in quarter 1 of 2008 to 4.6 in quarter 4 of 2021, that may reflect the impact of current national strategies focused on improving the quality of care provided by the hospitals during delivery.[24]

Figure 3. Timing of Pregnancy-Related Deaths from Maternal Mortality Review Committees in 36 States, 2017-2019

Source: Trost S, Beauregard J, Chandra G, Njie F, Berry J, Harvey A, Goodman DA. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017-2019. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Dept. of Health and Human Services; 2022. https://www.cdc.gov/maternal-mortality/php/data-research/mmrc-2017-2019.html

Severe Maternal Morbidity

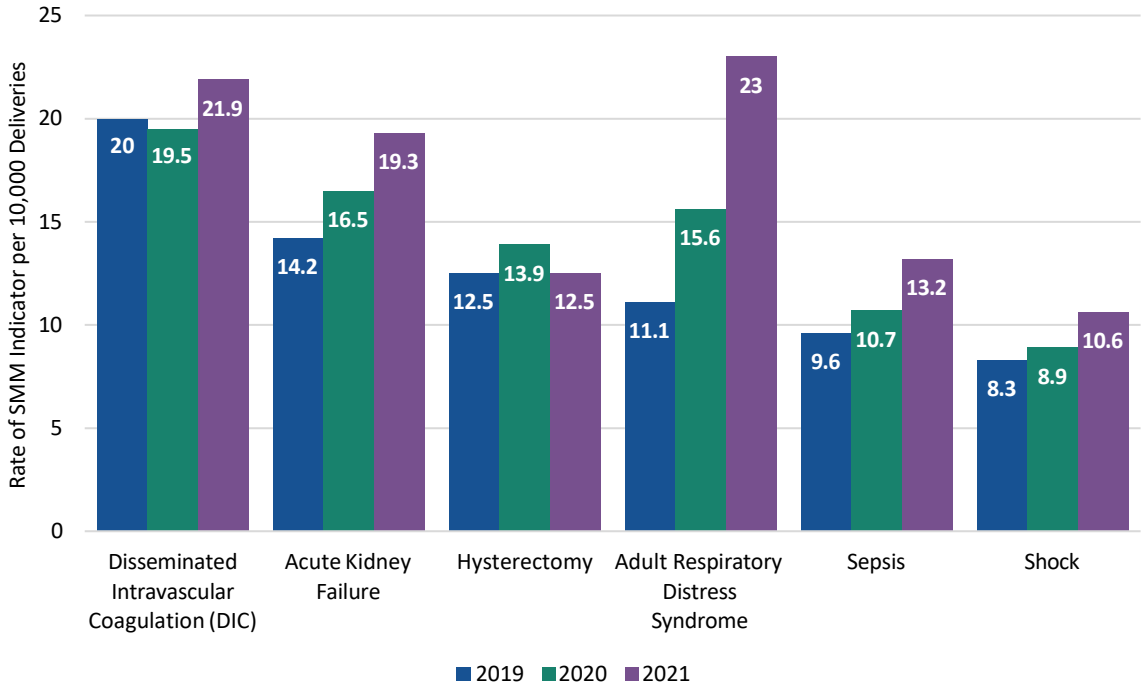
SMM events, some of which have been found to be highly correlated with delivery related deaths, affect more than 30,000 women annually in the U.S.[25,26]

SMM is more prevalent in women with pre-existing chronic conditions such as hypertension, diabetes, and obesity.[27] Chronic health conditions (e.g., cardiovascular conditions including high blood pressure, diabetes, obesity, autoimmune diseases, and HIV) and combinations of these conditions can have important implications for maternal health.[28] Additional conditions that develop during pregnancy, such as gestational diabetes[e] (which increased from 47.6 to 63.5 per 1000 live births in the U.S. between 2011 and 2019) raise the risk for subsequently developing cardiovascular disease and other adverse health conditions.[29] Management of chronic health conditions includes access to timely health care services and promoting healthy lifestyles, such as good nutrition, exercise, and smoking cessation, to mitigate the effect of these conditions on pregnancy. For example, treating severe hypertension can lower a patient's risk for SMM.[30]

Minority and low-income pregnant women are disproportionately burdened with SMM, including non-Hispanic Black women, women covered by Medicaid, and women without insurance.[31,32] A study of administrative claims from 1,200 hospitals found SMM at the time of delivery increased by 2 percent annually from 2008 through 2021, representing an overall increase of 22 percent.[f] The 6 most frequent SMM indicators identified in this study are depicted in Figure 4. SMM increased by 57 percent among American Indian women, 79 percent among Asian women, 10 percent among Black women, 28 percent among Hispanic women, 126 percent among Pacific Islander women, and 20 percent among White women from 2008 to 2021.[33]

[e] Gestational diabetes is a type of diabetes that can develop during pregnancy in women who do not already have diabetes.
[f] An earlier study across a broader set of hospitals also found an increase in SMM events occurring between 2017 (71.5 SMM events per 10,000 delivery hospitalizations) and 2020 (88.2 events). (AHRQ). Data are not yet available for 2022.

Figure 4. Leading Indicators of Severe Maternal Morbidity Among Inpatient Deliveries

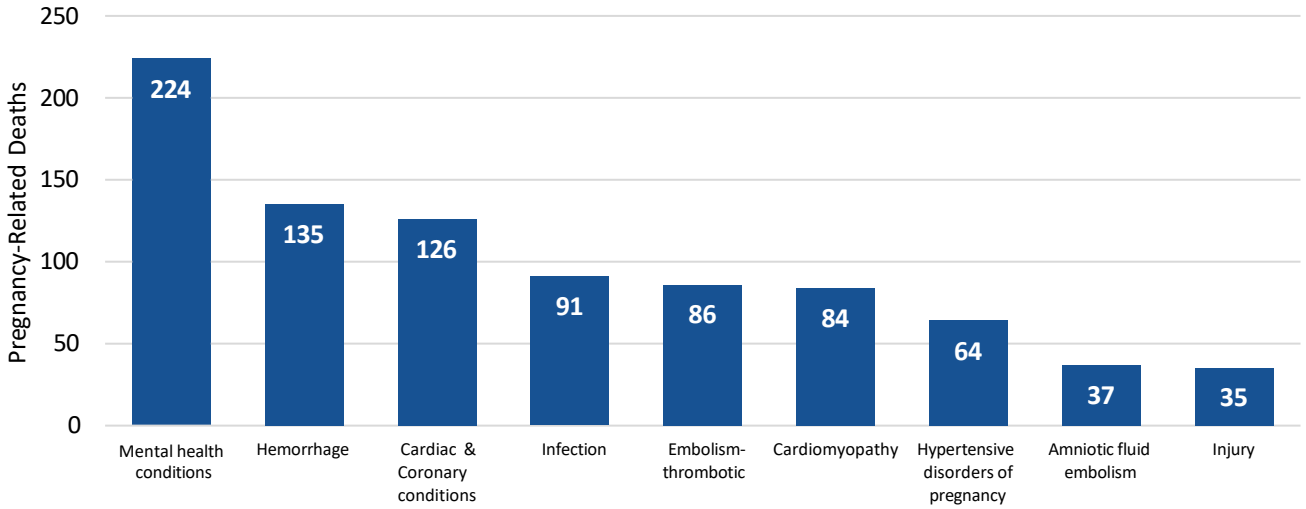


Notes: The data source for the study was the Premier PINC AI Healthcare Database. This data source is an all-payer administrative database with approximately 1,200 participating hospitals and health systems capturing 25 percent of hospitalizations.
Source: Fink D.A., Kilday D., Cao Z. Trends in Maternal Mortality and Severe Maternal Morbidity During Delivery-Related Hospitalizations in the United States, 2008 to 2021. *JAMA Network Open*. 2023; 6(6): e2317641. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2806478

Comorbid Conditions Resulting in Poor Health Outcomes

Research has indicated that changes in the overall health of women entering pregnancy may be a contributing factor to rates of complications, including maternal mortality. For example, in recent years, rates of pre-pregnancy obesity increased, and more women entered pregnancy with chronic medical conditions, including chronic cardiovascular conditions.[34,35,36] Figure 5 displays the leading causes of pregnancy-related deaths and indicates that mental health conditions and substance use disorders, hemorrhage, cardiovascular conditions (cardiomyopathy, cardiac and coronary conditions, and hypertensive disorders of pregnancy), and infections account for the largest share of pregnancy-related deaths. HHS programs and initiatives related to some of these conditions are discussed in the following sections.

Figure 5. Total Counts of Leading Causes of Pregnancy-Related Death in 36 U.S. States, 2017-2019



Notes: The total number of pregnancy-related deaths was 1,018. Specific cause of death was missing (n=10) or listed as unknown (n=21) for a total of 31 (3.0 percent) pregnancy-related deaths. Mental health and substance use conditions include deaths of suicide, overdose/poisoning related to substance use disorder, and other deaths determined by the MMRC to be related to a mental health condition, including substance use disorder; Hemorrhage excludes aneurysms or cerebrovascular accident (CVA); Cardiac and coronary conditions include deaths of coronary artery disease, pulmonary hypertension, acquired and congenital valvular heart disease, vascular aneurysm, hypertensive cardiovascular disease, Marfan Syndrome, conduction defects, vascular malformations, and other cardiovascular disease; and excludes cardiomyopathy and hypertensive disorders of pregnancy; Injury includes intentional injury (homicide), unintentional injury, including overdose/poisoning deaths not related to substance use disorder, and injury of unknown intent or not otherwise specified. The observed conditions may not be exclusive and therefore in some cases, multiple conditions may be overlapping or be co-occurring contributing factors leading to pregnancy-related death. Approximate causes of pregnancy-related deaths may be attributable to a variety of factors including obesity, maternal age, etc.

Source: Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017-2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022. https://www.cdc.gov/maternal-mortality/php/data-research/mmrc-2017-2019.html

Mental Health and Substance Use Conditions

Leading underlying causes of pregnancy-related death are mental health and substance use conditions, and other deaths determined to be related to a mental health or substance use condition, which together contribute to 53 percent of all pregnancy-related deaths.[37,g]

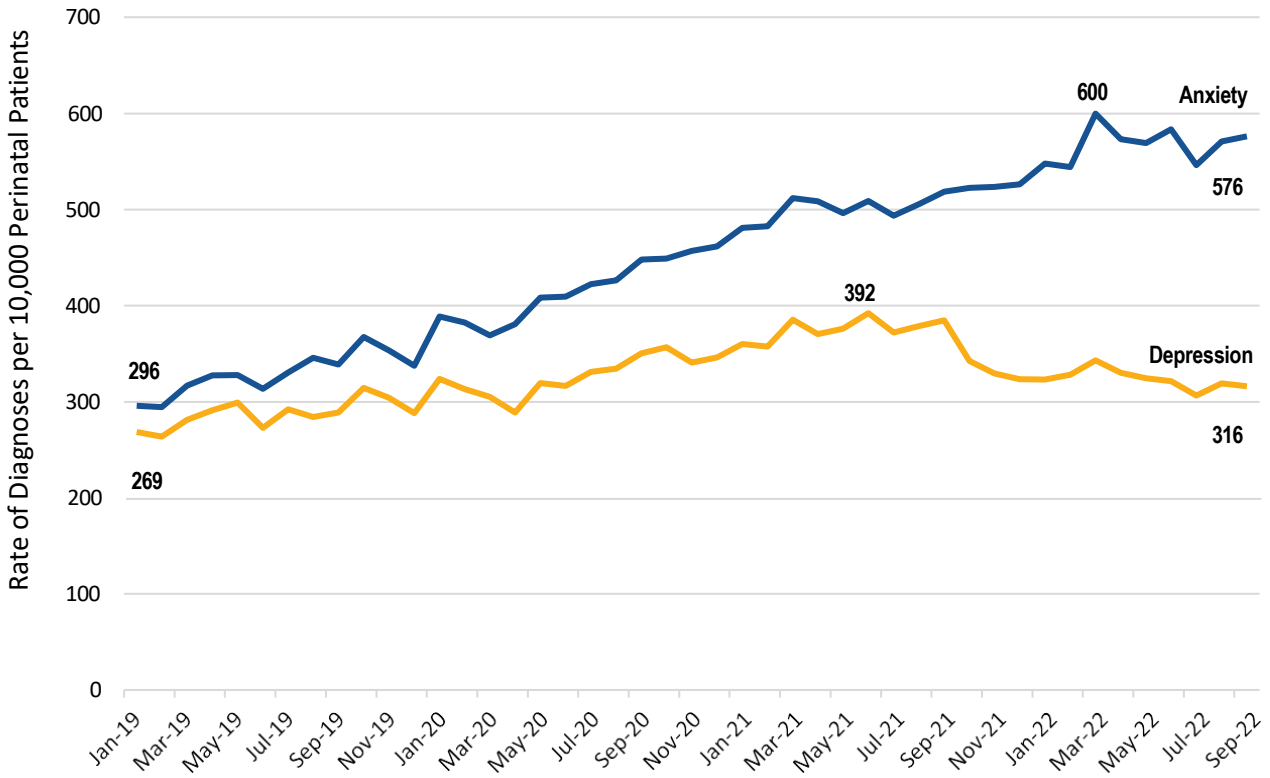
Mental health conditions include depression, anxiety, psychosis, bipolar disorders, and other related mood disorders. They can impact the mother's health and quality of life as well as the well-being of the baby and family. Peripartum[h] anxiety disorders are one of the most common pregnancy-associated complications, affecting 1 in 5 women.[38] Compared to women without any mental health condition, women with a mental health condition are 50 percent more likely to experience SMM.[39] Among other mental health conditions, private insurance claims data show increasing rates of depression and anxiety diagnoses among perinatal women through the COVID-19 pandemic (Figure 6). Mental health conditions

[g] Mental health and substance use conditions are combined in Figure 5 because that is how they were reported in the MMRC data, but they discussed separately in this section.

[h] Peripartum refers to the period before (pre-pregnancy), during, and after pregnancy (postpartum)

have been found to contribute to 28 percent of pregnancy-related deaths.[40] Receiving effective mental health care can be challenging, especially for pregnant and postpartum women. Barriers to care include insufficient screening and identification of mental health conditions, insufficient availability of providers that care for pregnant women, and women not obtaining treatment due to cost and stigmas associated with mental illness.[41,42] Less than one third (28 percent) of the U.S. population live in an area with sufficient mental health professionals available to meet the needs of the population and more than half of new mothers lack consistent health coverage for mental health care.[43,44] Despite the availability of reliable guidelines and screening tools to detect and treat maternal mental health conditions, these resources are often underutilized resulting in underdiagnosis and undertreatment.[45]

Figure 6. Monthly Rates of Depression and Anxiety Increased Among Privately Insured Perinatal Women Through the COVID-19 Pandemic, 2019-2022



Source: ASPE analysis of MarketScan data

There is a high prevalence of comorbidity between substance use disorders (SUDs) and other mental illnesses.[46] Not everyone who uses substances has substance use disorder. Substance use includes use of drugs, alcohol, tobacco, prescription drug misuse, or use of other substances that can be consumed, inhaled, injected, or absorbed.[47] Some women who use substances are also affected by SUD which occurs when recurring substance use causes clinically significant impairment.[48] From 2017 to 2020, drug overdose mortality increased by 81 percent among pregnant women.[49] SUD was cited as a circumstance leading to death in 25 percent of pregnancy-related deaths.[50] Between 2018 and 2021, most pregnancy-related overdose deaths among pregnant and postpartum women occurred outside the health care

settings (including at home or at drug consumption locations), highlighting the importance of community-based organizations (CBOs) and networks that may be better equipped to more effectively support and quickly intervene outside of health care settings to prevent additional pregnancy-associated overdose deaths.[51] People who use substances and are affected by SUDs can experience barriers to receiving treatment due to stigma and the perceived or real threat of legal action, including potential involvement of Child Protective Services that could result in loss of custody of children.[52,53] As of July 1, 2023, 25 states consider opioid use while pregnant to be a form of child abuse under civil child-welfare statutes, and 26 states require providers to report suspected opioid use during pregnancy to welfare agencies.[54]

HHS is taking the following action steps to address the high rates of mental health and SUDs affecting pregnant and postpartum women.

HHS Actions Addressing Maternal Mental Health and Substance Use:

Supporting the Task Force on Maternal Mental Health: The Task Force on Maternal Mental Health, which has over 100 members and is co-led by the Office of the Assistant Secretary for Health (OASH) and the Substance Abuse and Mental Health Services Administration (SAMHSA), has been established as a subcommittee of SAMHSA's Advisory Committee for Women's Services (ACWS) to identify, evaluate, and make recommendations to the ACWS to coordinate and improve activities related to addressing maternal mental health conditions and SUDs. This national effort includes a focus on mental health equity as well as trauma-informed practices. The Task Force will highlight recommendations that fall within the pregnancy and postpartum (up to one year after birth) periods for individuals with or at risk of developing mental health and substance use conditions. The Task Force developed its first Report to Congress, which features a myriad of federal programs and collaboration efforts on maternal mental health, as well as best practices and opportunities for collaboration with states.[55] The Task Force has developed a national strategy to improve maternal mental health, which includes policy recommendations related to coordinating and improving federal activities to address maternal mental health.[56] This strategy will help the nation make holistic, integrated, and patient-centered mental health and substance use care for perinatal populations more accessible. The strategy was released alongside a special report from those with lived experience, highlighting diverse voices, developed in collaboration with the U.S. Digital Service.

Funding Initiatives to Improve Screening and Treatment for Maternal Mental Health: The Screening and Treatment for Maternal Mental Health and SUDs program provides funding for state or regional programs to expand health care providers' capacity to screen, assess, treat, and refer pregnant and postpartum people for maternal mental health and SUDs. This is accomplished by establishing, improving, and/or maintaining statewide or regional programs to provide real-time psychiatric consultation, care coordination support services, and culturally and linguistically appropriate training to maternity care providers and clinical practices.

Establishing a 24/7 Maternal Mental Health Hotline: The Health Resources and Services Administration (HRSA) has been operating the National Maternal Mental Health Hotline since Mother's Day of 2022. The 24/7 hotline, 1-833-TLC-MAMA, provides support before, during, and after pregnancy and is staffed by licensed mental health clinicians and health care professionals; certified peer specialists; and childbirth professionals such as doulas, lactation consultants, and childbirth educators who are trained and specialize in perinatal mental health. Hotline counselors

have responded to nearly 29,000 calls and texts since inception (through January 2024). About 70 percent of contacts are by phone and 30 percent are by text. Counselors provide confidential, free, immediate emotional support in English and Spanish; evidence-based information; and resources and referrals for treatment for pregnant and postpartum persons and their loved ones. Interpreter services are available in 60 additional languages and TTY users can use a preferred relay service.

Funding Initiatives to Provide Comprehensive SUD Treatment Services: The SAMHSA Pregnant and Postpartum Women program grant provides comprehensive SUD treatment services, recovery support services, and harm reduction interventions to pregnant and postpartum women across a continuum of specialty SUD residential and outpatient levels of care, based on comprehensive, individualized screenings and assessments that inform treatment planning and service delivery in a continuous care model. Using a holistic approach, grant funds also support required activities for minor children and partners of the women, and other extended family members of the women and children, as requested by the women. Fundamental to this program is ensuring access to services for low-income women, including providing these services in locations accessible to low-income women.

Funding Jurisdictions to Monitor and Respond to the Opioid Crisis: CDC's National Center for Injury Prevention Center's Division of Overdose Prevention (DOP) funds 90 jurisdictions as part of Overdose Data to Action (OD2A) across states and localities to monitor and respond to the evolving opioid crisis. While maternal health is not a core focus of OD2A, states and localities may work to address and respond to overdose risk factors across a variety of populations, including reproductive-aged people, pregnant people, and those who are postpartum. DOP also collaborates with and extends subject matter expertise on neonatal abstinence syndrome and other maternal and infant effects of opioid or other drug exposure during pregnancy.

Informing Medication-assisted Treatment Clinical Practice Recommendations: CDC's National Center on Birth Defects and Developmental Disabilities supports The MATernaL and clinical Infant NetworK (MAT-LINK), a surveillance network of eleven clinical sites caring for people with pregnancies complicated by OUD, polysubstance use, and cytomegalovirus and their children through six years of age. Results will be used to inform clinical practice recommendations and clinical decision-making around medication for OUD among pregnant people.

Providing Technical Assistance for Providers Working with Families Affected by Substance Use and Co-occurring Mental Health Disorders and Child Abuse or Neglect: The Administration for Children and Families (ACF) operates the National Center on Substance Abuse and Child Welfare (NCSACW) with joint funding from ACF's Children's Bureau (CB) and SAMHSA's Center for the Substance Abuse Prevention (CSAP). NCSACW provides training and technical assistance to help agencies and professionals improve family recovery, safety, and stability by advancing practices and collaboration among agencies, organizations, and courts working with families affected by substance use and co-occurring mental health disorders and child abuse or neglect. In 2023, NCSACW developed the "Supporting Pregnant and Parenting People with SUDs Series" to discuss how to work with child welfare to provide coordinated, family-centered care that improves treatment and recovery outcomes for families. It is a companion to SAMHSA's publication, "Clinical Guidance for Treating Pregnant and Parenting Women with OUD and Their Infants," aimed at cross-systems collaboration to promote family-centered care to improve outcomes (treatment, recovery, child safety and well-being).

Developing Measures for HHS Programs Addressing Maternal Mental Health: HRSA created new National Performance Measures (NPMs) for the Title V Maternal and Child Health Services Block Grant in 2024. Two of these NPMs include a focus on maternal mental health. The Postpartum Visit NPM includes a quality of visit sub-measure that captures whether a provider talks to a new mother about what to do if she is feeling depressed or anxious at a postpartum visit. The Postpartum Mental Health Screening NPM captures whether a new mother received a mental health screening from any health care provider. Additionally, a new National Outcome Measure will track Postpartum Anxiety in addition to the National Outcome Measure for Postpartum Depression.

Research highlight:

Identifying Evidence-based Strategies to Address Maternal Mental Health and SUD: Several institutes at the National Institutes of Health (NIH) funded awards supporting research to address SUD and mental health for pregnant and postpartum women in Fiscal Year (FY) 2023. The Implementing a Maternal Health and Pregnancy Outcomes Vision for Everyone (IMPROVE) program provided funds to an ongoing clinical trial to produce education materials and strategies for recruitment of pregnant people with OUD into research studies and will engage with the IMPROVE Dissemination and Implementation Hub to disseminate findings. Mental health research is also embedded across the Maternal Health Research Centers of Excellence and the larger IMPROVE program, including the Connecting the Communities Maternal Health Challenge (CCMH), the Rapid Acceleration of Diagnostics Maternal Health Challenge and the IMPROVE Community Implementation Program (IMPROVE CIP). For example, The CCMH Abundance Project will evaluate the impact of postpartum doula care on reducing hypertension and postpartum mood and anxiety disorders among Black, Indigenous, and People of Color postpartum mothers. Additional NIH initiatives fund intervention delivery to at-risk individuals to prevent perinatal depression (RFA-MH-21-240) and support research to identify barriers to OUD treatment among pregnant and postpartum people and models for recovery-oriented, family-centered care (NOT-DA-24-008). NIH also supports research to optimize the efficacy and safety of OUD medications for pregnant people through the Medication Treatment for Opioid-dependent Expecting Mothers (MOMs) study. The Agency for Healthcare Research and Quality (AHRQ) has funded two reviews on pharmacologic and non-pharmacologic interventions for pregnant and postpartum women which can inform future research and support other HHS programs and activities.

Cardiovascular Conditions

Cardiovascular-related conditions, including cardiomyopathy, cardiac and coronary conditions, and hypertensive disorders of pregnancy, were responsible for 27 percent of all pregnancy-related deaths and 40 percent of pregnancy-related deaths of Black women from 2017 through 2019.[57] Cardiovascular conditions can vary in severity and timing over the course of the preconception, pregnancy and delivery, and postpartum periods. Women may have pre-existing chronic cardiovascular conditions prior to becoming pregnant or may develop pregnancy-induced or postpartum cardiovascular conditions. There are four main categories of hypertensive disorders in pregnancy: chronic hypertension[i], gestational

[i] Chronic hypertension is defined as hypertension diagnosed or present before pregnancy or before 20 weeks of gestation.

hypertension[j], preeclampsia[k]-eclampsia[l], and preeclampsia superimposed on chronic hypertension.[58] NCHS Natality data show high rates of gestational hypertension across all races, chronic hypertension disproportionately affecting Black women (Figure 7), and eclampsia disproportionately affecting AI/AN women.[59,m] Preeclampsia (a form of gestational hypertension with new-onset of protein detected in the urine after the 20th week of pregnancy), affects about 5 to 10 percent of pregnancies and increases the risk of adverse outcomes such as renal failure, stroke, placental abruption, preterm delivery, and perinatal death.[60] Numerous studies and systematic reviews have indicated that hypertension associated with pregnancy raises the risk of chronic hypertension, end stage renal disease, and lifetime risk of early onset of cardiovascular disease.[61,62,63,64]

Interventions and preventive measures exist to address cardiovascular conditions and new opportunities continue to arise as guidelines are updated and new research is published. For instance, evidence shows that low-dose aspirin during pregnancy may reduce the risk of preeclampsia.[65,66] This intervention is widely supported by the American College of Obstetricians and Gynecologists (ACOG) and the U.S. Preventive Services Task Force (USPSTF).[67] Other interventions, such as remote monitoring of blood pressure control, are also promising; however, there is a general need for additional research on therapies to address cardiovascular conditions for pregnant and lactating women, who are often excluded from clinical research.[68]

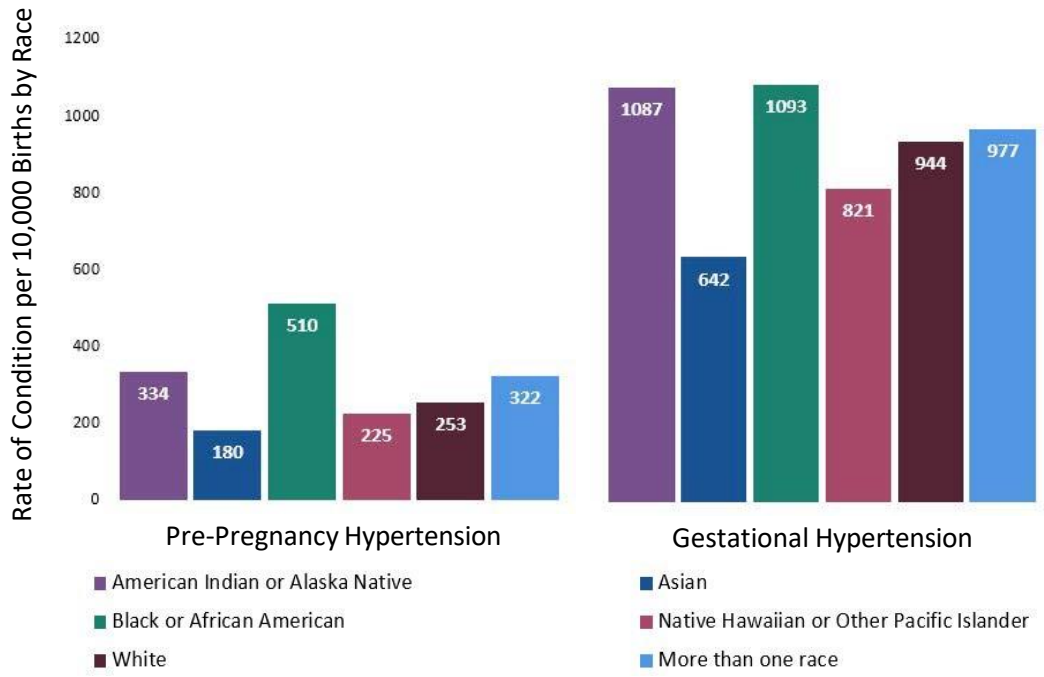
[j] Gestational hypertension is defined as hypertension occurring after 20 weeks of gestation in persons with previously normal blood pressure.

[k] Preeclampsia is high blood pressure and signs of liver or kidney damage that occur in women after the 20th week of pregnancy.

[l] Eclampsia is a form of gestational hypertension and follows a condition called preeclampsia. This is a complication of pregnancy in which a woman has high blood pressure and other findings. Eclampsia is the new onset of seizures or coma in a pregnant woman with preeclampsia. These seizures are not related to an existing brain condition; the exact cause is not known.

[m] Data not shown

Figure 7. Prevalence of Gestational Hypertension and Pre-Pregnancy Hypertension by Race, 2022



Note: Race category queries on CDC wonder do not specify Hispanic or Latino ethnicities.
Source: CDC WONDER query, most recent natality data (2022)

HHS Actions Addressing Cardiovascular Conditions Affecting Pregnancy and Postpartum Women:

Disseminating Provider Tools and Education: Million Hearts® 2027 co-led by CDC and Centers for Medicare & Medicaid Services (CMS) offers tools and educational material for clinicians, patients, and public health professionals to improve timely detection and control of hypertension during and following pregnancy.

Awarding Innovation in Hypertension Control and Monitoring: OASH created a national competition, the HHS Hypertension Innovator Award Competition, to identify effective, pre-existing programs that use innovative methods of blood pressure monitoring and follow-up for women during pregnancy and the postpartum period. This three-phase challenge has a total prize pool of more than $3.3 million that was awarded to winners based on the effectiveness of their programs in improving hypertension control and monitoring among pregnant and postpartum women and the replicability and expansion of successful programs.

Research Program Highlights:

Early Intervention to Promote the Cardiovascular Health of Mothers and Children (ENRICH): The purpose of ENRICH is to test the effectiveness of an implementation-ready intervention, delivered in the context of maternal and early childhood home visiting, to promote and address disparities in maternal and early childhood cardiovascular health. The program funded 7 clinical sites across the U.S. and a coordinating center.

Supporting Community-Driven Research to Improve Delivery of Evidence-Based Interventions: This initiative funded 4 community-driven studies for underserved populations on how evidence-based interventions, such as regular blood pressure readings, can be best delivered to help people before and during pregnancy and postpartum. IMPROVE funded 3 additional CIP projects (IMPROVE-CIP) in underrepresented populations that include interventions such as low-dose aspirin in preeclampsia prevention.

Examining the Effect of Pregnancy Complications on Future Cardiovascular Health: This study follows about 7,000 of the 10,000 women from the nuMoM2b study, to examine the effects of pregnancy complications on future cardiovascular health. A recent key finding from this study is that having obesity during early pregnancy appears to be a strong indicator of risk for developing future cardiovascular disease risk factors, like having high blood pressure, after pregnancy.[69]

Informing Guideline Development to Achieve Better Outcomes: The CHAP Trial showed that treatment of mild chronic hypertension during early pregnancy was associated with better pregnancy outcomes than reserving treatment only for severe hypertension.[70] These findings impacted treatment guidelines from ACOG and the Society for Maternal Fetal Medicine.

Infections and Related Conditions

Physiologic changes and adaptations during pregnancy can increase the risk for severe illness from a variety of infections (viral, bacterial, parasitic, or fungal), at any stage of the pregnancy, which may result in serious complications, including still birth, miscarriage, preterm labor, congenital disease, and maternal death.[71]

Pregnant women are at increased risk for severe illness from COVID-19 compared with non-pregnant women, including risk for intensive care unit admission, invasive ventilation, and death.[72] COVID-19 vaccination during pregnancy is safe and effective, reducing the risk of severe illness among pregnant women, and reducing the risk of COVID-19 hospitalization among infants.[73,74,75,76]

Maternal sepsis is a life-threatening medical emergency leading to organ failure resulting from infection during pregnancy, childbirth, or the postpartum period. Research on inpatient hospitalizations from 27 states between 2013 and 2016 indicated that although maternal sepsis occurs in approximately 0.04 percent of deliveries, 23 percent of all maternal deaths occurring during a delivery hospitalization or readmission within 42 days were sepsis related.[77]

U.S. syphilis and congenital syphilis prevalence rates have increased over the last decade. According to a recent report, there was a 79 percent increase in (all stages of) syphilis cases and a 183 percent increase in congenital syphilis cases reported in 2022 as compared to 2018.[78] Syphilis increases the risk of acquiring HIV infection as well as of other sexually transmitted diseases, such as gonorrhea, chlamydia, genital herpes, among others.[79] Although the increase occurred in nearly every demographic group and region, the increase occurred disproportionately for specific racial and ethnic minorities. Congenital syphilis is highest among AI/AN infants at a rate of 1 in 155[n] live births among AI/AN mothers.[80,81] For pregnant women, potential mother-to-baby transmission of syphilis can result in congenital syphilis and consequently lead to adverse outcomes, such as birth defects, spontaneous abortion, and infant death.[82,83] Risk factors include inadequate antenatal care and screening, high-risk sexual behavior, and

[n] The 1 in 155 rate is based on the estimated rate of congenital syphilis among AI/AN in 2022 as reported in the citation webpage, which is 645 cases per 100,000 live births. Dividing both the numerator and denominator by 645 results in 1 (645/645) in 155 (100,000/645).

substance use.[84,85,86,87] Social determinants of health, such as low education achievement, race and ethnicity, and socioeconomic status, contribute to disparities in screening and treatment.[88,89,90,91]

Adequate prenatal care, screening and treatment for maternal infections, and vaccinations against viruses provide the greatest opportunity to identify and treat at-risk women and to prevent potential adverse maternal and infant outcomes resulting from maternal infections.

HHS Actions to Address Infections:

Supporting the Federal Taskforce for the National Syphilis and Congenital Syphilis Syndemic (NSCSS): The NSCSS Federal Taskforce was established in August of 2023 and is led by OASH. The NSCSS Federal Taskforce aims to address the syndemic of syphilis and congenital syphilis through collaboration with federal partners across HHS and non-HHS agencies with a focus on strengthening data and surveillance, developing prevention strategies, and improving screening, diagnosis, and treatment, with a strong emphasis on health equity and community engagement. The overall goal of the NSCSS Federal Taskforce is to reduce rates of primary, secondary, and congenital syphilis and to reduce syphilis health disparities in the U.S.

Implementing Training to Recognize and Stop the Spread of Infection: The Project Firstline Infection Control Micro-Learns from CDC are a series of short, adaptable training resources for healthcare leaders to educate their staff on recognizing infection risks and taking action to limit the spread of infection, including in obstetrics and gynecology (OB/GYN) settings. Each micro-learn focuses on a single topic and connects infection control concepts to immediate, practical value. Intended for supervisors and clinical leads that serve as training promotors or facilitators, the micro-learns can help with integrating quick training opportunities into team meetings or huddles. Each micro-learn training package includes a user guide, a discussion guide, and a ready-to-use job aid making it easy for healthcare leaders to fit infection control discussions into their busy schedules.

Increasing Vaccination Rates: CDC has developed messaging campaigns to increase vaccination among pregnant women, generally, and more specifically to disproportionately affected populations, including Black pregnant women (https://www.cdc.gov/vaccines/communication-resources.html). CDC has partnered with clinical professional organizations to increase health care provider confidence in making recommendations for COVID-19 vaccination to their pregnant patients (https://www.acog.org/covid-19/vaccine-confidence-champion-network/training).

Improving Surveillance of Maternal Sepsis: In late 2023, CDC developed a public health surveillance definition for maternal sepsis proposed to the American College of Obstetricians and Gynecologist (ACOG) Clinical Guidance Group that is currently being validated through in-depth clinical chart reviews. ACOG, a professional association of physicians specializing in obstetrics and gynecology in the United States, is one of many partner organizations CDC coordinates with on sepsis and other patient safety activities. Once validated, this definition will be used to determine national burden and trends in maternal sepsis using national electronic health records databases.

Improving the Processes of Care and Patient Outcomes: The HRSA-supported AIM developed the "Sepsis in Obstetric Care" patient safety bundle to provide guidance for health care teams to "develop coordinated, multidisciplinary care for pregnant and postpartum people by preventing infection and recognizing and treating infection early to prevent progression to sepsis."[92] Patient

safety bundles are collections of evidence-informed practices that are developed by multidisciplinary experts and include actionable steps that can be adapted to address clinically specific conditions in pregnant and postpartum people. The Sepsis in Obstetric Care bundle is currently one of eight core patient safety bundles that were developed by AIM.

Research Program Highlight:

Supporting Research to Drive Down Maternal Sepsis Complications: In FY 2023, NIH released the funding opportunity "Community Engaged Research on Pregnancy Related and Associated Infections and Sepsis Morbidity and Mortality (UG3/UH3 Clinical Trial Optional)" and funded one center focused on evaluating a maternal sepsis safety bundle, optimizing risk prediction accounting for social determinants of health, and establishing a novel maternal care continuity model to reduce sepsis-related death and disability and increase maternal health equity.

The next section of this report discusses key drivers of maternal health outcomes and conditions, and examples of specific actions HHS is taking to address these drivers.

Drivers of Maternal Health Outcomes and Conditions

While many factors have contributed to the current U.S. maternal health crisis, this report focuses on the below three drivers that are affecting the maternal health trends discussed above. These drivers are related to goals of the White House Blueprint for Addressing the Maternal Health Crisis, which we have cross-referenced in parentheses:

(1) Care delivery (related to Blueprint Goal 2)

(2) Access to care (related to Blueprint Goal 1 and 4)

(3) Social factors (related to Blueprint Goal 5)

Care Delivery

The clinical maternity care experience can vary widely based on a patient's race, state, ZIP code, and the clinicians and hospitals who serve them.[93,94] As reported in health outcomes statistics above, stark disparities exist in maternal health outcomes, and the patient experience related to pregnancy can vary substantially, regardless of whether the worst outcomes may be avoided. A recent survey found 29 percent of women experience mistreatment while receiving maternal health-related care, with rates as high as 40 percent among Black women, 39 percent among multiracial women, and 37 percent among Hispanic women. Women also reported their experiences with discrimination based on age, weight, and income.[95] Experiencing mistreatment can affect a person's physical and emotional wellbeing, and these experiences also can affect maternal health outcomes. These surveys found patients who experienced discrimination[o] and mistreatment are less likely to raise concerns, ask questions, or attend visits with their providers, which affects the extent to which important maternal health and other related conditions are diagnosed.[96] A CDC report noted that discrimination contributed to 30 percent of deaths.[97]

Given the high rate of maternal deaths and other related concerns that can be prevented by the provision of safe, health quality care, there is a need for quality improvement (QI) in the delivery of maternity care.[98] For example, even though federal and professional organizations have released practice bulletins, patient safety bundles, and other best practice recommendations to screen for risk factors, treat, and prevent hemorrhage, obstetric hemorrhage accounts for 14 percent of all pregnancy-related deaths, indicating there is continued room for improvement.[99,100,101] In a study evaluating the impact of QI and patient safety initiatives on racial disparities in SMM resulting from postpartum hemorrhage in a Texas hospital, the implementation of the AIM Obstetric Hemorrhage Bundle resulted in a lower rate of hemorrhage among Black patients and elimination of the disparity in hemorrhage rates between non-Hispanic Black and non-Hispanic White women.[102] Additional AIM patient safety bundles include severe hypertension in pregnancy, sepsis in obstetrical care, safe reduction of primary cesarean birth, cardiac conditions in obstetric care, care for pregnant and postpartum people with SUD, perinatal mental health conditions, and postpartum discharge transition.[103] The AHRQ Safety Program for Perinatal Care supports labor delivery units implementing AIM bundles by providing toolkits to enhance the culture of patient safety through improved teamwork and communications.[104] HHS

[o] Defined in the study as study respondent's reporting discrimination due to factors such as race, ethnicity, skin color, age, or weight.

supports quality improvements efforts through several programs and grants, discussed in the HHS in Action section below.

Although these quality improvement efforts are based on identified best practices, additional research, data, and reporting is needed to understand the extent to which various QI interventions, including patient safety bundles, may improve maternal health outcomes, patient care experiences, and receipt of respectful maternity care and the extent which they reduce health disparities and can be sustained over time.

HHS Actions to Improve Care Delivery:

Supporting states in their efforts to improve postpartum care: In February 2024, HHS Secretary Becerra launched a postpartum maternal health collaborative bringing together state experts, local providers, community partners, and federal experts to change the trajectory of maternal morbidity and mortality to improve the lives of families in the first year after giving birth to a child in six participating states (Iowa, Massachusetts, Maryland, Michigan, Minnesota, and New Mexico). Lessons learned and best practices resulting from the collaborative will be publicly disseminated in early 2025.

Promoting Innovation in Care Delivery: CMS recently announced the new Transforming Maternal Health (TMaH) Model. The TMaH model is the newest CMS Innovation Center model designed to focus exclusively on improving maternal health care for people enrolled in Medicaid and the Children's Health Insurance Program (CHIP). The model will support up to 15 participating state Medicaid agencies (SMAs) in the development of a whole-person approach to pregnancy, childbirth, and postpartum care that addresses the physical, mental health, and social needs experienced during and after pregnancy. One goal of the model is to reduce disparities in access and treatment. The model aims to improve outcomes and experiences for mothers and their newborns, while also reducing overall program expenditures. The model is projected to run for 10 years. CMS will release a Notice of Funding Opportunity for state Medicaid agencies in Spring 2024 totaling up to $250 million. Applications will be due in Summer 2024 and will announce recipients in Fall 2024.

Supporting Continuous Quality Improvement at Health Centers: In addition, HRSA awarded more than $65 million to 35 HRSA-funded health centers under its QI Fund – Maternal Health grant program. These health centers will partner with patients and the community to develop and pilot innovative, patient-centered, scalable models of care delivery; address the clinical and health-related social needs of health center patients; and improve maternal health indicators. QI Fund – Maternal Health awardees are engaged in peer-to-peer learning and continuous quality improvement activities. HRSA will begin disseminating key data and outcomes related to these activities in late spring 2024.

Facilitating Quality Improvement: Several state-based initiatives that receive support from HHS are designed to improve quality and safety across the maternal health care continuum. Maternal Mortality Review Committees (MMRCs) are multidisciplinary committees that convene at the state or local level to comprehensively review deaths that occur during or within a year of pregnancy to inform recommendations for preventing future deaths. The AIM program, supported by HRSA, is working to improve maternity care across the country through the development and implementation of patient safety bundles (collections of evidence-informed best practices developed by multidisciplinary experts) for birthing facilities on topics related to causes of maternal

mortality and SMM. Selection of the bundles is often informed by MMRC recommendations. AHRQ developed the Safety Program for Perinatal Care (SPPC), a collection of tools to improve the patient safety culture of labor and delivery units by improving their communication and teamwork skills. Recognizing the complementary missions of the SPPC and the AIM Patient Safety Bundles, AHRQ funded SPPC-II to create and disseminate resources that align SPPC's adaptive care processes with the clinical care processes recommended in AIM's Patient Safety Bundles. Perinatal Quality Collaboratives (PQCs), supported by CDC, provide the infrastructure to support QI efforts addressing obstetric care and outcomes, and address quality and safety issues through statewide collaboratives and interdisciplinary teams.[105] In September 2023, CDC expanded funding to support 36 PQCs in states comprising approximately 82 percent of live births across the U.S. As of October 2021, CMS is requiring that all hospitals enrolled in the Medicare program report their participation in maternal health quality improvement initiatives such as working with PQCs. Specifically, hospitals must attest to whether they: (1) are participating in a structured state or national Perinatal Quality Improvement (QI) Collaborative; and (2) are implementing patient safety practices or bundles as part of these QI initiatives. Of hospitals and health systems that reported providing obstetric services to CMS, 89 percent attested yes to these questions. Hospitals and health systems who affirmatively attested to the Maternal Morbidity Structural Measure were awarded a Birthing-Friendly Designation in November 2023, which is displayed on the Hospital Compare Website.[106]

Integrating Community-based Maternal Support Services in Perinatal Medical Systems of Care: HHS Office of Minority Health (OMH) awarded $13 million in grants to 11 organizations to develop innovative models for integrating community-based maternal support services into perinatal medical systems of care. These maternal support services address social determinants of health.

Strengthening Data Capacity and Implementation of Evidence-based Interventions: OASH launched the Maternal Morbidity and Mortality Data and Analysis Initiative. This nationwide multi-year effort is intended to leverage reliable national health data and proven improvement methodologies to scientifically identify drivers of maternal and infant mortality and morbidity and implement solutions that will help to improve patient safety and maternal infant outcomes. The approach is two pronged:

1. National Maternal Infant Research Analysis: Includes data collection, analysis and reporting from a large national healthcare database that describes the relationships between maternal and infant mortality and morbidity and analyzes the risk factors affecting maternal infant outcomes – such as racial and ethnic disparities, rising maternal age, socioeconomic factors, comorbidities, and many other attributes. This analysis comprises current data from 1,200 hospitals, includes more than 1 in 5 patient discharges, and approximately 1 million births per year.

2. HHS Office on Women's Health (OWH) Perinatal Improvement Collaborative: This component of the initiative is a large-scale effort to unite a cohort of over 200 diverse U.S. hospitals from every state and the District of Columbia (D.C.), equating to over half a million births a year, to join a data-driven national maternal and infant perinatal improvement collaborative where together these hospitals will help us better understand the implementation of standardized, evidence-based practices and processes, including nationally recognized care bundles and their effect on maternal infant outcomes.

Increasing Awareness of the Urgent Maternal Warning Signs: CDC's Hear Her™ campaign shares potentially life-saving messages about urgent maternal warning signs and encourages communication between people who are pregnant and postpartum and their support systems and healthcare providers. CDC, in partnership with the HHS OMH, released a suite of resources for AI/AN communities. These culturally appropriate resources raise awareness of the urgent maternal warning signs and support healthcare professionals who serve AI/AN communities in their delivery of respectful, culturally appropriate care.

Supporting Cultural Competency Training for Maternal Health Providers: HHS OMH continues to support a free, two-hour e-learning program designed for providers and students seeking knowledge and skills related to cultural competency, cultural humility, person-centered care, and combating implicit bias across the continuum of maternal health care.

Research program highlight:

Building Evidence-Based Practices to Improve Care Delivery: Ten IMPROVE Research Centers of Excellence were funded by NIH in FY 2023 to develop, implement, and evaluate community-tailored interventions to address maternal health disparities and support workforce training and development, including for those from underrepresented populations. Interventions include integrated community health worker interventions, community care QI bundles, and doula-clinician models. The IMPROVE Community Implementation Program funded in FY 2023 formed 3 coalitions of academic investigators and community organizations to build community-engaged implementation strategies, including kinship strategies to support mothers and a community-based doula model, focused on prevention and reduction of maternal morbidity and mortality. In FY 2024, NIH released the "Understanding the Impact of Healthcare System and Clinician Factors on Disparities in Maternal Morbidity and Mortality (R01 – Clinical Trial Optional)" to bridge the knowledge gap about understudied healthcare system and clinician factors across the full spectrum of maternal care.

Access to Care

Availability of Services

Millions of women find it challenging to access high quality maternal health care before, during, and after pregnancy because they live in "maternity care deserts" or locations without hospital-based obstetric services, birthing centers, and maternity care providers.[107] The U.S. faces a shortage of maternal health professionals (e.g., obstetricians, family physicians, mental health providers, and social workers), which is particularly felt in rural areas.[108,109] Fewer than half of all rural counties have a practicing obstetrician.[110] Workforce interventions such as directly supporting training programs and supporting loan repayment and scholarship programs for trainees exist to improve the availability of maternal health providers in rural areas. The workforce shortage situation is further compounded by a lack of culturally competent care.[111,112] Implementing interventions that ensure individuals of diverse backgrounds have opportunities to receive health workforce training along with training in culturally congruent care can help mitigate barriers and improve patient experience, satisfaction, and access to care for underserved patients.[113]

The closure of obstetric care units is associated with increasing travel time to appointments and hospitals for delivery and emergencies.[114] Over half of rural counties lack a hospital with obstetric care

services, a trend that continues to increase.[115] Research indicates women in rural communities have a higher pregnancy-related mortality ratio than their counterparts living elsewhere in the country, with one study finding large metro counties have the lowest ratio (14.8) and "noncore"[p] counties have the highest ratio (24.2).[116] Many AI/AN women live in remote tribal areas. A study of Montana birth records shows AI/AN women are less likely to deliver at a hospital with obstetric care and the ability to handle complex cases, especially for women living on tribal reservations.[117] Facilities that have closed an obstetric unit should remain "OB ready"[q] regardless of whether they perform planned deliveries.[118] Issues of access are not limited to rural women. Almost 40 percent of maternity care deserts are in urban areas, underscoring that the experience of maternity care varies across the U.S. Maternal telehealth visits are one strategy to improve access to maternal care in rural areas, but significant barriers exist to scaling up programs such as the lack of broadband availability and personnel to facilitate such consultations.[119,120]

HHS Actions to Improve Access to Maternity Care:

Training Primary Care Physicians (PCPs) in Maternal Health Care Clinical Services: The Primary Care Training and Enhancement-Community Prevention and Maternal Health program will increase the number of PCPs trained in public health and general preventive medicine or trained in enhanced obstetrical care to increase maternal health care expertise and the number of PCPs trained in enhanced obstetric care in rural and underserved areas. In FY 2023, HRSA awarded $16 million in grants to 30 grantees to train PCPs in maternal health care clinical services or population health to improve maternal health outcomes. The grantees are currently in their third year of a 5-year award period. A number of the grantees are planning to publish their interim results and best practices in a peer-reviewed supplement of a national public health journal.

Supporting Nurses Working in Maternal Health: The Nurse Corps Loan Repayment Program (LRP) makes awards to recruit and retain professional Registered Nurses (RN), including Advanced Practice RNs, in communities with inadequate access to care. In return for a commitment to work at eligible health care facilities with a critical shortage of nurses or serve as nurse faculty in eligible schools of nursing, the Nurse Corps LRP will provide awarded individuals loan repayment assistance. Nurse Corps LRP allocates approximately $5 million of its annual award budget to Certified Nurse Midwives, Nurse Practitioners with women's health care specialty, and RNs and Advanced Practice RNs certified in obstetrics and gynecology. In FY 2023, HRSA funded 208 maternal health providers from this set-aside who are currently serving in the field.

In addition, the Nurse Corps Scholarship Program provides scholarships to nursing students in exchange for a minimum 2-year, full-time service commitment (or part-time equivalent), at an eligible health care facility with a critical shortage of nurses. The Nurse Corps Scholarship Program supports improving maternal health outcomes by reserving up to $5 million for the education of RNs planning to work in women's health or obstetrics, Nurse Practitioners with a women's health or obstetrics and gynecological specialization, and Certified Nurse Midwives in an effort to improve workforce distribution and strengthen health systems. Additionally, the Scholarships for Disadvantaged Students Program awarded $5 million for scholarships to nursing and non-nursing midwifery students.

[p] Noncore is the most rural U.S. Department of Agriculture Economic Research Service designation (ERS, 2019).
[q] A facility may remain "OB ready" through interventions such as skills training and in-situ interdisciplinary simulations.

Identifying Workforce Shortage Areas to Support Maternal Health Provider Placement: Maternity Care Target Areas (MCTAs) are areas within an existing Primary Care Health Professional Shortage Area (HPSA) that are experiencing a shortage of maternity health care professionals. In FY 2023, the National Health Service Corps (NHSC) began using MCTAs for the placement of providers in a number of programs including the NHSC Loan Repayment Programs. As a result of these policy shifts, in FY 2023, HRSA supported over 600 maternal health providers in the field. In FY 2024, through the NHSC Students to Service Loan Repayment Program, HRSA began offering a supplemental award of up to $40,000 in loan repayment funding to maternity care health professional participants who provide health care services in MCTAs with a MCTA score of 16 or above.

Supporting Indian Health Service Communities: More than one-third (36 percent) of U.S. counties are considered maternity care deserts. Approximately 12.8 percent of Native women who gave birth in 2020 lived in these care deserts where there are no hospitals providing obstetric care, no birth centers, no OB/GYN, and no certified nurse midwives.[121] To address the closure of rural birthing units, the Indian Health Service (IHS), developed the Obstetric Readiness in the Emergency Department (ObRED) manual and simulation training. This helps ensure that sites in areas without obstetric services can safely triage, stabilize, and transfer pregnant persons and newborns.

Improving Measurement *of Access and Quality of Care:* HRSA's new Title V MCH Block Grant NPMs on Postpartum Visit has two sub-measures to capture both access to and quality of postpartum care. The Postpartum Visit NPM is also one of two Universal NPMs, which all 59 states and jurisdictions are required to address as means to enhance national impact by the Title V MCH Block Grant.

Research program highlight:

Developing Remote Technologies to Improve Access to Care: The NIH IMPROVE initiative's Rapid Acceleration of Diagnostics Technology (RADx® Tech) for Maternal Health Challenge aims to accelerate development and commercialization of home-based or point-of-care diagnostic devices, wearables, or other remote-sensing technologies to extend postpartum care to improve maternal health outcomes in maternity care deserts. Prototype devices have the potential to identify women at risk and enable timely intervention. The program is currently supporting 10 projects for devices to monitor or detect cardiovascular health, mental health, postpartum hemorrhage, anemia, and others. The program will provide awards for a final competition phase in FY 2024.

Coverage of Services

Having access to a source of health care coverage is essential for maternity care, which involves significant costs associated with prenatal care, delivery, and postpartum care. Being able to access high quality teams of providers on a timely basis during the prenatal and postpartum periods is important to ensure risk factors are prevented or addressed as they arise and can have very important implications for maternal and infant health outcomes. State Medicaid programs are the largest single source of coverage for pregnant women. Medicaid programs cover over 40 percent of all births in the U.S., including most births among AI/AN (65 percent), Black (64 percent), and Native Hawaiian or Pacific Islander people (57 percent)[122]. Federal statute requires states to cover low-income pregnant individuals with incomes under 138 percent of the federal poverty level (FPL). Nearly all states exceed these

income-eligibility limits for pregnancy, providing Medicaid benefits for those with incomes from 138 percent FPL-380 percent FPL across states, with a median income limit of 200 percent FPL nationally.[123]

State Medicaid programs have flexibility in determining which pregnancy-related services are covered. Fourteen out of 42 states provide coverage for childbirth education classes and 12 states provide group prenatal care reimbursement. Most, but not all states provide unlimited postpartum care visits, continuous glucose monitors, aspirin, and blood pressure monitors. Reimbursement for ultrasound examinations during pregnancy varies, but the most common policy is to limit them over the course of pregnancy to two or three total, unless there is a medical necessity to allow more.[124] As of February 2024, twelve states and the District of Columbia provide coverage for doula care services.[125]

In addition to care during pregnancy, Medicaid is an important source of coverage during the postpartum period. State Medicaid programs are required to provide coverage to eligible pregnant people from the time of conception to the end of the month that 60 days postpartum falls. Under the Consolidated Appropriations Act of 2023, states were given the option to extend continuous Medicaid and CHIP eligibility for pregnant individuals from 60 days to 12 months postpartum. If all states were to extend Medicaid eligibility for pregnant women to 12 months postpartum, it is estimated that approximately 720,000 women would gain additional months of coverage compared to the coverage available to them in 2021. Of these, 350,000 of those women reside in states that have not expanded their Medicaid adult eligibility programs.[126]

HHS Actions to Expand Coverage and Affordability of Services:

> *Extending Medicaid Postpartum Care Coverage of Services:* The American Rescue Plan created a new State Plan Option giving states the flexibility to provide continuous Medicaid and CHIP coverage for a full year after pregnancy, up from 60 days. When states use this option, Medicaid and CHIP enrollees have 12 months of postpartum coverage regardless of the changes in circumstances a person may experience, such as an increase in income. This extended coverage option offers states an opportunity to provide care that can reduce pregnancy-related deaths and SMM and improve continuity of care for chronic conditions. As of May 14th, 2024, 46 states, D.C., and the U.S. Virgin Islands have adopted this option.

Social Factors

Numerous studies have found linkages between social factors and maternal health outcomes. Given the numerous tie-ins between social factors and maternal outcomes, programs and policies designed to address social factors are an integral part of the solution to addressing the maternal health crisis. Examples of social factors and how they can directly and indirectly affect maternal health outcomes are described below.

Wealth and Employment

Poverty and low income are important underlying factors that contribute to both poor maternal and infant health outcomes and to other social factors listed below. Individuals with lower socioeconomic status (SES) tend to receive prenatal care less frequently and are at higher risk for obstetric complications, such as pregnancy loss, stillbirth, preterm delivery, preeclampsia, eclampsia, and gestational diabetes.[127] However, racial disparities in maternal health outcomes and obstetric complications, particularly among non-Hispanic Black women persist regardless of SES.[128,129] Income

assistance and cash supplements for mothers has been shown to lead to important improvements in maternal health. More generous income assistance is linked with healthier birth weights and lower maternal stress (measured by reduced stress hormone levels in the bloodstream).[130] For example, tax credits, which reduce poverty among recipients, are associated with better health outcomes, including improved birth outcomes, maternal mental health, and perceptions of health.[131,132] By reducing poverty and increasing income for working families, the Earned Income Tax Credit (EITC) has been linked to positive health outcomes, such as reducing the probability of having a low-birthweight infant and through overall increases in birth weight among infants and leading to greater health improvements among mothers.[133,134,135,136]

Employment is inextricably linked to economic stability, but depending on the circumstances, it can also create potential barriers to health care access due to policies such as employment policies that may make it challenging to take time off to attend necessary appointments, health care coverage options made available to the employee that include gaps in coverage, and lack of parental leave policies. For example, paid maternity leave improves maternal and infant health, including physical health and well-being, and increases of paid parental and/or maternity leave has been shown to decrease rates of infant mortality, though not all employees are eligible to participate in these programs.[137]

Housing

Notably, infancy is the period of life when a person is most likely to live in a homeless shelter, reflecting the circumstances of the newborn's mother.[138,139] Housing-related challenges can contribute to severe maternal morbidity, and maternal and infant health outcomes such as hypertensive disorders, gestational diabetes, anemia, hemorrhage, substance use, depression, low birth weight and preterm delivery.[140,141,142,143,144,145,146,147,148] A study in Massachusetts found homeless women using shelter services were more likely to experience serious pregnancy-related outcomes such as hemorrhage and obstetric trauma to the perineum and vulva, and early or threatened labor.[149] Racial and economic spatial polarization (e.g., concentration of racial and economic groups in neighborhoods), measured by the Index of Concentration at the Extremes (ICE), has been tied to severe maternal morbidity and preterm birth among Black mothers.[150,151] Air pollution can affect outcomes such as preterm birth, hypertensive disorders of pregnancy, and gestational diabetes.[152,153,154,155]

Interpersonal Relationships

The social circumstances of women can affect access to health care services as well.[156] A lack of family and community support has been shown to be a barrier for women seeking maternal health care services.[157] A study based on date from Pregnancy Risk Assessment Monitoring System (PRAMS) between 2009 and 2016 that including 166,840 women in 35 sites (34 states and New York City), found that exposure to intimate partner violence (IPV) is associated with inadequate access to prenatal care.[158]

IPV occurs during an estimated 4 to 20 percent of pregnancies, resulting in chronic conditions such as pelvic pain, depression, and anxiety.[159,160] IPV contributes to 64 percent of pregnancy-associated homicide deaths and 46 percent of pregnancy-associated suicide deaths.[161] A national study of reproductive aged women during 2018 and 2019 showed higher rates of homicide among pregnant and postpartum women compared to non-pregnant women, estimating homicide rates of 3.62 per 100,000 live births among pregnancy and postpartum women.[162]

Food and Nutrition

Malnutrition contributes to chronic health conditions, gestational diabetes and hypertension, anemia, preeclampsia, and obesity-related complications.[163,164,165] Poor diet and nutrition during pregnancy results in either excessive gestational weight gain or insufficient weight gain which is associated with poor perinatal health outcomes.[166]

Transportation

Transportation remains a primary physical barrier to accessing adequate healthcare and is both a significant and modifiable risk factor impacting maternal health outcomes.[167] Transportation gaps persist in both rural and urban areas, but disproportionately impact low socioeconomic status and non-Hispanic Black and Hispanic individuals. Furthermore, transportation is vital for access to health care in rural areas, where travel distances are greater than in urban localities and access to alternative modes such as transit is less prevalent. For mothers seeking maternal health care, the lack of adequate, safe, and reliable transportation including the distance, time, and cost required to travel for appointments and to delivery facilities, is a known barrier to accessing care, particularly among low-income women.[168,169,170]

HHS Actions to Address Social Factors:

Improving Hospital and Clinical Quality Screening for Health-Related Social Needs: In 2022, CMS' Hospital Inpatient Quality Reporting program finalized rules that will include two new measures related to social needs: Social Drivers of Health Screening Rate and Social Drivers of Health Screen Positive Rate. CMS' Merit-based Incentive Payment System (MIPS) for clinicians also includes a SDOH Screening Rate measure, and CMS included these measures in several additional quality monitoring programs. Together, these types of policies will encourage providers to screen for social needs. Complementing these screening incentives, CMS is also providing opportunities to address certain social needs through Medicaid section 1115 demonstrations and Medicaid managed care.

Identifying IPV: The OASH Violence Against Women and Substance Use Prevention Initiative is intended to train SUD treatment providers on IPV and address the intersection of IPV and SUD during the pregnancy and postpartum period. Through the development of statewide pilot projects, that includes partnerships with domestic and sexual violence organizations at the state and local level, the initiative will incentivize SUD providers treating pregnant and postpartum women to be trained on identifying and addressing IPV; train SUD treatment providers to address IPV with patients and train IPV staff on SUD; identify, utilize, and disseminate best practices; integrate IPV and SUD protocols into medical practice; integrate perinatal and postpartum programs into existing substance use programs; and implement a process and outcomes evaluation to demonstrate whether there was an improvement in IPV-SUD health outcomes in the pregnant and postpartum period.

Expanding the Tribal Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV): The Tribal MIECHV program, administered by ACF, expanded significantly in FY 2023, and now supports 41 grants, serving 68 tribal and 17 urban Native communities, providing culturally relevant, evidence-based home visiting services to pregnant women, parents, and caregivers in AI/AN communities.

Providing Newborn Supply Kits: Intergovernmental and External Affairs (IEA) launched the Newborn Supply Kit Initiative through a new public-private partnership with Baby2Baby to pilot distribution of a one-time supply kits containing essential goods and critical maternal health items to new mothers and their infants, including supplies for breastfeeding and personal care items for infants and postpartum women, as well as information about how to enroll in programs such as health care coverage, childcare services, and housing and food assistance. In 2024, the program is expanding to distribute 10,000 kits in 10 states, focusing on geographic areas with high maternal health vulnerability.

Establishing Diaper Distribution Demonstration: ACF launched the Diaper Distribution Demonstration and Research Pilot (DDDRP), the first federally funded diaper assistance initiative. The DDDRP provides funding to expand existing diaper distribution services through a network of community partners that provide wraparound supportive services critical to maternal health, economic mobility, and family support services.

Improving Measurement of Housing Instability: HRSA's Title V MCH Services Block Grant Program added NPMs that specifically address social risk factors for the first time in 2024. The Housing Instability NPM captures housing instability during the 12 months before a delivery. States and jurisdictions will be able to select this NPM for their 5-year state action plan beginning in 2025.

Research Program Highlight:

Addressing the Intersection of IPV and Maternal Health: NIH's IMPROVE initiative seeks to further expand the evidence base on structural factors that contribute to disparities in maternal health delays or disruptions in maternal care. The NIH IMPROVE program released two funding opportunities in FY 2024 to address the intersection of IPV and maternal morbidity and mortality. The "Career Enhancement Award to Advance the Study of Intimate Partner Violence in the Context of Maternal Morbidity and Mortality Research (K18 Clinical Trial Not Allowed)" funding opportunity will support experienced maternal mortality investigators with training and career development experiences in the area of IPV research, to integrate violence and IPV-related constructs, theories, and interventions into their programs of research. The "R25 for Short Courses on Techniques for Measuring Intimate Partner Violence in Different Populations (R25 Clinical Trial Not Allowed)" will support awards to educate researchers on best practices for measuring IPV in populations related to maternal mortality research.

The next section of this report describes a maternal health data measurement framework that will inform a measurement strategy HHS is developing to evaluate the nation's progress in addressing the poor maternal outcomes reviewed earlier in this report.

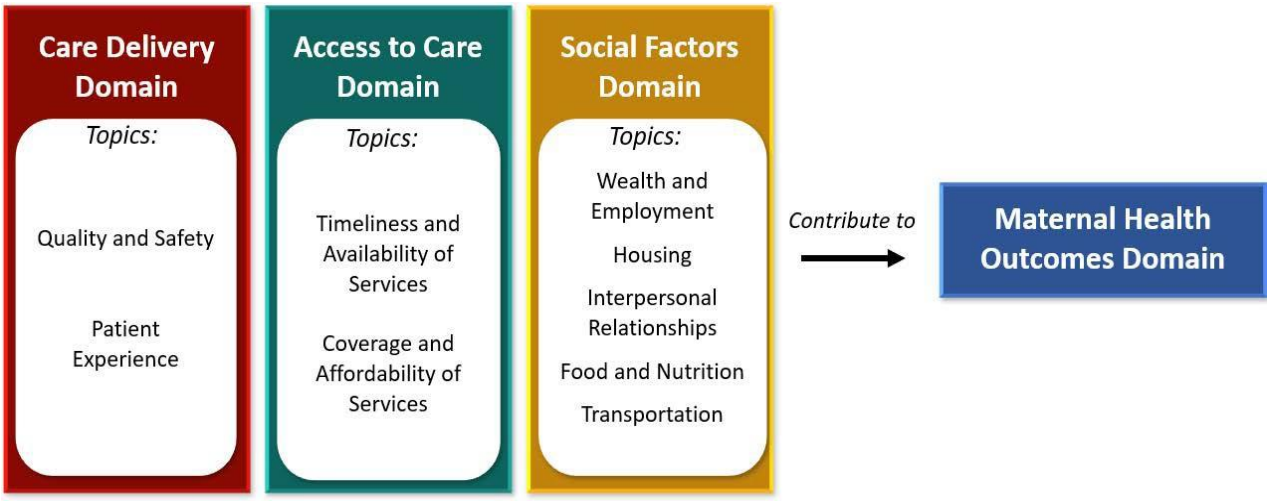
HHS Maternal Health Measurement Framework

Purpose and Structure of the Maternal Health Measurement Framework

The Maternal Health Measurement Framework represents a desired set of measures to assess progress on addressing the overall maternal health crisis, including the health outcomes and drivers affecting those outcomes as discussed in this report. This framework is characterized as a desired set of measures since it includes measures where nationally representative data may not yet exist today. Identifying specific data sources, gaps in measurement (such as a lack of data relevant to a measure), whether data are timely and nationally representative, and whether they can be disaggregated by demographics, socioeconomics, and geography, and opportunities to address such gaps will be the subject of future HHS work (related to Blueprint goal 3). Improving standardized reporting in health information technology (IT) systems is one way HHS is currently working to improve health care infrastructure. The HHS U.S. Core Data for Interoperability (USCDI) + Maternal Health was developed to establish a core set of data standards for IT systems necessary for high quality care, equitable outcomes, and maternal health research (see Appendix for more detail).

The framework includes a maternal health outcome domain (see section Trends in Maternal Health Outcomes above) and the three domains of outcome drivers discussed earlier in this report under the Key Drivers of Maternal Health Outcomes and Conditions section. In developing this framework, existing maternal health measurement frameworks and strategies were reviewed including the National Quality Foundation Maternal Morbidity and Mortality Measurement Recommendations Final Report and the Harvard Chan School Maternal Health Task Force project on Improving Maternal Health Measurement.[171,172] HHS previously developed maternal health-focused Agency Priority Goals with targets to track progress in hospital participation in quality improvement activities related to the Alliance for Innovation on Maternal Health and Perinatal Quality Collaboratives, and in the number of pregnancy and postpartum people, their support networks, and providers receiving information on urgent warning signs to improve communication between patient and healthcare providers and prevent pregnancy-related deaths.[173] To assess progress in addressing the maternal health crisis, as part of its future work, HHS plans to develop key performance measurement practices using national and programmatic measures from the Maternal Health Measurement Framework and setting near term goals for these measures similar to how progress was assessed for the Agency Priority Goals.

Figure 8. Domains and Factors in the HHS Maternal Health Measurement Framework



Maternal Health Outcomes Domain

The Maternal Health Outcomes Domain consists of selected health outcome measures categorized by the period(s) within the maternal health continuum within which they are primarily applicable (Table 1). The impact of various health outcomes changes over the course of pregnancy and through the postpartum period. For example, diabetes can be a pre-existing condition that someone experiences prior to entering a pregnancy; the framework refers to this as pre-pregnancy diabetes. However, diabetes also can present itself for the first-time during pregnancy and this is referred to as gestational diabetes. Unlike pre-pregnancy diabetes, gestational diabetes may resolve after the pregnancy ends.[174] Other conditions, such as mental health conditions are applicable throughout a pregnancy, even though they may occur at a certain point during a pregnancy for a given individual. This domain incorporates the health outcomes discussed in the *Trends in Maternal Health* section of this report as well as additional measures that describe the health of a pregnancy (including indicators related to the health of the fetus before delivery or infant after delivery). It also includes measures that describe the delivery method which can affect the other maternal health measures in the domain.

Table 1. Maternal Health Outcomes Domain Measures by Period of Pregnancy

Measures	Definition
Measures Applicable Across all Pregnancy and Postpartum Periods	
Maternal Mortality	Deaths that occur within one year of pregnancy from a cause related to the pregnancy or its management.
Serious Maternal Morbidities and Complications	Serious and unexpected outcomes that may arise throughout the pregnancy, delivery, and postpartum period that can result in significant short or long-term consequences to a women's health.
Substance Use Behaviors and Disorders	Patient substance use behaviors and disorders prior to pregnancy, while pregnant, and during the postpartum period.
Mental Health Conditions	Patient experiences of depression, anxiety, psychosis, bipolar disorders, or other related mood disorders prior to pregnancy, while pregnant, and during the postpartum period.
Fetal Death	Intrauterine[r] death of a fetus at any time during pregnancy, inclusive of stillbirth and miscarriage.
Infections	Diagnosis or onset of infection, inclusive of sexually transmitted infections and COVID-19.
Pre-Pregnancy Specific Measures	
Pre-Pregnancy Diabetes	Diabetes prior to pregnancy.
Chronic Cardiovascular Conditions	Cardiovascular condition(s) prior to pregnancy, including hypertension.
Pre-Pregnancy Obesity	Obesity prior to pregnancy.
Pregnancy Specific Measures	
Gestational Diabetes	Diagnosis or onset of pregnancy-related diabetes.
Hypertensive Disorders of Pregnancy	Diagnosis or onset of pregnancy-hypertension or relative hypertensive disorders.
Delivery Specific Measures	
Elective delivery	Induction or cesarean section prior to 39 completed weeks gestation that is not deemed medical necessary.
Low Risk Cesarean delivery	Rate of cesarean deliveries among nulliparous (first birth), term, singleton (one fetus), and cephalic (head first) deliveries.

[r] Defined as within the uterus.

Infant Health Outcome Measures *(as proxies of the overall health of the pregnancy)*	
Low Birthweight	Infant birthweight less than 2,500 grams. Proxy of the overall health of the pregnancy.
Preterm Birth	Infant birth prior to 37 complete weeks of gestation.
Serious Neonatal Morbidities and Complications	Serious and unexpected outcomes that may arise within the first 28 days of life.
Neonatal Death	Death of a live born infant, regardless of gestational age at birth, within the first 28 days of life.
NICU Admission	Infant admitted to NICU following delivery.

Care Delivery Domain

The Care Delivery Domain focuses on how providers, systems, and institutions provide maternal health care and how patients experience the receipt of such care. Many of these measures are drawn from topics discussed in the *Care Delivery* section.

Table 2. Care Delivery Domain Measures

Measures	Definition
Topic: Quality and Safety Measures	
Quality of Care	Measures commitment and adherence to standards of care for clinical and supportive maternal health services across the spectrum of maternity care.
Patient Safety	Measures commitment and adherence to safety strategies and practices that reduce adverse events, harm, and errors while receiving medical care.
Patient-Provider Communication	Measures whether providers communicate necessary information about warning signs, patient options, and other information that supports a patient-centered care model.
Hospital Readmissions	Unplanned readmissions for worsening or new symptoms.
Topic: Patient Experience Measures	
Mistreatment	Measures whether a patient experienced mistreatment during receipt of maternity care.
Birth Trauma	Distress caused directly or indirectly from experiences occurring during and surrounding childbirth
Respectful Care	Equitable delivery of culturally competent care that centers consent, privacy, confidentiality, shared decision making, dignity, and respect.
Honored Preferences	Measures whether a patient's preferences for support and care were honored and respected.

Access to Care Domain

The Access to Care provides a picture of the maternal health care infrastructure that exists to support pregnant and postpartum people. These measures reflect the timeliness, availability, and appropriateness of services, the capacity and make-up of the workforce providing services, and whether these services are affordable to patients and included in coverage by insurance providers. Many of these measures are related to the section on *Access to Care*.

Table 3. Access to Care Domain measures

Measures	Definition
Topic: Timeliness and Availability of Services Measures	
Timely Initiation of Prenatal Care	Initiation of prenatal care according to current guidelines.
Timely Postpartum Follow-up	Follow-up after delivery according to current guidelines.
Transition to Source of Usual Care	Patient returns to or establishes a source of usual care other than their maternity care provider when appropriate.
Patient Proximity to Services	Measures of travel time and distance to appointments and delivery location, and emergency services.
Adequate Workforce and Staffing	Measures of workforce capacity and distribution, inclusive of patient preference for the type of providers and for doulas.
Topic: Coverage and Affordability of Services Measures	
Health Insurance Coverage	Whether the patient has coverage and proportion of births each insurance provider is responsible for.
Patient Out of Pocket Costs	Patient cost responsibility for maternity care services.
State Medicaid Expansion	Tracking states that have opted to expand Medicaid eligibility under the Affordable Care Act.
State Medicaid Postpartum Extension	Tracking states that have opted to extend Medicaid coverage to one year postpartum for women who qualify for state Medicaid for Pregnant Women programs.
Medicaid Coverage of Specific Maternity Services	Tracking state-specific maternity care services covered by Medicaid and eligibility requirements.

Social Factors Domain

The social factors domain describes elements of a person's social circumstances that can impact their health; all of which are affected by historical and current public policies. These measures are related to the section on *Social Factors*.

Table 4. Social Factors Domain Measures

Measures	Definition
Topic: Wealth and Employment	
Employment Status	Measures of gainful employment, duty hours, and stable income.
Poverty Housing Security	Describes whether a family is able to affordably provide for their basic needs.
Topic: Interpersonal Relationships	
Interpersonal Violence	Measures of physical, verbal, or emotional violence.
Family and Community Support	Measures of community integration, community participation, and familial support.
Topic: Food and Nutrition	
Food Security	Measures of affordability and availability of nutrition and food resources.
Topic: Transportation	
Reliable Transportation to Medical Appointments	Measures of public transportation and personal transportation access.
Transportation Affordability	Proportion of household income spent on transposition.
Topic: Housing	
Homelessness and Eviction	Measures of the threat or experience of homelessness and eviction.
Housing Security	Measures of housing conditions, affordability, and stability.

Summary

Many factors contribute to the U.S. maternal health crisis. This report focuses on three key drivers of poor maternal health outcomes that HHS is addressing: care delivery, access to care, and social factors. HHS has recently launched new initiatives towards the goal of changing the trajectory of the maternal health crisis. Despite these efforts, maternal mortality and SMM remain stubbornly high and subject to unacceptable disparities. To assess the overall success of these and other initiatives implemented in the future, it will be important to track the nation's progress in addressing maternal health outcomes and their key drivers. This report introduces a Maternal Health Measurement Framework consisting of a desired set of measures to assess progress in addressing the overall maternal health crisis that will inform a measurement strategy HHS is currently developing.

Appendices

Appendix A: HHS Agency Maternal Health Accomplishments through Spring 2024

The following provides a list of accomplishments for HHS maternal health activities listed in the White House Blueprint for Addressing the Maternal Health Crisis as well as prominent maternal health initiatives launched subsequent to release of the Blueprint. For ease of reference, the relevant Blueprint goals are listed for those activities included in the Blueprint. Initiatives launched since release of the Blueprint are labeled as "Other Maternal Health Activities."

Administration for Children & Families (ACF)

Related to Blueprint Goal 5.1

Head Start – Training and Technical Assistance on Maternal Health

The Office of Head Start (OHS) provided training and technical assistance to Head Start grant recipients on their efforts aimed at supporting maternal health, including connecting pregnant women in the Head Start community to health care and resources before and after birth. OHS shares resources and spreads awareness of the current state of maternal health. Examples include: 1) How Head Start Services Can Improve Outcomes for Birthing Parents; 2) Conversation Guide for Birthing Parents and Head Start Staff; 3) Preventing Fetal Alcohol Spectrum Disorders; and 4) Social Determinants of Substance Use During Pregnancy in Tribal Communities.

Other Maternal Health Activities

Tribal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program

The Tribal MIECHV program provides grants to tribal entities to develop, implement, and evaluate home visiting programs in AI/AN communities. The Tribal MIECHV program expanded significantly in FY 2023 and now supports 41 grants, serving 68 tribal and 17 urban Native communities, providing culturally relevant, evidence-based home visiting services to pregnant women, parents, and caregivers in AI/AN communities. Tribal MIECHV's home visiting strategy addresses maternal and child health, development, early learning, family support, and child abuse and neglect prevention needs. One of the six performance measurement benchmarks all grant recipients must report annually is Maternal and Newborn Health.

Diaper Distribution Demonstration

In 2022, the Office of Community Services (OCS) launched the Diaper Distribution Demonstration and Research Pilot (DDDRP), the first federally funded diaper assistance initiative. The DDDRP provides funding to expand existing diaper distribution services through a network of community partners that provide wraparound supportive services that are critical to maternal health including housing services and other family support services. In addition to providing diapers, grant recipients and their partners - including Community Action Agencies, social services agencies, nonprofit organizations, and diaper banks - connect families to economic mobility and family support services. ACF's Office of Planning, Research, and Evaluation is conducting an evaluation of the pilot, including assessing caregiver mental health and well-being.

National Center on Substance Abuse and Child Welfare

ACF's Children's Bureau operates the NCSACW, jointly funded with SAMHSA's CSAP. NCSACW provides training and technical assistance to help agencies and professionals improve family recovery, safety, and stability by advancing practices and collaboration among agencies, organizations, and courts working

with families affected by substance use and co-occurring mental health disorders and child abuse or neglect. In 2023 NCSACW developed the "Supporting Pregnant and Parenting People with SUDs Series" to discuss how to work with child welfare to provide coordinated, family-centered care that improves treatment and recovery outcomes for families. It is a companion to SAMHSA's publication, "Clinical Guidance for Treating Pregnant and Parenting Women with OUD and Their Infants," aimed at cross-systems collaboration to promote family-centered care to improve outcomes (treatment, recovery, child safety and well-being). These materials promote the safety and well-being of infants affected by substance use and/or prenatal substance exposure as well as a focus on treatment needs of the infant and affected family or caregiver.

Regional Partnership Grants

CB also funds the "Targeted Grants to Increase the Well-Being of, and to Improve the Permanency Outcomes for, Children and Families Affected by Opioids and Other Substance Abuse," commonly referred to as the Regional Partnership Grant (RPG) Program. RPG is focused on improving the well-being of children affected by parental SUDs by supporting partnerships across child welfare agencies, SUD treatment providers, and other systems. The projects support interagency collaborations and integration of programs, and often include a range of activities and interventions relevant to maternal and child health, including family-centered and prevention-focused services, parenting and family strengthening programs, pregnant and postpartum women programs, medication-assisted treatment, in-home parenting and child safety support for families, and related evidence-based practices. Since RPG's inception, CB has awarded seven rounds of RPG funding to 127 projects across 40 states, including tribal communities.

Family First Prevention Services Act Title IV-E Prevention Services Program

The Family First Prevention Services Act (FFPSA) authorized new optional title IV-E funding for time-limited (one year) prevention services for mental health, substance abuse, and in-home parent skill-based programs for: 1) a child who is a candidate for foster care; 2) pregnant/parenting foster youth; and 3) the parents/kin caregivers of those children and youth. Many jurisdictions are capitalizing on this opportunity to initiate or expand home visiting programs. These programs are provided to new parents, including pregnant and parenting youth in foster care, to support their families by increasing child safety, child well-being, and family functioning. Home visiting programs build upon decades of scientific research showing that home visits during pregnancy and early childhood improve the lives of children and families, including those involved with child welfare. As of March 2024, CB has approved 47 prevention plans from 42 states, four tribes, and the D.C.

Maternity Group Homes for Pregnant and Parenting Youth and Young Adults Experiencing Homelessness or Housing Instability

The Family and Youth Services Bureau's (FYSB) Division of Runaway and Homeless Youth funds the Maternity Group Home (MGH) program for pregnant and parenting youth and young adults who are experiencing homelessness or housing instability. The MGH program supports community-based, adult-supervised, transitional living arrangements for pregnant or parenting young people between the ages of 16 and 21, as well as their dependent children. MGH programs are required to provide young people resources to learn and practice effective parenting skills focusing on well-being and healthy child development, health and nutrition, family budgeting, and other skills.

Agency for Healthcare Research and Quality (AHRQ)

Related to Blueprint Goal 3.3

Systematic Reviews

Postpartum Care up to 1 Year After Pregnancy: A Systematic Review and Meta-analysis focuses on alternative strategies for postpartum healthcare delivery and the extension of postpartum health insurance coverage. It serves as a valuable resource for informing clinical practice guidelines and policies related to postpartum care. The systematic review addresses two key questions related to the comparative benefits and harms of: (1) alternative strategies for postpartum healthcare delivery and (2) extension of postpartum health insurance coverage or improvements in access to care. By exploring the comparative benefits and harms of different approaches, this review provides essential guidance for healthcare professionals in optimizing care and support for postpartum individuals.

Management of Postpartum Hypertensive Disorders of Pregnancy: A Systematic Review that specifically addresses the management of hypertensive disorders during the postpartum period. It offers evidence-based insights to healthcare providers involved in the care of individuals experiencing these conditions. The systematic review addresses three key questions: (1) What are the effectiveness, comparative effectiveness, and harms of home blood pressure monitoring/telemonitoring in postpartum individuals?; (2) What are the effectiveness, comparative effectiveness, and harms of pharmacological treatments for hypertensive disorders of pregnancy in postpartum individuals?; (3) What are the comparative effectiveness and harms of alternative MgSO4 treatment regimens to treat preeclampsia with severe features during the peripartum period? By synthesizing the available research, this review helps inform healthcare practices and interventions to effectively manage postpartum hypertensive disorders, ultimately improving maternal health outcomes.

Respectful Maternity Care: A Systematic Review summarizes current research defining and measuring respectful maternity care (RMC) and evaluates the effectiveness of RMC and implementation strategies to improve health outcomes, particularly for populations at risk for health disparities. The systematic review explores four key questions that address respectful maternity care (RMC) components, validated tools and measures, and effectiveness, as well as how effectiveness and harms may differ by patient characteristics and nonpatient factors. Specifically, the key questions were: (1): Which components of respectful maternity care have been examined using validated measures? Are there validated tools to measure RMC?; (2): What is the effectiveness of RMC on maternal health and utilization outcomes?; (3): What is the effectiveness of RMC on infant health outcomes?; (4): What is the effectiveness of strategies to implement RMC? The results demonstrated RMC frameworks with overlapping components, themes, and definitions that were well described in the literature, but identified that consensus around one operational definition is needed.

Nonpharmacologic Treatment for Maternal Mental Health Conditions: A Systematic Review is an in-progress systematic review that focuses on exploring nonpharmacologic interventions for maternal mental health conditions with results pending completion of the review. It aims to provide evidence-based insights into effective non-drug treatment options for mental health conditions commonly experienced by mothers. By evaluating the available research in this area, this review will inform healthcare providers and policymakers about nonpharmacologic approaches that can be integrated into clinical practice to improve maternal mental health outcomes. It is anticipated that the findings of this review will contribute significantly to enhance understanding of non-drug treatment options for maternal mental health conditions and inform the development of appropriate interventions and support systems for affected mothers.

Other Maternal Health Activities

Online Maternal Health Data and Tools

Healthcare Cost & Utilization Project (HCUP)

Developed in 1988, the Healthcare Cost and Utilization Project (HCUP) is a family of healthcare databases and related software tools and products developed through a Federal-State-Industry partnership and sponsored by AHRQ. HCUP databases bring together the data collection efforts of State data organizations, hospital associations, private data organizations, and the Federal government to create a national information resource of encounter-level healthcare data. These databases enable research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to healthcare programs, and outcomes of treatments at the national, State, and local market levels. Recent maternal health specific reports include: Stat Brief: Mental Health Disorders Among Delivery Inpatient Stays by Patient Race and Ethnicity, 2020; Stat Brief: Expected Payers and Patient Characteristics of Maternal Emergency Department Care, 2019; and Stat Brief: Obstetric Delivery Inpatient Stays Involving Substance Use Disorders and Related Clinical Outcomes, 2016.

Patient Safety Network

Launched in 2005, AHRQ's Patient Safety Network (PSNet) features a collection of the latest news and resources on patient safety, innovations and toolkits, opportunities for free CME and trainings. The platform provides powerful searching and browsing capability, as well as the ability for users to customize the site around their interests. The AHRQ PSNet website will be updated on a weekly basis with the latest patient safety news and literature and will continue to include maternal health related content. Recent maternal health specific publications include: Maternal Safety and Perinatal Mental Health Perspective on Safety, and Web M&M (Morbidity and Mortality Rounds on the Web) Hurried Team Huddle and Poor Communication: Unsafe Practice During Anesthesia for Emergency Cesarean Delivery (with free CME).

Maternal Health Research Program

Safety Program in Perinatal Care

AHRQ is expanding the Safety Program in Perinatal Care (SPPC) program to focus on equity and respectful maternity care. The new program will be called SPPC-Respectful Maternity Care (SPPC-RMC). AHRQ contracted with the Pacific Northwest Evidence-Based Practice Center (EPC) at Oregon Health & Science University to complete the systematic review entitled, *Respectful Maternity Care: Dissemination and Implementation of Perinatal Safety Culture Training to Improve Equitable Maternal Healthcare Delivery and Outcomes*. The final review was completed and posted in January 2024. The systematic review will be used to inform the design and metrics for the SPPC-RMC Toolkit implementation and evaluation that will support integration of best practices into the existing SPPC teamwork and communication tools to train providers on how to deliver care that both allows birthing individuals to feel empowered to assert their rights and advocate for themselves and highlights the importance of providers listening and trusting their patients. Additionally, AHRQ has established a partnership with the CDC to engage PQCs in the design, implementation, and evaluation of the SPPC-RMC and AHRQ will also leverage the National Network of Perinatal Quality Collaboratives (NNPQC) in providing technical assistance and support to states in their efforts.

Centers for Disease Control and Prevention (CDC)

Related to Blueprint Goal 3.1

Expanded support for Maternal Mortality Review Committees (MMRCs)

MMRCs get the most detailed, complete data on maternal mortality and develop actionable recommendations for prevention. In FY 2024, CDC announced a Notice of Funding Opportunity that would provide support for every state to have an MMRC and increased funding for existing recipients to support informant interviews and data enhancements.

In addition to increasing support for states, CDC has continued to strengthen the quality and increase the speed of data collection. CDC's Maternal Mortality Review Information Application (MMRIA) is a data system that provides a common data language and supports a standard review process for all MMRCs, promoting a national approach. MMRIA and CDC-developed guidance, training, job aids, and collaborative learning opportunities are available to all MMRCs in the U.S. Of the 49 existing MMRCs, all currently use MMRIA to guide their data collection and committee deliberation. In September 2022, CDC released the first data from MMRCs since the Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) program began, including data from MMRCs in 36 states. ERASE MM provides funding to directly support agencies and organizations that coordinate and manage MMRCs to identify, review, and characterize pregnancy-related deaths; and identify prevention opportunities. Those data indicated that:

- About 84 percent of pregnancy-related deaths are preventable.
- Over 50 percent of pregnancy-related deaths occur from 7 days after delivery to one year postpartum.
- There are differences in the leading underlying causes of pregnancy-related deaths by race-ethnicity. Cardiac and coronary conditions were the leading underlying cause of pregnancy-related deaths among non-Hispanic Black people; mental health conditions, which includes suicides and overdoses, were the leading underlying cause among Hispanic and non-Hispanic White people; and hemorrhage was the leading underlying cause among non-Hispanic Asian people.

CDC also released data on pregnancy-related deaths among AI/AN persons. Those data indicate that:

- Mental health conditions and hemorrhage were the most common underlying causes of pregnancy-related death among all AI/AN persons.
- Over 60 percent of pregnancy-related deaths among AI/AN persons occurred from 7 days postpartum to one year postpartum.
- And over 90 percent of pregnancy-related deaths among AI/AN persons were preventable.

Related to Blueprint Goal 2.14

Strengthened QI in States

PQCs provide the infrastructure that supports QI efforts addressing obstetric and newborn care and outcomes in a state or region. With the FY 2022 Appropriation, CDC more than doubled support for PQCs, expanding to 27 states and increased support for the National Network of PQCs that works with all PQCs in the U.S. In FY 2023, CDC further expanded support to nine additional states, for a total of 36. This ensures additional states are able to participate in QI to increase equity in care and outcomes. For example, the Louisiana PQC achieved a 35 percent reduction in severe maternal morbidity from hemorrhage among all women, and a 49 percent reduction among Black women, between 2018 and 2020. Hemorrhage had accounted for 17 percent of the pregnancy-related maternal deaths from 2011-2016.

Related to Blueprint Goal 2.3

Increasing Awareness of the Urgent Maternal Warning Signs

CDC's Hear Her™ Campaign shares potentially life-saving messages about the urgent maternal warning signs. In November 2022, with support from HHS OMH and through a partnership with the CDC Foundation and support from Merck for Mothers, CDC released a suite of resources for AI/AN communities as part of the Hear Her™ campaign. Centering on the culture and strength of AI/AN people, this segment of the Hear Her™ campaign shares stories from five AI women who experienced pregnancy-related complications. In addition, CDC has released culturally appropriate resources that raise awareness of the urgent maternal warning signs. These include conversation guides, palm cards, and posters that help AI/AN people who are pregnant and postpartum, and their support people recognize the urgent maternal warning signs and get the care they need. CDC has also released materials to support healthcare professionals who serve AI/AN communities in their delivery of respectful, culturally appropriate care. These efforts have resulted in over 16.5 million impressions of the new resources for AI/AN communities from digital and social media and over 100 thousand views of the new webpages with Hear Her™ resources for AI/AN communities; and significant organic interest from partners and the community.

Related to Blueprint Goal 3.1

Increasing accessibility to Pregnancy Risk Assessment and Monitoring System (PRAMS) data

Developed in 1987, PRAMS collects jurisdiction-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. The births in the 50 jurisdictions that participate in PRAMS surveillance are 81 percent of all live births in the U.S. PRAMS provides data not available from other sources. PRAMS provides data on maternal attitudes, experiences, and behaviors around the time of pregnancy. These data are now available as an automated research file that can be downloaded. This new process will greatly reduce the time to access PRAMS data and increase the use of PRAMS data to better understand the needs and challenges of people during pregnancy and postpartum, including data on care experiences and social challenges.

Centers for Medicare & Medicaid Services (CMS)

Related to Blueprint Goal 1.1

Guaranteed Access to Medicaid for a Year After Pregnancy

Thanks to the American Rescue Plan Act of 2021 (ARP), states can provide continuous Medicaid and CHIP coverage for a full year after pregnancy, up from 60 days prior to the ARP. When states use this option, Medicaid and CHIP enrollees have 12 months of postpartum coverage regardless of the changes in circumstances the person may experience, such as an increase in income. This extended coverage option offers states an opportunity to provide care that can reduce pregnancy-related deaths and severe maternal morbidity and improve continuity of care for chronic conditions. CMS has already approved more than half of all states' proposals to extend lifesaving Medicaid and CHIP coverage. This announcement marks critical progress in the implementation of the Biden-Harris Administration's Maternal Health Blueprint, a comprehensive strategy aimed at improving maternal health, particularly in underserved communities.

Related to Blueprint Goal 2.1

Birthing-Friendly Hospital Designation

CMS has established a "Birthing-Friendly" hospital designation to identify hospitals that participate in a statewide or national perinatal quality improvement collaborative program and have implemented the

recommended quality intervention. In October 2022, CMS posted the first data on the Care Compare website. Future reporting will occur on an annual basis and include data spanning the preceding calendar year. On November 8, 2023, CMS started displaying the 'Birthing-Friendly' designation icon on CMS's Care Compare online tool. The public can use the Care Compare tool — along with a complementary interactive map — to find a hospital or health system with the 'Birthing-Friendly' designation in their area. With its foundation in the Maternal Morbidity Structural Measure, the "Birthing-Friendly" designation creates a consumer-friendly display indicating hospital commitment to improving maternal health outcomes through participation in maternity care quality activities.

Related to Blueprint Goal 4.4

State Medicaid Maternal and infant Health Initiative Learning Collaboratives

The CMS Medicaid and CHIP (MIHI) completed three learning collaboratives focusing on improving maternal and infant health outcomes. The topics of these learning collaboratives were: Improving the utilization and quality of postpartum care, improving the utilization and quality of infant well-child visits, and improving maternal health outcomes through lowering the rate of low-risk cesarean deliveries. Strategies related to doulas, midwifery care, and birth centers were discussed as part of the webinar series and affinity groups within these topical areas. The Improving Postpartum Care Affinity Group and the Infant Well-Child Care Affinity Group and associated quality improvement technical assistance resources have been posted on Medicaid.gov including the Postpartum Care Toolkit for state Medicaid and CHIP agencies.

See: https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/maternal-infant-health-care-quality/postpartum-care/index.html

Health Resources & Services Administration (HRSA)

Related to Blueprint Goal 1.12

Maintaining the National Maternal Mental Health Hotline (1-833-TLC-MAMA)

HRSA has been operating the National Maternal Mental Health Hotline since Mother's Day of 2022. The 24/7 hotline (1-833-TLC-MAMA) provides support before, during, and after pregnancy and is staffed by licensed mental health clinicians, health care professionals, certified peer specialists, and childbirth professionals who are trained and specialize in perinatal mental health practices to support the hotline's service level demands and needs. Hotline counselors have responded to over 30,000 calls and texts since inception (through February 2024). About 70 percent of contacts are by phone and 30 percent are by text. Counselors provide confidential, free, immediate emotional support in English and Spanish; evidence-based information; and resources and referrals for treatment for pregnant and postpartum persons and their loved ones. Interpreter services are available in 60 additional languages and TTY users can use a preferred relay service.

Related to Blueprint Goal 1.14

Increasing Capacity to Screen and Treat Maternal Mental Health and SUDs

HRSA supports real-time psychiatric consultation, care coordination support, and training to frontline health care providers including providers in rural and underserved areas through two programs: the Screening and Treatment for Maternal Depression and Related Behavioral Disorders (MDRBD) program (funded from FY 2018 – FY 2023) and the Screening and Treatment of Maternal Mental Health and Substance Use Disorders (MMHSUD) program (funded from FY 2023 – FY 2028). The $10 million appropriated for FY 2023 allowed HRSA to expand services to twelve states including California,

Colorado, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, Tennessee, Texas, and West Virginia.

Related to Blueprint Goal 2.14

Expanding HRSA Maternal Health Innovations and QI Programs

The AIM program focuses on reducing maternal deaths and severe maternal morbidity by engaging provider organizations, state-based health and public health systems, consumer groups, and key stakeholders to implement evidence-informed safety and QI strategies. In FY 2024, HRSA will continue to expand the reach of the program to a broader array of providers and healthcare settings, support increased penetration in currently enrolled states, and improve systems that track, report, and improve maternity care services. In FY 2023, HRSA awarded $5.6 million for the new AIM Capacity program, directly supporting 28 AIM state teams to implement AIM maternal patient safety bundles and expand the reach, depth, and quality of AIM. At the same time, HRSA awarded $3 million to fund an AIM Technical Assistance (TA) Center, charged with supporting all 50 states, D.C., jurisdictions, U.S. territories, tribal communities, and birthing facilities participating in the AIM program. Technical assistance provided by the AIM TA Center is intended to increase birthing facility engagement, support bundle implementation and sustainability, manage reporting and analysis of state AIM data, and promote safe care for pregnant and postpartum people. As of August 2023, 49 states and D.C. are enrolled in AIM, with participation from 1,996 birthing facilities.

Related to Blueprint Goal 2.11

HRSA's State Maternal Health Innovation (State MHI) program supports state innovation to improve maternal health outcomes by establishing state-focused Maternal Health Task Forces and improving state-level data surveillance on maternal mortality and SMM. With the $55 million appropriated in FY 2023, HRSA supports 35 states. HRSA released a funding opportunity on December 15, 2023 to expand the State MHI program, and up to 18 awards are estimated to be made by the end of FY 2024. Applicants may include states in the original cohort (FY 2019) or states not currently funded.

To improve the clinical services and social supports that affect a woman's health before, during, and after pregnancy, HRSA awarded five grants totaling approximately $9 million in FY 2023 to create and test models of integrated health care through the new Integrated Maternal Health Services (IMHS) program. These models will serve as medical homes for pregnant and postpartum women by connecting them to clinical care, behavioral health care, and social services, as well as increase the maternal health workforce by training clinical and non-clinical providers to provide perinatal and postpartum care.

Other Maternal Health Activities

Eliminating Disparities in Perinatal Health through the Healthy Start Program

HRSA's Healthy Start program aims to improve health outcomes before, during, and after pregnancy and reduce the well-documented racial and ethnic differences in rates of infant deaths and adverse maternal health outcomes. Healthy Start serves communities with infant mortality rates that are at least 1.5 times the U.S. national average and/or with high indicators of poor perinatal outcomes in specific subpopulations within the community (e.g., among non-Hispanic Black and other disproportionately affected populations). With the $145 million appropriated in FY 2023, HRSA continued to support over 100 Healthy Start programs, piloted an expanded Healthy Start model to 10 new communities, and continued to provide $15 million in funds for maternal health nurses, physician assistants, and other advanced-practice maternal health providers to address maternal health care deserts. HRSA released a new Healthy Start funding opportunity in September 2023, with over 100 awards estimated to be made in FY 2024.

Funding for Health Centers to Address the Maternal Health Crisis

In May 2023, HRSA awarded more than $67 million to address the maternal mortality crisis through the QI Fund – Maternal Health award. Funds support 35 health centers in medically underserved and rural communities to improve maternal health as part of the White House Blueprint for Addressing the Maternal Health Crisis. These health centers will partner with patients and community members to develop and pilot innovative models of care delivery that may be adapted and scaled across HRSA's Health Center Program. HRSA will begin disseminating key data and outcomes related to these activities in late spring 2024. Today, the approximately 1,400 HRSA-funded health centers operate nearly 15,000 service delivery sites in communities across the country.

State and Jurisdiction Maternal, Infant, and Early Childhood Home Visiting Program

In FY 2023, HRSA awarded $434,721,579 in funding to 56 states, jurisdictions, and nonprofit organizations through its Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program. The MIECHV Program's five-year reauthorization provides HRSA with increased funding levels that have the potential to double program funding as compared to FY 2022 ($500 million in base grants annually from FY2023-FY2027, with phased in matching grants increasing from $50 million in FY 2024 to $300 million in FY 2027). Reauthorization doubles the funding set-aside for Tribal communities (see page 54 for additional information about the Tribal MIECHV Program), establishes the Jackie Walorski Center for Evidence-Based Case Management housed within the Institute for Home Visiting Workforce Development and focuses resources on targeted, intensive home visiting services. Increased funding amounts for all states and jurisdictions as compared to FY 2022 will expand access of high-quality, equitable, and evidence-based home visiting services to expectant and new parents with children up to kindergarten entry age who live in communities that are at-risk for poor maternal and child health outcomes. A new annual report to Congress and an outcomes dashboard will highlight the numbers of families served and the impact of the program on key benchmark areas.

Immediate Office of the Secretary (IOS)

Other Maternal Health Activities

Launch of the Secretary's Postpartum Maternal Health Collaborative

In February 2024, HHS Secretary Becerra launched a postpartum maternal health collaborative which seeks to bring together state experts, local providers, community partners, and federal experts to develop a better understanding of the challenges being experienced among the postpartum population and support new solutions that will improve postpartum mortality. The vision of the Collaborative is to change the trajectory of maternal morbidity and mortality to improve the lives of families in the first year after giving birth to a child in participating states. The six states that have agreed to participate in the Postpartum Maternal Health Collaborative are Iowa, Massachusetts, Maryland, Michigan, Minnesota, and New Mexico. Lessons learned and best practices resulting from the collaborative will be publicly disseminated in early 2025.

Indian Health Service (IHS)

Related to Blueprint Goal 1.3

Obstetric Readiness in the Emergency Department (ObRED) Training Program

The American Hospital Association (AHA) reports that between 2015 and 2019 there were at least 89 obstetric unit closures at U.S. rural hospitals. The March of Dimes reports that 12.8 percent of American Indian/Alaska Native (AI/AN) women who gave birth in 2020 lived in maternity care deserts. Many IHS sites are in maternity care deserts or provide critical access to care for pregnant patients.

In response to the closure of rural labor & delivery units and a national decline in birth volume, IHS developed the Obstetric Readiness in the Emergency Department (ObRED) program and training. This provides sites in maternity care deserts - where obstetric services are not readily available with readiness checklists, quick reference protocols, and training curriculum for safe triage, stabilization, and transfer of pregnant patients and newborns. Five IHS sites in Great Plains, Navajo, and Phoenix Areas have participated in ObRED with 225+ staff trained. Participants reported increased confidence with obstetrical care and improved safety practices and outcomes. As this model is adapted, IHS will continue to track impact through readiness surveys and maternal and newborn outcomes. Future goals include purchasing and providing equipment such as training mannequins, newborn radiant warmers, and telehealth support with tertiary care centers. IHS has also engaged with HRSA to promote, scale, and fund ObRED training for facilities outside of IHS.

Related to Blueprint Goal 1.6

Maternity Care Coordinator (MCC) Pilot Program

A CDC report based on 2020 data from 38 Maternal Mortality Review Committees (MMRC) found that 92 percent of AI/AN pregnancy-related deaths are preventable with 50 percent of pregnancy-related deaths occurring 1 week to 1 year postpartum. Additionally, pregnant persons receiving care in IHS may have high risk conditions requiring referrals to specialists, mental health or substance use disorders, or travel between IHS/Tribal/Urban and civilian sites for care. In May 2024, the Indian Health Service (IHS) Maternal Child Health (MCH) Program funded ten federal sites to improve maternal safety and access to care during pregnancy and postpartum. Funds will be used to increase maternity care coordination including screening, education, and intervention through telehealth and home visits, support obstetric emergency readiness training, and purchase equipment including Self-Monitoring Blood Pressure (SMBP) cuffs. The program will award sites across six areas with $1 million over the next five years and the potential to reach 12,000+ pregnant and postpartum patients and their families. As this model is adapted, IHS will continue to track outcomes for the pregnant person and newborn.

Intergovernmental and External Affairs (IEA)

Other Maternal Health Activities

Launch of the Newborn Supply Kit Initiative

In May 2023, with Vice President Kamala Harris, HHS and the non-profit organization Baby2Baby announced a new public-private partnership to pilot distribution of a one-time only Newborn Supply Kit made up of essential goods and critical maternal health items to new mothers and their infants. The Kit is modeled on successful programs in other countries and seeks to: reduce the time, stress, and burden on new parents to obtain immediately needed supplies and increase knowledge about government services and community resources for new families. HHS and Baby2Baby distributed 3,000 of the Newborn Supply Kits across Arkansas, Louisiana, and New Mexico – three states experiencing deep levels of family poverty – via hospitals and community-based partner organizations. As

part of the initiative, HHS also launched a new website, http://www.hhs.gov/newbaby, that includes information across all Federal agencies for families on health, feeding, sleeping, child development and programmatic information. Preliminary evaluation results demonstrated that receipt of a Kit resulted in improved maternal mental health outcomes, increased awareness of Federal government benefits and programs and increased trust in government (evaluation results here). In 2024, the pilot program will be expanding with an additional 10,000 kits that will be distributed across ten states, including the three pilot states and seven new states.

Maternal Outcomes Matter (M.O.M.S.) Tour

The M.O.M.S. Tour targets cities with high maternal mortality and morbidity rates, especially among Black and AI/AN population. The Tour, coordinated by The Center for Faith-based and Neighborhood Partnerships, brings together mental health professionals, birth workers, medical professionals, and community members to provide resources, support, and education for pregnant and postpartum women. In addition to baby resources, pregnant women and families are connected to essential health-related services such as healthcare coverage, mental health services, vaccinations, doulas and midwives, health screenings, IPV and substance use disorder support and more.

National Institutes of Health (NIH)

Related to Blueprint Goal 3.2

The IMPROVE Initiative began in 2019 as an effort to address the rising rates of maternal morbidity and mortality in this country. The IMPROVE initiative supports research to reduce preventable causes of maternal deaths and improve health for women before, during, and after pregnancy. It includes a special emphasis on health disparities and populations that are disproportionately affected. More than 20 Institutes and Centers (ICs) and 11 Offices at NIH participate in the IMPROVE initiative. In FY 2023, NIH launched several new programs under IMPROVE, outlined below. Additionally, in FY 2024, IMPROVE released 3 funding announcements that are planned for award in late FY 2024 (pending availability of funds). Two focused on IPV (RFA-OD-24-001, RFA-OD-24-002) and 1 addressed healthcare system and clinician factors that impact health disparities in maternal morbidity and mortality (PAR-24-059). Also in FY 2024, IMPROVE provided funding for one supplement to an ongoing clinical trial to produce educational materials and research recruitment strategies for pregnant people with OUD and a dissemination and implementation science project to study the effectiveness of a cesarean risk calculator with an accompanying implementation study in 14 labor units.

Related to Blueprint Goal 3.3

The NIH Pathways to Prevention (P2P) Program

From 2022 to 2023, NIH P2P conducted activities for "Identifying Risks and Interventions to Optimize Postpartum Health." The program aimed to identify and address risks of maternal mortality and morbidity in the postpartum period. Activities included a comprehensive NIH research portfolio analysis, a systemic evidence review supported by AHRQ, and workshops with federal partners and external stakeholders. Speakers in the workshops assessed the scientific evidence on predicting and preventing poor postpartum health outcomes. An independent panel drafted two reports outlining evidence gaps and priorities for future research and that can provide a gauge to measure future progress.

Other Maternal Health Activities

Maternal Health Research Centers of Excellence

In September 2023, NIH launched the Maternal Health Research Centers of Excellence, a national network across 12 states of 10 research centers (RFA-HD-23-035), a data innovation and coordination

center (RFA-HD-23-036), and an implementation science hub, to develop, implement, and evaluate community-tailored interventions to address health disparities in maternal health and risk factors and mechanisms of the leading causes of maternal morbidity and mortality. NIH released a Notice of Funding Opportunity in September 2022 for one Data Innovation and Coordinating Resource Center, one Implementation Science Resource Center, and up to seven Research Centers. The funded research centers will generate innovative approaches to address preventable maternal mortality, decrease severe maternal morbidity, and promote maternal health equity. The ten COEs are geographically diverse and include projects that will work with Tribal populations, rural populations, and Historically Black Colleges and Universities, among others. COEs will also support training and professional development of maternal health researchers, including those from backgrounds underrepresented in the biomedical research workforce, and work with a data innovation and coordination hub and an implementation science hub. The COEs received $24.4M in first-year funding and are expected to last seven years for an estimated total of $168M, pending the availability of funds. A public-facing website launched in January of 2024.

The Rapid Acceleration of Diagnostics Technology (RADx® Tech) for Maternal Health Challenge

The RADx Tech for Maternal Health Challenge is an $8 million prize competition to accelerate development of technologies to improve maternal health outcomes for those who live in areas lacking access to maternity care. The challenge supports the development of promising home-based or point-of-care diagnostic devices, wearables, and other remote sensing technologies to improve postpartum healthcare in these maternity care deserts, which include both urban and rural areas across the U.S. The challenge was designed in three phases and NIH received more than 80 submissions to the first round. Now in the final "technology assessment phase", the 10 remaining teams are continuing to develop their diagnostic technologies and leveraging NIH support to overcome technological, clinical, usability, regulatory, and commercialization hurdles. The winning projects include wearables to monitor cardiovascular health, monitoring systems for postpartum depression, point-of-care diagnostics for postpartum hemorrhage, and a smartphone app to detect postpartum anemia. NIH will award up to six challenge finalists in late 2024.

The Connecting the Community for Maternal Health Challenge

Similar in structure to the RADx® Tech for Maternal Health Challenge, The Connecting the Community for Maternal Health Challenge, uses the innovative challenge mechanism to encourage community-based and advocacy organizations in the U.S. to develop the infrastructure and capabilities necessary to conduct maternal health research. Uniquely, this challenge sought applications from organizations that do not typically seek NIH funding and aspires to enhance organizations' skills and abilities in the conduct and support of traditional health research to increase their capacity to contribute to future NIH-funded maternal health research activities in areas that specifically impact their communities. In the first phase of the challenge, the Gathering Phase, NIH provided online training and guidance to all interested and eligible organizations to help them create a competitive submission. In January 2023, 15 organizations received $10,000 and an invitation to compete in the next phase of the challenge, the Proposal Phase. In June 2023, NIH announced 9 Proposal Phase winners invited to participate in the Research Phase, of which 8 accepted. In September 2024, up to 8 organizations will be selected to compete in the final phase, the Research Phase, to implement their project plans. Organizations in the current phase represent diverse areas of focus, including supporting maternal mental health care, evaluating the effectiveness of doulas, and increasing resilience in the perinatal period.

IMPROVE Community Implementation Program (IMPROVE-CIP)

The overarching goal of IMPROVE-CIP is to study the use of strategies to adopt and integrate interventions of known efficacy and effectiveness into community settings to improve maternal health outcomes before and during pregnancy and post-partum, specifically within populations experiencing health disparities. The program builds coalitions that must engage and share leadership with community partners at every stage of the project. Three projects were selected for Phase 1 (of 2 planned phases) funding and launched in August of 2023. The projects focus on SUD and mental health, kinship involvement and mental health, and prevention of pre-eclampsia. A Phase 2 solicitation is planned for late FY 2024.

Connectathon

The project engages stakeholder communities to develop electronic health record standards, which will establish a longitudinal maternal health record and enable automated methods to link maternal-child electronic health records for research purposes. The Connectathon will serve as a pilot test of these efforts using real-world data and establish a foundation to use electronic health records both to further real-world research in clinical settings and to use advanced data models and techniques for discovery. In FY 2023, the Office of the National Coordinator for Health Information assessed the standard requirements for adoption of priorities identified by the Maternal Health Consortium, including enhancement of a Maternal Health Dataset. The USCDI+ for maternal health has been published.

HEalth care Rewards to achieve improved OutcomES (HEROES)

In January 2024, the Advanced Research Projects Agency for Health (ARPA-H) launched the HEalth care Rewards to achieve improved OutcomES (HEROES) program, which seeks to incentivize community-based interventions to improve health outcomes and address preventable health challenges. The HEROES program aims to demonstrate that novel outcome-based incentives can dramatically improve health outcomes by accomplishing the following three goals: 1) improve health care in large, geographically defined populations through implementation of novel technologies and strategies; 2) track changes in quantifiable outcomes metrics in near real-time; and 3) develop economic incentives that reward improvements via a sustainable, scalable economic model. One possible health outcome that HEROES may address is maternal health: a reduction in rate of severe obstetric complications by 20% relative to the national average. ARPA-H held a proposers' day in February 2024 to engage key stakeholders and interested groups. Submission of proposals to the solicitation are expected in November 2024 and selected organizations are estimated to start second quarter of 2025.

Office of the Assistant Secretary for Health (OASH)

Related to Blueprint Goals 1.5 and 2.9

Title X Family Planning Program: Restoring nationwide access to high-quality family planning and related preventive health services to millions of clients annually

The Title X family planning program is a critical part of America's public health safety net, serving as a point-of-entry into care for millions and the gold standard for providing high-quality, affordable, and confidential voluntary family planning and related preventive health services, with priority given to low-income clients. Family planning services delivered by Title X recipients include a broad range of medically approved services, which includes Food and Drug Administration (FDA)-approved contraceptive products and natural family planning methods for clients who want to prevent pregnancy and space births; pregnancy testing and counseling; assistance to achieve pregnancy; basic infertility services; sexually transmitted infection (STI) services; and other preconception health services. Preconception health services are further defined by the Office of Population Affairs' (OPA's) Quality

Family Planning guidelines to include counseling on folic acid; reproductive life planning; sexual health assessment; medical history intake; screening for intimate partner violence; alcohol and other drug use, and tobacco use; immunizations; depression; height, weight, and body mass index; and blood pressure. Title X services are provided for no cost or low-cost, depending on the client's income, and are available to all who seek them.

In late 2021, the Biden Administration issued a final rule to ensure access to equitable, affordable, client-centered, quality family planning services. The rule realigns the nation's family planning program with nationally recognized standards of care, reinforces the program's emphasis on quality, equity, and dignity for all individuals who seek Title X services, and modernizes the more than 50-year old program to better reflect the current healthcare system. Then, beginning 2022 and continuing in 2023, the Biden Administration restored funding and access to Title X services nationwide and filled service gaps caused by more than one quarter of Title X providers withdrawing from the program from 2019 until April 2022. As a result, the number of clients receiving family planning and related preventive health services continues to increase.

Title X providers serve a socioeconomically disadvantaged population, most of whom are female, have low incomes, and are young. In 2022, Title X-funded providers served 2.6 million family planning users (i.e., clients) through almost 4.1 million family planning encounters. Nearly nine of every 10 users (86 percent) were female, and 56 percent of all users were younger than age 30. Sixty percent of clients had household incomes at or below the federal poverty guideline ($27,750 for a household of four in the 48 contiguous states and the District of Columbia) and received services for no charge, and an additional 24 percent had incomes between 100 percent and 250 percent of the federal poverty guideline and received services on a discounted sliding scale. Overall, 84 percent of users received Title X services that were totally or partially paid for through Title X grants. (source: 2022 National Summary, Title X Family Planning Annual Report)

Related to Blueprint Goal 3.1

Maternal Morbidity and Mortality Data and Analysis Initiative

OASH/OWH launched the Maternal Morbidity and Mortality Data and Analysis Initiative to strengthen data capacity and measure the effect of implementation of evidence-based interventions through access to maternal health data that informs programs and policies. This nationwide, multi-year effort is intended to leverage reliable national health data and proven improvement methodologies to scientifically identify drivers of maternal infant mortality and morbidity and implement solutions that will help to improve patient safety and maternal infant outcomes. The approach is two pronged:

1. National Maternal Infant Research Analysis: Includes data collection, analysis, and reporting from a large national healthcare database that describes the relationships between maternal and infant mortality and morbidity and analyzes the risk factors affecting maternal infant outcomes – such as racial and ethnic disparities, rising maternal age, socioeconomic factors, comorbidities, and many other attributes. This analysis comprises current data from 1,200 hospitals, includes more than 1 in 5 patient discharges, and approximately 1 million births per year. As a component of the national research analysis, OASH OWH published in June of 2023 study findings in JAMA Open Network on "Trends in Maternal Mortality and Severe Maternal Morbidity During Delivery-Related Hospitalizations in the United States, 2008 to 2021."
2. HHS OWH Perinatal Improvement Collaborative: This component of the initiative is a large-scale effort to unite a cohort of over 200 diverse U.S. hospitals from every state and D.C., equating to over a half million births a year, to join a data-driven national maternal and

infant perinatal improvement collaborative where together these hospitals will help us better understand the implementation of standardized, evidence-based practices and processes, including nationally recognized care bundles and their effect on maternal infant outcomes.

Related to Blueprint Goal 5.4

Violence Against Women and Substance Use Prevention Initiative

To prevent violence during pregnancy and postpartum, the OASH/OWH established the Violence Against Women and Substance Use Prevention Initiative. The grant has provided funding to pilot programs in Texas, Kentucky, West Virginia, Mississippi, Virginia, and Hawaii, at the state-level to educate and train providers of substance use disorder treatment to identify intimate partner violence during pregnancy and postpartum. The Violence Against Women and Substance Use Prevention Initiative includes partnerships with domestic and sexual violence organizations, at the state and local level, to address the overlap of intimate partner violence and substance use during pregnancy and postpartum.

Related to Blueprint Goal 5.4

Cooperative agreements to reduce and identify deaths during pregnancy and postpartum due to violence

In partnership with state, local, territorial, and tribal projects, OASH/OWH established cooperative agreements to reduce and identify deaths during pregnancy and postpartum due to violence. Under the State, Local, Territorial, and Tribal Partnership Programs to Reduce Maternal Deaths due to Violence, projects must create or expand programs that review, identify, and track maternal deaths that occur during pregnancy and postpartum periods due to violence. They must also utilize evidence-based interventions reduce maternal deaths and improve outcomes.

Related to Blueprint Goal 2.13

Reducing Disparities in Breastfeeding Innovation Challenge

The Reducing Disparities in Breastfeeding Innovation Challenge, another initiative of OASH/OWH, has awarded prizes for programs that: demonstrated effectiveness in increasing initiation and/or continuation of breastfeeding; addressed racial/ethnic disparities among breastfeeding mothers in the Unites States; demonstrated sustainability; and demonstrated that the program successfully replicated and/or expanded.

Related to Blueprint Goal 3.3

Improving Maternal Health Through Addressing Endometriosis, Fibroids and/or Polycystic Ovary Syndrome (PCOS) grant

The presence of fibroids, endometriosis, and polycystic ovarian syndrome increase the risk of pregnancy related complications and adverse maternal outcomes. In response, OASH/OWH created the Improving Maternal Health Through Addressing Endometriosis, Fibroids and/or Polycystic Ovary Syndrome (PCOS) grant. The grant provides funding for the implementation and evaluation of evidence-based interventions to treat endometriosis, fibroids, or PCOS with an emphasis on reducing disparities in underserved communities. Effective treatment of these conditions during preconception and between pregnancies would reduce poor maternal outcomes such as pre-term labor and delivery, placenta previa, gestational diabetes, and preeclampsia.

Related to Blueprint Goal 2.12

Postpartum Depression Campaign

In September 2023, OWH launched a national campaign to educate women about postpartum depression (PPD) and encourage them to seek help for PPD. Talking Postpartum Depression features the personal stories of women from diverse backgrounds who have experienced and sought support for PPD. The campaign aims to increase awareness of PPD symptoms, visibility of reliable resources, and understanding of the many ways to access care. PPD is a serious mental health condition that significantly impacts a woman's physical and psychological health.

Other Maternal Health Activities

National Syphilis and Congenital Syphilis Syndemic Federal Task Force

HHS leads the multi-agency taskforce, which aims to address the syndemic of syphilis and congenital syphilis while reducing rates and promoting health equity. Chaired by the Assistant Secretary for Health, ADM Rachel L. Levine, the work of the taskforce focuses on the areas of Data and Surveillance; Prevent, Screen, and Diagnose; Treat; Equity and Syndemic, Congenital Syphilis; and Communications and Community Engagement. The goal of the taskforce is to reduce rates of primary and secondary syphilis and congenital syphilis and reduce syphilis health disparities in the U.S. Its work aligns with the goals of the STI National Strategic Plan, which has six of its fourteen indicators focused on primary and secondary syphilis and congenital syphilis. The task force focuses on 14 priority areas across the country.

HHS Racial Equity in Postpartum Care Challenge

OASH/OWH partnered with CMS for the HHS Racial Equity in Postpartum Care Challenge. That challenge recognized innovative programs to improve postpartum care for Black or African American and American Indian or Alaska Native (AI/AN) low-income beneficiaries enrolled in Medicaid or Children's Health Insurance Program (CHIP). Specifically, this challenge awarded prizes for programs that improved follow-up care for conditions associated with morbidity and mortality in the later postpartum period, including diabetes, postpartum depression and/or postpartum anxiety, hypertension, and substance use disorders (SUD).

Office for Civil Rights (OCR)

Related to Blueprint Goal 2.7

Strengthening Nondiscrimination Through Rulemaking

The Office for Civil Rights has issued multiple Notices of Proposed Rulemaking (NPRM) since 2022 and revised and repromulgated six regulations, including several regulations that would provide guidance and standards for maternal health care and services. After public comment, OCR finalized a revision to Section 1557 of the Affordable Care Act (Section 1557) that contains vigorous provisions to protect people from discrimination based on race, disability and sex including gender identity, sexual orientation, and pregnancy status, in certain health programs and activities. This final rule is one of the government's most powerful tools to ensure nondiscriminatory access to health care.

OCR repromulgated Section 504 of the Rehabilitation Act. Section 504 prohibits organizations and employers from excluding or denying individuals with disabilities an equal opportunity to receive program benefits and services, including from hospitals, nursing homes, mental health centers and human service programs that receive federal financial assistance. The revision is the first time Section 504 was updated since it originally passed in 1973 and impacts millions of women with disabilities in the U.S. This serves as a tool to guide providers on addressing structural barriers that prevent women with disabilities from receiving adequate care.

Other Maternal Health Activities

Addressing Systemic Discrimination in Health Care through Enforcement

As a law enforcement agency with the authority to enforce civil rights statutes, OCR has used its enforcement capacity to pursue investigations and issue guidance related to maternal health.

Black Maternal Health

In July 2023, OCR opened an investigating into allegations of racism and discrimination in hospitals across the country, including in one of Los Angeles' wealthiest facilities. Cedars-Sinai Medical Center is facing a civil rights investigation over treatment of Black mothers, including the death of a local woman who received maternity treatment at the hospital.

Guidance to Nation's Retail Pharmacies

In September 2023, OCR revised guidance to the nation's retail pharmacies to ensure that they understood their nondiscrimination obligations under Federal civil rights laws. HHS issued guidance to roughly 60,000 U.S. retail pharmacies, and worked towards ensuring that people with disabilities, women experiencing miscarriages and early pregnancy loss, and those seeking access to contraceptives and fertility treatments are able to access their medications without discrimination.

HHS Office of Minority Health (HHS OMH)

Related to Blueprint Goal 2.6

Think Cultural Health *Culturally and Linguistically Appropriate Services (CLAS) in Maternal Health Care* E-Learning Program

Launched in February 2021 as part of OMH's Think Cultural Health suite of e-learning programs, this free, two-hour program is designed for providers and students seeking knowledge and skills related to cultural competency, cultural humility, person-centered care, and combating implicit bias across the continuum of maternal health care. In FY 2023, 4,032 individuals completed the program and 8,064 continuing education credits were awarded. An analysis of cumulative program data (data for all maternal health e-learning program enrollees as of July 31, 2023) found that the averaged users' scores on the post-test were statistically higher than pre-test scores, indicating positive knowledge gain. In addition, a majority of users surveyed agreed that the program was an effective tool to increase knowledge of cultural and linguistic competency, would recommend the program to a colleague, and stated that they will incorporate the information learned in their daily work.

Other Maternal Health Activities

Tools for MMRCs

OMH partnered with CDC to develop resources to help inform MMRCs' recommendations to address disparities in pregnancy-related mortality. OMH supported CDC to: (1) develop guidance to eliminate barriers to patient, family, and CBO support of MMRCs' development of recommendations addressing disparities and PQCs' quality improvement initiatives addressing disparities; (2) draft a racism detection tool to support consistency in MMRC abstractors' documentation of potential discrimination and racism from information available in medical records; (3) further develop and integrate "Community Vital Signs" dashboards and data into CDC's Maternal Mortality Review Info App (MMRIA) to support the identification of community or system level contributors to pregnancy-related mortality that can then be used to develop recommendations for addressing disparities.

Community-Based Perinatal Health Grants

In September 2023, OMH awarded $13 million in grants to 11 organizations for the Healthy Families Community-Based Perinatal Health Initiative. Under this 4-year initiative, awardees will develop innovative models for integrating community-based maternal support services into perinatal systems of medical care. These maternal support services will address social determinants of health, such as health literacy; pregnancy, childbirth, and parenting education; cultural and linguistic diversity; exposure to trauma; housing; food; and transportation. Trained individuals, such as doulas and community health workers, typically provide these services during pregnancy, labor and delivery, and after delivery.

Hear Her™ Campaign Resources for AI/AN People

See the earlier description of CDC and HHS OMH efforts for increased awareness of the urgent maternal warning signs in AI/AN populations.

Office of the National Coordinator for Health Information Technology (ONC)

Related to Blueprint Goal 2.5

ONC supports the advancement of health information technology across the care continuum as well as activities and lessons learned that partners may consider when seeking to explore health IT for maternal and pediatric care and practice settings.

In 2024, ONC released the Interoperability of Maternity Care Records: Best Practices Informational Resource (IR) to support maternal healthcare providers. It aims to optimize the care of pregnant persons and focuses on the functionalities and standards that maternal healthcare providers may leverage in health IT to support the safe and effective healthcare of pregnant persons as part of peri- and post-natal care. This IR outlines specific clinical focus areas identified as high value and impactful for maternity care outcome improvement that benefit from using health IT for providing care, enabling shared decision making, and advancing interoperability beyond care delivery purposes.

ONC developed and maintains the USCDI, a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange. ONC launched the USCDI+ Initiative to support the identification and establishment of domain or program-specific data element lists that operate as extensions to the existing USCDI. USCDI+ is a service ONC provides to federal and industry partners to establish, harmonize, and advance the use of interoperable data element lists that extend beyond the core data in the USCDI to meet specific programmatic and/or use case requirements. This approach allows HHS to assure that USCDI+ extensions are built from the same core USCDI foundation, align to harmonized data standards and taxonomies, and create the opportunity for aligning similar data needs across programs and use cases. ONC developed the domain to establish a core set of data elements necessary for high quality care, equitable outcomes, and maternal health research. Data elements are focused on helping to understand how maternal health may impact outcomes in both mother and child. USCDI+ Maternal Health goals are to:

- Assess maternal health patients' experience in accessing electronic health records
- Facilitate automated, bi-directional information flows between healthcare, public health, and other authorized users for equitable care
- Identify consistent set of data elements and lab tests required for prenatal screening for prevention of mortalities/comorbidities for the mother and child
- Provide patients with information to empower them to request better care and help them identify any preventable risks

- Determine approaches and mechanisms to pilot recommended minimum datasets across provider types no matter the circumstance or level of technical proficiency of the patient and/or provider

Other Maternal Health Activities

Additionally, ONC developed the Neonatal Abstinence Syndrome (NAS) Informational Resource (IR), in response to Sections 1003(aa)(2)(D)(I) 1005(a) and 7062(a) of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (SUPPORT Act), to improve care for infants with NAS. This is the third pediatric-focused IR as part of a broader ONC effort to advance interoperable health IT across the care continuum. Assessing prenatal exposure to potentially harmful substances is important due to the risk of harm to both mother and infant associated with maternal exposure to opioids and other substances. The NAS IR includes information about the implementation of health IT as a part of care delivery.

Appropriate screening during maternal health visits can help lead to early intervention for individuals impacted by opioid use disorder during pregnancy. The purpose of screening is to identify women with potential opioid use disorder and provide them appropriate care.[175] Within the NAS IR are five new clinical priorities, one of which includes collecting SDOH data via screening tools during maternal health visits. The data collected enables data sharing to community partners, social service organizations, and other referral agencies to coordinate care of the mother with opioid use disorder. Furthermore, providers who use screening and assessment tools for infants with NAS during care delivery may also identify potential maternal health equity concerns that may impact the health outcomes of infants with NAS.

Substance Abuse and Mental health Services Administration (SAMHSA)

Related to Blueprint Goal 1.13

Associate Administrator for Women's Services (AAWS)

The AAWS within SAMHSA has continued to build activities within the field of mental health and substance use for HHS. The AAWS continues to chair the Advisory Committee for Women's Services (ACWS), which advises the AAWS and the Assistant Secretary for Mental Health and Substance Use on appropriate activities to be undertaken by the SAMHSA Centers with respect to women's substance use and mental health services. The AAWS continues to lead agency and interagency efforts on maternal mental health and substance use. For instance, the new task force for maternal mental health, which has been an interagency process, is housed under the ACWS. The AAWS is also coordinating a SAMHSA learning collaborative on maternal mental health with eight states.

Related to Blueprint Goal 1.10

Technical Assistance on Women's Mental Health and Substance Use

SAMHSA is working with behavioral health providers, general health care providers, and others involved in the holistic care of women to address the diverse needs of women with or at risk for mental health and substance use to provide technical assistance through various initiatives, such as the Serious Mental Illness Advisor (A Clinical Support System for Serious Mental Illness), and the Mental Health and Addictions Technology Transfer Centers.

Other Maternal Health Activities

Task Force on Maternal Mental Health

The Task Force on Maternal Mental Health, which has over 100 federal and non-federal members and is co-led by OASH, OWH and SAMHSA, has been established to identify, evaluate, and make recommendations to coordinate and improve activities related to addressing maternal mental health conditions and co-occurring substance use disorders. The Task Force is housed under the SAMHSA ACWS as a subcommittee, and there are five subcommittee workgroups created to discuss, 1) Data, Research, and Quality Improvement; 2) Prevention Screening and Diagnosis; 3) Evidence-Based Intervention and Treatment; 4) Evidence Based Community Practices and Communication; and 5) Communications and Community Engagement. The Task Force has been gathering stakeholder input through an RFI, listening sessions, and meeting with states, and gathering data from existing federal programs. In addition, a literature review and environmental scan were completed to determine trends, gaps, and needs in Maternal Mental Healthcare. This national effort includes a focus on mental health equity as well as trauma-informed practices. The Task Force will highlight recommendations to the ACWS that fall within the pregnancy and postpartum (up to one year after birth), periods for individuals with or at risk for mental health and substance use conditions.

The Task Force developed its first Report to Congress, which features a myriad of federal programs and collaboration efforts on maternal mental health, as well as best practices and opportunities for collaboration with states. The Task Force has developed a national strategy to improve maternal mental health, which includes policy recommendations related to coordinating and improving federal activities to address maternal mental health. This strategy will help the nation make holistic, integrated, and patient-centered mental health and substance use care for perinatal populations more accessible. The strategy was released alongside a special report from those with lived experience, highlighting diverse voices, developed in collaboration with the U.S. Digital Service.

Appendix B: Summary of Maternal Health Proposals for HHS Agencies Included in FY 2025 President's Budget

This Appendix describes the requests in the FY 2025 President's Budget for maternal health programs and initiatives.

Require 12 Months of Postpartum Coverage: The American Rescue Plan Act of 2021 enacted a new state option to extend Medicaid postpartum coverage to 12 months; the Consolidated Appropriations Act, 2023 made this a permanent option for states. Expanding access to postpartum Medicaid coverage can reduce maternal and infant morbidity and mortality. To improve maternal and infant health outcomes and align with Administration initiatives like the CMS Maternity Care Action Plan, the budget requires states to provide 12 months of postpartum coverage in Medicaid and CHIP ($707 million in estimated net savings over 10 years).

Expand Access to Maternal Health Supports in Medicaid: Medicaid provides pregnancy-related coverage to eligible individuals through pregnancy, labor and delivery, and at least 60-days postpartum. More than 4 in 10 births in the nation are covered by Medicaid. To help improve maternal health coverage and prioritize person-centered care, the budget includes an optional Medicaid maternal health support benefit which addresses equity in maternal health ($204 million in Medicaid costs over 10 years). The optional Medicaid benefit expands coverage of maternal health support services across the prenatal, labor and delivery, and postpartum periods, with enhanced federal match available for the first 5 years. The benefit will include coverage for services provided by doulas, community health workers, nurse home visiting, and peer support workers. Services may include group and/or individual counseling, and labor and postpartum supports. Rigorous evaluation is integral to this optional benefit, informing future best practices for maternal care within the Medicaid program and beyond.

Safe Motherhood Initiative: Requests additional funds for CDC (+$10 million compared to FY23) to support activities related to continuing to support the national infrastructure for maternal mortality prevention, including MMRCs, PQCs, CDC Levels of Care Assessment Tool (LOCATe), and the Hear Her™ Campaign. Funding will also support CBOs, and key partners to implement multi-level maternal mortality prevention efforts that leverages state public health data infrastructure as well as to support modernization efforts of the Pregnancy Risk Assessment Monitoring System (PRAMS) surveillance system.

Healthy Start: Requests additional funds for HRSA (+$27 million compared to FY23) to continue support for Healthy Start programs. The Healthy Start program aims to improve health outcomes before, during, and after pregnancy and reduce the well-documented racial and ethnic differences in rates of infant deaths and negative maternal health outcomes. Additional funds will support workforce development, including through building on lessons learned from the Alumni Peer Navigator pilot to train recent Healthy Start alumni to work with current Healthy Start families to improve access to community resources that address social determinants of health such as food insecurity, unstable housing, and a lack of transportation.

Obstetric Emergency Readiness: Requests additional funds for HRSA (+$15 million compared to FY23) to build obstetric safety net capacity in health care settings that do not offer obstetric care, including those located in maternity care deserts, through the AIM program. Funding will support training (Obstetric Emergency Readiness drills and simulation training, ultrasound training, and life support training for maternal/infant populations); equipment for non-obstetric facilities (ultrasounds, maternal/fetal

medicine monitoring equipment); targeted support, best practices, and resources for non-obstetric, lower resourced, and rural facilities to help with recognition and response to obstetric emergencies in non-obstetrical care settings, and in facilities with limited access to specialty care providers; and activities to build relationships with specialists for telemedicine consults, develop transport protocols, and EMS training and protocols for transfer.

Health Centers: Requests new funds ($50 million) to expand health center access to high quality, patient-centered maternal health services, including behavioral health services, in communities and for populations of greatest need. Through the FY 2025 request, HRSA plans to make 100 health center awards to expand, train and diversify their maternal health workforce, develop new and strengthen existing community partnerships, strengthen outreach and patient support services to facilitate access to care and help address health related social needs, and broaden service delivery modalities and locations, both within and beyond their current service areas.

Blood Pressure Monitoring: Requests new funds ($10 million) for OASH to implement a new maternal health initiative focused on maternal blood pressure monitoring.

Substance Use Treatment and Support:

- Requests additional funds (+$5 million compared to FY23) for SAMHSA's Pregnant and Postpartum Women program which provides comprehensive residential SUD treatment, prevention, and recovery support services for pregnant and postpartum women, their minor children, and other family members (e.g., fathers of the children). Funds will support two new and 10 continuation pilot grants as well as 10 new and 48 continuation residential treatment grants.
- Request new funds ($3.5 million) for SAMHSA's Women's Behavioral Health Technical Assistance Center. This is a new initiative that would create a national system of clinical consultation and technical assistance for health providers of various disciplines spanning topics across the lifespan within the field of women's (including female adolescents) mental health and substance use (e.g., equity, intimate partner violence, medical co-morbidities, maternal & perinatal, suicide & crisis, trauma).
- Requests additional funds (+$5.5 million compared to FY23) for HRSA's Screening and Treatment for Maternal Mental Health and Substance Use Disorders Program to expand access to critical mental health supports for pregnant and new mothers. Additional funds will support approximately six new awards, bringing the total number of awards to approximately 18. This investment increases the availability of consultation (teleconsultation or in-person) and care coordination support, and training to expand front-line health care provider capacity to screen, assess, treat, and refer women who are pregnant, postpartum, or have given birth within the past 12 months for maternal mental health and SUDs. This funding will help address ongoing and growing maternal mental health needs. Funding will also support a joint effort for the ongoing exchange of effective practices, resources, and peer-to-peer learning and mentorship to Screening and Treatment for Maternal Mental Health and SUD programs and the national network of Pediatric Mental Health Care Access program, as well as evaluation support for state behavioral health telehealth programs.

Women's Health Research Activities:

- Requests additional funds (+$76 million compared to FY23) for NIH's Office of Research on Women's Health. Funds will support new and ongoing activities to enhance research into women's health issues, including the Maternal and Pediatric Precision in Therapeutics Centers

(MPRINT) of Excellence to expand the number of MPRINT hubs focused in the area of maternal therapeutics, increasing the available knowledge, tools, and expertise in maternal therapeutics to the broader research, regulatory science, and drug development communities; the Maternal-Fetal Medicine Unit Networks Trial Capacity to advance specific treatment approaches to leading drivers of maternal morbidity and mortality; and clinical trials to test technologies developed through the RADx-Tech Maternal Health Challenge; Research in OUD in Pregnant Women would include (1) implementation projects to engage obstetricians, nurses, and PCPs in screening for OUD and initiating buprenorphine treatment; (2) implementation research for initiating buprenorphine treatment of pregnant women with an OUD in incarcerated settings; and (3) research projects for strategies that can help improve retention in treatment of pregnant women with OUD; New research in Alcohol Use During Pregnancy to design and evaluate novel policy, community-based, and health messaging and other behavioral and social science approaches to help women reduce or abstain from drinking during pregnancy, to improve current prevention strategies to reduce use of alcohol in women of childbearing age, and to design and evaluate cost-effective, culturally sensitive interventions aimed at preventing fetal alcohol spectrum disorder (FASD) in high risk and vulnerable, and diverse populations.

Workforce Development:

- Requests additional funds for HRSA (+$20 million compared to FY23) for Nursing Workforce Development Programs. The Maternity Care Nursing Workforce Expansion Program ($10 million) will grow and diversify the maternal and perinatal health nursing workforce by training an estimated 224 additional certified nurse midwives and preparing them to serve in rural and underserved communities. The Nurse Education, Practice, Quality and Retention Programs ($10 million) will allow HRSA to support dedicated training resources to grow the maternal health nursing workforce. New awards will increase the number of nurses trained to provide prenatal and perinatal maternal health care in rural and underserved community settings. With this funding, HRSA anticipates making 13 new awards that will train approximately 637 nurses.
- Requests new funds for HRSA ($5 million) under the Special Projects of Regional and National Significance for the Maternal and Child Health Block Grant to grow and diversify the community-based doula workforce.

Access and Delivery of Maternity Care:

- Requests additional funds (+$2.4 million compared to FY23) for HRSA's Rural Maternity and Obstetrics Management Strategies programs which increases access to maternal and obstetrics care in rural communities. Funds would support eight continuing awards and two additional awards.
- Requests new funds ($6 million) for HRSA State Maternal Innovation awards to improve maternal health care service delivery.
- Requests new funds ($5 million) for HRSA to address social determinants of maternal health.

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