Addressing Hypertension in Pregnancy to Reduce Maternal Morbidity and Mortality

The United States has one of the worst maternal morbidity and mortality rates compared to other high-income nations, with maternal morbidity doubling over the past decade and maternal mortality rising 61% in the last three years alone.

Hypertension disorders in pregnancy are the leading cause of maternal death, with 31.6% of maternal deaths having documented hypertension during hospital delivery. It is characterized by high blood pressure during pregnancy, including gestational hypertension, preeclampsia/eclampsia, and chronic hypertension. Between 2017 and 2019, the prevalence of hypertensive disorders in pregnancy increased from 13.3% to 15.9%, impacting at least one in seven delivery hospitalizations. Maternal complications stemming from hypertension include heart attacks, stroke, organ failure, seizures, and infant complications, such as preterm birth and low birth weight.

Social determinants of health, such as stress and racial weathering, food access, and education, among other factors, contribute to hypertension health disparities and inequities. Disparities include disproportionate rates of hypertension in pregnancy among black pregnant people and American Indian/Alaska Native pregnant people, with one in five delivery hospitalizations and one in six delivery hospitalizations affected, respectively. The rate of hypertension disorders is also higher among pregnant people aged 35-55 years, as well as those living in rural areas and zip codes with lower median incomes.

Federal Actions to Reduce the Impact of Hypertension on Pregnancy

Published in June 2022, the White House Blueprint for Addressing the Maternal Health Crisis contains actions that government agencies are undertaking to improve maternal care, including reducing hypertension in pregnancy. Highlights from the report include:

- HHS piloted a program in 2022 at six Indian Health Service locations to increase the use of self-monitoring blood pressure equipment among American Indian/Alaska Native populations. The goal is to expand this program throughout Indian Health Service sites to improve blood pressure management and decrease complications from hypertension.
- Veteran’s Affairs is set to develop interventions for veterans with hypertension or other high blood pressure risk factors. These include introducing home blood pressure monitors and health education for providers and veterans about hypertension prevention, risk factors, and management.
- The Office of Personnel Management continues to advocate for Federal Employment Health Benefits to provide federal employees with self-monitoring blood pressure equipment coverage.

In February 2023, the U.S. Preventive Services Task Force released a draft recommendation on universal screening for hypertensive disorders of pregnancy. These recommendations advise monitoring blood pressure throughout pregnancy and screening universally for hypertension with specific attention to racial inequities. It is the first time this task force has expanded recommendations on screening for all hypertension disorders. These expanded recommendations aim to diagnose hypertension earlier to intervene in these conditions and reduce maternal morbidity and mortality.
Health Agency Strategies to Address Hypertension in Pregnancy

Advise Clinical Use of the AIM Safety Bundles
The Alliance for Innovation on Maternal Health (AIM) is a quality improvement initiative to advance best safety practices and improve maternal health outcomes. AIM’s patient safety bundles are formatted based on clinical conditions and include evidence-based practices to improve patient outcomes. Severe hypertension in pregnancy is a core component of the patient safety bundle, and the 2022 recommendations contain encompassing prevention strategies, such as readiness to address hypertension in every care setting; recognition and prevention of hypertension throughout the perinatal period; response to hypertensive symptoms in every event; reporting and systems learning for every case of hypertension; and respectful, equitable, and supportive care for all pregnant people.

Implement Strategies to Strengthen State-Based Risk-Appropriate Care Systems
Risk-appropriate care is a key strategy to improve maternal health by ensuring pregnant people receive optimal care at facilities that are best prepared to meet their needs. Improving perinatal regionalization with risk-appropriate care strategies can address rural care disparities that exacerbate hypertension in pregnancy. Telehealth, which state policies continue solidifying, can also serve as a risk-appropriate care strategy to ease access to preventative services and promote earlier diagnosis and intervention of hypertension.

Promote Consumer Awareness of Urgent Maternal Warning Signs
Public health agencies can develop and use educational materials to reach affected populations and improve consumer awareness. Improved awareness about urgent maternal warning signs can increase the prospect of seeking care and receiving effective intervention, a crucial step for addressing hypertension in pregnancy. Early identification of warning signs, such as swelling, severe headaches, vision changes, and more, can prevent poor health outcomes. Examples of consumer awareness initiatives include CDC’s Hear Her Campaign and materials from the Preeclampsia Foundation, which focus on recognizing maternal warning signs.

Leverage Community Health Workers to Assist in Hypertension Management
Community health workers (CHWs) are the bridges between communities and healthcare. They can address barriers to medication adherence and accessing clinical care. Home visits to pregnant people from CHWs provide improved access to blood pressure screenings throughout pregnancy and early identification of hypertension. CHWs are also proven effective in reaching medically underserved populations. State policy on CHW certifications continues to evolve as CHWs are recognized as valuable additions to care teams.

Support Medicaid Coverage for Self-Measured Blood Pressure Monitoring
Self-Measured Blood Pressure Monitoring (SMBP), combined with clinical support, is an evidence-based practice to lower blood pressure and improve control over hypertension. Financial barriers inhibit access to SMBP for patients with lower incomes; however, the uptake of SMBP can grow through expanded Medicaid coverage which reimburses for monitoring devices along with patient education and training. Currently, 21 states have Medicaid coverage of SMBP with a validated device and patient education and training.

By implementing the above strategies, state and territorial health agencies can address hypertension in pregnancy and reduce maternal morbidity and mortality. For more information, please refer to ASTHO’s resources on cardiovascular health and maternal morbidity and mortality.

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