FACT SHEET: POLICY ISSUE

Maternal Health and Cardiovascular Disease

Overview

Despite the decrease in maternal mortality worldwide, the maternal mortality rate continues to rise in the United States. The U.S. has the highest maternal mortality rate in the developed world, with hundreds of deaths each year from pregnancy-related complications and 80% of pregnancy-related deaths being preventable.[1] Cardiovascular disease (CVD) is the leading cause of death among women in the U.S. accounting for about 1 in every 5 female deaths, as well as one of the leading causes of maternal death in the U.S., posing a threat to women's heart health before pregnancy, during pregnancy and later in life.[1,2]

An estimated 30% - 40% of pregnant women have at least 1 factor that can lead to long-term health problems, and 20% - 30% carry a predicator of CVD disease risk.[3] It is estimated that CVD is present in 1% - 4% of the nearly 4 million pregnancies in the U.S. each year, with heart disease, stroke, and hypertensive disorders of pregnancy accounting for approximately a quarter (25.7%) of pregnancy-related deaths.[1,4] The metabolic demands on the mother's heart during pregnancy can often expose underlying or silent cardiac issues, which is why pregnancy is often referred to as nature's stress test. The early identification of CVD could prevent at least a quarter of maternal deaths.[5] Moreover, significant disparities in maternal care and outcomes persist across race, ethnicity, geography, income, and other sociodemographic factors, in addition to systemic inequities that pose access barriers to care and exacerbate poor maternal health outcomes in the U.S.

As the nation's oldest and largest voluntary health care organization dedicated to reducing death and disability from CVD, the American Heart Association (AHA) has an obligation to be part of the dialogue and solutions that support equitable improvements in cardiovascular and maternal health.

Cardiovascular Disease Risk Factors

- Having high blood pressure increases the risk of developing heart disease and stroke and can lead to premature death. Almost 1 in 5 women of reproductive age have high blood

pressure or are taking blood pressure medicine, and fewer than a quarter of women with high blood pressure (22.8%) have their condition under control.[2]

- Approximately 1 in 7 delivery hospitalizations are affected by hypertensive disorders of pregnancy (HDP) which includes gestational hypertension and pre-eclampsia.[6]
- Pregnant women who experience gestational hypertension or pre-eclampsia are at greater risk for developing hypertension, stroke, CVD, and type 2 diabetes later in life.[7]
- Women who experience pre-eclampsia during pregnancy are four times more likely to develop hypertension and three times more likely to develop type 2 diabetes mellitus later in life.[8]
- Research suggests that women who enter pregnancy obese have more than six times greater odds of developing gestational hypertension compared to women who enter pregnancy at an ideal weight.[9]
- Women who suffer from gestational diabetes have a 7-fold increased risk for developing type 2 diabetes and double the risk of major cardiovascular event later in life.[10]

Disparities In Maternal Health Outcomes

- Black and American Indian/Alaska Native (AIAN) women are more than three times more likely to experience pregnancy-related mortality in compared to their white counterparts.[11]
- Black, AIAN, and Native Hawaiian or Pacific Islander women have higher shares of preterm births, low birthweight births, or births for which they received late or no prenatal care compared to White women. [11]
- Over half of counties in the U.S. (52%) do not have hospital that provides obstetric care, and more than a third of counties (35.1%) are considered maternity care deserts-- meaning there is not a single birthing facility or obstetric clinician. Approximately 6 in 10 maternity care deserts are in rural areas. [12]
- Pregnant people living in rural areas experience higher rates of maternal ICU admissions and maternal mortality than pregnant people in urban areas.[13]
- An estimated 41% of all births in the U.S relied on Medicaid in 2022.[14]
- Incarcerated pregnant women are more likely to face barriers accessing regular and immediate quality care, as there is a lack of standardization and requirements for OB/GYN services.[15]

AHA Advocates

In 2021, The American Heart Association published a policy statement offering several considerations for policy approaches to improve maternal health outcomes and ultimately save mothers' lives.[18] The causes and contributors to maternal morbidity and mortality are multifactorial and complex, requiring broad, innovative, and sustainable solutions that prioritize

health equity, and support the provision of quality, affordable, patient-centered care before, during, and after pregnancy, regardless of race, ethnicity, income, or geography.

- Extend Medicaid coverage for birthing parents to 12-months postpartum and continue to support the advancement of Medicaid expansion in all 50 states.
- Explore opportunities to expand income eligibility in Medicaid for pregnant people.
- Enhance care coordination among members of the cardio-obstetrics team, including primary care providers, OB/GYNs, cardiologists, and other specialists to facilitate better assessment of patient risks and needs, and prompt intervention where necessary.
- Improve awareness of heart disease and cardiovascular disease risk factors among all women and birthing people, particularly those of reproductive age.
- Support efforts to promote cultural awareness and reduce bias within the health system.
- Strengthen public health infrastructure and improve the health system's ability to research and respond to social and structural determinants of health.
- Leverage technology to better track and report patient data, including data regarding sex, race, ethnicity, SDOH, and maternal outcomes.
- Transform payment for maternal care in a way that prioritizes quality improvement and the provision of underutilized, high value-services such as maternal health education and home visits and mitigates the overuse of certain pregnancy and delivery related services such as elective c-sections for low-risk pregnancies.
- Explore the implementation of evidence-based models of care like pregnancy medical homes and other value-based payment models, and support adequate reimbursement for providers, services, and facilities that have been proven to contribute to positive maternal health outcomes such as licensed and accredited birth centers, midwifery care, and doulas.[16]

For more information and resources from the American Heart Association's policy research department, please visit **www.heart.org/policyresearch**

FACT SHEET: Maternal Health and Cardiovascular Disease

References

1. Centers for Disease Control and Prevention. Pregnancy-related deaths: data from maternal mortality review committees in 38 U.S. states, 2020. 2020. https://www.cdc.gov/maternal-mortality/php/data-research/index.html
2. Centers for Disease Control and Prevention. About women and heart disease. 2024. https://www.cdc.gov/heart-disease/about/women-and-heart-disease.html
3. Brown HL, Warner JJ, Gianos E, et al. Promoting Risk Identification and Reduction of Cardiovascular Disease in Women Through Collaboration With Obstetricians and Gynecologists: A Presidential Advisory From the American Heart Association and the American College of Obstetricians and Gynecologists. Circulation. 2018;137(24). doi:10.1161/cir.0000000000000582.
4. Elkayam U, Goland S, Pieper PG, Silversides CK. High-Risk Cardiac Disease in Pregnancy Part I. Journal of the American College of Cardiology. 2016;68(4):396-410. doi:DOI: 10.1016/j.jacc.2016.05.048.
5. Pregnancy and heart disease. ACOG Practice Bulletin No. 212. American College of Obstetricians and Gynecologists. ObstetGynecol 2019;133:e320–56.
6. Ford ND, Cox S, Yo JY, Ouyang L, et al. Hypertensive disorders of pregnancy and mortality at delivery hospitalization-- United States, 2017-2019. Centers for Disease Control and Prevention MMWR. April 29, 2022. https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7117a1-H.pdf
7. Benschop L, Duvekot JJ, Roeters van Lennep JE. Future risk of cardiovascular disease risk factors and events in women after a hypertensive disorder of pregnancy. Heart 2019;105:1273-1278. https://www.ahajournals.org/doi/full/10.1161/HYPERTENSIONAHA.121.16506
8. Singh GK, Siahpush M, Liu L, Allender M. Racial/Ethnic, Nativity, and Sociodemographic Disparities in Maternal Hypertension in the United States, 2014-2015. Int J Hypertens. 2018;2018:7897189. Published 2018 May 17. doi:10.1155/2018/7897189
9. Gongora MC, Wenger NK. Cardiovascular Complications of Pregnancy. Int J Mol Sci. 2015;16(10):23905–23928. Published 2015 Oct 9. doi:10.3390/ijms161023905
10. Green JB. Cardiovascular consequences of gestational diabetes. Circulation. 2021;143(10):988-990. https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.120.052995
11. Hill L, Rao A, Artiga S, Ranji U. Racial disparities in maternal and infant health: current status and efforts to address them. Kaiser Family Foundation. October 25, 2024. https://www.kff.org/racial-equity-and-health-policy/issue-brief/racial-disparities-in-maternal-and-infant-health-current-status-and-efforts-to-address-them/
12. March of Dimes. Nowhere to go: maternity care deserts across the US. 2024. https://www.marchofdimes.org/sites/default/files/2024-09/2024_MoD_MCD_Report.pdf
13. Harrington KA, Cameron NA, Culler K, Grobman WA, Khan, SS. Rural-urban disparities in adverse maternal outcomes in the United States, 2016- 2019. American Journal of Public Health. 2023;113:224-227. https://ajph.aphapublications.org/doi/10.2105/AJPH.2022.307134
14. Kaiser Family Foundation. Births financed by Medicaid. https://www.kff.org/medicaid/state-indicator/births-financed-by-medicaid/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

15. Chari, KA, Simon, AE, DeFrances, CJ, Maruschak, L. National Survey of Prison Health Care: selected findings. Natl Health Stat Rep. 2016;96:1–23. https://www.cdc.gov/nchs/data/nhsr/nhsr096.pdf. 2016 https://www.samhsa.gov/data/sites/default/files/nsduh-ppt-09-2018.pdf
16. Haight SC, Ko JY, Tong VT, Bohm MK, Callaghan WM. Opioid Use Disorder Documented at Delivery Hospitalization — United States, 1999–2014. MMWR Morb Mortal Wkly Rep 2018;67:845–849. DOI: http://dx.doi.org/10.15585/mmwr.mm6731a1
17. Jolles DR, Stapleton SR, Alliman J. Strong start for mothers and newborns: Moving birth centers to scale in the United States. Birth. 2019;46(2):207-210. doi:10.1111/birt.12430.
18. Mehta, LS, Sharma G, Creanga AA, Hameed AB, Hollier LM, Johnson, JC, Leffert L, McCullough LD, Mujahid MS, Watson K, White CJ. Call to action: maternal health and saving mothers: a policy statement from the American Heart Association. Circulation. 2021;144(15):e251-e269. https://www.ahajournals.org/doi/10.1161/CIR.0000000000001000