Independent Panel Summary of the National Institutes of Health Pathways to Prevention Workshop: Identifying Risks and Interventions to Optimize Postpartum Health

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There is a growing maternal health crisis in the United States (U.S.); one that is largely preventable and disproportionately affects Black or African American women and American Indian and Alaska Native women. Though much maternal health research is focused on pregnancy, the majority of maternal deaths and pregnancy-related complications occur during the postpartum period. On November 29–December 1, 2022, the National Institutes of Health held a Pathways to Prevention Workshop: Identifying Risks and Interventions to Optimize Postpartum Health to identify the gaps in research related to predicting and preventing poor postpartum health outcomes. The workshop included a systematic evidence review and presentations by expert speakers addressing the topic of maternal morbidity and mortality in the U.S.

We, the authors of this summary, served as the workshop's independent panel, tasked with providing a balanced, objective, and informed assessment of the workshop topic. Following the workshop, we published an Independent Panel Report that highlights the research gaps and makes several recommendations for future priorities for improving maternal health, including:

- Employ a multilevel life course framework in policy, research, and clinical transformations to improve maternal health at all ages
- Strengthen maternal health research methods and approaches
- Systematically research prevention and treatment interventions to address maternal health, particularly among populations who experience higher rates of pregnancy-related complications or death
- Pay for evidence-informed clinical approaches that improve maternal health across the life course
- Fund and implement a "Maternal Mortality and Morbidity Prevention Moonshot"

This workshop summary outlines the key findings that informed our recommendations. We organized our findings by considering the relationships between individual, community, clinical, and societal levels that factor into maternal health. These levels help us better understand the range of factors that contribute to postpartum health and other pregnancy-related health problems and highlight the need for a multilevel approach to address maternal morbidity and mortality.

Individual and Interpersonal Levels. Workshop speakers discussed maternal care experienced by racial/ethnic minority groups that lack coordination, empathy, and respect for individuals; the workshop included testimonials from individuals who directly experienced such bias in care. On the individual and interpersonal levels, birthing individuals may experience different quality of care depending on their race or ethnic group, the geographic area where they live, and their socioeconomic status; there are disparities in access to promising care innovations such as midwifery, birth center care, lactation consultation, and home health nurses. Promising interventions include empowerment-focused parenting and postpartum care class offerings, and other interventions that involve partners and extended family, fight stigma, and encourage strength-based approaches that acknowledge and emphasize the positive contributions patients bring to health.

Community Level. Several interventions presented at the workshop addressed community-level factors that drive maternal morbidity and mortality patterns including the lack of access to birthing centers and neonatal intensive care creating "maternity care deserts" and poor health care quality at institutions serving people of color. For persons living in rural communities, the

risk of reduced access to maternity services is even more pronounced, especially for low-income and Black, Native American, Alaska Native, or Hispanic individuals. Promising interventions to address these barriers included health navigators and other best practices to combat the fragmented and uncoordinated care that too often occurs, especially during the transitions from prenatal to postpartum to primary care. Particularly important is a renewed focus on the care transition (from obstetric to primary care) and coordination between primary care and other medical specialists. This was emphasized in many of the workshop presentations. Other community examples of programs that address postpartum health needs and social barriers to well-being (such as housing, employment, childcare, and transportation) include partnerships between clinics and community organizations offering "wrap-around" services. Programs such as these can mobilize untapped community resources such as peer support for counseling and navigation of health care systems. They may take the form of home visiting programs, peer group visits, mobile health clinics, or telemedicine.[1] Workshop speakers highlighted additional community ideas for useful interventions to address maternal health, including medical-legal partnerships, perinatal access programs, use of doulas, and trauma-informed care models. For example, the Community of Hope in Washington, D.C. is a freestanding birth center situated in a Federally Qualified Health Center providing a model of interdisciplinary, patient-centered, and equity-driven health care focused on addressing social determinants of health.

Clinical and Health System Level. During the workshop, the panel heard several examples of new clinical and health system approaches that exemplify what could be a new paradigm by focusing on greater equity and reproductive justice in the drive to improve maternal health. Health systems approaches are particularly important given the pervasive role of for-profit institutions, complex payment structures, and lack of data sharing and integrated electronic health information platforms. Incompatible electronic health record systems, challenges in developing Data Use Agreements, and patients' privacy concerns often are barriers to the widespread implementation of promising initiatives. One program focused on integrating systems highlighted at the workshop was the California Maternal Quality Care Collaborative, commissioned in 2006,[2] which responded to the growing postpartum morbidity and mortality crisis using four steps that reduced maternal mortality by half, aligning it closer to that of Western Europe. The steps included: (1) linking public health surveillance to specific action from the collaborative; (2) convening and mobilizing a broad set of public and private partners; (3) creating a low-burden data collection system that facilitated easy access to data for quality improvement activities; and (4) implementing joint public health and clinical medicine initiatives. The California collaborative focused on improving the quality of health care and social systems, overcoming disciplinary and organizational silos, and building a sustainable infrastructure to support ongoing improvement activities. Despite this initiative and enacting Paid Family Leave in 2002, major differences in maternal mortality across individuals of different race and ethnicity between Black and White individuals persist even in California,[3] suggesting a much greater need to focus on structural factors long before conception.

Societal Level. Barriers to evidence-based, person-centered maternal health at the societal level also were identified during the workshop. Three major barriers reflect policies and practices that fail birthing persons and their families: (1) Medicaid cuts and failure to expand services; (2) reducing access to contraceptive and abortion care; and (3) failing to mandate coverage for maternal, newborn, and mental health services in all health plans along with paid parental leave. Under the Affordable Care Act, Medicaid expanded coverage to nearly all adults with incomes up to 138% of the federal poverty level. However, many southern U.S. states, including those with the highest incidence of maternal mortality in the nation, have not adopted or implemented Medicaid expansion. Furthermore, the removal of Planned Parenthood from

Title X funding potentially places approximately 4 million Americans with income below the 150% federal poverty line in “contraceptive deserts.” It is estimated that this population overlaps with 7.5 million people of color who have potentially lost access to Title X funded services.

The shortage of primary care providers (including obstetricians, family physicians, nurse-midwives, community-based doulas, and clinical psychologists) puts pregnant and birthing people at risk for delay of care and hinders their ability to build a trusting relationship with health care providers. Inadequate reimbursement for some health care services, (e.g., services of doulas and midwives) contributes to the shortage of providers.

Evidence Review and Workshop Conclusions

The evidence review and most presenters concluded that a multilevel, multisectoral approach is required, with substantial investment in innovation, research, strengthening health care systems, and developing policies and programs that address the root causes of excess maternal morbidity and mortality. Equally important are the methods for studying the causes of maternal health disparities and the impact of interventions. The evidence review highlighted the need for the following:

- Techniques and methods that improve the ability to estimate causal impacts of social/structural determinants of maternal health across the life course
- Standardized reporting of maternal health exposures in studies that could lead to better synthesis of research findings
- The creation of datasets designed to capture the impact of systemic racism and social/structural determinants of health and their intersections with medical risk factors
- The funding of infrastructure studies and the associated robust health workforce (possibly by the Health Resources and Services Administration) to address the multifactorial primary care prevention workforce deficit (i.e., obstetrics, family medicine, nurse midwifery, community-based doulas, clinical psychology) and shortages in rural and urban underserved areas. Subsequent funding of demonstration projects and community initiatives that address these prevention workforce shortages should measure maternal morbidity and mortality as outcomes

Workshop presenters consistently recommended the following methodological improvements:

- Using broad clinical networks and larger samples in studying peripartum health to capture diversity and ensure adequate sample size for studies evaluating rare outcomes among smaller groups
- Exploring the intersection of multiple risk factors on clinical outcomes, especially the intersection of downstream biological risk factors with upstream social/structural determinants of health
- Moving beyond the description of maternal health disparities to understanding their plausible social/structural determinants
- Embracing a life course perspective to examine the long-lasting impacts of trauma, structural racism, and poverty
- Including more pregnant and postpartum/lactating women in research studies

Based on these findings, the panel concludes that the crisis in maternal morbidity and mortality in the U.S. reflects a systemic failure of current health care, research efforts, and social policies. There is a need for a multilevel approach to reduce maternal deaths and severe pregnancy-related complications. Prevention will remain tragically insufficient without the nation focusing on fundamentally transformative interventions and other initiatives aimed at redressing inequities in

health care, such as structural racism, current interventions, and clinical advances in maternal morbidity and mortality prevention. Our recommendations for future priorities within this field are designed to improve maternal health for everyone.

Acknowledgments

Recommendations made by the panel are independent of the U.S. government. They should not be construed as an official position of the National Institutes of Health or the U.S. Department of Health and Human Services.

References

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