Childbirth services play a critical role in the provision of American health care. But the United States has worse outcomes than other high-resource nations in terms of maternal and infant deaths, illness, and injury. Some women in the United States feel there is a gap in the care they expect and want and the care they receive in the current system. These negative outcomes are more frequent for Black and Native American individuals and their newborns.

*Birth Settings in America: Outcomes, Quality, Access, and Choice* (2020), a Consensus Study Report from the National Academies of Sciences, Engineering, and Medicine, examines one crucial component of U.S. maternity care: the settings in which childbirth occurs. The National Academies appointed a committee of midwives, nurses, physicians, statisticians, anthropologists, sociologists, and public policy and financing experts to examine the evidence on these issues. The report identifies ways to improve childbirth services in hospital settings—where the vast majority of pregnant people¹ in the United States experience childbirth—and in birth centers and for home births.

This Highlights discusses the challenges researchers face in studying birth settings and the report’s conclusions about priorities for future research, including examining disparities in outcomes; the relationship among provider type, settings, and outcomes; and models for improving access across birth settings.

**CHALLENGES IN STUDYING OUTCOMES ACROSS BIRTH SETTINGS**

Studying maternal and infant outcomes by birth setting is challenging due to a lack of data on certain outcomes across settings and an inability to classify accurately outcomes by birth setting. For example, most states do not include the intended place of birth on vital statistics records (i.e., birth certificates). As a result, outcomes for a planned home birth transferred to a hospital setting are accrued to the hospital. Oregon is currently the only state where planning status and intended location of birth are recorded. Modifying birth certificates to include planned place of birth and provider type would improve the usefulness of vital statistics data for research on outcomes by birth settings.

Studies vary in how they measure and report outcomes across birth settings which makes it difficult to draw conclusions across settings. Developing a consensus set of maternal and infant outcomes would allow for consistent reporting across birth settings. These core outcomes could include measures of well-being, such as dignity in the childbirth process and respectful care, as well as traditional outcome measurements, such as cesarean birth, breastfeeding, and vaginal birth after cesarean. In

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¹Intersex people and people of various gender identities, including transgender, nonbinary, and cisgender individuals, give birth and receive maternity care. Thus, we use the terms “pregnant people” or “pregnant individuals” in place of “pregnant women.”
addition, measuring outcomes through at least 1-year postpartum would allow understanding of the short- and long-term effects of pregnancy and childbirth outcomes on maternal and infant health.

PRIORITIES FOR FUTURE RESEARCH

Understanding Disparities in Outcomes
Traditionally marginalized groups, such as African Americans and Native Americans, often experience an unequal share of clinical and social risk factors, yet the current literature rarely differentiates outcomes across birth settings by race or ethnicity. A key priority for future research is to understand safety and quality of birth settings while measuring variations in outcomes by demographic characteristics such as race and ethnicity as well as socio-economic status, gender identity and sexual orientation, immigrant status, and other risk factors. Moreover, studying and developing culturally appropriate care models that are safe, effective, and adequately resourced would help to understand better the experiences of all childbearing individuals.

Relationship Among Providers, Settings, and Outcomes
Current research suggests that one-to-one nursing care during labor and birth has a positive influence on an individual’s birth experience and that doulas have a positive influence on outcomes by providing continuous support. However, additional research is needed to have a better understanding of variations in birth outcomes by setting and the full range of provider types. Such research could focus on the appropriate level of education and training needed to offer high-quality, safe care to all pregnant people and infants.

Models for Improving Access to All Birth Settings
Some states have implemented models for increasing access to all types of providers and birth settings for low-risk women. These include expanding Medicaid, Medicare, and commercial payer insurance to cover care provided at home and in birth centers, as well as covering costs of community-based doula services. Additional research, demonstration, and evaluation to determine the potential impacts of these state-level models are needed to inform consideration of nationwide expansion, particularly with regard to effects of reduction of racial/ethnic disparities in access, quality, and outcomes of care.

Research is also needed to develop sustainable models for safe, effective, and adequately resourced maternity care in underserved rural and urban areas, including establishment of sustainably financed demonstration model birth centers and hospital services. Such research could explore options for using a variety of maternity care professionals in underserved communities to increase access to maternal and newborn care, including prenatal and postpartum care. These programs would need adequate funding for evaluation, particularly with regard to effects on reduction of racial/ethnic and geographic disparities in access, quality, and outcomes of care.