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COMMENTARY

BIRTH ISSUES IN PERINATAL CARE WILEY

Are perinatal quality collaboratives collaborating enough? How including all birth settings can drive needed improvement in the United States maternity care system

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1 | INTRODUCTION

Giving birth in the United States, compared with other high-income countries, is notable for a variety of unfavorable outcomes, high rates of cesarean birth, marked racial and ethnic inequities, and exorbitant costs.[1,2] Among public health professionals, researchers, policymakers, payers, and advocates, there is broad consensus about the urgent need for improvement. An essential element of improvement efforts has been the establishment of perinatal quality collaboratives[3] in nearly every state. Since more than 98% of the births in the United States occur in hospitals,[4] these collaboratives have focused predominantly on improving hospital-based care. However, excluding planned community births,[5] those intended to take place either at home or in a freestanding birth center, from quality collaboratives provides an incomplete picture of birth in the United States. It also limits the opportunities to promote greater integration of maternity care across all settings and providers, expand care options for childbearing families, and generate much-needed quality improvement across the full spectrum of care.

2 | THE WELL-DEMONSTRATED VALUE OF MIDWIFERY-LED CARE

A large body of evidence points to the benefits of midwifery-led care, including fewer interventions, increased patient satisfaction, and similar or better care processes and outcomes compared with physician-led care.[6-8] Research has shown that the use of unnecessary interventions risks causing iatrogenic harm to women and newborns and drives up the cost of health care.[9] Much of this evidence comes from studies conducted outside the United States, and the majority have focused on the improved outcomes associated with midwifery-led care in a hospital setting. A number of high-quality observational studies and meta-analyses from countries where care across all settings and providers is well integrated, however, have also demonstrated both the

safety[10-12] and cost-effectiveness[13-15] of midwifery-led care in community-based settings. Several landmark studies on community-based birth in the United States[16-19] have demonstrated similarly positive outcomes, including low rates of cesarean birth and other obstetric interventions.

Recently, the Centers for Medicare and Medicaid Services Strong Start for Mothers and Newborns Initiative (2018) found that a midwifery-based model of enhanced prenatal care offered in freestanding United States birth centers improved birth outcomes among Medicaid beneficiaries, regardless of whether they planned to give birth in a community setting or a hospital. Nearly 90% of those receiving prenatal care at Strong Start birth centers achieved their preference for a vaginal birth. Breastfeeding rates at discharge (91.7%) and 6 weeks postpartum (87.6%) were similarly high. Experience of care was overwhelmingly positive, with beneficiaries reporting having "ample time for questions, feeling listened to and spoken to in a way they understood, being involved in decision-making, and being treated with respect."[20] Rates of preterm birth, low birthweight, and cesarean birth were all lower relative to matched and adjusted birthing people with typical Medicaid care.[21] Furthermore, this midwifery-based model of care contributed to a reduction in racial inequities and resulted in significant cost savings, relative to typical Medicaid care.[22]

3 | OPPORTUNITIES FOR IMPROVEMENT

In contrast to the consistently positive maternal outcomes within the literature related to planned community births, there has been conflicting evidence about the safety of birth outside the hospital for newborns. The majority of international investigations comparing planned home and birth center birth with hospital birth have found no difference in intrapartum fetal deaths, neonatal deaths, low Apgar scores, or admission to the neonatal intensive care unit.[23] The generalizability of these results to the United States, however, where integration across care settings and maternity care providers is lacking, has been questioned. Several reports in the United States,[24,25] as well as a highly publicized meta-analysis,[26] have indicated an increase in adverse outcomes for newborn associated with home and birth center births, relative to hospital births, although the absolute risk is low, regardless of birth setting. The design, methodology, and reporting of these results have been well-critiqued elsewhere.[27-30] Still, these studies have raised concerns about community-based birth among obstetricians (and pediatric providers) and have hindered efforts to more fully integrate midwifery into the maternity system.

If the goal is to enhance safety, we need greater interprofessional collaboration, not less.[31,32] Lack of familiarity, experience, or knowledge about home birth, and negative attitudes toward midwives are not uncommon among obstetricians.[33] Including midwives and all birth settings in Perinatal Quality Collaboratives could be very helpful for dispelling misconceptions, building trust and a sense of shared responsibility, and identifying areas for improvement across the maternity care system. What are the opportunities for upskilling? Where are the cracks in the system that could be causing delays in accessing hospital care when needed? What standardized data need to be collected, reported, and analyzed in all settings? Just as importantly, having community-based midwives at the PQC table alongside their obstetric and hospital midwifery colleagues could be very helpful in identifying ways in which midwifery practices could improve hospital care.

4 | DEMAND FOR COMMUNITY BIRTH IS GROWING

Although the overall rate of community-based birth in the United States is low, the number of births occurring at home and in freestanding birth centers is increasing and there is evidence to suggest that a greater percentage of childbearing people would choose these options if they were more widely available and financially accessible.[34] Between 2003 and 2017, the annual number of home births in the United States rose by 77% and there was a greater than twofold increase in birth center births, such that in 2017, 1 in 62 births took place outside the hospital.[35] Both the *Listening to Mothers in California* report (2018)[34] and the *Giving Voice to Mothers* study (2019)[36] identified an interest in community-based midwifery care and birth settings outside the hospital greatly out of proportion to current access and use of these care arrangements. The *Listening to Mothers in California* report highlighted that, even among patients who felt well-supported in the hospital, there is often a disconnect between the care they desired and the care they received. Participants overwhelmingly agreed that "birth is a process that should not be interfered with unless medically necessary." Yet just 1 in 20 experienced "physiologic childbirth" without major interventions according to the American College of Obstetricians and Gynecologists' reVITALize definition.[37] When queried about their preferences should they give birth in future, 40% of respondents expressed interest in giving birth at a freestanding birth center. Among Black women, the rate was 48%. Overall, 22% of respondents expressed interest in a future home birth. Black women expressed the greatest interest in a future home birth, with 25% indicating they would definitely want that option or would consider it should they give birth again. This should not be surprising as it is widely understood, and confirmed by the *Listening to Mothers in California* survey results, that across racial

and ethnic groupings Black women generally face the greatest challenges, have the greatest need for better care, and most desire access to supportive forms of maternal care.[34] Interest in community-based midwifery services is therefore likely to continue to grow in the coming years.

5 | A WELL-INTEGRATED MATERNITY CARE SYSTEM SHOULD BE A NATIONAL PRIORITY

According to the 2020 *Birth Settings in America* report[38] from the National Academies of Sciences, Engineering, and Medicine, the lack of *concurrent* data collection for hospital and community setting birth is a major limitation to the ability to compare outcomes. These comparative data are critical to understanding and improving maternal and newborn care and birth outcomes in all settings. Furthermore, multidisciplinary perinatal quality collaboratives inclusive of community-based midwives and birth settings have implications for data collection and standardization, the development of performance measures, safety, resource use, and person-reported experience and outcome measures (PREMs and PROMs) that are applicable across all birth settings. Critically, they also produce enhanced opportunities for strengthening interprofessional relationships, interdisciplinary shared learning and teaching, and developing a more integrated and effective system.

Benefits of Perinatal Quality Collaborative Standardized Data Collection and Reporting and Quality Improvement Initiatives in All Settings:

- For childbearing people
  - A more integrated maternity care system is a safer system
  - Greater transparency allows childbearing families to make more informed decisions about care provider and care setting
  - Collecting data across birth settings lays the foundation for a more responsive maternity care system that centers the needs and preferences of consumers
  - Increased information and expanded options for care would respond to the mistrust of standard maternity care among many Black, Indigenous, and other people of color and to their preference for more responsive and culturally congruent, community-based services
  - Having high-quality data on birth in community settings can support care planning during a pandemic like COVID-19 when patient anxiety about hospital birth, for example, restrictions on the number of birthing companions and fear of exposure to the virus, may be more pronounced
- For health care providers
  - Collaborating on data and quality can facilitate the relationships needed for care integration across settings and providers
  - Data on community birth outcomes can inform hospital-based providers about care, experiences, and outcomes in community birth settings and increase their receptivity to receiving hospital transfers from planned home and birth center births
  - Expanded data provide opportunities for interprofessional learning and growth to better meet patients' needs and address shared quality interests
- For the health care system
  - Collaborative data collection meets safety needs by facilitating the integration of community-based providers and settings into the maternity care system
  - Care, experience, and outcomes research can identify and account for hospital transfers
  - Capturing data on care provided by community-based midwives in rural areas can support innovative solutions to addressing maternity care deserts
  - Building relationships of trust and bidirectional learning can improve unit culture and maternal-newborn care, experiences, and outcomes

- Greater cost savings can accrue from ensuring that all care-setting options are accessible
- Data on community birth allow the system to be more flexible and accommodating during a health crisis like a natural disaster or a pandemic
- Increasing knowledge and building trustful relationships through collaborative quality work can foster care integration across providers and settings

- For policymakers and health system decision-makers
  - Having standardized data about all settings and providers provides a comprehensive view of the safety, responsiveness, and effectiveness of the maternity care system
  - Having standardized data about all settings and providers can help set policies about licensure, coverage, and eligibility
- Expanded high-quality data can be used to better allocate resources to achieve desired population-based health outcomes and cost savings

There is increasing recognition that any barriers to the development of a well-functioning integrated maternity care system with ready access to consultation, collaborative care, transfers, and transports when necessary across all maternity care providers and settings compromise safety for childbearing people in the United States.[31,32,39] Barriers may include: unwillingness to offer consultative services to midwives; mistreatment of laboring women and their midwives in the context of hospital transfers from planned community births;[40] and limited access to standard practices which are highly desired by many who choose community birth settings, such as vaginal birth after cesarean (VBAC) and external versions for breech presentations. Excluding community midwives and community birth settings from perinatal quality collaboratives is also an impediment to much-needed integration. As noted previously, in countries where midwives are well integrated into the health care system, the safety and the benefits of midwifery care are clearly documented. Compared with countries such as Australia, the Netherlands, the United Kingdom, and Canada, midwifery in the United States is rather poorly integrated into the maternity care system.[1] A major conclusion of *Birth Settings in America* is that the lack of reliable integration across providers and settings in the United States contributes to inferior birth outcomes relative to peer nations.[38] So how do we achieve the optimal state of a highly integrated maternity care system?

It's a bit of a chicken-or-the-egg dilemma: data begets integration; integration begets data. This is why capturing standardized, high-quality data on birth in all settings in the United States is both so challenging and so necessary.

6 | PROGRESS TOWARD INTEGRATION IN WASHINGTON STATE

One jurisdiction in the United States stands out as an exception and makes the case for greater integration nationally. In Washington state, midwifery is comparatively well integrated into the maternity care system.[19,40,41] The presence of a strong, well-established professional organization, the Midwives' Association of Washington State (MAWS), has helped to ensure that birthing families have access to a broad array of care settings. Choice among settings is largely covered by insurance plans, including Medicaid, which has covered births in freestanding birth centers since the mid-1980s and home births since 2001. An independently conducted cost-benefit analysis[42] commissioned by the Washington state legislature in 2007 demonstrated both the excellent outcomes and the significant cost savings conferred by licensed midwifery care. This significantly expanded the midwifery workforce in the state, resulting in a 50% increase in birth center births, and a 79% increase in home births between 2008 and 2018.[43] And a 2016 report[44] from the Washington State Health Care Authority, which recommended tripling the birth center facility fee reimbursement rate, has resulted in a significant increase in access to birth center care over the past five years, particularly in rural areas.[45] Persistent advocacy and the availability of state-specific Medicaid data made all of that happen.

Representation of licensed midwives within the Washington State Perinatal Collaborative (WSPC) for more than two decades has also fostered interdisciplinary collaboration. Under the auspices of the WSPC, the Smooth Transitions Quality Improvement Program was launched in 2009. Now based at the Foundation for Health Care Quality in Seattle, WA, this program works with hospitals and community-based midwives across the state to ensure that hospital transfers from planned home and birth center births occur efficiently and that patients receive safe and respectful care. The initiative fills in critical knowledge gaps about the training and scope of practice of licensed midwives, including the medications and equipment they are authorized to use, and presents state-specific community-based birth outcome data and

aggregated survey data on patient experience of care. Regularly held, multidisciplinary meetings at participating hospitals bring all parts of the system together to work on a common goal of improving care. One particularly salubrious consequence of Smooth Transitions has been an increase in community midwife-to-hospital midwife transfers. Another has been a greater willingness of obstetricians and hospital-based nurse-midwives to consult and collaborate with community midwives prenatally. This has expanded access to innovative shared-care arrangements, for example for birthing people seeking vaginal birth after cesarean (VBAC). Theoretically, a similar shared-care model could also be available to those seeking the high-touch, comprehensive prenatal and postpartum care offered by a midwife but who may feel more comfortable birthing in a hospital with more immediate access to emergency services if necessary and/or more options for pain management. In such a model, care is wrapped around the birthing person—rather than around the provider or the facility—and prioritizes their needs. Sharing comprehensive data and the development of interprofessional relationships have also expanded opportunities for obstetricians to get exposure to the midwifery model of care during residency so that they can be more responsive to their patients seeking physiologic birth experiences. And it has generated invitations for community midwives to participate in ongoing cross-disciplinary emergency skills training in simulation labs with hospital staff, which, in turn, has promoted further bridge-building.

7 | PROGRESS TOWARD COMPREHENSIVE DATA COLLECTION

Since its inception in 2010, the Obstetrical Care Outcomes Assessment Program (OB COAP), also housed at the Foundation for Health Care Quality, was committed to including data on planned community-based births alongside hospital-based data. OB COAP is a clinician-led, continuous perinatal quality collaborative that uses clinical data from health records for the purpose of quality improvement. When invited to participate in the pilot phase of OB COAP, approximately 70% of the professional members of the Midwives' Association of WA State (MAWS) voluntarily contributed their data, recognizing the unprecedented opportunity to demonstrate what community-based midwives do well and learn what they could be doing even better. Then, in 2014, the Washington state legislature passed HB 1773, requiring all licensed midwives to participate in a state- or nationally recognized data collection program as a condition for licensure renewal. At the time, many of the licensed midwives in Washington were already voluntarily participating in data collection through the MANA Statistics project of the Midwives Alliance of North America.[46] To facilitate ongoing quality improvement, enable future research comparison of community and hospital-based births, and reduce the data burden on the midwives, MAWS, MANA Stats, and the Foundation for Health Care Quality developed a "ferry" to export data from the MANA Stats database into OB COAP. Currently, all professional MAWS members, representing about 55% of the home births in the state and 97% of the births in freestanding birth centers, are participating in OB COAP, along with 20 of the 57 hospitals providing obstetric services in Washington, representing about a third of all hospital births in the state. Research using OB COAP has highlighted the low rates of physiologic birth in hospitals and the association between nurse-midwifery care and lower intervention in hospital births.[47,48] Direct comparisons between hospital and community birth outcomes have thus far remained elusive.

A community birth module within OB COAP is currently under development to remedy this issue. It will serve as a data repository for ***all*** licensed midwives providing care in community settings in Washington state. The module will include common data points that better align with the variables in OB COAP, allowing for more direct comparisons between hospital and community-based care and for these comparisons to be adjusted for population characteristics and medical risk factors. This will facilitate quality improvement efforts and research on outcomes for low-risk populations across birth settings. The community birth module will also be able to identify the unique aspects of community-based midwifery care that contribute to high rates of physiologic birth and patient satisfaction with care and could serve as a benchmark for the kind of outcomes that might be achieved in all settings across the state and beyond.

8 | EXPANDING INTEGRATION TO THE NATIONAL LEVEL

Nationally, there is a related need to develop performance measures that can be used to assess both hospitals and birth centers, and clinician- and group-level measures that apply to physicians and midwives across settings. They should be intentionally designed, tested, and endorsed for these broader applications up front, to provide full comparative information across settings and providers. Whenever appropriate and feasible, such measures should also be stratified by race and ethnicity, to enable measurement, tracking, and reduction of inequitable variation. All providers and settings should be incentivized

to understand and continuously improve the quality and outcomes of their care. Implementation and, ideally, public reporting, of such tools is increasingly important as interest in community settings and providers grows and as the nation transitions to alternative payment models with increased mechanisms for accountability.

In addition, as the call for greater transparency in health care grows louder, consider the role that collecting comprehensive and standardized data on birth in all settings could play in creating user-friendly resources, such as apps, web-based pamphlets, and infographics, to enable childbearing people to make choices that match their values and preferences about where and with whom to give birth. As the *Listening to Mothers in California* report noted, the majority of survey respondents were not aware of the extent of quality variation across different hospital maternity units and across different providers.[34] There are rich opportunities for further building the skills and knowledge of childbearing women, improving patient safety, and providing access to better provider- and facility- or setting-level quality data. Tools need to be developed to help families navigate this information. Searching for comparative quality information should become a standard part of the early or prepregnancy experience.

In summary, there is an urgent need in the United States for a more equitable and cost-effective maternity care system with better outcomes and a wider array of options for birthing families. Recent research has highlighted the key role that community midwives may have in making this transition. The initiatives in the State of Washington and within OB COAP can serve as a proof of concept for the nation. All perinatal quality collaboratives should be multidisciplinary and include home and birth center births and the midwives working in these settings in their quality improvement work. This would allow for bidirectional sharing and learning and would improve both quality and safety of care in all settings. In addition, performance measures need to be developed and adapted for use in all birth settings to foster valid comparisons between hospital care and community-based midwifery care and consumer choice. A more integrated and innovative maternity care system in the United States is indeed possible and comprehensive data systems, both quantitative and qualitative, could offer both a stimulus and a roadmap to get there.

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