

# Transfer from Planned Home Birth to Hospital: Improving Interprofessional Collaboration

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Women's heightened interest in choice of birthplace and increased rates of planned home birth in the United States have been well documented, yet there remains significant public and professional debate about the ethics of planned home birth in jurisdictions where care is not clearly integrated across birth settings. Simultaneously, the quality of interprofessional interactions is recognized as a predictor of health outcomes during obstetric events. When care is transferred across birth settings, confusion and conflict among providers with respect to roles and responsibilities can adversely affect both outcomes and the experience of care for women and newborns. This article reviews findings of recent North American studies that examine provider attitudes toward planned home birth, differing concepts of safety of birthplace as reported by women and providers, and sources of conflict among maternity care providers during transfer from home to hospital. Emerging evidence and clinical exemplars can inform the development of systems for seamless transfer of women and newborns from planned home births to hospital and improve experience and perceptions of safety among families and providers. Three successful models in the United States that have enhanced multidisciplinary cooperation and coordination of care across birth settings are described. Finally, best practice guidelines for roles, communication, and mutual accommodation among all participating providers when transfer occurs are introduced. Research, health professional education, and policy recommendations for incorporation of key components into existing health care systems in the United States are included.

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## INTRODUCTION

In response to public demand and emerging evidence, location of birth and type of maternity care provider in North America have diversified over the last decade.<sup>1–4</sup> Both the utilization of midwives and the rate of home births have risen in the United States and Canada.<sup>5</sup> In the United States, after a steady decline between 1990 and 2004, home births increased by 41% between 2004 and 2010, up from 0.56% to 0.79%.<sup>4</sup> The majority of home births are attended by midwives. Women who plan home births indicate high satisfaction.<sup>6,7</sup> The cost-effectiveness of including planned home birth as a maternity care option within a larger health system has been reported in economic analyses of delivery of care and outcomes for midwife-led planned home births versus midwife-led planned hospital and birth center births.<sup>8,9</sup>

In the United States, the Listening to Mothers III study surveyed a representative national sample of women who had planned hospital births in 2011 and 2012 (N = 1980). Nearly 30% of women reported that they would consider a home birth for their next pregnancy, with the greatest interest expressed by non-Hispanic black women.<sup>10</sup> Two-thirds of the respondents (64%) thought that a woman should have a right to a home birth if she chooses.<sup>10</sup>

Despite the increasing demand for home birth and the evidence from well-designed population-based cohort studies that demonstrate the safety and efficacy of midwife-attended

home birth,<sup>11–14</sup> there is significant opposition to home birth among physicians and nurses in North America.<sup>15–17</sup> Some medical professionals have suggested that women who choose home birth place the value of their own experience over the health of their newborns.<sup>18</sup> Public opinion about home birth is also very strong and divided. There are individuals who decry all of modern obstetrics and insist that the autonomy of women is sacrosanct; others suggest midwives and parents are hiding data that expose high rates of newborn death at planned home births. Some US payors and policy makers have instituted regulatory and financial barriers to the provision of home birth services. In some states, midwives are restricted to in-hospital practice either by state regulation or, more commonly, by hospital privileging committees. As a result, skilled birth attendants for planned home births are scarce in most of the United States, and many practice outside their regional maternity health care system. Nonetheless, a growing number of childbearing families are seeking expanded options for birthplace without concomitant reductions in safety, autonomy, or respectful care.

In October 2011 and April 2013, we participated as delegates in the national Home Birth Summits convened by a multidisciplinary council of presidents and governing board members from the 10 US maternity-care professional and consumer organizations listed in Table 1. During these summits, we worked with 68 national leaders to craft a common agenda for the future of home birth in the United States. The delegates represented multiple stakeholder groups, including parents and potential parents considering home birth, midwives, physicians, nurses, researchers, ethicists, legislators, lawyers, insurers, and health policy experts.

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## Quick Points

- ◆ After the onset of labor, about 1 in 10 women planning a home birth will experience transfer to a hospital, and the majority of transfers are for non-urgent reasons such as failure to progress.
- ◆ In North America, both midwives and physicians experience discomfort during interprofessional consultations related to planned home birth, and friction between maternity care providers is especially pronounced when addressing transfers from home to hospital.
- ◆ The key sources of conflict among providers related to planned home birth are divergences in beliefs about safety and risk; lack of fluency with each other's scope of practice, roles, and responsibilities; and mismatched expectations around communication.
- ◆ When the concepts of patient autonomy, risk, and appropriate interventions differ between providers—or between women and their providers—choice of birthplace and transitions from home to hospital are affected.
- ◆ The multidisciplinary Home Birth Summit Collaboration Task Force has developed Best Practice Transfer Guidelines for use by clinicians, administrators, and policy makers to support seamless transfer of women and newborns from home to hospital, when necessary, including standards for communication and collaboration.

The consumer delegates at the Home Birth Summits were clear; they expect maternity care professionals to figure out how to work together to maintain home birth as a safe and accessible option.

By the close of the first summit, the delegates arrived at 9 shared priority areas for further discussion, research, and action (see Tables 2 and 3). Critical among these was a call for the development of systems for a seamless transfer of women and newborns from home to hospital when necessary, including standards for communication and collaboration across maternity care disciplines. Following the summit, a multidisciplinary task force of delegates developed Best Practice Transfer Guidelines for use by clinicians, administrators, and policy makers in all settings (see Table 4). This article reviews the emerging evidence that led to a mandate for the development of national transfer guidelines, along with recommendations and exemplars for effective incorporation into existing health care systems and health professional education programs in the United States.

### SAFETY OF BIRTHPLACE

A primary concern for all engaged in the discussion of home birth is ensuring the safety of the woman and her child. Until recently, there were no high-quality data comparing outcomes related to birthplace. Most published studies failed to reliably distinguish planned place of birth, type of attendant, and/or perinatal risk profile among women.

In 2009, the largest cohort study to date ( $N = 529,688$ ) used national data from 2000 to 2006 in the Netherlands to compare perinatal mortality and morbidity outcomes for planned home births (60.7%), planned hospital births (30.8%), and unknown place of birth (8.5%).<sup>13</sup> There were no significant differences between planned home and hospital births for the outcomes of intrapartum fetal death, neonatal death within 24 hours or 7 days after birth, or admission to a neonatal intensive care unit. Two Canadian research teams corroborated these findings through population-based cohort studies comparing the outcomes of low-risk women

who planned home births with those who planned hospital births.<sup>11,12</sup>

Still, some professional bodies have suggested that these outcomes are not generalizable because the integrated systems of health care that exist in the Netherlands and Canada are largely absent in the United States.<sup>19</sup> A 2010 meta-analysis of home birth studies, including the above-cited cohort studies and some earlier US-based studies, concluded that home birth was associated with optimal maternal outcomes and lower rates of obstetric interventions, yet significantly increased neonatal morbidity and mortality.<sup>20</sup> This meta-analysis sparked much debate. Some expert reviewers questioned the quality of the methodology and inclusion criteria that led to the findings, and others asserted that any statistical errors noted were not sufficient to alter the conclusions.<sup>21–23</sup>

In 2011, the Birthplace in England Collaborative Group released findings of a prospective study of more than 60,000 low-risk women in England.<sup>14</sup> Investigators concluded that for healthy women, poor maternal–newborn outcomes were extremely rare, regardless of birth setting. Planned home birth was also associated with significantly fewer obstetric interventions, higher maternal satisfaction, and increased cost-effectiveness compared to birth in a hospital obstetric unit.<sup>24</sup> A 2012 Cochrane systematic review described the inability to derive conclusions from randomized controlled trials about the relative safety of home and hospital birth.<sup>25</sup> However, the authors assert that evidence from increasingly well-designed observational studies suggests that, among low-risk women in countries that integrate home birth services into the national health care system, planned home birth results in significantly fewer interventions and complications than experienced by women who give birth in hospital.

Presenters at the 2013 Institute of Medicine Workshop on Research Issues in the Assessment of Birth Settings reviewed the literature on the safety of midwife-led home birth.<sup>26</sup> The panelists concluded that, although there may be a very small increase in the relative risk of home birth in nulliparous women, the absolute risk of adverse events is rare; thus, it must

**Table 1. Organizations Represented on the Home Birth Summits Steering Council**

American Academy of Family Physicians
American Academy of Pediatrics
American College of Nurse-Midwives
American College of Obstetricians and Gynecologists
Association of Women's Health, Obstetric and Neonatal Nurses
International Center for Traditional Childbearing
Lamaze International
Midwives Alliance
National Association of Certified Professional Midwives
Our Bodies Ourselves

be considered within the larger context of the substantial decrease in the use of obstetric interventions, enormous cost savings, and the potential to increase access to care for underserved populations.

The American College of Obstetricians and Gynecologists' Committee Opinion on Planned Home Birth argues that, although choice should be respected and there are noted maternal benefits of home birth, "hospitals and birth centers are the safest setting for birth."<sup>27</sup> However, despite concerns about relative risks, the American College of Obstetricians and Gynecologists' Committee Opinion acknowledges that women have the right to make medically informed decisions about place of birth, and safety is tied to the availability of timely transfer and an existing arrangement with a hospital for such transfers. Similarly, Dr. Kristi Watterberg, Chair of the Committee on Fetus and Newborn of the American Academy of Pediatrics (AAP), emphasized that the AAP Statement on Home Birth is "... to promote the best interests of children and their families, by acknowledging maternal and family autonomy and the complexity of their decision making, by setting rigorous standards for care of infants born in any setting, and by promoting increased professional collaboration and communication."<sup>28</sup>

### PROVIDER ATTITUDES TO HOME BIRTH

Examinations of provider attitudes to birthplace are scarce. In a study of certified nurse-midwives (CNMs) in the United States (N = 1893),<sup>29</sup> greater exposure to planned home birth during education or from practice and younger age predicted more favorable attitudes toward planned home birth. Practice experience in birth centers was also associated with more favorable attitudes. External barriers that significantly predicted unfavorable attitudes toward planned home birth included logistic factors and increased risk of peer disapproval. CNMs expressed discomfort seeking medical consultation for home birth cases. Both unfavorable attitudes and perceived external barriers were strongly correlated with unwillingness to practice in the home.

More recently, the Canadian Birth Place Study, a national mixed-methods study, used a quantitative survey and focus groups to examine attitudes toward home birth among Canadian obstetricians, registered midwives, and family physicians (N = 915).<sup>30,31</sup> Regression analyses revealed covariates of

**Table 2. Home Birth Summit 2011: Common Ground Statements Relevant to Transfer<sup>a</sup>**

<b>Statement 1</b>	We uphold the autonomy of all childbearing women. All childbearing women in all maternity care settings should receive respectful, woman-centered care. This care should include opportunities for a shared decision-making process to help each woman make the choices that are right for her. Shared decision making includes mutual sharing of information about benefits and harms of the range of care options, respect for the woman's autonomy to make decisions in accordance with her values and preferences, and freedom from coercion or punishment for her choices.
<b>Statement 2</b>	We believe that collaboration within an integrated maternity care system is essential for optimal mother-baby outcomes. All women and families planning a home or birth center birth have a right to respectful, safe, and seamless consultation, referral, transport, and transfer of care when necessary. When ongoing interprofessional dialogue and cooperation occur, everyone benefits.
<b>Statement 3</b>	We are committed to an equitable maternity care system without disparities in access, delivery of care, or outcomes. This system provides culturally appropriate and affordable care in all settings, in a manner that is acceptable to all communities. We are committed to an equitable educational system without disparities in access to affordable, culturally appropriate, and acceptable maternity care provider education for all communities.
<b>Statement 5</b>	We believe that increased participation by consumers in multi-stakeholder initiatives is essential to improving maternity care, including the development of high quality home birth services within an integrated maternity care system.
<b>Statement 6</b>	Effective communication and collaboration across all disciplines caring for mothers and babies are essential for optimal outcomes across all settings. To achieve this, we believe that all health professional students and practitioners who are involved in maternity and newborn care must learn about each other's disciplines, and about maternity and health care in all settings.

<sup>a</sup>Full list of 9 Common Ground Statements available at [www.homebirthsummit.org](http://www.homebirthsummit.org).

**Table 3. Elements of a Collaborative Research Agenda That Will Support Collaboration**

Development of valid data collection systems that are linked across birth settings
<i>Facilitate examination of outcomes in intention-to-treat design, including data related to transfer and consultations</i>
Establishment of a multidisciplinary consensus panel to examine evidence on safety of maternal–fetal outcomes of planned home birth
<i>Multistakeholder engagement in generation of evidence may lead to broader consensus on the evidence</i>
Research and dissemination of evidence on models for effective interprofessional communication and collaboration across birth sites
<i>Facilitate uptake of Best Practice Guidelines for Transfer</i>
Community-based participatory research about women’s choice and experience of how birthplace interacts with health outcomes including social and emotional well-being
<i>Improve the culture of safety and generate patient-oriented outcomes research</i>
Examine impact of transport, change of provider, and delays in care on outcomes
<i>Develop evidence-based protocols to guide safe transport and transfer of care</i>
Evaluate mechanisms to enhance the cost-effective referral of women to levels of care and settings according to the regional distribution of health human resources
<i>Enhance appropriate allocation of resources and increased cost-effectiveness</i>
Evaluate disparities in access to evidence-based maternity care across prenatal and birth care sites and types of providers
<i>Address shared goals of reducing health inequities and inform policy initiatives</i>
Develop and disseminate algorithms to midwives and physicians to facilitate interpretation of quality of evidence related to birth site
<i>Harmonize knowledge base, data definitions, and data collection systems</i>
Develop and disseminate intra- and interprofessional education models using transfer of care across birth sites as an exemplar
<i>Require the acquisition of interprofessional collaboration competencies</i>
Health policy research related to autonomy and ethics of birth site legislation
<i>Inform a rights-based framework for legislative initiatives on access, licensure, professional education, and insurance reimbursement</i>
Evaluate cost-effectiveness data evaluating and comparing birth sites in the United States
<i>Inform affordable care and allocation of resources</i>

attitudes (as measured with a 17-item attitude scale), and focus group data confirmed the context and etiology of attitudes. Type of care provider accounted for 84% of the variance in attitudes toward home birth. Whereas acceptance of hospital-based midwifery care was high, physician attitudes toward home birth were largely unfavorable. Physicians were uncomfortable discussing home birth with women who asked about this option during pregnancy. Both midwives and physicians reported discomfort during interprofessional consultations related to planned home birth. Quantitative and qualitative analyses revealed that friction among all types of providers was significantly and especially affected by the nature of their experiences with interprofessional communication and collaboration when transfer from planned home to hospital birth occurred. Educational exposure to home birth practice was minimal among physicians but almost universal among midwives. Physician responses showed misperceptions about site selection and transfer guidelines, midwifery competencies, and equipment and medications carried to home births. Physicians reported that, while in medical school, pregnancy and birth were often depicted as unpredictable and dangerous. Several physician respondents expressed regret that they did not have more exposure to care in various birth settings.

In a study of 545 Canadian nurses, more than 50% believed that home birth is unsafe even for low-risk women.<sup>15</sup> There is no current published research on US nurses’ knowledge of or attitudes about home birth. This is concerning be-

cause hospital nurses play a pivotal role in setting the tone when a woman is transferred from home to hospital. They are usually the first professionals to receive and assess the woman and to orient her and her family to the hospital setting, and nurses often coordinate communication between home and hospital providers. The Association of Women’s Health, Obstetric and Neonatal Nurses position statement on midwifery states that nurses should advocate for women transferring to the hospital from home, promote effective team communication, and facilitate respectful transitions of care settings.<sup>32</sup>

### INTERPROFESSIONAL RELATIONSHIPS DURING TRANSFERS

The rate of transfer from home to hospital after the onset of labor ranges from 9% to 13%. The majority of maternal and newborn transfers are nonurgent, and the most common reason cited for transfer is failure to progress among primiparous women (78%).<sup>11,12,14</sup> When seamless coordination of care occurs, research suggests that fewer intrapartum neonatal and maternal deaths occur during critical obstetric events.<sup>33,34</sup> As a result, several national initiatives have focused on improving interprofessional collaboration.<sup>35,36</sup> Both routine and acute maternity care requires skillful collaboration and cooperation across disciplines, especially in settings where resources are limited. Lack of role clarity and poor communication are primary determinants of preventable adverse neonatal and maternal outcomes, including death.<sup>33,37</sup>

**Table 4. Best Practice Guidelines: Transfer from Planned Home to Hospital Birth<sup>a</sup>**

**Model Practices for the Midwife**

In the prenatal period, the midwife provides information to the woman about hospital care and procedures that may be necessary and documents that a plan has been developed with the woman for hospital transfer should the need arise.<sup>60</sup>

The midwife assesses the status of the woman, fetus, and newborn throughout the maternity care cycle to determine if a transfer will be necessary.

The midwife notifies the receiving provider or hospital of the incoming transfer, reason for transfer, brief relevant clinical history, planned mode of transport, and expected time of arrival.<sup>32,51,52,60-62</sup>

The midwife continues to provide routine or urgent care en route in coordination with any emergency services personnel and addresses the psychosocial needs of the woman during the change of birth setting.

Upon arrival at the hospital, the midwife provides a verbal report, including details on current health status and/or need for urgent care.

The midwife also provides a legible copy of relevant prenatal and labor medical records.<sup>32,51,60,61,63</sup>

The midwife may continue in a primary role, as appropriate to her scope of practice and privileges at the hospital. Otherwise, the midwife transfers clinical responsibility to the hospital provider.<sup>52</sup>

The midwife promotes good communication by ensuring that the woman understands the hospital provider's plan of care and that the hospital provider understands the woman's need for information regarding care options.

If the woman chooses, the midwife may remain to provide continuity and support.

**Model Practices for the Hospital Provider and Staff**

Hospital providers and staff are sensitive to the psychosocial needs of the woman that result from the change of birth setting.<sup>61</sup>

Hospital providers and staff communicate directly with the midwife to obtain clinical information in addition to the information provided by the woman.

Timely access to maternity and newborn care providers may be best accomplished by direct admission to the labor and delivery or pediatric unit.<sup>32,52,60-62</sup>

Whenever possible, the woman and her newborn are kept together during the transfer and after admission to the hospital.

Hospital providers and staff participate in a shared decision-making process with the woman to create an ongoing plan of care that incorporates the values, beliefs, and preferences of the woman.

If the woman chooses, hospital personnel will accommodate the presence of the midwife as well as the woman's primary support person during assessments and procedures.

The hospital provider and the midwife coordinate follow-up care for the woman and newborn, and care may revert to the midwife upon discharge.

Relevant medical records, such as a discharge summary, are sent to the referring midwife.<sup>62</sup>

**Quality Improvement and Policy Development**

Policies and quality-improvement processes should incorporate the model practices above, as well as delineate at a minimum, the following:

Communication channels and information needed to alert the hospital to an incoming transfer.

Provision for notification and rapid assembly of staff in case of emergency transfer.

Opportunities to debrief the case with providers and with the woman prior to hospital discharge.

**Documentation of the woman's perspective regarding her care during transfer.**

A defined process to regularly review transfers that includes all stakeholders with a shared goal of quality improvement and safety.

This process should be protected without risk of discovery.<sup>63</sup>

Opportunities for education regarding home birth practice, shared continuing medical education, and relationship building that are incorporated into medical, midwifery and nursing education programs. Multi-disciplinary sessions to address system issues may enhance relationship building and the work culture.

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<sup>a</sup>This is an excerpt of the guidelines. The full document, including context, rationale, and recommendations for implementation, is available at [www.homebirthsummit.org](http://www.homebirthsummit.org)

Whereas midwives have become accepted members of maternity care teams in many US hospitals and clinic settings, attendance at home birth remains a contentious issue that can cause conflict among providers.<sup>30,38</sup> Interprofessional communication and collaboration is especially important during intrapartum transfers from home to hospital. The interactions can function either to entrench divisions between provider types and models of care or to provide the opportunity for mutual accommodation. Building on work by medical anthropologist Bridgette Jordan, PhD, midwife-anthropologist Melissa Cheyney, PhD, CPM, LDM, describes the ideal scenario as “a form of interprofessional and cross-cultural collaboration characterized by negotiation and shared respect between practitioners and their respective epistemologies.”<sup>39</sup> Cheyney et al examined the contrasting views of hospital- and home-based clinicians in the context of home-to-hospital transfers.<sup>39</sup> A physician, a midwife-anthropologist, and a doula observed more than 50 transfers; conducted open-ended, semistructured interviews; and engaged in a process of reciprocal ethnography with physicians and midwives. Key findings were returned to participants for comment. Six key themes that emerged from the interviews demonstrate significant differences between the perspectives of hospital and home-based providers as captured in their respective transfer narratives.

Hospital providers spoke of:

*[T]he belief that home birth is substantially more dangerous than current studies suggest; the experiences of fear and frustration generated when physicians are forced to assume the risk of caring for another provider's patient; and challenges related to charting and interprofessional communication.*

Further, there was a perception of the mismanagement of higher-risk patients, which fueled discord between midwives and physicians and made hospital practitioners skeptical of publications that conclude that home birth is safe. Cheyney et al note that:

*While all of the hospital providers ... agreed that the vast majority of home-to-hospital transfers were non-emergent, they remained deeply influenced and angered by the few emergencies they had either experienced or heard of through the “hospital grapevine.”<sup>39</sup>*

Assuming responsibility for home-to-hospital transfers, feeling forced to take over these cases, or even thinking about having to do so produced a fear and sense of vulnerability that was not easily alleviated, even when there was a positive outcome.

Conversely, midwives' transfer narratives were centered around 3 key themes that differed from those expressed by their hospital-based colleagues: the defense of more holistic and co-negotiated constructs of risk in midwifery models of care; physicians' tendency to judge [midwives] by ‘the exception, rather than the rule’; and the failure of physicians to take responsibility for their roles in poor state and national maternal-child health outcomes.<sup>39</sup> Home-based providers acknowledged that the lack of collaborative relationships with hospitals and providers sometimes did result in transfer

delays, especially when clients were worried about how they might be treated.

The authors describe 3 larger sociopolitical mechanisms that perpetuate dysfunctional relationships between home birth midwives and receiving physicians when the need to communicate across the home-hospital divide is most essential. The first is the ethical-legal conflicts of interest that providers are faced with when the stance of their own professional associations does not align with the realities of having to share care. The second is the legislative glass ceiling that prevents certified professional midwives (CPMs) in many states from gaining the legal status that is a precursor to improved integration. The third is the cycle of liability concerns and fear of adverse outcomes leading to delays in care and fractured communication that in turn lead to bad outcomes and increased liability. The authors conclude that when universal mechanisms to ensure accountability, quality assurance, documentation, and respectful communication are apparent, accessible, and transparent across professions, mutual accommodation will be enhanced and ongoing conflict over transfer may be reduced.

## DISARTICULATION AND WOMEN'S CHOICES

Few studies have examined consumers' preferences for maternity care providers and birth locations. In a 2010 prospective cohort study, Hendrix et al<sup>40</sup> examined preferences for the type of provider and place of birth among 321 low-risk pregnant women and their partners (n = 212). Overall, women preferred midwifery care and home birth, and they cited the importance of having influence over the decision-making process throughout the maternity cycle. In a descriptive study of 160 women planning home births in the United States,<sup>41</sup> participants identified the primary reasons for choosing a planned home birth as safety; avoidance of unnecessary medical interventions common in hospital births; previous negative hospital experience; more control; comfortable, familiar environment; and their own trust in the birth process. In a 2012 prospective cohort study,<sup>42</sup> 550 nulliparous women who chose home birth reported that their decision was driven by the desire for personal autonomy with respect to the ability to wait for the birth in their own environment and be in control during birth. In a survey of all women in Sweden who birthed at home between 1992 and 2005 (N = 671),<sup>43</sup> women's perceived risks of hospital births included loss of autonomy, impersonal care, and subjection to interventions.

The impact of a clash in cultural beliefs among providers about birth and birth setting on women's choices cannot be underestimated. These themes are echoed by women who choose to have an unattended home birth (freebirth) or an attended high-risk home birth despite having medically defined risk factors and/or maternity care provider recommendations for a hospital birth.<sup>44</sup> In a 2012 qualitative study, 9 women who intentionally had an unassisted home birth were highly articulate about the rationale for and ramifications of their birth-place choices. A majority of these women had previous birth experiences, and they noted that all births had an element of inherent risk. Yet, they believed that they had been put at unnecessary risk by maternity care providers, and they expressed a desire to avoid repeat traumatic births that might impact

their mothering ability and experience. In addition, several of the participants had worked in hospitals and witnessed medical errors that happened within an institutional setting.

In low-resource countries, investigations describing quality and safety related to planned home birth have discussed the impacts of method of transport, delay in transfer, or care after transfer.<sup>45</sup> Institutional birth is being encouraged because of the significant health impacts associated with the lack of access to qualified providers and lifesaving emergency medications and procedures such as cesarean and standardized neonatal resuscitation. Yet, even without an integrated system that facilitates access to regulated health care providers, women display a preference for home births to avoid disrespectful, discriminatory care.<sup>46,47</sup>

Similarly, in the US-based Listening to Mothers III study, 30% of black and Hispanic primiparous women and 21% of white women who planned hospital births reported that they sometimes or always felt “treated poorly because of a difference of opinion with [their] caregivers about the right care for [herself or her] baby.”<sup>10</sup> Among all women who agreed or strongly agreed with the statement “Giving birth is a process that should not be interfered with unless medically necessary,” 37% reported experiencing poor treatment because of a difference of opinion with their caregivers. When asked “During your recent hospital stay when you had your baby, how often were you treated poorly because of your race, ethnicity, cultural background, or language?” 29% of Hispanic women and 21% of non-Hispanic black primiparous women reported that they had sometimes or always experienced this.

These studies highlight the reality that the concepts of safety, risk, and appropriate use of interventions differ not only between types of providers, but also between women and their maternity care providers, further complicating decision-making conversations when both birthplace and the model of care changes. When race and culture disarticulation are added, a woman may feel that she would have been culturally safe and avoided the added stress of defending her decisions if she had stayed home. Many clinicians have experienced the complexity of respecting a woman’s choice when her desires are in conflict with evidence-based maternity care.<sup>48</sup> However, patient safety and quality literature consistently address the impact of provider–patient communications on health outcomes, noting women’s desire to be full participants in the care planning team and highlighting the value of a shared decision-making process when applying the best available evidence.<sup>49</sup>

## LEARNING FROM EXISTING COLLABORATIVE MODELS

Whereas there is a significant amount of literature focused on the value of collaboration across maternity care teams, coordination and collaboration across settings has had less focus; and there are limited exemplars available in the published literature. Nonetheless, there are a few US models of health care systems that enhance interprofessional collaboration when the planned site of birth changes. The 3 best practice models presented here provide important examples of how disparate systems might be better integrated, while also revealing some key challenges around newborn care that still must be addressed.

## Northern New England

Over the past 5 years in northern New England, there has been tremendous activity around collaboration between hospital-, home-, and birth center-based perinatal care professionals.<sup>50</sup> Within southwestern New Hampshire and southeastern Vermont, Cheshire Medical Center/Dartmouth Hitchcock Keene and its group of 5 obstetricians and 5 CNMs have cultivated collaborative relationships with a provider group of 15 CPMs, CNMs, and naturopathic physicians. Beginning in 2012, this entire group met annually to review all cases of maternal transport, discuss best practices, and identify areas for improved care across all birth settings. At the regional level, the Northern New England Perinatal Quality Improvement Network (NNEPQIN) welcomed the Vermont Midwives Association, the New Hampshire Midwives Association, and the Maine Association of Certified Professional Midwives as members of a consortium made up of 36 hospitals across 3 states. With full participation by representatives of these organizations, NNEPQIN has continued its mission-driven work toward improving perinatal health for all mothers and newborns, regardless of birth site. Since 2011, NNEPQIN has offered a discovery-protected forum, the Confidential Review and Inquiry Board, to provide an in-depth, multidisciplinary analysis of unanticipated perinatal outcomes as part of a comprehensive, region-wide, patient safety agenda designed to support learning from systems failures. NNEPQIN also developed a paper-based Perinatal Transfer Form to facilitate communication between birth providers.<sup>51</sup> In partnership with the National Association of Certified Professional Midwives and the Maternity Neighborhood, a Web-based platform that links electronic health records, data collection, and patient-oriented outcome information, the consortium is launching a project to establish a secure data exchange platform to both facilitate communication at the time of transport as well as to collect regional data on the outcomes of referrals and transfers to the hospital setting.

## Washington State

In 2004, the Washington Department of Health Statewide Perinatal Advisory Committee appointed a task force, the Physician-Licensed Midwife Work Group, to study and improve the process of transferring women and their newborns from a planned home or birth center birth to a hospital when a higher level of care becomes necessary. This task force, a cooperative effort of obstetrician-gynecologists and licensed midwifery leaders—as well as those with expertise in public health and policy—worked together successfully for nearly a decade.

In 2011, the licensed midwife members developed *Planned Out-Of-Hospital Birth Transport Guidelines*, which were subsequently approved by the Midwives’ Association of Washington State, the Physician-Licensed Midwife Work Group, and the Statewide Perinatal Advisory Committee.<sup>52</sup> In 2012, a quality improvement initiative was launched by the Washington State Perinatal Collaborative, a subcommittee of the Perinatal Advisory Committee. Multidisciplinary providers in Washington State developed a comprehensive tool called *Smooth Transitions*, which delineates roles and responsibilities for all providers involved

in transfers and presents templates for communication and documentation.<sup>53</sup> This voluntary, free, customizable program provides resources for hospitals and community midwives to enhance communication. It includes templates for a Planned Out-of-Hospital Transfer Committee; specific transfer guidelines; and secure, confidential survey tools to capture the experience of transfer from multiple perspectives: patient, midwife, physician, and nurse. Currently, 7 hospitals collectively accounting for 20% of the state's births have begun to implement *Smooth Transitions* or have expressed interest in doing so.

## New Mexico

Direct-entry midwifery has been licensed in New Mexico since 1978. Today, licensed midwives (LMs) include CPMs and midwives who complete a state-approved apprenticeship path to certification. CNMs are also licensed in New Mexico and practice in the hospitals and birth centers, but LMs are the predominant maternity care provider for home birth in the state. The main payor for maternity care in the state is Medicaid, which covers prenatal care and home birth.

The University of New Mexico (UNM) Hospital (UNMH) in Albuquerque has instituted concrete measures to create a safe environment for families and midwives. For more than 25 years, clinicians on staff at UNMH have had a collaborative relationship with midwives, including accepting women for consultation or transfer and facilitating access to services such as external cephalic version and antenatal testing. LMs usually accompany clients if transferred to UNMH care and continue with postpartum and newborn care in the home following discharge. Midwives (LMs and CNMs) who attend births at homes and birth centers have collaborated with UNM staff to establish mechanisms for interprofessional education, including open access to neonatal resuscitation certification, an annual UNM Women's Health Conference, and the annual Advanced Life Support in Obstetrics course at UNM. At these emergency maternity care courses, LMs learn alongside obstetrics and gynecology and family medicine residents, CNMs, and community physicians.

## Newborn Issues After Transfer

Current models for care coordination generally focus on intrapartum care and the emergent transfer of care of the woman from home to hospital without clearly addressing issues related to the care of the newborn, who is transferred from a planned home birth. As long as she is deemed medically competent, a pregnant woman has almost complete autonomy with regard to medical decisions, even if her fetus may be adversely affected. An American College of Obstetricians and Gynecologists Committee Opinion states, "In the absence of extraordinary circumstances, circumstances that, in fact, the Committee on Ethics cannot currently imagine, judicial authority should not be used to implement treatment regimens aimed at protecting the fetus, for such actions violate the pregnant woman's autonomy."<sup>54</sup> Similar ethical standards for the assignment of surrogate decision makers are routinely applied to the parents of minors.<sup>55</sup> However, families with a newborn in the hospital after maternal transfer often are faced with the

realization that parental autonomy with regard to newborn care is not absolute.<sup>56</sup> Many women will accept that the need to transfer to hospital places their newborn under a different model of care and guidelines. However, routine hospital procedures for newborns may conflict with the anticipated plan for newborn care after a home birth. The distinction between respect for parental health care preferences and medical neglect depends on the specific clinical scenario and may be interpreted differently by various medical providers. It is unlikely that hospital-based providers would seek a court order or contact child protective services for parents declining vitamin K after a nontraumatic birth; however, a legal approach may be pursued if parents decline antibiotics and laboratory testing for an infant deemed at high risk for neonatal sepsis.

The likelihood of serious disagreements and conflict between parents with a healthy newborn unexpectedly in the hospital can be minimized by routine prenatal discussions regarding newborn care in the event of a hospital transfer—and also by developing a process of communication between home-based maternity care providers and hospital-based pediatric providers. Midwives who practice in homes and birth centers usually have newborn care within their scope of practice; therefore, a plan to return the healthy newborn to outpatient care under the supervision of the midwife may be optimal.

## DEVELOPING BEST PRACTICE GUIDELINES

Following the 2011 Home Birth Consensus Summit, a multidisciplinary group of delegates formed a collaboration task force. Members include leaders from family medicine, midwifery, nursing, health administration, obstetrics, public health, pediatrics, and ethics—as well as consumers and child-birth educators. The primary focus for this group has been the development of best practice guidelines for intrapartum transport, transfer, consultation, and collaboration for all professionals involved when a woman or newborn is transferred to a hospital from a planned home birth.

Members gathered national and international exemplars of best practice protocols and standards for effective communication and documentation during transfer and developed a rating system to assess the relevance and clarity of each resource. They also reviewed the literature on strategies to promote interprofessional coordination and collaboration. Findings highlighted the need for increased commitment to shared decision making, mutually respectful communication between maternity care providers and health system staff, quality improvement processes and policies to ensure ongoing evaluation of outcomes of transfers, and expanded interprofessional education opportunities. The task force collated key components into Best Practice Guidelines for Transfer from Home to Hospital (see Table 4). Following detailed discussions and editing, the draft was circulated to all summit delegates for review and comment; all feedback was reviewed and considered. Endorsements of the final document are forthcoming from specific stakeholder groups. To support dissemination of the guidelines, the task force will be producing an implementation package, including sample scripts and forms.



## RECOMMENDATIONS FOR EDUCATION AND RESEARCH

The importance of interprofessional education is increasingly being recognized as a way to prepare students to provide patient care in a collaborative team environment.<sup>37</sup> Medical and nursing curricula differ from midwifery curricula because of differences in the scope of practice of these health professionals. Midwifery, nursing, and medical student cohorts are taught separately how to provide maternity care, and they often graduate without a complete understanding of each other's knowledge base and scope of practice.<sup>37</sup> Exposure to birth care across settings has been demonstrated to have significant effects on attitudes, comfort with interdisciplinary consultation, and confidence in skills.<sup>31,57</sup>

It is clear that before we can responsibly inform patients and the public about the safety of home birth, we must achieve a better consensus regarding the maternal and fetal risks and benefits of planned home birth, the health profile and regional conditions that can inform the selection of the appropriate birth site(s) for women, and the essential competencies that all maternal–newborn providers must have. These competencies include the ability to collaborate across the health professions to provide high-quality maternity services, regardless of planned place of birth. Interprofessional competencies have recently been added as required core learning outcomes to meet accreditation standards in health professional education programs.<sup>58</sup> Planned home birth is an ideal topic around which to develop interprofessional collaboration and communication skills because midwives, physicians, and nurses must coordinate seamlessly to provide mother and newborn with the best possible care throughout the childbearing year. Summit delegates are actively engaged in developing an online interactive home birth toolkit, including simulation materials, which may assist learners in health professional basic and continuing education programs to acquire these competencies.

We also need to reduce barriers to studying the outcomes and experience of care in different birth settings. For example, it is difficult to study planned home birth in states where some home birth providers are not legally recognized, have no access to hospital staff privileges, and/or are not recognized as primary maternity caregivers when they transfer patients from home to hospital. Exploration with validated methods to assess the effectiveness of collaboration and sources of interprofessional conflict will be essential to a comprehensive understanding of the effects of choice of birthplace on maternal and newborn outcomes.<sup>59</sup>

## CONCLUSION

Regardless of one's opinion of planned home birth, all clinicians and researchers can agree on the importance of improving interprofessional collaboration. Progress will require stakeholders with historically opposing views to find common ground within the contested space of home birth, especially when all share responsibility for care. Emerging evidence on the sources of conflict and disarticulation, as well as clinical exemplars, can inform the development of systems for the seamless transfer of women and newborns from planned home births to hospitals across the United States. The Home Birth Summits, which addressed shared responsibility

across professions, and the concrete research and policy initiatives that have resulted, are significant steps toward improving quality and safety in US maternity care.

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## CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

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