



Published in final edited form as:

J Obstet Gynecol Neonatal Nurs. 2025 March ; 54(2): 210–218. doi:10.1016/j.jogn.2024.10.001.

Nurse Perceptions of Barriers to Infection Prevention and Control in Labor and Delivery

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Abstract

Objective: To identify nurse perceptions of barriers to performing recommended infection prevention and control practices in labor and delivery to inform future resources tailored to this setting.

Design: Qualitative focus groups.

Setting: The 2023 annual convention of the Association of Women's Health, Obstetric and Neonatal Nurses, New Orleans, LA.

Participants: A convenience sample of 16 labor and delivery nurses.

Methods: Staff of the Centers for Disease Control and Prevention conducted two focus groups using a standardized script. Coding was performed by three reviewers using Krueger's systematic analysis process.

Results: Among the 16 participants, 94% were registered nurses, and 6% were advanced practice registered nurses. From our analysis of the data, five major themes emerged, including the following: *Lack of Individual and Organizational Accountability in Implementing Recommended Infection Prevention and Control Practices; Inconsistent Application of Guidance Across State, Hospital, and Specialty; The Unpredictable Nature of the Labor and Delivery Setting; Labor and*

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CONFLICT OF INTEREST

The authors report no conflicts of interest or relevant financial relationships. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Delivery Is Not Prioritized in the Hospital for Infection Prevention and Control Resources; and Lack of Coordination Across Stages of Care From Prenatal to Postpartum.

Conclusion(s): We identified barriers experienced by nurses to consistently implementing infection prevention and control practices in the labor and delivery setting. These barriers can be addressed through targeted interventions and the development of obstetric-specific infection prevention and control resources.

Keywords

hospital obstetrics and gynecology department; infection control; public health; obstetric nursing; perinatal nursing; qualitative; quality improvement

The number of pregnancy-related deaths in the United States has trended upward in the last three decades and is two times greater than the numbers in other developed nations (Centers for Disease Control and Prevention [CDC], 2023; Tikkanen et al., 2020). Between 2018 and 2020, the maternal mortality rate rose from 17.4 deaths to 23.8 deaths per 100,000 births (Agency for Healthcare Research and Quality [AHRQ], 2022), and almost one of four deaths was sepsis related (Hensley et al., 2019). Maternal mortality is considered a rare event, but severe maternal morbidity is increasingly common and associated with longer hospital stays (Callaghan et al., 2014; Gibson et al., 2017). Health care–associated infections (HAIs), such as surgical site infections (SSIs), may further contribute to maternal morbidity. Rates of cesarean for nulliparous women with low-risk pregnancies have grown in the United States, and rates are greater among older patients (AHRQ, 2022; Callaghan et al., 2012). Race and ethnicity are also associated with the risk of cesarean birth, and non-Hispanic Black patients had greater rates of cesarean birth and associated morbidity, including SSIs, than non-Hispanic White patients in all age categories (AHRQ, 2022; Boggess et al., 2017; Kern-Goldberger et al., 2023). Cesarean birth SSIs may be associated with poor infection prevention and control practices, such as inadequate hand hygiene, failure to maintain a sterile field during the procedure, lack of adherence to appropriate wound care practices, and inadequate use of preoperative skin preparation with appropriate antiseptics (Berríos-Torres et al., 2017).

Data on other HAIs and their association with infection prevention and control practices in the labor and delivery setting are limited. In a review, Vain (2020) found that reports of these practices during the peripartum period have focused on outbreaks and HAIs among neonates in settings such as NICUs, and researchers addressed the importance of infection prevention for outbreak control and halting transmission of HAIs in these settings. In response, specific infection prevention and control guidance has been created for NICUs (CDC, 2020), but no similar standard guidance exists for labor and delivery settings specific to maternal HAIs.

Reported outbreaks of HAIs in labor and delivery highlight the need for and importance of appropriate infection prevention and control practices in this setting. Outbreaks of methicillin-resistant *Staphylococcus aureus* (Barnsley et al., 2024), group A *Streptococcus* (Haden et al., 2024; Trell et al., 2020), and *Serratia marcescens* (Kim et al., 2024) were reported in the labor and delivery setting and linked to infection prevention and control practices. Infection prevention and control guidance for labor and delivery settings has had

to be rapidly developed in response to emerging pathogens such as SARS-CoV-2 (Acker et al., 2022) and Zika virus (Olson et al., 2016), is needed. Notably, during the 2009 H1N1 influenza pandemic, the creation of specific infection control guidance and written policies for labor and delivery positively affected the implementation of infection prevention and control efforts during and after the pandemic (Williams et al., 2013). Obstetric nurses provide frequent hands-on care to patients during the peripartum period and should understand how to implement infection prevention and control practices pragmatically during routine care, emergency care, and times of emerging pathogens. Understanding the complexities of the labor and delivery setting is pivotal to improving adherence to these critical practices and ultimately reducing the risk of HAI transmission among health care personnel, patients, and infants.

The CDC conducted a series of focus groups with obstetric health care personnel to develop a comprehensive understanding of barriers to infection prevention in the labor and delivery setting (Barnes et al., 2024). Our goal is to inform the development of tools and resources to help prevent the transmission of infection on the labor and delivery unit. In previous focus groups, we explored barriers to implementing infection prevention and control practices among obstetricians during the provision of childbirth care (Barnes et al., 2024). In the current study, we examined the parallel experiences of nurses and compared them to the findings from our previous study and our knowledge of obstetric health care personnel perspectives. Our objective was to identify nurse perceptions of barriers to performing recommended infection prevention and control practices in labor and delivery to inform future resources tailored to this setting.

Literature Review

Research on the experiences of health care personnel in labor and delivery regarding the implementation of infection prevention and control practices in the United States is limited. In their scoping review, Greene and Wilson (2002) identified nine studies in which researchers assessed frontline workers' perspectives of barriers to performing infection prevention and control practices in health care settings, such as hand hygiene, antimicrobial stewardship, and methicillin-resistant *Staphylococcus aureus* screening, but none were conducted in the labor and delivery setting. In a qualitative analysis of focus group data, Barnes et al. (2024) investigated the barriers obstetric physicians experienced when they performed infection prevention and control practices during standard and emergency care in the labor and delivery setting. They reported that participants had difficulty implementing these practices during emergencies, personal protective equipment was not readily available within the workflow, and there was a lack of standardization of infection prevention and control protocols in their setting (Barnes et al., 2024). Lapcharoensap and Lee (2017) examined the distinctive features of the labor and delivery room, including its unique physical environment (e.g., multidisciplinary personnel involved in care) and its unpredictable nature (e.g., emergency preparedness for every birth), an observation similarly described by Barnes et al. (2024). Researchers noted that quality improvement initiatives should be structured to complement the workflow of the labor and delivery unit so that infection prevention and control practices and other patient safety initiatives

can be effectively incorporated into training and education for health care personnel (Lapcharoensap & Lee, 2017).

Sabol and Caughey (2017) further described the importance of creating a culture of safety in the labor and delivery unit through multidisciplinary team training, simulation-based team training, and standardized clinical practices. They identified a scarcity of research specific to labor and delivery as a barrier to standardization (Sabol & Caughey, 2017), which was similar to the findings of Barnes et al. (2024). Arquiette et al. (2016) surveyed health care personnel on their attitudes and practices concerning infection prevention and control measures, such as methicillin-resistant *Staphylococcus aureus* decolonization, hand hygiene, and surgical site preparation in an academic obstetrics and gynecology center. They observed a wide range of beliefs and a variability of practices among personnel within a single center (Arquiette et al., 2016), which emphasized the need for standardization of guidance, tools, and resources to prevent and control infections in this unique setting.

Methods

Design

We conducted a descriptive qualitative study using focus group methodology. Focus groups typically comprise five to eight people who are like one another (e.g., in the same profession). Researchers use predetermined questions to collect a range of opinions in the form of qualitative data such as discussion recordings and transcripts (Krueger & Casey, 2015). Richard Krueger's systematic analysis process guided our methods for conducting and analyzing the data from the focus groups (Krueger, n.d.). We collaborated with staff from the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), a professional society for nurses who care for women, newborns, and their families. Our team held two in-person focus groups at the June 2023 AWHONN annual convention in New Orleans, LA. We did not apply a theoretical framework to this exploratory set of focus groups given the formative evaluation design used to assess the primary perceptions of the unique target audience. The CDC reviewed this activity, and it was conducted consistent with applicable federal law and CDC policy 45 C.F.R. (Informed Consent, 1991) part 46 (Protection of Human Subjects, 2024), 21 C.F.R. part 56 (Informed Consent, 1991), 42 U.S.C. §241(d) (The Public Health Service Act, 2003), 5 U.S.C. §552a (The Privacy Act of 1974, 2020), and 44 U.S.C. §3501 (Paperwork Reduction Act, 2001).

Participants

AWHONN staff recruited participants through a cloud-based form builder. They posted a call for participants with a link to the builder on AWHONN's Facebook, LinkedIn, and X (formally Twitter) accounts and to an internal member communication platform. The call was posted for a duration of 3 weeks. Requirements to sign up for the focus groups included the following: being a current AWHONN member, being registered for the 2023 convention, currently working in a labor and delivery setting, and having direct contact with patients during childbirth. Based on these requirements and low response rate, we did not exclude any registrants from the focus groups. Participation was voluntary, and we did not provide incentives.

Data Collection

AWHONN members answered a series of screening demographic questions, and we registered them in one of two focus groups based on preferred time. Both focus groups lasted approximately 45 minutes. A trained behavioral scientist (the third author, R.C.), who has served as the CDC lead for qualitative research for the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) for more than 20 years, moderated the focus groups using a pool of nine prompts to conduct each session. The specific prompts varied by focus group based on the flow of discussion and were used to ascertain participants' understanding of when and how to implement infection prevention and control practices, clarity and consistency of current recommendations, current training and resources available, and barriers they experienced while providing care. Participants provided verbal consent to be recorded before the start of the focus groups. Per determination by the CDC's NCEZID Human Subjects Advisor, this qualitative assessment did not meet the definition of research under 45 C.F.R. 46.102(l) (Protection of Human Subjects, 2024), and institutional review board review was not required. The determination of the NCEZID also indicated that the project did not require submission to the CDC's Human Research Protection Office because granting authority was delegated to the CDC Centers, Institutes, and Offices under internal CDC Policies SSA-2010-01 and SSA-2010-02.

Analysis

We used Richard Krueger's (n.d.) systematic analysis process for focus groups to structure our analytic approach, which involves iterative rounds of reflecting on the data. We began by listening for common topics during the focus groups, coded the data by each prompt, and then analyzed for convergent themes across all prompts (Krueger, n.d.). During the focus groups, our moderator (third author, R.C.) and assistant moderator (second author, K.W.) took notes on topics of potential interest that arose during the conversations, and the team discussed the notes in a debriefing after each focus group. We assessed topics of interest in real time based on the intensity of the participants, such as their tone of voice and specific words they used, which our labor and delivery subject matter expert (fourth author, K.P.) identified as possible priorities (Krueger, n.d.).

A team of three trained coders (first author, L.A., second author, K.W., and third author, R.C.) analyzed the data to ensure intercoder reliability and consistent application of codes. Each of the coders are master's-trained public health practitioners with backgrounds in mixed-methods research and infection prevention and control with more than 40 combined years of experience. The first author (L.A.) manually transcribed the focus group recordings, deidentified all responses, and assigned each participant a unique identifier to track the number of participants coded under each theme. We used the qualitative software NVivo 13 (version 2020 R1) to perform our analysis. Our team began a first iteration of coding, in which we collectively read the responses organized by prompts and discussed potential codes until we achieved agreement. We developed a preliminary report of codes, and the labor and delivery subject matter expert (fourth author, K.P.) reviewed them to confirm contextual relevance. Once patterns of codes began to emerge from each prompt, we then coded again across all responses to isolate the most prominent themes that arose from all participants. We looked for convergence and divergence across these emerging themes. We

used topic frequency and the extensiveness of the discussion (i.e., how many participants discussed a particular topic; Krueger, n.d.) to identify notable themes. We then reassessed the codes under additional context and insights gained through the data and organized them into five overarching themes.

Results

Demographic Characteristics of Participants

Twenty-seven AWHONN convention attendees registered to participate, and 16 were present at the time of the focus groups (nine in Group A and seven in Group B). Most (94%) participants were registered nurses, and one (6%) was an advanced practice registered nurse. Participants had an average of 24 years of experience ($SD = 11$ years). Ten (63%) participants spent 50% to 100% of their time providing direct care to patients during labor and birth (e.g., labor management, vaginal birth, cesarean birth, immediate recovery after birth). Six (38%) participants spent 0% to 25% of their time providing direct care to patients during labor and birth. Several had leadership or infection prevention roles in labor and delivery. Eleven (69%) participants worked in teaching hospitals, two (13%) worked in public hospitals, two (13%) worked in private hospitals, and one (6%) worked in a nonteaching hospital. All participants practiced in the United States: 44% in the Northeast, 31% in the South, and 25% in the Midwest.

Themes

We identified five convergent themes and ordered them from greatest to least frequency based on the number of participants who expressed the thematic construct.

Lack of Individual and Organizational Accountability in Implementing Recommended Infection Prevention and Control Practices—Under the first theme, participants identified a lack of individual and organizational accountability as the greatest barrier they encountered, which contributed to facility-wide culture and resulted in low adherence to infection prevention and control practices. Some participants believed that buy-in from obstetric health care personnel was negatively affected by management style. One participant recalled an audit in which nurses “were secretive and took pictures [and sent] a passive-aggressive email to leadership to show what was found on [the] unit.” Participants called for a bottom-up managerial approach: “[Leadership should be] educating environmental service workers, nurses, [and] unit secretaries, [so] it’s everyone’s responsibility to promote patient safety.” One participant credited her unit with posting SSI rates, which allowed “the nurses to not just have buy-in, but ownership. It can’t just be at the leadership levels. Nurses [also] need to know [they] are moving in the right direction.” Others described difficulties with “feeling comfortable speaking up” when they observed a lapse in adherence to infection prevention and control practices.

One participant worked as a nurse in quality and safety and wondered how to “hold [staff] accountable in and [outside of] the operating room [so they] understand what they can do to decrease infections.” A participant who currently worked in leadership expressed frustration about how efforts to educate obstetric health care personnel often fall short due

to complacency: “Leadership will say, ‘Hey, you have to do this,’ and they respond with, ‘Oh yeah, I just forgot.’” Although some participants credited electronic medical records and best practice alerts for improved adherence, another expressed frustration that despite having an

early obstetric warning system [for sepsis, it was] 85% noncompliant ... the system is not being utilized even though it has great potential, [and despite] educating every day, [the electronic medical record alerts] flagged 16 times and it was still being canceled by providers and nurses.

This scenario resulted in the death of a patient.

Inconsistent Application of Guidance Across State, Hospital, and Specialty—

In the second theme, participants observed that guidance was applied differently between states, between hospitals, and within their own units. They called for general labor and delivery guidance that was “national [and] standardized, instead of one hospital doing this [every] 4 hours and one doing that [every] 8 hours.” Participants expressed confusion about whether vaginal preparation should be performed, when to use chlorhexidine to prevent SSIs, and baby-friendly policies for SARS-CoV-2–positive patients. One participant asked for “clearer guidance for care of the baby. We have our pediatricians saying, ‘OB [obstetrician] should have ordered that,’ and OB is saying ‘No, we don’t have to do that.’” Participants wanted a simple website where they could find information such as “if your patient has flu A, this is your isolation, and this is what you do for the baby.”

The Unpredictable Nature of the Labor and Delivery Setting—Under the third theme, participants explained that time was a barrier. They were “very rushed to have a healthy mom and healthy baby, [so] you slash and dash to get the baby out quickly [which is] where a lot of our infection issues come from.” They described the labor and delivery unit as an “all hands on deck situation, [in which] people are running back without their party hat on or a mask because they are just trying to get mom on the table.” Participants described becoming “tunnel-visioned” during birth because of a lack of time and trying to protect the immediate health outcomes of the mother and newborn, which has consequences for infection risk:

It’s most obvious if you have a patient who [needs] a crash [cesarean]. And they are delivering without removing the FSE [fetal scalp electrode] and it’s coming up through [the incision]. That’s bad, but we are just rushing to get that baby out. We’ll just give an antibiotic to her; it’ll be okay.

Regarding training, participants observed that infection prevention and control education modules used by their health care systems were not specific to their units and did not account for variables unique to childbirth care (e.g., variable urgency or caring for two patients simultaneously). Trainings that consisted of the “same videos, same pictures, and the same accidents” every year resulted in disengagement from online self-paced modules and “[letting] it run and [getting] the answers for the quiz at the end” from a coworker. Instead, participants want “education [to] be done in person” and to be “interactive, with

mannequins [for] OB” so that they can “relate to more since it is unit specific.” One participant noted, “Operating room safety [trainings] are not labor and delivery focused.”

Labor and Delivery Is Not Prioritized in the Hospital for Infection Prevention and Control Resources—In the fourth theme, multiple participants shared the sentiment that “labor and delivery is an afterthought”; that this disparity has led to “resource inequity” in comparison to other units:

“[The administration will] prioritize things that they know the Joint Commission will look for”; and that it would have a positive effect on the unit if “[administration] prioritized [infection prevention and control] in obstetrics to decrease infection rates.” The participants observed that at smaller rural hospitals, “staff don’t have the education or the background like other [facilities] have [on infection prevention and control].” One participant emphasized the importance of having “administration and stakeholders at the table saying, ‘I’m going to give you what you need based on what you’re seeing now.’” Another described the leadership team as “receptive to feedback and shared governance,” facilitated adherence to infection prevention and control practices.

Several participants indicated that the operating room was left out of infection prevention and control activities and how being considered “after the fact” affected the labor and delivery surgical unit: “[The hospital will] forget that we have an operating room as well. Why did you not tell us about it? ‘Oh, we forgot labor and delivery has to do this [too].’” One participant said, “You even notice it with housekeeping. When you are asking for your surgical equipment or your operating room to be cleaned, ‘We don’t do that on night shift. You’re just labor and delivery.’ We are still an operating room.”

Lack of Coordination Across Stages of Care From Prenatal to Postpartum—In the final theme, participants described how gaps in patient coordination between prenatal care and labor and delivery negatively affected the efficacy of infection prevention and control. They described incidents in which they were potentially exposed to infectious diseases because of a lack of coordination. One noted an “increase in [patients with] no prenatal care.” Another wanted “to see infection prevention and control start from prenatal care” because important laboratory test results that they depended on to identify illnesses, such as tuberculosis, were sometimes missed before patients went into labor. Participants also expressed concern about patient-level factors that impeded their ability to mitigate the risk of infection. One cited social determinants of health and asked, “What kind of environment are they going home to? Do they have transportation to get to their follow-up appointment to get their dressing removed?” They wondered how these factors could be addressed when they educated the patient about wound care. Others found infection prevention and control education lacking during prenatal care, which posed challenges during labor and after cesarean:

The education needs to start earlier because what they get in the OB’s office [isn’t enough]. We are educating for 9 months of time that we haven’t seen them. They don’t think, “Oh it’s an incision that could get infected.” They want to know, “Is

my car seat right?” Most of the infections you are seeing are [during] postpartum visits.

Discussion

In this study, participants described barriers to performing infection prevention and control practices, and we identified themes related to a lack of accountability, inconsistent application of guidance, the unpredictability of labor and delivery, the labor and delivery unit not being prioritized for resources, and a lack of coordinated continuity of care. Obstetric health care personnel described the labor and delivery unit as an unpredictable environment in which they must quickly pivot between routine care and emergency response. In our previous focus groups, physician participants agreed that the variable and rapid change in the urgency of birth could impede their ability to perform infection prevention and control practices (Barnes et al., 2024). Nurse participants added that they become “tunnel-visioned” and focused on the birth itself. Nurse participants described the push and pull of caring for two patients at the same time, another aspect of the labor and delivery setting that Lapcharoensap and Lee (2017) noted as a distinguishing feature that set labor and delivery apart from other settings. Tailored quality improvement interventions must be developed to overcome barriers inherent to this setting.

Sabol and Caughey (2017) identified four key areas for quality improvement in labor and delivery, including communication, multidisciplinary team training, simulation, and standardizing practices, that are reflective of observations made by our nurse and physician focus group participants. Nurse participants identified a lack of individual and organizational accountability to implementing infection prevention and control and felt that obstetric health care personnel did not always understand the effect infection prevention and control had on patient outcomes. The concept of “understanding the why” was a similar theme identified by physician participants who described how knowledge of the rationale for a practice directly affected adherence (Barnes et al., 2024). Our participants found that structured systems to enhance communication, such as posting infection rates on the unit, are key to connect practice adherence to real outcomes for the obstetric health care personnel tasked with routinely performing them (Sabol & Caughey, 2017).

The reduction of medical errors, which includes lapses in infection prevention and control, is further hindered by a lack of evidence-based research in labor and delivery, which has resulted in a lack of unit-specific standardized guidance for clinical practice (Arquette et al., 2016; Barnes et al., 2024; Sabol & Caughey, 2017). An example is the debate about whether to use chlorhexidine gluconate versus povidone–iodine to prepare the surgical site. A range of perceptions about best practice exists among obstetric health care personnel, even within a single hospital (Arquette et al., 2016). General infection prevention and control guidance is often extrapolated to the labor and delivery setting, and the nurse and physician focus groups described negative effects when guidance is not tailored. These effects include inconsistently applied infection prevention and control practices that can vary across hospitals and specialties within the delivery room. As an example, physician participants noted disagreements between obstetric and pediatric services regarding personal protective equipment and isolation measures during birth (Barnes et al., 2024). Developing

standardized practices for infection prevention and control in labor and delivery and multidisciplinary team training may mitigate barriers to implementation (Sabol & Caughey, 2017).

Incorporating infection prevention and control practices during standard and emergency birth simulations as a multidisciplinary training may help to standardize infection prevention and control practices during childbirth care. Participants found current education to be unengaging and not specific to labor and delivery. This finding, inadequate training and education, was consistent with our previous focus groups and the second most common barrier to implementation identified by physicians (Barnes et al., 2024). Both focus groups highlighted the need for more interactive education, including simulation-based training, a practice that improved quality of care in this setting (Sabol & Caughey, 2017).

Simulation-based team training is being increasingly used in labor and delivery, and researchers reported improvements in obstetric health care personnel knowledge as compared to didactic training (Daniels & Auguste, 2013; Sabol & Caughey, 2017).

The fourth most common theme in the nurse focus groups, which was also the fourth theme that emerged in the physician focus groups, was that labor and delivery is often not prioritized to receive infection prevention and control resources compared other hospital units (Barnes et al., 2024). The nurse participants expressed the perception of inequitable distribution of infection prevention and control resources and how the labor and delivery operating room is regarded differently than the hospital's main operating room. Both sets of participants also observed a lack of coordination across the stages and specialties of maternity care. Nurse participants focused on the lack of coordination between prenatal care outside of the hospital and childbirth care in the hospital; physician participants focused on discordant infection prevention and control practices between the labor and delivery unit and the NICU (Barnes et al., 2024).

Limitations

Our ability to generalize these findings to perinatal nurses and facilities across the United States is limited because of the small sample size and the use of a convenience sample. Furthermore, all responses were self-reported and subject to recall bias. Although participants were among their peers, responses may have been affected by group biases, such as social desirability.

Implications

In our previous focus groups, we collected first-hand accounts from physicians regarding their perceptions of barriers to the implementation of infection prevention and control practices. Our current report adds to the knowledge base regarding these barriers from a nurse perspective and provides a more comprehensive picture of clinical perspectives in this setting. Our nurse focus groups were limited to registered nurses, and including nurse-midwives and nursing assistants in future explorations could add additional insight. Garnering nonclinical perspectives (e.g., infection preventionists, medical epidemiologists, hospital administration, and environmental services) would also identify additional gaps and potential ways to address them.

Obstetric nurses can benefit from interventions that address the barriers we identified so that they can successfully implement infection prevention and control practices in routine and emergent childbirth care. Such interventions may include increased hands-on infection prevention and control training, education that reinforces fundamental concepts, and face-to-face in-services provided by the hospital infection prevention program. Additional interventions can involve improved relationships between the labor and delivery unit and the hospital infection prevention program, cultures in which nurses are comfortable asking questions about the rationale behind infection prevention and control practices, and advocacy to improve infection prevention and control resources for labor and delivery.

Identifying a nurse champion in the unit, who can build relationships with the hospital infection prevention program and act as a local resource for colleagues, may also help to better integrate infection prevention and control into the labor and delivery culture and workflow. Nurse champions can help guide specific unit goals so that appropriate practices are also included in trainings for other types of emergency obstetric care (e.g., ensuring education on appropriate personal protective equipment use when managing a postpartum hemorrhage and ensuring quick and ready access to personal protective equipment for precipitous vaginal birth). Unit leaders or nurse champions should also be empowered to educate hospital administration about the unique aspects of care provided in the labor and delivery setting and the need for infection prevention resources to be tailored and readily available for this area of the hospital. Obstetric nurses can play a critical role in shifting the culture of labor and delivery to make infection prevention and control a key part of providing quality obstetric care.

Conclusion

Nurses echoed and built on the experiences shared by physicians regarding the barriers they encountered when implementing infection prevention and control in labor and delivery. The objective of the CDC is to guide the development of infection prevention and control tools and resources that are feasible to implement and that incorporate the unique nature of inpatient obstetric units and the clinical care provided. The perspectives shared by obstetric health care personnel in this series of focus groups increase our understanding of labor and delivery infection prevention and control practices so that we may mitigate barriers to implementation and improve workplace safety for obstetric health care personnel and clinical outcomes for patients.

ACKNOWLEDGMENT

The authors thank the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) and Catherine Hill for their collaboration and recruitment efforts and for allowing us to conduct these focus groups during the AWHONN annual conference.

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