Rural Institute
UNIVERSITY OF MONTANA

Emergency Obstetric Services (EOS) Survey Report

Training Sub-Report

FEBRUARY 2024

Diane Brown, MPH
Carly Holman, MS
Annie Glover, PhD, MPA, MPH
Megan Nelson, MSW

Background

The training section of the survey gathered information on training practices available to hospitals without obstetric units. An essential component of healthcare practice to hone skills that are not frequently utilized, incumbent training improves clinical practice, including communication, teamwork, and techniques [3]. This report summarizes the training section of the EOS Survey.

Emergency Obstetric Services Study Abstract

Objective: To gather information on the local capacity and preparedness to support emergency obstetric services (EOS) in Montana communities.

Study Design: The University of Montana Rural Institute for Inclusive Communities (UM) research team adapted a survey developed by Kozhimannil et al. 2021 on emergency obstetric services in rural hospitals without obstetric units in the United States [1]. The survey comprises components of the World Health Organization's (WHO) Emergency Obstetric Care (EmOC) indicators and other measures of emergency obstetric capacity [2].

Results: Of the 34 hospitals without an obstetric unit, 32 (94.0%) participated in the survey. More than half (51.6%) of the hospitals had experienced an emergency room birth within the last two years, and 34.4% had experienced a close call or other unanticipated adverse birth outcome. When hospitals needed to transfer a patient, 37.0% of respondents had experienced challenges arranging transport for a pregnant patient. Only one surveyed hospital met all the assessed criteria of the WHO's guidelines for Basic Emergency Obstetric Care (BEmOC).

Conclusion: The EOS survey provides valuable information on the perinatal care system in Montana by highlighting the role of rural hospitals without obstetric units in providing obstetric care. The survey results can inform activities to strengthen perinatal care networks, ultimately leading to improved maternal and infant health outcomes in Montana.

MOMS Montana Obstetrics & Maternal Support
HRSA Health Resources & Services Administration
MONTANA DPHHS

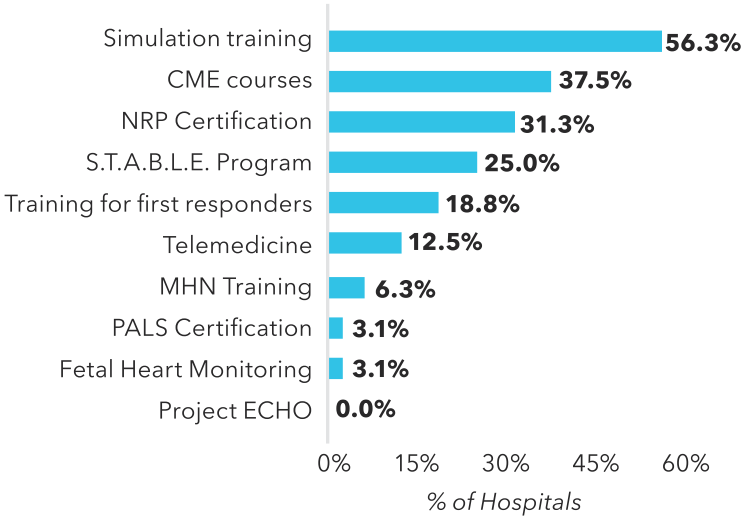
Results

Available Training

Of responding hospitals, 81.3% had some form of training for obstetric care and preparedness regularly available at their hospital or in their community.

As seen in Figure 1, hospitals reported Simulation Training (56.3%) and Continuing Medical Education (CME) Courses (37.5%) as the two most common types of training available.

Figure 1. Available Types of Training (N=32) for Emergency Obstetric Care and Preparedness in Communities or at Montana Hospitals without Obstetric Units



**Multiple responses could be selected*

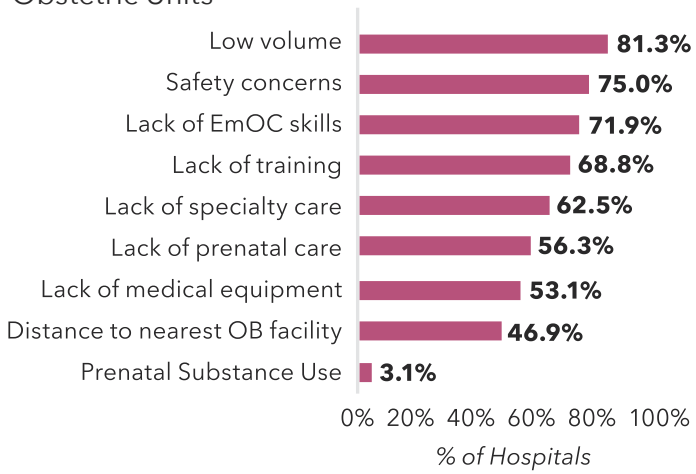
Emergency Obstetrics Survey conducted October 18, 2021, to December 10, 2021

Even with this availability, 68.8% of hospitals expressed concern about the lack of training in response to local obstetric emergencies, and 78.1% of hospitals described the need for additional training, preferring additional simulation training, onsite training, and online training opportunities, but noted that cost and lack of necessary training equipment are frequently barriers.

Training Concerns

Hospitals expressed several concerns about responding to local obstetric emergencies. As illustrated in Figure 2, respondents named low volume (81.3%), safety concerns/clinical complications (75.0%), and lack of skills to address emergency birth (71.9%) most frequently.

Figure 2. Concerns about Responding to Local Obstetric Emergencies (N=32) as Reported by Montana Hospitals without Obstetric Units



**Multiple responses could be selected*

Emergency Obstetrics Survey conducted October 18, 2021, to December 10, 2021

Respondents detailed their concerns by reporting that ***"infrequent and emergent situations are what keep us up at night,"*** and ***"lack of training, and experience creates fear when an OB patient walks in the door."*** Many hospitals echoed these concerns, with the infrequency of obstetric needs and the inability to maintain a skillset for emergent situations being the most common themes.

In response to these concerns, hospitals had many suggestions to prepare their hospital better to handle emergency obstetric situations. Respondents frequently described several types of training and concrete resources to help their hospitals prepare. One respondent summed up the needs of many by stating, ***"both on site and online training [would better prepare us], staff would feel more comfortable with more training."***

Recommendations

Throughout the EOS survey, hospitals frequently reported a need for increased training arising from concerns about responding to obstetric emergencies and the need to use different tools appropriately.

Training can provide non-birthing hospitals the skills and capacity to treat and stabilize pregnant patients until they can arrange transport to a birthing facility [4]. Simulation training, competency-based obstetric care training, and care bundles have evidence as effective training solutions for emergency obstetric care [3].

We recommend the MOMS program leverage existing training infrastructure including simulation, Project ECHO, and PQC to include components focused on emergency obstetric care.

Conclusion

In the United States, the Joint Commission on Accreditation of Healthcare Organizations attributed a significant proportion of preventable obstetric patient morbidity and mortality to a high frequency of medical errors and substandard care [4]. To improve the outcomes of pregnant people in Montana, even non-birthing hospitals need to feel confident in handling basic obstetric emergencies. Enhancing and increasing training opportunities in emergency obstetric care in hospitals without obstetric units will allow for improved maternal outcomes in Montana.

Acronym Glossary

CME - Continuing Medical Education

ECHO - Extension for Community Healthcare Outcomes

EOS - Emergency Obstetric Services

MHN - Montana Health Network

NRP - Neonatal Resuscitation Program

PALS - Pediatric Advanced Life Support

PQC - Perinatal Quality Collaborative

S.T.A.B.L.E. - Sugar, Temperature, Airway, Blood Pressure, Lab work, and Emotional Support - a neonatal education program with six assessment and care modules

References:

[1] K. B. Kozhimannil, J. D. Interrante, M. S. Tuttle, M. Gilbertson, and K. D. Wharton, "Local Capacity for Emergency Births in Rural Hospitals Without Obstetrics Services," *J. Rural Health*, vol. 37, no. 2, pp. 385–393, Mar. 2021, doi: 10.1111/jrh.12539.

[2] World Health Organization et al., "Monitoring Emergency Obstetric Care: A Handbook," 2009. https://www.who.int/reproductivehealth/publications/monitoring/9789241547734/en/Allowed=y (accessed Apr. 12, 2022).

[3] C. A. Ameh, M. Mdegela, S. White, and N. van den Broek, "The effectiveness of training in emergency obstetric care: a systematic literature review," *Health Policy Plan.*, vol. 34, no. 4, pp. 257–270, May 2019, doi: 10.1093/heapol/czz028.

[4] A.-M. Bergh, S. Baloyi, and R. C. Pattinson, "What is the impact of multi-professional emergency obstetric and neonatal care training?," Best *Pract. Res. Clin. Obstet. Gynaecol.*, vol. 29, no. 8, pp. 1028–1043, Nov. 2015, doi: 10.1016/j.bpobgyn.2015.03.017.

This project is supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling $9.6 million designed to improve maternal health outcomes with 0% financed with non-governmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by the Montana Department of Public Health and Human Services (DPHHS), HRSA, HHS, or the US Government.