National Rural Health Association Policy Brief

Obstetric readiness in rural communities lacking hospital labor and delivery units

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Introduction

A review of the Centers for Disease Control and Prevention (CDC) Pregnancy Mortality Surveillance System found pregnancy-related mortality ratios from 2011 to 2016 were highest in rural areas (19.5-24.4 deaths per 100,000), as compared to urban areas (15.7-17.9 deaths per 100,000).[1] The geographical differences in pregnancy-related mortality ratios are the result of a combination of issues. Rural communities have higher rates of uninsured residents, hospital closures, maternity care provider shortages, and unmet pre-existing health needs that collectively contribute to growing rural-urban differences in maternal morbidity and mortality. In 2018, more than half of rural counties nationwide did not have a hospital that provided obstetric services.[i] Even after controlling for health conditions and sociodemographic factors, rural residents still have a 9 percent higher probability of severe maternal morbidity and mortality than their urban counterparts.[ii]

These alarming statistics highlight the need for a concerted effort to address obstetric readiness in rural health facilities to adequately equip them to manage obstetric emergencies during pregnancy, labor, and delivery, even if they do not house comprehensive obstetric services.[iii] The statistics also call for multidisciplinary collaboration to offset the growing burden of rural physician and obstetric unit shortages across rural America. This policy brief offers recommendations to promote obstetric readiness for emergency care in rural hospitals without obstetric units and support for community-based emergency department-adjacent health workers, such as doulas, community health workers, and social workers.

Analysis

Who makes up the maternal health workforce in rural areas, and what is the current capacity and availability of those providers?

According to the March of Dimes 2022 report *Nowhere to Go: Maternity Care Deserts Across the U.S.*, more than 500,000 babies were born to women who reside in counties with little to no access to maternity care. [iv] Maternity care deserts are counties with a "lack of maternity care resources, where there are no hospitals or birth centers offering obstetric care and no obstetric providers," which describes 36 percent of counties in the United States. Today, five percent of counties have less maternity care access than two years ago. [v] Furthermore, the report found seven percent of all obstetric providers (obstetricians/gynecologists and certified nurse midwives/certified midwives) in this country practice in a rural area. [vi] Another study found that among the two-thirds of 185 rural hospitals with maternal care and delivery services, family medicine doctors were the only delivering provider in 27 percent of hospitals, creating a lack of compensatory coverage in maternal care deserts.[vii]

What does emergency department workforce readiness look like?

As the number of rural hospitals without obstetric units increases and the rural maternity provider gap continues to widen, the first point of hospital care for a growing number of pregnant patients is the

emergency department (ED). In 2020, only two percent of emergency medicine residents had training in rural areas,[viii] prompting the Annals of Emergency Medicine to state that "there is an emergency [trained] physician 'desert' in rural United States, lacking both residents and residency training programs."[ix] Studies demonstrate that access to specialists via telehealth, the use of interprofessional education, and maternal health providers, like midwives and doulas, can help address staffing challenges faced by individual providers and hospitals working in isolation.[x]

How can community-based health workers address the growing rural maternity health workforce shortage?

A Cochrane systematic review of 27 international studies found that pregnant people who received doula support were 39 percent less likely to have a cesarean delivery and 35 percent less likely to have a negative birth experience.[xi] Additionally, the community and cultural connectedness of community health workers can reduce hospital stays by 65 percent and double patient satisfaction.[xii]

How does that relate to OB services, and what is needed to maintain those competencies?

Infrastructure

A recent survey of nurse managers and emergency department administrators in rural hospitals without obstetric units found the most commonly stated need was simulation training (36 percent) for various obstetric procedures and skills.[xiii] Other clinical training requests included neonatal resuscitation training, precipitate delivery training, and postpartum hemorrhage management to enhance skills not routinely practiced given the low volume of births.[xiv] Between 2010 and 2018, 37.4 percent of U.S. obstetric hospitals qualified as low volume (defined in the cited study as those that have 10 to 500 births annually), facilitating 7.4 percent of births nationwide. Low birth volume has been identified as a risk factor for postpartum hemorrhage in both rural and urban non-teaching hospitals.[xv] Of these low volume hospitals, 18.9 percent are not within 30 miles of any other obstetric hospital, making emergency transfers more challenging when complications arise.[xvi]

Technology

In 2021, only 72 percent of rural Americans reported having broadband internet connection at home,[xvii] making it harder for rural providers to offer care via telemedicine, especially when audio-only telemedicine reimbursement expires 151 days after the COVID public health emergency ends.[xviii] From 2015 to 2019, only 39 percent of rural counties had access to point-of-care ultrasound compared to 89 percent of metropolitan counties and 74 percent of counties overall. Regions with less access to point-of-care ultrasound include the Great Plains and Midwest.[xix]

Emergency transport

In the year following a hospital's closure of a labor and delivery unit in rural and urban-adjacent counties, out-of-hospital births and preterm births increase, putting more pressure on rural emergency management system (EMS) staff and volunteers to be prepared for obstetrical emergencies.[xx] Over half of small, isolated rural EMS agencies are staffed completely by volunteers.[xxi]

Finances

Every year, Medicaid covers 50 percent of rural births, compared to 43 percent nationally.[xxii] While maternal mortality rates continue to increase nationally, every state that expanded Medicaid coverage through the entire postpartum year has experienced fewer maternal fatalities compared to states that

opted not to enroll in Medicaid expansion.[xxiii] Medicaid reimbursement is often lower than Medicare or private insurance reimbursement despite the need for increased financial support in rural areas.[xxiv]

Policy recommendations

Ongoing training for existing workforce

1. Federally require and fund training for the current workforce, including:
    a. Annual obstetric recertification training for all rural providers working in emergency departments, including Basic Life Support in Obstetrics (BLSO), Advanced Life Support in Obstetrics (ALSO), and Neonatal Resuscitation Program (NRP). This training should be required in areas where there are no labor and delivery units within 30 miles, as these providers are the nearest form of obstetric emergency access. When possible, offer this training free of charge and remotely to reduce barriers (remote training is particularly critical to minimize travel time, given the extreme shortage in workforce).
    b. Regular simulation training for various obstetric procedures and emergencies. This training should be offered free of charge and available remotely to reduce barriers.
    c. Ultrasound training for rural providers working in emergency departments. Encourage hospitals, as funding and collaborating network provisions allow, to stock maternal monitoring equipment and technology for antepartum surveillance.
2. Encourage formal relationships between rural ED providers delivering rural maternal care and regional specialists for 1) telemedicine consultations in real time and 2) opportunities for rural ED providers to rotate at higher-volume facilities for exposure to diverse obstetric cases and different levels of care.

Recruitment of doula workforce

1. Provide support to develop doula training programs in rural communities.
2. Subsidize rural doula training program tuition for participants in exchange for their commitment to working as doulas in rural communities.
3. Offer doulas and midwives ALSO, ACLS, and NRP training so they are eligible to assist in patient transport to higher-level care facilities. When possible, offer this training remotely to reduce barriers.
4. Expand doula coverage as a Medicaid benefit nationally.

Infrastructure recommendations

1. Support recommendations published by CMS[xxv], specifically:
    a. Create hospital toolkits for the most common obstetric emergencies that have breakaway locks and contain necessary equipment, medications, step-by-step instructions, intervention checklists, and role descriptions.
    b. Provide rural EMS with necessary telemedicine and diagnostic equipment to receive guidance from specialists and provide care to patients on scene and/or during transport.
    c. Create regional, multidisciplinary emergency obstetric quality improvement teams (e.g., low-level health facilities, transport teams, expert providers at receiving centers) and establish quarterly meetings for knowledge sharing (e.g., complex obstetric cases, postpartum hemorrhage control).
2. Adopt regional telehealth programs modeling successful initiatives implemented in Texas, Louisiana, Arkansas, Georgia, Iowa, and New Mexico,[xxvi] in conjunction with ongoing investment in

broadband and technological capacity. Map onto developing 2023 Farm Bill for investments in facility infrastructure to improve rural care access.

Financial recommendations

1. Require extended Medicaid coverage through the entire postpartum year nationwide.
2. Incentivize states to provide Medicaid payment for doula services, as is done in Indiana, Minnesota, New Jersey, New York, and Oregon,[xxvii] which would help recruit and sustain doulas in rural communities.
3. Encourage CMS to incentivize states to increase Medicaid reimbursement for both rural hospitals and regional obstetrical consultants for telehealth visits and consultations.[xxviii]
4. Incorporate suggestions from the Center for Healthcare Quality and Payment Reform's maternal care payment reform for progress towards more affordable and equitable rural care with adequate reimbursement.[xxix]
5. Continue and expand funding for the federal Health Resources and Services Administration Rural Maternity and Obstetrics Management Strategies grant program, which collects data on rural hospital obstetric services, builds networks to coordinate continuum of care, leverages telehealth and specialty care, and improves financial sustainability.[xxx]

Conclusion

Pregnancy-related deaths are increasing in the United States, with pregnant people in rural and underserved communities facing additional risks and challenges.[xxxi] To promote the health and well-being of rural obstetric patients and newborns, rural hospitals and their emergency room departments must be supported through creative and comprehensive interventions.

Appendix

1. NRHA Policy Brief: *Rural Obstetric Unit Closures and Maternal and Infant Health*
2. CMS Report: *Advancing Rural Maternal Health Equity*
3. Terms:
    a. birthing center
    b. community maternal home
    c. pregnancy-related mortality ratio - pregnancy-related deaths during or within 1 year of pregnancy per 100,000 live births

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