Maternal health in rural America

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Background on rural maternal health

A majority of rural births occur at local facilities, yet more than half of rural counties no longer have access to obstetric (OB) services.[i] Studies show a doubling of infant mortality rates where counties have lost OB services.[1,ii] Additionally, out-of-hospital births and preterm births increase in counties without hospital-based OB services.[iii] Recent changes in the maternal health landscape have the potential to exacerbate the preexisting disparities in rural maternal health related to the availability of the maternal health workforce, maternity care coverage policies, and the provision of equitable access to maternal care services.[iv,v]

Decline of services

At large, 36 percent of U.S. counties are defined as maternity care deserts[2], the majority of which are located in rural areas.[vi] As of 2018, 56 percent of rural counties are without access to OB care, declining from 46 percent in 2004.[vii] The South has the lowest number of OB services in hospitals, with seven rural hospitals offering these services per 100,000 pregnant women in 2021.[3,viii] Hospitals that discontinue OB services are more likely to be smaller in size, privately owned, and located in communities with fewer maternal health providers.[ix] Residents in communities that lost care have lower incomes and fewer resources to access health care.[x]

In addition to OB unit closures, rural hospital closures contribute significantly to the maternal health crisis. Between 2010 and 2024, over 171 rural hospitals closed or discontinued inpatient services.[xi] The COVID-19 pandemic exacerbated the challenges that many rural hospitals already faced, including workforce shortages, limited access to critical resources, and a decrease in the quality of infrastructure.[xii] Approximately 420 rural hospitals are vulnerable to closure today, with more than 50 percent operating with negative margins.[xiii] If every vulnerable rural hospital were to close, an estimated 11.7 million individuals would face significant challenges in accessing health care services.[xiv]

Financial barriers to providing OB services

Financial challenges, such as low Medicaid reimbursement rates and high costs of malpractice insurance, are significant barriers to keeping obstetric units open in rural hospitals.[xv] Rural hospitals are more reliant on Medicaid, with nearly half of all births in these facilities covered by Medicaid.[4,xvi] The high rate of births covered by Medicaid poses a financial challenge for rural hospitals, as Medicaid reimbursement for childbirth is half the rate of private insurers on average.[xvii] High costs associated with staffing obstetric units in rural hospitals also contributes to financial instability. While many hospitals rely on elective

[1] Comparatively to observable declines in infant mortality rates where these services are available.
[2] The term maternity care desert used here is a county without a hospital or birth center offering obstetric care and without any obstetric providers.
[3] Comparatively, hospitals in the West offered OB services for 15 per 100,000 pregnant women.
[4] Comparatively, 43 percent of births are covered by Medicaid in urban hospitals.

surgeries and other services to assist in subsidizing financial loss, the resources necessary to conduct these procedures may not be provided in rural communities.[xviii]

Maternal health workforce shortages

Many rural areas have a shortage of providers with advanced training in maternity care.[xix] Staffing models for maternity care in rural areas vary, with OB services most commonly provided by family practice physicians.[xx] A decline in the number of family physicians providing obstetric services is occurring in urban and rural areas across the country due to changes in hospital staffing patterns, malpractice insurance costs, and low Medicaid reimbursement rates, among other factors.[xxi,xxii] Recent interviews with rural hospitals in nine states revealed that hospitals with lower birth volume were more likely to have family physicians and general surgeons attending deliveries compared with hospitals with high birth volume, which more frequently had specialized providers like OBs and midwives attending deliveries.[xxiii] Further, prenatal care was more than five times more likely to be provided by a family physician in rural areas compared to urban.[xxiv]

A variety of personal and professional factors contribute to the shortage of maternal health providers in rural areas.[xxv] Many OBs prefer to work in urban centers where they are less isolated from other specialty providers. Rural OBs and family practice physicians who provide obstetric services may not have nearby colleagues to consult or share on-call responsibility. This isolation can result in long and unpredictable work hours. A lack of control and predictability in work schedule is associated with reduced career satisfaction and increased burnout among physicians.[xxvi] Furthermore, recent court decisions could potentially impact the distribution of maternity care providers in rural areas in terms of both practice and training patterns.[xxvii] Compensation of the maternity care workforce is another barrier to increasing provider availability. According to an American Medical Group Association survey, the average compensation for OB physicians has grown 10 percent over the past five years, with a steep increase of 4 percent seen in the last year alone. This translates to costs associated with supporting three full-time OB providers[5] increasing by nearly $92,000 for the average critical access hospital.[xxviii]

To provide hospital-level labor and delivery services, physicians need to have another physician or surgeon to provide backup surgical coverage and anesthesia services available within 30 minutes from decision to incision.[xxix] The low number of births in rural hospitals makes employing specialty providers such as anesthesiologists challenging. Certified registered nurse anesthetists (CRNA) provide most anesthesia services in rural facilities, but there is significant variation in practice authorities across the country. Currently, 25 states have opted out of the reimbursement requirements that mandate CRNAs must have physician supervision.[xxx] For example, in Iowa (the first state to opt out of the physician supervision reimbursement requirement in 2001), 87 percent of hospitals employed CRNAs only.[xxxi] While 44 percent of hospital facilities in Vermont had an anesthesiologist, none of the facilities in Iowa had an anesthesiologist. These requirements are not Part B CRNA conditions for payment, but are condition of participation requirements for facilities. Under Medicare, CRNAs can work independently in all 50 states and can be reimbursed directly for those services in all states. Although there is variation in practice authorities across the country, it is important to note that no state requires physician anesthesiologist

[5] The typical rural practice model has a minimum of three full-time OB providers in order to share on-call coverage.

supervision of CRNAs in hospitals, and 43 states have no supervision requirements for CRNAs in their nursing and medicine laws or rules[xxxii].

A rural setting may not have a high enough volume of births to maintain a full-time team of single specialty nurses trained in labor and delivery. Therefore, general nurses are more often used in rural settings. The low volume of deliveries in rural hospitals may make it difficult for doctors and nurses to maintain related skills.[xxxiii] Low volumes also mean that some providers and nurses do not feel comfortable performing labor and delivery services.[xxxiv] Further, when a rural hospital discontinues OB services, their emergency department will likely continue to provide care related to pregnancy emergencies, regardless of resource available for facility capacity or training.

Long travel distances for obstetrics services and delivery

Drive times to maternity care vary significantly, and in some states as few as 56 percent of pregnant women live within a 30-minute drive to a hospital with maternity care services.[xxxv] Where OB units have closed, the average travel distance to the nearest hospital increased to 29 miles.[xxxvi] A number of state-level studies have linked greater distances to health care with negative health outcomes. Drive time was associated with premature delivery in a study of pregnant women in Georgia. Those who drove 45 minutes or more to their delivery hospital were 1.53 times more likely to have a premature delivery than pregnant women drove less than 15 minutes.[xxxvii] The increasing number ambulance deserts in rural areas may further result in decreased EMS capacity to transport a baby and mother during pregnancy-related emergencies. [xxxviii] Moreover, the lack of proximity to neonatal ICUs can add complexity to distances traveled for rural families.

Some pregnant women choose to temporarily relocate to a city where they can deliver in a larger facility. However, in order to relocate, pregnant women must have the social and financial resources to afford accommodations and take time away from work and family responsibilities. Relocating also requires that pregnant women deliver away from their community of friends and family who would otherwise be available support. Additionally, pregnant women may elect to schedule a C-section or have a non-medically based induction of labor when they are concerned about getting to the hospital in time for delivery from an isolated rural area. Between 2002 and 2010, the rates of non-indicated labor inductions in the United States rose faster in rural areas than in urban areas.[xxxix] C-sections are a more resource-intensive way to give birth, as a major operation that involves anesthesia and longer hospital stays, and can result in higher instances of morbidity and mortality.

Accessing prenatal and postpartum care

Rural pregnant women initiate prenatal care later in pregnancy than non-rural pregnant women.[xl] Not only do long travel distances create access barriers around the time of delivery, but traveling long distances for routine prenatal care throughout pregnancy can be a significant burden. The extra time and planning are especially difficult for already vulnerable rural populations who may have financial constraints or transportation barriers. Pregnant women are advised to seek prenatal care each week past 36 weeks, and for women who live far from care, this expectation may be unrealistic. In rural communities where when prenatal care is not accessible, rural pregnant women had to travel 25 to 41 miles to the nearest hospital for prenatal care.[xli] For example, rural pregnant women in Kansas who

reported traveling more than 20 miles for prenatal care had significantly fewer visits during the second and third trimester compared to pregnant women who traveled 19 miles or less.[17xlii]

Access to postpartum care is equally important for rural women. The postpartum period is critical for recovering from childbirth, addressing complications of delivery, ensuring mental health, managing infant care, and transitioning from obstetric to primary care.[xliii] One-third of maternal deaths occur within one year after giving birth, and the lack of postpartum care increases the risk of pregnancy-related death by three to four times.[xliv] Rural residents face more barriers to accessing postpartum care and support as rural obstetric units continue to close, in addition to experiencing higher rates of poverty, food insecurity, violence, and comorbidities that can increase risks for poor postpartum outcomes. [xlv,xlvi,xlvii]

Quality of care and birth outcomes

Local rural hospitals provide essential access to services and enable pregnant women to deliver within their community. With an estimated 500,000 births occurring in rural hospitals annually, approximately three out of four rural pregnant women gave birth at local hospitals in 2016.[xlviii,xlix] On average, the quality of maternity care services for low-risk pregnancies is comparable to urban and large-volume facilities on various metrics.[l] However, when women lose access to OB care, they often experience adverse health outcomes.[li] Lack of access to rural obstetrics care and greater travel distances are associated with a higher rate of increased interventions and poor outcomes, including preterm delivery, maternal mortality, and infant mortality.[lii]

Insufficient access to maternal health care services in rural areas can lead to various negative consequences for both pregnant women and infants.[liii] Pregnant women living in rural areas have nearly a 10 percent greater risk of dangerous childbirth situations compared to women who live in urban areas.[liv] When pregnant women do not receive prenatal care, their child has a 40 percent greater risk of death within 28 days of delivery.[lv] Pregnant women who lack the necessary prenatal care may be three to five times more likely to give birth to a child who is underweight, which puts the child at an increased risk for high blood pressure, kidney and heart disease, and type 2 diabetes. [lvi] Additionally, challenges related to rural maternal care access increase an individual's risk for postpartum depression.[lvii] In many rural states, mental health conditions including substance use disorder are the leading underlying cause of pregnancy-related deaths, followed by cardiovascular disease and homicides related to interpersonal violence.[lviii]

Black, Indigenous, and people of color (BIPOC) in rural areas are at a greater risk of experiencing poor maternal health outcomes compared to white rural residents. Black women are nearly three times as likely to die of complications related to pregnancy and childbirth compared with white women in the most rural areas (59.3 deaths per 100,000 live births compared to a ratio of 19.7 per 100,000), while American Indian and Alaska Native women are nearly twice as likely as white women (37.5 deaths per 100,000).[lix] Furthermore, BIPOC women who give birth in rural areas are twice as likely to face health complications related to their pregnancy compared to their white counterparts.[lx] Additionally, women of color in rural areas experience higher levels of discrimination and stigmatization when utilizing maternal health care services than racial and ethnic minorities in urban communities, which may lead to a decrease in health care utilization. [lxi]

Policy considerations

Taking no action is likely to result in further adverse outcomes for pregnant women and babies in rural communities. Policies need to ensure that rural pregnant women have adequate access to maternity services. Barriers to increasing rural OB access include maternal health provider availability, loss of local labor and delivery services, and social drivers of health.

Workforce shortages and readiness

The declining number of rural primary care physicians trained in OB care, difficulty of maintaining clinical skill sets for delivery of high-risk pregnancies, and closure of OB units in hospitals contribute to the maternal health workforce shortage and inadequate training of rural providers. NRHA supports policy changes that encourage and support family practice physicians in providing maternity care services in rural America. Further, NRHA supports expanding the scope of practice and reimbursement for advanced practice providers (e.g. nurse practitioners, physician assistants, nurse midwives, certified midwives) and non-traditional providers (e.g. doulas, community health workers) to maintain or improve access to local maternity care, especially in maternal health shortage areas. Supporting rural training programs and interprofessional team building such as TeamSTEPPS is critical, as well as simulation training such as the American Academy of Family Physicians' Advanced Life Support in Obstetrics course and the Centers for Disease Control and Prevention's Hear Her campaign.

Maintaining local obstetric access to care

Rural hospitals still providing labor and delivery should receive adequate funding to ensure these services remain viable. NRHA supports expanding Medicaid eligibility for pregnant women by using flexibilities in Medicaid programs to address rural OB service barriers. NRHA supports protections for low-volume providers, liability insurance, and resources to support rural OB services under state Medicaid programs. NRHA also encourages innovation through establishing alternative payment models for obstetrics and delivery. Models of care should include prenatal and postnatal care, as well as behavioral health support services for both substance use and mental health concerns.

Supporting regional care models

NRHA supports policies to keep struggling facilities open and maintain local maternity services for rural pregnant women, with a specific focus on regional approaches to care. In many rural areas that have lost OB capacity, a focus is needed on prenatal and postpartum care with a connection to labor and delivery services. NRHA supports policies that can improve aggregate numbers of birthing facilities in different regions to gain an understanding of how to implement centers of excellence. This may include selecting hospitals to be regional hubs, tackling transportation obstacles, and addressing local prenatal and postnatal care options. Additionally, NRHA supports the use of telehealth and other technologies to facilitate the delivery of maternity and pediatric services so pregnant women can receive care in their own community. Local health departments and case managers can be a critical resource in utilizing telehealth services to connect patients to specialty care options.

Addressing social drivers of maternal health

Rural women are more susceptible to social drivers of health that create more barriers to prenatal and postnatal care. For example, in maternal care deserts, patients must travel greater distances to seek care outside of their community. As a result, NRHA supports priorities that focus on technology, transportation, and care coordination at a state and federal level. This could help target social drivers of health such as

lack of housing and employment options for rural women. Pregnant women should also be connected with their local health department for maternal and child health care resources and access to services and programs like WIC and community health workers. In rural areas where maternity services have been lost, NRHA supports aiding patients with housing and transportation when seeking care outside of their community.

Conclusion

A lack of access to obstetric care in rural areas is a known and growing concern. Rural communities have a long history of challenges accessing these services. Recent closures of rural obstetric units and hospitals have exacerbated concerns about access to care for millions of women of reproductive age living in rural America. NRHA supports a multifactorial approach addressing workforce, local access, regional care models, and social drivers of health to provide obstetric services for women living in rural areas.

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