
Legislative Gaps in Addressing Rural Women's Access to Obstetric Care in the United States:

A Case Study of the North Carolina Home Birth Freedom Act

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Rural women in the United States face numerous barriers to accessing obstetric care. Hospitals and obstetric wards in rural areas are closing, and there is a shortage of rurally-located obstetric care providers. Recent experience in North Carolina provides insight into current legislative barriers to improving rural women's access to obstetric care. In 2015, legislators in the North Carolina General Assembly unsuccessfully advocated for the Home Birth Freedom Act, which would have allowed certified professional midwives to practice in the state.

While the Home Birth Freedom Act would have helped to address rural women's access to care, it would not have been sufficient. This analysis describes why rural women's access to obstetric care is limited and offers recommendations to expand access to care by providing certified nurse-midwives with more autonomy, appropriating funds to place obstetric care providers in rural areas, and improving Medicaid reimbursement rates.

Editor's Note: The author recognizes and respects that not all people giving birth identify as women. Because most previous research approaches pregnancy with a cisgender lens, there is little research on the experiences of trans men and nonbinary people receiving obstetric services. To reflect research findings accurately, this article refers to people who are pregnant as women. As research on people who are pregnant advances, this gap on the experiences of trans men and nonbinary people will hopefully be addressed.

INTRODUCTION

Obstetric care—medical services that deal with pregnancy, childbirth, and the postpartum period—in rural counties is declining, but there remains a clear need for obstetric care in such areas. According to Hung et al., “more than 18 million women of reproductive age live in rural counties of the United States, and nearly half a million women give birth each year in rural hospitals” (Hung et al. 2017, 1663). Nonetheless, from 2004 to 2014, 9 percent of rural counties in the United States lost all obstetric services provided by their hospitals; this is in addition to the 45 percent of rural counties that never had hospitals with obstetric services during the same 10-year period (Hung et al. 2017).

The United States is also facing a shortage of obstetrician-gynecologists (OBGYNs) and certified nurse-midwives (CNMs). The American College of Obstetricians and Gynecologists (ACOG) projects that by 2020 the United States will have a shortage of approximately 7,000 OBGYNs (Olove 2016). For rural women to receive adequate obstetric care, there must be more provider options.

This analysis provides background on rural women’s access to obstetric care in the United States and then reviews recent legislative efforts in North Carolina to improve rural women’s access to care. In 2015, legislators in the North Carolina General Assembly unsuccessfully advocated for the Home Birth Freedom Act, which would have allowed certified professional midwives to practice in the state of North Carolina. Drawing upon the experience in North Carolina, this article discusses the legislative gaps surrounding rural women’s access to care, identifies key ways to expand access, and provides recommendations on policy steps to address rural women’s access to obstetric care.

BACKGROUND

RURAL WOMEN’S ACCESS TO OBSTETRIC CARE

Rural women face increasing barriers to accessing obstetric care as more rural hospitals and obstetrics wards close and as the shortage of OBGYNs and CNMs continues to grow. This obstacle poses a significant problem because obstetric care is critical for ensuring a healthy mother and baby.

The Office on Women’s Health recommends that healthy women with normal pregnancies have approximately 16 prenatal checkups prior to giving birth to ensure optimal health outcomes. For women with high-risk pregnancies, the recommended number of prenatal checkups is higher (Office on Women’s Health 2018). With numerous hospitals and obstetrics wards closing in rural areas, it becomes difficult for rural women to obtain necessary prenatal care. About half of rural women must travel at least 30 minutes to access obstetric services (Hung et al. 2017; Kozhimannil, Henning-Smith, & Hung 2016). One study found that “women who travel further for maternity services have worse birth outcomes, including higher rates of infant mortality and admission to the neonatal intensive care unit” (Kozhimannil et al. 2015, 365). In addition to hindering access to prenatal care, long travel distances are dangerous for women in labor.

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HOSPITAL CLOSURES

As access to hospitals is a key consideration for ensuring adequate obstetric care, it is important to understand why rural hospitals are closing in increasing numbers. Hospitals in rural areas typically cite negative operating margins, low patient volume, and a shortage of providers as the main reasons for closure (Pearson & Taylor 2017; Radcliffe 2017). Even among rural hospitals that do remain open, labor and delivery wards are often one of the first units to close as a result of low patient volume and financial losses (Hung et al. 2017; Pearson & Taylor 2017).

Commonly cited reasons for negative operating margins in rural hospitals include failure to expand Medicaid and low Medicaid reimbursement. A recent study found that rural hospitals in states that expanded Medicaid fare better than rural hospitals in states that did not expand Medicaid. Rural hospitals in non-expansion states provide higher levels of charity care, which refers to medical services provided to uninsured individuals for which the hospital incurs the costs. Rural hospitals in non-expansion states are also closing more rapidly compared to those in expansion states (Kaufman et al. 2016; Radcliffe 2017).

Low Medicaid reimbursements further contribute to hospitals' negative operating margins. Medicaid reimburses hospitals at a much lower rate compared to private insurance companies (Rab 2017; Ball 2017). Furthermore, Medicaid reimbursements for obstetric care services that CNMs provide are even lower than reimbursements for OBGYN-provided services (Ollove 2016).

In addition to negative operating margins, low patient volume is another factor that contributes to labor and delivery wards closing. Among 263 rural hospitals, those that kept their obstetric wards open from 2010 to 2014 "had almost fourfold the birth volume of [the] closed units in 2010" (Hung et al. 2016, 1550). In addition to affecting revenue, low volume also affects providers' ability to maintain clinical competence and leads to low-volume penalties and higher malpractice premiums (Hung et al. 2016; Hung et al. 2017).

Finally, rural hospitals cite difficulty in recruiting and retaining clinical providers as a reason for closing obstetric wards. According to Ollove (2016), "Nearly half the counties in the U.S. don't have a single obstetrician/gynecologist and 56 percent are without a nurse midwife." Many practitioners do not want to work in low-volume areas and/or live in rural areas, contributing to the ongoing staffing shortage (Hung et al. 2016; Knopf 2018; Kozhimannil et al. 2015). Recent trends indicate rural hospitals have had to more heavily rely on family physicians, general surgeons, and CNMs to provide obstetric care (Kozhimannil et al. 2014).

MIDWIFE LICENSURE

In the United States, there are four types of midwives: Certified Nurse-Midwives (CNMs), Certified Midwives (CMs), Certified Professional Midwives (CPMs), and lay midwives. This analysis focuses on CNMs and CPMs, as CNMs are licensed to practice in all 50

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states and the District of Columbia, and CPMs are licensed or certified to practice in 33 states. Meanwhile, CMs are only licensed to practice in five states, and lay midwives, who do not receive any official training, are not licensed to practice in any state.

CNMs are registered nurses who also obtain an advanced degree in midwifery. They receive certification through the American Midwifery Certification Board and practice in homes, birth centers, hospitals, and offices. CNMs are authorized to prescribe medications and can provide care beyond obstetric services, such as primary care (American College of Nurse-Midwives 2017; Fotsch 2017).

In contrast, CPMs do not need to have nursing degrees and instead receive training through an apprenticeship or formal program. They are certified through the North American Registry of Midwives and practice in homes, birth centers, and offices. The District of Columbia and five states, including North Carolina, explicitly outlaw CPMs (North American Registry of Midwives 2017). CPMs do not practice in hospitals. They do not typically have authorization to prescribe medications, but some states permit prescriptive authority of certain medications commonly used during the prenatal and postpartum periods. CPMs do not provide care beyond obstetric services (American College of Nurse-Midwives 2017; Fotsch 2017).

CASE STUDY: THE HOME BIRTH FREEDOM ACT IN NORTH CAROLINA

A case study of the Home Birth Freedom Act in North Carolina provides insight into the obstacles that states face in working to improve rural women's access to obstetric care.

Seventy of North Carolina's 100 counties are classified as rural, and rural women in North Carolina gave birth to 31 percent of live births in the state in 2017 (Office of Rural Health 2017b; North Carolina State Center for Health Statistics 2018). About one-third of rural counties in North Carolina did not have an OBGYN in 2017 (Sheps Center 2018). Due to the limited options for obstetric services, many rural women in North Carolina have voiced concerns that they will end up giving birth in their car on the way to the hospital (Ball 2017; Pearson & Taylor 2017).

In 2015, North Carolina Senators Ronald Rabin and Norman Sanderson introduced Senate Bill 543, the Home Birth Freedom Act, in the North Carolina General Assembly (NCGA). The Act was meant to both address the growing shortage of available obstetric care in rural counties and to provide women with more "freedom to choose the manner, cost, and setting for giving birth." It would have established The North Carolina Council of Certified Professional Midwives and allowed licensed CPMs to provide obstetric care to healthy women desiring to have home births (S. 543 Home Birth Freedom Act 2015).

Currently in North Carolina, CNMs are required to practice under the supervision of a doctor. The doctor does not have to be present while the CNM provides care, but the doctor and CNM sign a supervisory agreement. This can prevent CNMs from providing home births, as many doctors do not want to sign supervisory agreements for reasons

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of competition and increases in medical malpractice premiums (Hoban 2013; Ollove 2016). There are 341 CNMs in North Carolina, but fewer than 10 of them attend home births (Murawski 2018).

The Council, comprised of seven members appointed by the Secretary of the NC Department of Health and Human Services (NC DHHS), would have been authorized to license CPMs, collect annual statistics on CPMs, and interpret the bill as they saw fit for licensing CPMs. The bill also authorized state-licensed CPMs to provide obstetric care to healthy women if they followed certain guidelines, such as having their client sign a consent form and developing an emergency plan should the client need to be transferred to a hospital (S. 543, 2015). Senators introduced a previous version of the Home Birth Freedom Act in 2013 and a similar bill, the Midwifery Licensing Act, in 2011 (S. 662, 2011; S. 106, 2013). All three bills failed to become law. Legislators did not introduce a similar law during the 2017-18 legislative session.

LESSONS LEARNED ABOUT THE POLITICAL LANDSCAPE

Little is being done to address the needs of pregnant women in rural North Carolina. Efforts to license CPMs, expand Medicaid and improve Medicaid reimbursements, and encourage providers to practice in rural North Carolina are low priority, opposed, and/or ignored.

In the 2011, 2013, and 2015 legislative sessions, some variation of the Home Birth Freedom Act was introduced in the Republican-led NCGA. All three bills only made it past their first reading and then died in committee (S. 662, 2011; S. 106, 2013; S. 543, 2015). Although NCGA Republicans typically view CPM legalization laws favorably, CPM legislation remains a low priority. Additionally, CPM legislation faces opposition from many medical and hospital lobbies that argue home births are unsafe (Fotsch 2017). However, studies consistently find that women who have planned home births have lower rates of cesarean section and other medical interventions, such as episiotomies (Fullerton, Navarro, & Young 2007; Johnson & Daviss 2005; Olsen 1997; Snowden et al. 2015). While debate remains around infant outcomes, specifically neonatal mortality rates, when reviewed comprehensively, the literature leans toward the conclusion that healthy women with planned, non-breech, singleton home births give birth to infants with outcomes similar to those of women who give birth in hospitals.

Despite low prioritization and pushback, many midwives continue to fight to legalize CPMs in North Carolina. In May 2018, the group NC Friends of Midwives renewed their push for legislation legalizing CPMs (Murawski 2018). However, no legislators introduced CPM legislation during the 2018 legislative session.

When it comes to Medicaid, the NCGA opposes expansion. Although Governor Roy Cooper supports Medicaid expansion, there is little he can do while Republicans maintain a majority in the state House and Senate. In 2017, Democrats introduced Medicaid expansion legislation in the House (HB 858) and Senate (SB 290). The bills did not make it out of committee (H. 858, 2017; S. 290, 2017).

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The Office of Rural Health, part of NC DHHS, oversees the North Carolina Rural Hospital Program, which is dedicated to provider recruitment and placement in rural counties and other underserved areas. The program, which receives funding from the federal government, private foundations, the NCGA, and other sources, has generated an estimated \$54 million in economic impact as a result of the placed providers (Office of Rural Health 2017a). However, the program does not emphasize placing obstetric care providers specifically. While the Office of Rural Health has many successful programs, none of its initiatives focus on obstetric care in rural areas.

GAPS AND OPPORTUNITIES FOR IMPROVEMENT

The NCGA has delayed taking action to support expanding rural women's access to obstetric care. As a result, rural women's provider options and access to care remain limited. It is critical that legislators in the NCGA act if they desire better outcomes for rural women and their babies. Below are some policies that could help to address provider shortages and hospital and obstetric ward closures in rural counties in North Carolina.

- ***Reintroduce the Home Birth Freedom Act.*** The Home Birth Freedom Act would help to address the current shortage of obstetric care providers in North Carolina and would provide women in isolated, rural areas with care in their own homes.

As mentioned, the Home Birth Freedom Act has been a low priority in the NCGA, and there is nothing to indicate that this has changed. Even if the Home Birth Freedom Act were to become law, closure of rural hospitals would still need to be addressed, as women having homebirths must be able to access a hospital quickly in case of emergency. Nevertheless, reintroducing the bill into the NCGA could help spread awareness about the important role that CPMs could play in North Carolina's healthcare system.

- ***Appropriate funds specifically for placing obstetric care providers in rural areas.*** Rural hospitals cite a shortage of OBGYNs and CNMs as one reason for closing their obstetric wards (Pearson & Taylor 2017; Radcliffe 2017). The Office of Rural Health's program to place healthcare providers in rural areas and other medically underserved areas reports positive results. The program makes 124 placements a year and provides rural areas with much-needed care (Office of Rural Health 2017a). The program attracts healthcare providers through loan repayment incentives and a high-needs service bonus for those who do not have loans. In order to receive the incentives, the provider must commit to four years of service (NC DHHS n.d.).

It is possible that the NCGA would support a bill appropriating funds to the Office of Rural Health specifically for recruiting and retaining OBGYNs and CNMs to work in understaffed hospitals in rural counties. As evidence demonstrates that the Office of Rural Health's program to place providers has been effective, a program targeted to obstetric care providers could be successful as well (Office of Rural Health 2017a).

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- **Provide CNMs with more autonomy.** North Carolina is one of only six states, including the District of Columbia, that require a CNM to practice under the supervision of a doctor (Stasio and Campbell 2013). Research finds that states with such restrictions on CNMs have fewer CNMs attending births in the states' rural hospitals (Kozhimannil et al. 2016). By removing such restrictions, CNMs will have greater autonomy, and it will be easier for them to practice across the state and in counties with no OBGYNs.

Opposition to removing supervision restrictions continues to decrease. ACOG and the National Institute of Medicine both support lifting restrictions on CNMs (Stasio and Campbell 2013). Previously, the North Carolina Medical Society and the North Carolina Obstetrical and Gynecological Society were united in their support of supervision restrictions (Ellis 2014). However, in 2017 the latter organization changed its stance and now supports lifting supervision requirements (Grasinger 2017).

- **Increase Medicaid reimbursement fees.** CNMs receive lower Medicaid reimbursements than OBGYNs even when providing the same care. As many rural hospitals do not have OBGYNs on staff, it is important for other obstetric care providers to receive reimbursements at the same rate in order to decrease rural obstetric wards' negative operating margins. Additionally, North Carolina's provider reimbursement rates for obstetric care are lower compared to many other states. Compared to North Carolina's neighbors Virginia, Tennessee, and South Carolina, Medicaid reimbursement to CNMs in North Carolina for a normal vaginal delivery is at least \$400 less (\$1,301 compared to \$1,894, \$1,704, and \$1,859, respectively) (American College of Nurse-Midwives n.d.). Provided that North Carolina's fee-for-service rates have either stalled or decreased since 2009, an increase in Medicaid reimbursement fees is not likely to happen any time soon (Fiscal Research Division 2015).

RECOMMENDATIONS TO IMPROVE RURAL WOMEN'S ACCESS TO OBSTETRIC CARE THROUGHOUT THE UNITED STATES

Although this analysis focuses on North Carolina, other states looking to expand obstetric care to rural women can consider the following policy options based on North Carolina's experience:

- **Provide CNMs with more autonomy.** Where restrictions still exist, state legislation removing supervision restrictions on CNMs has a good chance of passing, as opposition from medical associations is limited. This legislation should be presented as a way to improve health outcomes for residents in rural areas by expanding access to medical services. There is no state financial burden to such legislation, and it would help to improve rural women's access to obstetric care.

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- ***Appropriate more funds to place obstetric care providers in rural areas.*** Regardless of whether home birth is available in rural areas, it is critical that all women have access to obstetric care in a hospital should complications arise. States should implement policies to address the obstetric care provider shortage that rural areas currently face. States can implement various programs to incentivize obstetric care providers to work in rural areas, but regardless of the program, more funding is necessary.
- ***Initiate efforts to increase Medicaid reimbursement rates.*** In progressive states that view Medicaid favorably, policymakers should make an effort to improve Medicaid reimbursement rates for providers in rural areas. Low reimbursement rates harm hospitals that serve high Medicaid populations, which rural hospitals often do (Rab 2017; Ball 2017). Furthermore, with rural hospitals more heavily relying on midwives, hospitals receive even lower reimbursements for midwife-provided care (Kozhimannil et al., 2014). In order to help rural hospitals sustain themselves, it will be important for them to receive higher reimbursement rates.

CONCLUSION

States must address rural women's obstetric care needs. It is critical for obstetric care access to improve in order to ensure women can access timely and comprehensive care. As a closer look at the obstetric care context in North Carolina reveals, there are many legislative gaps making it difficult for those in rural areas to access the care they need. These gaps include restrictions around where people can give birth, limitations on CNMs' autonomy, limited funding to incentivize obstetric care providers to work in rural areas, and poor Medicaid reimbursements. Looking at the current political context throughout the United States, advocacy efforts should focus on proposals to lift supervision restrictions on CNMs, appropriate funds to state offices to address and prevent low staffing issues in rural areas, and improve Medicaid reimbursement rates.

REFERENCES

- American College of Nurse-Midwives (ACNM). 2017. "Comparison of Certified Nurse-Midwives, Certified Midwives, Certified Professional Midwives Clarifying the Distinctions Among Professional Midwifery Credentials in the U.S." ACNM. Accessed February 10, 2019. <http://www.midwife.org/acnm/files/ccLibraryFiles/FILENAME/00000006807/FINAL-ComparisonChart-Oct2017.pdf>.
- . N.d. "Variations in 2015 Medicaid CNM/CM Reimbursement for Normal Vaginal Delivery (CPT 59400)." ACNM. Accessed February 10, 2019. <http://www.midwife.org/acnm/files/ccLibraryFiles/FILENAME/00000005129/MedicaidPayment-CPT59400.pdf>.
- Ball, Julie. 2017. "Pregnant Women Latest Victims of Rural Health Care Shortage." *Citizen Times*, May 11, 2017. <https://www.citizen-times.com/story/news/local/2017/05/11/pregnant-women-latest-victims-rural-health-care-shortage/101425818/>.
- Cecil G. Sheps Center for Health Services Research. 2018. "North Carolina Health Professional Supply Data." University of North Carolina at Chapel Hill. Last modified February 10, 2019. <https://nchealthworkforce.unc.edu/supply/>.

Legislative Gaps in Addressing Rural Women's Access to Obstetric Care

- Ellis, Elaine. 2014. "Study Recommends 'Independent Practice' for Nurse Midwives." North Carolina Medical Society, March 20, 2014. <http://www.ncmedsoc.org/study-recommends-independent-practice-for-nurse-midwives/>.
- Fiscal Research Division. 2015. "Understanding Medicaid Provider Payments." NCLEG, March 18, 2015. https://www.ncleg.net/fiscalresearch/fiscal_briefs/Fiscal_Briefs_PDFs/Payment%20Primer%20Fiscal%20Brief.pdf.
- Fotsch, Rebecca. 2017. "Regulating Certified Professional Midwives in State Legislatures." *Journal of Nursing Regulation* 8 (2): 47-49. [https://doi.org/10.1016/S2155-8256\(17\)30098-4](https://doi.org/10.1016/S2155-8256(17)30098-4).
- Fullerton, Judith T., Ana M. Navarro, and Susan H. Young. 2007. "Outcomes of Planned Home Birth: An Integrative Review." *Journal of Midwifery & Women's Health* 52 (4): 323-333. <https://doi.org/10.1016/j.jmwh.2007.02.016>.
- Grasinger, Cecilia F. 2017. "Important Policy Announcement from the N.C. OB-GYN Society." Western Carolina Medical Society, March 13, 2017. <https://www.mywcms.org/news-and-events/newsroom/important-policy-announcement-from-the-n-c-ob-gyn>.
- Grünebaum, Amos, Laurence B. McCullough, Katherine J. Sapro, Birgit Arabin, and Frank A. Chervenak. 2017. "Planned Home Births: The Need for Additional Contraindications." *The American Journal of Obstetrics & Gynecology* 216 (4): 401.e1-401.e8. <http://dx.doi.org/10.1016/j.ajog.2017.01.012>.
- Hoban, Rose. 2013. "Bill Would Expand Access to Midwives in N.C." NC Health News, March 21, 2013. <https://www.northcarolinahealthnews.org/2013/03/21/bill-would-expand-access-to-midwives-in-n-c/>.
- Home Birth Freedom Act, S. 106, 2013 Gen. Assem. (N.C. 2013).
- Home Birth Freedom Act, S. 543, 2015 Gen. Assem. (N.C. 2015).
- Hung, Peiyin, Carrie E. Henning-Smith, Michelle M. Casey, and Katy B. Kozhimannil. 2017. "Access to Obstetric Services in Rural Counties Still Declining, with 9 Percent Losing Services, 2004–14." *Health Affairs* 36 (9): 1663-1671. <https://doi.org/10.1377/hlthaff.2017.0338>.
- Hung, Peiyin, Katy B. Kozhimannil, Michelle M. Casey, and Ira S. Moscovice. 2016. "Why Are Obstetric Units in Rural Hospitals Closing Their Doors?" *Health Services Research* 51 (4): 1546-1560. <https://doi.org/10.1111/1475-6773.12441>.
- Johnson, Kenneth C. and Betty-Anne Daviss. 2005. "Outcomes of Planned Home Births with Certified Professional Midwives: Large Prospective Study in North America." *BMJ* 330: 1416. <https://doi.org/10.1136/bmj.330.7505.1416>.
- Kaufman, Brystana G., Kristin L. Reiter, George H. Pink, and George M. Holmes. 2016. "Medicaid Expansion Affects Rural and Urban Hospitals Differently." *Health Affairs* 35 (9): 1665-1672. <https://doi.org/10.1377/hlthaff.2016.0357>.
- Knopf, Taylor. 2018. "Family Ties Keeps One Rural OB-GYN Practicing in Eastern NC, Despite Challenges." North Carolina Health News, March 1, 2018. <https://www.northcarolinahealthnews.org/2018/03/01/family-ties-keeps-one-rural-ob-gyn-practicing-eastern-nc-despite-challenges/>.
- Kozhimannil, Katy B., Michelle M. Casey, Peiyin Hung, Xinxin Han, Shailendra Prasad, and Ira S. Moscovice. 2015. "The Rural Obstetric Workforce in US Hospitals: Challenges and Opportunities." *The Journal of Rural Health* 31 (4): 365-372. <https://doi.org/10.1111/jrh.12112>.
- Kozhimannil, Katy B., Michelle M. Casey, Peiyin Hung, Shailendra Prasad, and Ira Moscovice. 2014. "The Obstetric Care Workforce in Critical Access Hospitals (CAHs) and Rural Non-CAHs." University of Minnesota Rural Health Research Center, November 2014. http://rhc.umn.edu/wp-content/files_mf/obworkforcepolicybrief.pdf.
- Kozhimannil, Katy B., Carrie Henning-Smith, and Peiyin Hung. 2016. "The Practice of Midwifery in Rural US Hospitals." *Journal of Midwifery & Women's Health* 61 (4): 411-418. <https://doi.org/10.1111/jmwh.12474>.

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- North Carolina Department of Health and Human Services (NC DHHS). N.d. "Medical, Dental, and Psychiatric Recruitment Opportunities for Providers." NC DHHS. Accessed February 10, 2019. <https://www.ncdhhs.gov/providers/provider-info/health-care/recruitment-for-providers>.
- Medicaid Expansion/Healthcare Jobs Initiative, S. 290, 2017 Gen. Assem. (N.C. 2017).
- Midwifery Licensing Act, S. 662, 2011 Gen. Assem. (N.C. 2011).
- Murawski, John. 2018. "These Midwives Are Illegal in NC. They Want the Right to Deliver Your Baby at Home." *The News & Observer*, May 4, 2018. <http://www.newsobserver.com/news/business/health-care/article210484009.html>.
- North American Registry of Midwives (NARM). 2017. "Direct Entry Midwifery State-By-State Legal Status." NARM, November 18, 2017. <http://narm.org/pdf/Statechart.pdf>.
- North Carolina State Center for Health Statistics. 2018. "2017 North Carolina Resident Live Births: By Maternal Race/Ethnicity and County of Residence." NC DHHS. Last modified November 15, 2018. <https://schs.dph.ncdhhs.gov/data/births/2017.htm>.
- Office of Rural Health. 2017a. "North Carolina Medical, Dental, and Psychiatric Provider Placements and Shortage Designation." Office of Rural Health, June 30, 2017. <https://files.nc.gov/ncdhhs/documents/2017%20NC%20DHHS%20ORH%20Medical%20Placements%20One%20Pager.pdf>.
- . 2017b. "North Carolina Rural Hospital Program." Office of Rural Health, June 30, 2017. <https://files.nc.gov/ncdhhs/documents/2017%20NC%20DHHS%20ORH%20Hospital%20Program%20One%20Pager.pdf>.
- Office on Women's Health. 2018. "Prenatal Care and Tests." Office on Women's Health, February 9, 2018. <https://www.womenshealth.gov/pregnancy/youre-pregnant-now-what/prenatal-care-and-tests>.
- Ollove, Michael. 2016. "America's OBGYN Shortage Is Extremely Dangerous For Pregnant Women." *Huffington Post*, August 15, 2018. https://www.huffingtonpost.com/entry/americas-obgyn-shortage-is-extremely-dangerous-for-pregnant-women_us_57b1ec06e4b007c36e4f6df5.
- Olsen, Ole. 1997. "Meta-analysis of the Safety of Home Birth." *Birth* 21 (1): 4-11. <http://dx.doi.org/10.1111/j.1523-536X.1997.00004.pp.x>.
- Pearson, Catherine, and Frank Taylor. 2017. "Mountain Maternity Wards Closing, WNC Women's Lives on the Line." *Carolina Public Press*, September 29, 2017. <https://www.northcarolinahealthnews.org/2017/09/29/mountain-maternity-wards-closing-wnc-womens-lives-on-the-line/>.
- Rab, Lisa. 2017. "Rural Hospitals Are Dying and Pregnant Women Are Paying the Price." *Politico Magazine*, October 3, 2017. <https://www.politico.com/magazine/story/2017/10/03/meadows-medicare-rural-hospitals-pregnant-women-dying-215671>.
- Radcliffe, Shawn. 2017. "Rural Hospitals Closing at an Alarming Rate." *Healthline*, February 15, 2017. <https://www.healthline.com/health-news/rural-hospitals-closing>.
- Reed, Alyson, and Joyce E. Roberts. 2000. State Regulation of Midwives: Issues and Options. *Journal of Midwifery & Women's Health* 45 (2): 130-149. [https://doi.org/10.1016/S1526-9523\(00\)00006-4](https://doi.org/10.1016/S1526-9523(00)00006-4).
- Stasio, Fred, and Nicole Campbell. 2013. "Midwifery in North Carolina." *North Carolina Public Radio*, March 13, 2013. <http://wunc.org/post/midwifery-north-carolina#stream/0>.
- Snowden, Jonathon M., Ellen L. Tilden, Janice Snyder, Brian Quigley, Aaron B. Caughey, and Yvonne W. Cheng. 2015. "Planned Out-of-Hospital Birth and Birth Outcomes." *The New England Journal of Medicine* 373 (27): 2642-2653. <https://doi.org/10.1056/NEJMsa1501738>.
- Tucker, Whitney, and Latoya Beatty. 2018. "Giving Birth in North Carolina is Still a Risky Business: Promoting Women's Health to Improve Birth Outcomes." *NC Child*, February 2018. <https://www.ncchild.org/wp-content/uploads/2018/02/FINAL-Birth-Outcomes-Brief.pdf>.

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Vedam, Saraswathi, Kathrin Stoll, Marian MacDorman, Eugene Declercq, Renee Cramer, Melissa Cheyney, Timothy Fisher, Emma Butt, Y. Tony Yang, Holly Powell Kennedy. 2018. "Mapping Integration of Midwives across the United States: Impact on Access, Equity, and Outcomes." *PLOS ONE* 13 (2): e0192523. <https://doi.org/10.1371/journal.pone.0192523>.

Walker, Franklin. 2015. "Twenty-Five Years of Serving the Health Care Needs of Rural North Carolina." *North Carolina Medical Journal* 76 (1):, 34-36. <https://doi.org/10.18043/ncm.76.1.34>.



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