NCDHHS DIVISION OF PUBLIC HEALTH
WOMEN, INFANT, AND COMMUNITY WELLNESS SECTION

Doulas in North Carolina:

A LANDSCAPE ANALYSIS AND SUMMIT REPORT

NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES
Division of Public Health

EXECUTIVE SUMMARY

The United States has long faced a maternal health crisis that disproportionately impacts women of color, particularly Black women (Hoyert, 2021). In North Carolina, maternal health outcomes are even worse compared to national averages (CDC, 2022; NC Maternal Mortality Review Report, 2021; NCDHHS, 2022). In recent years, there have been national and state efforts to implement legislation and public health interventions focused on improving maternal health outcomes and reducing racial and ethnic disparities.

One public health intervention that has gained increasing popularity is the use of birth doulas (hereafter referred to as doula). Doula support is linked to numerous positive health outcomes such as lower odds of cesarean delivery and preterm birth (Falconi et al., 2022; Kozhimannil et al., 2013, 2014, 2016; McGrath & Kennell, 2008), higher odds of receiving respectful care (Mallick et al., 2022), and substantial cost savings (Kozhimannil et al., 2013, 2016). Provided these benefits, states have introduced and passed legislation approving Medicaid coverage of doula services. In NC, several iterations of doula legislation have been introduced, but none have passed as of December 2023 (Health Law, 2023). As efforts to enact Medicaid coverage of doulas in NC continue, the NC Department of Health and Human Services (DHHS) has engaged in efforts to learn more about the doula landscape in NC as well as about doulas' perspectives and considerations regarding Medicaid reimbursement.

In 2021, NCDHHS fielded a survey to learn more about doulas practicing in NC. The survey respondents were not a representative sample, but among the 116 respondents, the majority of doulas identified as white and/or Black, served urban counties, provided services exclusively in English, were certified, were part of a doula collective, clinic, or other group, and received out-of-pocket payments for their services.

In fall 2022, NCDHHS hosted a doula summit to open conversation with NC-based doulas about their perspectives and considerations regarding Medicaid reimbursement in NC. The summit consisted of a virtual panel with representatives from New Jersey, Rhode Island, and Virginia, which have all passed doula Medicaid reimbursement legislation; small group discussion; and round tables covering the topics of buy-in, core competencies, coalition building, and policy/advocacy.

The summit resulted in fruitful conversations and helpful insights. Below are key recommendations, representing the collective voice of doulas, for policymakers to consider when working toward Medicaid reimbursement of doula services in NC:

- Engage doulas.
- Establish a doula advocacy or collaborative group.
- Pay.
- Reduce administrative burden.
- Credentialing.
- Doula workforce.

BACKGROUND

Maternal mortality and severe maternal morbidity are pressing public health issues that impact the United States at alarming rates. Despite an increase in national conversation and attention to this issue, both maternal mortality and severe maternal morbidity rates continue to increase. Furthermore, there are stark racial disparities, with Black individuals being 2.5 times more likely to experience maternal mortality (Hoyert, 2021) and almost twice as likely to experience severe maternal morbidity than white individuals (ODPHP, n.d.). Asian, Pacific Islander, Hispanic, and multiracial individuals are also more likely to experience severe maternal morbidity than white individuals (ODPHP, n.d.).

In North Carolina (NC), maternal mortality and severe maternal morbidity occur at even higher rates than the national average. The current maternal mortality rate (MMR) in NC is 26.5 deaths per 100,000 live births (compared to national MMR: 23.5 deaths per 100,000 live births) (CDC, 2022). Furthermore, the NC MMR is even higher among the Black population at 27.7 deaths per 100,000 live births (NC Maternal Mortality Review Report, 2021). This rate is 1.8 times higher than the MMR among the white population (NC Maternal Mortality Review Report, 2021). Severe maternal morbidity (SMM) is even more common; the SMM rate in 2021 was 102.2 SMM cases per 10,000 delivery hospitalizations. Additionally, from 2017-2021, while white people experienced an SMM rate of 66.5 SMM cases per 10,000 delivery hospitalizations; the SMM rate was 1.84 times higher among Black people, 1.18 times higher among Hispanic people, and 1.06 times higher among American Indian people (NCDHHS, 2022).

With increased attention on maternal health outcomes, there have been national and state efforts to implement legislation and public health interventions and programs focused on improving outcomes and reducing racial and ethnic disparities in outcomes. One such approach that has increasingly gained popularity across the nation is providing doula services covered by insurance, including Medicaid.

A birth doula (hereafter referred to as doula) is a non-clinical individual trained to provide continuous emotional, physical, and informational support during their client's labor and delivery. Typically, a doula will meet with the client several times in the prenatal period to discuss the client's hopes and preferences regarding their labor and birth and address questions; provide continuous support during the client's active labor, birth, and immediate

postpartum; and follow up with the client several times during the postpartum period. Additionally, doulas help to advocate for their clients and ensure their clients' concerns and preferences are heard and addressed by medical providers.

There has been increasing focus on insurance reimbursement of doula services as doula support is linked to several positive health outcomes and cost savings. Research finds that those who receive doula services have lower odds of cesarean delivery (Falconi et al., 2022; Kozhimannil et al., 2013, 2014; McGrath & Kennell, 2008), use of epidural (McGrath & Kennell, 2008; Thurston et al., 2019), preterm birth (Kozhimannil et al., 2016), and low birth weight (Gruber et al., 2013), shorter length of labor (Campbell et al., 2006), higher odds of receiving respectful care (Mallick et al., 2022), and higher rates of breastfeeding initiation (Kozhimmanil et al., 2013; Thurston et al., 2019). Additionally, previous research examining doula support of Medicaid births found that doula services provided substantial cost savings (Kozhimannil et al., 2013, 2016).

The extended model of doula services, known as community-based doulas, provides families with support and knowledge throughout the entire perinatal period. Community-based doulas are well equipped to provide culturally competent, beneficial support to individuals of color and those with low-income, – two groups at increased risk for poor maternal health outcomes (Gourlay, 2022; Zephyrin et al., 2021). Community-based doulas usually receive additional perinatal health training in addition to the traditional birth doula training. A recent report from the Prenatal-to-3 Policy Impact Center detailed findings that community-based doula programs led to an increase in childbirth education class attendance, an increase in postpartum visits, and significantly lower rates of preterm birth, low birthweight and NICU admissions.

Given the numerous benefits that doulas provide, several states have introduced and passed legislation approving Medicaid coverage of doula services. As of July 2023, 11 states and the District of Columbia are actively reimbursing doula services on Medicaid plans, six states are in the process of implementing Medicaid coverage of doulas, and many other states have proposed Medicaid coverage of doula services or passed legislation requiring working groups to provide recommendations on what Medicaid reimbursement of doula services should look like in their state (Health Law, 2023).

In NC, several iterations of doula legislation have been introduced but none have passed as of December 2023 (Health Law, 2023). The NC Department of Health and Human Services (NCDHHS) continues exploring Medicaid coverage of doula services as a means to improve maternal and infant health in the state. To support these efforts, NCDHHS led a doula landscape analysis conducted in 2021 and, in partnership with the Winer Foundation, convened a doula summit in the fall of 2022. Doula services are highlighted in the NC Perinatal Health Strategic Plan and the NC State Health Improvement Plan. Additionally, the NC Child Fatality Task Force, a legislative study commission, supported Medicaid reimbursement of doula services as part of its legislative agenda during the 2023 session of the NC General Assembly. Insurers are also continuing to work toward doula coverage voluntarily. As part of Medicaid managed care, prepaid health plans have explored ways to offer doula services as a value-based option. Private funders in the state have also shown interest in this effort and have funded a few pilot programs in the state. These combined efforts, and others, continue to provide the foundation for NCDHHS' attention to doula services in our state.

DOULA LANDSCAPE ANALYSIS

In 2021, NCDHHS launched a doula landscape survey. The survey was active from September 2021 to January 2022. Respondents were identified and recruited using snowball sampling, which involved identifying doulas and asking them to refer other doulas to participate in the survey. The survey used a convenience sample, so the results are not representative of all doulas in NC. The survey was comprised of 29 multiple choice and short answer questions divided into five sections: demographics, practice and services offered, training and certification, compensation, and additional/contact information. One-hundred and sixteen respondents completed the survey.

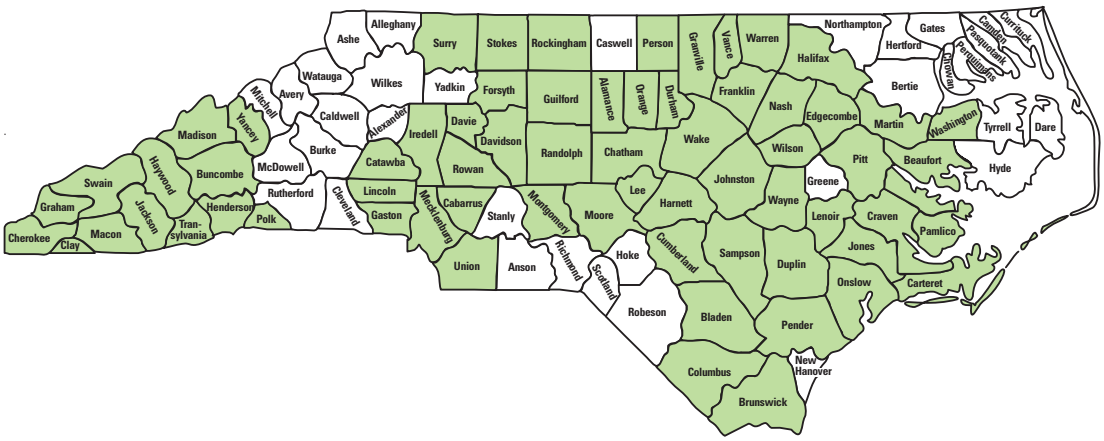
Demographic characteristics of respondents are reported in Table 1. On average, respondents had been practicing as a doula for 5.45 years (SD: 5.97), with time practicing ranging from less than 1 year to 27 years. A majority of doulas were certified (64.71%) and were part of a doula collective, clinic, or other group (62.07%). Doulas had provided services in 69 of NC's 100 counties (see Figure 1), with the most served areas being Wake, Durham, and Orange counties. The majority of doulas provided services only in English. Seven doulas (6%) indicated that they provided services in Spanish and three doulas (3%) provided services in another language.

Table 1. Survey Respondent Demographics

Characteristics		n (116)	%
	Years practicing [mean(sd)]	115	5.45 (5.97)
	Certified as a doula	66	64.71%
	Part of doula collective, clinic, or other group	72	62.07%
Race/ethnicity*	White	61	53.04%
	Black or African American	47	40.87%
	American Indian or Alaska Native	5	4.35%
	Hispanic or Latino	6	5.22%
	Other Race/ethnicity	3	2.61%
	Prefer not to answer	5	4.25%
Counties most served*	Wake	51	43.97%
(69 counties served total)	Durham	48	41.38%
	Orange	33	28.45%
	Guilford	21	18.10%
	Johnston	14	12.07%
Language of services*	English	114	99.13%
	Spanish	7	6.09%
	Other	3	2.61%
Services provided*	Prenatal	95	89.62%
	Labor and birth	95	89.62%
	Postpartum	75	70.75%
	Breastfeeding/lactation	71	66.98%
	Other	37	34.91%
Services paid*	Out of pocket	87	86.14%
	HSA/FSA	12	11.88%
	Private insurance + out of pocket	2	1.98%
	Public funds (e.g., grant)	9	8.91%
	Volunteer/pro bono	37	36.63%
	Other	20	19.8%

*Respondents had the option to "check all that apply" so 'n' may add up to greater than 116 and frequencies may add up to greater than 100%.

Figure 1. Counties in which doulas have provided services



The majority of doulas identified as white (53.04%) and/or Black/African American (40.87%). When asked about the race and ethnicity of the clients they served, doulas reported frequently serving white and Black or African American clients. Doulas reported serving few clients that identify as Asian, American Indian, Pacific Islander, and/or Hispanic. They reported primarily being paid out of pocket (86.14%), and 36.63% also reported providing volunteer or pro bono doula services.

DOULA SUMMIT

In October 2022, NCDHHS convened a doula summit. The purpose of the 2022 NC Doula Summit was to create a space for NC-based doulas to both learn about the successes and challenges of expanding accessibility of doula services in other states and discuss their hopes and concerns regarding Medicaid reimbursement of doula services in NC. To increase the opportunity for doulas to participate in the summit and reduce the burden of travel costs, the summit was free and offered simultaneously at three sites across the state, providing accessibility to three regions of NC. The principal summit location was Raleigh with satellite locations in Charlotte and Wilmington. Additionally, travel scholarships were offered to any doula who requested support to attend. The sites were connected via Zoom to enable live streaming of panel presentations, and there was a facilitator present at each site to lead the breakout sessions. The facilitators used a scripted guide to ensure that the questions and prompts discussed in the breakout sessions were consistent across the sites.

The Women, Infant, and Community Wellness Section of NCDHHS partnered with Area Health Education Centers (AHECs) located in Raleigh, Charlotte, and Wilmington to promote the summit. The summit was advertised via social media, email, and by word of mouth. Attendance at the summit included 53 doulas, with 34 attending in Raleigh, 11 attending in Charlotte, and 8 attending in Wilmington.

Summit Agenda

The day-long summit consisted of three main components, a virtual panel, small-group discussion, and roundtable discussion. A summary with key takeaways from each component is detailed below:

VIRTUAL PANEL

Representatives from New Jersey, Rhode Island, and Virginia – states that currently provide reimbursement by Medicaid for doula services – participated in a virtual panel and shared their experiences with the development and implementation of Medicaid reimbursement in their respective states. Each state included speakers from both their state health department and from doula advocacy or doula collaborative organizations. While each state had a unique approach to Medicaid reimbursement of doula services, there were many similarities in strategies applied and lessons learned throughout the development and implementation process.

- **Importance of doula advocacy or doula collaborative group.** All three states had doula collaboratives or advocacy groups that were involved throughout the legislation process and continue to be involved. These groups have supported doulas' needs throughout the process and provided resources and support to doulas. For example, the New Jersey Doula Learning Collaborative advocates for doulas by providing services such as workforce support, including assistance with insurance claims, and regulatory support, such as advocating for doulas to be recognized as an essential part of the maternal health care team. In Rhode Island, there is a birth worker cooperative which provides services such as maintaining regular contact with Medicaid and private insurers, providing local training, and offering weekly office hours to address doulas' concerns and questions.
- **Engage doulas during all stages.** In all three states, the representatives from the state departments of health discussed the importance of involving doulas in the legislation process from the beginning. In Rhode Island, doulas had a particularly strong presence throughout the legislation process and had specific asks of their bill. They advocated for a bill that would center Black maternal health and birth justice, require both Medicaid and private insurance to reimburse for doula services, offer full spectrum benefits, and offer postpartum benefits for a full-year post-partum. The resulting bill that passed met all of their requests.
- **Credentialing process.** Each state has implemented a different process and different requirements for determining credentialing of doulas for the purposes of Medicaid reimbursement. Of note, speakers emphasized that certification and credentialing should not be confused. Speakers indicated that there are doulas in their respective states who are not certified and still provide doula services, however they are not eligible for Medicaid reimbursement for their services based on credentialing requirements. All three states do not require doulas to be certified by a specific doula certifying organization (e.g., DONA, CAPPA); rather, their credentialing processes require demonstration of relevant training and skills required to be an effective doula.
    - **New Jersey:** Doulas must be at least 18 and complete doula training, which includes core competencies (perinatal counseling, infant care, labor support) and community-based/cultural competency training, HIPAA training, and adult/infant CPR certification. Doulas must also pass a fingerprint-based criminal background check and have liability insurance (Health Law, 2023).

- **Rhode Island:** The credentialing process was led by the Rhode Island Certification Board which is a non-government agency that works with subject matter experts to determine certification standards. Doulas must complete 20 hours of relevant education/training, be adult/infant CPR certified, have ServSafe certification for meal prep, and be certified through the Rhode Island Certification Board.
- **Virginia:** To determine certification requirements, Virginia created a task force comprised of doulas, midwives, states health agencies, and relevant associations who worked together to create certification recommendations. Doulas must be certified by the Virginia Certification Board, be at least 18, and complete doula training, which includes core competencies (perinatal support services, labor support), community-based/cultural competency training, care coordination, HIPAA training, and they must maintain liability insurance.

SMALL GROUP DISCUSSIONS

During small group discussions, doulas were provided five discussion questions:

- Why is a Medicaid reimbursement of doula services model needed generally?
- Why is a Medicaid reimbursement of doula services model needed specifically in NC?
- What should this model look like in NC?
- What would this model mean for doulas and the communities they serve in NC?
- What are potential barriers to implementation?

Doulas overwhelmingly agreed that Medicaid reimbursement of doula services is essential because all pregnant patients deserve access to doula services, and doulas should be paid a living wage in order to make services accessible. By implementing Medicaid reimbursement of doula services in NC, barriers to access would be reduced for low-income individuals. Improvements in maternal health outcomes are needed in North Carolina, in particular with persistent racial and ethnic disparities; doulas can be an important part of the solution.

ROUNDTABLE DISCUSSIONS

The roundtable discussions provided an opportunity for doulas to discuss their perspectives regarding implementation of a Medicaid reimbursement of doula services policy in North Carolina. Four topics selected for discussion were: core competencies, buy in, coalition building, and policy/advocacy. These topics were determined during planning committee meetings, which included doulas, AHEC staff, NCDHHS staff, and the contracted facilitator team.

CORE COMPETENCIES

As states have implemented their doula Medicaid reimbursement policies, they have had to grapple with deciding what credentials a doula must meet to be eligible for reimbursement (CHCS, 2022). Doulas are non-clinical and can practice without certification, credentialing, or licensure (Chen & Rohde, 2023). Provided this, individuals who practice as doulas come from diverse training backgrounds and have varying levels of experience. While there are currently options for national doula certification (e.g., DONA certification, CAPPA certification), receiving official certification is often cost prohibitive and resource intensive and there are many doulas that practice without official certification. As such, states that currently reimburse doula services through Medicaid have approached credentialing in a variety of ways (Chen & Rohde, 2023), which have been met with varying levels of support from doulas.

During the discussion, doulas were adamant that certification should not be through a single organization (e.g., DONA, CAPPA). Additionally, doulas raised concerns about having to get recertified to enroll as a provider through Medicaid if the organization they previously completed certification through was not recognized. Doulas also expressed concern about any legislation that decides how they should engage with clients or the way they should do their job. Utilizing an approach like Rhode Island, which had the certification criteria determined through a non-governmental agency and collaboration with doulas could help to prevent such concerns from occurring.

BUY-IN

Providing Medicaid reimbursement of doula services does not guarantee there will be doulas opting to provide services to Medicaid recipients. To ensure a sufficient workforce of doulas are providing services to Medicaid recipients, it is necessary to ensure doulas are on board.

While doulas were excited about the prospect of being able to serve a population that they have wanted to serve but been unable to serve due to lack of reimbursement, they also discussed several potential barriers that would prevent them from providing services through Medicaid. Potential barriers included:

- **Referral process:** Doulas wanted to know if referrals would be required for a Medicaid patient to receive doula services. If referrals are required, doulas wanted to know who would be allowed to make referrals and how a specific doula would be identified through referral.

- **Medicaid reimbursement:** There was concern about how rates would be determined by Medicaid and if the rates would be high enough to ensure a livable wage. Currently, states that reimburse doula services through Medicaid have varying rates, with NC doulas describing some rates as adequate and others as inadequate. Reimbursement rates would need to be adequate enough to incentivize doulas to move from exclusively serving private clients to adding Medicaid recipients to their client base. There was also strong consensus that vaginal and cesarean births should be reimbursed at the same rate. In addition to reimbursement rates, doulas also expressed the need for timely reimbursement.
- **Administrative burden:** As insurance coverage of doula services is relatively recent, doulas historically do not have experience billing health insurance for reimbursement. There was concern around not having training on how to bill insurance, the burden of learning insurance reimbursement systems, as well as the general time-consuming nature of navigating health insurance systems. Additionally, doulas expressed a preference for a single universal credential form used by all Medicaid entities, rather than a different form for each entity, in order to streamline the process.

COALITION BUILDING

Doulas agreed that coalition building is an essential piece to ensure that the doula's needs are met and that quality doula services reach Medicaid recipients across NC. Through this discussion, doulas identified four key objectives of a doula coalition:

1. Educate and increase public awareness about doulas and their role during the perinatal period.
2. Foster relationships between doulas, payors, providers, and healthcare systems in order to build trust between key partners.
3. Develop and advocate for processes and policies that protect and support the doula workforce, such as livable wages.
4. Identify strategies that can improve maternal health outcomes in NC.

An ideal coalition would bring key stakeholders to the table, including doulas, medical practitioners, hospital leadership, insurance companies, community-based organizations, hospital-run doula programs, behavioral health experts, and billing professionals. Doulas emphasized the importance of including individuals from every touchpoint of care for buy in. Doulas who had worked with clients at different hospitals throughout NC had varied experiences with hospital rules and medical providers. For example, at some hospitals, doulas have to sign paperwork agreeing to not speak to the medical providers, which limits their ability to help their clients advocate for their needs. In other instances, doulas perceived pushback from medical providers. In New Jersey, policymakers addressed these concerns by issuing an executive order deeming doulas an essential part of the individual's care team.

While the desire for a coalition was strong, several concerns around implementing a successful coalition were raised, such as the difficulty around convening all key stakeholders and achieving common ground, as well as ensuring the sustainability of a coalition. These concerns will need to be considered as coalition building efforts ensue.

POLICY/ADVOCACY

As legislators in NC continue to introduce doula-related legislation, doulas were asked about what policy/advocacy concerns they had. Doulas were adamant that they be a part of the ongoing conversation. In order to create effective, informed doula-related legislation, policymakers have to collaborate with doulas throughout the process; they should provide ample opportunity for doulas to provide input on proposed legislation and reduce barriers to being involved in the process (e.g., reimbursing for transportation costs or hosting online and hybrid sessions). The main policy concerns that doulas discussed are covered in the previous sections on core competencies, buy in, and coalition building.

Key Considerations

Below are recommendations, representing the collective voice of doulas, for policymakers to consider when working towards Medicaid reimbursement of doula services in NC:

- **Engage Doulas.** Doulas are best suited to provide input and feedback on doula legislation. In order to develop effective legislation, it is critical that doulas are engaged throughout the process.
- **Doula advocacy or collaborative group.** New Jersey, Rhode Island, and Virginia all have groups that provide doulas with technical support and advocate for their needs. These groups have helped doulas to navigate Medicaid reimbursement and worked to ensure doulas' needs are met.
- **Pay.** Doulas must be reimbursed at a rate that is sustainable and provides a living wage. Setting a rate that is too low could deter potential doulas from entering the field and lead to an inadequate availability of doulas for individuals covered by Medicaid. Recognizing the integral role doulas play in the care team for birthing individuals, their reimbursement should mirror this significance. Furthermore, reimbursement will need to occur in a timely manner. It will not be sustainable for doulas to provide services through Medicaid if they are having to wait an excessive amount of time to be paid for their work.

- **Reduce administrative burden.** Historically, doulas are paid for their services out of pocket, so working with insurance presents additional work and administrative burden. In order to improve the transition to billing through insurance, paperwork and billing processes should be streamlined as much as possible. For example, all Medicaid entities could require the same paperwork from doulas. Harmonizing processes will help to minimize administrative burden and ensure a more efficient and accessible pathway to insurance-based reimbursement.
- **Credentialing.** To enhance accessibility and inclusivity, the credentialing standards for doulas offering Medicaid services should prioritize essential proficiencies over rigid certification requirements. Many practicing doulas are not officially certified and still have the necessary skills to excel in their role. A credentialing process that places emphasis on training in core competencies rather than certification with a specific doula organization is important.
- **Doula workforce.** Doulas have an average career length of 3-5 years (Horn, 2021). To ensure that the doula workforce is sufficient to meet the needs of the state, it will be important to provide ample, subsidized opportunities for training and credentialing. Furthermore, because doulas do not need a higher education degree to practice, development of a doula workforce could provide new, career advancing opportunities to adults without higher education degrees. Investment in a doula workforce would empower individuals to engage in meaningful work that positively impacts maternal and infant health outcomes.

CONCLUSION

Several states have introduced and implemented legislation for Medicaid reimbursement of doula services as a promising part of the solution to the maternal health crisis. In NC, several iterations of doula legislation have been introduced, but none have passed as of December 2023. In fall 2022, NCDHHS engaged in discussion with doulas from throughout the state to understand their perspectives regarding Medicaid reimbursement of their services. Generally, doulas are excited about the prospect of Medicaid reimbursement of their services, as long as important considerations are kept in mind. The key considerations outlined in this report provide a starting point to inform decisions for policymakers as they work to implement Medicaid reimbursement legislation that can be successful in NC.

REFERENCES

CDC. (2022). National Vital Statistics Reports.

Chen, A., & Rohde, K. (2023, March 16). Doula Medicaid training and certification requirements: Summary of current state approaches and recommendations for improvement. *National Health Law Program*. https://healthlaw.org/doula-medicaid-training-and-certification-requirements-summary-of-current-state-approaches-and-recommendations-for-improvement/

Maternal Mortality Review Committee. (2021, December). *North Carolina Maternal Mortality Review Report*. https://wicws.dph.ncdhhs.gov/docs/2014-16-MMRCReport_web.pdf

North Carolina Department of Health and Human Services (NCDHHS). (2022, November 15). CY2017-2021 NC resident deliveries occurring in non-federal NC hospitals: Severe maternal morbidities (SMM) by year.

North Carolina Department of Health and Human Services (NCDHHS). (2022, June 1). North Carolina State Health Improvement Plan. https://schs.dph.ncdhhs.gov/units/ldas/docs/NCSHIP-2022-Full.pdf

Campbell, D. A., Lake, M. F., Falk, M., & Backstrand, J. R. (2006). A randomized control trial of continuous support in labor by a lay doula. *Journal of obstetric, gynecologic, and neonatal nursing: JOGNN*, 35(4), 456–464. www.jognn.org/article/S0884-2175(15)34392-6/fulltext

National Health Law Program. (2023, August). Doula Medicaid project. https://healthlaw.org/doulamedicaidproject/

Falconi, A. M., Bromfield, S. G., Tang, T., Malloy, D., Blanco, D., Disciglio, R. S., & Chi, R. W. (2022). Doula care across the maternity care continuum and impact on maternal health: Evaluation of doula programs across three states using propensity score matching. *EClinicalMedicine*, 50, 101531. https://pubmed.ncbi.nlm.nih.gov/35812994/

Gourlay, K. (2022, April 11). Data show community-based doulas improve outcomes for Black mothers. *Blue Cross Blue Shield*. www.bcbs.com/the-health-of-america/healthequity/data-show-community-based-doulas-improve-outcomes-black-mothers

Gruber, K. J., Cupito, S. H., & Dobson, C. F. (2013). Impact of doulas on healthy birth outcomes. *The Journal of perinatal education*, 22(1), 49–58. www.ncbi.nlm.nih.gov/pmc/articles/PMC3647727/

Horn, A. (2021, July 23). Doula burnout. *Doulas of the roundtable*. https://doulasoftheroundtable.com/episodes/episode-62-doula-burnout/

Hoyert, D.L. (2023). Maternal mortality rates in the United States, 2021. *Centers for Disease Control and Prevention*. www.cdc.gov/nchs/data/hestat/maternal-mortality/2021/maternal-mortality-rates-2021.htm

Khanal, P., Benyo, A., Silverman, K., & Maul, A. (2022, December). Covering doula services under Medicaid: Design and implementation considerations for promoting access and health equity. *Center for Healthcare Strategies*. www.chcs.org/resource/covering-doula-services-under-medicaid-design-and-implementation-considerations-for-promoting-access-and-health-equity/

Kozhimannil, K. B., Attanasio, L. B., Jou, J., Joarnt, L. K., Johnson, P. J., & Gjerdingen, D. K. (2014). Potential benefits of increased access to doula support during childbirth. *The American journal of managed care*, 20(8), e340–e352. www.ncbi.nlm.nih.gov/pmc/articles/PMC5538578/

Kozhimannil, K. B., Hardeman, R. R., Attanasio, L. B., Blauer-Peterson, C., & O'Brien, M. (2013). Doula care, birth outcomes, and costs among Medicaid beneficiaries. *American Journal of public health*, 103(4), e113–e121. www.ncbi.nlm.nih.gov/pmc/articles/PMC3617571/

Kozhimannil, K. B., Attanasio, L. B., Hardeman, R. R., & O'Brien, M. (2013). Doula care supports near-universal breastfeeding initiation among diverse, low-income women. *Journal of midwifery & women's health*, 58(4), 378–382. https://pubmed.ncbi.nlm.nih.gov/23837663/

Kozhimannil, K. B., Hardeman, R. R., Alarid-Escudero, F., Vogelsang, C. A., Blauer-Peterson, C., & Howell, E. A. (2016). Modeling the cost-effectiveness of doula care associated with reductions in preterm birth and cesarean delivery. *Birth (Berkeley, Calif.)*, 43(1), 20–27. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5544530/

Mallick, L. M., Thoma, M. E., & Shenassa, E. D. (2022). The role of doulas in respectful care for communities of color and Medicaid recipients. *Birth (Berkeley, Calif.)*, 49(4), 823–832. https://pubmed.ncbi.nlm.nih.gov/35652195/

McGrath, S. K., & Kennell, J. H. (2008). A randomized controlled trial of continuous labor support for middle-class couples: effect on cesarean delivery rates. *Birth (Berkeley, Calif.)*, 35(2), 92–97. https://pubmed.ncbi.nlm.nih.gov/18507579/

New Jersey Doula Learning Collaborative. (n.d.). http://njdlc.org/

Office of Disease Prevention and Health Promotion (ODPHP). (n.d.). *Reduce severe maternal complications identified during delivery hospitalizations – MICH-05*. Healthy People 2030. https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-severe-maternal-complications-identified-during-delivery-hospitalizations-mich-05/data?group=Race/Ethnicity&state=United%20States&from=2017&to=2020&populations=#edit-submit

Rhode Island Certification Board. (n.d.). Certified perinatal doula. www.ricertboard.org/certified-perinatal-doula-cpd

State of New Jersey Department of Human Services. (n.d.). Doula care. www.state.nj.us/humanservices/dmahs/info/doula.html

Thurston, L.A.F., Abrams, D., Dreher, A., Ostrowski, S. R., & Wright, J.C. (2019). Improving birth and breastfeeding outcomes among low resource women in Alabama by including doulas in the interprofessional birth care team. *Journal of Interprofessional Education and Practice*, 17, 100278. www.sciencedirect.com/science/article/abs/pii/S2405452618302416?via%3Dihub

Virginia Department of Public Health. (n.d.). Doula state certification. www.vdh.virginia.gov/family-planning/doula-state-certification/

Zephyrin, L.C., Seervai, S., Lewis, C., & Katon, J.G. (2021, March 4). Community-based models to improve maternal health outcomes and promote health equity. *The Commonwealth Fund*. www.commonwealthfund.org/publications/issue-briefs/2021/mar/community-models-improve-maternal-outcomes-equity