



MCH Innovations Database Practice Summary & Implementation Guidance

BirthMatters

BirthMatters reduces teen pregnancy through reproductive health education and empowers pregnant people to raise healthy families through doulas utilizing the community health worker model.



Contact Information

Amber Pendergraph-Leak, BirthMatters, 864-692-4784, amber@birth-matters.org

Section 1: Practice Summary

PRACTICE DESCRIPTION

Spartanburg, South Carolina, has poor birth outcomes, such as:

- 9.0% of babies are born with low birth weight, including 14.3% of African-American babies
- 10.4% of babies are born preterm, including 13.5% of African-Americans
- 80.5% of parents initiate breastfeeding, including only 69.7% of African-American families
- South Carolina's pregnancy-related mortality rate in 2018 was 35.5 deaths per 100,000 live births, twice the US rate. The rate was 2.6 times higher for African-American (and other races) South Carolinians than whites.

These poor birth outcomes are associated with the African-American race independently of health behaviors or socio-economic factors. We must look at social and structural factors like racism and inequality to solve them.

BirthMatters reduces teen pregnancy through reproductive health education and empowers young adults to raise healthy families through doulas utilizing the community health worker (CHW) model. BirthMatters' community-based doulas are cross-trained as CHWs to provide individually tailored, culturally congruent care and advocacy for pregnant and postpartum participants through information, education, and physical, social, and emotional support. BirthMatters is an accredited HealthConnect One site and combines the Community Doula model with the SC CHW Association's CHW core competencies. Starting by 24 weeks gestation through the first postpartum year, CDs meet with their clients approximately 45 times in their home or the healthcare setting. In addition, they provide continuous support during labor and delivery.

The iMatter program conducts individual and group-based reproductive health education, both in-person and virtually, with adolescents across Spartanburg.

Goals:

- 1. Provide full-scope community-based doula services to at least 70 low-income families in Spartanburg annually.
- 2. Provide evidence-based reproductive health education to at least 400 adolescents in Spartanburg each year.

BirthMatters started in 2008 as a program of ReGenesis Health Care, a federally qualified health center, to serve young mothers in Spartanburg County with doula services. In 2012, BirthMatters became an independent non-profit organization, and in 2014, expanded to address a growing need in our community for evidence-based primary teen pregnancy prevention programming. In 2018, BirthMatters expanded services by contracting with a counselor to provide in-home therapy to parents needing this service. In 2020, BirthMatters joined the EACH Mom and Baby Collaborative to expand and enhance perinatal CHW programs statewide.

All facets of BirthMatters' work have a theoretical basis. They include:

- SC's CHW core competencies are based on these theories: self-determination, stages of change, harm reduction, cultural humility, and Implicit Theory.
- The HealthConnect One community doula model is based on many of the same theories as CHW core competencies and the reproductive justice framework.
- SHARP is based on the theory of planned behavior, Social Cognitive Theory, and Motivational Interviewing/Motivational Enhanced Therapy.
- ABC Parenting is based on attachment theory and stress neurobiology.



Research:

- CHWs have a growing professional consensus that they enable improved equity in access to and
 utilization of care and are effective in reaching hard-to-reach, vulnerable populations experiencing
 inequities¹⁻¹¹.
- An RCT of HealthConnect One indicated it was associated with increased breastfeeding rates and delayed solid food introduction, as well as a positive impact on parent—child interactions, maternal attitudes about parenting practices, and a delayed impact on reducing maternal stress; however, the impact on parenting skills diminished after the end of the intervention^{12,13}.
- An RCT of SHARP suggests it is effective at harm reduction and condom usage among high-risk adolescents^{14,15}.
- Multiple RCTs of children in foster care indicated ABC Parenting is associated with higher parental sensitivity, normative levels of cortisol production and behavioral regulation in children, and better attachment security in families¹⁶.

Standards, frameworks, and guidelines:

BirthMatters' central framework is the Community Health Worker model. The American Public Health Association and National Association of CHWs defined CHWs as "a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve service delivery's quality and cultural competence. A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through various activities such as outreach, community education, informal counseling, social support, and advocacy."

BirthMatters replicates the HealthConnect One model and is an accredited community doula site, one of only three nationwide. This framework focuses on providing extensive social, emotional, and educational support during the critical months of pregnancy, birth, and the first twelve months of parenting, as well as helping families become self-sufficient and feel empowered in their parenting role after services have ended. Community doulas provide birthing people with non-clinical emotional and educational support, as each doula is certified through the HealthConnect One doula model. As certified CHWs, community doulas help birthing people navigate systems to receive medical care, behavioral health services, and resources for the infants' needs, including childcare.

In addition, the Reproductive Health CHW implements the SHARP program, which has a structured guide for helping adolescents examine condom use, self-efficacy, and other harm reduction practices in the context of their risk behaviors (such as alcohol use). However, she also has the flexibility to use CHW competencies for health education when the structured program is not feasible or appropriate.

The BirthMatters team is also trained as ABC Parenting coaches, a program that uses real-time "in the moment" feedback to encourage nurturing and responsive parenting behaviors during home visits.

CORE COMPONENTS & PRACTICE ACTIVITIES

1. Home visiting – BirthMatters' community-based doulas (CDs) visit with families approximately 45 times between the second trimester and the baby's first birthday. These visits enable the doulas to build trust with the families and know their families' environments better. Home visits do not have a fixed



- curriculum but are informed by HealthConnect One, Attachment and Biobehavioral Catch-up (ABC) Parenting, and the SC CHW Association's CHW roles.
- 2. Birth work CDs provide physical and emotional support during labor and delivery for all their families. Many studies have shown that doulas are associated with improved birth outcomes such as increased breastfeeding rates, vaginal delivery rates, and decreased negative birth experiences. This is lifesaving support for African-American women at significantly higher infant and maternal mortality risk.
- 3. Reproductive health education BirthMatters also includes iMatter, a teen-friendly sexual health education service that provides individual and group education and resources. This includes Sexual Health & Adolescent Risk Prevention (SHARP) and evidence-informed programs for groups of youth ages 15-19 focused on safe sex.
- 4. Parenting support BirthMatters' CDs are trained in ABC Parenting, which helps parents with sensitive attachment during the infants' first year of life.
- 5. Group-based peer support At the request of the families they serve, they have started breastfeeding and family support groups open to everyone in the community. Families had said to the BirthMatters team that, while they appreciate the home visits and individual support from the doulas, they also wanted to talk with others facing similar struggles to share.
- 6. Training and mentorship BirthMatters' former Executive Director has a new position, "Director of Advocacy and Expansion," in which she has a statewide role in advocating for CDs and the communities they serve. Through the EACH Mom and Baby Collaborative, they piloted a collaboration with the Medical University of South Carolina and several alcohol- and drug-abuse centers to cross-train Peer Support Specialists (people with lived experience in addiction recovery who are trained to support people who are in their recovery journey) as CDs. She is also heading a statewide effort to create core competencies for doulas and a doula steering committee for insurance coverage for doula services.

Core Components & Practice Activities **Core Component Operational Details Activities** Home visiting Community doulas conduct visits Connection with needed resources such with enrolled families as prenatal care, WIC, and infants' approximately 45 times during medical home pregnancy and one year Health education and patient activation postpartum Reflective listening, motivational interviewing, and goal planning with families Birth work Community doulas are on call for Continuous labor support, including their participants' labor and non-pharmacologic pain relief and delivery coping strategies support families with shared decision-making and provider communication



Reproductive health education	CHW provides individual and group sessions of teen-friendly sexual health education	 Evidence-informed curriculum that is associated with increased contraception use among teens Other reproductive health activities using CHW skills
Parenting	CHW and community doulas provide ABC Parenting curriculum	 Evidence-informed curriculum encourages and models nurturing and sensitive parental behaviors in participants' homes Real-time feedback on parenting behaviors in their home environment
Training and mentorship	Director of Advocacy and Expansion provides training, mentorship, and doula leadership facilitation across South Carolina	 Convene a Doula Steering Committee to guide and inform statewide doula payment mechanisms Lead a committee to establish doula core competencies for policy work Provide training and technical assistance to new sites to implement community doula programs
Group-based peer support	With community partners such as PASOs, hold monthly open breastfeeding and family support groups	 Provide invitations and space for families to attend open peer- support groups focused on breastfeeding and parenting

HEALTH EQUITY

BirthMatters consistently works to promote equity. On the website, the BirthMatters Board declares its values: "We acknowledge we contribute by centering BirthMatters in the heart of need-based communities and strategically serving youth and families of the diverse community. BirthMatters believes in connecting and listening to our community members. We center our work on their voices. BirthMatters believes that striving to be a healthy organization includes hiring intentionally diverse board and staff members. We believe that training and hiring persons from the community is an essential component of our work."

BirthMatters pairs Medicaid-eligible families with community doulas and CHWs who have shared lived experiences, providing culturally and racially congruent care. Their approach of supporting families to set and meet their own goals builds families' power and resiliency. BirthMatters staff are diverse – four out of five are African-American, and all the doulas were young mothers; some were BirthMatters clients before they became staff. BirthMatters' larger goals of empowering and spreading community doulas, particularly those from oppressed populations, will help partner healthcare systems and community institutions be more responsive to the needs of families at the highest risk of poor birth outcomes.

BirthMatters received the Spartanburg Area Chamber of Commerce 2016 "Inclusion Award," which celebrates the accomplishments of minority and women-owned businesses in the community and recognizes those



working to advance economic inclusion. In addition, BirthMatters participates in several Spartanburg efforts at anti-racism, including Spartanburg Racial Equity Collaborative. BirthMatters' Executive Director and Lead Doula both serve on the "Lived Experience Advisory Group" with the Maternal Telehealth Access Group and the Early Childhood Leaders of Color Collaborative.

EVIDENCE OF EFFECTIVENESS

The BirthMatters team uses Maternity Neighborhoods to track doula care management and referrals. This program can report team activities as well as health outcomes. The Hello Family program also provides external evaluation for the citywide initiative.

Some outcomes we hope to measure include:

- Enrollment, continuing enrollment at five and nine months postpartum
- Mode of delivery (c-section vs vaginal)
- NICU admission
- Birthweight
- Breastfeeding
- Reproductive Life Plans
- Ages and Stages Questionnaires
- · Depression screenings
- Referral outcomes did participants connect with the resources they needed

In 2017, researchers at Wofford College compared 93 BirthMatters patients' outcomes to a similar group of women who delivered in Spartanburg during the same time frame (2013-16). They found that BirthMatters' patients had:

- Lower rate of c-sections 23.7% compared to 26.6%
- Lower rates of NICU admissions 6.5% compared to 11.7%
- High rates of breastfeeding 90% compared to the statewide rate of 83%
- High rates of uptake of long-acting reversible contraception 68 out of the 93 patients had one placed (73%)

In 2022, BirthMatters collaborated with the Center for Community Health Alignment and the Core for Applied Research and Evaluation (CARE) (both at the University of South Carolina's Arnold School of Public Health) to participate in a "Return on Investment" (ROI) study. BirthMatters provided data for 87 families that received community-based doula services between October 2018 and June 2021. BirthMatters served these participants for an average of 15 months; 82 had data at three months post-delivery, and 79 had data at 6 months post-delivery. Compared to individuals giving birth in Spartanburg County between 2013 and 2016 who were under the age of 24 and insured by Medicaid, BirthMatters families had:

- 21.5% c-sections, compared to 26.6%
- 10.1% NICU admissions at delivery, compared to 11.8%

Other data used to calculate the ROI were:

- 89.9% of BirthMatters families were breastfeeding at three months post-delivery, compared to the South Carolina statewide rate of 66.8%
- 52% of BirthMatters families were still breastfeeding at six months post-delivery
- 65.8% of BirthMatters families were using some form of contraception at three months post-delivery
- 69.2% were using some contraception at 6 months post-delivery



• 34.2% and 33.3% of BirthMatters families were using long-acting reversible contraception at three months and six months post-delivery, respectively, compared to 11% of women enrolled in Medicaid statewide.

Using the above data, researchers at CARE estimated that the BirthMatters generated a benefit-cost ratio of 2.12:1; for every \$1 invested in the CHW program, it saved \$2.12 in averted and future costs.



Section 2: Implementation Guidance

COLLABORATORS AND PARTNERS

Making intentional connections with partners and stakeholders in the community is essential to the work we do at BirthMatters. Many of the families we serve are referred to us by our partners and collaborators. Similarly, we make referrals to partner programs when appropriate. Serving our community becomes a collaborative effort this way. BirthMatters staff also serve on several local, state, and national committees and initiatives that meet regularly. BirthMatters' social media efforts and monthly newsletters keep stakeholders informed and engaged in our work. We also hold monthly events open to the community and offer several opportunities for community members, stakeholders, and board members to create a hands-on impact through volunteer work.

Practice Collaborators and Partners			
Partner/ Collaborator	How are they involved in decision-making throughout practice processes?	How are you partnering with this group?	Does this stakeholder have lived experience/come from a community impacted by the practice?
Parent Council	This is a group of graduates of the Community-based Doula program who provide guidance to the BirthMatters team.	BirthMatters holds monthly meetings with the Parent Council.	Yes, all of the Council members have lived experience receiving doula care from BirthMatters.
Hello Family	This is a Spartanburg-wide Pay for Success partnership that aims to improve birth outcomes, early childhood health, and school readiness. They fund BirthMatters.	Monthly meetings to discuss challenges and successes, how to collaborate and improve programs, and support each others' work.	Yes, the team members are parents and local teachers who have lived experience raising families in Spartanburg.
Northside Development Group	This is a nonprofit organization managing the redevelopment of the Spartanburg's Northside community, "honoring its past and expanding the opportunities for a mix of affordable and market rate housing, economic,	BirthMatters is colocated in their building, which enables frequent collaboration opportunities in addition to the quarterly meetings	Almost all of the team is from the neighborhood served; they also have the "Northside Voyagers," which is their resident leadership team.



	educational, recreational, health, and social opportunities for its residents."	and formal referral process.	
EACH Collaborative	This is a collaborative of SC perinatal CHW programs that comes together for mutual support, resource raising / sharing, information exchange, and expansion to more communities.	Shared funds, regular meetings, co-creation of resources.	Yes, partners in this collaborative have multiple shared lived experiences with the families they serve, including racial or ethnic congruence, experience with receiving the services they provide, and building trust with the communities served.
HealthConnect One	They are the community-based doula model that BirthMatters replicates.	BirthMatters participates in their national consortia and collaboratives. Individual leadership meetings quarterly.	Their Executive Director was a young mother of color, all of the team has lived experience needing doula services as parents.
SC CHW Association	BirthMatters team are members of this statewide leadership group of CHWs that leads advocacy, professional education, and networking opportunities statewide.	They are active members, participating in state meetings and conferences. The BirthMatters Executive Director was a SC CHW Ambassador in 2022-2023.	SC CHWA is led by CHWs, who share lived experience with the communities they serve.

REPLICATION

BirthMatters is replicated from the HealthConnect One model.

Through the EACH Mom and Baby Collaborative, BirthMatters piloted a collaboration with the Medical University of South Carolina in 2022 and several alcohol-and-drug-abuse centers to cross-train Peer Support Specialists (people with lived experience in addiction recovery who are trained to support people who are in their recovery journey) as CDs.



BirthMatters also recently provided community-based doula training to community health workers with Family Solutions, a South Carolina Office of Rural Health program in Orangeburg that works with families living in rural areas.

The doula training components are essentially the same. Still, we also considered the experiences of the communities the newly trained doulas would be working with, tapping into the wisdom of the lived experiences of the trainees.

In 2023, BirthMatters plans to replicate our community doula program in the neighboring Cherokee County.

The work we do is based on the trust of our community members. We learned that it takes time and effort to establish rapport in communities outside of our own. Making connections with trusted community members and leaders is vital.

INTERNAL CAPACITY

BirthMatters needed at least two training community-based doulas who worked 40 hours a week and someone to supervise them to get started. The doula supervisor also needed to take on an executive director leadership role of running the organization initially. However, now we are more effective since the Lead Doula position is separate from the Executive Director position. We also needed to employ contractors such as a bookkeeper. As we grew, we eventually contracted with a social media and marketing person and someone to act as the office coordinator.

In hindsight, having someone to take over things like office administration and help with grant writing has allowed us to continue to scale and grow as an organization.

PRACTICE TIMELINE

Planning and implementing an interest fair for a doula training will take approximately two months. A doula training will last 20 weeks and it is expected by the 15th week, the organization can announce that they are hiring to be able to hire a trained community doula at the end of the training.

For more information on this practice's timeline and specific practice activities, please contact Amber Pendergraph-Leak directly at amber@birth-matters.org.



PRACTICE COST

Budget			
Activity/Item	Brief Description	Quantity	Total
2 Full-Time Doulas	Salary for two Full-Time direct service providers	\$32,000 X 2 for one year	\$64,000
Executive Director Position	Salary for Supervisory/Leadership Role	1 year	\$58,000
Payroll Taxes	Taxes	1 year	\$10,000
Health Benefits for Employees	Employee Benefits	1 year	\$12,000
Professional Insurance for Doulas	Ensuring Doulas	1 year	\$13,000
Board Liability Insurance	Insuring Executive Board Members	1 year	\$2,100
Rent	Renting Office Space	1 year	\$12,000
Data Systems & Software	Data Collection System, Payroll, Website, Software Programs	1 year	\$4,000
Materials	Doula & Educational Materials, Postage	1 year	\$3,000
Cell Phones & Data Plans	Cell Phones and Data Plans for Staff	1 year	\$2,000



Training	Continued Education & Travel for Doulas	1 year	\$3,500
Special Events	Materials, Food, Rentals for Special Events	1 year	\$3,000
Contractors	Bookkeeping & other Contract Services	1 year	3,000
		Total Amount:	\$189,600

LESSONS LEARNED

Some of the lessons we learned while implementing our program:

- 1. The team would have started the breastfeeding and parenting peer groups earlier. These groups evolved from families asking them they appreciate their doulas' care and attention but also wanted an opportunity to share with others going through similar experiences.
- 2. BirthMatters started as a small program working out of a community health center, so didn't start tracking high-level outcomes. This has been an area for growth for the team.
- 3. The program started (in 2008) with volunteer doulas, and quickly realized that volunteer work could be more sustainable. Since then, BirthMatters has ensured that all doulas have consistent salaries and benefits and strongly advocates for this approach with other doula models.
- 4. As the Community Health Worker (CHW) workforce has grown its identity and influence in South Carolina, BirthMatters has recognized that aligning with CHWs is a strength. It has enabled the community-based doulas to relate their work to other community-based health workers in the state, combine efforts, advocate, and improve services.

Some of the challenges we encountered while carrying out our practice:

- 1. Expanding services in other communities has brought unexpected challenges. The main one was engaging a team and community without being a trusted community member. Replicating programs can be a tricky balance between model fidelity and adaptation to local contexts, and it can be difficult to keep it going when it becomes challenging.
- 2. A constant challenge is helping healthcare systems and their employees understand the role of doulas. The BirthMatters team has to constantly educate hospital and clinical staff about what they do and how they do it; there seems to be turnover as soon as they build relationships and recognition with teams. It takes much effort to orient and build relationships with healthcare staff continuously.
- 3. It is hard to find doulas who can handle being on-call for deliveries. Even if people want to provide this service, it isn't easy if they have their own families, children, and responsibilities.
- 4. It is also hard to manage a team with time-limited grant funds. When working with people who have shared lived experiences with communities experiencing financial hardship, it's hard not to be able to offer them anything more than 18 months of guaranteed employment.



NEXT STEPS

BirthMatters is currently expanding to Cherokee County, which is next to Spartanburg. It is a rural area and maternity care desert. Doula training is happening in the spring of 2023.

Through the EACH Collaborative, BirthMatters has partnered with two organizations to expand their services into doula work:

- Family Solutions This is a perinatal CHW program in a very rural area of South Carolina with very poor birth outcomes. BirthMatters trained several of their team members to be able to provide doula care in 2022.
- Medical University of SC's Women's Reproductive Behavioral Health Program BirthMatters trained five Certified Peer Support Specialists (CPSS) to become doula certified in 2022-2023.
 CPSS are people who have experienced substance misuse and are trained to provide care and support to others on their recovery journey. This is a very exciting partnership because these trainees are designing programs to incorporate doula services into their workplaces, including corrections facilities, area drug and alcohol centers, and residential treatment facilities.
- The BirthMatters' Director of Advocacy and Expansion leads the South Carolina Doula Steering Committee (SCDSC). This group is a collaborative, statewide effort to advocate for policies that provide equitable compensation for doulas in our state. She also leads a statewide committee to establish Doula Core Competencies, with standards in place for anticipated future payor reimbursement.

APPENDIX

- 1. McCollum R et al. BMC Public Health 2016; 16: 419
- 2. Viswanathan M et al. Med Care 2010; 48(9):17
- 3. Kim K et al. Am J Public Health. 2016;106(4):e3-e28
- 4. Norris SL, et al. Diabet Med. 2006;23(5):544-556.)
- 5. Weaver A, et al. J H Care Poor Underserved. 2018;29:159-18
- 6. Ayala, G. X., et al. Health Educ Res, 2010; 25(5), 815-840.
- 7. www.cdc.gov/dhdsp/pubs/ guides/best-practices/chw.html
- 8. www.ncbi.nlm.nih.gov/books/ NBK220363/
- 9. WHO guidelines on health policy and system support to optimize CHW programmes. Geneva: World Health Organization; 2018. P.13
- 10. www.thecommunityguide.org/search/community%20health%20workers
- 11. www.aha.org/guidesreports/2018-10-17-building-community-health-worker-program-key-better-care-better-outcomes
- 12. Hans SL, et al. Int Mental Health J. 2013;34(5):446-457



- 13. Edwards RC, et al. Pediatrics. 2013;132 Suppl 2:S160-166
- 14. Bryan, A. D. et al. 2009. Pediatrics, 124(6), e1180-e1188.
- 15. Schmiege, S. J. et al. 2009. Journal of Consulting & Samp; Clinical Psychology, 77(1), 38-50.
- 16. https://www.nctsn.org/sites/default/files/interventions/abc_fact_sheet_general_2021.pdf

