2016-2017 Evaluation Plan for
Breath of My Heart Birthplace

January 27, 2017

PREPARED BY

Tara Kane Prendergast, B.A., MCRP Candidate
Amanda Bissell, MPH (Mentor)

NM EVALUATION LAB
University of New Mexico

Table of Contents

1. Introduction

Breath of My Heart Birthplace (BMH) is a midwifery clinic located in Espanola that seeks to address disparities in maternal and infant health outcomes by delivering high-quality, culturally appropriate, respectful perinatal care to women and families in the Espanola Valley. BMH's mission is:

> "To bring to reality a sustainable birthing place that celebrates pregnancy and birth as a sacred rite of passage through midwifery care [and to] raise awareness and promote wellness, growth, and healing in our multicultural communities by honoring woman as our first environment" (Breath of My Heart).

The organization offers full-service midwifery care, homebirth and a birth center birthing option, a free weekly walk-in clinic for pregnant women and new families, and an apprenticeship program for midwives in training. It specifically aims to provide trauma-informed and culturally appropriate care for low-income families and women of color. Started in 2010, BMH has been extensively shaped by the community. The organization's strategic plan was developed through a series of community-wide meetings and the organization's staff convenes yearly community meetings to ensure continued alignment with community needs.

BMH's model is well supported by research. Evaluating the impact of midwifery services in rural indigenous communities in Quebec, Canada, Wagner and colleagues found improved birth outcomes and strengthened community relationships. Community members reported seeing midwives and midwifery as an important part of community healing (Wagner et al., 2007).

A number of studies have presented evidence on the persistence of racial inequities in terms of access to adequate and consistent maternal care (Martin et al., 2002 and Park et al., 2004 and Gavin et al., 2004). Finally, data suggest that midwifery care can minimize medical interventions and promote positive birth outcomes for low-risk mothers and babies (Johnson and Daviss, 2005 and Stapleton et al., 2013). These studies are reviewed in greater detail in Appendix A.

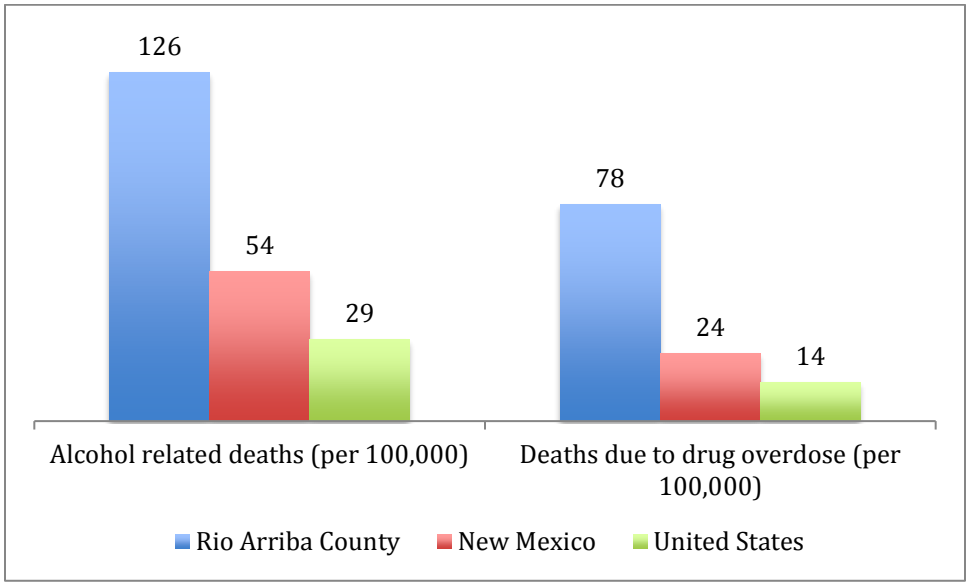
2. Context

Breath of My Heart serves a number of diverse rural communities in the Espanola Valley, which includes parts of Rio Arriba and Santa Fe Counties, the city of Espanola, and tribal lands of six Tewa Pueblos. The region is rich in culture and tradition but has been challenged by decades of divestment and alarming public

health conditions. Data presented in this plan represent Rio Arriba County or a designated small area. In New Mexico, the Department of Health has created small areas in response to the need of health status information at the community level with the ability to study the associations between health inequity and place. Small areas are those with population sizes that are large enough to calculate rates of health events and status. These small areas are based on population size, not land area or county (NM-IBIS). Data came from the small area of Rio Arriba County, the city of Espanola, Santa Clara Pueblo, San Juan Pueblo, and Ohkay Owingeh Pueblo.

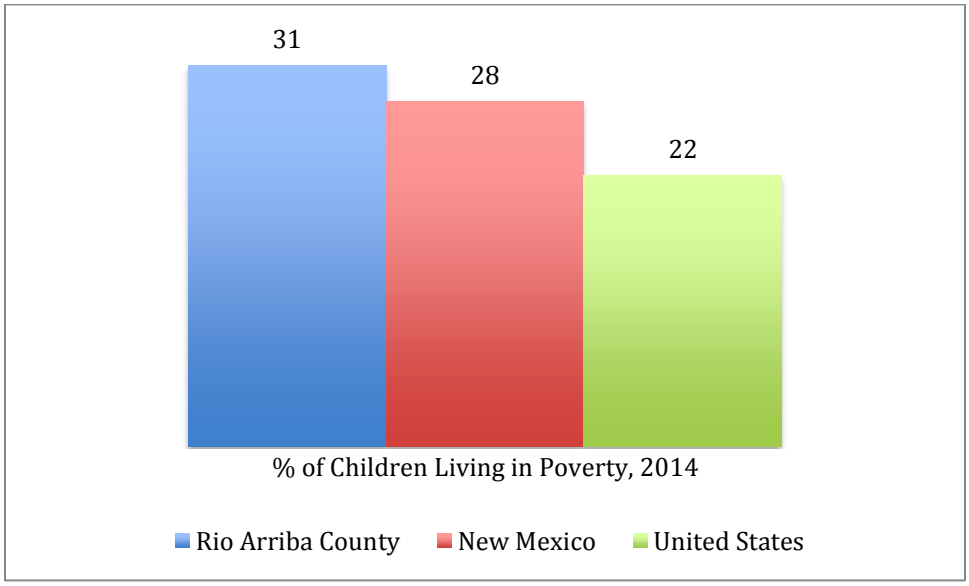
As of 2015 estimates, this designated small area had a population of just under 30,000. 79% of people identify as Hispanic and 10% as Native American.[1] Rio Arriba County, the southern half of which lies within the designated small area, has high rates of poverty and some of the most extreme rates of substance abuse in New Mexico. Compared to the U.S. average of 22%, 31% of children in Rio Arriba County live under the federal poverty line. The rate of alcohol related deaths is more than double that for the state of New Mexico, which is still almost twice that of the U.S. The rate of deaths due to drug overdose in Rio Arriba County (78) is also three times that of New Mexico (24) and six times that of the U.S. (14). See Figures 1 and 2. These data speak to the importance of trauma-informed approaches to promoting health and wellbeing in the region.

Figure 1: Mortality Due to Substance Abuse for the United States, New Mexico, and Rio Arriba County, 2010-2014



[1] UNM Geospatial and Population Studies Program, http://bber.unm.edu/bber_research_demPop.html

Figure 2: Percentage of Children Living in Poverty in the United States, New Mexico, and Rio Arriba County, 2014



Source, Figures 1 and 2: NM-IBIS, Community Health Status Indicators, Rio Arriba County: https://ibis.health.state.nm.us/community/highlight/index/GeoCnty/39.html; Generated by Tara Kane Prendergast

Pregnancy and birth data indicate that families in the Espanola Valley are also struggling with relatively poor birthing outcomes. In terms of infant mortality, preterm births, and low birth weight babies, the Rio Arriba small area has worse outcomes than the state of New Mexico and the U.S. as a whole. It should be noted that New Mexico has worse outcomes than the country as a whole though the disparity is not as extreme as in and around Rio Arriba County.

Whereas the infant mortality rate for NM is 6 per 1000 live births, it is 7 for the designated small area. The percent of low birth weight babies in this area is 13% compared to 9% for New Mexico and the percent of preterm births (that is live babies born before 37 weeks of gestation) is 15% compared to 12% in New Mexico and 11% in the United States. While the teen birth rate per 1000 is very similar in the designated small area and New Mexico (48 and 49 respectively), it is significantly higher than the U.S. rate of 29.[2] See Figures 3 & 4.

These conditions speak to the need for services such as those provided by BMH.

[2] NM-IBIS, 2009-2013 and 2010-2014, https://ibis.health.state.nm.us/topic/healthoutcomes/MCH.html. Note: the teen birth rate data are from 2010-2014; the low birth weight, preterm, and infant mortality data are from 2009-2013. The preterm birth rate does not include non-singleton births (twins or more).

Figure 3: Select Birth Outcome Indicators for Designated Small Area, New Mexico, and United States, 2009-2014

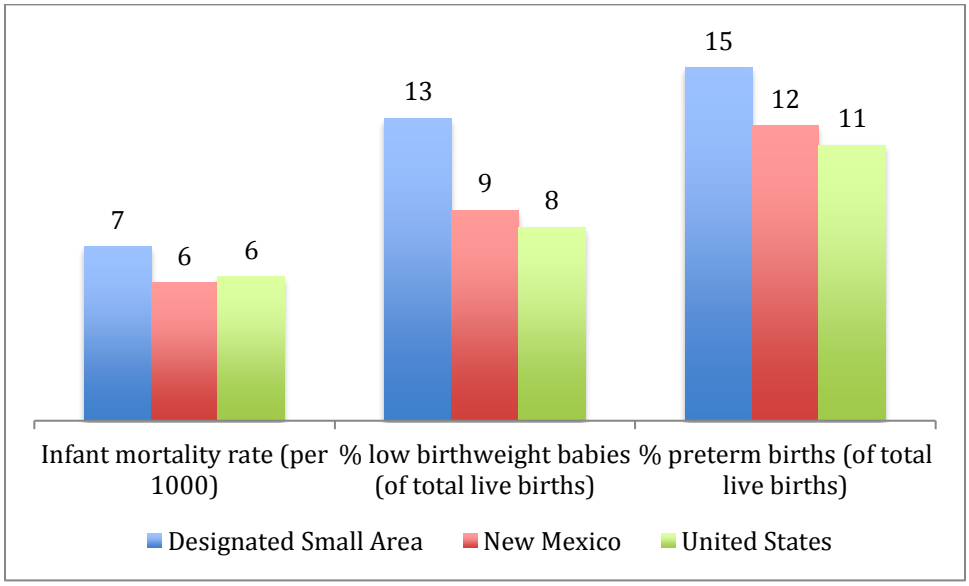
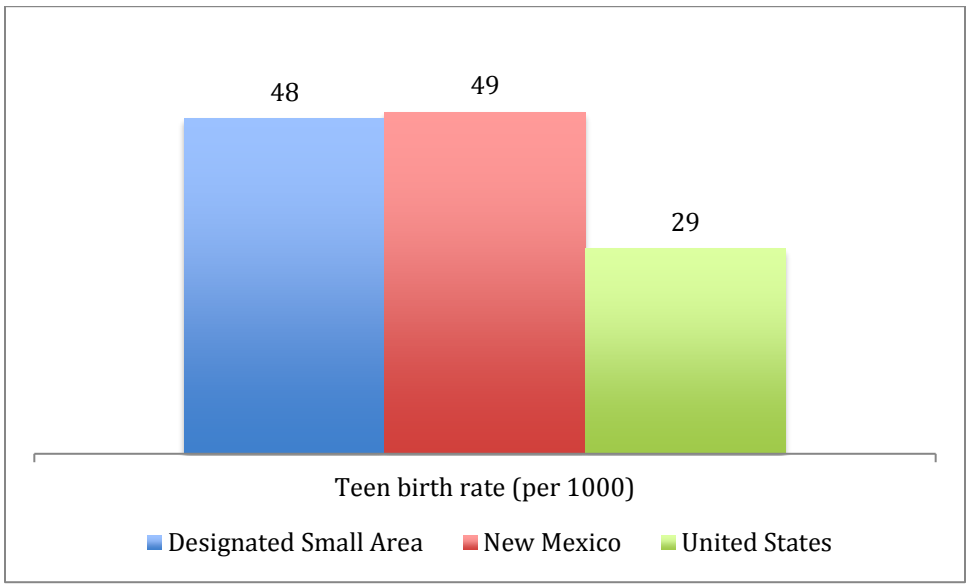


Figure 4: Teen Birth Rate for Designated Small Area, New Mexico, and United States, 2009-2014



Source, Figures 3 and 4: NM-IBIS Tables: Teen Birth Rate for Girls 15-19 by 108 Small Areas, NM 2010-2014; Percentage of live born infants with low birth weight by small area, New Mexico, 2009-2013; Percentage of preterm births by small area, New Mexico, 2009-2013.

3. Logic Model

ACTIVITIES	OUTPUTS	OUTCOMES
- Negotiation with other stakeholders (including Medicaid) - Active participation in advocacy coalitions	NM birth center licensure to obtain facilities fee for new clinic BMH has capacity to meet community demand (because of resources gained)	**Short & Medium Term**
- Free weekly walk-in clinic - Hearing & developmental screening events - Targeted marketing, outreach, media coverage/stories - Continual hosting of community conversations	X # of low income women & women of color served each year Clients and family members trust BMH High level of awareness about midwifery as an option	* Accessible, culturally appropriate birth care available to all families in service area * Midwifery model of care increasingly chosen by families * Increased # of practicing midwives of color from the community *Sustainable community-envisioned birth center facility
- Non-midwifery educational work (e.g. Indigenous nutrition program) - Delivery of high-quality, culturally appropriate Midwifery care (prenatal, birth, postpartum to 6 weeks after birth)	x% families receive respectful nutritional & lifestyle counseling Better birth outcomes (decreased # of complications, STDs, C-sections, preterm deliveries, low-weight babies)	
- Development of educational materials - Midwifery apprenticeship program - Targeted outreach to women of color/people of color and young parents	Increased # of young parents in community have accessed pregnancy and birth resource packet X # of people of color trained/apprenticed as midwives @ BMH X# of meetings / events	**Long-term**
- Fundraising Community design process	$ raised and new, expanded birth center facility designed	* Better birth & experiential outcomes for mother and baby → parents feel increase in capacity to parent * Reduced racialized health disparities in service area & urban/rural racial disparities in NM * Sustained positive, collaborative ecosystem of community health providers * Increased community capacity & ownership over healthcare & wellness
- Refer families who need other services to appropriate provider (mental health, domestic violence, obstetrics) - Outreach to other providers	Strong relationships with other providers (measured: # of collaborations, # of referrals to/from other orgs)	

4. Evaluation Plan

This is Breath of My Heart's first year working with the Evaluation Lab. The scope of work includes two evaluation projects:

1) Generation of a multi-year evaluation strategic plan;
2) Designing an instrument and system for tracking and evaluating BMH's walk-in clinic.

1) The first evaluation project is based on the following question: What does BMH want to evaluate over the next 3-5 years and what is a feasible plan of action and timeline for conducting evaluation work on those questions? What are the indicators that can help answer these evaluation questions?

Generating an evaluation strategic plan will help BMH both identify what they want to know about their model, program, and outcomes, and establish a timeline for engaging these questions through evaluation work. Activities undertaken to address this question will include:

- Conducting a literature review to find a template for the plan as well as examples of how other midwifery centers have evaluated their programs.
- Convening 1-2 planning meetings with the evaluation team, the BMH staff and representatives of the board of directors.
- Constructing a timeline.

2) The evaluation question underlying the second project is: How can BMH effectively evaluate the walk-in clinic to track how many women and families it serves, who is utilizing it (demographics), what services are sought, and the extent to which it prompts women to become BMH's birthing clients?

Developing a way to effectively evaluate BMH's weekly walk-in clinic will give BMH more robust data on who they are serving, what type of services women and new families are requesting, and how many women who come to walk-in clinics subsequently enroll in full-service birthing care. This question will be answered through the following activities:

- Conducting research to find precedent instruments used in similar service situations
- Generating a logic model for the walk-in clinic.
- Convening planning meetings with BMH staff members to understand their goals for the walk-in clinic.
- Reviewing and finally adjusting BMH's existing client intake form to serve as the evaluation instrument.
- Identifying the best method and software for data tracking.

The evaluation team consists of Tara Kane Prendergast, Amanda Bissell, Jessica Frechette-Gutfreund, and Micaela Cadena. As a student in the Evaluation Lab, Tara is responsible for drafting the evaluation plan and report as well as taking the lead in conducting evaluation activities. Amanda serves as an Evaluation Lab mentor. In this role she provides guidance in designing and conducting evaluation activities as well as project coordination support. Jessica is

a midwife, co-founder and director of BMH. Micaela provides consultation support to BMH. Jessica and Micaela are BMH's evaluation coordinators for this project. They provide direction, requested information and data, and feedback.

The work on this project so far has been focused on developing the logic model and identifying evaluation questions. Since BMH is located in Espanola, the team has primarily been working through email. An initial conference call, in-person meeting, and archive of strategic planning documents provided Tara with the context and background to draft a logic model for the organization. The other team members reviewed this and provided feedback. Evaluation questions and activities were identified in follow-up meetings.

5. Timeline

The following timeline does not include work done before the first submission of the evaluation plan. Milestones are listed by month rather than specific deadline to allow for scheduling flexibility.

OCT.
- Evaluation plan submitted
- Feedback & finalization of plan

NOV.
- Literature review
- Data scan
- Walk-in clinic observation
- 1st meeting with staff re: evaluation strategic plan

DEC.
- Final eval plan submitted
- Final presentation

JAN.
- Meeting with organization to assess goals of walk-in clinic & discuss data tracking needs
- Review existing client intake form

FEB.
- Determine data tracking software and method
- Revise client intake form to serve as walk-in clinic evaluation instrument
- 2nd meeting with organization re: evaluation strategic plan
- Research examples of how other midwifery centers have evaluated their program

MARCH
- Write-up evaluation strategic plan
- 13th: Draft evaluation report to organization
- Meeting with organization to review evaluation report

APRIL
- Evaluation report revisions
- Poster

MAY
- 12th: Final evaluation report submitted

References

Alexander, Greg R., and Milton Kotelchuck. "Assessing the role and effectiveness of prenatal care: history, challenges, and directions for future research." *Public Health Reports* 116.4 (2001): 306.

Breath of My Heart. "About Breath of My Heart." Doi 11/29/2016: www.breathofmyheart.org/about/.

Gavin, Norma I., et al. "Racial and ethnic disparities in the use of pregnancy-related health care among Medicaid pregnant women." *Maternal and Child Health Journal* 8.3 (2004): 113-126.

Johnson, Kenneth C., and Betty-Anne Daviss. "Outcomes of planned home births with certified professional midwives: large prospective study in North America." *Bmj* 330.7505 (2005): 1416.

Lu, Michael C., and Neal Halfon. "Racial and ethnic disparities in birth outcomes: a life-course perspective." *Maternal and child health journal* 7.1 (2003): 13-30.

Martin, J.A., Hamilton, B.E., Ventura, S.J., et al., 2002. "Births: final data for 2001." *National Vital Statistics Reports* (2001): 51 (12).

New Mexico's Indicator-Based Information System (NM-IBIS). Various Tables. Doi 11/29/2016: https: /ibis.health.state.nm.us/.

New Mexico's Indicator-Based Information System (NM-IBIS). "New Mexico Small Areas." Doi 11/29/2016: https://ibis.health.state.nm.us/resource/SmallAreaMethods.html.

Park, Jeong-Hwan, Deborah Vincent, and Marie Hastings-Tolsma. "Disparity in prenatal care among women of colour in the USA." *Midwifery* 23.1 (2007): 28-37.

Sandall, Jane, Hora Soltani, Simon Gates, Andrew Shennan, and Declan Devane. "Midwife- led continuity models versus other models of care for childbearing women." *The Cochrane Library* (2016).

Stapleton, Susan Rutledge, Cara Osborne, and Jessica Illuzzi. "Outcomes of care in birth centers: demonstration of a durable model." *Journal of Midwifery & Women's Health* 58.1 (2013): 3-14.

University of New Mexico Geospational and Population Studies Program. "Population Estimates: 74-Rio Arriba, Espanola and Pueblos." (2015) Doi 11/29/2016: http://bber.unm.edu/bber_research_demPop.html

Wagner, Vicki, et al. "Reclaiming birth, health, and community: midwifery in the Inuit villages of Nunavik, Canada." *Journal of Midwifery & Women's Health* 52.4 (2007): 384-391.

Appendix A

Racial disparities in access to care

Research finds significant racial disparities in access to maternity care. In the United States, women of color are much less likely to have adequate prenatal care than white women. For example, in 2001 African-American and Hispanic women were two times more likely to receive late or no prenatal care than non-Hispanic white women. And whereas 89% of non-Hispanic white women received early prenatal care, only 69% of American Indian women did (Martin et al., 2002). Findings from a 2004 study that compared the total number of prenatal visits and initiation of prenatal care by 439 low-risk term women (between 37 and 42 weeks of gestation) found that white women had more prenatal visits than women of color; 12 was the mean number of prenatal visits for non-Hispanic white women whereas the mean number of visits for non-white women was 10 (Park et al., 2004).

Racialized disparities in maternal care access also exist when comparisons are made across specific income brackets. One study analyzed Medicaid administrative data and birth certificates for 268,594 women in four states (Florida, Georgia, New Jersey, and Texas) to investigate whether racial disparities existed between low-income white, black, Hispanic, and Asian/pacific islander women. Services examined included the number and timing of prenatal visits, consumption of prenatal multi vitamins, iron supplements, and use of select screening tests. Despite differences in a number of factors from state to state, researchers found that in all four states women of color were less likely than white women to receive early and consistent prenatal care (Gavin et al., 2004).

These studies clearly indicate that women of color disproportionately experience inadequate prenatal care, which is a reality Breath of My Heart works to explicitly address. What the studies do not address is how such care impacts birth outcomes. There is a wide range of assessments in the literature about the relationship between prenatal care and birth outcomes; a full discussion of which is beyond the scope of this literature review.[3] Neither do they help us understand how, if at all, the impact of prenatal care is mediated by factors such as socioeconomic status, demographic profile, cultural background, and medical conditions. Alexander and Kotelchuk suggest more research need to be done to investigate whether prenatal care is more or less effective for specific subgroups of women (2001). Little is known, for example, about whether prenatal care is more effective in reducing adverse outcomes for low-income women than high-income women. Further investigation of the literature, as well as BMH's own practice, should explore such intersectionalities. Taking this next step is necessary to understand how consequences that stem from racialized disparities impact access to maternal care.

Midwifery care and select birth outcomes

[3] A number of issues – including the challenges of defining what constitutes prenatal care, identifying the relative impact of specific components of it (Alexander ad Kotelchuck 2001), and understanding the ways in which benefits are mediated by risk factors (Lu and Halfon, 2003) – make it difficult to draw straightforward conclusions.

A number of studies indicate that midwifery care promotes positive birth outcomes. Johnson and Daviss (2005) compared the outcomes of 5418 planned home births across the United States and Canada to national data on low-risk, full term hospital births. They found that medical interventions including epidural, episiotomy, forceps, vacuum extraction, and caesarean sections were significantly less likely for low-risk women who intended to deliver at home and were transferred to a hospital than for low-risk women who began as hospital deliveries. As medical interventions are typically not in the scope of practice of midwifery, the study used the selected comparison groups to understand what interventions were used when available to both groups. The women who began as planned home births received prenatal care and were accompanied to the hospital by their midwife when transferred for delivery. While doctors at the hospital performed the interventions, midwives continued to accompany and advocate for the women. The greatest differences were in episiotomies (2.1% for planned home births versus 33% for planned hospital births) and caesarean sections (19% versus 3.7%). Vacuums were used in 0.6% of planned home births compared to 5.5% of planned hospital births. Mortality rates were the same for both groups (Johnson and Daviss, 2005).

In another cohort study of over 15,000 women receiving care at 79 midwifery birth centers in 33 states, Stapleton, Rutledge, Osborne, and Illuzzi (2013) found similarly low rates of medical interventions. Their study found a cesarean birth rate of 6% compared to the average rate of 25% for low-risk hospital deliveries. The neonatal mortality rate was 0.40/1000 compared to an average U.S. rate of 0.75/1000 (Stapleton et al., 2013). Data presented in both of these studies was unequivocal. However, others are not so conclusive. Even some researchers who conclude that midwifery care contributed to positive outcomes and higher rates of birth satisfaction for women have found a lack of consistency in terms of what outcomes are achieved. For example, in contrast to Johnson and Daviss (2005) and Stapleton et al. (2013), in a systematic review of 11 studies Sandall et al. (2016) found no difference between hospital and intended home births in terms of caesarean sections or neonatal mortality. However, this review found that midwifery care resulted in a number of other positive outcomes including fewer episiotomies, instrumental deliveries, and higher rates of women feeling in control of their own labor and childbirth. Overall, the evidence suggests that midwifery care supports maternal satisfaction as well as positive birth outcomes for mother and baby.