

Strong start for mothers and newborns: Moving birth centers to scale in the United States

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1 | INTRODUCTION

A landmark report published recently by the Centers for Medicare and Medicaid Innovation (CMMI) detailed the findings of the 5-year Strong Start for Mothers and Newborns Initiative. ^{1,2} The project represents the most robust research to date on Medicaid beneficiaries and the birth center model of care. Controlling for social, behavioral, and medical risk factors, researchers from the Urban Institute demonstrated that Medicaid beneficiaries experiencing care through birth centers have significantly better outcomes than those receiving usual care or care within a medical model maternity care home. The report calls for the scaling up of the Strong Start model of birth center care: a model that is midwifery-led, accessible across care settings, and rooted in the social determinants of health. ¹

The report concludes by saying that midwifery-led birth center care is the type of care that Medicaid beneficiaries need. Thirty years since the National Birth Center Study was published, this research is consistent with abundant research demonstrating the midwifery model as the appropriate level of care for the majority of women.³⁻⁵ The United States spends billions of dollars on pregnancy and newborn care, while producing poor outcomes and persistent racial disparities. 1,6-12 The report also concluded that "it is unrealistic" for the birth center model to become the dominant United States maternity model anytime soon, as there are currently not enough birth centers throughout the country to meet the demand. 1 The United States Health and Human Services Secretary has statutory authority to scale up effective models; perinatal health professionals and policymakers should demand accountability. This commentary highlights some necessary steps required to shift toward midwifery-led birth centers as a normative model of care for Medicaid beneficiaries.

2 | STRONG START EVALUATION AND IMPACT

The CMMI Strong Start for Mothers and Newborns (Strong Start) program sought to address perceived weaknesses in "typical" perinatal care in United States, namely overuse of induction of labor and cesarean birth; with underuse of evidence-based care practices such as education, nutrition counseling, childbirth and parenting preparation, and breast-feeding support. The Strong Start project included nearly 46 000 Medicaid beneficiaries and their infants, with over 70% of the population from minority groups. Nearly half were unemployed and not in school, one in five were experiencing food insecurity, and more than one in four screened positive for depression.

The evaluation was a robust, mixed methods analysis comparing Medicaid beneficiaries across and within three models: Group Prenatal Care, Maternity Care Home, and Birth Centers. Impact analysis included a sample of Medicaid beneficiaries matched by geographic region, and social, behavioral, and medical risk factors. Using propensity scores and weighting, birth certificates and Medicaid claims data were used to evaluate the impact of the innovation.

The birth center Strong Start sample included 8426 enrollees across 46 sites in 22 states convened by the American Association of Birth Centers (AABC). The birth centers were led by midwives using the midwifery model of care, enhanced with peer counseling services designed to augment

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care coordination and behavioral and social support services. Although the birth center model involves midwifery-led care throughout the perinatal period, births were planned to occur in the birth center, at home, or in the hospital (by choice or by medical necessity). The birth center model demonstrated high-quality outcomes, with a 12.4% cesarean birth rate, 4.4% preterm birth rate, and 3.7% low-birthweight rate.

When compared to typical care, expenditure and utilization results demonstrated lower costs and fewer infant emergency visits in the first year of life. After controlling for demographic, medical, and social risks, the birth center model was compared to Maternity Care Home results, as the most similar model to typical care. White, Black, and Hispanic women participating in birth center care were significantly less likely to have preterm birth, deliver a low-birthweight infant, or have a cesarean birth when in birth center care. Using linked birth certificate, Medicaid eligibility, and claims/encounter data, Medicaid beneficiaries in 13 states were used to compare outcomes and estimate the impact of the three models. The birth center sample demonstrated longer gestational age at birth, more weekend births, and significantly less prematurity, low birthweight, and cesarean birth compared to matched women in typical prenatal care. This improved performance on national quality metrics occurred within the context of a 21% lower cost for birth and a 16% lower cost through the first year of life. Mothers and babies receiving care within the Strong Start birth center model averaged a cost savings of \$2010 per dyad in the first year of life, when compared to a matched sample of Medicaid beneficiaries not involved with Strong Start.

To explore the patient experience of care, the Strong Start evaluation gave voice to Medicaid beneficiaries using focus groups and surveys at several times throughout the episode of care. Across all three models studied, participants acknowledged the value of extra time, support, and education. Birth center beneficiaries were more likely to report being "very satisfied" with their care experience when compared to the medical home model. Those who had previously experienced care in traditional medical models expressed more satisfaction with the time-intensive care models.

3 | APPLYING THE BLUEPRINT FOR ACTION

The National Partnership for Women and Families recently released a roadmap for high-value care detailing the blue-print for change. ¹³ Using the framework presented within the blueprint, the Strong Start results can provide the research foundation and strategies for transformation of care for child-bearing Medicaid beneficiaries. Next steps for application of the results include leveraging endorsed national quality performance measures (eg, cesarean birth and breastfeeding), while highlighting the payment reform required to take birth

centers to scale. Expanding payment for the high leverage, enhanced components of midwifery-led care is imperative. The re-designed model requires engaging beneficiaries as capable, strong co-creators of care who desire and can achieve wellness. Expansion of existent patient-entered data programs to help guide policy and payment reform is essential.

The preliminary data from the AABC patient-entered data portal through Strong Start overwhelmingly document a population of strong, resilient, and capable beneficiaries. The health care delivery system must capture and build on this resilience. This requires a perinatal workforce led by midwives, partnered with community health workers, nurses, doulas, social workers, lactation consultants, and working in harmony with collaborative obstetricians and perinatologists. Achieving this requires expansion of interprofessional educational programs and training sites. It requires states with outdated practice laws and regulations to modernize. Using the framework of the Blueprint for Action, the federal government can join with state governments and Medicaid agencies to do everything possible to minimize barriers to the midwifery-led birth center model.

4 | RIGHT CARE NOW

The plea to avoid overuse, underuse, and misuse has been growing in volume over the past 20 years across all fields of medicine. 4,6,14 Beginning-of-life and end-of-life care are especially prone to excessive medicalization, and it is imperative to set systems in place to achieve accountability. A shared mental model suggesting that "risks" in pregnancy and birth are impossible to predict is promulgated throughout mainstream obstetrics and society. The population health need for primary prevention and wellness far outweighs the system's ability to provide this level of care. Meanwhile, the system continues to grow intensive care units, far in excess of the number of women and infants who need this level of care. 15,16 The Strong Start report highlights the concept that more care is not better; the right care is what matters. Further defining high-value care and supporting it through Medicaid payment reform is possible. The report highlights the value of midwives providing time-intensive care with an emphasis on health care within the social context. Complex social needs are not met by more medical care; in fact, more medical care can be harmful as demonstrated by this report.

5 | COMMUNITY PARTICIPATORY RESEARCH PRIORITIES

Three research priorities are suggested in response to the Strong Start evaluations: community participatory methods; exploration of mitigating factors that reduce health disparities within midwifery-led models; and birth center sustainability/payment reform research. Elevating the voice, preferences, desires, and capabilities of Medicaid beneficiaries and holding health systems accountable to the beneficiaries are essential. A recent exploration of research priorities in maternity care suggests that the next phase of maximizing the impact of the Strong Start report is community involvement, sustainability, and equity research. The Strong Start report answers questions with respect to maximal impact of the model. The next research will involve activating the population of childbearing families around the human rights issues surrounding beginning-of-life care.

The Medicaid beneficiaries involved in Strong Start need their voices heard through published research, including their patient-entered data linked to clinical outcomes. Advances in patient-reported data platforms are necessary to insure the families remain at the center of care planning and delivery and that the high leverage components of care models are sustained through policy reform. The Strong Start report suggests that birth centers are important in the quest to minimize disparities. Understanding how the model promotes health and equity among marginalized populations is key. Racism and inequity are culturally bound, and failure to explore system-level promulgation of inequity is unethical. Health care at the beginning of life needs to be safe, satisfying, and build on the social processes of parenting, rather than emphasizing the alienating and harmful overutilization of technical care. Finally, the next research priority involves an in-depth exploration of barriers to sustainability and growth of birth centers. Midwifery-led birth centers are poised to partner with researchers to explore these questions.

6 | MOVING TO SCALE REALISTICALLY

As within the Strong Start sample, birth centers represent the minority of health care facilities across the United States. To effectively take the model to scale and serve most Medicaid beneficiaries, three initial actions are required. Aligned with the national quality strategy, the levers of regulation, accreditation, and innovation and diffusion can be deployed to spread the model. First, we must address outdated state rules and regulations that impede the growth of midwifery and birth centers.¹⁷ Second, acknowledge the Commission for Accreditation of Birth Centers (CABC) as the leading expert in accreditation of the model and expand growth of birth centers across all sites, including alongside maternity units. 18 To test the concept of scalability, the federal government should fund piloting the model specifically within the poorest performing Strong Start medical model sites. Working through barriers to midwifery-led birth center integration in Mississippi, Louisiana, South Carolina, and Alabama will help coordinate scale on the national level.

Hiring more midwives into existent health systems will not achieve the results demonstrated by Strong Start birth centers. In order to achieve these outcomes, midwives need to practice at the highest level of their educational training, supported by laws and regulations that acknowledge their value and autonomy. For midwifery to be effective in the United States, midwives need to be afforded the opportunity to practice midwifery as defined by the Hallmarks of Midwifery. ¹⁹ The acculturation of midwives to the medical model of care is well documented. ^{4,20-22} Understanding the unique barriers and facilitators of maintaining the midwifery model of care is essential as we move the model to scale.

The CABC can provide guidance to organizations, communities, states, and federal systems with respect to further development of the birth center model. The criteria set by the CABC for risk factors on admission to prenatal care, throughout the prenatal period, and on admission in labor can be applied to all Medicaid beneficiaries. Relying on the expertise of the CABC is important as the model grows; this will help prevent the perception of "considerable variation" that was shown across the medical model maternity care homes. Standardization of care is essential for the model to continue to achieve high-quality, high-value results. All women who qualify as low medical risk with high social risks need access to midwifery-led, birth center model care.

7 | CONCLUSIONS

The 5-year evaluation report from the CMMI Strong Start for Mothers and Newborns Initiative suggests that midwifery-led birth centers are an important solution to the current maternal-child health crisis in the United States. Evaluators used robust research techniques to control for medical and social risk factors and demonstrated that midwifery-led birth centers address the social determinants of health, producing optimal outcomes, and reducing health disparities. The logical and moral imperative is that maternity care providers, consumer advocates, researchers, payers, and policymakers work together to promote and scale up the birth center midwifery-led model that has shown great potential to decrease costs while improving population health and the client experience of care.

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REFERENCES

- Cross-Barnett C. Strong start for mothers and newborns evaluation: year 5 project synthesis, vol. 1. https://downloads.cms.gov/ files/cmmi/strongstart-prenatal-finalevalrpt-v1.pdf. Updated 2018. Accessed September 2, 2018.
- Cross-Barnett C. Strong start for mothers and newborns evaluation: year 5 project synthesis, vol. 2: Awardee-specific reports. https://downloads.cms.gov/files/cmmi/strongstart-prenatal-finaleval-rpt-v2.pdf. Updated 2018. Accessed September 2, 2018.
- Rooks JP, Weatherby NL, Ernst E, Stapleton S, Rosen D, Rosenfield
 A. Outcomes of care in birth centers: the National Birth Center Study. N Engl J Med. 1989;321(26):1804-1811.
- Kennedy HP, Cheyney M, Dahlen HG, et al. Asking different questions: a call to action for research to improve the quality of care for every woman, every child. *Birth.* 2018;45(3):222-231.
- Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwifeled continuity models versus other models of care for childbearing women. *Cochrane Database Syst Rev.* 2015;9:CD004667.
- Miller S, Abalos E, Chamillard M, et al. Beyond too little, too late and too much, too soon: a pathway towards evidence-based, respectful maternity care worldwide. *Lancet*. 2016;388(10056):2176-2192.
- Bartick MC, Jegier BJ, Green BD, Schwarz EB, Reinhold AG, Stuebe AM. Disparities in breastfeeding: impact on maternal and child health outcomes and costs. *J Pediatr*. 2017;181:49-55 e6.
- Robbins C, Boulet SL, Morgan I, et al. Disparities in preconception health indicators—behavioral risk factor surveillance system, 2013-2015, and pregnancy risk assessment monitoring system, 2013-2014. MMWR Surveillance Summ. 2018;67(1):1-10.
- Kozhimannil KB, Muoto I, Darney BG, Caughey AB, Snowden JM. Early elective delivery disparities between non-Hispanic black and white women after statewide policy implementation. Womens Health Issues. 2018;28(3):224-231.
- 10. Morrell E. First food justice: infant feeding disparities and the first food system. *Breastfeed Med.* 2017;12(8):489-492.
- Stuebe AM, Jegier BJ, Schwarz EB, et al. An online calculator to estimate the impact of changes in breastfeeding rates on population health and costs. *Breastfeed Med*. 2017;12(10):645-658.

- 12. Maternal Mortality Review Information Application. Building U.S. capacity to review and prevent maternal deaths [Report from nine maternal mortality review committees]. https://reviewtoaction.org/sites/default/files/national-portal-material/Report%20from%20 Nine%20MMRCs%20final_0.pdf. Updated 2018. Accessed February 2, 2019.
- Kennedy HP, Kozhimannil KB, Sakala C. Using the blueprint for advancing high-value maternity care for transformative change. *Birth*. 2018;45(4):331-335.
- 14. Wennberg JE. Forty years of unwarranted variation—and still counting. *Health Policy*. 2014;114(1):1-2.
- Howell EM, Richardson D, Ginsburg P, Foot B. Deregionalization of neonatal intensive care in urban areas. Am J Public Health. 2002;92(1):119-124.
- Harrison W, Goodman D. Epidemiologic trends in neonatal intensive care, 2007-2012. JAMA Pediatr. 2015;169(9):855-862.
- Yang YT, Attanasio LB, Kozhimannil KB. State scope of practice laws, nurse-midwifery workforce, and childbirth procedures and outcomes. Womens Health Issues. 2016;26(3):262-267.
- Commission for Accreditation of Birth Centers (CABC) Indicators. https://www.birthcenteraccreditation.org/go/get-cabc-indicators/. Updated 2018. Accessed March 19, 2019.
- Likis FE. Revisiting the hallmarks of midwifery. J Midwifery Womens Health. 2010;55(1):1.
- Lange G, Kennedy HP. Student perceptions of ideal and actual midwifery practice. J Midwifery Womens Health. 2006;51(2): 71-77.
- Waldman R, Kennedy HP, Kendig S. Collaboration in maternity care: possibilities and challenges. *Obstet Gynecol Clin North Am*. 2012;39(3):435-444.
- Avery MD, Montgomery O, Brandl-Salutz E. Essential components of successful collaborative maternity care models: the ACOG-ACNM project. *Obstet Gynecol Clin North Am.* 2012;39(3): 423-434.

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