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Commentary

Next Steps for Transforming Maternity Care: What Strong Start Birth Center Outcomes Tell Us

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INTRODUCTION

The US perinatal care system is failing women and newborns who have significant disparities and poor outcomes associated with race, poverty, and lack of access to quality care.[1] Birth center and midwifery-led care have been identified as a perinatal care model with the potential to help improve health outcomes for more women, including those experiencing disparities.[2–5] The recent publication of the national evaluation of the Strong Start for Mothers and Newborns Initiative revealed a dramatic reduction of preterm, low birth weight, and cesarean births for women participating in birth center care compared with women of similar risk levels in usual care.[6] Yet, there is little policy discussion about these significant findings or planning for wider implementation of birth center and midwifery-led care. Are these results being overlooked in health policy circles or is this merely a problem of inadequate dissemination? This commentary will describe key findings of the Strong Start initiative and discuss steps to use these data to improve access to midwifery care to improve outcomes and reduce disparities in the United States.

BACKGROUND

The Strong Start for Mothers and Newborns Initiative, a program of the Center for Medicare and Medicaid Innovation, was designed to test models of prenatal care. The objective was to determine whether enhanced prenatal care could reduce preterm birth and other poor outcomes of pregnancy for women and infants and reduce Medicaid costs,[7] because almost half of all births in the United States are financed by Medicaid.[8] Three models of prenatal care were tested during the 5-year initiative: CenteringPregnancy or group care, the maternity care home, and birth center care.[6,7] CenteringPregnancy or group care was provided in a group setting, but sites were not required to become CenteringPregnancy certified. Maternity care home sites were medical model prenatal care enhanced with the addition of health educators or other community health workers who offered additional support and services to clients.[6,7]

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To study the birth center care model, the American Association of Birth Centers (AABC) convened a group of 45 freestanding birth centers from 19 states and was chosen as the awardee coordinating most of the birth center care sites.[7] Enhanced prenatal care in the birth center encompassed multiple components that were included in site training and monitored in data collection. Along with all the components of usual prenatal care, enhanced care meant longer midwifery visits with health education individualized to client needs, ready referral to needed resources such as housing or food or to other care providers as needed, and ample opportunities for clients to build supportive relationships with their midwives (Figure 1).[9] Many of these components are considered to be standard with birth center care.[2,4,5] In Strong Start care in birth centers, more attention was paid to assessing and meeting psychosocial needs.

Previous birth center study populations were predominantly white, with at least middle income and higher education levels.[4] However, the AABC Strong Start sample was not a typical birth center population regarding diversity and psychosocial risk factors. The Strong Start birth center group compared with the US childbearing population as a whole was equal in racial and ethnic diversity for Hispanic (23.2% vs 23.2%) and American Indian participants (1.1% vs 1.1%) and slightly lower for African American participants (11.9% vs 14.2%) but more similar than in past studies.[4,9,10] To be eligible for Strong Start, participants were required to be Medicaid or Children's Health Insurance Portability (CHIP) beneficiaries.[6] Risk factors such as depression, history of intimate partner violence, and food insecurity were present in the birth center care sample at levels similar to or higher than national averages.[6,9,11] Participants were at higher risk of experiencing preterm and low birth weight births due to psychosocial risk factors than in previous national birth center studies.[6,9]

SUMMARY OF RESULTS

The national evaluation of Strong Start was led by the Urban Institute and included rigorous analyses of the data comparing the 3 models using regression analysis. In addition, a risk-matched comparison group analysis was conducted for birth center participants compared with those with usual prenatal care. For the outcomes of preterm birth, low birth weight, and cesarean birth, birth center prenatal care recipients fared better than women receiving the other models of care in Strong Start.[6] In the cross model comparison, the maternity care home was used as the reference group. Those with birth center prenatal care had significantly lower risk of poor outcomes, whether they gave birth in the birth center or

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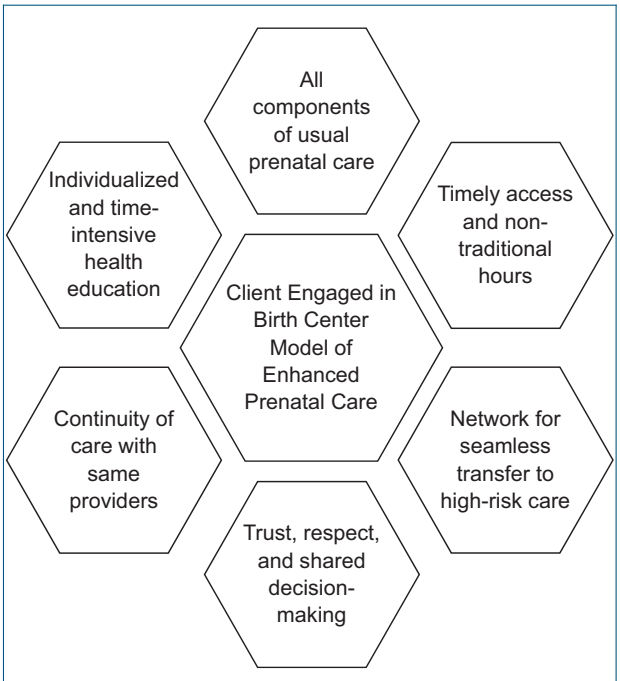

Figure 1. Enhanced Midwifery-Led Birth Center Care
Reprinted with permission from Alliman et al, 2019.[9]

hospital (Table 1).[6,9] After a risk-adjusted regression analysis, African American, Hispanic, and white women in birth center care experienced a 5 to 6 percentage point reduction in preterm birth.[6] Assessment of low birth weight revealed that African American women with birth center prenatal care experienced a greater reduction in low birth weight (5 percentage points) than white women (4 percentage points) or Hispanic women (2 percentage points).[6]

Evaluators used comparison groups to measure birth center prenatal care participant outcomes compared with Medicaid beneficiaries with similar risk levels in the same counties, receiving usual care. Findings indicated significant improvement for all measures for those with birth center care, no matter where the participant gave birth, compared with usual care. According to Medicaid claims data, costs for women with birth center prenatal care were less by $2010 per mother-newborn dyad from birth through the first year of life, emergency department and hospital visits were fewer, preterm birth rates were lower by 26%, vaginal birth after cesarean rates and weekend births were higher (related to fewer labor inductions), and cesarean births were lower (Table 2).[6,12,13] Most of the savings resulted from better outcomes for newborns and fewer cesarean births and other complications for women.[13]

These comparisons indicate that birth center care is high value care for Medicaid beneficiaries and for cost reduction. The final report states that women participating in birth center prenatal care had significantly better outcomes for several measures, regardless of whether birth location was in the birth center or hospital.[6,13] The Centers for Medicare and Medicaid Services (CMS) states that, "These promising birth center results may be useful to state Medicaid programs seeking to improve the health outcomes of their covered populations."[13]

POLICY IMPLICATIONS FOR STRONG START OUTCOMES

Despite these favorable outcomes, state Medicaid directors and personnel at CMS are not familiar with Strong Start. In meetings with CMS staff or state Medicaid directors, AABC representatives found that little is known about the Strong Start outcomes (Amy Johnson-Grass, ND, CPM, President of AABC, personal communication, July 2019). Why has more not been done to promote the data and issue stronger recommendations for perinatal care? At most national or state health policy or Medicaid meetings, the challenges of financing complex chronic disease management and the opioid crisis take precedence over other care. It may be that perinatal care of women and newborns is overshadowed

Table 1. Low Birth Weight and Preterm Birth Rates Among Strong Start Birth Centers, Strong Start Medical Home (Excluding Regional High Risk Sites), and United States[a,b]

	Birth Centers[c]			
Health Indicators by Race	Mean	Adjusted Difference[c]	Medical Home Mean[d]	US Data[e]
Low birth weight rate, %				
African American	6	−0.04	12	13.7
Hispanic	4	−0.02	8	6.4
White	3	−0.03	8	7.2
Preterm birth rate, %				
African American	5	−0.04	13	13.8
Hispanic	5	−0.05	12	9.5
White	4	−0.05	10	9

[a]Birth center clients had fewer medical risk factors and similar levels of psychosocial risk factors including depression and/or anxiety, food insecurity, and intimate partner violence compared with medical home sites. After adjusting for risk, differences are decreased somewhat but remain significant, as shown in the Adjusted Difference column.
[b]Birth center clients participated in enhanced prenatal care with longer midwifery model visits and support services. Medical home clients participated in usual prenatal care with added support staff.
[c]Risk adjusted differences in means for birth center and medical home. All are statistically significant: $P < .01$.
[d]Medical Home Means, excluding regional high risk sites. Adapted from Hill et al, 2018.[6]
[e]Martin et al, 2018.[10]

Table 2. Strong Start Outcomes for Birth Center Prenatal Care Compared with Usual Care[a,b,c]

Outcomes	Birth Center Participants[b]	Risk-Matched Comparison Group-Usual Care
Preterm birth, %	6.3	8.5
Low birth weight, %	5.9	7.4
Average gestational age, weeks'	39	38.6
Average birth weight, g	3342	3263
Cesarean birth rate, %	17.5	29
Vaginal birth after cesarean, %	24.2	12.5
Weekend birth rate, %	23.7	19.8
Infant emergency department visits, %	0.86	0.99

[a] Birth center clients participated in enhanced prenatal care that included longer visits and opportunities to form relationships with midwives, individualized health education, after-hours access to midwives, and ready referral to social and clinical resources as needed. Comparison groups were Medicaid beneficiaries with similar risk levels from the same counties who received usual prenatal care, compared to assess the impact of birth center prenatal care on outcomes.
[b] All comparisons statistically significant at $P < .01$.
[c] Adapted from CMS Informational Bulletin.[13]

by the challenges of complex chronic conditions for financially strapped government budgets. However, the return on investment from focusing on healthy pregnancy and increasing breastfeeding rates lasts a lifetime, with reduced risk of costly complications at the time of birth and lifelong chronic disease.[14] One can only wonder, if the midwifery model care were a new drug or technology achieving these results, would everyone be clamoring to embrace it?

It is time for intentional steps to scale and replicate the birth center model to have a wider impact on maternal and infant health in the United States. Increasing access to enhanced prenatal care is key to making needed changes to improve health and reduce disparities for women in our current perinatal care system. Four policy changes could lay the groundwork to replicate this model more widely, and grassroots work will be needed to put these steps into place.

The first step is to support federal legislation to establish demonstration model birth and women's centers located in rural and underserved urban areas. Pending legislation, titled the Birth Access Benefiting Improved Essential Facility Services (BABIES) Act, has been introduced in the House as H.R. 5189.[15] If passed, the bill would establish demonstration model birth centers to assist in addressing growing perinatal care provider and facility shortages. These birth centers would work in collaboration with area perinatal units for providing local access to prenatal care and full-scope services for lower-risk women and referral to higher levels of care when needed. The facilities would serve as an entry point to enhanced prenatal care provided in the Strong Start model. Critical to success is appropriate, sustainable reimbursement for the enhanced care provided.

The second step is to support new models of reimbursement for midwifery-led prenatal care in the birth center model, which is time intensive and relationship based. Effective midwifery care takes more time, so midwives are able to see fewer clients per day. Enhanced prenatal care in the birth center should be reimbursed at a higher rate, financed with part of the savings from fewer preterm births, neonatal intensive care unit admissions, and cesarean births. Implementation would require development, in partnership with CMS, of a mechanism to bill and reimburse for enhanced prenatal care. Additionally, all states currently paying midwives lower percentages for Medicaid services should take steps immediately to reimburse midwives at 100% the physician rate for providing the same services.

The next step is to require that commercial and Medicaid payers include separate categories for midwives and freestanding birth centers in their health care provider directories so consumers can find them. With the current general categories for obstetric providers, people searching for midwifery providers have no way to distinguish which listings to choose. Requiring clear categories for midwives and freestanding birth centers in all insurance provider directories would help to increase access for midwifery model care.

Finally, new research is needed on replicating the midwifery-led birth center model of care in other settings. Access to enhanced prenatal care and women's health care can be increased by locating midwifery care in most or all critical access hospitals, Federally Qualified Health Centers, and Rural Health Clinics. If we are to increase access to midwifery model care and address growing shortages to perinatal care, we must be able to locate midwives in more settings and to gather data on model efficacy in those settings.

Grassroots Steps

These policy recommendations will come to fruition only if we take action. The American College of Nurse-Midwives and AABC use Strong Start handouts and informational bulletins for all meetings with legislators, their staffs, and partner organizations.[12,13] It is up to all of us to take grassroots steps to bring these data to the attention of legislators, policymakers, employers, and consumers on every level. Here are some actionable steps midwives and supporters can take:

First, become familiar with the Strong Start study findings so that you can talk about the improved outcomes of enhanced prenatal care with collaborating providers, hospital administrators, payers, and policymakers. Good sources include the CMS Joint Informational Bulletin[13] and the CMS Findings at a Glance document,[12] found at https://www.medicaid.gov/federal-policy-guidance/downloads/cib110918.pdf and https://innovation.cms.gov/files/reports/strongstart-prenatal-fg-finalevalrpt.pdf, respectively. The recent

article describing birth center demographics, processes, and outcomes includes detailed Strong Start birth center outcomes by race compared with national data.[9]

Second, build relationships with elected officials at the county, state, and federal levels. Invite them to visit your midwifery practice or birth center to meet with constituents and learn more about the midwifery model of care and the positive impact it has on the community. Become their expert on perinatal health care issues. This is not a once and done activity; relationships take care and nurturing. Create a plan to stay in regular contact.

Finally, support national membership organizations like the American College of Nurse-Midwives and the AABC. These national organizations raise the visibility of the midwifery model every day and give voice to practicing midwives in essential conversations with consumers, collaborating organizations, policymakers, and legislators. By supporting the practice of midwifery in all settings, midwives can begin to realize the effects of needed changes in policy.

CONCLUSION

Strong Start evidence demonstrates the benefits of midwifery-led birth center care through a rigorous evaluation that includes a matched comparison group receiving usual care. The evidence demonstrates that with wider implementation of enhanced prenatal care, change is possible that can improve the health of women and newborns and reduce disparities. To make such change happen, it is up to us to disseminate these findings to policy makers, legislators, employers, and consumers seeking high value evidence-based perinatal care. Now is the time to work to build the momentum for meaningful transformation in perinatal care. Midwives and their supporters must get behind the Strong Start report and outcomes to increase access to enhanced midwifery-led care in birth centers and in other safety net facilities.

CONFLICT OF INTEREST

Jill Alliman was the Project Director of AABC Strong Start from 2013 to 2017 and is Chair of AABC Government Affairs Committee.

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