



November 20, 2017

**Re: RFI to Center for Medicaid & Medicare Innovation
Improving Maternal and Infant Outcomes with Freestanding Birth Center Care**

Introduction

Maternity care is in need of immediate attention due to poor outcomes in the U.S., coupled with rising costs of care, and a growing shortage of maternity care providers (Agrawal, 2015; American Congress of Obstetrician-Gynecologists, 2017; March of Dimes, 2017; Mathews & Driscoll, 2016; Ollove, 2016). Medicaid pays for approximately half of all births in the U.S. (Smith et al., Kaiser Family Foundation, 2016).

With almost 4 million births per year, maternity care is one of the most costly components of healthcare in the US (HCUP, 2016). Hospitalizations associated with pregnancy and childbirth accounted for 5 of the 20 most expensive conditions for hospital stays covered by Medicaid in part due to poor outcomes (HCUP, 2016). Some outcomes such as cesarean delivery and preterm birth can be reduced in frequency with better access to freestanding birth center care (AABC, 2017).

American Association of Birth Centers (AABC) was an awardee for the CMMI Strong Start for Mothers and Newborns Initiative from 2013 – 2017. The CMMI Strong Start Initiative aimed to study innovative prenatal care models that could potentially save millions of Medicaid dollars by preventing preterm births and reducing other poor outcomes such as cesarean sections. Preterm births occur before 37 completed weeks of pregnancy and lead to increased medical costs of at least \$26 million per year (IOM, 2007). The current rate of prematurity in the US is almost 1 in every 10 births (March of Dimes, 2016). For African American infants, that risk is at least 1.5 times higher than the national rate and twice that for White infants (MOD, 2016). The rate of cesarean birth has risen in recent years to 32%, while this higher rate does nothing to improve infant outcomes and leads to more costly complications such as infection, hemorrhage and longer hospital stays (Osterman & Martin, 2014).

AABC Strong Start

AABC convened a group of 45 birth centers to enroll pregnant Medicaid beneficiaries in the program. A total of 8,389 women enrolled in birth center care for AABC Strong Start. This sample of Medicaid beneficiaries was more diverse with more risk factors than previous birth center study samples (Stapleton et al., 2013), and very nearly matched demographics of US childbearing women in 2015 (DHHS, 2017). See Table 1.

Table 1. Demographics of AABC Strong Start Participants and U.S. Childbearing Population

	AABC Strong Start	U.S. 2015¹
Age <18 years	2.7%	1.6%
African-American	13.0%	16.1%
Hispanic	23.4%	23.2%
Education <12 years	16.7%	10.5%
Unmarried	54.0%	40.3%
Medicaid or CHIP	100%	48% ²

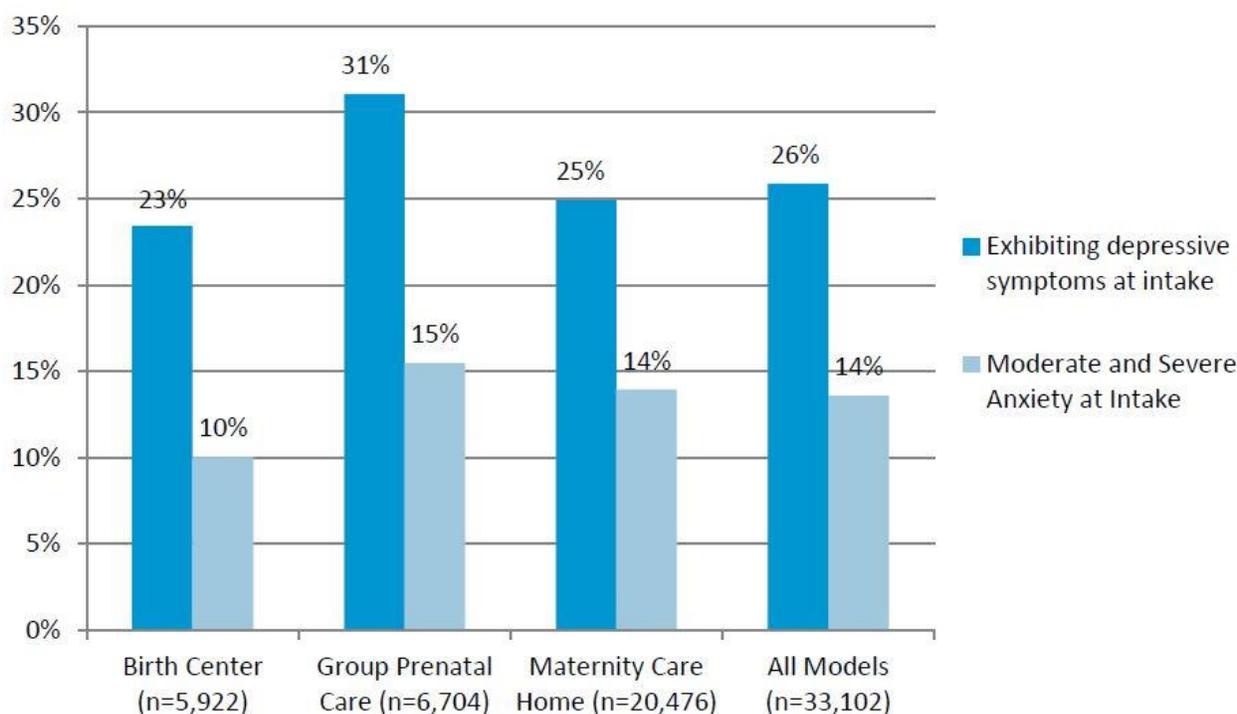
1 United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics.

2 Smith, V., Gifford, K., Ellis, E., Edwards, B., Rudowitz, R., Hinton, E., Antonisse, L., Valentinem, A. (2016).

AABC Strong Start Comparison to Other Models

Medicaid beneficiaries tend to experience more risk factors related to socioeconomic status and psychosocial stressors. Among Strong Start participants as a whole, nearly 26 percent presented to care with depression. Among AABC birth center clients, who tended to have lower rates of most risk factors, the rate of depression was 23% (Strong Start, 2017). In the high-risk population that Strong Start served, depressive symptoms were associated with barriers such as unemployment, food insecurity, and lack of support during their pregnancy. Multivariate analyses were conducted on the Strong Start data in the Year 3 national evaluation report and suggest that there is a significant association between depression and preterm birth as well as depression and low birthweight infants (Strong Start, 2017). These findings reinforce the need for mental health care to be integrated into planning by maternity care providers and payers.

Chart 1. Strong Start Year 3 National Evaluation Report



Hill, I., Benatar, S., Courtot, B., Blavin, F., Howell, E., Dubay, L. ...Rouse, M. (2017). *Strong Start for Mothers and Newborns Evaluation: Year 3 Annual Report*. Washington (DC): The Urban Institute.

Another finding of social and economic stressors was that overall, 19% of Strong Start participants were food insecure during pregnancy, and 60% were unemployed. Looking at just the AABC birth center participants, 18% were food insecure and 58% were unemployed during pregnancy. This points to the fact that the Strong Start population in birth centers experienced more stressors than typical low-risk women.

In spite of such increased risks, the results of this analysis show that AABC Strong Start has the potential to make a significant difference. We believe the focus on relationship-building that happens during longer prenatal visits at birth centers and the emphasis on client engagement in health education are key contributors to positive outcomes. Given the psychosocial challenges of some of the Strong Start participants, the additional time provided through the midwifery care and peer support elements of AABC's program have contributed to reduced preterm and low birthweight babies.

After controlling for demographic and risk factors, national evaluators found birth center participants were the least likely to have a C-section or an elective induction (Strong Start, 2017). These findings are particularly encouraging considering the potential for cost savings

from healthier mothers and babies and from avoiding unnecessary interventions. The birth center model also had the highest rate for vaginal birth as a percentage of women who planned to deliver vaginally, among the three Strong Start models (Strong Start, 2017).

AABC Strong Start Model, Outcomes and Addressing Disparities

Prenatal care in the birth center model is time intensive and relationship-based, where women feel engaged, comfortable and supported by the midwife and other birth center staff. This model of prenatal care does require more time from the provider, so fewer women are seen per day than in usual care. However, the resulting outcomes demonstrate that when more women have access to birth center care and are engaged in that care, the potential for better health and cost savings to Medicaid is high. Of this group of 8,389 enrollees, 222 experienced first trimester loss and 1,873 moved or changed care providers during pregnancy. Of the remaining women who participated in birth center prenatal care, outcome and birth data is available for 6,202 women and infants.

Mode of Birth. Over 85% of the women in the AABC portion of Strong Start had a spontaneous vaginal birth and 12.38% had a cesarean birth. Operative vaginal birth was rare and mode of birth was unknown for 45 (0.73%) women. The primary cesarean rate was 8.68%, while 3.71% of women had repeat cesarean births. These cesarean rates, including the total cesarean rate of 12.38%, includes women admitted to the hospital in labor, those admitted to the birth center in labor, and those that were transferred from birth center to hospital during labor. When looking at just the group of women admitted to the birth center in labor, the cesarean rate was 5.4%. The U.S. cesarean rate for 2015 was 32.0%, more than 2 ½ times higher than in this group of Strong Start participants.

Table 2. Mode of Birth for AABC Strong Start Participants

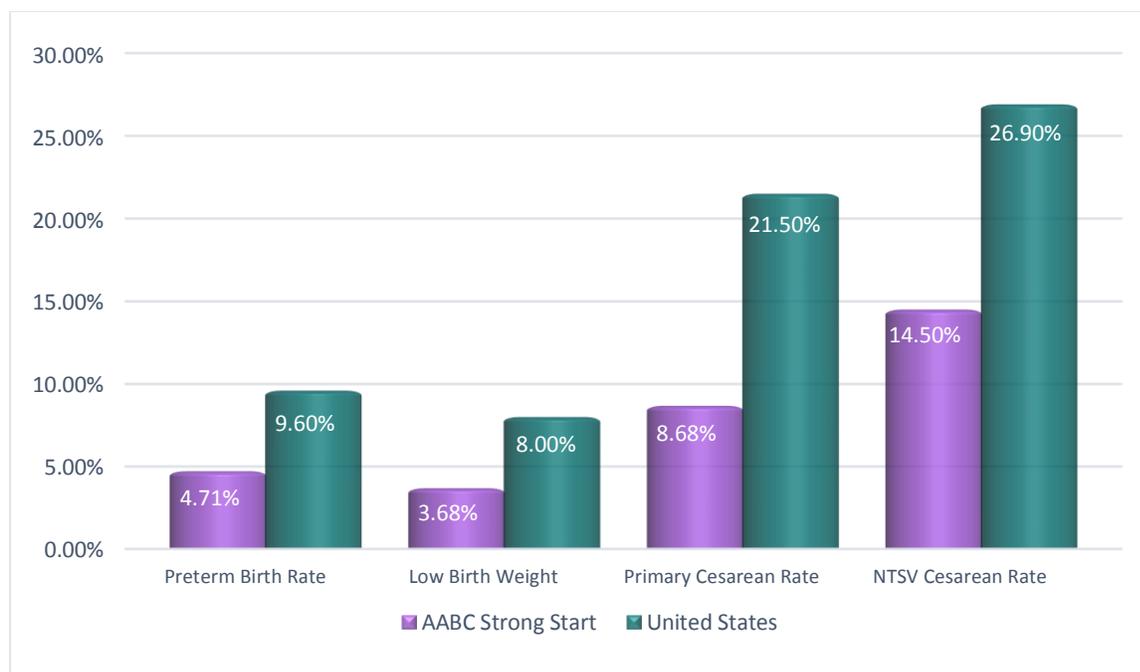
Mode of Birth	Number of Women N=6202	Percent
Spontaneous Vaginal Birth	5312	85.65%
Primary Cesarean Birth	538	8.68%
Repeat Cesarean Birth	230	3.71%
Total Cesarean Births	768	12.38%
Operative Vaginal Birth	77	1.24%
Unknown	45	0.73%

Preterm Birth. The overall preterm birth rate for the AABC Strong Start group was approximately half the national rate, with 292 (4.71%) of women giving birth at less than 37 weeks gestation. Of these, only 35 (0.56%) had a very preterm birth (VPTB - less than 32 weeks) and 256 (4.13%) gave birth between 32 weeks and 36 weeks 6 days (PTB).

Low birth weight occurred in 3.68% of newborns who weighed less than 2500 grams at birth, with 46 (0.75%) of those weighing less than 1500 grams (Very Low Birth Weight). Of the 228 low birth weight newborns, all except 8 were singletons and 6 were antepartum intrauterine fetal deaths.

National rates during the same time period were twice as high. In 2015, the rate of preterm birth was 9.63% (Martin, Hamilton, Osterman, 2017). The national rate of low birth weight was 8.07% and very low birth weight was 1.4% in 2015. All of these were higher in non-Hispanic Black women, with a rate of 13.35% of low birth weight and 2.89% for very low birth weight for these women.

Chart 2. AABC Preterm, Low Birth Weight, Primary and NTSV Cesarean and U.S.^{1,2,3,4}



1 American Association of Birth Centers, Birth Center Outcome Data from AABC Perinatal Data Registry, Perkiomenville, PA. Unpublished data. Retrieved October, 2017.

2 Martin JA, Hamilton BE, Osterman MJK, et al. (2017). Births: Final data for 2015. National vital statistics report; Vol 66, no 1. Hyattsville, MD: National Center for Health Statistics.

3 Fact Sheet: Maternity Care. (2015). Retrieved November 11, 2015, from <https://leapfroghospitalsurvey.org/web/wp-content/uploads/FSmaternity.pdf>

4 Osterman MJK, Martin JA. Trends in low-risk cesarean delivery in the United States, 1990–2013. National vital statistics reports; Vol 63 no 6. Hyattsville, MD: National Center for Health Statistics. 2014.

African American Women. A population that experiences disparities for preterm and low birth weight are African American women. The 744 African American women participating in Strong Start at AABC birth centers had rates of both preterm birth and low birth weight that were lower than rates nationally. Approximately 5% had preterm births, with 10 (1.34%) of those experiencing VPTB and the remaining 30 (4.03%) giving birth between 32 weeks and 36 weeks 6 days. Forty-six (6.18%) had newborns weighing less than 2500 grams, with 10 (1.34%) VLBW, weighing less than 1500 grams.

Previous Preterm Birth. One factor that increases risk of preterm birth is a preterm birth in a previous pregnancy. Those at highest risk are women who have experienced a previous spontaneous preterm birth. Studies have reported a rate of subsequent preterm birth of 31.6% in women with a previous spontaneous preterm birth. Almost 7% of the 8,389 women reported a history of one or more previous preterm births, with 111 (1.32%) of those reporting more than one preterm birth. The total preterm birth rate for this particularly high-risk group of AABC participants for the Strong Start pregnancy was 14.6%.

Table 3. Preterm and Low Birth Weight Rates, Strong Start Birth Centers Compared to U.S.

	AABC Strong Start All Races	U.S. All Races	AABC Strong Start African-American	U.S. African- American
Preterm Birth¹	4.71%	9.63%	5.38%	13.41%
Very Preterm Birth²	0.56%	1.59 %	1.34%	3.09%
Low Birth Weight³	3.68%	8.07%	6.18%	13.35%
Very Low Birth Weight⁴	0.58%	1.40%	0.67%	2.89%

¹ Births of less than 37 completed weeks of gestation based on the obstetric estimate of gestation

² Births of less than 32 completed weeks of gestation based on the obstetric estimate of gestation

³ Less than 2,500 grams

⁴ Less than 1,500 grams

Replicating AABC Strong Start

The following examples of cost savings from increased utilization of birth center care are based on estimates of cost of preterm birth and cesarean section by the IOM (2007) and Stapleton et al. (2013).

Cesarean prevention savings. For every 10,000 births to women in birth centers who are Medicaid beneficiaries compared to 10,000 hospital births, we could expect approximately 75% fewer cesareans which would lead to significant savings (expect 600 sections for Medicaid birth center clients and 2,400 in hospital).

Using the financial model in Stapleton et al. (2013), savings to Medicaid would be **\$4.6 million** in facility charges alone for the cesareans prevented **for every 10,000 births in the birth center**. This does not include expected further savings from decreased morbidity and avoidance of further complications with longer hospital stays with cesareans, or other savings from using the birth center facility.

Preterm birth prevention savings. Every preterm birth has an average lifetime cost of at least \$50,000 (IOM, 2007). The national preterm birth rate varies with populations but averaged 9.6% for 2015 (Martin et al., 2017). For some populations and underserved areas of the U.S., rates are much higher than this. The preterm birth rate for Medicaid beneficiaries in Strong Start birth centers was 4.71% for >6200 births, which is 49% of the national average.

If 10,000 women who are Medicaid beneficiaries had prenatal care in the birth center rather than usual care, this could potentially save **489 preterm births and more than \$24 million for every 10,000 women**. These estimates do not include many indirect savings from fewer complications and healthier mothers and babies. These savings include decreased cost and stress to families, and less stress to providers and the healthcare system from fewer high-risk maternity outcomes.

Facilitate Access to Freestanding Birth Centers for Medicaid Beneficiaries

Strong Start outcomes demonstrate that freestanding birth centers using midwifery care providers achieve better outcomes for lower-risk Medicaid beneficiaries than usual care. Care is more time intensive so midwives see fewer women per day than in usual care. However, this care model is of higher value, thus more productive, leading to significant savings with healthier mothers and babies. In current fee-for-service billing models, this enhanced prenatal care is

reimbursed by Medicaid at the same low levels as usual care with brief visits. Many of the 315 birth centers in the US must limit Medicaid beneficiaries due to such inadequate reimbursement. We propose the following solutions to increase access to and utilization of birth center care.

Proposed solutions

- 1) Institute alternative payment models with bundling for birth center care, at rates that sustain birth center facilities. (Demonstration models may be needed initially.)
- 2) Add new demonstration model birth centers in low-resource areas to address poor outcomes in underserved areas. Part of the demonstration model would include prospective payment model development for Medicaid and CHIP beneficiaries. (These could be located in existing clinic or retail space.)
- 3) In low-resource areas, freestanding birth centers would serve as primary maternity care entry points that would triage and begin care earlier in pregnancy, then after screening could refer higher-risk pregnancies to obstetric-gynecologists or perinatologists, or other specialties as needed in regional centers.
- 4) To advance value-based payment models to birth centers, develop and adapt model legislation to extend birth center legal recognition to all remaining states and ensure that statutes require integration of freestanding birth centers into existing systems of care including hospital interaction and collaboration.
- 5) To improve access to value-based care, mandate that freestanding birth center services be included by Medicaid Managed Care Organizations and TRICARE Managed Care Organization networks without requiring written hospital agreements.
- 6) To improve access to value-based care, include all healthcare providers licensed to provide maternity care in a birth center setting including but not limited to certified nurse-midwife (CNM), certified professional midwife (CPM), and certified midwife (CM) by Medicaid Managed Care Organizations and TRICARE Managed Care Organization networks.
- 7) In all Medicaid and Medicare programs, ensure that freestanding birth centers are reimbursed at a sustainable level by adding codes for the freestanding birth center facility to the Medicare fee schedule, with input from AABC.
- 8) Add billing codes and reimbursement for effective evidence-based services, such as birth center enhanced prenatal care, peer counselor support, and doula care in labor and birth.

Summary

Demonstration projects for prospective payment and/or bundled payments by Medicaid to freestanding birth centers for this high value, effective care model are a sensible plan to increase access. Payment would need to be sufficient for care to be provided effectively. Putting more time, education, and support into the beginning of pregnancy pays off with fewer costly complications at the end of pregnancy. Savings to Medicaid over the long run would far exceed initial costs for enhanced prenatal care. Removal of other barriers to these high-value, independent health care facilities will improve growth of birth centers in underserved and low-resource areas, helping to address the maternity care provider shortage.

AABC welcomes further discussion on these proposed initiatives that would enhance and improve access to high-quality maternity care services. Improving access to freestanding birth centers would lead to significant cost savings while improving maternal and infant health for more Medicaid beneficiaries. From our experience with Strong Start, we learned that Medicaid beneficiaries will choose this model of care when it is available to them.

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