Midwifery Care in Birth Centers:
Advancing Birth Equity

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Better Beginnings

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Helpful Definitions

Preterm Birth: infant born before 37 weeks' gestation

Low Birthweight: infant born weighting under 2500 grams (~5.5 pounds)

Typical prenatal care: a medically-focused approach characterized by short (5-15 minute) individual visits with a provider, which may or may nor be supplemented by additional support services and education.

Midwifery care in a birth center: State Licensed midwives in state licensed birth centers

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Preterm Birth and its Consequences

- Approximately 10% of U.S. infants are born preterm each year. 13-14% are African-American
  - Some demographic groups have much higher rates
- The United States ranks #54 in the world in rates of preterm birth
- Preterm birth is a leading cause of infant mortality
- Preterm rates have remained intractably high (have risen slightly in recent years)

Preterm infants have many long and short term health problems

- Respiratory problems
- Feeding difficulties
- Infections
- Impaired vision and hearing
- Developmental delays and disabilities

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Prenatal Care in the United States

- Maternity Care is in the U.S. is the most expensive in the developed world
- Dominated by medical model delivered by physicians (usually obstetricians) even for low-risk pregnancies
- Standard recommendation for a healthy pregnancy: 9-12 individual visits.
  - Visits are usually scheduled for every 8-15 minutes but last less time because of charting, hand washing, moving from room to room, etc.

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Strong Start for Mothers and Newborns

Can Prenatal Care Make a Difference?

Enhanced prenatal care initiative to improve outcomes for low-income women and infants

- **Preterm birth rates**
- **Low birthweight**
- **Cost of care**

27 awardees with 211 sites in 32 states, D.C. and Puerto Rico

Three evidence-based enhanced prenatal care models

- **Birth Centers**
- **Group Prenatal Care**
- **Maternity Care Homes**

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Client Centered Care in a Friendly Environment

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Enhanced Prenatal Care

- Individualized health education and support for parenting, lactation, and mental health
- Building relationship of trust, support, respect
- Timely access and adequate time for prenatal visits
- Continuity of care with the same providers including phone access and triage
- Shared decision-making

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Midwifery Model Prenatal Care

Components of Enhanced Care

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Strong Start Births by Location

BIRTH LOCATION (N=6424)	Number	Percent
Hospital	3374	52.5%
Birth Center	2797	43.5%
Planned Home	176	2.7%
Enroute or Unplanned Home	77	1.2%

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Birth Attendant: Midwife

BIRTH ATTENDANT – MIDWIFE (N=6424)	Number	Percent
CNM/CM	3495	54.4%
CPM/LM	649	10.1%
Total Midwife Attended Births	4144	64.5%

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Place of first admission in labor

PLACE OF FIRST ADMISSION IN LABOR (N=6424)	Number	Percent
Birth Center	3167	49.30%
Hospital	2987	46.50%
Home	193	3.00%
Enroute or Unplanned Home	77	1.20%
TOTAL	6424	100.00%

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Outcomes Strong Start vs National Data

MATERNAL / INFANT HEALTH INDICATOR	Strong Start	United States
Preterm Birth	4.4%	9.85%[i]
Low Birth Weight	3.7%	8.17%[i]
Very Low Birth Weight	0.7%	1.40%[i]
Primary Cesarean	8.7%	21.8%[ii]
Total Cesarean (includes repeat)	12.3%	31.9%[i]

[i] Martin, J., Hamilton, B. Osterman, M. (2018)
[ii] Osterman, M., Martin, J. (2014)

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Preterm and Birthweight Racial Disparities

	Strong Start All Races N=6424	U.S. All Races	Strong Start African-American n=764	U.S. African-American
Preterm Birth[a]	4.42%	9.85%	4.97%	13.77%
Very Preterm Birth[b]	0.67%	1.59 %	1.04%	3.18%
Low Birth Weight[c]	3.61%[e]	8.17%	5.89%[f]	13.68%
Very Low Birth Weight[d]	0.55%[e]	1.40%	1.17%[f]	2.95%

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Cesarean Racial Disparities and Strong Start

	Strong Start All Races [1]	U.S. All Races[2]	Strong Start African-American	U.S. African-American
Cesarean Section	12.3%	31.9%	15.1%	35.5%

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Birth Suites

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Comparison Group

- Women with Medicaid-covered births in same counties as Strong Start participants who received typical care
- Vast majority of typical care practiced in private solo and/or group practices, Federally Qualified Health Centers, and hospital outpatient department clinics
- Sensitivity analysis conducted in similar counties where awardees suggested they treated most eligible women in county

Typical Care

- **Medical in nature**
- **Overly interventionist**
- **Insufficient health education**
- **Often lacks provider continuity**

Findings: Birth Center Care

- higher gestational age
- lower preterm birth rate
- higher birthweight
- lower low-birthweight rate
- lower c-section rate
- higher VBAC rate
- higher weekend delivery rate

Outcomes	Main Model: 2014 - 2016, Strong Start (N=3,432)	Main Model: 2014 - 2016, Comparison Group Reweighted (N=325,647)	Main Model: 2014 - 2016, Difference	Significance of Difference
Birth Outcomes				
Clinical gestational age (weeks)	39.0	38.6	**0.4**	**p <0 .01**
Preterm birth rate	6.3%	8.5%	**-2.2**	**p < 0.01**
Very preterm birth rate	1.7%	2.2%	-0.4	n.s.
Birthweight (grams)	3,342.8	3,263.8	**79.0**	**p < 0.01**
Low birthweight rate	5.9%	7.4%	**-1.5**	**p < 0.05**
Very low birthweight rate	1.0%	1.1%	-0.1	n.s.
Rate of Apgar score greater than or equal to 7	98.2%	98.2%	0.0	n.s.
Process Outcomes				
C-section rate	17.5%	29.0%	**-11.5**	**p < 0.01**
VBAC rate	24.2%	12.5%	**11.6**	**p < 0.01**
Weekend delivery rate	23.7%	19.8%	**4.0**	**p < 0.01**

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Findings: Birth Center Expenditures and Utilization

- Lower expenses during labor and birth period
- Lower expenses in year following birth
- Lower infant ED visits
- Lower infant hospitalizations

Outcomes	Main Model: 2014 - 2015 Births, Strong Start (N=1,853)	Main Model: 2014 - 2015 Births, Comparison Group Reweighted (N=114,409)	Main Model: 2014 - 2015 Difference	Significance of Difference
Expenditure Outcomes (Means)				
Prenatal care expenditures	$2,203	$2,192	$10	n.s.
Total expenditures during delivery period	$6,527	$8,286	**-$1,759**	**p < 0.01**
Total delivery and post-delivery expenditures	$10,562	$12,572	**-$2,010**	**p < 0.01**
Utilization Outcomes (Means)				
ED visits 8 months before delivery month	1.19	1.16	0.03	n.s.
Hospitalizations 8 months before delivery month	0.03	0.03	0.0	n.s.
Days in NICU	0.71	0.95	-0.24	n.s.
ED visits for mother 11 months after delivery month	0.63	0.67	-0.04	n.s.
Hospitalizations for mother 11 months after delivery month	0.04	0.04	0.01	n.s.
ED visits for infant in the first year of life	0.86	0.99	**-0.13**	**p < 0.01**
Hospitalizations for infant in the first year of life	0.07	0.08	**-0.01**	**p < 0.05**

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Summary Implications for Medicaid

- If more pregnant beneficiaries accessed Birth Centers for maternity care, they would likely experience better birth outcomes, and Medicaid would save money

- Birth center care is high value care for Medicaid beneficiaries — even if they receive only prenatal care in the birth center
- Medicaid beneficiaries are satisfied with birth center care
- Currently, only small fraction of Medicaid women obtain Birth Center care
- State regulations can limit supply of Birth Centers available to pregnant women
- Medicaid policy can hinder development of enhanced prenatal care models

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Strong Start's Lessons: Moving the Needle on Preterm Birth

- Maternity care in U.S. currently dominated by medical model delivered by physicians and hospitals
- Midwifery model of care – more holistic, time intensive, and focused on health education and psychosocial support – could be practiced by any provider in any setting
- Moving forward, comprehensive prenatal care addressing medical ***and*** social determinants of health will be necessary to improve outcomes

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What You Can Do

- Become familiar with Strong Start outcomes so you can discuss how midwifery care in the birth center setting lowers preterm birth, low birth weight, cesarean rates and other disparities
- Fund pilot programs that have midwifery and birth centers, insist health insurance companies contract with midwives and birth centers, fund research and analysis for adequate comparisons to lower risk Medicaid beneficiaries in hospital care
- Support legislation for better access to and reimbursement for birth center care for Medicaid beneficiaries
- Ask your US Representative to Co-Sponsor the BABIES Act

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Questions??

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