Access to doula support during childbirth: Implications for clinical care, policy, and health insurance coverage

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Learning objectives

1. To provide an overview of trends and costs in US maternity care
2. To describe the role of a doula in childbirth
3. To review relevant research findings about doula-supported births
4. To understand Minnesota's current law about Medicaid payment for doula services
5. To discuss the relevance of doula services in the context of maternity care in Minnesota
Being pregnant and welcoming a baby can be a joyful time in a woman’s life.

Maternity care clinicians enjoy caring for pregnant women and helping welcome life into the world.

But, as a country, we’ve got some problems.
U.S. Sees Biggest Increases In Maternal Death Rates In Developed World Since 1990

U.S. maternal mortality ratio per 100,000 live births, 1990-2013

Percent change in maternal deaths per 100,000 live births, 1990-2013

- United States: -3.1%
- Developed countries: -1.4%
- Developing countries: -1.3%
- Worldwide: +1.7%

Source: The Institute for Health Metrics and Evaluation/The Lancet

THE HUFFINGTON POST
Persistent racial/ethnic disparities in maternal and infant deaths and adverse birth outcomes.
U.S. childbirth – it’s expensive!

- Approximately 8% of hospital costs are for maternity and newborn care ($27 billion)
- Nearly half of births (48%) are covered by Medicaid
- Average total costs of maternity care (prenatal, labor and delivery, postpartum) in 2010
  - Medicaid: $13,590 for a cesarean delivery and $9,131 for a vaginal delivery
  - Private health insurance: $27,866 for a cesarean delivery and $18,329 for a vaginal delivery
Across the pond...

- Kate Middleton’s 2013 vaginal delivery of Prince George in the private Lindo Wing of St. Mary’s hospital
  - £4,965, or $7,621, for a one-night stay, with additional nights costing an extra £1,000 each
  - Total estimated cost of the royal birth=$15,000
Royal baby #2 – May 2015

• Midwife-assisted vaginal delivery
• Time from admission to delivery = 154 mins
• Total time in the hospital = 12 hours
• Total cost ~ $5-6K
Are we doing better with all the $ we spend?

- A recent article in the Guardian in the UK highlights the relatively unfavorable ranking in MMR internationally.

- But the situation in the US is worse, almost double the MMR of the UK.
U.S. maternal health outcomes

• U.S. public health goals
  – High expectations: Healthy People 2010 goal of 3.3 deaths per 100,000 live births
  – Reality: 12.7 maternal deaths per 100,000 live births occurred in 2007
  – Healthy People 2020 target: 11.4 maternal deaths per 100,000 live births (10 percent improvement)

• Racial/ethnic disparities
  – Black women are 3 times more likely to die in childbirth than white women, unchanged for 20 years
How can the healthcare system support change? A leverage point?
What is a doula?

• The Doula Organization of North America (DONA), defines a doula as a “trained and experienced professional who provides continuous physical, emotional and informational support to the mother before, during and just after birth; or who provides emotional and practical support during the postpartum period.”

• Unlike physicians, midwives, and obstetrical nurses who provide medical care, a doula provides support in the nonmedical aspects of labor and delivery.
The evidence is clear.

- Women with continuous labor support have:
  - higher rates of spontaneous vaginal birth
  - lower odds of cesarean delivery
  - lower rates of regional anesthesia (i.e. epidural)
  - lower rates of instrument-assisted delivery (i.e. forceps and vacuum)
  - shorter labors
  - higher levels of satisfaction
Obstetric Care Consensus: Safe Prevention of the Primary Cesarean Delivery

American College of Obstetricians and Gynecologists and the Society for Maternal Fetal Medicine (March 2014):

“Published data indicate that one of the most effective tools to improve labor and delivery outcomes is the continuous presence of support personnel, such as a doula. A Cochrane meta-analysis of 12 trials and more than 15,000 women demonstrated that the presence of continuous one-on-one support during labor and delivery was associated with improved patient satisfaction and a statistically significant reduction in the rate of cesarean delivery. Given that there are no associated measurable harms, this resource is probably underutilized.”
Access to doula care

• Financial access
  – Doula care packages costs range from $500-$1500
  – Health insurance typically does not cover doulas

• Cultural access
  – Most doulas are white, upper-middle class women
  – Most clients are white, upper-middle class women

• Geographic access

• Women at risk of poor birth outcomes
  – Racial/ethnic and cultural minorities
  – Low-income (Medicaid recipients) and uninsured
Findings from our prior research:

• Women supported by doulas had significantly lower cesarean rates.
• Doula support reduces racial/ethnic disparities in breastfeeding initiation.
• Potential cost savings to Medicaid programs associated reductions in cesarean rates are substantial.
• State Medicaid programs should consider offering coverage for birth doulas
Current research: preterm birth

- Risk of preterm birth is affected by medical risks, stress, and lack of support. Could a doula help?

The goal of this study was to measure rates of preterm birth among Medicaid recipients who had prenatal doula support, compared with similar women nationally, and to assess the cost effectiveness of this approach.
Data and study population

• Doula-supported births
  – n=1935 MN Medicaid funded singleton births (2010-2014)
    • Mean number of prenatal visits = 3.77 (range 1-8)
    • 27% had >1 visit before 3rd trimester

• National sample
  – 2011 HCUP NIS, 20% sample of hospitals
  – n=351,921 Medicaid funded, singleton births
Variable measurement

• Preterm birth
  – Doula administrative data: GA at birth (<37)
  – NIS data: ICD-9 codes (6442x)

• Covariates
  – Age
  – Race/ethnicity
  – Maternal hypertension
  – Maternal diabetes
Analysis

• Relationship between doula support and preterm birth
  – Multivariate logistic regression

• Cost-effectiveness of Medicaid coverage for doula services
  – Endpoints: cesarean/vaginal + term/preterm
  – Costs: March of Dimes, Truven Analytics
  – Decision-analytic model
    • probabilistic sensitivity analysis (Monte Carlo simulation)
    • Incremental cost effectiveness analysis (metamodelling and doula reimbursement range $200-$1200)
2 key findings

1. Women who received doula support had lower preterm birth rates than Medicaid beneficiaries generally (4.7% vs. 6.7%)
   - After adjustment for covariates, women with prenatal doula care had 32% lower odds of preterm birth (AOR=0.676, 95% CI [0.546, 0.837]).
     • CenteringPregnancy (33-47% reduction)
   - Prior study: Women at highest risk (black, uninsured) also most likely to want but not have doula support

2. Cost analyses indicate potential value to Medicaid: cost savings over the first year of life for infants born to women with prenatal doula support
Limitations

- Doula data from one state
- Non-contemporaneous, but preterm birth rates stable
- Limited available data on relevant covariates
- Not sufficient sample size for dose response analysis of prenatal doula visits
- Cost analyses are estimates
- Selection bias - causality cannot be definitely established (prospective studies needed)
Clinical and policy implications

• Clinical interventions that effectively lower preterm birth risk are few; nonmedical approach may be warranted

• Policymakers should help facilitate access to doula services

• Potential benefits to Medicaid programs
  – Health
  – Financial

• Why not? It’s really complicated….
Minnesota context

• On May 23, 2013, Governor Dayton signed “the doula bill” (SF 699, HF 768) into law as part of the Omnibus health bill (SF 1644, HF1233)

• Starting in July, 2014, Minnesota Statues Chapter 108, Sec. 11 allows Medicaid payment for services from a certified doula for pregnant women in Minnesota
Sec. 11. Minnesota Statutes 2012, section 256B.0625, is amended by adding a subdivision to read:

Subd. 28b. Doula services. Medical assistance covers doula services provided by a certified doula as defined in section 148.995, subdivision 2, of the mother's choice. For purposes of this section, "doula services" means childbirth education and support services, including emotional and physical support provided during pregnancy, labor, birth, and postpartum.
Implementation – Payment (DHS)

• Setting up payment structure
  – Enrollment of providers
  – Clinical supervision/NPI number
  – Confusion among women, clinicians, health plans

• Current status
  – State Plan Amendment approved by CMS on 9/25/2014
  – Reimbursement rate ($411/6 visits + birth)
  – Managed care contract discussions (1 currently in place)
Implementation – Certification (MDH)

• Quality assurance mechanism
• Minnesota State Doula Registry
  – Registration fee ($136)
• Certified doulas must be trained by one of 7 entities
  – Currently named in statute, but plans to change to reflect competencies, not organizations
• How to ensure quality of training and documentation without a huge burden on doulas, clinicians, and government entities?
Fixes in the works

• Clarification regarding “supervision” requirement and role of supervising clinicians
  – Or….should doulas be “licensed” so that they can bill Medicaid directly?
• Defining certification requirements as core competencies, not organizations
• Registry access for organizations (not just individuals)
• Fee waivers, addressing barriers to entry
• Education/outreach to clinicians and health systems
References


Thank you

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