Executive Summary

In 2011, the Oregon legislature passed House Bill 3311. This directed the Oregon Health Authority to explore options for providing or utilizing doulas in the state medical assistance program to improve birth outcomes for women who face a disproportionately greater risk of poor birth outcomes.

Based on the data analyzed by the Committee, the recommendation of the Cochrane Review, the existence of both local and national professional certification models, and the outcome data from local and national doula models, the Committee recommends doulas as a strategy to decrease health inequities in Oregon's birth outcomes. Additionally, the Committee recommends doulas as an overall strategy to improve birth outcomes funded by both Medicaid and private insurance.

Oregon Health Authority data clearly demonstrate a consistent pattern of disparities in birth outcomes between women of color and the Non-Latino white population regardless of geography or payer. As Oregon's population grows and diversifies[i], it is essential that these disparities be addressed.

The Cochrane Review, considered by many to be the gold standard for analysis of human health care and health policy research, reviewed research on the doula model in 2003 and again in 2011 and concluded that:

> Continuous support during labor should be the norm, rather than the exception. All women should be allowed and encouraged to have support people with them continuously during labor. In general, continuous support from a caregiver during labor appears to confer the greatest benefits when the provider is not an employee of the institution, when epidural analgesia is not routinely used, and when support begins in early labor.

Evidence also demonstrates that providing a doula for women during pregnancy, childbirth and postpartum reduces poor birth outcomes among women of color and Non-Latino white women.

Definition

A 'doula' is a certified professional who provides personal, non-medical support to women and families throughout a woman's pregnancy, childbirth and postpartum experience.

The doula's role is to help women have a safe, memorable and empowering birthing experience. Because doulas traditionally come from the communities they serve and have an intimate knowledge of the culture, they are uniquely positioned among the health care workforce to improve birth outcomes. It is an appropriate expectation that doula models supported by the state medical assistance program contribute to the elimination of health disparities related to maternal and infant health.

Scope of Practice

The following activities fall within the scope of practice for doulas:

- Provide prenatal education and assist the woman in preparing for and carrying out her plans for birth.
- Provide information on general health practices pertaining to pregnancy, childbirth, postpartum, newborn health, and family dynamics.
- Increase understanding of complications that can arise during labor, delivery and the postpartum period.
- Provide emotional support, physical comfort measures, and help the woman get the information she needs to make informed decision pertaining to childbirth and postpartum.
- Provide support for the whole birth team including woman's partner and family members.
- Provide evidence-based information on infant feeding.
- Provide general breastfeeding guidance and resources.
- Provide infant soothing and coping skills for new parents.
- Provide postpartum support that honors cultural and family traditions.
- Facilitate and assure access to resources that can improve birth-related outcomes (including transportation, housing, ATOD cessation, WIC, SNAP, intimate partner violence resources).

A number of models using doulas to address inequitable birth outcomes exist across the country and are highlighted in summary in the report and in more detail in Appendix E.

Certification

The House Bill 3311 Implementation Committee recommends that Oregon's process for certification align with nationally recognized doula certification programs. The Committee recommends that all training and certification programs, both national and local, meet the competency standards set by recognized national bodies in order to be recognized in Oregon.

The Committee identified cultural competence as an additional core competency currently not addressed by national certifying bodies. Therefore, the Committee recommends that certification bodies approved in Oregon align with both the national standards and cultural competence training expectations.

Supervision

Medicaid reimbursable activities of doulas would be overseen by a qualified health professional, within the state defined scope of practice for the specific type of worker, and documented in the patient's medical record.

Based on national evidence, the House Bill 3311 Implementations Committee strongly believes that doulas should be integrated in Oregon's health systems transformation process. Doing so will not only ensure healthier births for women and their children, but will also mitigate costs associated with poor birth outcomes.

Recommended Approach to Integrating Doula Models into State Medical Assistance

The House Bill 3311 Implementation Committee believes that pursuing federal flexibility from CMS to reimburse for doula services is the most viable option for incorporating doulas into Oregon's medical assistance program to improve birth outcomes for the state's most vulnerable women.

Overview

In 2011, the Oregon legislature passed House Bill 3311, which required the Oregon Health Authority to explore options for providing or utilizing doulas in the state medical assistance program to improve birth outcomes for women who face a disproportionately greater risk of poor birth outcomes. The legislation is available in Appendix A.

As such, the Office of Equity and Inclusion (formerly the Office of Multicultural Health and Services) and the Office of Family Health established and convened the House Bill 3311 Implementation Committee, a culturally and professionally diverse group that includes community based organization leaders, health care providers, health systems administrators and doulas. The group, which convened in September 2011, was tasked with delivering a report to the Legislature describing:

- Women who face a disproportionately greater risk of poor birth outcomes
- Promising models for providing or utilizing doulas
- Approaches to integrate doula models into the state medical assistance program

This report provides an overview of the Committee's work, including a review of the data identifying women who face higher risk of poor birth outcomes, the definition and scope of practice for doulas, evidence of the effectiveness of the doula model, including cost savings, a description of proposed certification models in Oregon, and options for integrating doulas in the state medical assistance program.

Process

The House Bill 3311 Implementation Committee has been guided by House Bill 3311 and the Oregon Health Policy Board's 2010 report *Oregon's Action Plan for Health*, which identified peer-supported services as a critical method for eliminating health disparities and by the Oregon Health Authority's Triple Aim:

- Improving the lifelong health of all Oregonians;
- Improving the quality, availability and reliability of care for all Oregonians, and;
- Lowering or containing the cost of health care so that it is affordable for everyone.

Committee members were appointed to represent a broad spectrum of stakeholder organizations, including: health systems, insurers, educational institutions, behavioral health and addictions recovery programs, community clinics, social service, community based organizations, health researchers, health care providers and practicing doulas from the field. A list of the Committee members is provided in Appendix B.

The Committee convened in September 2011 and met monthly over a four-month period to develop their recommendations. The process included reviewing state birth outcomes data and

conducting a scan of state and national research on existing legislation, published research, and programs currently utilizing doulas. The Committee also disseminated a survey to practicing doulas in Oregon to assist the committee in identifying and establishing a scope of practice and the core competencies necessary to effectively fulfill that scope. From there, education and training requirement recommendations were developed to align with the competencies.

Analysis of Women who Face Disparate Birth Outcomes in Oregon

The House Bill 3311 Implementation Committee reviewed Oregon data to determine which populations face a disproportionately greater risk of poor birth outcomes. The data in this report were gathered from Oregon Vital Records 2008-2010 and the Oregon Pregnancy Risk Assessment Monitoring System (PRAMS; 2009-2010 Births). The data analysis is available in full in Appendix C.

The comparison chart outlines how the following racial and ethnic populations compare to non-Latino whites:

- Hispanic/Latino;
- Non-Latino Black or African American;
- Non-Latino American Indian or Alaska Native;
- Non-Latino Asian;
- Non-Latino Pacific Islander;
- Non-Latino Multiple Race

The chart also disaggregates the above-mentioned racial and ethnic populations by those with Medicaid paid birth and those with births not paid by Medicaid, as well as those who live in urban areas and rural areas. In each of the categories, racial/ethnic populations are compared to their white counterparts in the same category.

The following indicators were used to determine birth outcomes:

- Premature birth
- Low birth weight
- Cesarean delivery
- Apgar Score
- Medicaid OHP Births as the principal payment source
- Infant Mortality
- Breastfeeding Initiated
- Postpartum Depression

Results

Overall

As shown in Table 1, Non-Latino African Americans faced the most disparate birth outcomes, using the above-mentioned indicators, followed by Non-Latino American Indians and Non-Latino Multiple Race individuals. Hispanic/Latinos, Non-Latino Asians and Non-Latino Pacific Islanders also faced disparate outcomes in comparison to the Non-Latino white population.

Table 1: Disparities in Birth Outcomes

Based on statistical significance compared to Non-Latino White.

Based on statistical significance compared to Non-Latino White						
Indicator	Hispanic/ Latino	Non-Latino African American	Non-Latino American Indian	Non-Latino Asian	Non-Latino Pacific Islander	Non-Latino Multiple Race
Premature Birth	○	▲	▲	○	▲	▲
Low Birthweight	○	▲	▲	▲	▲	▲
Cesarean Delivery	○	▲	○	▲	▲	▲
Apgar Score	○	▲	○	○	○	○
Medicaid/OHP Births *(principal payment source)*	▲	▲	▲	○	○	▲
Infant Mortality	▲	▲	▲	○	○	○
Breastfeeding Initiated	○	○	○	○	○	○
Postpartum Depression Symptoms	○	○	○	○	○	○

Referent group is Non-Latino White
Underlying numbers are in Appendix I
Oregon Vital Records 2008-2010: Premature Births, Low Birthweight, Cesarean Delivery, Apgar Score and Medicaid Paid Births
PRAMS 2009-2010 Births: Breastfeeding Initiated, Postpartum Depression Symptoms
See Appendix III for explanationation of multiple race variable

Symbols	
No disparity/ Doing better	○
Disparity	▲
NP: Not provided due to small numbers	

Medicaid and Non-Medicaid

As shown in Table 2, Non-Latino African Americans, and Non-Latino Pacific Islanders with Medicaid paid births and those without Medicaid paid births faced the same disproportionally worse birth outcomes than their white counterparts in both categories. Hispanic Latinos and Non-Latino Asians with births not paid by Medicaid faced disparate birth outcomes. Non-Latino Multiple Race individuals with Medicaid faced disparities in prematurity and cesarean rates, while non-Medicaid mothers faced disparities in low-birth weight and prematurity.

Table 2: Disparities in Birth Outcomes

Among those with Medicaid paid births and those with births not paid by Medicaid

Based on statistical significance compared to Non-Latino White												
Indicator	Hispanic/ Latino		Non-Latino African American		Non-Latino American Indian		Non-Latino Asian		Non-Latino Pacific Islander		Non-Latino Multiple Race	
	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid	Medicaid	Non-Medicaid
Premature Birth	○	▲	▲	▲	○	○	○	○	○	○	▲	▲
Low Birthweight	○	▲	▲	▲	○	○	○	▲	○	○	○	▲
Cesarean Delivery	○	○	▲	▲	○	○	▲	▲	▲	▲	▲	○
Apgar Score	○	○	○	○	○	○	○	○	○	○	○	○
Infant Mortality	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Breastfeeding Initiated	○	○	○	○	○	○	○	○	○	○	○	○
Postpartum Depression Symptoms	○	○	○	○	○	○	○	○	○	○	○	○

Referent group is Non-Latino White
Oregon Vital Records 2008-2010: Premature Births, Low Birthweight, Cesarean Delivery, Apgar Score and Medicaid Paid Births
PRAMS 2009-2010 Births: Breastfeeding Initiated, Postpartum Depression Symptoms
See Appendix III for explanationation of multiple race variable

Symbols	
No disparity/ Doing better	○
Disparity	▲
NP: Not provided due to small numbers	

Urban and Rural

As demonstrated in Table 3, Non-Latino African Americans, Non-Latino Asians, Non Latino Pacific Islanders and Non-Latino Multiple Race individuals living in urban settings faced more disparities than their Non-Latino white counterparts in urban areas. Non-Latino American Indians faced greater disparities in rural areas. Hispanics/Latinos living in urban settings experienced disparities in low birth weight, while those living in rural settings experienced disparities in cesarean rates.

Table 3: Disparities in Birth Outcomes

Among those who live in urban areas and those who live in rural areas

Based on statistical significance compared to Non-Latino White

Indicator	Hispanic/ Latino		Non-Latino African American		Non-Latino American Indian		Non-Latino Asian		Non-Latino Pacific Islander		Non-Latino Multiple Race	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Premature Birth	○	○	▲	○	○	▲	○	○	▲	○	▲	○
Low Birthweight	▲	○	▲	○	▲	○	▲	○	▲	○	▲	○
Cesarean Delivery	○	▲	▲	○	○	▲	▲	▲	▲	○	▲	○
Apgar Score	○	○	▲	○	○	○	○	○	○	○	○	○
Medicaid/OHP Births *(principal payment source)*	▲	▲	▲	▲	▲	▲	○	○	▲	○	▲	▲
Infant Mortality	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Breastfeeding Initiated	○	○	○	○	○	○	○	○	○	○	○	○
Postpartum depression/ symptoms	○	○	○	○	○	○	○	○	○	○	○	○

Referent group is Non-Latino White
Oregon Vital Records 2008-2010: Premature Births, Low Birthweight, Cesarean Delivery, Apgar Score and Medicaid Paid Births
PRAMS 2009-2010 Births: Breastfeeding Initiated, Postpartum Depression Symptoms
See Appendix III for explanationation of multiple race variable

Symbols	
No disparity/ Doing better	○
Disparity	▲
NP: Not provided due to small numbers	

Conclusions:
The data outlines a consistent pattern of disparities in birth outcomes between women of color and the Non-Latino white population regardless of geography or payer.

Promising Models for Providing or Utilizing Doula

Doula Definition

In order to research promising doula models, the Committee first decided on an appropriate definition of "doula."

House Bill 3311 defines doulas as the following:
"Doula" means a birth companion who provides personal, nonmedical support to women and families throughout a woman's pregnancy, childbirth and post-partum experience.

The Committee proposes the following revised definition:
A "doula" is a *certified professional* who provides personal, nonmedical support to women and families throughout a woman's pregnancy, childbirth and post-partum experience.

Doula Research Meta-Analysis

Cochrane Reviews are systematic reviews of primary research in human health care and health policy, and are internationally recognized as the highest standard in evidence-based health care. They investigate the effects of interventions for prevention, treatment and rehabilitation. They also assess the accuracy of a diagnostic test for a given condition in a specific patient group and setting. The Reviews are published online in the Cochrane Library.

A Cochrane Review of research conducted in 2011 on doula support concluded that:

> Continuous support during labor has clinically meaningful benefits for women and infants and no known harm. All women should have support throughout labor and birth…Continuous support during labor should be the norm, rather than the exception. All women should be allowed and encouraged to have support people with them continuously during labor. In general, continuous support from a caregiver during labor appears to confer the greatest benefits when the provider is not an employee of the institution[ii]

The review identifies 30 outcomes of interest for the main comparison, including:

- Labor events: e.g., artificial oxytocin, epidural analgesia
- Birth events: e.g., cesarean birth, episiotomy
- Newborn events: e.g., low 5-minute Apgar score, admission to special care nursery
- Immediate maternal psychological outcomes: e.g., anxiety during labor, negative
- Rating of experience

- Longer-term maternal outcomes: e.g., postpartum depression, difficulty mothering

Women who received continuous support were less likely to:

- Have regional analgesia
- Have any analgesia/anesthesia
- Give birth with vacuum extraction or forceps
- Give birth by cesarean
- Report dissatisfaction or a negative rating of their experience

An article summarizing the Cochrane Review on doulas can be found in Appendix D.

Evidence Based Doula Models

Numerous doula models have been developed to work with women to resolve persistent health inequities in birth outcomes through community-based, culturally-specific approaches. These models address the needs and perspectives of families, empowering families to take ownership of their prenatal experience. These doula models provide non-medical support to women and families throughout a woman's pregnancy, childbirth and postpartum experience, engage in outreach and health information provision, coordinate care, assist with system navigation and provide coaching from prenatal through postpartum phases of childbirth, thus supporting healthy birth outcomes.

A significant evidence base shows that doulas contribute to improved patient health outcomes, increased patient satisfaction, and overall health system savings. Research demonstrates that doulas contribute to Oregon's goal of eliminating health inequities.

The following are summaries of numerous culturally competent doula models. Appendix E provides a comparative matrix of these promising doula models:

Connect One Project

From August 1996 to July 2000, Chicago Health Connection, a health education and advocacy organization, developed and implemented a four-year pilot project that used doulas to help low-income single teen mothers in high-risk Chicago neighborhoods. Pregnant teens were paired with doulas who were recruited from the Chicago community and trained by Connect One Project staff. These doulas, having an intimate knowledge of the culture of the community, experienced increased trustworthiness with the teenager mothers.

The Connect One Project is unique in its focus on pregnant teens. The Connect One Project intervention targeted outreach to teens during their 7th month of pregnancy and specifically worked with them through a post-partum period of approximately 6-weeks. Additional family transitional planning is provided by a referral to other home visiting programs and continues for an additional three years.

Key Findings

Outcome data for the 259 women served by the Connect One Project's three (3) pilot sites in Chicago revealed the doula presence from latter pregnancy through early post-partum was impactful:[iii]

- Only 8.1 percent of the mothers with a doula present at birth had a cesarean section compared to 12.9 percent for Chicago teen mothers as a whole.
- Compared to national data, fewer mothers used epidural anesthesia.
- Compared to national data, more initiated breastfeeding.
    - 80 percent of doula participants initiated breastfeeding at birth
    - 22 percent of program participants were still breastfeeding at six months after birth.

Farmworker Doula Program

The Farmworker Doula Program and the *Amor de Madre* Program trains experienced *promotores(as)* (community health workers) as doulas. Farmworker and immigrant women and other medically-underserved women are often unfamiliar with the domestic health care system and hospital procedures. Prenatal and postpartum care is often sporadic, with many missed appointments due to concerns including transportation, language barriers/misunderstandings and a lack of appropriate social support. These doulas assist with translation at medical visits and explain cultural differences to health care providers. In the *Amor de Madre* Program, *promotoras*/doulas are able to provide follow-up services to new mothers throughout the first year postpartum. Migrant Health Promotion has implemented Doula programs in both migrant communities in Michigan and in border communities in the lower Rio Grande Valley in Texas.

The Farmworker Doula program is unique in its focus on immigrant and farm-working pregnant women and their families. A story from the program is compelling in its impact on outcome:

> One woman's greatest fear was that her baby would be taken from her and put up for adoption because she could not read or speak English. She had heard stories of how people like her were tricked into giving their babies away. Her fear kept her from seeking prenatal care until her Doula intervened. Through the trust established with her Doula, the woman overcame her fear and never missed another appointment. She gave birth to a healthy baby at the hospital and was tearfully grateful for the support her doula provided.

Key Findings

During the summer of 2005, 40 *promotores(as)* led individual and group education, provided referrals and hosted special events to improve the health of the women and children in their camps based in six Migrant and Community Health Centers in Michigan.[iv]

These *promotores(as)* ensured that:

a. 100 percent of pregnant farmworker women received prenatal care. In comparison, only 66.8 percent of Michigan Hispanic women received adequate care in 2007.
b. 95 percent of newborns were breastfed. Nationally, 80 percent of Hispanic women in all occupations breastfed and only 65 percent of Michigan women in all racial groups breastfed their babies.

c. 93 percent of farmworker children five years of age and under were up to date on their immunizations. The immunization rate for Hispanic children ages 19-35 months in the United States was78 percent for the year 2007.

In 2007-2008, three doulas provided prenatal education classes to 483 people and actual doula services to another 163 women in the lower Rio Grande Valley, Texas.

- Their work contributed to a dramatic decrease in Caesarean section rates among first-time mothers – less than 8 percent of first-time mothers assisted by doulas gave birth by Caesarean section, compared to 44.5 percent of Hispanic women in Cameron County overall (2002-2004).

In 2009, the doulas' work resulted in the following:

- 100 percent of the children in the program obtained a medical home.
- 100 percent of mothers in the program have an ongoing source of primary and preventative care.
- 0 percent low or very low birth weight babies were born to program participants
- Over 90 percent of program participants breastfed their babies.

The Haven's Doula Program

The Haven's Doula Program, the first of its kind, is recognized nationally as an official doula replication site of the Chicago Health Connection (CHC). The doula begins regular contact with the pregnant woman; accompanying her to prenatal care visits and helping her develop a birth plan. Doulas also provide a series of sessions focused on education about labor and delivery.

The Haven's Doula Program is unique in that it is embedded within a much more comprehensive programmatic structure. The Haven is one of four major clinical programs that form the core of the Addiction Research and Treatment Services (ARTS) program, a non-university funded component of the Department of Psychiatry, Division of Substance Dependence, at the University of Colorado Denver, CO. Haven programs are approved Access to Recovery (ATR) providers.

The Haven Mother's House mission is to provide a safe and empowering Therapeutic Community for pregnant women and their infant children where women can recover from addictions and co-occurring illnesses; deliver healthy, drug-free infants; and become self-sufficient, confident, and productive members of the community. The program offers a holistic, culturally sensitive, and integrated approach to substance abuse treatment including therapy, medical services, infant services, vocational and educational rehabilitation, and other miscellaneous services including but not limited to financial assistance for medications, financial counseling and transition to outpatient Therapeutic Community and supportive apartment living. The Doula Program pairs pregnant women from The Haven Mother's House with successful Haven graduates who have given birth and are in recovery. Doulas undergo training in the Chicago Health Connection Community Doula Model and the Harris Doula Child Development Curriculum (ages 0-3). A doula's relationship with the mother begins as soon as the trained doula is matched with the mother and continues until the child is 18 months of age.

Key Findings
Extensive research projects are underway regarding the success of the doula program and outcomes for the infant, the mother, and the doula are being collected.[v]

International Center for Traditional Childbearing (ICTC)

In Portland, Oregon, doulas are being trained and utilized to improve the birth outcomes of low-income women and women of color. The International Center for Traditional Childbearing (ICTC) Full Circle Doula® Program integrates a Midwifery model of care, cultural inclusion, public health, infant mortality prevention, breastfeeding promotion and community capacity building.

According to the Midwifery Task Force, Inc. (1996), the Midwives Model of Care is based on the fact that pregnancy and birth are normal life processes and includes:

- Monitoring the physical, psychological, and social well-being of the mother throughout the childbearing cycle
- Providing the mother with individualized education, counseling, and prenatal care, continuous assistance during labor and delivery, and postpartum support
- Minimizing technological interventions
- Identifying and referring women who require obstetrical attention

The application of a woman-centered model of care has proven to reduce the incidence of birth injury, trauma, and cesarean section. The Full Circle Doulas® learn the history of midwifery as a model of care, infant mortality prevention, medical terminology, anatomy and physiology of pregnancy and labor, nutrition and herbs, labor comfort measures, breastfeeding techniques, and more. Many graduates continue to serve their international communities as doulas, midwives, nurses, and public health advocates. ICTC services begin in the first trimester and continue through three months postpartum.

The International Center for Traditional Childbearing Full Circle Doula program is community based and provides culturally sensitive and specific certification for doulas as private entrepreneurs.

Key Findings[vi]

- 60 percent of clients experienced birth satisfaction with an ICTC doula.
- 40 percent attend childbirth preparation classes.
- 50 percent participated in creating a birth plan.
- 70 percent learned the social determinants for infant mortality.
- 90 percent learned about lead poisoning prevention.

The Maternal Infant Health Outreach Worker (MIHOW) Program

The Maternal Infant Health Outreach Worker (MIHOW) Program has a powerful yet practical mission: to stimulate the birth and growth of low-cost, parent-to-parent interventions that improve health and child development for low-income families. Using local women as its primary staff, MIHOW is a partnership between the Vanderbilt University Center for Health Services (CHS) and community-based organizations in five states: Kentucky, Louisiana, Mississippi, Tennessee, and West Virginia. These local women — mothers who are trusted locally for their energy, integrity,

compassion, and commitment to their community — are trained as doulas and visit pregnant women and families with young children up to three years of age in-home to promote healthy living and self-sufficiency. Leading by example, they listen to parents' concerns, educate about nutrition, health and child development, model positive parenting practices, and provide links to medical and social services. Because these workers share similar backgrounds with the families served, they are role models throughout their communities for families held back by poverty, low self-esteem, and isolation.

Program components include:

- Home Visitation
- Case-management and advocacy
- Parent education
- Role modeling for positive parent-child interaction(s)
- Health and developmental screening
- Information and referral
- Peer support groups

Key Findings[vii]

In 2004, doulas' work resulted in the following outcomes for program participants:

- 90 percent began prenatal care in the first trimester, compared to 75 percent of pregnant women in Mississippi.
- 81 percent received adequate prenatal care, compared to 69 percent of statewide Mississippi women.
- 7.7 percent gave birth to a low birth weight infant, compared to 14.3 percent statewide.
- 95.3 percent of participants eligible for WIC enrolled, compared to 75 percent statewide.
- Almost 90 percent of MIHOW infants were on schedule with recommended well-child visits at six and nine months.

New Beginning Doula Program/ UPMC for You

In a collaborative program University of Pittsburgh Medical Center (UPMC) for You partnered with providers and the community to develop an integrated case management model and a clinical team approach coordinated by leaders at UPMC For You, UPMC Braddock Medical Center, and UPMC Magee and East Liberty Family Health Care Centers.

The program incorporated the following components:

- Early identification of pregnant women
- A maternity program that:
    - Enrolls pregnant women identified as high-need/risk or as smokers;
    - Develops specific interventions for identified needs/risks;
    - Coordinates care with providers; and
    - Makes referrals to behavioral health, smoking cessation programs, and/or a high-risk prenatal clinic, and agencies within the Braddock community, when needed
- Timely prenatal care
- Identification of psychosocial and environmental risk factors

- Stratification of members, outreach, education, and coordination of care to help members obtain care. This included training community residents to be "ambassadors" who could take on the role of community resource and link members to needed services, including maternity care.
- Mobile outreach representation or ambassadors to help locate members who cannot be reached by phone
- Integrating assessment, plan of care, and ongoing notes directly into the health plan's care management tracking system for early identification and direct enrollment in the maternity program.
- Coordinating services with providers, behavioral health organizations, doulas, and plan maternity and outreach staff
- Offering car seat incentives for pregnant members who receive first-trimester care, keep all prenatal appointments, and have routine lab tests
- Hiring, training, and assigning doulas to provide physical, social, and emotional support during the pregnancy and throughout the labor and postpartum period

The UPMC Health Plan paid Doula Agency a modified fee-for-service inclusive of a flat sum to try to engage pregnant woman, and another flat amount if women enrolled in doula program. Agency was also paid for meeting benchmarks (i.e., HEDIS measures).

The innovative development and implementation of non-traditional mechanisms (UPMC For You is the first health plan to provide coverage for doula services) to deliver education and support to vulnerable populations can be used to improve health care and outcomes of members with other conditions, such as asthma and diabetes. Partnerships among community, providers and health plans can address disparities in any community.

Key Findings
UPMC For You obtained the following results:[viii] [ix] [x] [xi]

May 2004 – December 2004:

- First-trimester enrollment more than doubled, from 15.2 percent to 42.2 percent. Within the African American population specifically, enrollment more than doubled, from 13.8 percent to 39 percent.
- In the Braddock area, the rate of low-birth-weight babies decreased from 11.2 percent in 2005 to 8.2 percent in 2006. During this same period, the rate African Americans decreased from 7.8 percent to 5.3 percent.
- Since the implementation of doulas, none of the 28 women who delivered experienced a preterm delivery.

October 1, 2008 – May 31, 2010 (Doula program in the Braddock African American Community):

- 1171 women referred to a doula
    - 490 (41.8%) accepted enrollment
- 996 babies were born to women referred to the doula program
    - 439 babies born to women in program
- Rate of postpartum visits

- 43.36% for women enrolled in program
- 35.77% for women who declined enrollment

Turtle Women Project/Community Doula Program

Minnesota's Turtle Women Project, a culturally-specific doula project, was created in 1999 to improve healthy birth outcomes and reduce infant mortality disparities among American Indian women residing in Ramsey County who demonstrated certain risk factors. From 2002-2010 this culturally-based doula project expanded to serve additional women of color (i.e. Latina, African American, African immigrant and Asian), as well as Caucasian, and became known as the Community Doula Program.

With funding from United Way, Minnesota Department of Health's Eliminating Racial and Ethnic Health Disparities Initiative, and a third party billable contract with UCare Minnesota (Minnesota's fourth largest health plan), the American Indian Family Center operated this multicultural program focused on achieving the following outcomes for women and their families: healthy birth outcomes; healthy prenatal care; increased awareness of parenting role and health education; and improved service integration for the women and their families.[xii] [xiii] [xiv]

Within a six-year period, over 150 women of color and American Indian women were trained to be doulas. The Community Doula Program was the 2005 recipient of the Annie Kennedy Award from DONA International.

Program Components

- Training of women to become doulas
  - Culturally and linguistically appropriate training
  - DONA certification not required, but encouraged (if completed, doula receives slightly higher pay rate
  - Complete at least 3 births (required to become a paid contractor with health plan)
- Community outreach to identify pregnant women and their families for service
- Doula visiting
  - One-on-one prenatal education
  - Advocacy, support, culturally responsive resources, and referral information
  - Link postpartum women and child with appropriate services for continued support
  - Build/develop/encourage network of providers to provide culturally-responsive services beyond birth
- Childbirth education
  - Series of prenatal/childbirth education classes (2-8 weeks)
  - Transportation and child/sibling care as needed

Key Findings

On average, the program served 120-140 women per year with over 92% of babies born at or above birth weight (5.8 lbs), a breastfeeding rate of ~85%, a vaginal delivery rate of ~70%, and no drug intervention for ~ 60% of women.[xv]

Approaches to Integrating Doula Models into State Medical Assistance

Payment Methods

The House Bill 3311 Implementation Committee explored several options for payment methods for doulas. The Committee ultimately decided the most viable option would be to seek approval for federal flexibility from CMS.

The following is an explanation of the various proposed options.

1. **Hospital Contracts**
   The OHA could work with hospital-based labor and delivery providers to fund doulas as part of their bundled Medicaid payment. This is currently done with lactation consultants. Although there are no direct barriers to this option, it could be slightly more difficult to reach Medicaid recipients as it would be on a case-by-case basis with each hospital-based provider. Additionally, a hospital-based doula program does not address the prenatal or post-partum needs of vulnerable populations.

2. **Direct Reimbursement**
   Effective October 1, 2009, the National Uniform Claim Committee approved a new taxonomy code for doulas in the United States. The NUCC taxonomy code is 374J00000X and is called "doula" under the heading of "Nursing Service Related Providers Type." The description includes the services of antepartum, labor doulas, and postpartum doulas.[xvi]

   Applying for a National Provider Identification (NPI) code is a first step to enable certified birth and certified postpartum doulas to submit reimbursement claims to Medicaid and third-party provider insurance companies, and requires the NUCC taxonomy code. Although it is listed under the "Nursing" heading, it is not required to be an RN or LPN to obtain an NPI number. Only certified doulas will be able to use this code to apply for an NPI number or for reimbursement. Group practices are also able to apply for a NPI number.

   The Committee did not see this as a viable option as it is more difficult to enroll individual providers in Oregon's MMIS system. Having an NPI and using the NUCC taxonomy code also does not currently assure Medicaid reimbursement. Finally, the billing code that exists (CPT code 99499, Evaluation and Management Services - Labor Support) is not universally approved for doulas. The committee chose not to pursue this individual provider approach, as it could create barriers for the people who are most qualified to be doulas and work in the communities they serve.

   Based upon the available data, several insurance companies have chosen to reimburse doula care. A partial list of these insurance companies is available under APPENDIX H. However, the covered benefit varies greatly on a case-by-case basis. Women cannot consistently rely on this to cover their doula care. With additional research, the Committee could determine if any of these insurers provide coverage to Medicaid clients, and which, if any, cover doula services for women residing in Oregon.

3. **Subcontract with a Provider Currently Reimbursed through Medicaid**
   Doulas could subcontract with providers of Maternity Case Management services, or labor and delivery providers currently reimbursed through Medicaid. However, this process requires a license and a taxonomy code. The committee chose not to pursue licensure for doulas as it could create barriers for those most qualified to be doulas for Oregon's most vulnerable mothers.

4. **Federal Flexibility**
   OHA could submit a request for federal flexibility, which would allow doulas to be incorporated directly into Oregon's Medicaid system and work with the populations who face the most disparate birth outcomes.

   This would not be Oregon's first effort to expand access to the services of non-traditional health workers under Medicaid. Currently, Oregon offers peer-delivered services a component of a comprehensive mental health and substance use service delivery system though several mechanisms: a) Mental Health Organizations (MHOs) may provide reimbursement for clinical interventions or services provided by peers who are employed by an OHA-certified agency; b) peer-run organizations that meet OHA certification and credentialing requirements may, with the approval of the community mental health authority, provide the full range of adult outpatient behavioral health services; c) Medicaid-eligible individuals who need assistance with an activity of daily living may employ a peer as a personal care assistant; and d) MHOs can support peer services such as parent/family education and life skills development through their Prevention, Education, and Outreach activities.

   In order to pursue federal flexibility, there must be:
   a. A clear definition for doulas
   b. An identified scope of practice
   c. A process for certification
   d. Supervision requirements
   e. Financial justification for incorporating doulas into the health care workforce

   As mentioned above, the Committee felt this would be the most viable option and provided the information that would be required for federal flexibility:

a. **<u>Doula Definition</u>**
   A ***doula*** is a certified professional who provides personal, non-medical support to women and families throughout a woman's pregnancy, childbirth and postpartum experience. A doula's scope of practice includes these roles:

b. **<u>Scope of Practice</u>**
   The Committee identified the following activities that fall within the scope of practice for doulas:
   - Provide prenatal education and assist the woman in preparing for and carrying out her plans for birth.

- Provide information on general health practices pertaining to pregnancy, childbirth, postpartum, newborn health, and family dynamics.
- Increase understanding of complications that can arise during labor, delivery and the postpartum period.
- Provide emotional support, physical comfort measures, and help the woman get the information she needs to make informed decision pertaining to childbirth and postpartum.
- Provide support for the whole birth team including woman's partner and family members.
- Provide evidence-based information on infant feeding.
- Provide general breastfeeding guidance and resources.
- Provide infant soothing and coping skills for new parents.
- Provide postpartum support that honors cultural and family traditions.
- Facilitate and assure access to resources that can improve birth-related outcomes (including transportation, housing, ATOD cessation, WIC, SNAP, intimate partner violence resources).

c. <u>Certification Recommendations</u>

Standardizing expectations for non-traditional health workers (NTHWs), including doulas, in Oregon via a certification process will promote recognition of their capacity and value, facilitate their employment by health care entities including Coordinated Care Organizations, and illuminate health career paths and options for job mobility. However, certification can have unintended consequences including excluding currently practicing NTHWs from their own field, creating barriers for new NTHWs to enter the field, or discouraging the use of holistic and culturally based approaches to health. The Committee's recommendations for certification attempt to minimize these consequences.

The Committee recommends that Oregon certify competency-based doula training programs (although the specific body to do this work was not determined), rather than directly certifying individuals through a licensing board or similar body. Individuals that have completed a certified training program would be eligible to sub-contract with Medicaid providers. This approach emphasizes workforce development while ensuring quality and is similar to the method by which the Oregon Health Authority's Addictions and Mental Division currently handles oversight for peer-delivered services. Specifically, the Committee recommends:

- Certifying training programs that address the required core competencies and provide the core curriculum (Proposed contact hours outlined below).
- Providing individuals completing the approved training program with a certificate of completion. The certification is required to sub-contract with a Medicaid provider.
- Limit the cost of enrolling in training programs for doulas.
- Review and renew doula certificate programs every three years to assure quality, relevance and compliance in meeting curriculum requirements, educational standards, and performance outcomes.
- "Grandparent" doulas who also participate in an incumbent worker training. Specific "grand parenting" provisions for number of practice years in the field are to be

determined, with the acknowledgment that there may need to be differences by worker type due to length of time that the job category has been in existence. Recommendations for incumbent worker training are to be determined but would ensure that practicing doulas have a clear understanding of new roles and can demonstrate the competencies identified by the Subcommittee.

- A registry of certified doulas would need to be established and maintained by an entity yet to be determined, or a system would have to be set up to align with what has been established by entities who hire similar workers in behavioral health fields, where peer services are delivered, but no state-wide registry exists. This registry would not be necessary if the supervising provider assumed responsibility for verifying the doula's certification at one of the four certifying associations at present. Those supervising providers would get an enhanced payment for supervising these doulas services and to pay the doula for services rendered.
- Certified doulas eligible for reimbursement in Oregon would have a minimum of the following contact training hours:
    - 16 hours labor training
    - 15 hours postpartum training
    - 4 hour breastfeeding
    - 12 hours childbirth education series
    - CPR- certified
    - Read 5 books from approved reading list
    - Essay on value of labor support
    - Creating a resource list
    - Evaluations from work with 3 families
    - Attend 3 births and 3 post-partum home visits
    - Continuing education for recertification
    - Food handlers permit
    - 6 hours Oregon cultural competency training
- Certifying body must also include the following:
    - Certified trainers
    - Evaluation component
    - Grievance process

Currently, doulas providing care to private pay clients are certified through several national and international certification bodies, including Doulas of North America (DONA) and the Association of Labor Assistants and Childbirth Educators (ALACE). An organization headquartered in Oregon, the International Center for Traditional Childbearing (ICTC) provides culturally specific doula training nationally and internationally as a strategy for decreasing infant mortality among African American infants. Current certification standards are also closely aligned with the proposed recommendations for NTHWs, and provide additional training specific to pregnancy, child birth, and the post partum period.

Cultural competence was identified by the Committee as an additional core competency currently unaddressed by national certifying bodies; therefore, the Committee recommends that doulas who receive certification from national entities be required to participate in cultural competence training as part of their Oregon-specific certification until the certifying

bodies can demonstrate the integration of this core competency in their training. Forty-seven training hours are currently required for certification as a doula; Oregon's HB 3311 Implementation Committee recommends an additional 6 contact hours for cultural competency.

To support this program certification structure, the Committee further recommends:

- Ensuring statewide oversight of training programs via a central entity to be determined. This entity would review and approve training programs and educational methodologies, maintain a registry doula certification records and educate health care providers and systems on the effective utilization of doula
- The entity should convene an advisory panel to help provide technical assistance and feedback to training programs with the goal of ensuring continuous improvement and comparability of training in support of worker mobility.
- Developing strategies for all training partners to assess the needs of doulas for continuing education, to design and develop programs to meet those needs, and to implement and evaluate programs on an ongoing basis.
- Providing incentives for Coordinated Care Organizations to develop internal agency plans for the supervision and support of doulas, including developing strategies within the global budget to support training, development, career pathways, and retention of doulas on health care teams.

d. Supervision Recommendations

Medicaid reimbursable activities of these workers will be overseen by a qualified health professional, will be within the state defined scope of practice for the specific type of worker, and documented in the patient's medical record. The Committee found that qualified health care professionals who could provide adequate supervision include licensed or certified physical and behavioral health professionals, Bachelors-level public health workers, Bachelors-level maternal and child health specialists and doulas who have been practicing for at least 5 years. All individuals who would like to provide supervision should have successfully completed approved supervision training. When a supervising licensed practitioner bills for perinatal care, they would append the U9 modifier to one of the appropriate codes in order to be paid an enhanced payment both for supervising doulas and to offset paying doulas for services rendered.

e. Financial Justification for Doulas

Per 47,000 live births, (the number of births annually in Oregon), providing doula care could reduce Neonatal ICU admissions by 51, cesarean deliveries by 940, and obstetrical vaginal deliveries by 470, and increases spontaneous vaginal deliveries by 1,140.

Compelling data exits regarding the financial costs and risk of maternal morbidity and mortality of repeat cesarean sections. Women whose past pregnancies culminated in a cesarean delivery are at very high risk of experiencing a repeat cesarean delivery with subsequent pregnancies. The risks of this surgery become exponentially higher based on the number of prior cesareans a woman has experienced. Preventing cesarean deliveries saves both money and lives.

In 2006, the total number of national cesarean deliveries was 1,296,000, resulting in 600 maternal deaths. Solheim et al predict cesarean deliveries will increase to an annual amount of 1,868,800, with 676 maternal deaths, by 2020 if the rate of increase remains steady.[xvii] Although, the specific cost that the State of Oregon would incur due to these cesarean deliveries is difficult to determine, it is clear the State would acquire a portion of this national expense. In addition, the State would experience costs related to placenta previas, placenta accretas, hysterectomies, and blood transfusions. The risks and financial burden of these complications rise significantly with each repeat cesarean surgery a woman undergoes.

The second and thoroughly established benefit that doulas offer relates to breastfeeding outcomes. Multiple studies have proven that women receiving doula care have higher rates of initiating and extending breastfeeding. National data reveals the expense and mortality associated with insufficient breastfeeding. The United States incurs $13 billion in excess costs annually and suffers 911 preventable deaths per year due to breastfeeding rates falling far below medical recommendations.[xviii] Although, it is difficult to both quantify the exact burden the State of Oregon shoulders due to inadequate breastfeeding, as well as the exact dollar amount saved through doula intervention, evidence suggests that doulas positively contribute to successful breastfeeding, leading to improved outcomes for Oregon's mothers and children and reducing medical costs for the State.

Lastly, a study conducted by Olds et al, evaluating the outcomes of an intensive 2.5 year, family-centered partnership during pregnancy and early parenting, demonstrated a reduction in premature births.[xix] Similar to the Olds model, doulas partner with families during pregnancy and after delivery. It is reasonable to suggest that doula care creates the kind of support and education that leads to improved pregnancy and neonatal outcomes.

A cost benefit analytic model, using limited variables, was designed by Oregon Health and Science University to compare costs and neonatal outcomes for women receiving doula support during active labor and delivery to women undergoing routine obstetrical care. The probability and cost of uncomplicated vaginal delivery with and without analgesia, operative vaginal delivery, cesarean delivery, and Neonatal Intensive Care Unit (NICU) admissions based upon APGAR scores were incorporated into the model as well as outcomes related to mode of delivery and neonatal morbidity. Based on this model, publicly funded doula care could result in a modest cost savings to the payer.

However, benefits to mothers and infants, including maternal preferences, breastfeeding initiation/continuation rates and repeat c-section morbidity and mortality (discussed in more detail above) were not incorporated into the model. These factors contribute to patient satisfaction, infant health, life-long health, and quality of care, and the State of Oregon should consider the above-mentioned factors when reviewing the financial justification for utilizing doulas. These evidence-based studies demonstrate that the low-cost, effective, and preventative care of doulas has great potential to improve the health of Oregon families and reduce state healthcare expenditures.

The complete Cost-Benefit Analysis is available in Appendix G.

Conclusion

Based on the data analyzed by the Committee, the unequivocal recommendation of the Cochrane Review, the existence of both local and national professional certification models, and the promising outcome data from local and national doula models focused on addressing health inequities, the Committee recommends doulas as a strategy to improve health equity in Oregon's birth outcomes. Additionally, the Committee recommends doulas as an overall strategy for all pregnant women in order to improve birth outcomes funded both by Medicaid and private insurance.

Endnotes

[i] U.S. Census Bureau, Statistical Abstract of the United States: 2012 (131st Edition) Washington, DC, 2011; <http://www.census.gov/compendia/statab/>

[ii] "Continuous support for women during childbirth | Cochrane Summaries", n.d., http://summaries.cochrane.org/CD003766/continuous-support-for-women-during-childbirth.

[iii] Altfeld S. *The Chicago Doula Project Evaluation Final Report.* Chicago: Ounce of Prevention Fund, 2003. Retrieved from http://www.rwjf.org/reports/grr/029806.htm#int_biblio

[iv] Migrant Health Promotion website: Improving Health Outcomes http://www.migranthealth.org/index.php?option=com_content&view=article&id=52&Itemid=50

[v] The Haven website: Haven Doula Program. http://www.havenfriends.org/about/program---overview/doula/

[vi] The International Center for Traditional Childbearing Website: http://www.ictcmidwives.org/

[vii] Vanderbilt University Medical Center: Maternal Infant Health Outreach Worker program. http://www.mihow.org/overview.html

[viii] Sims, M., T.L. Sims, M.A. Bruce. Urban poverty and infant mortality rate disparities. J Natl Med Assoc. 2007 Apr;99(4):349-56.

[ix] National Vital Statistics Report, Vol. 50, No. 15, September 16, 2002.

[x] National Healthcare Disparities Report 2006: http://ahrq.gov/qual/nhdr06/nhdr06report.pdf

[xi] Innovative Practices in Multicultural Health 2007 http://www.ncqa.org/Portals/0/HEDISQM/CLAS/CLAS_InnovativePrac07.pdf

[xii] Minnesotabirth.com.*Minnesota's Doula History*, 2008. Accessed January 23, 2012.

[xiii] Elizabeth O'Sullivan. "Pregnancy & Birth." *The Turtle Women,* Issue 127, Nov/Dec. 2004. Web. 23 Jan 2012.

[xiv] "Eliminating Health Disparities Legislative Reports: 2003, 2005, 2007, 2009." Minnesota Department of Health Office of Minority and Multicultural Health Publications, n.d. Web. 27 Jan. 2012. http://www.health.state.mn.us/ommh/publications/index.html

[xv] LaFloe, Janice. American Indian Family Center. E-mail interview. 24-26 Jan. 2012

[xvi] National Uniform Claim Committee, 2009

[xvii] Solheim K, Little S, Esakoff T, Cheng Y, Sparks T, Caughey AB. The effect of cesarean delivery rates on the future incidence of placenta previa, placenta accrete, and maternal mortality. Journal of Maternal-Fetal and Neonatal Medicine 2011; 11: 1341

[xviii] Bartick M, Reinhold A, The burden of suboptimal breastfeeding in the United States: a pediatric cost analysis. Pediatrics 4/2010; published online www.pediatrics.org, DOI: 10,1542

[xix] Olds D, Henderson C, Kitzman H et al. Prenatal and infancy home visitation by nurses: recent findings. 'The Future of Children' 1999, volume 9.