



# First Baby Initiative

A partnership project of the WV Perinatal Partnership with the West Virginia Health Care Authority, the March of Dimes - West Virginia Chapter, and West Virginia Birthing Hospitals



## BACKGROUND

In 2007 the WV Perinatal Partnership *Committee to Identify Costly Medical Procedures Associated with Poor Birth Outcomes* reviewed WV Birth Certificate data related to first time mothers. What was found has spurred many of the initiatives pursued by the Perinatal Partnership since then. In 2009, the WV Health Care Authority, the WV Perinatal Partnership and the March of Dimes, WV Chapter under took a planned approach to reduce elective labor inductions prior to 39 weeks gestation for all women. Fourteen West Virginia hospitals participated in this initiative. The rate of non-medically elective births immediately began dropping and within 6 months had decreased by over 50%. The rate continued to decrease through 2010. This demonstrates that we can make important progress toward better mother and baby care by working together as a Partnership.

## FIRST BABY INITIATIVE

What is our "First Baby" initiative? The Perinatal Partnership is joining forces to address the difficulties and special needs of first time mothers. After carefully studying the literature and reviewing data from the West Virginia Department of Health and Human Resources, Center for Health Statistics, the Partnership has created a statewide First Baby Clinical Initiative. The initiative will focus on reducing the rates of early admission without active labor, labor induction, and cesarean section rates among low-risk nulliparous women, with a singleton pregnancy, and infants with vertex presentation. While focusing on reducing these rates we will encourage participating physicians, nurses, and hospitals to examine and make improvements on the entire birth process for first time mothers.

## FIRST TIME MOTHERS FACE SPECIAL RISKS

Delivering a baby is a normal process that has been both helped and compromised by medical interventions. The goal of the Perinatal Partnership is to reduce unnecessary medical interventions that result in poor outcomes. It is sometimes a fine line that defines the difference. Also, it is true that birth can be complicated, even more so when it is a woman's first baby. First time mothers have three to four times more labor complications than women who've given birth before.

- The cesarean section rate for first-time West Virginia resident mothers was 31.9% of births 2001-2005 and has steadily increased to 35.1% of all first time births by 2009.
- Labor induction for first-time WV mothers was 37% in 2005 and rose to 41.2% in 2009.

- What appears to be of most concern is that more labor-induced first-time mothers (50.9%) have no noted preexisting medical risk factor (2009)
- Other studies show that first time mothers
  - Have twice the rate of epidural use
  - Almost twice as many babies admitted to the NICU
  - Nearly three times the cost

## HOW WE MAKE A DIFFERENCE

Research shows that support and education of the woman during pregnancy, proper timing of admissions, the appropriate use of induction, and consistent labor support play a major role in reducing these risks and improving outcomes for first time mothers and their babies. Given current labor and delivery trends, however, achieving such outcomes requires changes in behaviors and attitudes on the part of physicians, nurses, and pregnant women.

## PROJECT GOALS

- Improve quality of care and outcomes for first time mothers and their babies
- Reduce the rate of cesarean section
- Reduce the rate of labor induction

## CARE GUIDELINES

**1. Educate women throughout the prenatal process.** Involvement and education of patients is critical to improving mother and baby outcomes. The lay literature is full of articles about scheduling childbirth, and today's busy mothers often find that opportunity attractive. Nowhere in the lay literature, however, is there a distinction between first births and subsequent deliveries. Neither is there any discussion of the risks of inducing first time deliveries. Women must be told about these risks and about new research discouraging the use of episiotomies. They must also be taught to recognize when they are in active labor and need to go to the hospital. These messages need to be consistent between physician offices, prenatal education classes, and patient education materials and communications.

**2. Admit women to labor unit only when she is in active labor, when cervical dilatation is at least = <3 cm and progress is continuous.** Research shows that first time mothers admitted to the hospital in early labor and confined to a labor bed experience longer labor and a greater risk of cesarean birth than women admitted in active labor. Similarly, a study involving thousands of patients found significantly shorter labors, half as many cesarean births, better APGAR scores, and lower costs when first time mothers were admitted only after active labor was established.

**3. Induce labor only when medically necessary.** Inducing labor in first pregnancies is very serious and risky with very different outcomes than induction in women who've given birth before. Induction in first time mothers in their 37th to 41st week of pregnancy can lead to long and difficult labors, two to three times the cesarean birth risk, third and fourth degree lacerations of the rectum, more operative vaginal births, low APGAR scores, and increased costs. Multiple studies show that the increase in the cesarean birth rate occurs regardless of the reason for the induction.

**4. Provide continuous labor support.** Numerous clinical trials conducted over the past few years show those women who receive continuous labor support experience better outcomes, including shorter labors, less use of analgesia/anesthesia, fewer cesarean births, fewer episiotomies, and greater satisfaction with the birthing process. They also have fewer babies with five-minute Apgar scores less than seven. Proven labor support techniques can be learned and implemented by hospital and birthing center personnel.(1) (2) (3)

## LABOR SUPPORT

Over the past few decades, the centuries-old concept of labor support has been downplayed. Now that scientific evidence has validated the benefits of labor support for mothers and babies we need to address what appears to be a lack of prenatal education and preparation for labor and delivery. The First Baby Initiative intends to combine the best elements of high and low tech and encourages participating medical, nursing, and hospital personnel to integrate active labor support into their labor and delivery practices. The Partnership will research the area of labor support and bring the best of proven hands on labor support techniques to participating West Virginia Hospital personnel.

## LABOR SUPPORT COMPONENTS

The Partnership will invite participating hospital nurses, midwives and physicians, to share their best labor and birth support techniques with each other.

- Advocacy
- Comfort Measures
- Education/Information
- Emotional Support
- Environmental and Sensory Stimuli
- Family Centered Care
- Positioning for labor and birth

## METHODOLOGY

The Collaborative process will incorporate the following:

1. Initial Planning Group to determine the data needed for measuring progress during the project time period. (see attached list). This group includes two OB physicians who agreed to Champion the project.
2. Oversight Committee to review and make recommendations regarding the planned methodology, participants, data reviews, and project time period. This group will meet periodically with the participating facilities (via teleconference and or face to face) (see attached list).
3. Invitations to all birthing facilities in West Virginia to participate in the project. Each participating facility will be asked to identify a “ first time mothers project team” of people to be responsible for planning, implementing and measuring progress on the project within their facility. Each Team will be composed of
  - a. Hospital Administration
  - b. Lead physician delivering within the facility
  - c. Community maternity provider and staff
  - d. Maternity/OB Nurse Manager
  - e. Certified Nurse Midwife (practicing at the facility)
4. Introductory Session – All planning group, oversight committee, and participating facility representatives will be invited to participate in a structured learning session where the latest information related to improving first time mother and infant outcomes will be presented. Other first time mother projects will be reviewed as Models for Improvement. The Introductory Session will include a process to identify and share information about Change Concepts being employed by maternity providers and facilities currently to address the high rates of c-section of first time mothers.
5. Throughout the process, the Collaborative teams will interacted with each other and with the collaborative leadership through monthly teleconference learning sessions, listservs, and sharing of reports. Teams will be encouraged to share tools and lessons learned, and to generate ideas to address barriers and identify resources.

## TIME PERIOD

The Collaborative planning process will begin in April 2011. The Oversight functions will be developed in May 2011. Birthing facility participation will be invited to the initial Learning Session in July 2011. Birthing facilities will begin implementing Change Concepts in September 2011. Identified data reports will be generated and reviewed during monthly teleconferences from September 2011 through May 2012. The final project report will be issued in September 2012.

## MEASUREMENT

1. Changes resulting from OB QI Phase 1, to reduce elective deliveries prior to 39 weeks will be measured through birth certificate data reporting changes from the 2008 base line data, for the State as a whole and for each birthing facility.
2. Phase 2 - Implementation of Change Concepts will be identified and appropriate measures applied.
3. Changes in first time mother c-section rates by facility will be followed.
4. Changes in gestational age at time of delivery for first time mothers will be followed.
5. Changes in elective labor inductions for first time mothers will be followed.
6. Changes in labor inductions with preexisting medical risk factors will be followed.
7. Other data changes as recommended by the oversight committee and or the participating birthing facilities, will be followed.

## REPORTING

The project report will be issued about the 15<sup>th</sup> month of the project including:

1. Change Concepts Implemented
2. Observed changes in data
3. Obstacles and barriers experienced
4. Identified factors promoting successes
5. Recommendations for further Quality Improvement Collaborations

## CELEBRATION

All participating birthing facilities will be celebrated through an opportunity to present their project plan and outcomes to a statewide audience.

All participating birthing facilities will receive a certificate of recognition from the Collaborative.

## REFERENCES

1. Romano A, Lothian J. Promoting, protecting, and supporting normal birth: A look at the evidence. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 2008;37:94–105.
2. Hodnett E. D, Gates S, Hofmeyr G. J, Sakala C. Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews (Online : Update Software)* 2007;(Issue 3):CD003766. 10.1002/14651858.CD003766.pub2.
3. Payant L, Davies B, Graham I. D, Peterson W. E, Clinch J. Nurses' intentions to provide continuous labor support to women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 2008;37:405–414.