Reducing Primary Cesareans: It takes a village

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Thank you to Dan Morgan for slide contributions
Cesareans account for 1/3 of births in the US

1970: 6%
2015: 32%

Source: CMQCC Slide Deck | Xie, R et al. Birth 2015 | MVC Registry Data
Increasing use of Cesarean Delivery

Cesarean delivery rate: 21% in 1997 increased to 32% in 2008

Figure 1. From 1997 to 2008, the rate of C-sections and repeat C-sections grew while the rate of vaginal births and VBACs decreased*

* VBAC: Vaginal birth after Cesarean delivery

Source: https://www.hcup-us.ahrq.gov/reports/statbriefs/sb110.jsp
MOST STATES HAVE C-SECTION RATES THAT ARE TOO HIGH

32 states and the District of Columbia have C-section rates for first-time mothers with low-risk deliveries that are above the national target of 23.9 percent or lower.

“Your Biggest CS Risk may be your Hospital”
Consumer Reports 2016
Why is this worth addressing?

Promoting Vaginal Birth Meets The Triple Aim

Patient Experience

Reduced Costs

Population Health
Maternal Morbidity After Delivery

- Maternal Transfusion: 167.1 per 100,000 births
- ICU Admission: 64.6 per 100,000 births
- Unplanned Hysterectomy: 11.9 per 100,000 births

Primary Cesarean: 525.1 per 100,000 births

Source: https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr_04.pdf
Neonatal Morbidity After Delivery

- Transient Tachypnea: 3.50% (Vaginal Delivery), 1.10% (Cesarean Delivery)
- Persistent Pulmonary Hypertension: 0.08% (Vaginal Delivery), 0.40% (Cesarean Delivery)
- Respiratory Distress Syndrome: 0.16% (Vaginal Delivery), 0.47% (Cesarean Delivery)

Source: https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr_04.pdf
Expenses for Vaginal and Cesarean Deliveries

Maternal and Newborn Payments

- **Private**
  - Vaginal: $18,329
  - Cesarean: $27,866

- **Medicaid**
  - Vaginal: $9,131
  - Cesarean: $13,590

*50% more for cesarean deliveries compared to vaginal*

Source: Truven Health *Cost of Having a Baby, 2013.*
## Patient Safety Bundles

### Maternal Safety Bundles
- Maternal Mental Health: Depression and Anxiety
- Maternal Venous Thromboembolism (+AIM)
- Obstetric Care for Women with Opioid Use Disorder (+AIM)
- Obstetric Hemorrhage (+AIM)
- Postpartum Care Basics for Maternal Safety: Transition From Maternity to Well-Woman Care (+AIM)
- Postpartum Care Basics for Maternal Safety: From Birth to the Comprehensive Postpartum Visit (+AIM)
- Prevention of Retained Vaginal Sponges After Birth
- Reduction of Peripartum Racial/Ethnic Disparities (+AIM)
- Safe Reduction of Primary Cesarean Birth (+AIM)
- Severe Hypertension in Pregnancy (+AIM)
- Support After a Severe Maternal Event (+AIM)

### Non-Obstetric Bundles
- Prevention of Surgical Site Infections After Gynecologic Surgery
Safe Reduction of Primary Cesarean Births

SAFE REDUCTION OF PRIMARY CESAREAN BIRTHS: SUPPORTING INTENDED VAGINAL BIRTHS

READINESS

Every Patient, Provider and Facility

- Build a provider and maternity unit culture that values, promotes, and supports spontaneous onset and progress of labor and vaginal birth and understands the risks for current and future pregnancies of cesarean birth without medical indication.

- Optimize patient and family engagement in education, informed consent, and shared decision making about normal healthy labor and birth throughout the maternity care cycle.

- Adopt provider education and training techniques that develop knowledge and skills on approaches which maximize the likelihood of vaginal birth, including assessment of labor, methods to promote labor progress, labor support, pain management (both pharmacologic and non-pharmacologic), and shared decision making.

Click here for Readiness Resources

- Birth Tools (ACNM)
- Hormonal Physiology of Childbearing: Fact Sheets on Core Topics for Maternity Care Providers (Childbirth Connection)
- Maternal preference for Cesarean delivery. Do women get what they want? - Available until 10/1/17
- Low-risk, Primary Cesarean Births in Medicaid: NAM/AM/CHP Issue Brief 2015
Efforts to Reduce Primary Cesarean Delivery

AIM BUNDLES

TOOLKITS

CHECKLISTS

Target High Impact Areas for Change
O- Initiative

Supporting Vaginal Births and Reducing Cesarean Deliveries for “Low-Risk” Pregnancies in Michigan Hospitals

Safe Births. Healthy Moms & Babies.
Opportunities

Standardize Maternity Care &
Improve the Likelihood of Vaginal Delivery
Readiness – Every Patient, Provider and Facility

• Build a provider and maternity unit culture that values, promotes, and supports spontaneous onset and progress of labor and vaginal birth and understands the risks for current and future pregnancies of cesarean birth without medical indication.

• Optimize patient and family engagement in education, informed consent, and shared decision making about normal healthy labor and birth throughout the maternity care cycle.
Birth Partnership

- Ideally, provided at 28-32 weeks
- Multiple points of discussion to address during the 3rd trimester
- Hospitals can edit this document

Labor Partnership with the Midwives of Bronson Women’s Service

Your preferred name: __________________________
Your due date: __________________________
Planned care provider for newborn: __________________________
Labor support team (partner, doula, friends, or relatives who will be present): __________________________

Our goal is for every woman to have a healthy vaginal birth. While low-risk women will need little intervention, women with certain medical conditions may need procedures to improve safety and ensure a healthy birth. This form should be shared with your care team prior to labor. Which options will make you most comfortable? For each section, please check all that apply.

Environment
- I would like to have the lights dimmed during labor
- I plan to bring in music from home
- I plan to bring in essential oils/thermoltherapy (no flames, please) from home

Labor preferences
- I would like to have freedom of movement while I am in labor (walking, standing, sitting, kneeling, using the birth ball, etc.), if safe and possible
- If prefer to wait for the amniotic membrane (bag of waters) to break on its own
- I would like to have my IV capped off (saline locked) so that I am free to move around

Preferences for monitoring the baby
- I prefer to have my baby monitored intermittently (not continuous monitoring)
- I prefer to monitor my baby continuously (I understand this may limit my movement and may keep me in bed during labor)

Preferences with coping with labor
- I plan to use the shower or tub for pain relief
- I would prefer no pain medications or epidural
- Please do not offer me pain relief medications—if I decide to use them, I will ask for them
- I plan to use pain relief medication through my IV
- I plan to use Inhaled nitrous oxide
- I plan to use an epidural in active labor
- I am considering using IV pain medication, inhaled nitrous oxide, and/or having an epidural, but will decide during labor

Birth preferences
- I would like to push in a position of my choosing (squatting, kneeling, side-lying, on my back, etc.)
- I would like to use a mirror to view the birth
- I would like warm compresses (washcloths) held to my bottom during pushing

After birth preferences
- I would like to be present for my baby’s first bath
- I plan to exclusively breastfeed my baby
- I plan to bottle feed my baby
- If I have a boy, I plan to have him circumcised
- If I have a boy, I plan to not have him circumcised
- For birth control, I plan to use

What is most important to you about labor and birth (your biggest goals or priorities)?

Please let us know if you have any religious or cultural practices/traditions that are important to you during childbirth, and how we can help accommodate your needs.

Preferences for monitoring the baby
- I prefer to have my baby monitored intermittently (not continuous monitoring)
- I prefer to monitor my baby continuously (I understand this may limit my movement and may keep me in bed during labor)

The midwives of Bronson Women’s Service encourage immediate skin-to-skin contact between mothers and newborns, practice “delayed” cord clamping, and do not perform routine (unnecessary) episiotomies.

Signatures
I have talked about my labor preferences with my provider, and both of us understand them. I know that my preferences may need to change if medical needs arise in order to ensure a safe and healthy birth.

Provider’s signature and date: __________________________
My signature: __________________________
When is Hospital Admission Recommended?

Our goal is for every woman to have a healthy vaginal birth. While low-risk women will need little intervention, women with certain medical conditions may need procedures to improve safety and ensure a healthy birth.

This form is intended to promote a discussion about how we can partner effectively.

Time of Hospital Admission

When is admission recommended?

We recommend admission when you are in “active labor.”

What is active labor?

During the first stage of labor when the cervix goes from closed to 10cm dilated, there is a phase of slower change (latent labor) and then more rapid change (active labor). Painful contractions occur in both phases of labor. During latent labor, we often suggest delaying hospital admission if you and your baby are:

✓ Considered low risk
✓ Have had a reassuring evaluation
✓ Coping well

This practice has been shown to reduce the risk of labor interventions, including cesarean delivery.

Do you have questions about why we recommend admission during active labor?

☐ Yes
☐ No
☐ 

Admission during latent labor is sometimes appropriate. This can be due to the health of you or your baby, how you are coping with labor, or the challenges of getting to the hospital. Please share your concerns with us:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Readiness *Continued*

- Adopt provider education and training techniques that develop knowledge and skills on approaches which maximize the likelihood of vaginal birth
A Web-based Tool Kit to support hospital based health care professionals in implementing physiologic birth care practices.
Assessing and Promoting the Progress of First Stage Labor

Failure to progress is the primary cause of nearly half (47.1%) of all intrapartum cesarean deliveries. Despite widespread use of interventions to speed labor progress, including use of oxytocin and artificial rupture of membranes, the diagnosis of disorders of labor progress appears to account for a large proportion of the increase in cesarean rates over time and the variation in cesarean rates across geographic regions.

Obstetric practice has been based on standards of labor progress that have proven to be too stringent and lead to unnecessary cesarean birth. Emerging evidence suggests the following changes to traditional standards that were based on Friedman criteria from the 1960s:

- expecting longer mean times for cervical dilation,
- anticipating slower labor progress in the earlier part of active labor (5-7cm),
- observing greater variability in the progress of labor among women, and
Improvement Stories

Identification and Manual Rotation of the Occiput Posterior Fetus
Oregon Health and Science University (OHSU) introduces manual rotation of the occiput posterior fetus to improve vaginal birth rates and decrease complications related to persistent OP position.

Audit Tools

First Stage of Labor Audit Tool
Measure and track your progress using evidence-based process and outcome measures with this audit tool.

Clinical Education/Staff Training Resources

Partograph for Low-risk Nulliparous Women in Spontaneous Labor

Related Guidelines/Toolkits

Intermittent Auscultation for Intrapartum FHR Clinical Bulletin (ACNM)
Link to PDF of the ACNM Clinical Bulletin: Intermittent Auscultation for Intrapartum Fetal Heart Rate Surveillance. This clinical bulletin reviews how to perform and interpret intermittent auscultation and provides evidence-based information about patient selection for IA.
Obstetrics Initiative

Safe Births. Healthy Moms & Babies.

OBI supports vaginal births and safely reducing cesarean deliveries for “low-risk” pregnancies in Michigan hospitals.

www.obstetricsinitiative.org
Committee on Obstetric Practice

The American College of Nurse-Midwives and the Association of Women’s Health, Obstetric and Neonatal Nurses endorse this document. This Committee Opinion was developed by the American College of Obstetricians and Gynecologists’ Committee on Obstetric Practice, in collaboration with American College of Nurse-Midwives’ liaison member Tekoa L. King, CNM, MPH, and College committee members Kurt R. Wharton, MD, Jeffrey L. Ecker, MD, and Joseph R. Wax, MD.

This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Approaches to Limit Intervention During Labor and Birth

**Abstract:** Obstetrician-gynecologists, in collaboration with midwives, nurses, patients, and those who support them in labor, can help women meet their goals for labor and birth by using techniques that are associated with minimal interventions and high rates of patient satisfaction. Many common obstetric practices are of limited or uncertain benefit for low-risk women in spontaneous labor. For women who are in latent labor and are not
ATTENDEES WILL:

- Identify the importance and benefits of kangaroo care to reduce sudden unexpected perinatal collapse.
- Cultivate strategies from millennials to baby boomers to maximize collaboration and partnerships in reducing cesarean section rates by supporting the physiologic birth process.
- Develop awareness of potential challenges and discuss best practices in facilitating safe transfer for providers families transitioning from planned homebirth to the hospital setting.
- Develop nursing professionals’ education and enhance knowledge in identifying trafficked individuals that may be encountered, in an effort to reduce missed opportunities within the healthcare setting.

OUR DISTINGUISHED PRESENTERS

Nancy Gillilan, APRN, NNP-BC, CKC
Sudden and Unexpected Perinatal Collapse

Jessica English, LCCE, FACCE, AdvCD/PCD/BDT (DONA)
Labor Support and Reducing the C/S Rate

Tami Michele, DO, FACOOG, OB/GYN
Pre-planned Homebirth to Hospital

Stephanie Krieger, APRN, MS, NNP, Specialst in Neonatal Consulting
Human Trafficking Awareness & Identification in Healthcare Settings
Recognition and Prevention – Every Patient

• Implement standardized admission criteria, triage management and education and support for women presenting in spontaneous labor.
2019

OI Checklist

for spontaneous labor
OBI Proposed Labor & Delivery Admission Checklist for Low Risk Spontaneous Labor

Patient is a good candidate for continued outpatient management if the following criteria are met:

- Reassuring fetal testing
- Normal Blood Pressure
- Gestational age ≥ 37 weeks**
- Vertex
- No prior uterine scars (myomectomy or cesarean delivery)**
- Intact membranes
- No significant maternal or fetal disease
- Cervical dilation < 4 cm* and effacement < 80%

- Birth Partnership Reviewed if available
- Support person available
  - If no support person or inadequate support, attempt to identify support for labor (Doula, Extra support from labor nurse, social worker, volunteer, etc)

- Coping with contractions
  - *Note: special circumstances such as severe fatigue, multiple triage visits, prolonged latent phase, and difficulty coping may warrant admission before 4cm.

- **Women with gestations >41 weeks or prior cesarean delivery may require additional assessment and evaluation. These are not absolute contraindications and require individualized clinical decision making.

https://www.obstetricsinitiative.org/webinars/
Latent Phase of Labor

*When dilated to 4cm, a nulliparous woman*

*On average*

*But still within the range of normal:*

Will be in latent labor for another 4 hours
Labor Triage Process

- Labor Triage
  - Not in Labor → Home
  - Latent Labor → Labor Lounge
  - Active Labor → Admit
Recognition and Prevention – Every Patient

• Offer standardized techniques of pain management and comfort measures that promote labor progress and prevent dysfunctional labor.
Roberts Coping Scale in Labor

Coping with Labor Algorithm v2©

Observe for cues on admission and throughout labor.
Assessment per protocol:
Ask: “How are you coping with your labor?”
♦ Every shift ♦ PRN ♦ At signs of change.

Coping

Cues you might see if woman is coping:
- States she is coping
- Rhythmic activity during contraction (Rocking, swaying)
- Focused Inward
- Rhythmic breathing
- Able to relax between contractions
- Vocalization (moaning, counting, chanting)

Not Coping

Clues you might see if woman is NOT coping (May be seen in transition)
- States she is not coping
- Crying (May see with self-hypnosis)
- Sweaty
- Tremulous voice
- Thrashing, wincing, writhing
- Inability to focus or concentrate
- Clawing, biting
- Panicked activity during contractions
- Tense

Move away from pain scores
Consider patient presentation & individualize triage assessment

http://www.birthtools.org/MOC-Promoting-Comfort-In-Labor-Toolbox
Continuous Labor Support

- Can be provided by family member, hospital staff, or Doula
- Cochrane Review, 2017: 26 trials 15,858 women

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>DIRECTION OF CHANGE</th>
<th>RR</th>
<th>NUMBER OF TRIALS IN ANALYSIS</th>
<th>NUMBER OF WOMEN IN ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesarean Birth</td>
<td>↓</td>
<td>0.75 (95% CI 0.64 to 0.88)</td>
<td>24 trials</td>
<td>15,347</td>
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<tr>
<td>Low five minute Apgar</td>
<td>↓</td>
<td>0.62 (95% CI 0.46 to 0.85)</td>
<td>14 trials</td>
<td>12,615</td>
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<tr>
<td>Vaginal Birth</td>
<td>↑</td>
<td>1.08 (95% CI 1.04 to 1.12)</td>
<td>21 trials</td>
<td>14,369</td>
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Maternity Care TEAM: Roles in Promoting Physiologic Birth

TEAM: Common Goal, Collective Approach, Experience working with each other

Adding TEAM members:
1. Doula
2. Training of family members as an alternative
3. Providing hands-on labor support training for L&D nurses
4. “Dial-a-Doula”
Expanding the Maternity Care Team: The Role of Doulas
Lisa Kane Low PhD CNM
OBI Co-Director
Associate Professor
School of Nursing, Dept. OB/GYN & Women’s Studies
University of Michigan
Response: To every labor challenge

• Have available an in-house maternity care provider or alternative coverage which guarantees timely and effective responses to labor problems.

Help us understand how many Labor & Delivery staff are immediately available in the labor suite at different times of the day.

• Maternity attendings (obstetricians, family physicians, midwives) DURING THE DAY?

<table>
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<tr>
<th>NTSV Rate</th>
<th>Average Delivery Volume</th>
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<tbody>
<tr>
<td>28.7%</td>
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<tr>
<td>28.9%</td>
<td></td>
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<tr>
<td>23.0%</td>
<td></td>
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<tr>
<td>25.7%</td>
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0 (n=3) | 1 (n=18) | 2 (n=4) | >=3 (n=15)
Help us understand how many Labor & Delivery staff are immediately available in the labor suite at different times of the day.

- Maternity attendings (obstetricians, family physicians, midwives) AT NIGHT?

![Bar chart showing NTNV Rate and Average Delivery Volume at different staff availability levels.](chart.png)

- 31.2% of the time, no staff is available (n=7).
- 27.6% of the time, 1 staff member is available (n=19).
- 25.6% of the time, 2 staff members are available (n=9).
- 24.4% of the time, 3 or more staff members are available (n=5).
Reporting/ Systems Learning – Every birth facility

• Track and report labor and cesarean measures in sufficient detail to:
  • Compare to similar institutions
  • Conduct case review and system analysis to drive care improvement
  • Assess individual provider performance
Quality Improvement Hospital Survey Report

January 2018

- 82 Michigan maternity hospitals queried
- 42 maternity hospitals completed the survey
Nothing is Simple
Our team is here for you!
Questions?

kanelow@med.umich.edu
thank you!