Provide California Tool Kit & AIM Recommendations to Support Vaginal Birth
OB Quality Improvement and Safety Efforts Help to **Decrease** Liability

| Utilize evidence-based best practice protocols that follow national consensus (e.g. oxytocin) | Utilize expert-vetted standardized approaches for labor and fetal heart rate abnormalities | Communication techniques which engage the patient in “shared decision making” creates a strong deterrence to lawsuits | Reducing primary cesareans, protects against post-cesarean complications and poor outcomes during future care |
Why has Cesarean Birth Reduction been so hard?

**Direct challenge** to Physician autonomy

Very **complex**, many factors; need to be able to focus on areas with real preventability

Need for **professional** society leadership

**Timing:** prior attempts were often “Voices in the wilderness”; “3rd rail of OB QI”; “Enter at your own risk…”

**Risk:** “Never got sued for doing a Cesarean”
Elephants in the room

• Medical Legal: Have we changed?
• Payment Reform: When will it transition?
• Provider: Willingness to change?
• Hospital: Willing to participate in culture change?
What drives Cesarean sections?
(the opposite supports vaginal birth)

- Time pressures
- Financial incentives
- No consequence for a high c/s rate
  - Professional standing, reputation, financial
  - Regulatory, payor
- Lack of clinical training
  - Response to FHT, labor dystocia, malpresentation

Condensed from Council on Patient Safety in Women’s Health Care slides
It takes a Village to Reduce Unnecessary Cesareans

- Insurers/Employers
- Public Advocates/Consumers
- Public Policy/Medicaid
- Prof Orgs (Nati and Local)
- Data-driven QI Projects
Planning and Support for this Project

- Florida Department of Health
- American College of Obstetricians and Gynecologists (ACOG) District XII
- Florida Chapter of the Association of Women’s Health, Obstetric, and Neonatal Nurses (AWHONN)
- Florida affiliate of the American College of Nurse Midwives (ACNM)
- Alliance for Innovation in Maternal Health (AIM)
- California Maternal Quality Care Collaborative (CMQCC)
- Representatives from provider practice groups, hospitalists, health plans, hospital nurses and administration, public health professionals, childbirth educators, and doulas.
The CMQCC Toolkit

- Comprehensive, evidence-based “How-to Guide” to reduce primary cesarean delivery in the NTSV population
- Will be the resource foundation for the CA QI collaborative project
- The principles are generalizable to all women giving birth
- Released on the CMQCC website April 28, 2016
- Has a companion Implementation Guide
Safe Prevention of the Primary Cesarean Delivery

Abstract: In 2011, one in three women who gave birth in the United States did so by cesarean delivery. Cesarean birth can be lifesaving for the fetus, the mother, or both in certain cases. However, the rapid increase in cesarean birth rates from 1996 to 2011 without clear evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused. Variation in the rates of nulliparous, term, singleton, vertex cesarean births also indicates that clinical practice patterns affect the number of cesarean births performed. The most common indications for primary cesarean delivery include, in order of frequency, labor dystocia, abnormal or indeterminate (formerly, nonreassuring) fetal heart rate tracing, fetal malpresentation, multiple gestation, and suspected fetal macrosomia. Safe reduction of the rate of primary cesarean deliveries will require different approaches for each of these, as well as other, indications. For example, it may be necessary to revisit the definition of labor dystocia because recent data show that contemporary labor progresses at a rate substantially slower than what was historically taught. Additionally, improved and standardized fetal heart rate interpretation and management may have an effect. Increasing women’s access to nonmedical interventions during labor, such as continuous labor and delivery support, also has been shown to reduce cesarean birth rates. External cephalic version for breech presentation and a trial of labor for women with twin gestations when the first twin is in cephalic presentation are other of several examples of interventions that can contribute to the safe lowering of the primary cesarean delivery rate.
First and foremost, it should be understood that a labor support and cesarean reduction program seeks to reduce unnecessary cesarean births. The program’s charter must clearly recognize that timely and well-chosen cesareans are sometimes necessary to prevent avoidable fetal-and maternal harm.
Paradigm Shift

Most Cesarean Births are inevitable though some are preventable

Changes in practice style can prevent many Labor Cesarean Births
Crossing the Chasm

Geoffrey Moore - 1991

Innovators  Early Adopters  The Big Scary Chasm in Question  Early Majority  Late Majority  Laggards
Using a toolkit you pick the right tool for the job
(and one you know how to use)
SAFE REDUCTION OF PRIMARY CESAREAN BIRTHS: SUPPORTING INTENDED VAGINAL BIRTHS

The Toolkit translates the AIM Safety Bundle for Safe Reduction of Cesarean into an easy-to-use “menu” of tools and practical approaches:

- Readiness
- Recognition and Prevention
- Response to Every Labor Challenge
- Reporting
Sharing in decision making: The SHARE Model

- **Seek the patient’s participation**

- **Help her explore each option and the corresponding risks and benefits**

- **Assess what matters most to her**

- **Reach a decision together and arrange for a follow up conversation**

- **Evaluate her decision (revisit the decision and assess whether it has been implemented as planned)**

<table>
<thead>
<tr>
<th>PATIENT DECISION POINTS THAT IMPACT RISK OF CESAREAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice of provider and/or facility for prenatal care and care at time of birth</td>
</tr>
<tr>
<td>Timing of admission to hospital (admission to labor and delivery while still in the latent/early phase is associated with an increased risk of cesarean)</td>
</tr>
<tr>
<td>Choice of fetal monitoring method (continuous monitoring is associated with an increased risk of cesarean)</td>
</tr>
<tr>
<td>Whether to have continuous labor support by a trained caregiver like a doula (continuous labor support improves chances of having a vaginal birth)</td>
</tr>
<tr>
<td>Induction of labor without medical indication</td>
</tr>
</tbody>
</table>
What about women who request a Primary Cesarean Birth?

It is important to communicate early and often during the prenatal period to alleviate any fears related to incomplete information.

Fear of pain is a common concern. Work with her to identify good labor support personnel.

Provider guidance is critical. Different approaches and attitudes reflect different rates.

Incidence is less than 1%
Birth Preferences Worksheet

- Collaborate with healthcare provider to determine birth preferences
- Tailor choices to what is available at each facility

Example available in the toolkit
Every patient

- Implement standardized admission criteria, triage management, education, and support for women presenting in spontaneous labor.
- Offer standardized techniques of pain management and comfort measures that promote labor progress and prevent dysfunctional labor.
- Use standardized methods in the assessment of the fetal heart rate status, including interpretation, documentation using NICHD terminology, and encourage methods that promote freedom of movement.
- Adopt protocols for timely identification of specific problems, such as herpes and breech presentation, for patients who can benefit from proactive intervention before labor to reduce the risk for cesarean birth.
Examples of Tools

- Model policies for intermittent monitoring, freedom of movement, early labor support, etc.
- Coping with labor algorithm
- Guidelines for working with doulas
- Patient education and decision guides
Implement Early Labor Supportive Care Policies and Active Labor Criteria for Admission

• Translation: Early labor at home. Let labor start on its own!

• **Physiologic onset of labor is critical to the success in labor**, and introduces moms and babies to protective hormonal pathways

• Women admitted in early labor are more likely to have a cesarean, and more likely to have routine interventions e.g. oxytocin even if not clinically necessary
Early admission support

- Admission policy or checklist for spontaneous labor
- Latent labor support and therapeutic rest policies
- Patient education materials to explain rationale for delayed admission, reduce anxiety and provide guidance on when to return to the labor and delivery unit
- Material with specific guidance for partners and family members as to how to best support the woman in early labor
Key Components of Labor Support

**Policies should encourage:**

- Freedom of movement in labor
- Upright and ambulatory positioning
- Nonpharmacologic comfort measures
- Use of techniques and tools that facilitate fetal rotation, flexion, and descent for women with epidural anesthesia
- Maternal exercises and positioning that facilitate fetal rotation in women with and without epidural anesthesia
Approaches to Limit Intervention During Labor and Birth

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 admitted, a process of shared decision making is recommended. Admission during the latent phase of labor may be necessary for a variety of reasons.
- A pregnant woman with term premature rupture of membranes (also known as prelabor rupture of membranes) should be assessed, and the woman and her obstetrician–gynecologist or other obstetric care provider should make a plan for expectant management versus admission and induction.
- Data suggest that in women with normally progressing labor and no evidence of fetal compromise, routine amniotomy is not necessary.
- The widespread use of continuous electronic fetal heart-rate monitoring has not improved outcomes when used for women with low-risk pregnancies.
- Multiple nonpharmacologic and pharmacologic techniques can be used to help women cope with labor pain.
- Women in spontaneously progressing labor may not require routine continuous infusion of intravenous fluids. For most women, no one position needs to be mandated nor proscribed.
- Obstetrician–gynecologists and other obstetric care providers should be familiar with and consider using low-interventional approaches for the intrapartum management of low-risk women in spontaneous labor.
Promoting mobility in labor/birth

• For both patients with and without regional anesthesia/analgesia
• Know your labor beds and what they can do
• Use of birthing balls and peanut balls
• Posters in labor rooms of labor positions
• Use of telemetry EFM
Interventions and their outcomes

Cascade of intervention in first-time mothers with term births who experienced labor

Base: first-time mothers with term births who experienced labor n=750

- First-time mothers with term births (37-41 weeks’ gestation) who experienced labor
  - Induction No 53%
    - Epidural No 39%
      - Cesarean Yes 5%
    - Epidural Yes 61%
      - Cesarean Yes 20%
  - Induction Yes 47%
    - Epidural No 22%
      - Cesarean Yes 19%
    - Epidural Yes 78%
      - Cesarean Yes 31%

In this group, which included 85% of first-time mothers, the overall epidural rate was 69% and overall cesarean rate was 21%.

Non-Pharmacologic Approaches Are Relevant To Every Laboring Woman

- Continuous labor support
- Breathing and relaxation techniques
- Touch techniques and massage
- Positions to promote comfort
- Heat and cold therapy
- Hydrotherapy
- Sterile water injections
- Transcutaneous electric nerve stimulation
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...Given that there are no associated measurable harms, this resource is probably underutilized.”

Continuous Labor Support During Childbirth

(Cochrane Review updated 2017)

Improves outcomes for women and infants:

- Increased spontaneous vaginal birth
- Shorter duration of labor
- Decreased cesarean birth
- Decreased instrumental vaginal birth
- Decreased use of analgesia
- Decreased low 5-min Apgar score
- Decreased negative feelings about childbirth experience
Coping Algorithm

**Coping with Labor Algorithm v2©**

**Legend**
- [S] = Sufficient Evidence
- [L] = Limited Evidence
- [I] = Insufficient Evidence
- [?] = No Evidence & No Harm

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**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**

- **Cues 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

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**Physiologic, Natural process of labor**

- Patient desires pharmacological intervention
- Patient desires non-pharmacological intervention

**Physical Environment**

- Appropriate changes to environment PRN [S]
  - Mood
  - Lighting [?]
  - Music [?]

**Emotional / Psychosocial**

- One-on-One Support [S]
- Doula [S]
- Midwifery Care being “With Woman” [S]
Examples

- Spontaneous labor algorithms/dystocia checklists
- Induction algorithms/checklists/policies for timing, scheduling, proper selection
- Algorithms for standard intervention for FHR changes
- Model policies for oxytocin
- Tools for effective communication
Four Specific Areas that Standardization Can Significantly Improve

- Diagnosis of labor dystocia
- Use of oxytocin
- Response to abnormal heart rate patterns
- Induction of labor
Prevention and Management of Malposition

- Avoid routine early amniotomy
- Employ preventive measures for women with epidural anesthesia
- Intrapartum maternal/fetal positioning
- Consider pushing positions
- Support maternal psyche and body
- Manual rotation
- Patience, patience, patience!
Pre-Cesarean Checklist for Labor Dystocia or Failed Induction

Pre-cesarean Checklist for Labor Dystocia or Failed Induction

Patient Name: ________________ MR#: ________________

Gestational Age: ________ Date of C-section: ____________

Time: ____________________________

Obstetrician: ____________________ Initial: ____________

Bedside Nurse: ____________________ Initial: ____________

Indication for Primary Cesarean Delivery:

___ Failed Induction (must have both criteria if cervix unfavorable, Bishop Score < 8 for nullips and <6 for multips)

___ Cervical Ripening used (when starting with unfavorable Bishop scores as noted above), Ripening agent used: __________________;

___ Reason ripening not used if cervix unfavorable: __________________

___ AND

___ Unable to generate regular contractions (every 3 minutes) and cervical change after oxytocin administered for at least 12-18 hours after membrane rupture.* Note: at least 24 hours of oxytocin administration after membrane rupture is preferable if maternal and fetal statuses permit

___ Latent Phase Arrest <6 cm dilation (must fulfill one of the two criteria)

___ Active Phase Arrest > 6 cm Dilation (must fulfill one of the two criteria)

Membranes ruptured (if possible), then:

___ Adequate uterine contractions (e.g. moderate or strong to palpation, or > 200 MVU, for ≥ 4 hours) without improvement in dilation, effacement, station or position

OR

___ Inadequate uterine contractions (e.g. < 200 MVU) for ≥ 6 hours of oxytocin administration without improvement in dilation, effacement, station or position

___ Second Stage Arrest (must fulfill any one of four criteria)

___ Nullipara with epidural pushing for at least 4 hours

OR

___ Nullipara without epidural pushing for at least 3 hours

OR

___ Multipara with epidural pushing for at least 3 hours

OR

___ Multipara without epidural pushing for at least 2 hours

___ Although not fulfilling contemporary criteria for labor dystocia as described above, my clinical judgment deems this cesarean delivery indicated

Failed Induction: Duration in hours: ____________________

Latent-Phase Arrest: Duration in hours: ____________________

Active Phase Arrest: Duration in hours: ____________________

Second Stage Arrest: Duration in hours: ____________________
Active Labor Partogram available in the Toolkit
Every birth facility

- Track and report labor and cesarean measures in sufficient detail to: 1) compare to similar institutions, 2) conduct case review and system analysis to drive care improvement, and 3) assess individual provider performance.

- Track appropriate metrics and balancing measures, which assess maternal and newborn outcomes resulting from changes in labor management strategies to ensure safety.
Strategies

- Provide timely feedback in persuasive manner
- Use comparative data which conveys a sense of urgency
- Present data for both hospital and providers
- Set achievable goals
- Tie descriptive “cold” data with patient stories and other successes
Use strategies to engage women, employers and the general public in the improvement project

- Public release of selected hospital-level measures that have been well-vetted
- Provide a lay explanation of the measures
- Widely distribute these measures through multiple media channels to capture the greatest attention
### Provider-Level Cesarean Rates

**Period: Oct 2012 - Sep 2013 (12 months)**

<table>
<thead>
<tr>
<th></th>
<th>Total Deliveries</th>
<th>NTNV Cesarean Section</th>
<th>Total CS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>D</td>
<td>Rate</td>
</tr>
<tr>
<td><strong>Oct 2012 - Sep 2013</strong></td>
<td>27.6%</td>
<td>163090</td>
<td>33.2%</td>
</tr>
<tr>
<td><strong>Missing Provider</strong></td>
<td>491</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample Medical Center</strong></td>
<td>5844</td>
<td>32.2%</td>
<td>37.9%</td>
</tr>
<tr>
<td><strong>G7xxxx</strong></td>
<td>52</td>
<td>13.6%</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>G6xxxx</strong></td>
<td>47</td>
<td>36.8%</td>
<td>40.4%</td>
</tr>
<tr>
<td><strong>G5xxxx</strong></td>
<td>68</td>
<td>20.8%</td>
<td>42.6%</td>
</tr>
<tr>
<td><strong>G8xxxx</strong></td>
<td>60</td>
<td>15.4%</td>
<td>21.7%</td>
</tr>
<tr>
<td><strong>A8xxxx</strong></td>
<td>190</td>
<td>42.7%</td>
<td>44.7%</td>
</tr>
<tr>
<td><strong>A6xxxx</strong></td>
<td>52</td>
<td>35.0%</td>
<td>42.3%</td>
</tr>
<tr>
<td><strong>A5xxxx</strong></td>
<td>2</td>
<td>No Cases</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>A4xxxx</strong></td>
<td>114</td>
<td>35.3%</td>
<td>46.5%</td>
</tr>
<tr>
<td><strong>A8xxxx</strong></td>
<td>214</td>
<td>18.3%</td>
<td>28.0%</td>
</tr>
<tr>
<td><strong>A9xxxx</strong></td>
<td>481</td>
<td>36.2%</td>
<td>43.2%</td>
</tr>
</tbody>
</table>

Note the two busiest providers had widely different rates.

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**Screen Shot from the CMQCC Maternal Data Center**

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**Transforming Maternity Care**

A Toolkit to Support Vaginal Birth and Reduce Primary Cesareans
**Project Aim**

Within 18 months of project start, NTSV cesarean section rates will decrease by 20% in all participating hospitals.

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**Primary Drivers**

- **Readiness**
  - A unit that values, promotes, supports vaginal birth

- **Recognition/Prevention**
  - Standardization of processes to increase chances of vaginal birth

- **Response**
  - Standardization of responses to labor challenges to prevent cesarean

- **Reporting**
  - Track and report labor and cesarean measures

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**Secondary Drivers**

- Revise Policies/Protocols to Support Vaginal Birth

- Physician, nursing, staff education on approaches that maximize likelihood of vaginal birth

- Establish standard criteria for induction, active labor admission and triage management

- Implement standard methods to assess, interpret, and respond to abnormal FHR

- Establish standardized labor algorithms/policies, to recognize and treat dystocia

- Track cesarean section rates

- Track balancing measures
Recommended Key Practices

1. Improve access to and promote quality childbirth education, informed consent, and shared decision making

2. Implement institutional policies that uphold best practices in obstetrics, safely reduce routine interventions in low-risk women, and consistently support vaginal birth

3. Educate nurses and providers on intermittent auscultation/EFM and implement intermittent monitoring for low-risk women

4. Educate nurses on labor support skills that promote labor progress, labor support, pain management

5. Educate and encourage providers: external version, operative vaginal delivery, breech delivery
Recommended Key Practice

6. Establish standard criteria for induction, active labor admission and assess all women on admission

7. Encourage use of doulas and create doula-friendly policies

8. Increase access to non-pharmacological pain management/labor progression tools

9. Implement standard diagnostic criteria and responses to labor challenges and HR abnormalities

10. Track provider-level cesarean section rates and conduct case reviews to drive improvement
You do \textbf{not} need to do all of this at once
PROVIDE’s 3 Focus Areas

- Hospitals will review baseline data and environment, and prioritize what needs improvement in the local setting.
- May choose one, more or progressively as needed.
- Based on Key Drivers of NTSV rates the 3 focus areas are:
  1. Induction
  2. Labor Dystocia/Failure to Progress
  3. Fetal Heart Rate Concerns
- Interventions/Strategies/Recommended Practices are evidence-based and individualized to the local setting.
QUESTIONS?

Partnering to Improve Health Care Quality for Mothers and Babies