California and National Efforts to Support Vaginal Birth and Reduce Primary Cesareans

Funding for the development of this toolkit was provided by the California Health Care Foundation
California Maternal Quality Care Collaborative (CMQCC)

- Multi-stakeholder organization established in 2006: providers, state agencies, public groups with focus on Maternal Care
- Hosts California Maternal Mortality Review Committee
- Sister organization with CPQCC (neonatal care)
- Developer of QI toolkits: Early Elective Delivery, OB Hemorrhage, Preeclampsia, CVD in Pregnancy, and First Cesarean Prevention
- Leads multiple QI Collaboratives (Hemorrhage, HTN)
- Established Maternal Data Center in 2011
CMQCC’s Key Stakeholders/ Partners

State Agencies
- CA Department of Public Health, MCAH
- Regional Perinatal Programs of California (RPPC)
- DHCS: Medi-Cal
- Office of Vital Records
- Office of Statewide Health Planning and Development (OSHPD)
- Covered California

Professional Groups (California sections of national organizations)
- American College of Obstetricians and Gynecologists (ACOG)
- Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN)
- American College of Nurse Midwives (ACNM),
- American Academy of Family Physicians (AAFP)

Membership Associations
- Hospital Quality Institute (HQI)/ California Hospital Association (CHA)
- Pacific Business Group on Health (PBGH)
- Integrated Healthcare Association (IHA)

Public and Consumer Groups
- March of Dimes (MOD)
- California HealthCare Foundation (CHCF)
- California Hospital Accountability and Reporting Taskforce (CHART)

Key Medical and Nursing Leaders
- UC, Kaisers, Sutter, Sharp, Dignity Health, Scripps, Providence, Public hospitals
Today’s Discussion

- Discuss the side variation in risk adjusted CS rates
- Identify multiple reasons as to why should we care about CS rates
- Discuss various state and national efforts to reduce primary CS rates
- Summarize key parts of The Toolkit: Readiness, Recognition, Response, Reporting—barriers, strategies and tools
- Recognize success strategies from hospitals with low rates
- Recall pilot hospital success stories
- Identify areas to prioritize: What do we do first? Implementation guide
“Let’s Begin with a Test” (NYT):

You are about to give birth. Pregnancy has gone smoothly. The birth seems as if it will, too. It’s one baby, in the right position, full term, and you’ve never had a cesarean section — in other words, you’re at low risk for complications.

What’s likely to be the biggest influence on whether you will have a C-section?

(A) Your personal wishes.
(B) Your choice of hospital.
(C) Your baby’s weight.
(D) Your baby’s heart rate in labor.
(E) The progress of your labor.

Rosenberg T, NYT, Jan 19 2016
Cesarean Delivery Rates Vary Tenfold Among US Hospitals; Reducing Variation May Address Quality And Cost Issues

ABSTRACT Cesarean delivery is the most commonly performed surgical procedure in the United States, and cesarean rates are increasing. Working with 2009 data from 593 US hospitals nationwide, we found that cesarean rates varied tenfold across hospitals, from 7.1 percent to 69.9 percent. Even for women with lower-risk pregnancies, in which more limited variation might be expected, cesarean rates varied fifteenfold, from 2.4 percent to 36.5 percent. Thus, vast differences in practice patterns are likely to be driving the costly overuse of cesarean delivery in many US hospitals. Because Medicaid pays for nearly half of US births, government efforts to decrease variation are warranted. We focus on four promising directions for reducing these variations, including better coordinating maternity care, collecting and measuring more data, tying Medicaid payment to quality improvement, and enhancing patient-centered decision making through public reporting.
NTSV CS Rate Among CA Hospitals: 2014
(Nulliparous Term Singleton Vertex)

Range: 12%—70%
Median: 25.3%
Mean: 26.2%

40% of CA hospitals meet national target
Large Variation = Improvement Opportunity

Risk Adjustment did not reduce the variation

National Target = 23.9%
Why focus on Nulliparous Term Singleton Vertex Cesarean Section?
Importance of the First Birth

If a woman has a Cesarean birth in the first labor, over 90% of ALL subsequent births will be Cesarean births.

A classic example of path dependency

If a woman has a vaginal birth in the first labor, over 90% of ALL subsequent births will be vaginal births.
## What Indications Have Driven the RISE in CS?

<table>
<thead>
<tr>
<th>Cesarean Indication</th>
<th>Percent of the Increase in Primary Cesarean Rate Attributable to this Indication</th>
<th>Yale (2003 v. 2009) (Total: 26% to 36.5%) Focus: all primary Cesareans</th>
<th>Kaiser SoCal (1991 v. 2008) (Primary: 12.5% to 20%) Focus: all primary singleton Cesareans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor progress complications (CPD/FTP)</td>
<td>28%</td>
<td>60%!</td>
<td>~38%</td>
</tr>
<tr>
<td>Fetal Intolerance of Labor</td>
<td>32%</td>
<td>~24%</td>
<td></td>
</tr>
<tr>
<td>Breech/Malpresentation</td>
<td>&lt;1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Gestation</td>
<td>16%</td>
<td></td>
<td>Not available</td>
</tr>
<tr>
<td>Various Obstetric and Medical Conditions (Placenta Abnormalities, Hypertension, Herpes, etc.)</td>
<td>6%</td>
<td></td>
<td>20% (Did not separate preeclampsia from other complications)</td>
</tr>
<tr>
<td>Preeclampsia</td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Elective” (variously defined)</td>
<td>8% (Scheduled without “medical indication”)</td>
<td></td>
<td>18% (Those “without a charted indication”)</td>
</tr>
</tbody>
</table>
What Indications Drive the **VARIATION** in CS?

<table>
<thead>
<tr>
<th>CS Indication</th>
<th>Proportion of Overall CS Rate</th>
<th>Proportion of Primary CS Rate</th>
<th>CS Rate for this Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat (prior)</td>
<td>30-35%</td>
<td>---</td>
<td>90+%</td>
</tr>
<tr>
<td>“Abnormal Labor” (CPD/FTP)</td>
<td>25-30%</td>
<td>35-45%</td>
<td>Highly variable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60%!</td>
<td></td>
</tr>
<tr>
<td>Fetal Intolerance of labor</td>
<td>10-15%</td>
<td>15-20%</td>
<td>Highly variable</td>
</tr>
<tr>
<td>Breech/Transverse</td>
<td>10%</td>
<td>15-20%</td>
<td>98%</td>
</tr>
<tr>
<td>Multiple Gestation</td>
<td>5-9%</td>
<td>10-15%</td>
<td>60-80%</td>
</tr>
<tr>
<td>Other: Placenta Previa, Herpes, etc</td>
<td>~5%</td>
<td>~10%</td>
<td>90%</td>
</tr>
</tbody>
</table>
“But My Patients are Higher Risk…”

- NTSV CS measure is already risk stratified
- The only race that impacts is African-American
- Age and BMI clearly impact an individual’s CS risk
- Formal risk-adjustment analysis using both age and BMI shows that over 2/3 hospitals realize less than 2% change
- Age and BMI effects may be provider dependent (more patience for obese women’s labor)
Effects of Maternal Age and BMI on Hospital NTSV CS Rates:
Green = Hospitals with NTSV CS Rate <25%
RED = Hospitals with NTSV CS Rate >35%

Every “red dot” (high NTSV CS rate hospital) has multiple “green dots” (low NTSV CS rate hospitals) directly adjacent with similar proportions of high maternal age and high BMI.
Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Section Rate: Performance Measure

- Risk Stratified ("standard population of nullips")
- Focus on labor management
- Widely Adopted Nationally
  - HHS: Healthy Person 2010 and 2020
  - NQF endorsed: Joint Commission Perinatal Core Measure (PC-02), LeapFrog, CMS
- Further risk adjustment adds little (more to come later)
- >15 years experience
- Can be calculated at all levels: national, state, hospital, and provider
Cesarean: Neonatal Risks

- Increased neonatal morbidity
  - Impaired neonatal respiratory function
  - Increased NICU admissions
  - Affects maternal-newborn interactions including breastfeeding

- Unrealized benefits
  - Cerebral Palsy rates, neonatal seizure rates unchanged since 1980
Cesarean: Maternal Risks

**Acute**

Common:
- Longer hospital stay
- Increased pain and fatigue
- Postpartum hemorrhage (transfusions ~2%)
- Slower return to normal activity and productivity
- Delayed or difficult breastfeeding

1/100 to 1/1000
- Anesthesia complications
- Wound infection
- Deep vein thrombosis

**Long Term & Subsequent Births**

1/100 to 1/1000
- Abnormal placentation (previas and accretas)
- Uterine rupture
- Surgical adhesions
- Bladder surgical injury
- Bowel surgical injury
- Bowel obstruction

*We perform over 160,000 Cesareans every year in California*
Maternal Psychological Risks

**ACUTE**
- Delayed and/or ineffective bonding with neonate
- Maternal anxiety

**LONGER TERM**
- Post traumatic stress disorder (PTSD)
- Postpartum anxiety and depression
Summary of Issues

- Extreme variation among hospitals
- Rapid rise of rates without neonatal or maternal benefits (indeed can have complications)
- Significant consequences for future pregnancies

But, Cesarean births can also be life-saving and they have an absolute role in Obstetrics—making the message to patients: “They shouldn’t be taken lightly”
Multiple California and National Projects to Support Vaginal Birth Reduce Primary Cesareans
California and National Projects

**California**
- CMQCC QI Toolkit
- Joint ACOG/AWHONN Speakers Bureau
- Multi-hospital QI Collaboratives
- Public release of hospital NTSV CS rates (TJC PC-02)
- Multi-stakeholder engagement

**National**
- National Safety Bundle
- ACOG (National) Letter of Support for CMQCC Toolkit
- Maternal Child Health Bureau support for Stare projects
- CMS/Medicaid support for state Medicaid projects
**Key Foundation Materials**

New National Guidelines for Defining Labor Abnormalities and Management Options
Greater clinical **patience** is the main focus of many of the recommendations in the ACOG/SMFM Obstetric Care Consensus on Safe Prevention of the Primary Cesarean Delivery.
Active Labor: “6 is the new 4”

Fig. 2. Average labor curves by parity in singleton term pregnancies with spontaneous onset of labor, vaginal delivery, and normal neonatal outcomes. P0, nulliparous women; P1, women of parity 1; P2+, women of parity 2 or higher.

### Table 3. Recommendations for the Safe Prevention of the Primary Cesarean Delivery

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First stage of labor</strong></td>
<td></td>
</tr>
<tr>
<td>A prolonged latent phase (e.g., greater than 20 hours in nulliparous women and greater than 14 hours in multiparous women) should not be an indication for cesarean delivery.</td>
<td>Strong recommendation</td>
</tr>
<tr>
<td>Slow but progressive labor in the first stage of labor should not be an indication for cesarean delivery.</td>
<td>Strong recommendation</td>
</tr>
<tr>
<td>Cervical dilation of 6 cm should be considered the threshold for the active phase of most women in labor. Thus, before 6 cm of dilation is achieved, standards of active phase progress should not be applied.</td>
<td>Strong recommendation</td>
</tr>
<tr>
<td>Cesarean delivery for active phase arrest in the first stage of labor should be reserved for women at or beyond 6 cm of dilation with ruptured membranes who fail to progress despite 4 hours of adequate uterine activity, or at least 6 hours of oxytocin administration with inadequate uterine activity and no cervical change.</td>
<td>Strong recommendation</td>
</tr>
</tbody>
</table>

### Table 3. Recommendations for the Safe Prevention of the Primary Cesarean Delivery

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Induction of labor</strong></td>
<td>Strong recommendation</td>
</tr>
<tr>
<td>Before 41 0/7 weeks of gestation, induction of labor generally should be performed based on maternal and fetal medical indications. Inductions at 41 0/7 weeks of gestation and beyond should be performed to reduce the risk of cesarean delivery and the risk of perinatal morbidity and mortality. Cervical ripening methods should be used when labor is induced in women with an unfavorable cervix.</td>
<td></td>
</tr>
<tr>
<td>If the maternal and fetal status allow, cesarean deliveries for failed induction of labor in the latent phase can be avoided by allowing longer durations of the latent phase (up to 24 hours or longer) and requiring that oxytocin be administered for at least 12–18 hours after membrane rupture before deeming the induction a failure.</td>
<td>Strong recommendation</td>
</tr>
</tbody>
</table>

Safe Reduction of Primary Cesarean Births: Supporting Intended Vaginal Births

- National Safety Bundle / Multi-disciplinary QI Outline
- Senior leaders from ACOG, AWHONN, ACNM, SMFM, AAFP, SOAP, ASA, ABOG and others
- Bundle has 4 Domains:
  - Readiness (every patient, provider and facility)
  - Recognition and Prevention (every patient)
  - Response (to every labor challenge)
  - Reporting/System Learning (every birthing facility)

www.Safehealthcareforeverywoman.org

Direct links also found on the ACOG homepage
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
Public Release: April 28, 2016

Download from: www.CMQCC.org

Multi-disciplinary Collaboration, Aligned with key ACOG, AWHONN, ACNM documents

Supplemental Materials: Implementation Guide Hospital self-assessments More to come…
CMQCC Supporting Vaginal Birth Taskforce

<table>
<thead>
<tr>
<th>Writing Group</th>
<th>Review Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstetricians</td>
<td>ACOG leaders</td>
</tr>
<tr>
<td>MFMs</td>
<td>AWHONN leaders</td>
</tr>
<tr>
<td>Certified Nurse Midwives</td>
<td>ACNM leaders</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>SOAP (Society of Obstetric Anesthesia Providers) leaders</td>
</tr>
<tr>
<td>Educators</td>
<td>California Hospital Association</td>
</tr>
<tr>
<td>Doulas</td>
<td>Medical Liability providers</td>
</tr>
<tr>
<td>Hospital Leaders</td>
<td>Several Hospital Systems</td>
</tr>
<tr>
<td>Public Health</td>
<td></td>
</tr>
</tbody>
</table>

Over 50 Contributors
Toolkit: Table of Contents

- Executive Summary
- The Case for Improvement in Cesarean Birth Rates
- Part I: Readiness:
  - Improving the culture of care, awareness and education
- Part II: Recognition and Prevention
  - Supporting intended vaginal birth
- Part III: Response
  - Management of labor abnormalities
- Part IV: Reporting and System Learning
  - Using data to drive improvement
- Part V: Success Stories
  - Lessons learned from California hospitals
- Appendices: specific QI tool examples and links
May 24, 2016

John Wachtel, MD
Chair, District IX
American Congress of Obstetricians and Gynecologists

Dear Dr. Wachtel:

In representing the American College of Obstetricians and Gynecologists (ACOG), we would like to congratulate you and all the contributors involved in the development of the CMQCC “Toolkit to Support Vaginal Birth and Reduce Primary Cesareans”. We have had the honor to review this comprehensive toolkit and ACOG strongly supports its dissemination and use to address the efforts at reducing the primary Cesarean delivery rate. The toolkit includes a number of resources that could be implemented, and the plan to disseminate the information via speaker training sessions and site visits to encourage implementation are laudable.

Clearly, the rising Cesarean delivery rate, and particularly the primary Cesarean rate, is concerning to all involved in the provision of women’s healthcare, and although here have been a number of efforts nationwide to address this problem, they have been met with mixed success. This excellent resource, and the plan for encouraging awareness and implementation is unquestionably a commendable program to address this issue and should set a benchmark for achieving success in reducing the primary Cesarean delivery rate. We look forward to the program’s implementation, and to hear of the future successes.

Again, we express our sincere gratitude and strong support for everyone who had a part in developing this toolkit. Congratulations, and best wishes moving forward!

Sincerely,

Hal. C. Lawrence III, MD
Executive Vice President and CEO

Christopher M. Zahn, MD
Vice President, Practice Activities
May 24, 2016

John Wachtel, MD
Chair: District IX
American Congress of Obstetricians and Gynecologists

Dear Dr. Wachtel:

In representing the American College of Obstetricians and Gynecologists (ACOG), we would like to congratulate you and all the contributors involved in the development of the CMQCC "Toolkit to Support Vaginal Birth and Reduce Primary Cesareans". We strongly support the dissemination and use of this comprehensive toolkit to address the efforts at reducing the primary Cesarean delivery rate.

Clearly, the rising Cesarean delivery rate, and particularly the primary Cesarean rate, is a matter of concern to all involved in the provision of women’s healthcare. Although there have been a number of efforts nationwide to address this issue and improve maternal outcomes, a coordinated, practical plan to support vaginal birth and reduce primary Cesareans is a commendable program. This excellent resource, along with the plan for encouraging awareness and implementation, will undoubtedly set a benchmark for achieving success in reducing the primary Cesarean delivery rate.

Again, we extend our congratulations on the development of this toolkit. Congratulations, and best wishes moving forward.

Sincerely,

Hal. C. Lawrence III, MD
Executive Vice President and CEO

Christopher M. Zahn, MD
Vice President, Practice Activities
Developing a maternity culture that values, and supports intended vaginal birth
Strategies

- Create a unit culture to support intended vaginal birth
- Improve access and quality to modern childbirth education
- Improved shared decision making at critical points
- Bridge provider knowledge and skills gap
Examples

- Sources of best childbirth education tools
- Tools/policies/concepts of “mother friendly” hospital
- Approaches to shared decision making and training aspects
- Establish a team to create excitement and communications for implementation of the Toolkit
Sharing in decision making: The SHARE Model

- **S** Seek the patient’s participation
- **H** Help her explore each option and the corresponding risks and benefits
- **A** Assess what matters most to her
- **R** Reach a decision together and arrange for a follow up conversation
- **E** Evaluate her decision (revisit the decision and assess whether it has been implemented as planned)

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
RECOGNITION AND PREVENTION

Key Strategies for Supporting Intended Vaginal Birth
Strategies

- Implement institutional policies which support vaginal birth
- Early labor management and supportive care
- Labor support personnel (e.g. doulas)
- Infrastructure/equipment
- Best practices for regional anesthesia
- Protocols for intermittent auscultation
- Protocols for modifiable conditions like HSV and breech position
Examples

- 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
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
- Setting expectations prior to labor is a critical step
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
- Decreased length of labor
- Decreased CS rate in patients with epidurals

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
RESPONSE

Management of Labor Abnormalities
Strategies

- Create highly reliable teams and improve interdisciplinary communication
- Adopt standard definitions and approaches for labor and FHR abnormalities
- Utilize operative vaginal deliveries in appropriate cases
- Identify malposition and perform manual rotation
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
Example of ACOG/SMFM Labor Dystocia Checklist in toolkit

CMQCC Labor Dystocia Checklist (ACOG/SMFM Criteria)

1. Diagnosis of Dystocia/Arrest Disorder (all 3 should be present)
   - □ Cervix 6 cm or greater
   - □ Membranes ruptured, then
   - □ No cervical change after at least 4 hours of adequate uterine activity (e.g. strong to palpation or MVUs > 200), or at least 6 hours of oxytocin administration with inadequate uterine activity

2. Diagnosis of Second Stage Arrest (only one needed)
   - No descent or rotation for:
     - □ At least 4 hours of pushing in nulliparous woman with epidural
     - □ At least 3 hours of pushing in nulliparous woman without epidural
REPORTING/SYSTEMS

Using Data to Drive Improvement
Internal 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
External Strategies

- 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

<table>
<thead>
<tr>
<th></th>
<th>Total Deliveries</th>
<th>Rate</th>
<th>D</th>
<th>Rate</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oct 2012 - Sep 2013</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing Provider</td>
<td>491</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Medical Center</td>
<td>5844</td>
<td>32.2%</td>
<td>2369</td>
<td>37.9%</td>
<td>5844</td>
</tr>
<tr>
<td>G7xxxx</td>
<td>52</td>
<td>13.6%</td>
<td>22</td>
<td>9.6%</td>
<td>52</td>
</tr>
<tr>
<td>G6xxxx</td>
<td>47</td>
<td>36.8%</td>
<td>19</td>
<td>40.4%</td>
<td>47</td>
</tr>
<tr>
<td>G5xxxx</td>
<td>68</td>
<td>20.8%</td>
<td>24</td>
<td>42.6%</td>
<td>68</td>
</tr>
<tr>
<td>G8xxxx</td>
<td>60</td>
<td>15.4%</td>
<td>26</td>
<td>21.7%</td>
<td>60</td>
</tr>
<tr>
<td>A8xxxx</td>
<td>190</td>
<td>42.7%</td>
<td>75</td>
<td>44.7%</td>
<td>190</td>
</tr>
<tr>
<td>A6xxxx</td>
<td>52</td>
<td>35.0%</td>
<td>20</td>
<td>42.3%</td>
<td>52</td>
</tr>
<tr>
<td>A5xxxx</td>
<td>2</td>
<td>No Cases</td>
<td>0</td>
<td>100.0%</td>
<td>2</td>
</tr>
<tr>
<td>A4xxxx</td>
<td>114</td>
<td>35.3%</td>
<td>51</td>
<td>46.5%</td>
<td>114</td>
</tr>
<tr>
<td><strong>A8xxxx</strong></td>
<td>214</td>
<td>18.3%</td>
<td>82</td>
<td>28.0%</td>
<td>214</td>
</tr>
<tr>
<td><strong>A9xxxx</strong></td>
<td>481</td>
<td>36.2%</td>
<td>163</td>
<td>43.2%</td>
<td>481</td>
</tr>
</tbody>
</table>

Note the two busiest providers had widely different rates.
Example Hospitals With Sustained Success
John Muir – Walnut Creek
(Non-profit Private Practice Hospital with ~2,800 annual births)

- Turning point – embedded practices in the culture
  - Patience with length of labor
  - External Cephalic version
  - Skilled attendants in singleton vaginal breech births

- A safe oxytocin use policy
- Non-medically indicated induction elimination
- Intermittent monitoring for low-risk women
  - With telemetry
  - Delayed pushing in second stage
- Delivery in OR not necessarily cesarean
  - Be prepared, but not committed to cesarean

NTSV Rate 17.4%
Kaiser Permanente – Roseville  
(Staff-Model HMO Hospital with ~5,300 annual births)

- 24/7 staffing with OB Hospitalist
- Utilizes midwives
- Adherence to quality improvement principles
- Early adopters of Preventing the First Cesarean Delivery
- Recognition of the team contribution – nurses are key
- Data frequently shared
- Tailored messaging to different disciplines
- OB Medical Director

Challenges:
- 23% Obese/Morbidly Obese (pre-pregnant)
- 19% over 35yrs of age

NTSV Rate 16.9%
Is Change Possible?

- We know there are some hospitals with low rates and others with high rates

- But can we take hospitals with high rates and lower their rates significantly?
3 Pilot QI Projects Tested
Key Parts of the Toolkit

- Hoag Hospital, Newport Beach CA
- Miller Children’s and Women’s Hospital, Long Beach CA
- Saddleback Memorial Medical Center, Laguna Hills CA
Monthly QI Control Chart: NTSV CS Pilot Project

Baseline: 31.5%
New Baseline: 23.8%
Impressive Results: within 6 months

HOSPITAL 1
24.2% Reduction
Baseline – 32.6%
After QI – 24.7%

HOSPITAL 2
22.1% Reduction
Baseline – 31.2
After QI – 24.3%

HOSPITAL 3
19.5% Reduction
Baseline – 27.2%
After QI – 21.9%
Lessons from the Pilot Hospitals

- Power of provider-level data
- Key role of nurses for labor support
- Need a reason to change (payment changes, transparency)
- Medical and Nursing leadership important
- National guidelines very helpful
- Needs “constant gardening”
“How To Guide”
- Translating recommendations from the toolkit into practical advice for implementation

Provides methodology to identify:
- Key focus areas
- Strategies
- Process design for sustainability
- Key QI principles
In summary, Cesarean deliveries can be life-saving…

Just be sure she really needs it!
Thank You!

For more information or to download the toolkit, visit: www.CMQCC.org
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