Toward Appropriate Use of Cesarean Section

Caesar’s Ghost: The Effect of the Rising Rate of C-Sections on Health Care Costs and Quality

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Childbirth Connection

- National non-profit organization in New York City
- Since 1918, working to improve maternity care quality on behalf of women and families
- Mission is to improve the quality and value of maternity care through consumer engagement and health system transformation.

Learn more: http://www.childbirthconnection.org/pdfs/90-year-timeline.pdf
Evidence-Practice Gap in Maternity Care

Much of the care women receive is not consistent with the best evidence despite unprecedented body of comparative effectiveness research to guide policy, practice, and quality improvement.
Maternity Care is Procedure-Intensive and Costly


Deficiencies include:

- **Overuse** of many practices that entail harm and waste for mothers, babies, and the system at large, (e.g. cesarean section, elective induction)

- **Underuse** of effective, high-value practices that would improve outcomes, (smoking cessation, vaginal birth after cesarean)

- **Broad variations in care**, outcomes, and costs unwarranted by health status or women’s preferences
Recommended Cesarean Rate Range

Recent studies reaffirm earlier World Health Organization recommendations about optimal cesarean rates:

- Best outcomes for mothers and babies appear to occur with total cesarean rates of 5% to 10%; rates above 15% may do more harm than good

Healthy People 2020 calls for 10% reduction from 2007 levels in c-section rate for low-risk first time mothers to 24%, and rate of repeat c-sections to 82%

National Priorities Partnership Maternity Action Team goals: reduce early elective deliveries to 5% or less, and reduce cesarean section among low-risk women to 15% or less

Althabe et al. 2006, Healthy People 2020, “Maternal, Infant, and Child Health Objectives”
2010 total cesarean rate is provisional: 32.8%
National rates of primary cesarean and VBAC are not available from 2005 onward due to jurisdictions use of both unrevised (1989) and revised (2003) birth certificate forms, with different methods of data collection. See the following table for the primary cesarean and VBAC rates in jurisdictions using the revised form, 2005-2009.

Source: U.S. National Center for Health Statistics
### Rates for Total Cesarean Section, Primary Cesarean Section, and Vaginal Birth After Cesarean (VBAC), United States, 1989-2010 (cont’d)

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Cesarean Rate</th>
<th>VBAC Rate</th>
<th>Number of States Using Certificate</th>
<th>% of Total U.S. Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>24.3%</td>
<td>10.1%</td>
<td>12</td>
<td>31%</td>
</tr>
<tr>
<td>2006</td>
<td>23.5%</td>
<td>8.5%</td>
<td>19</td>
<td>49%</td>
</tr>
<tr>
<td>2007</td>
<td>23.4%</td>
<td>8.3%</td>
<td>22</td>
<td>53%</td>
</tr>
<tr>
<td>2008</td>
<td>23.8%</td>
<td>8.4%</td>
<td>27</td>
<td>65%</td>
</tr>
<tr>
<td>2009</td>
<td>23.8%</td>
<td>8.4%</td>
<td>28</td>
<td>66%</td>
</tr>
</tbody>
</table>

**Notes:** By January 1, 2005, the following states migrated to use of the revised (2003) birth certificate: Florida, Idaho, Kansas, Kentucky, Nebraska, New Hampshire, New York State (excluding New York City), Pennsylvania, South Carolina, Tennessee, Texas, and Washington.


By January 1, 2008 New York City and five additional states migrated to use of the revised (2003) birth certificate: Georgia, Michigan, Montana, New Mexico, and Oregon.

By January 1, 2009, one additional state migrated to use of the revised (2003) birth certificate: Utah.

**Source:** U.S. National Center for Health Statistics

[transform.childbirthconnection.org/](transform.childbirthconnection.org/)  [www.childbirthconnection.org](www.childbirthconnection.org)
Total Average Payments for Birth, 2011 (US$)

<table>
<thead>
<tr>
<th>Country</th>
<th>Vaginal</th>
<th>Cesarean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>$1,291</td>
<td>$1,640</td>
</tr>
<tr>
<td>India</td>
<td>$1,967</td>
<td>$2,164</td>
</tr>
<tr>
<td>Germany</td>
<td>$2,157</td>
<td>$2,518</td>
</tr>
<tr>
<td>Spain</td>
<td>$2,414</td>
<td>$2,949</td>
</tr>
<tr>
<td>France</td>
<td>$2,536</td>
<td>$3,195</td>
</tr>
<tr>
<td>Canada</td>
<td>$3,195</td>
<td>$3,589</td>
</tr>
<tr>
<td>Chile</td>
<td>$3,589</td>
<td>$3,589</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$8,495</td>
<td>$12,318</td>
</tr>
<tr>
<td>USA</td>
<td>$9,280</td>
<td>$14,374</td>
</tr>
</tbody>
</table>

Notes: Canada only includes data from Nova Scotia. Chile vaginal and cesarean birth figures include newborn care. Germany vaginal and cesarean birth figures do not include newborn care. U.S. clinician payment figures include prenatal, intrapartum, and postpartum care.

• Issued in 2004, updated in 2006
• Based on systematic review of the evidence comparing harms of cesarean and vaginal birth-53 outcomes
• Without compelling and well-supported reason for c-section, vaginal birth is safest way for women to give birth and babies to be born
• Tips for avoiding unnecessary cesareans
Potential Harms of Cesarean Section vs. Vaginal Birth

- **Maternal effects**: greater likelihood of emergency hysterectomy, blood clots & stroke, surgical injury, death, longer hospitalization, rehospitalization, infection, poor birth experience, less early contact with babies, intense & prolonged pain, poor overall mental health & self-esteem, poor overall functioning, chronic pelvic pain, bowel obstruction

- **Fetal/newborn effects**: greater likelihood of surgical injury, respiratory problems, failure to establish breastfeeding, asthma in childhood & adulthood

- **Maternal and fetal effects in future pregnancies**: greater likelihood of involuntary infertility, voluntary reduced fertility, cesarean scar ectopic pregnancy, placenta previa, placenta accreta, placental abruption, uterine rupture, as well as hemorrhage, low birth weight, preterm birth, stillbirth, maternal death & other outcomes associated with these serious conditions
Listening to Mothers II

Report of the Second National U.S. Survey of Women's Childbearing Experiences

www.childbirthconnection.org/listeningtomothers
Listening to Mothers II: Selected Survey Results

- Among mothers with previous cesarean, 11% had a VBAC for most recent birth

- Of women with previous cesarean, 45% interested in option of VBAC, but 57% denied that option

- Most common reasons for denial: caregiver unwillingness (45%) or hospital unwillingness (23%)
Listening to Mothers II: Selected Survey Results

• Mothers wanted to know every or most complications before consenting to induction (97%) and cesarean (98%), but majority of women did not identify correct response on adverse effects of either intervention

• Mothers felt pressure from a health professional to have induction (17% with induction) and cesarean (25% with cesarean)
Two Myths About the Rising Cesarean Section Rate

Myth:
• More and more women are asking for elective cesareans

Reality:
• Just one woman among 1600 Listening to Mothers survey participants reported maternal request planned primary cesarean with no medical need

Myth:
• Number of women who genuinely need a cesarean is increasing

Reality:
• Cesarean rates going up for all groups of birthing women; demographic changes account for fraction
Why Does the Cesarean Rate Keep Going Up?

- Under-use of care that can enhance natural progress of labor and birth: loss of provider skills
- Bar lowered for 4 classic indications (dystocia, scarred uterus/previous cesarean, non-reassuring fetal heart tones, breech)
- Side effects of common labor interventions
- Limited access to informed choice of VBAC
- Casual attitudes about surgery and cesareans in particular: limited awareness of harms more likely with cesarean section
- Providers’ fears of malpractice claims and lawsuits: fraction
- Perverse financial and other incentives to practice efficiently
“How to Stop the Relentless Rise in Cesarean Deliveries”

“The rising cesarean rate is a threat to the profession and there’s no time for complacency.” John T. Queenan, MD

He offers two “complex” solutions: “make VBAC more accessible and more desirable” and “prevent primary deliveries in the first place.”

Queenan, Obstetrics & Gynecology, Vol. 118, NO. 2, Part 1, August 2011
“How to Stop the Relentless Rise in Cesarean Deliveries”

Dr. Queenan offers specific strategies, e.g.:

• Implementing hospital quality improvement programs
• Increasing utilization of midwives
• Addressing problems in the liability system
• Providing financial incentives
• Improving shared decision making
• Re-establishing teaching and training programs to prevent loss of skills

Queenan, Obstetrics & Gynecology, Vol. 118, NO. 2, Part 1, August 2011
Childbirth Connection Consumer and Health Professional Resources

Separate areas to help women and health professionals make informed maternity care decisions:

• http://www.childbirthconnection.org/home.asp?Visitor=Woman

• http://www.childbirthconnection.org/home.asp?Visitor=Professional
IMPROVEMENT TOOLS

The following resources can help foster broader implementation of the Transforming Maternity Care Blueprint for Action.

- **Data Center** – offers access to multiple data sources for quality improvement
- **Quality Improvement Toolkits** – a clearinghouse of actionable resources for implementing evidence-based quality improvement strategies in hospitals, birth centers, or clinician practices
- **Quality and Safety Courses** – a list of courses designed to enhance and maintain skills necessary for providing safe maternal and newborn care
- **Quality Collaboratives** – a list of all known quality organizations focused on maternal or perinatal quality
- **Resources by Blueprint Area** – reports of quality improvement efforts and background materials for each of the 11 focal areas addressed in the Transforming Maternity Care Blueprint for Action.
- **Bibliography for Leading Change** – an extensive list of articles about quality improvement approaches and strategies
Maternity Shared Decision Making

Childbirth Connection and Informed Medical Decision Making Foundation, a multi-year program, Expecting More, to foster maternity shared decision making
Maternity Shared Decision Making

Web site, decision aids and decision support content on multiple topics, including:

- Induction of labor for common indications
- Cesarean for common indications
- Elective repeat cesarean vs. planned vaginal birth
- Choosing a caregiver and birth setting

expecting
more
Opportunities to Improve Quality and Reduce Costs

Average Facility Labor and Birth Charge By Site and Method of Birth, United States, 2007-2009

Best available evidence and high performing facilities and providers show that rapid gains in maternity care quality, value and outcomes are within reach.