C-Section Rate Reduction Advocacy and Trends Toward Vaginal Delivery Increases

*Healthgrades 2017 Women’s Care Data Analysis Reflects Rise in Vaginal Deliveries, Confirms Industry Advocacy for Lower C-Section Rate*

Data analysis for Healthgrades 2017 Women’s Care ratings and awards reflects a trend toward increased vaginal births in more than half of the hospitals included in this year’s report. These findings converge with recent efforts by professional medical organizations, state governments, and individual hospitals to reduce the number of annual cesarean (C-section) deliveries nationwide.

Four Decades of Increasing C-Section Rates

The rate of C-section delivery in the United States has increased over the past four decades, from just 5% of all births in 1970 to nearly one-third (32%) of all births now, according to the Centers for Disease Control and Prevention. In fact, C-section delivery is the most common surgery performed in the U.S.,¹ with about 1.3 million performed each year.²

However, experts have become concerned about how many C-section deliveries may be unnecessary, exposing the mother and child to potentially increased risk.

In its current guidelines, the American Congress of Obstetricians and Gynecologists (ACOG) acknowledges cesarean birth can be lifesaving for the mother, the baby, or both in some cases. But the organization notes: “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.”

¹ [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615450/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615450/)
² [https://www.cdc.gov/nchs/fastats/delivery.htm](https://www.cdc.gov/nchs/fastats/delivery.htm)
Experts say several factors have driven the increase in C-section deliveries for lower-risk pregnancies, including doctors’ perception of how long labor should take, which may be outdated;¹ physician concern about liability and malpractice;⁴ or even whether a doctor is at the end of his or her shift and wants reimbursement credit for the birth.⁵

In a 2013 study published by the National Institutes of Health, researchers reviewed 2009 data from 593 hospitals nationwide. They found C-section rates varied dramatically across hospitals, from as low as 7.1% to a high of 69.9%. Even when focusing on women with lower-risk pregnancies, cesarean delivery rates varied fifteen-fold, from 2.4% to 36.5%.⁶

In an effort to reduce this variation and improve national maternal care, the Department of Health and Human Services (HHS) has targeted a C-section rate of 23.9% for the U.S. by the year 2020.⁷

Surgical Risks Increase With Previous C-Section Delivery

Advocates for C-section delivery rate reduction point to research that has found an increased risk of conditions related to previous C-section deliveries, including placenta previa (in which the placenta blocks the cervix) and placenta accreta (an abnormal growth of the placenta beyond the uterus).

A study of more than 97,000 women published in the journal Obstetrics & Gynecology showed the risk of placenta previa was 0.26% for women with an unscarred uterus, such as those with no prior C-section. Women with previous C-sections saw a linear increase in risk with each subsequent cesarean procedure, reaching up to 10% risk in patients with four or more previous C-sections.

For women with placenta previa and an unscarred uterus, the risk of placenta accreta was 5%. The risk for women with just one previous C-section jumped significantly to 24%, reaching up to 67% for women with four or more cesarean deliveries.⁸

¹ https://www.acog.org/Resources-And-Publications/Obstetric-Care-Consensus-Series/Safe-Prevention-of-the-Primary-Cesarean-Delivery
⁴ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615450/
⁶ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615450/
⁸ http://journals.lww.com/greenjournal/Abstract/1985/07000/Placenta_Previa_Accreta_and_Prior_Cesarean.20.aspx
Recent Advocacy Efforts to Reduce C-Section Rates

As a result of the variability of C-section rates, combined with the surgical risk associated with cesarean delivery, a number of states have launched formal efforts to safely reduce C-section rates in their local hospitals.

In 2006, Stanford University School of Medicine partnered with the State of California to form the California Maternal Quality Care Collaborative (CMQCC).\(^9\) In service of its goal to reduce labor and delivery complications and maternal mortality rates, the CMQCC studied C-section statistics at hospitals throughout California. By calculating and presenting data to local providers, the CMQCC has helped reduce the cesarean delivery rate in hundreds of California’s hospitals.\(^10\) Since the launch of the CMQCC, maternal mortality rates in California declined by 55% between 2006 and 2013—while the national rate continued to rise.\(^11\)

Formed in 2012, the Illinois Perinatal Quality Collaborative (IPQC) works with more than 100 state hospitals to improve maternal care and is considering C-section rate reduction as its primary goal in 2018.\(^12\) Similar to the toolkit provided to California hospitals by the CMQCC,\(^13\) the IPQC aims to standardize how Illinois hospitals approach labor. Some individual hospitals, such as Rush University Medical Center in Chicago, have already established their own guidelines for determining when a C-section is necessary. Through its administration’s efforts, Rush has lowered its rate of cesarean deliveries among low-risk mothers to 24%, down from 37% in 2014.

Healthgrades 2017 Women’s Care analysis confirms this trend is being seen nationwide, as advocacy toward reduction of C-section deliveries comes into practice at a larger number of U.S. hospitals.

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\(^9\) [https://www.cmqcc.org/who-we-are](https://www.cmqcc.org/who-we-are)


\(^11\) [https://www.cmqcc.org/who-we-are](https://www.cmqcc.org/who-we-are)


\(^13\) [https://www.cmqcc.org/VBirthToolkit](https://www.cmqcc.org/VBirthToolkit)
How States Compared for Increased Vaginal Deliveries

Each year, as part of their Women’s Care ratings and awards, Healthgrades analyzes patient outcome data for the care of mothers during labor and delivery.

In comparing data for 1,101 facilities\textsuperscript{14} for the years 2011 and 2015, Healthgrades found 637 (57.9\%) reported a proportional increase in the percentage of vaginal deliveries in that time frame. This increase varied greatly across hospitals, ranging from as low as 0.01\% to a maximum increase of 21.17\%. Across the majority of hospitals, the increase in vaginal deliveries measured less than 4\%.

Of the 13 states for which Healthgrades compared data for 2011 and 2015, 10 had increases in vaginal deliveries in more than 50\% of their facilities that perform maternal care:

<table>
<thead>
<tr>
<th>State</th>
<th># of Facilities With Increase</th>
<th>Total # of Facilities</th>
<th>% of Facilities With Increases in Vaginal Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>132</td>
<td>219</td>
<td>60.27%</td>
</tr>
<tr>
<td>Colorado</td>
<td>22</td>
<td>41</td>
<td>53.66%</td>
</tr>
<tr>
<td>Florida</td>
<td>51</td>
<td>100</td>
<td>51.00%</td>
</tr>
<tr>
<td>Illinois</td>
<td>71</td>
<td>109</td>
<td>65.14%</td>
</tr>
<tr>
<td>Iowa</td>
<td>20</td>
<td>38</td>
<td>52.63%</td>
</tr>
<tr>
<td>New York</td>
<td>70</td>
<td>117</td>
<td>59.83%</td>
</tr>
<tr>
<td>Oregon</td>
<td>28</td>
<td>38</td>
<td>73.68%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>53</td>
<td>88</td>
<td>60.23%</td>
</tr>
<tr>
<td>Texas</td>
<td>96</td>
<td>174</td>
<td>55.17%</td>
</tr>
<tr>
<td>Washington</td>
<td>36</td>
<td>50</td>
<td>72.00%</td>
</tr>
</tbody>
</table>

Hospital Quality Matters for Labor and Delivery

Advocates for C-section rate reduction make it clear that in many cases, cesarean delivery is unquestionably necessary for the health and safety of the mother, child, or both. For a variety of situations—including breech positioning, multiple babies, placenta previa, or pre-existing health conditions—a C-section can be a lifesaving procedure.

\textsuperscript{14} To be included in this analysis, facilities had to have reported at least 100 vaginal deliveries in both 2011 and 2015, as measured by all-payer data from 13 states, which made these data available. Vaginal and C-section deliveries were defined by Healthgrades Women’s Care Ratings Methodology made available at: \url{https://www.healthgrades.com/quality/ratings-awards/methodology}
Regardless of the reason for cesarean delivery, a woman’s risk of complications during a C-section is directly linked to the quality of the hospital she chooses. For the 2017 Women’s Care analysis, Healthgrades found that from 2013 through 2015, women who had a cesarean delivery at a 5-star hospital had a 66% lower risk of complications while in the hospital than if they had a C-section at a 1-star facility. Women who underwent C-section at a hospital with 1-star were 2.9 times more likely to experience complications than women having cesarean delivery at a 5-star hospital.

While vaginal birth has a lower risk of complications than cesarean, it is equally important for women to choose a high-quality hospital for their delivery. According to Healthgrades data, women from 2013 through 2015 who had a vaginal delivery in a 5-star hospital had a 54.9% lower risk of complications while in the hospital than if they delivered vaginally at a hospital with only 1-star. And women who had a vaginal delivery at a 1-star hospital were 2.2 times more likely to experience complications versus delivering vaginally at a 5-star hospital.

Labor and Delivery Excellence Award™ Hospitals Provide Model Maternal Care

If all hospitals in the 17 states included in this year’s analysis had, as a group, performed similarly to hospitals receiving the Healthgrades 2017 Labor and Delivery Excellence Award™, on average 128,302 women potentially could have avoided complications during their care than if they were treated in a hospital that did not receive the same distinction.

Similarly, from 2013 through 2015, women treated at hospitals that received the Healthgrades 2017 Labor and Delivery Excellence Award™, on average, had a 53.8% lower risk of experiencing a complication while in the hospital than if they were treated in hospitals not recognized with the honor.

For complete lists of award recipients for Healthgrades Labor and Delivery Excellence Award™, Gynecologic Surgery Excellence Award™, and Obstetrics and Gynecology Excellence Award™, visit https://www.healthgrades.com/quality/ratings-awards/reports/womens-care.

15 Statistics are based on Healthgrades analysis of all-payer data for years 2013 through 2015 and represent three-year estimates for patients in 17 states for which all payer data was made available.
Women Must Be Their Own Maternal Care Advocates

Delivering a baby is one of the most personal and consequential health experiences a woman can have. Women (and their partners) should feel empowered to know the facts before they choose a hospital for their labor and delivery. By researching hospital quality on Healthgrades, patients can review the clinical history of a facility’s most common procedures and specialties. If considering a hospital for which such data is not available, women should request this information from the hospital itself—including its rate of C-section delivery compared to the HHS target goal of 23.9%.

Sources


Who We Are. California Maternal Quality Care Collaborative. https://www.cmqcc.org/who-we-are


About Healthgrades

Healthgrades is the leading online resource for comprehensive information about physicians and hospitals. Today, more than one million people a day use the Healthgrades websites to search for, compare, and connect with hospitals and physicians based on the most important measures when selecting a healthcare provider: experience, hospital quality, and patient satisfaction.

Unlike other hospital quality analyses, Healthgrades evaluates hospital quality for conditions and procedures based solely on clinical outcomes. We measure hospital performance for the most common in-hospital procedures and conditions, and adjust for each patient’s risk factors, such as age, gender, and medical condition.

For more information about Healthgrades, visit healthgrades.com or download the Healthgrades iPhone app.