LEAPFROG HOSPITAL SURVEY

State of Maternity Care in the U.S.:

The Leapfrog Group 2023 Report on Trends in C-Sections, Early Elective Deliveries, and Episiotomies

REPORT HIGHLIGHTS

- Hospitals are making dramatic and commendable improvements in reducing episiotomies. The average rate of **episiotomies** among Leapfrog reporting hospitals has declined by over 60% and finally meets the Leapfrog standard.
- Hospitals continue to succeed at reducing or eliminating **early elective deliveries**, with most hospitals reporting well below Leapfrog's standard of 5%.
- The average rate of **NTSV C-sections** is not improving. The standardized measure of cesarean procedures in low-risk, first-time mothers, remains high, and it is getting worse.
- Transparency galvanizes change: Across all three measures included in this report, public reporting has played a crucial role in reducing unnecessary interventions in childbirth.

Where the data comes from: The Leapfrog Hospital Survey

This report uses final hospital data from the 2022 Leapfrog Hospital Survey, the flagship initiative of The Leapfrog Group. Over 2,300 hospitals have Survey data publicly reported, representing 74% of U.S. hospital beds. The Leapfrog Group is a nonprofit watchdog organization that serves as a voice for health care purchasers, using their collective influence to foster positive change in U.S. health care. For more than 20 years Leapfrog has been the nation's premier advocate of health care transparency—collecting, analyzing, and disseminating data to inform value-based purchasing.

Quality and safety data by facility collected via the Survey on measures such as maternity care, medication safety, and infection rates is available at ratings.leapfroggroup.org.

INTRODUCTION

The United States is facing a growing maternity care crisis. Maternal mortality rates are significantly increasing, and women of color in particular experience gaping disparities in maternity care. Along with this, maternal care interventions like cesarean sections, episiotomies, and early elective deliveries can present a host of dangerous complications like blood clots, infections, and longer recovery. According to the Centers for Disease Control and Prevention (CDC), Black women are nearly three times more, and American Indian/Alaska Native women are two times more likely to die from a pregnancy-related cause than White women[i]. The rate of C-sections in Black women is higher than in women from other racial/ethnic groups,[ii] and more often low-risk pregnancies in women of color see higher rates of cesarean delivery[iii]. Improving quality, access, data collection, and publicly available information on maternal care and services is long overdue.

Leapfrog collects and publicly reports data that hospitals provide voluntarily as part of the annual Leapfrog Hospital Survey. The Survey measures key areas of maternity care important to families, as well as employers and purchasers, including rates of NTSV C-sections, episiotomies, and early elective deliveries. Overuse of these three medical interventions unnecessarily increases risks to both mothers and babies, as revealed by long-standing research and expert consensus.

Leapfrog is the only organization to publicly report this maternity care quality data by hospital and continues to bridge the gap of available information about maternity care quality and services.

Given the growing problems and inequities with maternity care, Leapfrog plans to expand its work in this area. Leapfrog has begun collecting data on NTSV C-sections rates by race and ethnicity, and whether hospitals offer a variety of services like support from midwives and doulas, lactation support, vaginal delivery after cesarean section, and postpartum tubal ligation.

CESAREAN SECTIONS

Around one-third of childbirths occur by cesarean section in the United States every year.[iv] In some cases, a C-section is necessary, but the surgery can also carry serious risks, such as higher rates of infections or blood clots, longer recovery periods, and complications with future pregnancies. C-sections can also impact the health of babies, like breathing difficulties that require treatment in a newborn intensive care unit (NICU). While there have been efforts to reduce the rate of cesarean births, C-sections remain too common in the U.S.[v] and rates are getting worse.[vi]

The Leapfrog Hospital Survey uses a nationally endorsed measure known as the Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth rate, referring to C-sections for mothers with first-time pregnancies (nulliparous) that have reached at least 37 weeks of gestation (term) and have a single baby (singleton) in the head-down position (vertex). This measure exclusively examines the population of women least likely to need a C-section, offering a standardized way to compare rates at different hospitals. Based on the guidance of a national Maternity Care Expert Panel, Leapfrog asks all hospitals to achieve the Healthy People 2030 goal of an NTSV cesarean birth rate of 23.6% or lower.

Since Leapfrog started publicly reporting NTSV C-sections in 2015, progress on reducing C-section rates has been slow. Up until Survey year 2020, hospitals have demonstrated limited improvement, and the most recent Survey data indicates the overall average rate of C-sections is relatively unchanged since 2020. (Figure 1). However, 2022 Survey results also show a significant and worrisome drop in the percentage of all reporting hospitals that achieve or exceed Leapfrog's C-Section standard. Whereas in 2020 more than half of reporting hospitals met the standard, two years later only 42.3% do, down from 46.8% the year prior. (Figure 2).

Figure 1: Leapfrog reporting hospitals' average rate of NTSV C-section by year

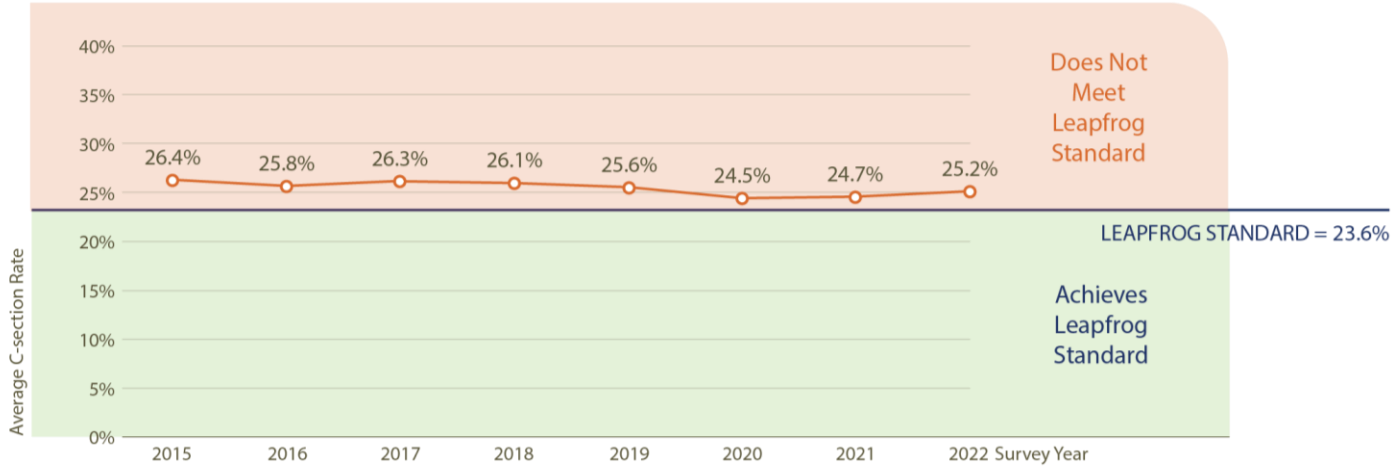
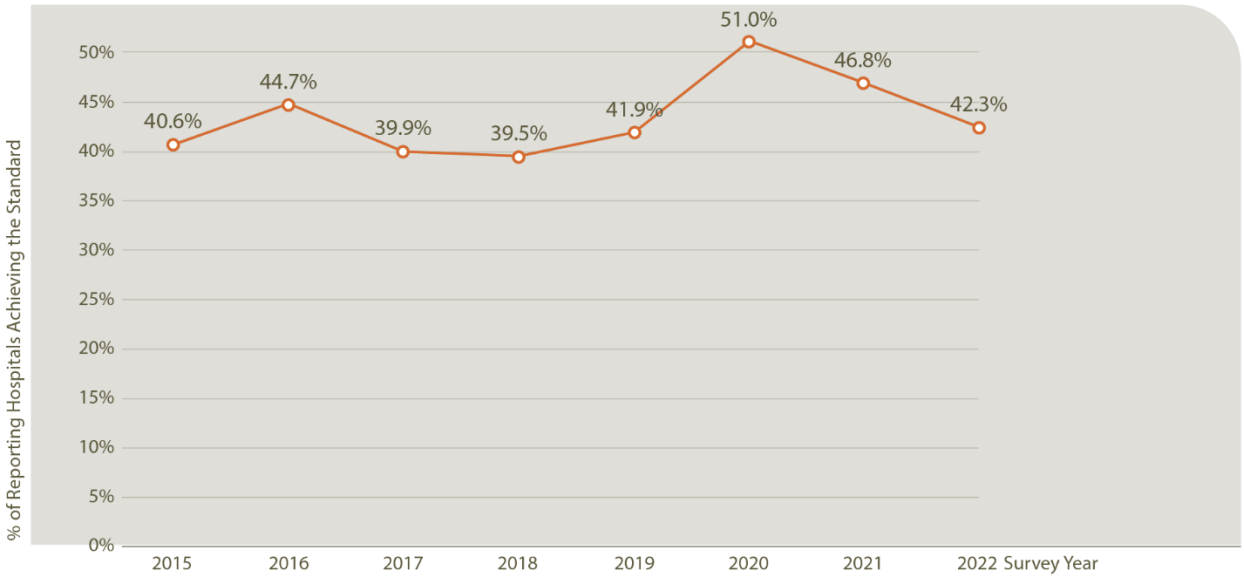


Figure 2: Percent of reporting hospitals achieving Leapfrog's standard (23.6% or less) by year



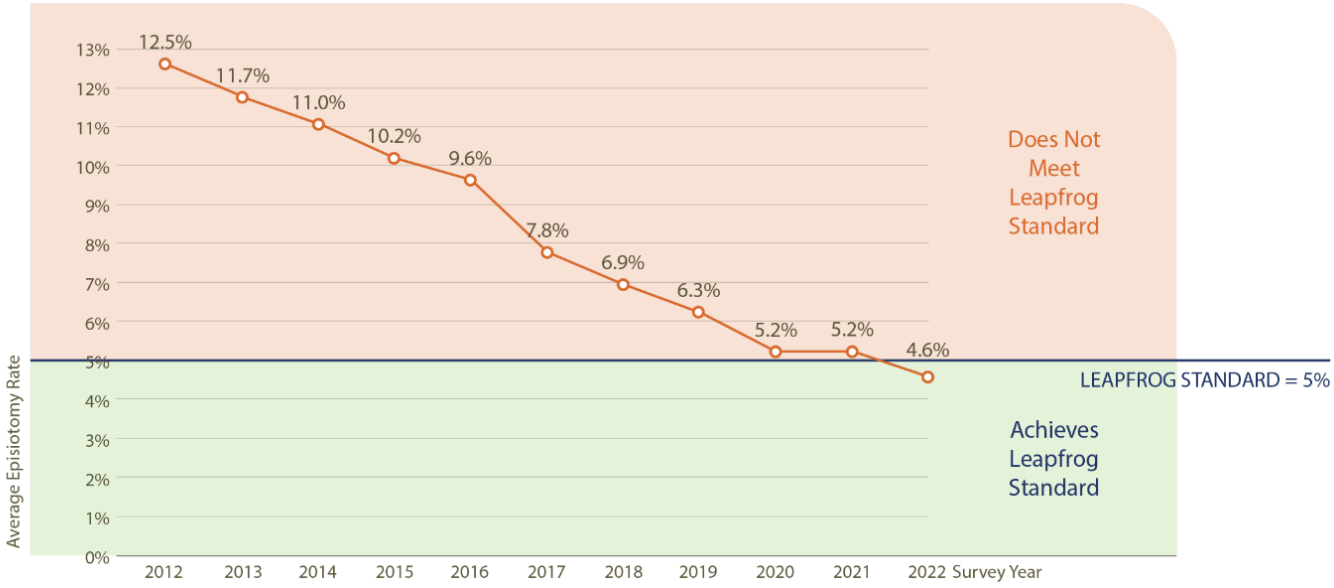
According to Elliott Main, MD, Stanford University OB-GYN, California Maternal Quality Care Collaborative founder, and chair of the Leapfrog Maternity Care expert panel, the decline in hospitals meeting the Leapfrog standard is largely due to changes in hospital operations in response to the pandemic. Across the country, labor and delivery units faced overwhelmed nursing and physician staff and unfortunate limitations on families and other support persons who were not able to enter hospitals due to COVID visitor restrictions. The stress on hospitals and heightened anxiety among staff and patients led to a desire to avoid long and difficult labors resulting in higher rates of Cesarean delivery in labor.

EPISIOTOMIES

An episiotomy is an incision made in the perineum to make the vaginal opening larger during childbirth. Current medical guidelines discourage the routine use of episiotomy, and ACOG recommends the use of episiotomy only in highly restricted circumstances.[vii] Episiotomies can lead to a higher risk of perineal tears, loss of bladder or bowel control, and pelvic floor defects. Other significant issues include infection and other complications, slow recovery, and chronic discomfort.

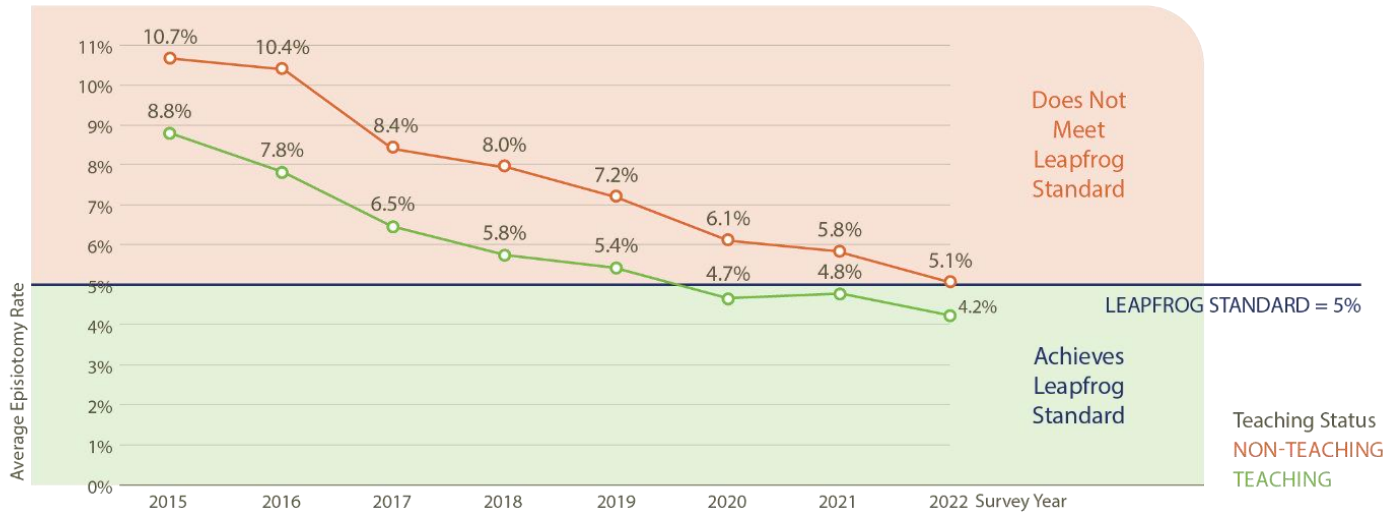
Leapfrog is the only organization to track and publicly report rates of episiotomy by hospital. With guidance from its experts and the literature, Leapfrog sets a standard that hospitals achieve an episiotomy rate of 5% or less among patients delivering vaginally. This is an area of dramatic and commendable progress by hospitals. Since Leapfrog began publicly reporting hospital rates of episiotomies in 2012, the average episiotomy rate has declined by 63%, and in 2022 the average is finally below Leapfrog's standard, with an average national rate of 4.6% (Figure 4).

Figure 4: Leapfrog reporting hospitals' average rate of episiotomy by year



When comparing teaching versus non-teaching hospitals, teaching hospitals continue to have lower episiotomy rates. In the 2022 Survey year, the average rate of episiotomy across teaching hospitals was 4.2% compared to 5.1% in non-teaching hospitals (Figure 5). This gap continues to narrow year-to-year and shows encouraging signs that non-teaching hospitals are on the track to achieve the Leapfrog standard of 5% or lower.

Figure 5: Average rate of episiotomy by teaching status

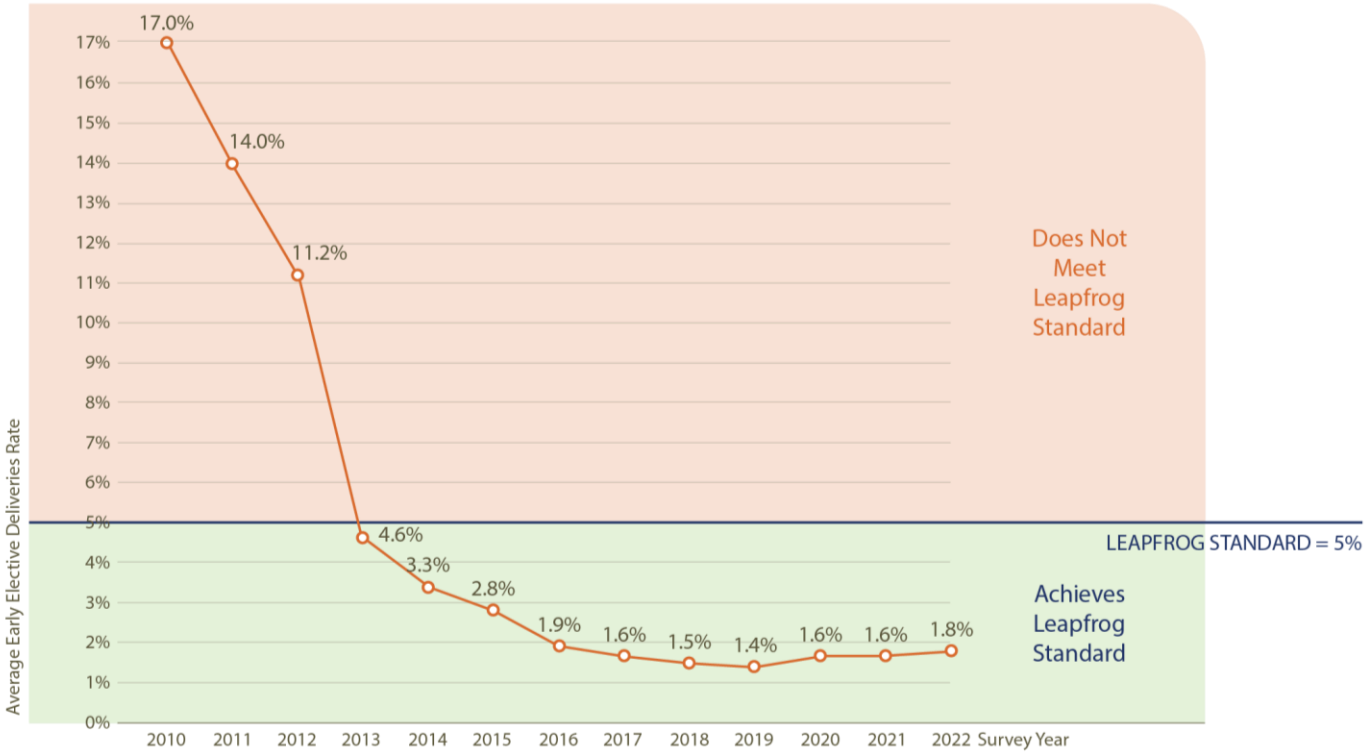


EARLY ELECTIVE DELIVERIES

Early elective deliveries are scheduled C-sections or medical inductions performed without a medical reason before 39 completed weeks gestation. Deliveries before this period can have serious negative consequences for women and babies, including a higher chance of cesarean delivery, postpartum complications, high risks for neonatal mortality, and NICU admissions.[viii],[ix] Early elective deliveries can also lead to longer hospital stays and significantly higher patient and payer costs.

Leapfrog's groundbreaking public reporting of rates of early elective delivery by hospital galvanized a movement to sustain low rates of this unnecessary type of delivery. Nationwide, the national average has dramatically declined from over 17% in 2010 to 1.8% in 2022 (Figure 6). This reduction is due to the leadership and determination of clinicians, researchers, and advocates like the March of Dimes, with Leapfrog's transparency to create urgency.

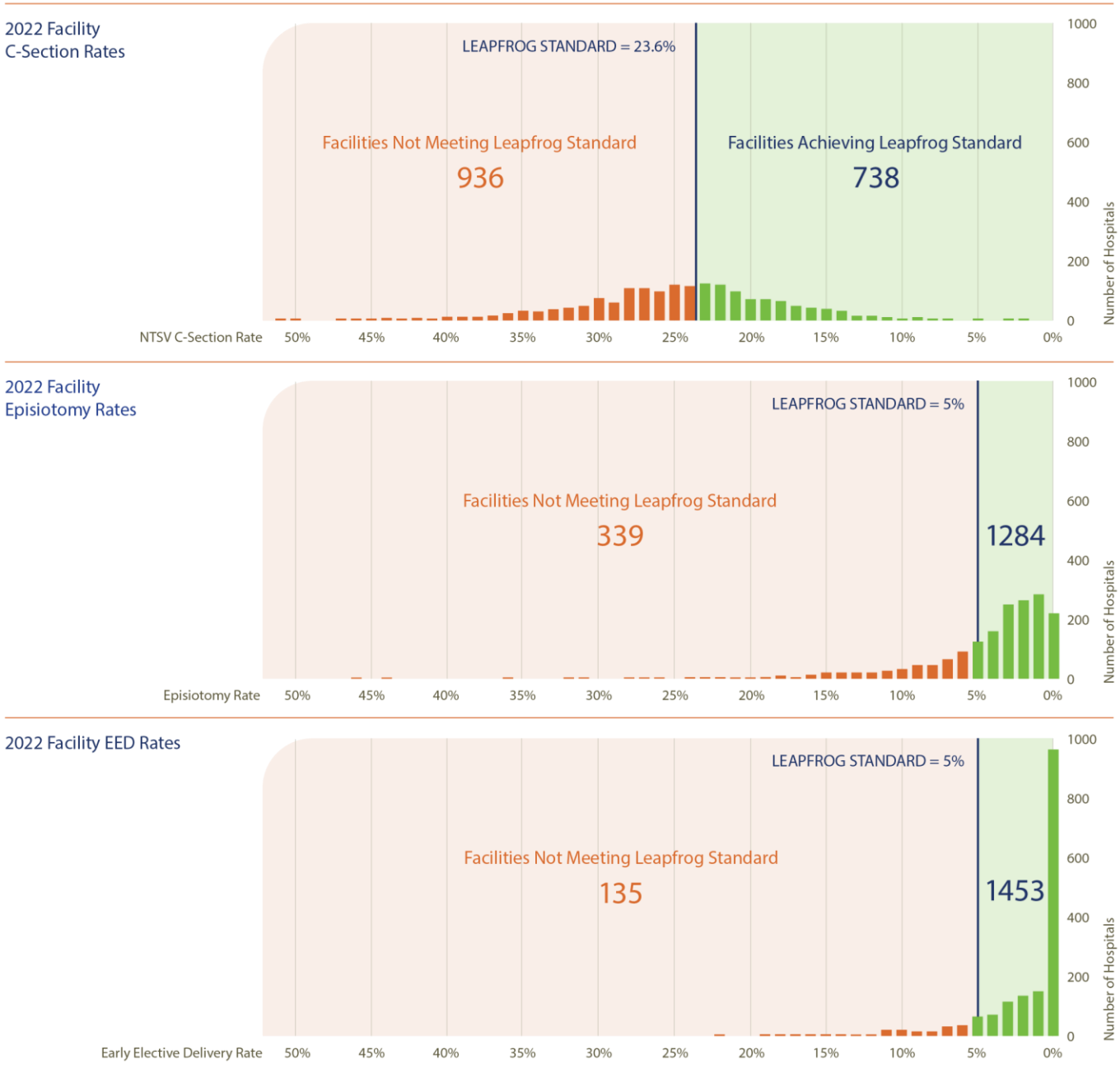
Figure 6: Average rate of early elective deliveries over time



SUBSTANTIAL VARIATION BETWEEN HOSPITALS

Across hospitals, there is substantial variation in performance on these three maternity care measures. Most prominently, NTSV C-sections rates by hospital vary ten-fold from the lowest rates and the highest rates. Even within cities and regions, NTSV C-sections are drastically different. While both average episiotomy and early elective delivery rates are below Leapfrog's target rate for all hospitals, variation remains. The least amount of variation is seen in the early elective delivery rates, with most hospitals' rates well below Leapfrog's standard of 5%. A reduction of variation among these measures suggests the widespread adoption of successful improvement practices. Improvement in early elective deliveries and episiotomy measures have improved patient care. This is less evident for C-section rates, which suggests the need for a more concerted, national effort.

Figure 7: 2022 facility NTSV C-section, episiotomy, and early elective delivery rates



HOW TO USE THIS INFORMATION

Since Leapfrog began reporting on the quality of maternity care more than ten years ago, immense progress has been made. Public reporting, transparency, and accountability have played a critical role in driving improvement. Another critical component is the coordination with national and state associations, quality collaboratives, and other nonprofits calling for improvement. Leapfrog data on maternity care can help a wide variety of individuals and stakeholder groups make more informed health care decisions.

What families can do:
Expectant families should carefully review Leapfrog's maternity care results at www.ratings.leapfroggroup.org to find hospitals with low rates of early elective deliveries, episiotomies, and C-sections and to ensure the hospital provides the specific services they are looking for like the availability of midwives and/or doulas and breastfeeding support. While most hospitals are willing to make their data public, some hospitals are not. If Leapfrog reports that your hospital "declines to respond," share your concern with the hospital and ask them to report to the Leapfrog Hospital Survey.

What employers can do:
Labor and delivery account for nearly a quarter of all hospitalizations, and costs associated with pregnancy and its complications are a driving factor in the rising cost of health care. Employers can play a role in helping their employees achieve a safe delivery by educating employees on the importance of choosing the right hospital and encouraging them to use free resources, like Leapfrog's ratings website. Employers can also leverage their collective influence and urge hospitals in their area to improve maternity care measures as well as urge them to participate in the Leapfrog Hospital Survey so maternity data can be accessed by their employees.

What advocates can do:
Associations and quality improvement collaboratives should urge hospitals to adhere to peer-reviewed medical guidelines surrounding maternity care and to participate in the Leapfrog Hospital Survey to track and measure progress on maternity care safety and quality. Coordination between stakeholder organizations can assist hospitals in improvement efforts and sends an aligned message that excellence is achievable and will be recognized.

What hospitals can do:
Hospitals use Leapfrog data to track and measure their progress on quality and safety. Notably, many hospitals have effectively used the Leapfrog Hospital Survey to design a performance improvement plan that has enabled significant gains on Leapfrog's maternity care measures. The case studies below demonstrate how participating in the Leapfrog Hospital Survey prompted action within hospitals and motivated positive change.

- Case Study: How the Leapfrog Hospital Survey Helped Virginia Hospital Center Lower its NTSV C-section Rate
- Case Study: Implementing the Leapfrog Episiotomy Standard to Promote Improved Maternal Health

Please visit www.ratings.leapfroggroup.org/measure/hospital/maternity-care to learn more about Leapfrog's maternity care measures.

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[iv] Centers for Disease Control and Prevention (CDC), National Vital Statistics Reports. 2022.https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-17.pdf. Accessed March 12, 2023
[v] The American College of Obstetricians and Gynecologists, Safe Prevention of the Primary Cesarean Delivery. 2014. https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2014/03/safe-prevention-of-the-primary-cesarean-delivery. Accessed March 12, 2021.

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[viii] King VJ, Pilliod RP, Little A. Medicaid-EvidenceBased Decisions Project (MED) Rapid review: elective inductions of labor. September 17, 2010
[ix] Clark, SL, Miller DD, Belfort MA, Dildy GA, Frye DK, Meyers JA. Neonatal and maternal outcomes associated with elective term delivery. Am J Obstet Gynecol, 156, February 2009, e1-e4.