A Look at Hospital Safety Data by Race, Ethnicity, and Language – Why REaL data is needed for patient safety for everyone

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About The Leapfrog Group

- Premier purchaser-driven nonprofit born out of the movement for health care transparency
- Founded by purchasers in 2000 in response to 1999 IOM Report *To Err is Human*
- Driving change by empowering purchasers and consumers
- Used by national and regional health plans, employers, transparency vendors, and consumers





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Collecting and Analyzing Data

Collection of Data

LEAPFROG HOSPITAL SURVEY

LEAPFROG ASC SURVEY

Analysis of Data

LEAPFROG HOSPITAL SAFETY GRADE

LEAPFROG VBP PROGRAM

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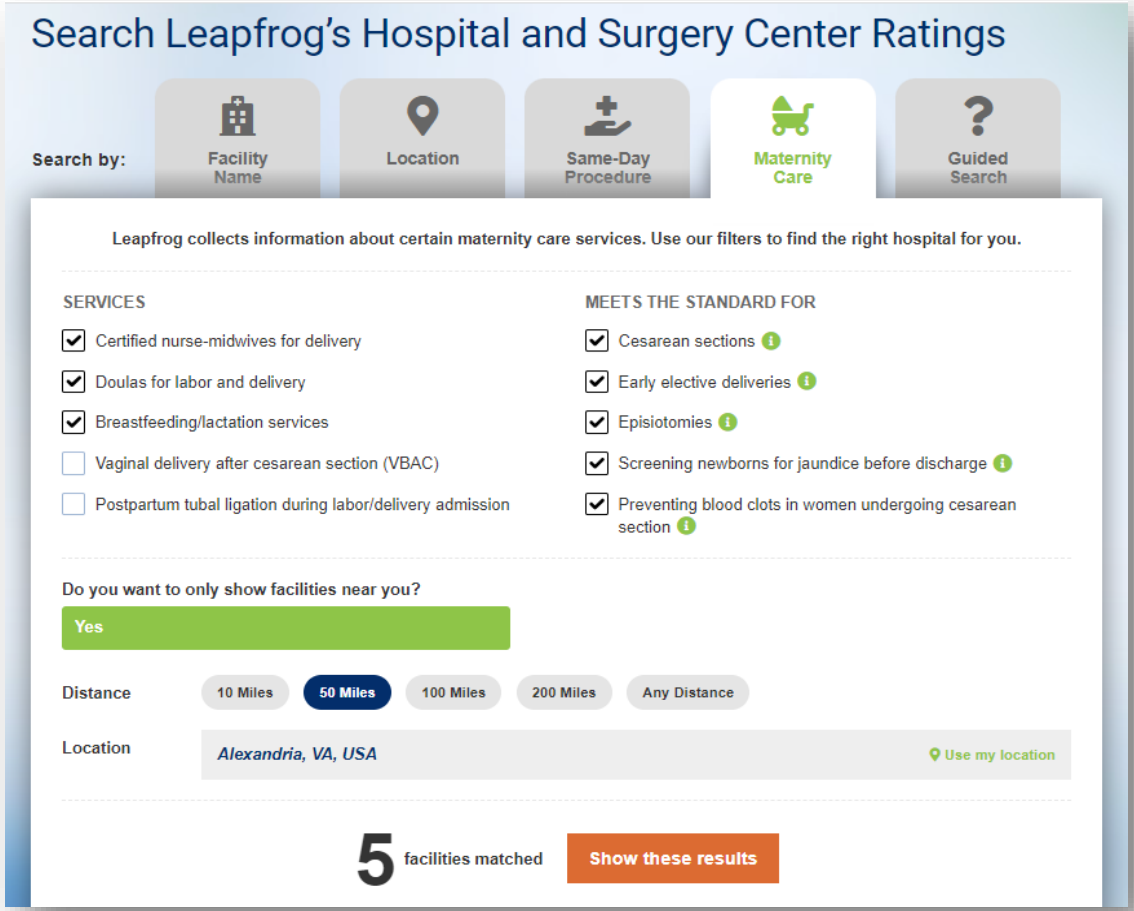
Leapfrog Public Reporting

ratings.leapfroggroup.org

Progress towards meeting Leapfrog standards:

- Achieved the Standard
- Considerable Achievement
- Some Achievement
- Limited Achievement



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Who Voluntarily Submits?

Over 60% of hospitals (nearly 2300) participate in the Leapfrog Hospital Survey, representing 73% of U.S. hospital beds

Over 600 ASCs have participated in the Leapfrog ASC Survey, since its launch in 2019, with significant growth expected in 2024

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Why Hospitals & ASCs Submit Data

By participating in the Leapfrog Hospital & ASC Survey, hospitals & surgery centers:

- Demonstrate a commitment to patient safety, quality, and transparency
- Benchmark performance
- Target areas for improvement
- Respond to request of employers, purchasers, and payors

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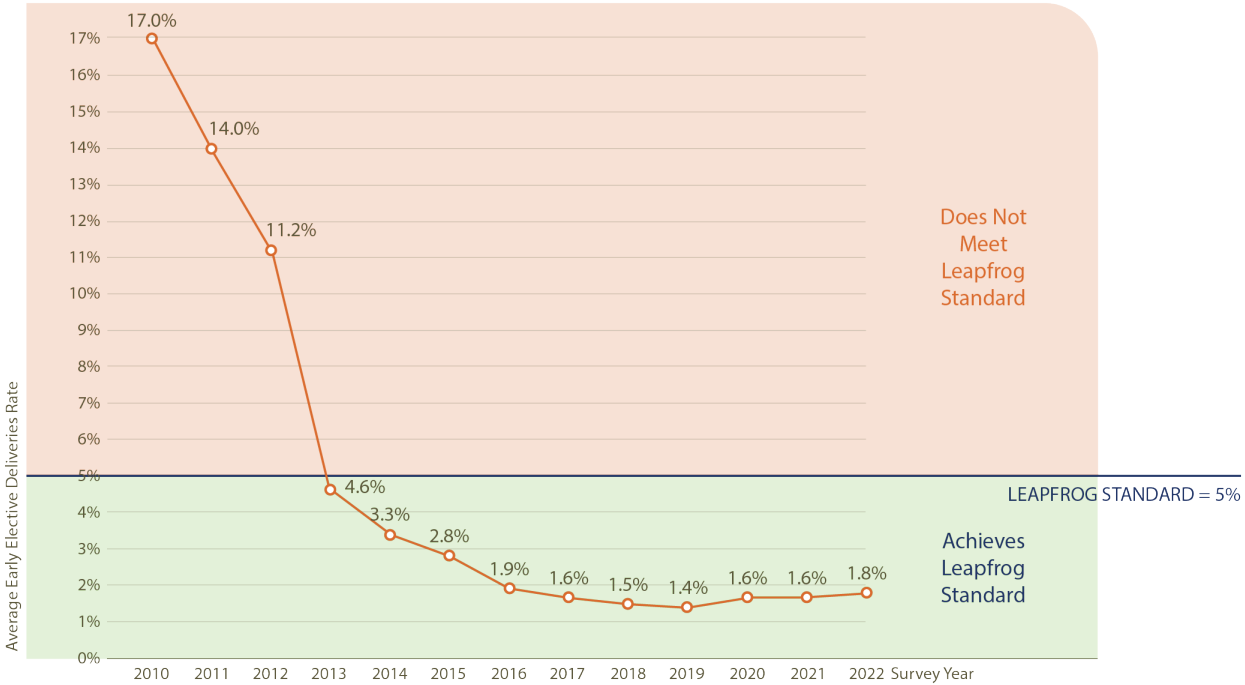
The Impact – Accountability and Transparency

Figure 1: Leapfrog reporting hospitals' average rate of early elective deliveries by Survey year



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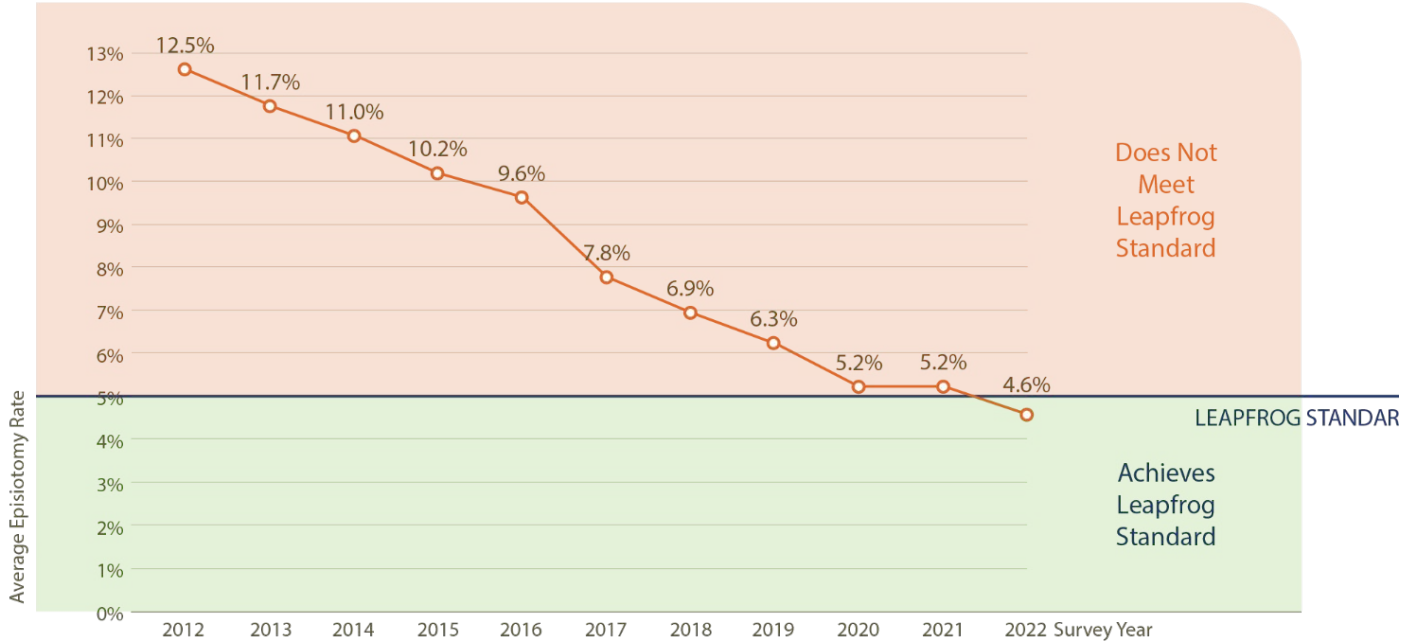
The Impact – Accountability and Transparency

Figure 2: Leapfrog reporting hospitals' average rate of episiotomy by Survey year



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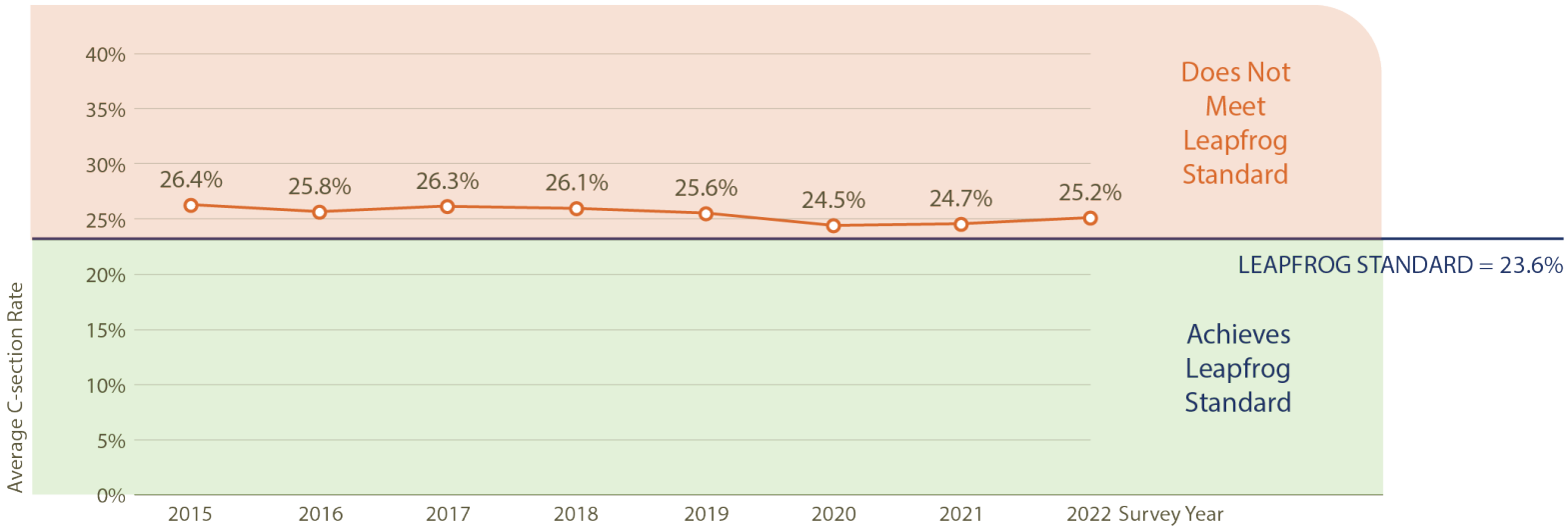
The Impact – Accountability and Transparency

Figure 3: Leapfrog reporting hospitals' average rate of NTSV C-section by Survey year



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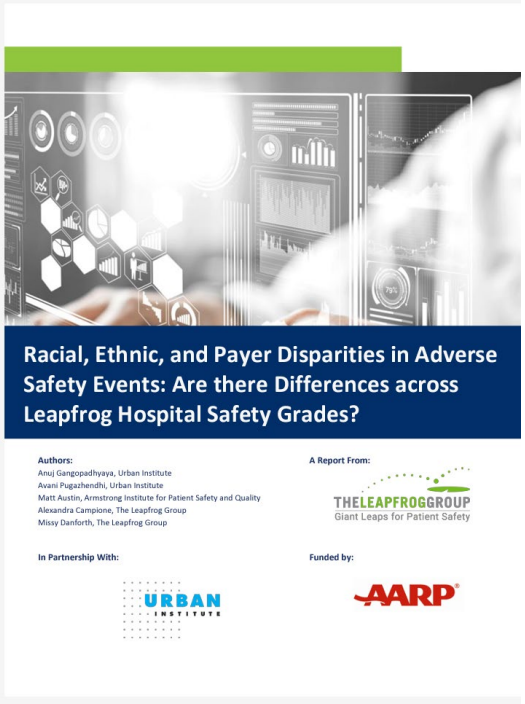
Our Approach to Health Equity

Eliminate differences in the safety and quality of care delivered in hospitals and surgery centers

Differences in the Safety of Care Delivered



Key Findings

- For most PSIs, white patients, Black patients, and Hispanic patients all receive safer care in the A and B hospital cohorts. For each racial-ethnic patient group, rates of adverse safety events are typically highest in hospitals with lower Safety Grades (the C/D/F hospital cohort).
- Across the 11 PSIs, relative to white patients, Black patients had significantly higher rates of adverse safety events on 5 PSIs, statistically similar rates of adverse safety events on 4 PSIs, and significantly lower (or better) rates of adverse safety event on 2 PSIs. Black-white differences were most notable among surgery-related PSIs, with Black patients experiencing rates of postoperative sepsis infections, perioperative pulmonary embolisms, and postoperative respiratory failure that are 34 percent, 51 percent, and 17 percent higher than the rates for white patients.
- Across the 5 PSIs for which Black patients had significantly higher rates of adverse safety events relative to white patients, no overall pattern emerged between the Hospital Safety Grade cohorts and the size in the Black-white safety disparity.
- Relative to white patients, Hispanic patients had significantly higher rates of adverse safety events on 2 of 11 PSIs, statistically similar rates of adverse safety events on 5 PSIs, and significantly lower rates of adverse safety events on 4 PSIs. We again observe little to no pattern between hospital's overall letter grade and the magnitude of the Hispanic-white difference in adverse safety events.

Measures Evaluated

- 4 “general” Patient Safety Indicators (PSIs)
  - Adverse safety events that most hospitalized patients are at risk for
  - Pressure ulcers, falls with hip fractures, central-line associated blood stream infections, collapsed lung
- 7 surgery-related Patient Safety Indicators (PSIs)
  - Adverse safety events occurring during or after a surgical procedure
  - Sepsis, respiratory failure, kidney injury, internal bleeding, surgical wound reopened, blood clots, accidental cuts and punctures during abdominal surgery
- Among white patients, Black patients, and Hispanic patients
- 3 Hospital Safety Grade cohorts (i.e., A hospitals, B hospitals, and C/D/F hospitals)

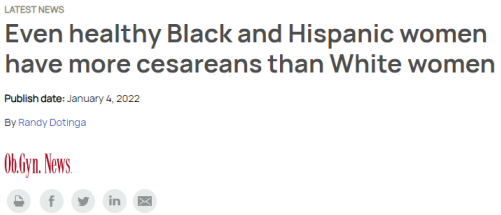
Methods

- Hospital discharge data from 15 states (HCUPS- https://hcup-us.ahrq.gov/)
    - Including large, diverse states like California, New Jersey, and Florida. California was a big win as many studies have not been able to access and include their HCUP data.
- Study included hospital records from more than 10 million patients
- PSI Rates were adjusted for patient age, sex, state, quartile of income based on patient zip code, and payer type
- We refer to the groups as Black, white, and Hispanic, but they are Non-Hispanic Black, Non-Hispanic white and Hispanic

Key Findings

- Our analysis suggests that while higher graded hospitals are safer for everyone, Black and Hispanic patients are still at an increased risk of experiencing an adverse safety event.
- Black Patients have significantly higher risk of
  - bed sores than white patients
  - blood clots, respiratory failure, sepsis, and internal bleeding after surgery than white patients
- Hispanic patients have a higher risk of experiencing
  - sepsis and respiratory failure after surgery than white patients
- Even when looking at just A hospitals, the above was true

Differences in the Quality of Care Delivered



LATEST NEWS

Even healthy Black and Hispanic women have more cesareans than White women

Publish date: January 4, 2022

By Randy Dotinga

Ob.Gyn. News

New research offers more insight into potentially dangerous racial disparities in cesarean deliveries: In first-time live births, healthy African-American and Hispanic mothers were 21% and 26% more likely than White mothers, respectively, to deliver by cesarean section despite being low risk. The higher number of cesareans appeared to boost their risk of morbidity.

"A 20% increased odds of cesarean among otherwise healthy, low-risk, nulliparous individuals at term – with limited medical or obstetric explanation – is a significant concern, especially when considering that cesarean is the most common surgical procedure in the U.S.," said study author Michelle P. Debbink, MD, PhD, an assistant professor with the department of obstetrics and gynecology at the University of Utah, in an interview.

Hospital Variation in Differences in the Quality of Care Delivered

› Am J Obstet Gynecol MFM. 2023 Dec;5(12):101145. doi: 10.1016/j.ajogmf.2023.101145. Epub 2023 Aug 28.

Hospital-level variation in racial disparities in low-risk nulliparous cesarean delivery rates

Elliott K Main [1], Shen-Chih Chang [2], Curisa M Tucker [3], Christa Sakowski [2], Stephanie A Leonard [4], Melissa G Rosenstein [5]

Affiliations + expand

PMID: 37648109 PMCID: PMC10873027 (available on 2024-12-01)
DOI: 10.1016/j.ajogmf.2023.101145

Abstract

Background: Nationally, rates of cesarean delivery are highest among Black patients compared with other racial/ethnic groups. These observed inequities are a relatively new phenomenon (in the 1980s, cesarean delivery rates among Black patients were lower than average), indicating an opportunity to narrow the gap. Cesarean delivery rates vary greatly among hospitals, masking racial disparities that are unseen when rates are reported in aggregate.

Objective: This study aimed to explore reasons for the current large Black-White disparity in first-birth cesarean delivery rates by first examining the hospital-level variation in first-birth cesarean delivery rates among different racial/ethnic groups. We then identified hospitals that had low first-birth cesarean delivery rates among Black patients and compared them with hospitals with high rates. We sought to identify differences in facility or patient characteristics that could explain the racial disparity.

Study design: A population cross-sectional study was performed on 1,267,493 California live births from 2018 through 2020 using birth certificate data linked with maternal patient discharge records. Annual nulliparous term singleton vertex cesarean delivery (first-birth) rates were calculated for the most common racial/ethnic groups statewide and for each hospital. Self-identified race/ethnicity categories as selected on the birth certificate were used. Relative risk and 95% confidence intervals for first-birth cesarean delivery comparing 2019 with 2015 were estimated using a log-binomial model for each racial/ethnic group. Patient and hospital characteristics were compared between hospitals with first-birth cesarean delivery rates <23.9% for Black patients and hospitals with rates ≥23.9% for Black patients.

Results: Hospitals with at least 30 nulliparous term singleton vertex Asian, Black, Hispanic, and White patients each were identified. Black patients had a very different distribution, with a significantly higher rate (28.4%) and wider standard deviation (7.1) and interquartile range (6.5) than other racial groups (P<.01). A total of 29 hospitals with a low first-birth cesarean delivery rate among Black patients were identified using the Healthy People 2020 target of 23.9% and compared with 106 hospitals with higher rates. The low-rate group had a cesarean delivery rate of 19.9%, as opposed to 30.7% in the higher-rate group. There were no significant differences between the groups in hospital characteristics (ownership, delivery volume, neonatal level of care, proportion of midwife deliveries) or patient characteristics (age, education, insurance, onset of prenatal care, body mass index, hypertension, diabetes mellitus). Among the 106 hospitals that did not meet the target for Black patients, 63 met it for White patients with a mean rate of 21.4%. In the same hospitals, the mean rate for Black patients was 29.5%. Among Black patients in the group that did not meet the 23.9% target, there were significantly higher rates of all cesarean delivery indications: labor dystocia, fetal concern (spontaneous labor), and no labor (eg, macrosomia), which are all indications with a high degree of subjectivity.

Conclusion: The statewide cesarean delivery rate of Black patients is significantly higher and has substantially greater hospital variation compared with other racial or ethnic groups. The lack of difference in facility or patient characteristics between hospitals with low cesarean delivery rates among Black patients and those with high rates suggests that unconscious bias and structural racism potentially play important roles in creating these racial differences.

Stratified C-Section Rates

6) 24-month reporting period used:		○ 01/01/2022 – 12/31/2023 ○ 07/01/2022 – 06/30/2024
7) Did your hospital stratify NTSV cesarean births by race/ethnicity for the reporting period using the measure specifications provided and do you choose to report those data to this Survey? *If "no" to question #7, skip question #8 and continue to the next subsection.*		○ Yes ○ No
8) Enter your hospital's responses below by race/ethnicity: *If the number of cases for a race/ethnicity is less than 10 (in column a), skip column b and then move to the next category. If zero, enter "0" in column a.*		
Race/ethnicity	a) Total number of nulliparous mothers (or sufficient sample of them) that delivered a live term singleton newborn in the vertex presentation with >= 37 weeks of gestation completed, with ***Excluded Populations*** removed (denominator)	b) Total number of mothers indicated in question #8a that had their newborn delivered via cesarean section (numerator)
Non-Hispanic White	_____	_____
Non-Hispanic Black	_____	_____
Non-Hispanic American Indian or Alaska Native	_____	_____
Non-Hispanic Asian or Pacific Islander	_____	_____
Hispanic	_____	_____
Non-Hispanic Other (including two or more races)	_____	_____
Unknown	_____	_____

- Results will be shared confidentially with hospitals and used to show differences in rates among various population within their hospital
- Will publish a report showing national and state-level benchmarking

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Prelim Findings from the 2023 Leapfrog Hospital Survey

Stratified NTSV C-section Data

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National Standard for Health Care Equity in Hospitals and ASCs

After three years of fact-finding and based on an analysis of responses submitted to the 2022 and 2023 Surveys, Leapfrog is scoring and publicly reporting both hospital and ambulatory surgery center performance on a set of health care equity questions focused on: (1) the collection of patient self-reported demographic data, (2) staff training on best practices for collecting those data, (3) stratifying quality and safety measures by patient self-reported demographic data, (4) efforts to identify disparities and address any that are found, (5) board accountability, and (6) public transparency.

Our goal in scoring and publicly reporting performance in 2024 is to continue to urge hospitals and ambulatory surgery centers to address health care equity by implementing the fundamental practices and protocols captured in the question set. Our hope is to further advance this new standard over time as new research emerges on best practices to ensure that all patients receive safe, high-quality care.

2022 Results – hospitals reported collecting 5-6 different pieces of demographic information

2022 Results – While training is common it's not always happening

2022 Results – Hospitals and ASCs are stratifying clinical outcomes measures

2022 Results – Hospitals and ASCs are stratifying measures using race and ethnicity data and finding disparities in their own data

2022 Results – And most are taking actions

2022 Results – Few hospitals and ASCs are making their efforts known to the community, but do report sharing information to the board

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