Results of the 2014 Leapfrog Hospital Survey

Developed for The Leapfrog Group by Castlight Heath
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Acknowledgements

Leapfrog and its board thank Castlight Health® for its insightful work in developing this report, and for its own efforts to help consumers and purchasers nationwide effectively manage health care costs and make better care decisions. We also thank the Leapfrog staff for its dedication in administering the Leapfrog Hospital Survey and developing this report of the 2014 Leapfrog Hospital Survey results.

The success of The Leapfrog Group is due largely to the leadership of our Regional Roll-Outs (RROs). These are employers and business coalitions on health across the country that work tirelessly to encourage hospitals to participate in the Leapfrog Hospital Survey and use the results to help employees find the best hospital care. We thank these organizations for serving as “Leapfrog on the ground” in their communities.

The Leapfrog movement would also not be possible without the support of our employer members and our Partners Advisory Committee. These companies share a fierce commitment to promoting transparency and implementing Leapfrog principles throughout their businesses.

Dozens of the nation’s leading experts in hospital safety and quality volunteer their time to advise Leapfrog on the content and scoring of the Leapfrog Hospital Survey, as well as Leapfrog’s other ratings program, the Hospital Safety Score. These experts devote their best thinking to ensure the highest standards of scientific integrity apply to the content of the survey. Their involvement is one reason hospitals find the survey to be such a valuable tool and a source of best practices to achieve performance excellence. It’s also why purchasers rely on Leapfrog as the one unbiased, consensus tool for gauging the quality of the hospitals their employees use. We’re grateful to these experts for their scientific contributions, as well as their efforts on behalf of our mission of transparency.

Last, we thank the 1,501 hospitals that voluntarily reported to the 2014 Leapfrog Hospital Survey. By reporting to Leapfrog, these hospitals demonstrated the highest levels of transparency and a commitment to safety and quality. In particular, we applaud the health systems that have achieved 100% participation across their systems, including HCA Healthcare, Kaiser Permanente, Tenet Healthcare Corporation, Sutter Health, Steward Health Care, Orlando Health, Baylor Health Care System, and more. It’s The Leapfrog Group’s goal that other hospitals across the country will follow their lead and transparently report their own performance.

These individuals and organizations bring Leapfrog’s vision to life—resulting in giant leaps forward in hospital safety and quality. We thank you for joining us in this mission.

Leah Binder
President & CEO
The Leapfrog Group

William H. Finck
2014 Chairman
Leapfrog Board of Directors
Executive summary

Every year, The Leapfrog Group—a national employer-driven, nonprofit watchdog organization—and its membership of employers and other purchasers as well as business coalitions on health, ask every adult and free-standing pediatric general acute care hospital in the U.S. to voluntarily complete the Leapfrog Hospital Survey. Results are publicly reported at the hospital level, available here. Leapfrog uses the survey data to track and share hospitals’ progress on issues of importance to health care purchasers and consumers. This includes high-risk surgeries, maternity care, hospital-acquired infections, and other important topics. The Leapfrog Group’s standards are updated annually to reflect the latest science and are designed to drive better outcomes for patients. This report summarizes the key findings from the 2014 Leapfrog Hospital Survey.

- **Hospital participation is increasing**: A growing number of hospitals submitted surveys to Leapfrog. In 2014, 1,501 hospitals reported their results on the selected subject areas. This represents 39% of hospitals nationwide, compared to 1,437 hospitals (37% nationwide) in 2013.

- **A record number of hospitals are adopting computerized physician order entry (CPOE) to reduce potential medication prescribing errors.** Unfortunately, these systems fail too often, jeopardizing patients’ safety:
  - Increased CPOE use: In 2014, a record 1,339 hospitals reported using a CPOE system in at least one inpatient unit, compared with only 384 hospitals in 2010. Approximately 59% of hospitals entered 75% or more of all medication orders electronically in 2014.
  - Increased CPOE testing: In 2014, hospitals performed 1,200 simulation tests using Leapfrog’s CPOE Evaluation Tool, developed by Dr. David Bates, Dr. David Classen, and Jane Metzger. That’s a 30% increase over 2013.
  - Technology failure rates remain too high: During simulation tests, 36% of the time CPOE systems failed to issue a warning on potentially harmful medication orders. Further, the number of potentially fatal orders that weren’t flagged by CPOE systems remained above 10%, at 13.9%.

- **Maternity care shows progress, but continues to be a key area in need of improvement**: While hospitals overall are making substantial progress, there’s still significant room for improvement to meet maternity care standards. In fact, less than one-third of hospitals meet Leapfrog’s standard for high-risk deliveries of very-low birthweight babies, and rates of episiotomies are far too high at 35% of birthing hospitals.
  - Many hospitals fail to meet the standard for high-risk deliveries: The national rate of hospitals meeting the Leapfrog standard for high-risk deliveries remains dangerously low, at 24.4%. This means that too many very-low birthweight babies are being born in hospitals that are unprepared to care for their special needs.
  - Early elective deliveries continue to decline across the U.S.: The national average for early elective deliveries—inductions or Cesarean (C-section) procedures performed before 39 weeks of gestation without medical necessity—hit its lowest rate (3.4%) since Leapfrog began publicly reporting on the measure. That’s down from 4.6% in 2013 and 17% in 2010.
  - Episiotomy rates are improving—however, considerable variation still exists: Almost two-thirds (65%) of hospitals achieved the target rate of 12% or less for episiotomies—a once routine incision, or cut, made in the birth canal during childbirth that’s now recommended only for a handful of cases. However, that still leaves 35% of birthing hospitals that are performing too many episiotomies.
• **Significant range in survival rates for high-risk procedures:** We still see a broad range in predicted survival rates for high-risk procedures across hospitals, signifying how critical it is for consumers to review Leapfrog Hospital Survey results before having one of these procedures.
  
  – Only 17% of surveyed hospitals fully meet Leapfrog’s standard for aortic valve replacements. Approximately 30% meet the standard for esophagectomies and abdominal aortic aneurysm repairs. And 42% meet Leapfrog’s standard for pancreatectomies.

• **Rates of certain hospital-acquired conditions remain a problem:** Rates varied tremendously among hospitals that reported on hospital-acquired injuries, infections, and pressure ulcers. One in six Leapfrog reporting hospitals have higher infection rates than expected for central line infections, and one in ten perform poorly in preventing catheter-associated urinary tract infections.

• **Hospitals are decreasing deaths in the ICU through appropriate physician staffing:** More hospitals with intensive care units (ICUs) are complying with Leapfrog’s ICU Physician Staffing standard to decrease mortality. Studies show that meeting the Leapfrog standard for physician staffing can reduce mortality in the ICU by as much as 40%.

• **Never Events Policy compliance holding steady:** Never events are serious reportable adverse events that should never happen, but unfortunately still occur. Leapfrog asks hospitals to put a policy in place that will provide fair and just treatment to the patient and family in case of a never event. The rate of hospitals meeting the standard has remained at 79% from 2012 to 2014.

• **Compliance with safe practices:** While compliance with the practices endorsed by The National Quality Forum (NQF) is generally high among hospitals, rural hospitals have room for improvement.
  
  – The percentage of hospitals that meet all 21 of Leapfrog’s nursing workforce safe practices grew from 52% in 2013 to 60% in 2014. Even with this increase, two in five reporting hospitals still do not fully meet Leapfrog standards.

  – Leapfrog-reporting hospitals achieving Magnet status—an elite designation for nursing excellence awarded by the American Nurses Credentialing Center—increased from 15.5% in 2013 to 16% in 2014.

  – Nearly one-quarter (23%) of hospitals surveyed have not implemented all of the safe practices and policies recommended for proper hand hygiene. The percentage of hospitals following all 10 of Leapfrog’s hand-hygiene practices increased from 69% in 2013 to 77% in 2014.

  – Urban hospitals continue to outperform rural hospitals: about 20% more urban hospitals met Leapfrog’s standard for safe practices and showed greater year-over-year improvement in meeting the requirements.

  – There’s significant geographic variation in adopting hand-hygiene safe practices: in five states, more than 90% of reporting hospitals followed all the practices, while in six states, 60% or fewer of the reporting hospitals met all practices.

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Introduction

Every year, The Leapfrog Group and its membership (employers and other organizations that purchase health insurance coverage for employees and their families, as well as business coalitions on health) ask every adult general acute care and freestanding pediatric hospital in the U.S. to voluntarily complete the Leapfrog Hospital Survey. Leapfrog uses the survey data to publicly report on issues that matter to health care purchasers and consumers, including high-risk surgeries, maternity care, hospital-acquired infections, and more. Measures included on the Leapfrog Hospital Survey are endorsed by the National Quality Forum (NQF) and/or aligned with those of other significant data-collection entities, including the Center for Medicare and Medicaid Services (CMS) and The Joint Commission. Leapfrog partners with the Armstrong Institute for Patient Safety and Quality at Johns Hopkins Medicine to review survey measures and standards, and updates them annually to reflect the latest science. Additionally, panels of experts voluntarily meet regularly to review the survey measures and recommend performance standards for each subject area covered in the Leapfrog Hospital Survey. To see the updated list of survey measures and standards for 2015, click here.

For the 2014 Leapfrog Hospital Survey, a record 39% of hospitals nationwide participated. Hospitals are encouraged to complete the Leapfrog Hospital Survey annually to benefit from the survey’s information on best practices and national performance benchmarking. These measures and data are unavailable anywhere else. More information about the Leapfrog Hospital Survey can be found at www.LeapfrogHospitalSurvey.org.

While Leapfrog reports individual hospital results on its website, this report summarizes the aggregate 2014 Leapfrog Hospital Survey results for all 1,501 reporting hospitals across the U.S. The report highlights differences in performance across regions, among urban and rural hospitals, and in trends over time—while closely examining the results in seven areas of hospital safety and quality:

- Medication errors
- Maternity care
- High-risk surgeries
- Hospital-acquired conditions: infections in ICUs, pressure ulcers, and injuries
- ICU physician staffing
- Serious adverse events including never events
- Safe practices

Leapfrog encourages patients and health care consumers to use the Leapfrog Hospital Survey results to help select the best hospital for themselves and their loved ones. Individual hospital results can be found at www.LeapfrogGroup.org/CP. In addition, The Leapfrog Group offers another resource for consumers and purchasers—the Hospital Safety Score—which is derived from some measures on the Leapfrog Hospital Survey as well as federal data. Hospitals are given a composite letter grade on how well they protect patients from accidents, injury, harm, and error. More information about the Hospital Safety Score can be found at www.HospitalSafetyScore.org. Purchasers may also benefit from Leapfrog’s calculator of the Hidden Surcharge Americans Pay for Hospital Errors,2 which allows calculation of the excess dollars purchasers spend due to errors that occur in hospitals.

Leapfrog encourages consumers, private purchasers and employers, policymakers, and providers alike to use the information contained in this report to foster safer, higher quality care for all Americans.

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2 http://www.leapfroggroup.org/HiddenSurchargeCalculator
A group of more than 175 employers and other purchasers of health care founded The Leapfrog Group in 2000 with the goal of improving the safety, quality, and affordability of hospital care in the U.S. They pursued this goal by sharing insight into hospital care with those who use and pay for health care, and promoting high-value care through incentives and rewards. To collect information about safety and quality in hospitals, Leapfrog launched the annual Leapfrog Hospital Survey in 2001. The survey asks hospitals to voluntarily report on their progress toward national standards that are known to reduce patient harm and death. Two hundred hospitals agreed to publicly report that first year. Since then, the number of hospitals submitting a survey has grown steadily, and in 2014, a record 1,501 hospitals completed the survey.
The hospitals that complete the annual Leapfrog Hospital Survey deserve enormous credit for being transparent about the safety and quality of the care they provide their patients, and for responding to the requests of hundreds of purchasers in their communities and across the country.
**Leapfrog in local communities: Regional Roll-Outs**

With help from health care purchasers and employer coalitions that volunteer to lead Leapfrog’s Regional Roll-Outs (RROs), Leapfrog targets hospitals in local communities as well as nationally. There are currently 31 Regional Roll-Outs covering 38 states across the country, led by organizations asking local hospitals to complete the Leapfrog Hospital Survey. Regions where RROs exist tend to have higher rates of Leapfrog participation than in areas with no RROs.

**Leapfrog’s Regional Roll-Outs**

- Arizona Business Coalition on Health
- Colorado Business Group on Health
- Consumer’s Checkbook (Washington, D.C.)
- Dallas Fort Worth Business Group on Health
- Economic Alliance of Michigan
- Florida Health Care Coalition
- Greater Philadelphia Business Coalition on Health
- Group Insurance Commission, Commonwealth of MA Health Action Council
- Health Policy Corporation of IA/IA Health Buyers Alliance
- HealthCare21 Business Coalition
- IBM
- Indiana Employers Quality Health
- Lehigh Valley Business Coalition on Health
- Maine Health Management Coalition
- Memphis Business Group on Health
- Mercer Health & Benefits (on behalf of Boeing)
- Mid-Atlantic Business Group on Health
- Midwest Business Group on Health
- Nevada Business Group on Health
- Niagara Health Quality Coalition
- Northeast Business Group on Health
- New Hampshire Purchasers Group on Health
- New Jersey Health Care Quality Institute
- Pacific Business Group on Health
- South Carolina Business Coalition on Health
- St. Louis Area Business Health Coalition
- The Alliance
- Virginia Business Coalition on Health
- WellOK, the Northeastern Oklahoma Business Coalition on Health
- Wyoming Business Group on Health
Computerized physician order entry (CPOE) and medication errors

Medication errors are the most common mistakes made in hospitals, with one occurring on average every day per inpatient stay.³ Studies such as one led by Dr. David Bates, MD, Chief of General Medicine at Boston’s Brigham and Women’s Hospital,⁴ suggest that a well-designed computerized physician order entry (CPOE) system could substantially reduce these errors.


CPOE: continued progress, but challenges remain

The Leapfrog Group’s survey shows steady progress in the adoption of CPOE systems, but there’s still much to do. Key findings include:

- **Record number of hospitals adopting CPOE systems**: In 2014, an all-time record of 1,339 hospitals reported using a CPOE system in at least one inpatient unit, compared with 384 in 2010.

- **Growing number of hospitals meeting Leapfrog’s standard**: About 59% of those hospitals reported using CPOE to enter at least 75% of their inpatient medication orders and passed the Leapfrog CPOE evaluation test for effective alerting.

- **Challenges in safety and effective use of CPOE remain**: Performance has held relatively steady, with the proportion of all potentially harmful orders that didn’t receive an appropriate warning hovering at 36%, and the percentage of potentially fatal orders that weren’t flagged falling from 15.2% in 2013 to 13.9% in 2014.

CPOE system adoption and use

Each year in U.S. hospitals, serious preventable medication errors occur too frequently. Errors such as incorrect dosing, mislabeled drug allergies, harmful drug interactions, or dispensing problems are frequent, and the harm they cause can be significant, even resulting in death. They are also extremely expensive.

CPOE systems are used by clinicians in hospitals to directly enter medication orders into a computer system, with the orders electronically transmitted directly to the pharmacy. Because approximately 90% of medication errors occur during manual ordering and transcribing (writing and interpreting the prescription), the use of CPOE systems could help eliminate these types of errors. CPOE combines the medication order with patient information, such as allergies, lab results, and other data relevant to prescriptions. The order is then automatically checked for potential errors or problems such as drug and allergy interactions or drug-to-drug interactions. CPOE systems also suggest default values for drug doses, as well as routes of and frequency of administration. Effective use of CPOE systems can help reduce the risk of the wrong drug or dose being delivered to a patient, and prevent problems caused by poor handwriting, similar drug names, drug interactions, and specification errors. Any of these mistakes can lead to serious consequences for patients, from not receiving the benefit of the intended medication to severe allergic reactions and death.
Good news: A record number of hospitals are adopting CPOE systems that work

In 2014, an all-time record of 1,339 hospitals reported using a CPOE system in at least one inpatient unit, compared with 384 in 2010.

**Leapfrog’s standard for CPOE:**

The Leapfrog standard is aimed at ensuring that patients are being prescribed medications through a computerized physician order entry system that alerts prescribers to drug-to-drug interactions, drug-allergy interactions, and other potential prescribing errors, and requires that:

- At least 75% of medication orders across all inpatient units are ordered through a CPOE system
- The hospital has tested the system to ensure that physicians are alerted to common, serious medication errors and demonstrated that their inpatient CPOE system can alert physicians to at least 50% of common, serious prescribing errors
Moreover, in 2014, 59% of those hospitals reported using a CPOE system to enter at least 75% of their inpatient medication orders and passed the Leapfrog CPOE evaluation test for effective alerts, thereby meeting the Leapfrog standard for CPOE use. This is a dramatic increase since 2010, when only 14% met the standard. This may be largely due to the influence of federal funding for hospitals’ “meaningful use” of health information technology—authorized under the American Recovery and Reinvestment Act. Nonetheless, Leapfrog’s standard is far more rigorous than federal requirements, so it’s very promising to see the growing number of hospitals reaching this milestone.

**Percentage of hospitals fully meeting Leapfrog’s CPOE standard**

Not all CPOE systems are alike, and none are simply “plug-and-play” solutions that work effectively year after year. That’s why the Leapfrog standard also requires that hospitals continually test the safety of the systems. Hospitals must take the test every year using Leapfrog’s CPOE Evaluation Tool because both medications and the hospitals’ systems change on an ongoing basis. The tests provide valuable assurance to hospitals that their systems are up-to-date.

The Leapfrog Group’s CPOE Evaluation Tool, developed by Dr. David Bates, Dr. David Classen, Jane Metzger, and colleagues—with funding from the Agency for Healthcare Research and Quality (AHRQ) as well as others—is the only tool in the U.S. that helps hospitals test whether or not their CPOE system is alerting physicians to common, serious prescribing errors such as drug-to-drug interactions and drug-allergy interactions. The tool also tests how effectively a hospital’s CPOE system alerts physicians to potential drug overdoses—especially in the elderly or in patients with kidney dysfunction—as well as to drugs that are not recommended for certain diagnoses.

**Testing the safety and effectiveness of CPOE systems**
The tool requires hospitals to download a set of test patients and test orders, and then simulate how their CPOE system responds when they try to give these test orders to the test patients. Leapfrog scores each hospital on how well its system flags orders that would result in patient harm or death.

**Good news, bad news: Challenges still remain**

With the Leapfrog CPOE Evaluation Tool, hospitals have an effective resource for evaluating and improving their use of CPOE systems. In 2014, hospitals performed 1,249 tests of their CPOE systems using Leapfrog’s tool, 30% more than in 2013, when 931 tests were performed. While this increase in the number of tests being run is welcome, performance has held relatively steady, with the proportion of all potentially harmful orders that did not receive an appropriate warning remaining at 36%, and the number of potentially fatal orders that weren’t caught only declining slightly, from 15.2% in 2013 to 13.9% in 2014.

Based on the results of the CPOE Evaluation Tool, Leapfrog finds that hospitals are improving their ability to detect potential medication errors through the use of decision-support software. However, it’s troubling that not all medication orders tested triggered appropriate warnings to prevent patient harm. The failure rate remains far too high and points to the critical need for hospitals to make additional improvements to their medication-ordering processes.

**CPOE test orders that did not receive an appropriate warning**

<table>
<thead>
<tr>
<th>Year</th>
<th>% adult orders that did not receive an appropriate warning</th>
<th>% potentially fatal adult orders that did not receive an appropriate warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>52%</td>
<td>32.8%</td>
</tr>
<tr>
<td>2011</td>
<td>38%</td>
<td>13%</td>
</tr>
<tr>
<td>2012</td>
<td>36%</td>
<td>15%</td>
</tr>
<tr>
<td>2013</td>
<td>36%</td>
<td>15%</td>
</tr>
<tr>
<td>2014</td>
<td>36%</td>
<td>14%</td>
</tr>
</tbody>
</table>

2014 Leapfrog Hospital Survey Results

Maternity care

Maternity care happens at one of life’s most important moments—not only for the woman giving birth, but also for the newborn and, in fact, the entire family. Given the significance to the health and well-being of employees and their families, the quality of maternity care is critically important to employers, who collectively pay for more than one-third of all deliveries in the U.S. through employer-sponsored health insurance. The Leapfrog Group surveys hospitals on their progress in meeting maternity care standards. The results of these surveys can be used by health care consumers and purchasers to compare hospitals and make the best choice for maternity care.
Maternity care: Continued progress in 2014

The Leapfrog Group’s 2014 survey results show continued improvements in the quality of maternity care offered by U.S. hospitals, but there’s plenty of room for further progress. Highlights of the 2014 survey on maternity care include:

- **Across the country, the rate of early elective deliveries continues to fall:** For the fifth year in a row, the average rate of early elective deliveries has decreased. And for the second year, the national average hit the target rate of less than 5%. However, some hospitals still perform early elective deliveries at a high rate. While nearly 78% of reporting hospitals achieved the Leapfrog standard for early elective deliveries, much variation exists, with nearly 9% reporting a rate that’s twice as high as Leapfrog’s standard.

- **More hospitals are meeting Leapfrog’s standard for episiotomies:** In 2014, 648 hospitals performed episiotomies at or below 12% of pregnancies, thereby meeting Leapfrog’s 2014 standard, compared with 468 hospitals in 2012. But as with early elective deliveries, there’s an unhealthy amount of variation in the episiotomy rates—less than 3% of hospitals report an episiotomy rate of 1% or lower while 15% of hospitals still report rates of 20% or higher.

- **There’s additional work to be done on high-risk deliveries:** High-risk newborns, such as those delivered before 32 weeks gestation or with birthweights below three-and-a-half pounds, should be delivered in hospitals with onsite, specialized neonatal intensive care units (NICUs), prepared to provide the best care. In 2014, the number of high-risk deliveries happening in hospitals with adequate NICUs remained at slightly less than one in four, making a mother’s choice of hospital a key decision in a high-risk pregnancy. In 2014, there was only a slight increase in hospitals meeting these criteria (24% in 2013 to 24.4% in 2014).

Maternity care remains an area in which many hospitals are making steady progress, but some hospitals still have quite a lot of work to do.

Early elective deliveries: Frequency continues to decline

There’s a great deal of confusion as to what “full term” actually means. New definitions, published in the journal *Obstetrics & Gynecology* (2013) and endorsed by the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine, have narrowed the definition of full term to be 39 weeks to 40 weeks and 6 days (essentially spanning two full weeks). Data strongly demonstrates that early elective deliveries—scheduled Cesarean sections or medical inductions performed prior to 39 weeks of gestation without medical necessity—carry risks to both babies and mothers. Early elective deliveries can result in NICU admissions, longer stays, and higher costs to both patients and payers.\(^\text{56}\)

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\(^1\) King VJ, Pilliod RP, Little A. Medicaid-Evidence-Based Decisions Project (MED) Rapid review: elective inductions of labor. September 17, 2010.

For more than 30 years, the American College of Obstetrics and Gynecology (ACOG) has advised its maternity care physician members not to perform early elective deliveries, and highly influential organizations such as the March of Dimes and national health plans have campaigned to stop these deliveries. Leapfrog’s public data, first presented in 2010, helped spark efforts from a variety of organizations, policymakers, and hospitals to end early elective deliveries.

**Leapfrog’s standard for early elective deliveries:**

A hospital’s rate of scheduled Cesarean sections and elective inductions before 39 weeks is less than or equal to 5%.

In 2014, the average national rate of early elective delivery was 3.4%, compared with 4.6% in 2013 and 17% in 2010, and the percentage of hospitals meeting the Leapfrog standard continues to rise.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average EED rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>17%</td>
</tr>
<tr>
<td>2011</td>
<td>14%</td>
</tr>
<tr>
<td>2012</td>
<td>11.2%</td>
</tr>
<tr>
<td>2013</td>
<td>4.6%</td>
</tr>
<tr>
<td>2014</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

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State-by-state success and continued geographic variation

Groups such as the Dartmouth Atlas have long noted regional differences in care delivery, and the length of pregnancies is no exception. While many states such as California, Colorado, and Illinois have made major progress in lowering the rate of early elective deliveries, others show year-to-year fluctuations or consistently fail to reach the Leapfrog standard.
Average rate of early elective deliveries, by state

Excludes states with an average of fewer than five hospitals reporting in 2011 and 2014

Average EED rate

State

Average rate of early elective deliveries, by state

Excludes states with an average of fewer than five hospitals reporting in 2011 and 2014

Average EED rate

State
Many hospitals still lag behind

While an impressive 78% of hospitals had an early elective delivery rate of 5% or less, a large amount of variance still exists among reporting hospitals. 82 hospitals reported an early elective delivery rate of more than 10%, with 17 of those hospitals reporting a rate of greater than or equal to 30%.

Rate of early elective deliveries, 2014

Episiotomy: Improvement in rates—but lots of room for further gains

An episiotomy is an incision, or cut, made in the perineum (the birth canal) during childbirth. Although episiotomies were once routine in childbirth, medical guidelines today recommend an episiotomy only in a narrowly defined set of cases.8

Episiotomies have been clearly linked with worse perineal tears, loss of bladder or bowel control, and pelvic floor defects.9 These complications slow the mother’s recovery and increase delivery costs. Due to these concerns, ACOG has called for the "restricted use of episiotomy,” which has been firmly linked to lower rates of perineal injury.

Leapfrog’s standard for episiotomy:

A hospital’s rate of episiotomy is less than or equal to 12%.

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Leapfrog has tracked episiotomy use by hospitals since 2012. In 2014, 990 hospitals reported on the standard, and 648 (65%) achieved a rate of 12% or lower, compared with 468 out of 833 (56%) in 2012. For the first time, the national average hit the target rate of less than 12%.

Individual rates of episiotomy vary dramatically, with 25 hospitals reporting an episiotomy rate of 1% or less and 12 hospitals reporting an episiotomy rate of 40% or higher. Thus, while there’s been modest improvement nationally, 35% of birthing hospitals still permit too many episiotomies, putting hundreds of thousands of women at unnecessary risk.

Based on current research and literature, Leapfrog’s Maternity Care Expert Panel recommended further lowering the standard to 5% in 2015. Only 27% of hospitals would meet this new target rate today.

While the state-by-state variation is not as significant as with early elective deliveries, there’s still plenty of room for improvement in specific locations.
Average rate of episiotomies, by state

Excludes states with an average of fewer than five hospitals reporting in 2013 and 2014
High-risk deliveries

In medicine, like much in life, practice makes perfect. Finding a hospital where staff has ample experience caring for very vulnerable newborns is key to receiving the best care. Many expectant mothers have medical conditions that put them at risk for delivering a baby prematurely. If this happens, infants may need specialized care.

When infants are born weighing less than 1500 grams (3 pounds, 4.91 ounces), they must be cared for in an NICU with the proven skills and resources to care for them. Research suggests that these very vulnerable babies are more likely to survive and thrive if they are born in a hospital that has an experienced NICU available on-site. In cases of potentially high-risk deliveries, mothers should choose a hospital with a qualified NICU. Patients who are unsure whether they may have a high-risk delivery should speak with their provider.

**Leapfrog’s standard for high-risk deliveries:** A hospital that:

- Delivers at least 50 very-low birthweight babies per year and ensures that at least 80% of mothers receive antenatal steroids prior to delivery
- OR
- Maintains a lower-than-average morbidity/mortality rate for very-low birthweight babies and ensures that at least 80% of mothers receive antenatal steroids prior to delivery

**Average NICU volume by high-risk delivery quality rating**

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High-risk deliveries: Not enough improvement in hospital performance

Unfortunately, too many high-risk babies are still being delivered in hospitals with less than ideal conditions to care for them. In 2014, just 106 out of 435 hospitals that deliver high-risk babies (24.4%) fully met Leapfrog’s standard. This represents only a slight improvement in the percentage of those meeting the standard from 2013, when 108 out of 451 such hospitals (24.0%) met this metric.

Number of hospitals meeting Leapfrog’s standard for high-risk deliveries

<table>
<thead>
<tr>
<th>Year</th>
<th>Fully Meets Standard</th>
<th>Does Not Meet Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>108</td>
<td>343</td>
</tr>
<tr>
<td>2014</td>
<td>106</td>
<td>329</td>
</tr>
</tbody>
</table>
Percentage of hospitals meeting Leapfrog’s standard for high-risk deliveries, by state

Excludes states with fewer than five hospitals reporting in 2014
High-risk procedures

Predicting patient survival from high-risk surgeries

Despite breakthroughs in surgical safety, some amount of risk will always exist. But for many high-risk surgeries, choosing where to receive care can mean the difference between life and death. Given its potential impact on the health and well-being of employees and their families, the quality of surgical care is also critically important to employers. Paying for surgeries through employer-sponsored health insurance plans, these employers want nothing more than to quickly get their valued workers back on their feet.

The Leapfrog Hospital Survey focuses on four specific surgical procedures because they are both common and high-risk, and the survival rates for these procedures vary widely across hospitals. Leapfrog calculates predicted survival rates, by hospital, for each type of surgery.

The four surgeries included in the survey are:

- **Abdominal aortic aneurysm (AAA) repair**—Surgery to treat an enlarged abdominal aorta, the major blood vessel that supplies blood to the body
- **Aortic valve replacement (AVR)**—Heart surgery that treats problems with the heart’s aortic valve
- **Pancreatectomy**—Surgery to remove all or part of the pancreas to treat several conditions, such as benign (non-cancerous) pancreatic tumors, pancreatic cancer, and pancreatitis
- **Esophagectomy**—Surgery to remove all or part of the esophagus, usually done to treat cancer

Significant variation and challenges remain

Across U.S. hospitals, the survival rates for four high-risk procedures vary significantly, and most hospitals surveyed do not meet Leapfrog’s standard for each procedure.

- Only 17% of surveyed hospitals fully meet Leapfrog’s standard for AVRs, approximately 30% meet the standard for esophagectomies and AAA repairs, and 42% meet Leapfrog’s standard for pancreatectomies.

**Leapfrog’s standards:** Developed by Drs. John Birkmeyer and Justin Dimick at the University of Michigan and Dr. Doug Staiger at Dartmouth Medical School, the predicted survival rate has been tested for validity in peer-reviewed research, and is calculated using two pieces of information:

1. The number of patients who had the surgery at a given hospital, and
2. The number of those who died after having the procedure there

In addition to the above methodology, The Leapfrog Group has worked where it can to align its process measures with national and state outcomes assessment systems. For example, several national registries hosted by medical specialty societies collect information on mortality for specific procedures such as AVRs. For these procedures, Leapfrog allows hospitals to report their risk-adjusted mortality rates as reported to a national registry.
Leapfrog’s standards for high-risk procedures

**Abdominal aortic aneurysm (AAA) repair:** Hospital has a predicted survival rate of 97.3% or better for patients having this procedure.

**Aortic valve replacement (AVR):** Hospital performs at least 120 of these surgeries per year and reports a risk-adjusted average mortality rate that’s better than expected given the type of hospital and its patients; OR has a predicted survival rate of 95.6% or better.

**Pancreatectomy:** Hospital has a predicted survival rate of 91.3% or better for patients having this procedure.

**Esophagectomy:** Hospital has a predicted survival rate of 91.7% or better for patients getting this surgery.

**Hospitals meeting Leapfrog’s standard for high-risk procedure quality**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number of Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Aortic Aneurysm</td>
<td>268</td>
</tr>
<tr>
<td>Aortic Valve Replacement</td>
<td>95</td>
</tr>
<tr>
<td>Pancreatectomy</td>
<td>203</td>
</tr>
<tr>
<td>Esophagectomy</td>
<td>182</td>
</tr>
</tbody>
</table>

**Little progress in reducing variation in predicted survival rates**

The predicted survival rates for these four high-risk surgeries continue to vary greatly among hospitals. For instance, for pancreatectomies the variance is 19 percentage points—with predicted survival rates ranging from 81% to 100%. For AAA repair, the variation in a patient’s chance for survival has actually increased from 2013—there’s now a 13 percentage point difference between predicted survival at the best-performing hospital and that at the worst-performing hospital (98.9% vs. 85.7%).
Year-to-year progress is limited

The percent of hospitals fully meeting the Leapfrog standard for each procedure has not significantly increased over the past five years, and in the case of AAA repairs, the percent of hospitals meeting the standard has decreased. There’s still much work to do to ensure that patients have the best chance to survive these high-risk surgical procedures.

**Graph Key**

**Fully meets** - “Best Odds of Survival,” meaning the hospital is in the best quartile for the composite measure for this procedure.

**Substantial progress** - “Better Odds of Survival,” meaning the hospital is above the midpoint (median), but not in the best quartile for the composite measure for this procedure.

**Some progress** - “Improved Odds of Survival,” meaning the hospital is below the midpoint (median), but not in the worst quartile for the composite measure for that procedure.

**Willing to report** - “Lower Odds of Survival,” meaning means the hospital is in the worst quartile for the composite measure for that procedure.
Abdominal aortic aneurysm quality by category

* The change in performance between 2013 and 2014 may be partially due to a change in the measure specification that made it more difficult for a hospital to get full credit.

Aortic valve replacement quality by category
Hospital-acquired conditions: infections, pressure ulcers, and injuries

Hospital-acquired conditions (HACs) are medical conditions or complications that were not present when a patient was admitted to the hospital, but develop as a result of errors or accidents in the hospital. Hospitals can prevent many of these conditions; some hospitals have zero or close to zero reported HACs. Leapfrog’s Hospital Survey includes four serious HACs:

- Hospital-acquired pressure ulcers
- Hospital-acquired injuries
- Central line-associated bloodstream infections
- Catheter-associated urinary tract infections

Continued high variation and need for improvement

- **High variation in hospital-acquired pressure ulcer and hospital-acquired injury rates**: 55% of hospitals reported zero stage III & IV hospital-acquired pressure ulcers per 1,000 inpatient discharges, a slight improvement over 53% in 2013.
- **Many doing well, but high variance in infection rates continues**: 88% of hospitals had a less than expected rate for central line-associated bloodstream infections, while 48% of reporting hospitals had a higher than expected catheter-associated urinary tract infection rate.

High variation in hospital-acquired pressure ulcer and hospital-acquired injury rates

Of the 1,302 hospitals that reported their hospital-acquired pressure ulcer rate, 712 (55%) reported zero stage III & IV hospital-acquired pressure ulcers per 1,000 inpatient discharges, a slight improvement over 692 (53%) in 2013. Fifteen hospitals reported more than one hospital-acquired pressure ulcer per 1,000 inpatient discharges, down from 18 in 2013. The incidence of hospital-acquired injuries was somewhat greater: only 280 (21.5%) hospitals had zero hospital-acquired injuries, an improvement over 2013 where 232 (17.7%) hospitals had a rate of zero. Three hospitals reported an unacceptably high hospital-acquired injury rate of more than five injuries per 1,000 inpatient discharges.

Hospital-acquired pressure ulcers at stage III and IV are “bedsores” that are caused by remaining in one position for a long time, commonly in a bed or wheelchair, and can be prevented through known precautions. Stage III and IV pressure ulcers are very deep, serious sores that may reach muscle or bone. They cause pain and infection, and may prolong hospital stays or lead to amputation.

*Leapfrog’s standard for hospital-acquired pressure ulcers*

The rate of stage III and IV pressure ulcers is zero.
**Hospital-acquired injuries** are falls and other traumatic injuries (broken or dislocated bones, crushing injuries, or burns) that occur while a patient is in the hospital. Although some falls and injuries may occur when hospitals are providing quality care, many others can be avoided.

**Leapfrog’s standard for hospital-acquired injuries:**

The rate of falls and certain injuries is close to zero (less than or equal to 0.16 per 1,000 inpatient discharges).
High variance in infection rates

Leapfrog uses a measure developed by the Centers for Disease Control and Prevention (CDC) to collect information from hospitals regarding central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs). Leapfrog then uses a standardized infection ratio (SIR) to aggregate a hospital’s performance across multiple ICU types and to standardize the reporting out of a hospital’s performance. The SIR, which is used by the CDC and others, is a ratio of a hospital’s actual number of infections divided by an expected number of infections. A SIR of 1.0 means that the actual number of infections is the same as the expected number of infections, based on that hospital’s number of days a central line or catheter was inserted in a patient and the ICU type. A SIR below 1.0 means that the actual number of infections is lower than the expected number of infections. A SIR above 1.0 indicates that the actual number of infections is worse than the expected number.

The good news is that, in general, the majority of hospitals (88%) have SIR rates of 1.0 or below for CLABSIs, meaning they are more successful at preventing these infections than expected. However, it is disturbing that 48% of hospitals perform poorly in preventing urinary tract infections.

CMS currently reports hospital data on CLABSIs and CAUTIs as part of the Inpatient Quality Reporting (IQR) program. However, this information is reported by Medicare Provider Number (MPN), which is an identifier that may cover a hospital system that includes several hospitals in different locations. Leapfrog is the only source of hospital-acquired infection and condition data broken out by hospital (i.e. bricks-and-mortar facility). Leapfrog feels strongly that patients and health care consumers have the right to know about how individual hospitals in their own communities are performing.

Central line-associated bloodstream infections (CLABSIs) are infections caused by germs that enter the body through catheters or tubes inserted into large veins. CLABSIs continue to be one of the most deadly and costly hospital-associated infections in the U.S. CLABSIs can be prevented through proper insertion techniques and improved management of the central line.

**Leapfrog’s standard for central line-associated bloodstream infections:**

The rate of infections in ICUs is zero.
Catheter-associated urinary tract infections (CAUTIs) are the most frequent types of infection in hospitals. They can result in longer stays, greater patient discomfort, excess health care costs, and sometimes death.

**Leapfrog’s standard for catheter-associated urinary tract infections:**

The rate of infections in ICUs is close to zero.

While hospital-acquired conditions happen occasionally, 13 out of 1,357 hospitals reported an exceptional rate of zero on all four conditions in 2014. A further 71 hospitals accomplished zero on three of four conditions, 317 hospitals had a rate of zero on two of four, and 461 hospitals on one of the four conditions. Nearly 500 hospitals (495) have not been able to reach zero for any of the four conditions.
Overall hospital performance on hospital-acquired conditions, 2014

Number of hospital-acquired condition categories (CLABSI, CAUTI, hospital-acquired pressure ulcers, hospital-acquired injuries) with zero incidents

- 13 hospitals with 4 categories
- 71 hospitals with 3 categories
- 317 hospitals with 2 categories
- 461 hospitals with 1 category
- 495 hospitals with 0 categories
Intensive care unit (ICU) physician staffing

The death rates for patients admitted to the ICU average 10-20% in most hospitals.\textsuperscript{12} Overall, more than 200,000 patients die in U.S. ICUs each year.\textsuperscript{13} Given the high stakes involved, the quality of care delivered in ICUs is particularly important. Unfortunately, evidence suggests that quality varies widely across hospitals.

Research has shown that hospitals staffing their ICUs with doctors specializing in critical care medicine can reduce ICU mortality by as much as 40%.

Some improvement in ICU staffing, but more progress needed

The Leapfrog Group’s 2014 Hospital Survey indicates that 46.1\% of the responding hospitals fully meet Leapfrog’s standard for intensivist coverage of the ICU. This represents an improvement over the 2013 rate of 41.7\%. However, there hasn’t been nearly enough progress, given how important this is to patients and their families.

\textbf{Leapfrog’s standard for ICU physician staffing:}

Patients in adult or pediatric medical and/or surgical or neuro ICUs are being cared for by physicians who are certified in critical care medicine (i.e. intensivists). These intensivists are present at least eight hours per day, seven days per week. When not present in the ICU, the intensivist responds to pages within five minutes or has another physician, physician assistant, nurse practitioner, or trained nurse who reaches the patient within five minutes.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{percent_of_hospitals_making_standard.png}
\caption{Percent of hospitals meeting Leapfrog's ICU physician staffing standard}
\end{figure}


Never events policy

Never events are serious reportable adverse events that should never happen, but unfortunately, still do occur occasionally. These include errors such as surgery performed on the wrong body part or on the wrong patient, leaving a foreign object inside a patient after surgery, or death resulting from devices or contaminated drugs.

Leapfrog believes the public deserves reassurance that hospitals will work without fail to prevent these kinds of grave errors, and then respond responsibly if they do occur.

Percent of hospitals meeting Leapfrog’s standard for never events policy holding steady

While the rate of hospitals meeting the never events policy standard has increased by 8.4% since 2010, it has stalled at 79% from 2012 to 2014. Given the severity and tragedy of these errors, we would expect 100% of hospitals to put into place the straightforward elements of Leapfrog’s policy.

**Leapfrog’s standard for never events:**

Hospital has a policy in place so that if a never event occurs, the hospital will (a) apologize to the patient and/or family, (b) report the event to an outside agency, (c) perform root-cause analysis, (d) waive costs directly related to the never event, and (e) make a copy of the policy available to patients.
Percent of hospitals meeting Leapfrog's standard for never events policy

Year | Percent of hospitals meeting Leapfrog's standard for never events policy
-----|--------------------------------------------------
2010 | 71.4%
2011 | 75.3%
2012 | 79.4%
2013 | 79.3%
2014 | 79.0%
Safe practices

Leapfrog asks hospitals to report on their implementation of eight NQF-endorsed safe practices that, if adopted, can improve patient safety in health care settings. Each of the eight safe practices includes four components: awareness, accountability, ability, and action. Each component then includes a list of activities that every hospital should accomplish. To meet this standard, hospitals earn points for each of the activities they complete. For example, the safe practice focused on Medication Reconciliation includes 14 activities organized into the categories of awareness, accountability, ability, and action.

Hospitals meet Leapfrog’s standard by completing every activity within each of the eight individual safe practices:

- Provide effective leadership to prevent errors
- Offer training to improve safety
- Have staff work closely together to prevent errors
- Track and reduce risks to patients
- Ensure there are enough qualified nurses
- Communicate correct medication information
- Observe proper hand washing
- Take steps to prevent ventilator problems

High compliance with Leapfrog’s safe practices guidelines

In general, hospitals have performed well on all eight of Leapfrog’s safe practices, but only about half of all reporting hospitals have completed 100% of activities outlined for each of the eight safe practices. Compliance was particularly strong for cultivating a culture of safety in working together to prevent errors, and on hand hygiene—with 82% of reporting hospitals completing all activities for measuring their safety culture and 77% for mandating hand hygiene. Safe practices regarding creating leadership structures continues to lag behind the other areas.
Urban hospitals outperformed rural ones, with 70% of urban hospitals at or above standard, as compared with only 45% of rural hospitals. The percentage of both urban and rural hospitals fully implementing all eight safe practices continues to grow year-over-year.

Hospitals are scored on the eight safe practices, based on how many of the activities they complete.
Effective leadership to prevent errors:
Hospital must ensure the involvement of senior officials, patients, and the local community in monitoring patient safety, have an integrated patient safety program, and have a formal budget of appropriate size for patient safety.

Staff works together to prevent errors:
Hospital must conduct a biannual Culture of Safety survey. The sample must account for 50% of the combined care delivered to patients within the facility, and cover the units or departments with higher risk to patient safety. Hospitals are required to share the results of this report with the administration; conduct staff educational programs addressing areas identified in the survey to improve the culture of safety; and implement explicit, hospital-wide organizational policies based on the survey results.

Training to improve safety:
Hospital must train its staff annually in all areas of teamwork, as well as have a sufficient patient safety program budget.

Track and reduce risks to patients:
Hospital must conduct an annual risk assessment in their facilities and base their risk-mitigation activities on their specific risk profile. The hospital must also provide training to its staff on risk mitigation.

Enough qualified nurses:
Hospital must implement critical parts of a well-designed nursing workforce plan that mutually reinforces patient safeguards, including an adequate nurse staffing plan, making senior administrative nursing leaders part of the hospital senior management team, and providing adequate funding for nursing services including support in maintaining professional knowledge and skills.

Correct medication information is communicated:
Hospital must perform an annual review of adverse events from medication interactions as well as conduct staff education and skills-development programs for both existing staff and newly hired clinicians. A hospital must also have explicit facility-wide policies and procedures regarding medication reconciliation.

Hand washing:
Hospital must have board-mandated education and compliance policies around hand washing.

Take steps to prevent ventilator problems:
Hospital must conduct an annual evaluation of the frequency and severity of ventilator-associated complications, as well as hold senior officials directly accountable for improvements in performance.
**Enough qualified nurses**

Contrary to depictions in popular media, nurses—not physicians—provide most of the clinical care in hospitals. As such, they are critical to ensuring that hospitals provide safe, high-quality care. Registered nurses constitute the largest group of health care professionals, and nearly 58% of them are employed by hospitals. Despite this, there are few measures available that focus on the nursing workforce in hospitals.

An adequate workforce of well-trained nurses and a strong, hospital-wide influence of nursing leaders can positively impact patient mortality, reduce complications and adverse events, shorten the length of hospital stays, and decrease resource usage.

**Hospitals perform well, but more progress is needed to maintain Leapfrog’s standard**

Leapfrog’s recommended enough qualified nurses safe practices ensure that nursing staff are included at all levels of leadership, and units are adequately staffed with skilled nurses to provide safe care.

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**Leapfrog’s standard for enough qualified nurses:**

Ensure that nursing staff services and nursing leadership at all levels—including senior administrative and unit levels—are competent and adequate to provide safe care. This includes having an appropriately resourced nurse staffing plan, including senior administrative nursing leaders as part of the hospital senior management team, and providing adequate funding for nursing services, including support in maintaining professional knowledge and skills.

Hospitals can meet this standard by either:

- Attesting that they fully comply with the 21 Leapfrog nursing workforce safe practices
- Achieving Magnet® Status recognition from the American Nursing Credentials Center

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14 http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-fact-sheet
The 2014 Leapfrog Hospital Survey shows continued progress in the adoption of critical nursing workforce safe practices, but there’s much more to be done. Key findings include:

- The percentage of reporting hospitals that meet all 21 of Leapfrog nursing workforce safe practices grew from 52% in 2013 to 60% in 2014. While this is encouraging, two in five reporting hospitals are still not fully meeting Leapfrog standards.

- Leapfrog-reporting hospitals achieving Magnet® Status increased slightly from 15.5% in 2013 to 16% in 2014. The American Nurses Credentialing Center’s Magnet program recognizes health care organizations for high-quality patient care, nursing excellence, and innovations in professional nursing practice.

**Enough qualified nurses safe practices**

Because of the direct link between nursing workforce and safe care, Leapfrog believes the public deserves to know which hospitals have strong nursing workforces. The Leapfrog survey results provide the only transparent tool for consumers and health care purchasers to compare nursing workforces at different hospitals across the country.

The survey results detailed in this report focus on hospital practices involving the nursing workforce and are derived from Safe Practice 9 – Nursing Workforce, from the NQF. This measure examines how hospitals apply key components of a well-designed nursing workforce to reinforce patient safeguards. In it, health care organization leaders and governance boards are explicitly called upon to proactively assess the safety of their organizations and to take action that continually improves the safety and, thus, the quality of the care they provide.¹⁵ Leapfrog divides its nursing workforce safe practice questions into four areas:

- **Awareness**—Does the hospital perform a risk assessment and evaluation of patient-safety events related to nurse staffing, and provide feedback to all levels of leadership?

- **Accountability**—Does the hospital include senior nursing leadership as part of its management team, report performance metrics related to nursing workforce safe practices to the board, and hold all levels of leadership accountable through performance reviews or compensation structures?

- **Ability**—Does the hospital conduct staff training and provide the budget needed to ensure an adequate and competent nursing staff?

- **Action**—Does the hospital implement policies and procedures to ensure adequate staffing is achieved and provide an annual report on progress to the public?

While Leapfrog does not measure nurse-to-patient ratios, the nursing workforce safe practices reflect processes and policies for ensuring hospitals have enough skilled nurses, that patient safety issues related to having enough skilled nurses are constantly being reviewed, that nursing leadership is represented throughout the hospital, and that hospital leadership is held accountable for improvements. The systematic, universal implementation of NQF-endorsed safe practices can lead to sizable and long-lasting improvements in health care safety.
The percentage of hospitals meeting all 21 nursing workforce safe practices continues to increase, with 60% of reporting hospitals earning all possible points, up from 52% in 2013.

### Percentage of hospitals meeting all 21 nursing workforce safe practices

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of hospitals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>48%</td>
</tr>
<tr>
<td>2011</td>
<td>52%</td>
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<tr>
<td>2012</td>
<td>48%</td>
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<tr>
<td>2013</td>
<td>52%</td>
</tr>
<tr>
<td>2014</td>
<td>60%</td>
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</table>

### Magnet Status

Leapfrog is the only hospital ratings provider that tracks and rewards Magnet® Status—an elite designation for nursing excellence—and credits hospitals with this designation. The American Nurses Credentialing Center’s elite Magnet Recognition Program® singles out health care organizations for high-quality patient care, nursing excellence, and innovations in professional nursing practice, and requires those applying for Magnet® Status to also demonstrate important safety outcomes. Magnet® is the leading source of successful nursing practices and strategies worldwide.16 Leapfrog experts recognize Magnet® hospitals for their improved work environments, more highly educated nursing workforces, superior nurse-to-patient staffing ratios, and greater nurse satisfaction.17 Hospitals that have achieved Magnet® Status fully meet Leapfrog’s standard for nursing workforce safe practices.

The number of Leapfrog-reporting hospitals that earned a Magnet® Status designation has increased slightly over the past four years, with 239 hospitals, or slightly more than 16% of hospitals, reporting this designation in 2014.

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16 http://www.nursecredentialing.org/magnet.aspx
17 http://www.nursecredentialing.org/JONA-PressRelease-103111
**Hand washing safe practices**

According to the CDC, hand hygiene is one of the most important and effective means to stop the spread of infections in health care facilities. Many hospital-acquired infections are caused by pathogens transmitted from one patient to another via the contaminated hands of health care workers. The CDC estimates that on any given day, about 1 in 25 hospital patients get at least one hospital-acquired infection, and in about 10% of these cases, patients will die as a result.\(^\text{18}\)

Any clinician or health care worker entering a patient’s room should wash her or his hands upon entry. Compliance with hand hygiene not only safeguards patients against contracting disease, but it also protects health care workers.

Studies on whether clinicians follow good hand washing practices show disturbingly varied results.\(^\text{19}\) Unfortunately, there’s no standardized measurement for reporting hand hygiene compliance to-date. Instead, Leapfrog asks hospitals to report on whether they have policies in place and the accountability requirements necessary to achieve universal compliance with hand hygiene. These practices are endorsed by the NQF.

Leapfrog’s recommended hand-hygiene safe practices aim to minimize hospital-acquired infections through mandated and enforced proper hand washing protocols for all staff.

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Hospitals achieve high adoption of hand washing programs, with urban hospitals outperforming rural

The 2014 Leapfrog Hospital Survey shows continued progress in the adoption of important hand washing practices, but there’s much more to be done. Key findings include:

- The percentage of hospitals meeting all ten of Leapfrog’s hand washing safe practices increased from 69% in 2013 to 77% in 2014.
- Urban hospitals continue to outperform rural hospitals and show a greater year-over-year improvement in meeting Leapfrog’s standards.
- There’s significant geographic variation in the adoption of hand washing safe practices: in five states, more than 90% of reporting hospitals had implemented all of the practices; but in six states, only 60% or less of reporting hospitals were using all the practices.
- Almost all (99%) of the reporting hospitals achieved hospital-wide education and training on preventing hospital-acquired infections related to inadequate hand washing.
- Hospitals had the most trouble holding patient safety officers directly accountable for improvements in hand hygiene through performance reviews or compensation. Only 87% of all reporting hospitals indicated they have this safe practice in place.

Hand washing safe practices

Because of substantial evidence linking hand washing and hospital-acquired infections, hospitals should strive for 100% compliance with all ten hand washing safe practices. Every hospital in the U.S. should have board-mandated education and compliance policies for hand washing. The public also deserves to know which hospitals have adopted strong hand washing programs.
The survey results detailed in this report focus on hospital practices involving hand washing that are derived from Safe Practice 19 – Hand Hygiene, from the NQF’s Safe Practices for Better Healthcare – 2010 Update. The systematic, universal implementation of NQF-endorsed safe practices can lead to sizable and long-lasting improvements in health care safety.

Leapfrog measures how hospitals apply key pieces of a well-designed hand-hygiene program to keep patients safe. Leapfrog calls upon health care organization leaders and governance boards to proactively assess the safety of their organizations and take action that continually improves the safety and, thus, the quality of the care provided. Like for nursing safe practices, Leapfrog divides its hand washing safe-practice questions into four areas:

- **Awareness**—Does the hospital undertake a hospital-wide educational effort and identify performance-improvement activities related to improving hand washing?
- **Accountability**—Does the hospital hold clinical and administrative leaders accountable through performance reviews or compensation terms for preventing hospital-acquired infections through good hand washing practices?
- **Ability**—Does the hospital conduct staff training and provide the budget needed to ensure safe hand hygiene?
- **Action**—Does the hospital implement hand-washing policies and procedures across the entire organization to prevent hospital-acquired infections?

Leapfrog’s hand washing safe practices ensure that hospitals a) follow processes and policies to minimize the risk of hospital-acquired infections, b) constantly review these policies and practices, and c) hold their leaders accountable for improvements.

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**Leapfrog’s standard for hand washing:**

Hospital must adhere to ten recommended safe practices related to hand washing, including:

- Hospital-wide education and training around hand hygiene
- Submitting a report on hand-hygiene recommendations and results to the hospital’s board of directors
- Holding clinical leadership, senior administrative leadership, and patient safety officers accountable for hand hygiene
- Documenting expenditures related to hand-hygiene education
- Implementing policies and procedures to prevent hospital-acquired infections (HAI) due to inadequate hand hygiene
- Implementing or monitoring performance improvement programs related to the prevention of HAI through hand washing compliance

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The percentage of hospitals meeting all ten hand-washing safe practices continues to increase: 77% of reporting hospitals earned all possible points, up from 69% in 2013.

As in prior years, urban hospitals outperformed rural ones: 80% of urban hospitals met all hand washing practices, compared to only 61% of rural hospitals.
As noted above, there’s also significant geographic variation in the adoption of hand washing safe practices. In five states, greater than 90% of reporting hospitals had adopted every practice, while in six states, 60% or less of the hospitals applied all of the practices.
Conclusion and call to action

The U.S. health care system is undergoing major transformation, from policy and regulatory changes associated with the implementation of the Affordable Care Act, to market-driven shifts as purchasers put an increasing focus on value-based purchasing, narrowed networks, high-deductible health plans, and prevention and primary care. All of these changes require trust and transparency among providers, consumers, purchasers, and policymakers. Leapfrog was the business community’s first attempt to spur that new level of transparency, and it remains a fundamental building block for quality and safety improvement.

Transparency is shining a light on the variation in the quality of care and safe practices, but there are still not enough hospitals willing to provide employers and consumers with the information that supports informed decision-making when it comes to selecting the best hospital for the care needed. Further, some hospitals may not know where they need to improve based on standards for high-quality care and patient safety.

The good news is that more hospitals are adopting technology aimed at improving care and reducing errors. The bad news is that the technology is not always used to achieve the maximum benefit to provide safer care for patients. Similarly, most hospitals have adopted safe practices that have proven to reduce errors and harm to patients, but there’s still plenty of room for improvement.

Maternity care quality is showing progress, but it also remains an area where improvement is critical, especially in the area of care for high-risk babies. Another area of considerable variation in care is the survival rates for various high-risk procedures.

Below are additional steps that hospitals, patients, and other stakeholders can take to ensure they receive the best care:

- **Hospitals** are encouraged to use Leapfrog’s survey results as a checklist of critical elements for ensuring the best possible outcomes for their patients, and should continue to work toward a safer environment for patients, learning from other hospitals that have achieved high standards of care.

- **Employers** should urge hospitals to complete the Leapfrog Hospital Survey and should encourage their employees to choose hospitals that are demonstrating a commitment to providing safe, high-quality care.

- **Patients and families** that need hospital care are encouraged to consult the Leapfrog Hospital Survey results before choosing a hospital, and to opt for hospitals that perform well on the Leapfrog measures.

Choosing a hospital is one of the most important decisions consumers can make. Hospitals, employers, and consumers can each play a part by ensuring that patients have the greatest possible chance for a positive outcome.

Leapfrog encourages purchasers and employers to work closely with hospitals to create a more efficient U.S. health care system. Interested organizations are invited to participate in a local Regional Roll-Out, or become a Regional Roll-Out organization. To learn more about these initiatives or about The Leapfrog Group, please visit The Leapfrog Group’s website at [www.LeapfrogGroup.org](http://www.LeapfrogGroup.org). You can also find the Leapfrog Hospital Survey results for your hospital at [www.LeapfrogGroup.org/CP](http://www.LeapfrogGroup.org/CP).
About The Leapfrog Group:

Founded in 2000 by large employers and other purchasers, The Leapfrog Group is a national nonprofit organization driving a movement for giant leaps forward in the quality and safety of American health care. The flagship Leapfrog Hospital Survey collects and transparently reports hospital performance, empowering purchasers to find the highest-value care and giving consumers the lifesaving information they need to make informed decisions. Hospital Safety Score, Leapfrog’s other main initiative, assigns letter grades to hospitals based on their record of patient safety, helping consumers protect themselves and their families from errors, injuries, accidents, and infections.

About Castlight Health:

Castlight Health, Inc. (NYSE:CSLT) is a leader in enterprise healthcare management. We believe great healthcare builds great business, and U.S. enterprises can gain control over the $620 billion spent annually on healthcare, transforming a crippling cost into a strategic business advantage. Recognized as a top 2014 software platform by the HR Technology Conference & Exposition, the Castlight Enterprise Healthcare Cloud enables employers to understand and manage their healthcare investments while helping employees make the best possible healthcare decisions. Castlight is a great place to work, honored with a Glassdoor Employees’ Choice award and recognized by Rock Health for Diversity in Leadership. For more information visit www.castlighthealth.com. Follow us on Twitter and LinkedIn and Like us on Facebook. Source: Castlight Health.