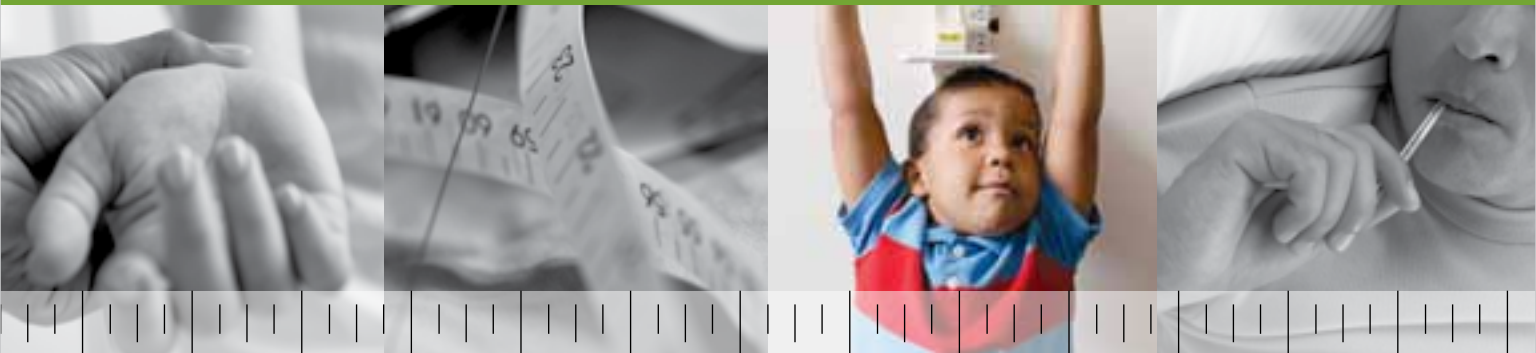


# The ABCs *of* Measurement



**Meas•ure *n.*** A standard: a basis for comparison; a reference point against which other things can be evaluated; “they set the measure for all subsequent work.” ***v.*** To bring into comparison against a standard.



## How do we know? We measure.

How do patients know if their healthcare is good care? How do providers pinpoint the steps that need to be improved for better patient outcomes? And how do insurers and employers determine whether they are paying for the best care that science, skill, and compassion can provide? Performance measures give us a way to assess healthcare against recognized standards.

While measures come from many sources, those endorsed by the National Quality Forum have become a common point of reference. An NQF endorsement reflects rigorous scientific and evidence-based review, input from patients and their families, and the perspectives of people throughout the healthcare industry.

The science of measuring healthcare performance has made enormous progress over the last decade, and it continues to evolve. The high stakes demand our collective perseverance. Measures represent a critical component in the national endeavor to assure all patients of appropriate and high-quality care.





“Measurement matters. When clinicians see their numbers, they act to improve them, using their professional pride and competitiveness to find solutions.”

RANDALL D. CEBUL, MD, DIRECTOR, BETTER HEALTH GREATER CLEVELAND

## The Difference a Good Measure Can Make

Healthcare professionals work hard to deliver skilled, thoughtful care. But no one person can see across the complexity of the healthcare enterprise to make sure the end result adds up to the best patient care. Measures light the way, showing where systems are breaking down and where they are succeeding to help patients get and stay well.

### WHY MEASURE?

**Measures drive improvement.** Teams of healthcare providers who review their performance measures are able to make adjustments in care, share successes, and probe for causes when progress comes up short — all on the road to improved patient outcomes.

**Measures inform consumers.** As a growing number of measures are publicly reported, consumers are better able to assess quality for themselves, and then use the results to make choices, ask questions, and advocate

for good healthcare. Some providers now post performance measures on their websites, and consumers can consult national sources such as [HospitalCompare.hhs.gov](http://HospitalCompare.hhs.gov) and [Medicare.gov/NHCompare](http://Medicare.gov/NHCompare).

**Measures influence payment.** Increasingly, private and public payers use measures as preconditions for payment and targets for bonuses, whether it is paying providers for performance or instituting nonpayment for complications associated with NQF’s list of “Serious Reportable Events.”

### Measures for Diabetes

NQF-endorsed measures included in Better Health Greater Cleveland’s benchmarks for progress include:

**Comprehensive Diabetic Care** HbA1c control (<8.0%) - adult patients with diabetes keeping their blood sugar under control.

**Diabetes eye exam** diabetes patients receiving eye exams



## A YARDSTICK FOR DIABETES CARE

“It was a wake-up call,” says Jan Bautista, MD, of the Cleveland Clinic’s Lakewood Family Health Center. He recalls vividly the first report that showed missed steps in the care process and lower results than expected for diabetes patients in Better Health Greater Cleveland (Better Health), a coalition of hospitals, practitioners, health plans, and employers. “We all realized we had to do better.”

A partner in Aligning Forces for Quality, the Robert Wood Johnson Foundation’s signature effort to drive quality improvement by aligning local players in 17 communities nationwide, Better Health has pledged to reduce disparities in care and lift the quality of care for all patients with common chronic conditions, including heart failure, high blood pressure, and diabetes. Within Better Health, 26,000 adults with diabetes receive care from 387 primary care physicians in eight healthcare systems, so the stakes in improving their care throughout the alliance were high.

Measurement mattered. Across Better Health, healthcare providers found different ways to improve their performance on key measures. Kathy Lehman, a nurse at MetroHealth Medical Center, created an innovative program to improve pneumococcal vaccination rates for patients with diabetes. At his small Kaiser Permanente primary care practice in Strongsville, Nicholas Dreher, MD,

optimized the roles of nurses, medical assistants, and pharmacists so that everyone who “touched” diabetes patients shared responsibility for their outcomes. By reviewing records related to routine care before each patient’s visit, a Metro-Health System community health center achieved a 27-percent improvement on one performance measure in a single year.

In three years, 33 of Better Health’s 34 medical groups showed improvements in both consistency of care for patients with diabetes and in their outcomes. Overall, almost half of patients received all recommended tests and immunizations, an improvement of nearly 10 percent — from 39 percent in 2007 to 48 percent in 2009.

At the Cleveland Clinic Foundation Lakewood Family Health Center, Jan Bautista contends that measuring and reporting his team’s performance made them more aggressive about referring patients for education on managing their diabetes. In the most satisfying improvement, more patients showed good control of hemoglobin A1c, an indicator of blood sugar control. Reducing blood sugar meant lowering the likelihood of eye disease or blindness, kidney disease, nerve damage, and heart disease in those patients. “That change is particularly gratifying,” says Bautista, “because it suggests that some of the improvements we made in monitoring and counseling are having their intended effect.”



**Diabetes: Urine protein screening** Percentage of adult diabetes patients aged 18-75 years with at least one test for microalbumin during the measurement year or who had evidence of medical attention for existing nephropathy (diagnosis of nephropathy or documentation of microalbuminuria or albuminuria)

**Diabetes: Lipid profile** Percentage of adult patients with diabetes aged 18-75 years receiving at least one lipid profile (or ALL component tests)

**Diabetes Measure Pair: A Lipid management: low density lipoprotein cholesterol (LDL-C)<130, B Lipid management: LDL-C<100:** Percentage of adult patients with diabetes aged 18-75 years with most recent (LDL-C) <130 mg/dL B: Percentage of patients 18-75 years of age with diabetes whose most recent LDL-C test result during the measurement year was <100 mg/dL

## Choosing What to Measure

So much of healthcare benefits from good measures. How do we figure out which measures can give us the biggest return in better quality of life for patients? Who sets the priorities, and who carries them out?

Since 2008, the National Priorities Partnership, a group of 48 organizations convened by NQF, has helped galvanize healthcare's expansive and fragmented system around priorities and goals where concerted action makes the biggest difference for patients. Initial priorities have been patient and family engagement, care coordination, safety, population health, overuse, and palliative and end-of-life care. At the request of HHS, NPP has provided feedback on the proposed National Quality Strategy and stands ready to assist with alignment of private-sector initiatives with the Secretary's initial plan. NPP's recommendations built on its initial focus to encompass such areas as equal access to care and critical foundations, including health information technology and a strong evidence base, essential to improve results for patients.

The national priorities guide NQF's agenda for endorsement of standards and educational outreach to its members. In addition, NQF is convening panels of stakeholders, including consumer representatives, from across the healthcare arena to identify areas where new measures are especially needed.

Locally, healthcare systems can turn to NPP priorities for guidance as they develop or customize measures to address the needs of their specific patients. Regionally, communities may select measures to focus on better outcomes for patients at risk in their populations — say, Latinos with diabetes. Professional societies create measures to support their members in achieving standards of care, as the Society of Thoracic Surgeons has done, and health plans develop measures to guide what they pay for and how much they pay.

It is a complex landscape, but one benefiting from increased collaboration as healthcare leaders work together to use measures to drive better health for Americans.

Humboldt County's Care Transitions Program addresses NPP's priority for care coordination: *Ensure patients receive well-coordinated care within and across all healthcare organizations, settings, and levels of care.*

## MAKING TRANSITIONS IN CARE A PRIORITY

People in northern California's rural Humboldt County like to joke that they are "behind the Redwood Curtain," cut off culturally and economically from the more cosmopolitan Bay Area by pristine forests. Yet this sparsely populated area is the site of some very forward-looking models of healthcare delivery.

Several years ago, Tory Starr, MSN, RN, CIC, regional director of performance improvement and quality management at St. Joseph Health System-Humboldt County, realized that many patients discharged from St. Joseph Hospital were receiving little to no follow-up care. "Seventy-five percent of our patients had been sick enough to be in the hospital, yet did not get follow-up care," says Starr. The St. Joseph team began to look at rates of hospital readmission, 30-day mortality, and core measures of care for heart failure, heart attack, and pneumonia.

Even when process measures showed solid preparation of patients for discharge, the team found those critical measures were not improving enough. Patients in Humboldt County needed more follow-up: more education, more explicit linking back to primary care, and more help managing their chronic conditions. Starr's solution is the Care Transitions Program, a joint venture of St. Joseph Health System-Humboldt County; Humboldt State University's Department of Nursing; and

the Robert Wood Johnson Foundation's Aligning Forces for Quality grantee, the Community Health Alliance of Humboldt-Del Norte. The program gives special attention to higher-risk patients, including those with chronic diseases, those with frequent readmissions who have five or more medications, and those who don't have access to home healthcare. The program is working: readmission rates have been cut by 20 percent for populations receiving services from the Care Transition Program (CTP).

Humboldt's CTP "coaches" have found medication problems in three quarters of the clients they see. "People's capacity to receive information about new or different medications at the end of an acute hospital stay is limited," says Starr. "Even if we educate them at discharge, many are still not clear about the medications they need to take. That's why follow-up is so important."

For the Care Transitions team, enhanced follow-up is part of a larger reshuffling of priorities that calls for expanded emphasis on transitions in care. "We're stepping back and realizing that it's not so much about the amount of service we provide," says Starr. "It's about providing the right kind of service at the right time."

Humboldt's program is right in line with NQF's endorsed Care Continuation Practice.



### Care Transition Measure (CTM-3)

Uni-dimensional self-reported survey that measures the quality of preparation for care transitions.

### Preferred Practice 20

Systematic Care transitions programs that engage patients and families in self-management after being transferred home.



## The Right Tools for the Job

Just as a ruler can't determine air temperature, different measures prove useful for different jobs. Some measures focus on specific steps in providing care, such as whether heart attack patients receive prescriptions for beta blockers and antilipid medications at discharge. Other measures use a wide-angle lens to look at results — for example, whether patients sent home from the hospital have improved health or end up coming back with complications that could have been avoided. Each tool provides a different view — assessing performance from a specific angle. The more we see, the more information we have to choose wisely and make improvements.

NQF endorses a portfolio of tools designed to create a way of seeing and knowing whether care is achieving defined benchmarks.

**Process Measures** show whether steps proven to benefit patients are followed correctly. They measure whether an action was completed — such as writing a prescription, administering a drug, or having a conversation. **Examples:**

<b>Universal Documentation and Verification of Current Medications in the Medical Record</b>	Percentage of patients whose medical record contains a list of current medications with dosages verified with the patient or authorized representative.
<b>Initial antibiotic received within 6 hours of hospital arrival</b>	Percentage of patients with pneumonia who receive their first dose of antibiotics promptly after arrival at the hospital.
<b>Cervical Cancer Screening</b>	The percentage of women who had a cervical cancer screening with a Pap test.
<b>Childhood Immunization Status</b>	Percentage of children 2 years of age who had four DtaP/DT, three IPV, one MMR, three H influenza type B, three hepatitis B, one chicken pox vaccine (VZV), and four pneumococcal conjugate vaccines by their second birthday.





**Outcomes Measures** take stock not of the processes, but of the actual results of care. They are generally the most relevant measures for patients and the measures that providers most want to change. **Examples:**

<b>Falls with injury</b>	Rate of patient falls with injury in a hospital.
<b>Surgical Site Infections</b>	Percentage of surgical site infections occurring within 30 days after the operative procedure.
<b>Controlling High Blood Pressure</b>	Percentage of hypertension patients whose blood pressure is under control.
<b>Acute Myocardial Infarction 30-day Mortality</b>	Rate of deaths from any cause within 30 days after hospitalization for a heart attack.
<b>Body Mass Index (BMI) in adults &gt; 18 years of age</b>	Percentage of adults who had an evaluation of their weight.

**Patient Experience Measures** record patients’ perspectives on their care. **Examples:**

<b>CAHPS Clinician/Group Surveys — (Adult Primary Care, Pediatric Care, and Specialist Care Surveys)</b>	Surveys of patient experience with primary care for adults and children and with specialist care.
<b>HCAHPS</b>	Patient experience with care survey for patients who have been in the hospital.
<b>Family Evaluation of Hospice Care</b>	Family Evaluation of Hospice Care.

**Structural Measures** reflect the conditions in which providers care for patients. These measures can provide valuable information about staffing and the volume of procedures performed by a provider. **Examples:**


<b>Nursing Care Hours per Patient Day</b>	Number of productive hours worked by nursing staff with direct patient care responsibilities per patient day.
<b>Adoption of Medication e-Prescribing</b>	Documents whether provider has adopted a qualified e-prescribing system and the extent of use in the ambulatory setting.
<b>Medical Home System Survey</b>	Percentage of practices functioning as a patient-centered medical home by providing ongoing, coordinated patient care.

**Composite Measures** combine the result of multiple performance measures to provide a more comprehensive picture of quality care. **Examples:**

<b>Mortality for Selected Conditions</b>	Measure of in-hospital mortality indicators for selected conditions.
<b>Pediatric Patient Safety for Selected Indicators</b>	Measure of potentially preventable adverse events for selected pediatric indicators.

## Patient-Centered Measures = Patient-Centered Results

Let's face it. Nobody wants to be in a hospital. The lost sense of independence and control is... at best, unpleasant. A winner of NQF's National Quality Healthcare Award, North Shore-Long Island Jewish Health System (LIJ) shifts power back to patients through extraordinary performance measurement of patient care and satisfaction and public reporting of results. Not surprisingly, the practice of continuous measurement and public reporting creates a feedback loop that improves patient care.



“At North Shore-Long Island Jewish we believe that we must earn patients’ trust by reporting our outcomes and errors and enabling them to make informed decisions about which provider to choose.”

KENNETH ABRAMS, MD, SENIOR VICE PRESIDENT OF CLINICAL OPERATIONS AT NORTH SHORE-LIJ

## WHAT YOU SAY MATTERS

What patients say about care really matters at North Shore-LIJ. Patients, families, and community members are actively engaged in improving quality by reporting errors, near misses in their care, and complaints. North Shore routinely includes patients in advisory positions when a major decision about patient care is on the table. A database tracks all patient feedback, which system leaders then use to identify trends and determine priorities for improvement. Areas of concern are boldly reported across the system from the boardroom to doctors, nurses, and support staff.

The results are impressive. Using a video-monitoring program that displays progress on priorities throughout the hospital, North Shore-LIJ increased hand-washing compliance by 81 percent. The hand-hygiene vigilance undoubtedly contributed to a 60-percent drop in infections associated with central lines, a 45-percent reduction in *Clostridium difficile* infection rates (from 1.74 to 0.95 percent), and an 80-percent decrease in Methicillin-resistant *Staphylococcus aureus* infection rates (0.35 percent to 0.07 percent).

Better communication with patients is also helping to ensure that patients who are discharged from North Shore-LIJ get and stay better. After implementing a process of weekly, post-discharge phone calls to heart-failure patients, one North Shore-LIJ hospital reduced its readmission rate from 32 percent to 9 percent — saving money and giving more patients precious time at home. Medicare reports that unplanned return visits to hospitals generate \$17 billion in unnecessary costs each year.

## QUALITY, FRONT AND CENTER

North Shore-LIJ's commitment to measurement, transparency, and patient-centered care is front and center for all 38,000 employees, from the parking valets to surgeons. CEO and President Michael Dowling meets with every new employee to present the system's quality improvement dashboard, which lays out the organization's quality measures, performance targets, and results.

“Quality is not a department. It's not just one process,” said Dowling. “It is everyone's business. You want it to be part of the DNA of the organization.”

## INVESTING IN EHRs

Dowling is working to spread performance measurement and quality improvement beyond the walls of North Shore-LIJ through a \$400 million investment in an electronic health record (EHR) system for inpatient and outpatient settings. The healthcare system is subsidizing community physicians' purchase of EHRs with the condition that their performance on quality measures be shared. It's another extraordinary display of the system's commitment to transparency and improvement. Under the new integrated program, North Shore-LIJ will provide physicians with feedback that shows where their performance falls in comparison to doctors nationwide and in their community.



## What NQF Endorsement Means

Most developers put their measures through a rigorous process long before NQF considers them for endorsement. NQF’s careful review and assessment gathers input from stakeholders across the healthcare enterprise and develops consensus among those stakeholders about which measures warrant endorsement as the “best in class.”

According to Tim Ferris, co-chair of NQF’s Consensus Standards Approval Committee, “Measures are the only way we can really know if care is safe, efficient, effective, and patient-centered. Performance measures also help us improve faster. We can make corrections earlier in providing care.”

### NQF USES FOUR CRITERIA TO ASSESS A MEASURE FOR ENDORSEMENT:

**Important to measure and report** to keep our focus on priority areas, where the evidence is highest that measurement can have a positive impact on healthcare quality.

**Scientifically acceptable**, so that the measure when implemented will produce consistent (reliable) and credible (valid) results about the quality of care.

**Useable and relevant** to ensure that intended users — consumers, purchasers, providers, and policy makers — can understand the results of the measure and are likely to find them useful for quality improvement and decisionmaking.

**Feasible to collect** with data that can be readily available for measurement and retrievable without undue burden.

“The reason this works really well is because you get input from everyone involved in healthcare — those who receive, give, and pay for care. That allows everyone to have a voice about whether the measure is important to measure, is valid, and is feasible. I make sure our top clinical experts on an issue contribute to the NQF process.”

LEE A. FLEISCHER, MD, UNIVERSITY OF PENNSYLVANIA HEALTHCARE SYSTEM,  
CO-CHAIR, OUTCOMES STEERING COMMITTEE

### Measures for Cardiac Care

The NQF-endorsed measures of care for heart attack used in Expecting Success include:

#### AMI-1

Aspirin at arrival

#### AMI-2

Aspirin at discharge

**AMI-3** Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) for left ventricular systolic dysfunction

## EXPECTING SUCCESS WITH COMPOSITE MEASURES

How can measurement be used to ensure that all patients receive high-quality care? In 2002, the Institute of Medicine's *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, revealed that racial and ethnic disparities are more likely to occur in the treatment of heart disease — a condition that requires long-term, sustained interaction with the healthcare system. The Robert Wood Johnson Foundation introduced Expecting Success to address this troubling finding. Expecting Success is a pilot program aimed at analyzing hospital performance in treating cardiac patients of all races at 10 hospitals around the country.

Using composite measures to track the multiple steps in cardiac care given to patients from varying races, ethnicities, and primary languages produced data that raised critical questions for the hospitals. Why were some black patients not getting aspirin when they arrived at the hospital with heart attack symptoms? Why were some Hispanic patients consistently not receiving all discharge instructions? Why were readmission rates so much higher for minority patients?

Hospitals reported on eight core NQF-endorsed measures of care for acute myocardial infarction (AMI), or heart attack, and four core measures for heart failure (HF). Performance on these measures is regularly collected and reported on HospitalCompare.hhs.gov. The Expecting Success hospitals took measurement one step further by reporting key composite measures — measures that combine individual measures to summarize performance. These composite measures allowed participating hospitals to see the percentage of their patients who received all the recommended care they were supposed to receive during their time in the hospital, across settings and points in time.

Such measurement enabled the hospitals to focus on developing interventions and putting systems in place to ensure that their heart patients would consistently receive all of the recommended care, putting more emphasis on patient follow-up and care coordination. As a result, the percentage of hospital patients who received appropriate heart failure care increased from 41 percent to 78 percent over two years, and the percentage of patients who received all the recommended standards of heart attack care increased from 74 percent to 86 percent over two years.



**AMI-5**  
Beta blocker prescribed at discharge

**AMI-6**  
Beta blocker on arrival

**AMI-7a** Thrombolytic agent received within 30 minutes of hospital arrival

**AMI-8a** Percutaneous coronary intervention (PCI) received within 90 minutes of hospital arrival

## How Endorsement Happens

For more than a decade, the National Quality Forum has crafted and continually improved a process to make sure endorsed standards have cleared NQF's bar for rigor and balance. The process is designed to produce consensus from a broad spectrum of groups that each touch a different part of the healthcare system.

NQF has adopted a three-year schedule for measure endorsement in 22 areas, such as cardiology, neurology, perinatal care, and infectious disease. To respond to new developments that signal a need for updated standards for patient care, NQF also has a process to consider endorsement projects that fall outside the schedule.

For each Consensus Development Project, NQF follows a careful nine-step process that ensures transparency, public input, and discussion among representatives across the healthcare enterprise.

### WHAT PATIENTS WANT

As an IBM retiree with more than 30 years in the information technology industry, Patricia Haugen knows performance measures matter. From sales to customer satisfaction to equipment reliability, measures maintain everyone's focus on what matters most to customers.

Haugen was diagnosed with inflammatory breast cancer in 1997 and has worked since for high-quality research and healthcare that are focused on what is best for consumers. She was disappointed to learn how little performance and outcomes measurement occurred in healthcare settings. As an active volunteer with the National Breast Cancer Coalition and as a consumer representative on NQF committees, Haugen is an advocate for healthcare performance measures that matter for patients.

"Because healthcare is an industry that everyone counts on and that receives public funding, there should be quality and outcome measurement, public reporting, transparency and accountability," Haugen said. "That's where NQF comes in: giving us agreed-upon standards that help ensure patients receive quality care that makes a difference."



**1 CALL FOR INTENT TO SUBMIT MEASURES** represents the formal launch of a project. Interested measure stewards and developers are invited to notify NQF of their intent to submit measures for endorsement.

**2 CALL FOR NOMINATIONS** allows anyone to suggest a candidate for the committee that will oversee the project. Committees are diverse, often encompassing experts in a particular field, providers, scientists, and consumers. After selection, NQF posts committee rosters on its website to solicit public comments on the composition of the panel and makes adjustments as needed to ensure balanced representation.

**3 CALL FOR STANDARDS** starts a 30-day period for developers to submit a measure or practice through NQF's online submission forms.

**4 STEERING COMMITTEE REVIEW** puts submitted measures to a four-part test to ensure they reflect sound science, will be useful to providers and patients, and will make a difference in improving quality. The expert steering committee conducts this detailed review in open sessions, each of which starts a limited period for public comment.

**5 PUBLIC COMMENT** solicits input from anyone who wishes to respond to a draft report that outlines the steering committee's assessment of measures for possible endorsement. The steering committee may request a revision to the proposed measures.

**6 MEMBER VOTE** asks NQF members to review the draft report and cast their votes on the endorsement of measures.

**7 CSAC REVIEW** marks the point at which the NQF Consensus Standards Approval Committee (CSAC) deliberates on the merits of the measure and the issues raised during the review process, and makes a recommendation on endorsement to the Board of Directors. The CSAC includes consumers, purchasers, healthcare professionals, and others. It provides the big picture to ensure that standards are being consistently assessed from project to project.

**8 BOARD RATIFICATION** asks for review and ratification by the NQF Board of Directors of measures recommended for endorsement.

**9 APPEAL** opens a period when anyone can appeal the Board's decision.



## How Measures Can Work: Safety

Though far from enough, we are seeing some remarkable advances in patient safety nationally. That progress demonstrates the power of performance measures to drive improvement of healthcare. Almost one in six NQF-endorsed measures directly addresses an issue of patient safety, on topics ranging from hand washing to administering antibiotics. Without question, these measures have contributed strongly to the significant reductions in hospital-based infections nationwide.

Measures can best succeed when they are backed by all involved in healthcare, reported to the public, and used for continuous improvement. Other tools may complement them and help them do their job. For instance, NQF also endorses Safe Practices, which offer guidance to practitioners on processes that support safe care.

As an example, there are safe practices for a number of healthcare-associated infections that offer improvement strategies to reduce the number of infections. NQF-endorsed outcomes measures allow those improvements to then be tracked. A performance measure may then be developed to help providers see how often they carry out such a practice. NQF's list of Serious Reportable Events (SREs) is another proven tool supporting patient safety.

SREs are serious adverse events that hospitals can be required to report publicly. More than half of the states now use NQF's list as the basis for reporting to the public on hospitals' performance. NQF's list has become the basis for decisions by the federal government about whether to pay for specific events affecting patients covered by Medicare and Medicaid.

NQF is now updating its list of Serious Reportable Events for hospitals and expanding it beyond the acute-care setting. NQF has also contributed to continuous improvement through monthly safety webinars and online updates, all widely used by practitioners across the nation.

“The battle lines in the war on healthcare harm lie on three fronts: leaders, practices, and technologies — engaged leaders, safe practices that deliver predictable outcomes, and the technologies. It is at the intersection of these three that both the risk and high-performance care lie. Great care is safe care and this could not be more true of radiologic imaging.”

CHARLES R. DENHAM, MD, CHAIRMAN, TEXAS MEDICAL INSTITUTE OF TECHNOLOGY



## WHEN A PICTURE SAYS ENOUGH

It's a typical weekend night in the busy emergency department at Louisville's Kosair Children's Hospital. A frantic parent brings in a four-year-old after a serious fall. Concerned about internal injuries, the emergency physician orders a CT scan.

Before the little boy is wheeled down the hall to the CT scanning room, staff start to perform one of the National Quality Forum's Safe Practices. They select a CT scanning protocol that will help the team lower the dose of radiation the child receives during the scan to safe levels for his height and weight.

"Children are particularly susceptible to the harmful effects of ionizing radiation," says Charles R. Denham, MD, a radiologist at the Texas Medical Institute of Technology and former co-chair of NQF's Safe Practices Steering Committee. "Unfortunately, some practitioners still aren't aware of these dose exposures and their associated risks."

"New computer technology allows us to adjust and read images using lower doses of radiation," adds Jeffrey L. Foster, MD, radiologist-in-chief at Kosair. According to Foster, six different pediatric patients will receive six different doses of radiation at Kosair. Each scan is carefully tailored to the specific child's size and clinical needs. "You don't need a whole lot of radiation to get a picture of a fractured ankle," he says. "You may need more radiation to get a sharper image to diagnose cancer or a fungal infection in the liver."

As imaging technology changes rapidly, it's key to patient safety for national standards and protocols to reflect these changes. "The goal is to make everyone in the country aware of these best practices," says Foster. "Children are not simply little adults. As a result of the work of NQF and others on safe practices, radiologists and technologists have become aware of the need to 'right-size' imaging for children, ensuring that children do not get adult doses of radiation."



**Pediatric Imaging** when CT imaging studies are undertaken on children, "child-size" techniques should be used to reduce unnecessary exposure to ionizing radiation.

## How Measures Will Serve Our Future

Measures are becoming both more precise and more complex. The next generation of measures will span healthcare settings and episodes of care to present a more complete picture of care. In the public arena, reporting of measures will become clearer and easier for patients and their families to understand and use.

Wider adoption of electronic health records (EHRs) can spur measure use enormously. A tremendous boon for patient care and patient experience, EHRs put all the relevant information, including a patient's medical history, at a provider's fingertips. Patients can avoid duplicate tests or imaging. EHRs will also make measurement and performance data available on a real-time basis, making healthcare much more responsive to patient needs. Without good data, healthcare systems simply cannot accurately measure and assess performance.



## What You Can Do

Measures will also gain value as more people become involved. Here are steps anyone can take:

- Ask your providers how they measure and report results to improve care and raise awareness among patients.
- Use [HospitalCompare.hhs.gov](https://www.hospitalcompare.hhs.gov), [Medicare.gov/NHCompare](https://www.medicare.gov/NHCompare), some of the AF4Q examples, and other public reporting venues to learn about providers' performance. Share the information with your friends and family.
- Participate in NQF's public comment periods.
- Nominate or serve on an NQF Steering Committee.
- Attend public meetings (in person or virtually).

**For information about measure endorsement, please visit: [www.qualityforum.org](http://www.qualityforum.org)**

### YOUR COMMENTS MATTER

Public input plays an important role in NQF's decisions about measure endorsement. One example comes from debate about endorsing a measure for the proportion of patients who achieve 20/40 vision through cataract surgery. The committee was leaning against endorsement, but public comments suggested greater variability in outcomes among physicians and patient groups than research was showing. As a result, NQF endorsed the measure, which will help us learn more about outcomes of this surgery, especially in non-academic and community hospitals. The answers have high stakes since more than half of all Americans have the procedure by age 80.





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