NATIONAL QUALITY FORUM

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Reference Materials

Mastering the Basics of Quality Measurement

Hosted by NQF Member Education

June 21, 2016

This packet includes:

- Agenda
- Complete slide deck from Mastering the Basics of Quality Measurement
- Handout: Types of Measures
- Infographic: Understanding Performance Measures Anatomy and Types
- Infographic: Criteria for Evaluation at Measure
- Infographic: A Tale of Two Hearts
- NQF Phrasebook: A Plain Language Guide to NQF Jargon
- ABCs of Measurement

There are many additional resources online:

- Member Resources for a full listing of all member resources
- Member Education Resource Center for webinar recordings, downloadable resources, and videos
- Member events page to register for upcoming online and in-person events
- NQF Projects page to view all current projects
- Email alert page to sign up for topic specific email alerts
- Quality Positioning System, a database for all NQF endorsed measures

NATIONAL QUALITY FORUM

Mastering the Basics of Quality Measurement

Hosted by NQF Member Education

Tuesday, June 21, 2016

Stay Connected

Wifi username: **guest**

Wifi password: **NQFguest**

Tweet about this event: @NatQualityForum *or* #NQF

Learning Objectives

By the end of the day, participants will:

(1) Know the basic terminology of quality measurement.
(2) Understand the lifecycle of quality measurement.
(3) Describe specific examples of how measures are used in the field (when, where, why and how).

Agenda

8:30am **Breakfast and coffee**
Compliments of NQF Member Relations

9:00am **Introduction and Icebreaker**
Camille Espinoza, MSW, MSPH, Director, Member Education, NQF

- Welcome and opening activity
- Member recognition
- Overview of objectives and agenda

9:30am **Why is quality measurement important?**
Marcia Wilson, MBA, PhD, Senior Vice President, NQF

- The bigger picture of quality improvement – why do we measure?
- Measurement as a critical tool for improvement

10:00am **Break**

10:15am **What is a quality measure?**
Debjani Mukherjee, MPH, Senior Director, NQF

- Parts of a measure: numerator, denominator and exclusions
- Types of measures: structure, process, outcome
- Incorporating the patient experience into measurement

11:00am **Break**

11:15am **What makes a great quality measure?**
Karen Johnson, MS, Senior Director, NQF

- Scientific standards for measures
- Evaluating measures within the appropriate context

12:15pm **Lunch**
Compliments of NQF Member Relations

- Optional: join a roundtable conversation about NQF membership in Room B

1:00pm **What is the cycle of measurement?**
Sarah Sampsel, MPH, Senior Director, NQF

- Concept and ideation
- Measure development and testing
- Implementation and monitoring
- Maintenance

2:15pm **Break**

2:30pm **How are measures used in the field?**
Michael Phelan, MD, FACEP, Emergency Services Institute and Medical Director Quality Measurement and Reporting, Enterprise Quality, Cleveland Clinic

- Who uses measures
- Example from emergency medicine: measuring door to balloon time
- Q and A

3:15pm **Tying it all together and taking it home**
Camille Espinoza, MSW, MSPH, Director, Member Education, NQF

- Closing activity

3:30pm **End**

Mastering the Basics of Quality Measurement

Introduction

NATIONAL QUALITY FORUM

Camille Espinoza
Director, Member Education
National Quality Forum

June 21, 2016

Twitter: @NatQualityForum or #NQF

TO NATIONAL QUALITY FORUM

Over 430 Members Strong

Introduction

Camille Espinoza, MSPH, MSW
Director, Member Education
National Quality Forum

No conflicts to disclose.

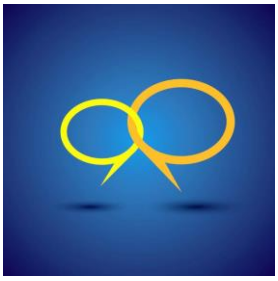
How Many Here Have…

Examples of Quality

Audience Activity: Reflections on Quality

Put on your “quality lens” and look for quality

Audience Activity: Reflections on Quality



1) Find another person at your table that you do not know
2) Introduce yourselves
3) Think back to the last time you or a loved one interacted with the health care system: where do you see quality, or not?

Quality and Measurement

How do we get to quality?

There is only one way: **Measurement!**

Quality and Measurement

Today's Objectives

By 3:30pm today, you will:

- Know the basic terminology of quality measurement
- Understand the lifecycle of quality measurement
- Describe specific examples of how measures are used in the field (when, where, why, and how)

Agenda and Housekeeping

Today's packed agenda includes:

- Learning from five quality experts
- Plenty of interactive activities
- Ample time for breaks and networking
- Opportunity to earn continuing medical education credits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Mastering the Basics of Quality Measurement

Learning Objectives

Draft Agenda

Obtaining Continuing Education Credits

- Has been approved for **4.5 hours** of prescribed credits by the American Academy of Family Physicians
- AAFP credits are recognized by many other organizations – check with your professional society or licensing board
- At the end, you can pickup your certificate of completion
- Exclusive benefit for NQF Members

Mastering the Basics of Quality Measurement

What Is a Quality Measure?

NATIONAL QUALITY FORUM

Debjani Mukherjee
Senior Director, Quality Measurement

June 21, 2016

Featured Speaker

Debjani Mukherjee
Senior Director,
Quality Measurement
National Quality Forum

No conflicts to disclose

Session Objectives

By the end of this session, participants will be able to:

- Name the main components of a performance measure
- Identify at least three different types of measures, and describe the differences between them
- Describe how the patient experience can be incorporated into measurement

What Do We Mean by 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."

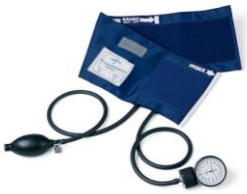
v. To bring into comparison against a standard.*

*Source: *The ABC's of Measurement*

What Is a Healthcare Performance Measure?

Healthcare performance measures are tools used to ***quantify*** the quality or cost of care provided to patients and their families.

They allow us to ***gauge*** the quality of care that is provided and help us understand whether and how much improvement activities ***improve*** care and outcomes .



What Are the "Key Ingredients" of a Measure?

To understand a measure, we need to know :

- ***What*** should happen?
- ***Who*** is the target group?
- ***Where*** should it take place?
- ***When*** should it take place?
- ***How*** should it occur?
- What, Who, Where, When, & How should ***NOT*** be measured?

"*Measure specifications"* is the term used to describe how to build and calculate a measure

How is a Measure Calculated?

Numerator

People who actually receive the action

Denominator – **Exclusions**

People who are eligible to receive the action (such as treatment or screening)

People who are not eligible for the action for specific, defined reasons

What Are The Types of Healthcare Performance Measures?

A. Structure

B. Process

C. Outcome
   i. Intermediate clinical outcomes
   ii. Health outcomes (mortality, complications, etc.)
   iii. *Patient-reported outcomes* (experience, functional status, engagement, quality of life, etc.)

D. Resource use

E. Efficiency

Types of Performance Measures To Be Discussed

A. Structure

B. Process

C. Outcome

   i. *Patient-reported outcomes* (experience, functional status, engagement, quality of life, etc.)

Structure Measures

What do structure measures do?

- Assess healthcare infrastructure
- Reflect conditions in which providers care for patients
- Provide valuable information about institutional capacity, staffing and the volume of procedures performed by a provider

Examples of structure measures:

- Nursing care hours per day per patient
- Adoption of medication e-prescribing

Structure

Table Activity

What are examples of **structure** measures for these clinical areas? Measures can be about prevention, treatment, or anything else related to the topic.

Influenza: Tables 1-2

Breast cancer: Tables 3-4

30-day hospital readmissions : Tables 5-6

Examples of Structure Measures

Influenza

- How many doses of the flu vaccine are available?
- How many qualified vaccine providers are there within a geographic area?

Breast cancer

- How many hospitals within a geographic area have digital mammography machines?
- How many qualified radiologists are within a geographic area?

30-day hospital readmissions

- How many nursing hours per patient in the intensive care unit?

Process Measures

What do process measures do?

- Assess steps that should be followed to provide good care
- Show whether steps proven to benefit patients are followed correctly by a provider

Examples of process measures:

- Documentation and verification of current medications and dosages in the medical record
- Initial antibiotic received within 6 hours of hospital arrival for patients with pneumonia
- Screening (cervical cancer) rates

Process

Table Activity

What are examples of **process** measures for these clinical areas? Measures can be about prevention, treatment, or anything else related to the topic.

Influenza: Tables 1-2

Breast cancer: Tables 3-4

30-day hospital readmissions : Tables 5-6

Examples of Process Measures

Influenza - How many adults got the flu shot immunization during a certain time period? (NQF #0039)

Numerator

People who received the flu shot

Denominator – ***Exclusions***

People who are eligible to receive the flu shot

People who could not receive the shot for medical reasons

Examples of Process Measures

Breast cancer - How many eligible women received a mammogram? (NQF #2372)

Numerator

Women who received a mammogram

Denominator – ***Exclusions***

Women who should have received a mammogram

Women who cannot receive a mammogram due to history of mastectomy

Examples of Process Measures

30-day hospital readmissions - How many patients received a discharge plan?

Numerator

People who received a discharge plan

Denominator **–** ***Exclusions***

People who were discharged during the measurement time period

People who left the hospital early, before discharge

Outcome Measures

What do outcome measures do?

- Assess the *results* of healthcare, not the inputs or processes
- Assess endpoints like well-being, ability to perform daily activities, or death

Examples of outcome measures:

- Injury during a hospital stay
- Infections following surgery
- Blood pressure under control
- Mortality rate after heart attack

Table Activity

What are examples of **outcome** measures for these clinical areas? Measures can be about prevention, treatment, or anything else related to the topic.

Influenza: Tables 1-2

Breast cancer: Tables 3-4

30-day hospital readmissions : Tables 5-6

Examples of Outcome Measures

Influenza - How many adults within a geographic area got the flu?

Numerator

People who got the flu

Denominator **–** ***Exclusions***

People who could have gotten the flu

People who did not spend the entire measurement year living in the geographic area

Examples of Outcome Measures

Breast cancer - How many women with breast cancer no longer have evidence of cancer (remission), five years after diagnosis?

Numerator

Women whose breast cancer is in remission during the specified time period

Denominator **–** ***Exclusions***

Women with history of breast cancer

Women without a documented follow up visit five years after diagnosis

Examples of Outcome Measures

30-day hospital readmissions - How many patients were readmitted within 30-days of discharge?

Numerator

People who were readmitted to the hospital within 30 days

Denominator **–** ***Exclusions***

People who were discharged in the last 30 days

People who returned to the hospital for an unrelated issue

How Are Measures Used?

Internal QI **Versus** Accountability

Quiz Game: What Type of Measure is This?

This measure asks: what percentage of people with diabetes had at least two prescriptions for a statin medication, in a 12 month period?

A. **Structure**

B. **Process**

C. **Outcome**

Quiz Game: What Type of Measure is This?

This measure asks: what percentage of patients with a serious mental illness were screened for unhealthy alcohol use during their healthcare visit?

A. **Structure**

B. **Process**

C. **Outcome**

Quiz Game: What Type of Measure is This?

This measure asks: has the provider adopted a qualified e-prescribing system?

A. **Structure**

B. **Process**

C. **Outcome**

Quiz Game: What Type of Measure is This?

This measure asks: of the patients admitted to a hospital for stroke, what percentage died during that hospital stay?

A. **Structure**

B. **Process**

C. **Outcome**

Quiz Game: What Type of Measure is This?

This measure asks: how many children have had a toothache, decay, or cavities in the past 6 months?

A. **Structure**

B. **Process**

C. **Outcome**

Quiz Game: What Type of Measure is This?

This measure asks: what percentage of work hours do nurses spend tending to residents in a nursing care facility? This is reported in number of hours spent per resident per day.

A. **Structure**

B. **Process**

C. **Outcome**

Incorporating the Patient Perspective

- Surveys & Tools
- Importance
- Translation of Patient Reported Experience into Measurement

Take Away Resources

- Also available on NQF's website
- Emailing to you after the program with a complete packet of resources

THANK YOU

Mastering the Basics of Quality Measurement

Why is quality measurement important?

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Marcia Wilson
Senior Vice President
National Quality Forum

June 21, 2016

Introduction

Marcia Wilson, MBA, PhD
Senior Vice President, Quality Measurement
National Quality Forum

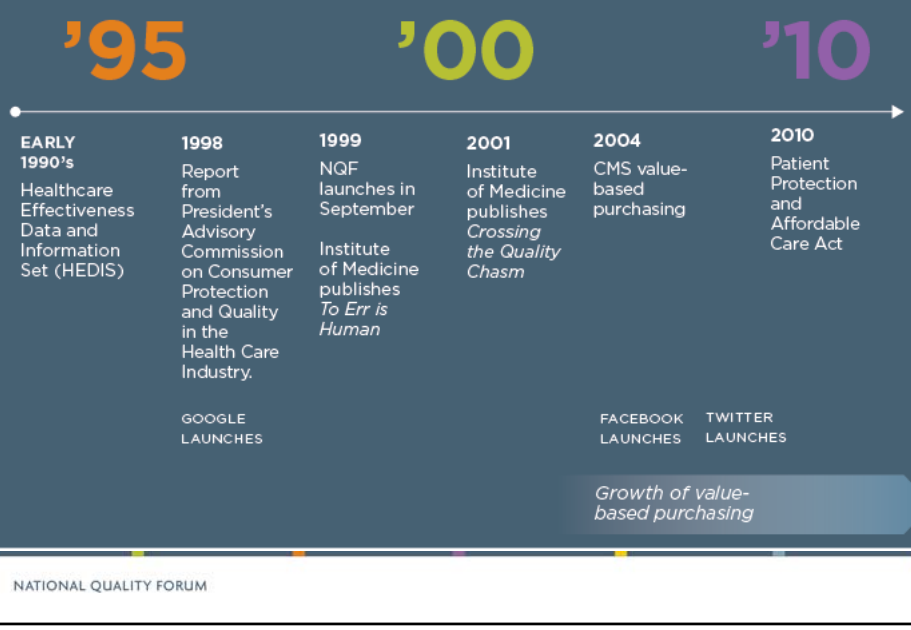
No conflicts to disclose.

Session Objectives

By the end of this session, participants will:

- Understand where measurement fits into the bigger picture of quality improvement
- Recognize the importance of measurement as a vital tool for improvement

Where We Have Been—The Journey to Quality



Where We Have Been—The Journey to Quality

qual·i·ty *noun*

Character with respect to fineness, or grade of excellence.

Quality is how good something is. For healthcare, it is often expressed in a range. When a person receives high-quality healthcare, he or she has received the right services, at the right time, and in the right way to achieve the best possible health.

meas·ure *verb*

To estimate the relative amount, value, etc., of, by comparison with some standard.

meas·ure *noun*

The extent, dimensions, quantity, etc., of something, ascertained especially by comparison with a standard.

Healthcare performance measurement tells you whether the healthcare system does what it should.

Improvement Models

Plan, Do, Study, Act (PDSA) Cycle

1. What are you trying to accomplish?
2. How will you know a change is an improvement?
3. What change can be made to result in an improvement?

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val·ue *noun*

Equivalent worth or return in money, material, services, etc.

The value of healthcare is subjective. It weighs costs against the health outcomes achieved, including patient satisfaction and quality of life.

CMS: From Volume to Value

All Medicare Fee-For-Service (FFS) payments

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Q and A

Comments? Questions?

Mastering the Basics of Quality Measurement

What Makes a Great Measure?

Karen Johnson
Senior Director, Quality Measurement, NQF

June 21, 2016

Featured Speaker

Karen Johnson
Senior Director, Quality Measurement
National Quality Forum

No conflicts to disclose

Session Objectives

By the end of this session, participants will:

- Be able to identify **12** qualities that make a measure "great"

Why Do We Measure?

The primary goal of healthcare performance measurement is to **improve the quality of healthcare** received by patients

(and ultimately, to **improve health**)

Measurement is a quality improvement tool, not an end in and of itself

Activity:

Group cards, then arrange

9 out of 10 dentists recommend Crest!

Evidence

9 out of 10 dentists recommend Crest!

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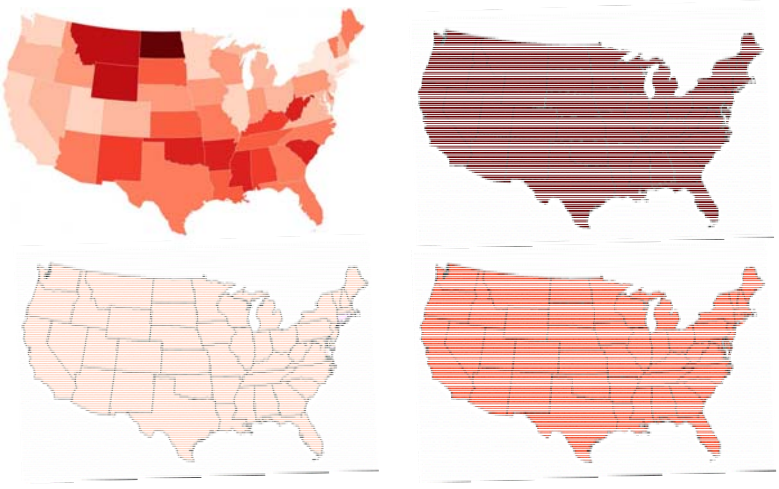
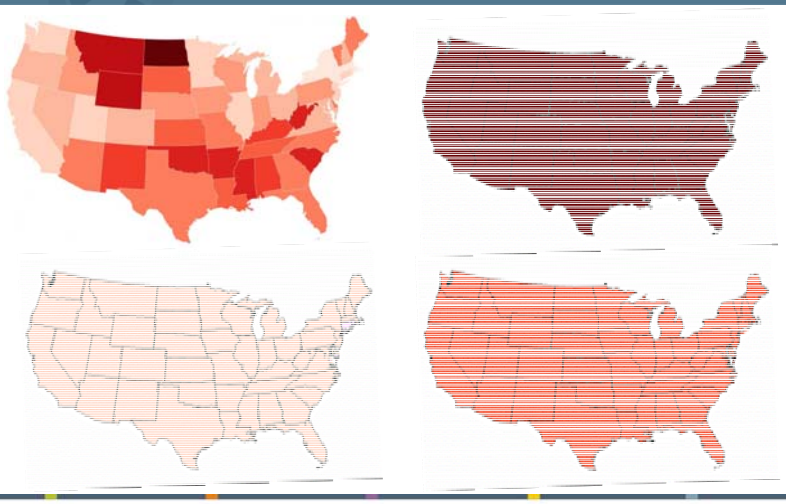
Car crash deaths per 100,000 population



Opportunity for Improvement



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Repeatable

Distinguishing differences

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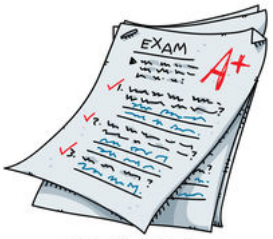

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Accuracy and Correctness

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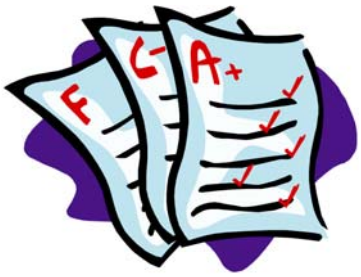
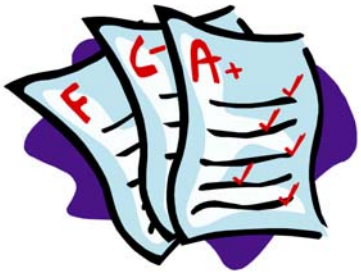
Burden

Useful


F
C-
A+

Improvement



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Unintended Consequences

Similar and Identical

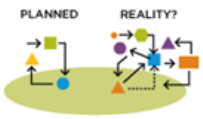
Fun!!

But what does all this have to do with great performance measures???

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

1 IMPORTANCE TO MEASURE AND REPORT

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES



3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

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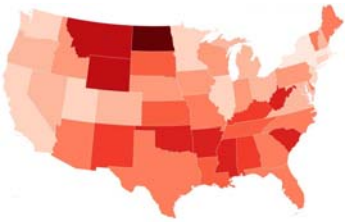
What Makes a Great Measure?
NQF's Measure Evaluation Criteria

1 IMPORTANCE TO MEASURE AND REPORT

✓**Opportunity for Improvement**



✓**Evidence**

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What Makes a Great Measure?
NQF's Measure Evaluation Criteria

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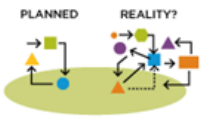

3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

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What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Repeatable**

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

✓**Distinguish differences**

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Accurate**

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

✓**Correct**

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Exclusions**

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

✓**Risk-adjustment**
✓**Meaningful differences**
✓**Comparability**

✓**Missing data**

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

1 IMPORTANCE TO MEASURE AND REPORT

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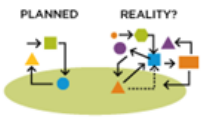

3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Burden**

3 FEASIBILITY

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

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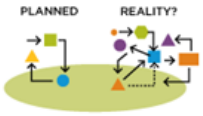

3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Useful**

✓**Unintended consequences**

✓**Improvement**

4 USABILITY AND USE

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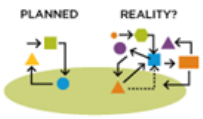
What Makes a Great Measure?
NQF's Measure Evaluation Criteria

1 IMPORTANCE TO MEASURE AND REPORT

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES



3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

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What Makes a Great Measure?
NQF's Measure Evaluation Criteria

✓**Similar**

✓**Identical**

5 ASSESS RELATED AND COMPETING MEASURES

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What Makes a Great Measure?
NQF's Measure Evaluation Criteria

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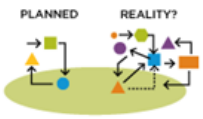

3 FEASIBILITY

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5 ASSESS RELATED AND COMPETING MEASURES

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NQF's Measure Evaluation Criteria

1. **Importance to measure and report** (must-pass)
   - 1a. Evidence to Support the Measure Focus (must-pass)
   - 1b. Performance Gap, including disparities (must-pass)
   - 1c. For composite measures: quality construct and rationale (must-pass)
2. **Scientific acceptability of measure properties** (must-pass)
   - 2a. Reliability [includes additional subcriteria] (must-pass)
   - 2b. Validity [includes additional subcriteria] (must-pass)
   - 2c. Disparities (addressed in 1b)
   - 2d. For composite measures: empirical analysis supporting composite construction (must-pass)
3. **Feasibility**
   - 3a. Required data elements routinely generated and used during care delivery
   - 3b. Availability in electronic health records or other electronic sources OR a credible, near-term path to electronic collection is specified
   - 3c. Data collection strategy can be implemented
4. **Usability and Use**
   - 4a. Accountability and Transparency
   - 4b. Improvement
   - 4c. The benefits to patients outweigh evidence of unintended negative consequences to patients
5. **Comparison to Related or Competing Measures**
   - 5a. Measure specifications are harmonized OR differences are justified
   - 5b. Superior measure is identified OR multiple measures are justified

Sources for Clipart and Pictures

- https://www.youtube.com/watch?v=CQUWtdnx2gQ
- http://www.kanyetothe.com/forum/index.php?topic=5197977.0
- http://science-all.com/dentist-clipart.html
- http://www.studentcec.org/blog/2012/10/04/law-of-unintended-consequences/
- http://www.healingthewoundsofwar.com/026/
- http://www.businessinsider.com/university-of-michigan-car-crash-study-2014-7
- http://wjb-cpa.typepad.com/.a/6a00d8354c0d2669e20176176bb2b0970c-pi
- http://robertkaplinsky.com/work/gumball-machine/
- http://www.wisegeek.com/what-is-the-biomechanics-of-tennis.htm#didyouknowout
- http://muppet.wikia.com/wiki/One_of_These_Things
- http://worldartsme.com/cartoon-car-crash-clipart.html#
- https://www.buzzfeed.com/expresident/find-the-odd-one-out?utm_term=.ayNq1jr22#.ovXxGPVEE
- http://scottyandtony.blogspot.com/2013_12_01_archive.html
- https://pastorjohnkeller.org/2013/06/29/the-forgiveness-blessing/
- http://worldartsme.com/test-results-clipart.html#gal_post_58717_test-results-clipart-1.jpg
- http://sacramentoappraisalblog.com/2011/03/07/are-websites-like-zillow-accurate-my-last-five-appraisals-vs-zillow/
- http://blog.geoconnectionsinc.com/2012/11/make-fair-comparison.html
- https://www.surveymonkey.com/blog/2012/07/26/managing-survey-response-quality-category-method-exclusions/
- http://www.swissknifeshop.com/swiss-army-hiker?gclid=Cj0KEQjw7LS6BRDo2Iz23au25OQBEiQAQa6hwLacwjLjD4ldlrwri6MCm5dS1ztP9ZxpYntxS-MPVbcaAkcM8P8HAQ
- http://ngmnexpo.com/post-it-note-clip-art-15065/
- http://www.clipartpanda.com/clipart_images/vacuum-cleaner-clip-art-11892709
- http://www.valeacademy.org.uk/SEF_Improvement_Plan
- https://wikispaces.psu.edu/pages/viewpage.action?pageId=41095610
- https://play.google.com/store/apps/details?id=com.playnlearnapps.farmanimalsfortoddlersfree.farmanimalsfortoddlersfree
- http://theverybesttop10.com/identical-twin-animals/
- http://worldartsme.com/missing-puzzle-piece-clipart.html#gal_post_65806_missing-puzzle-piece-clipart-1.jpg

NATIONAL QUALITY FORUM

Mastering the Basics of Quality Measurement

Understanding the Measure Lifecycle

Sarah Sampsel, MPH
Senior Director
National Quality Forum

June 21, 2016

Introduction

Sarah Sampsel, MPH
Senior Director, Quality Measurement
National Quality Forum

No conflicts to disclose.

Session Objectives

By the end of this session, participants will:

- Be able to identify the key stages of measure development
- Understand how the stages of the measure lifecycle are continuous and essential for sustainability

Session Goal: Understand the Principles of Sustainable Measurement (Lifecycle)

- Brief overview of the importance of a measure lifecycle
- Stage 1: Conceptualization
  - Group Discussion – What do we want to measure?
- Stage 2: Development and Testing
  - Group Discussion – What goes into defining each aspect of a specification? What does "our" measure look like? What do we want to gain from testing?
- Stage 3: Implementation
  - Group Discussion – What do we need to know about implementation plans? Challenges/Opportunities?
- Stage 4: Use, Monitoring and Maintenance
  - Group Discussion – What tools are used for assessing use, monitoring and measure maintenance? What do we want to consider once a measure has been implemented?
- Final Questions and Discussion

Debjani discussed “What is a Measure….”

Meas•ure

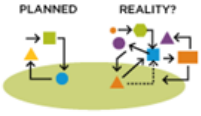
n. A standard: a basis for comparison; a reference point against which other things can be evaluated; “they set the measure for all subsequent work.”

v. To bring into comparison against a standard.*

Karen discussed “What Makes a Great Measure?” NQF’s Measure Evaluation Criteria

1 IMPORTANCE TO MEASURE AND REPORT

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

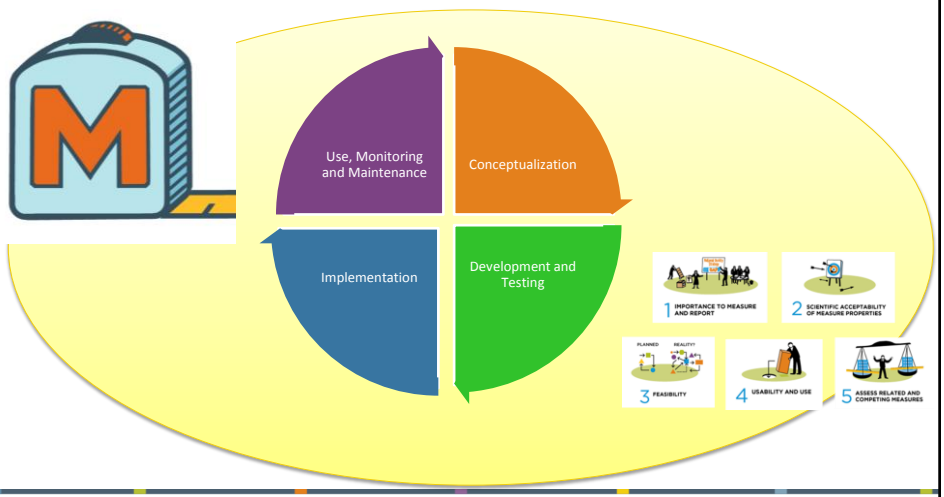


3 FEASIBILITY

4 USABILITY AND USE

5 ASSESS RELATED AND COMPETING MEASURES

Continuing the Discussion…Understanding the Quality Measurement Lifecycle

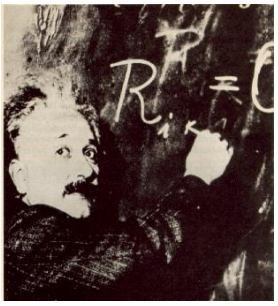


The Quality Imperative

Not everything that counts can be counted, and not everything that can be counted counts

~Albert Einstein

(William Bruce Cameron)



But…..

You can't improve what you don't measure

~ W. Edwards Deming

Conceptualization

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9

Measure Conceptualization: Steps

Conceptualization

Development and Testing

Implementation

Use, Monitoring and Maintenance

- Environmental Scan
- Evidence Assessment
- Importance and Opportunity Assessment
- Initial Measure List
- Expert Input

What are we going to measure and why?

1 IMPORTANCE TO MEASURE AND REPORT

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National Quality Strategy

Better Care

Healthier People, Healthier Communities

Smarter Spending

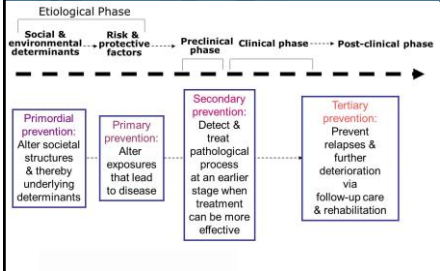
- Life expectancy
- Well being
- Overweight and obesity
- Addiction behavior
- Unintended pregnancy
- Healthy communities
- Preventive services
- Care access
- Patient safety
- Evidence based care
- Care match with patient goals
- Personal spending burden

Clinical/Medical Evidence: Knowing the Difference Between Guidelines and Measures

- National, trusted sources – rate evidence and develop guidelines
  - Guidelines--indicate what to do, based on the best evidence, to achieve the desired result
    - Measures--indicate what result you have achieved (threshold, bands, absolute values)
      - Indicator
      - Fully developed measure

- The progression from evidence to fully developed measure is NOT assured

Resource: Clinical/Medical Evidence



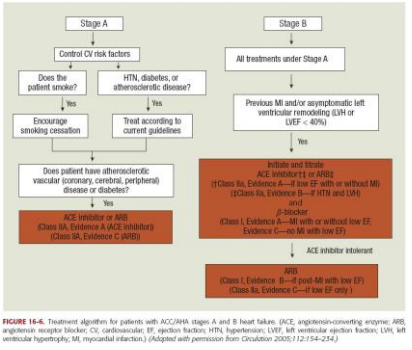
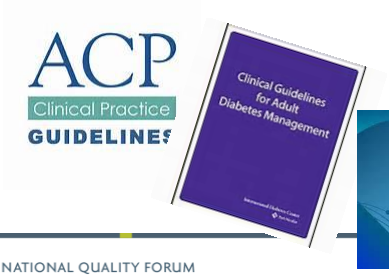
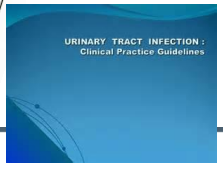


FIGURE 16-6. Treatment algorithm for patients with ACC/AHA stages A and B heart failure. (ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CV, cardiovascular; EF, ejection fraction; HTN, hypertension; LVEF, left ventricular ejection fraction; LVH, left ventricular hypertrophy; MI, myocardial infarction.) *(Adapted with permission from Circulation 2005;112:154–234.)*





General Purposes of Quality Measures (Marcia discussed this….)

- Quality Improvement
  - Promote understanding of a quality problem, provide motivation for change, and establish a basis for comparison across institutional units or over time.
  - Baseline results also enable prioritization of areas for quality improvement.
- Accountability
  - Use in purchaser and/or consumer decision making, variation in payment in relation to the level of performance and/or certification of professionals or organizations.
    - The requirements for validity and reliability are higher when using measures for accountability.
- Research
  - Develop or produce new knowledge about the health care system that is generalizable to a wide range of settings and valuable in setting health policy.
    - Quality-of-care research is often conducted to evaluate programs and assess the effect of policy changes on health care quality.

Measures Have a Beginning…

Questions to answer during conceptualization:

- Who has funded the work? What are the objectives for measure development?
- Who is going to use the measure?
  - Will they feel the measure will add value?
- Are there other measures that are addressing the same issue?
- Is there sufficient evidence to support moving a concept forward?
- Is there opportunity for improvement?
- How is the measure going to be used?

Assignment: Assess the potential for developing a measure for the U.S. Grape Growers Association

Goal: Increase grape consumption in the U.S.

Small Group Exercise

Answer the following in your groups:

- 1-3 ideas of process measures that could lead to increased grape consumption
- 1-3 ideas of outcome measures that could lead to increased grape consumption
- How would you support the importance criterion?
- What is your evidence for gap or opportunity for improvement?
- How will you incorporate consumer input?
- Who is going to use the measure?

Development and Testing

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Development and Testing: Steps

Conceptualization

Development and Testing

Implementation

Use, Monitoring and Maintenance

ID level of measurement

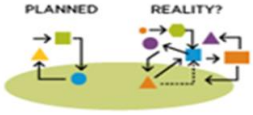
ID data sources

Numerator, denominator, exclusions, measure logic

Testing plan and analysis

Expert Input

2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES



3 FEASIBILITY

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Big Picture: Pilot Testing

- Pilot testing: small scale implementation of a quality measure
  - Allows assessment of the effectiveness of the measure specification prior to finalization and implementation
  - May consist of an alpha test (qualitative input)
  - Beta testing (data collection and analysis of proposed measure specifications and logic)
- Opportunity to identify challenges
- Opportunity to empirically test (reliability and validity) and refine measure
- Reconvene TEP to review pilot test results and assess face validity

What can testing tell us about a quality measure?

- Is it feasible to collect?
  - Is the data available?
  - What are the costs? Resource impacts?
- Is there room for improvement (i.e., gap and variation)?
- Can the measure be consistently implemented across entities?
- Is the measure logic clear? Do adjustments need to be made?
- Is the measure actually assessing what we wanted it to assess?

Full Group Discussion: Which grape consumption measure will we develop?

- What is our numerator?
- Denominator?
- Do we have any exclusions?
- What time period should the measure collect data for?
- Are there any regional/ implications?
- What setting are we testing?
- What would we want to know from a field test?
- How many sites should be involved?
- Are there things we need to control for?
- Other research questions that require data?

Implementation

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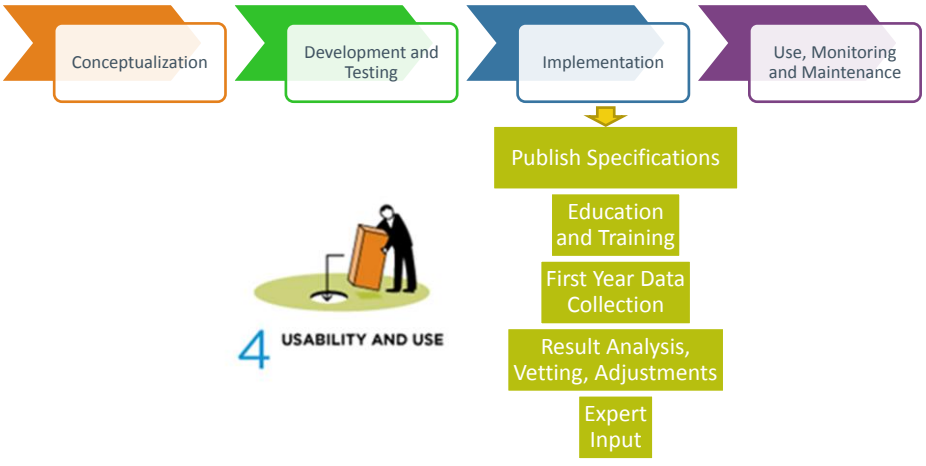
Implementation: Steps



Implementation Considerations

- Did the first year of data collection match pilot testing results?
- What challengers did users face?
- Were unintended consequences identified?
- Do any adjustments need to be made to the specifications?
- Is additional training needed?

Implementing our grape consumption measure…

- What kind of training do we think will be necessary?
- Are there any circumstances we didn't expect or consider in our specification/logic?
  - What to do in a drought? What if the sun doesn't come out (so you live in Ohio……)
- Are we re-thinking the usefulness of the measure?
- Are there any conclusions or thoughts about what the data tells us about quality improvement opportunities?
- What are the ideal measure "conditions"? Where is variation introduced?

Use, Monitoring and Maintenance

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Use, Monitoring and Maintenance: Steps

Conceptualization → Development and Testing → Implementation → Use, Monitoring and Maintenance

- Accountability v. Quality Improvement
- Performance Trends
- Re-Evaluation Cycle
- Result Analysis, Vetting, Adjustments
- Expert Input

Use, Monitoring and Maintenance Considerations

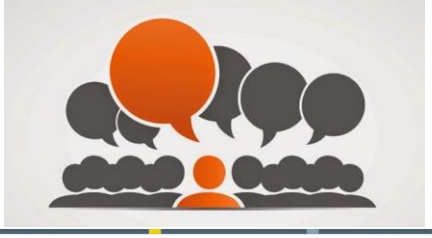
- Return on Investment
- Lives saved
- Complications prevented
- Clinical practice improvements
- Enhanced person and caregiver experiences
- Measure Use
- Performance trends – topped out? No improvement?
- Changes in evidence supporting measure?
- New/Better measures? Need for harmonization?

Use, Monitoring and Maintenance of our Vegetable Plan Productivity Measure

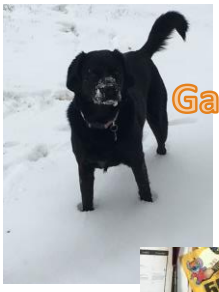
- What have we learned that might require measure adjustments?
- Is there any new evidence that would improve our specifications?
  - New planting techniques?
  - Minimum threshold for sun?
  - Thresholds for watering?
  - Any biases that weren't expected? (do pets have any impact? Pests?)
  - Unintended consequences?

Themes Across Lifecycle

- Importance of Stakeholder Input: TEP, subject matter experts and stakeholders, including consumers, patients and caregivers
- Constant monitoring of evidence and performance
- Understanding opportunities and challenges from measure users
- Continuous process….

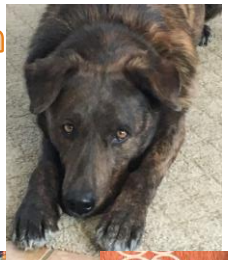


Special thanks to the New Mexico inspiration/production team…

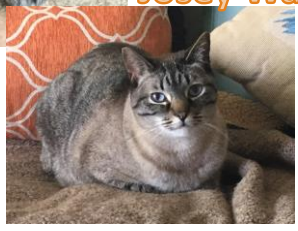


Gabby

Brin



Josey Wales



Murphy

Questions?

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Mastering the Basics of Quality Measurement

How are measures used in the field?

NATIONAL QUALITY FORUM

Michael Phelan, MD, FACEP
Emergency Services Institute and
Medical Director Quality Measurement
and Reporting, Enterprise Quality
Cleveland Clinic

June 21, 2016

Introduction

Michael Phelan, MD, FACEP
Emergency Services Institute and
Medical Director Quality Measurement
and Reporting, Enterprise Quality
Cleveland Clinic

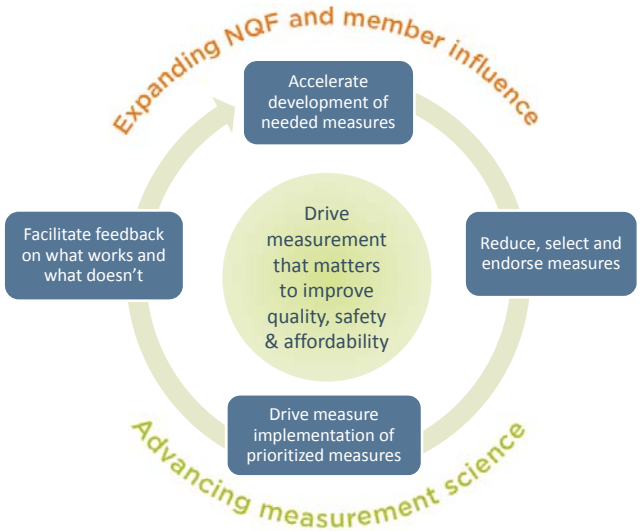
No conflicts to disclose.

Session Objectives

Session Objectives

- Explain where measures are used throughout healthcare
- Demonstrate where to find measures in publicly available databases
- Discuss how measures are used on the frontline of care through an illustrative example from emergency medicine

NQF: Lead. Prioritize. Collaborate.



Dual Role of NQF

NQF

Partnerships Driving Innovation
Measure Applications Partnership (MAP)
National Quality Partners Action Teams
Measure Incubator

Measure Endorsement
Technical Expert Panel (TEP)
Endorsement Committees

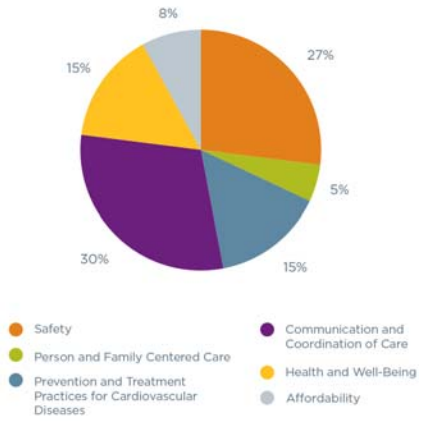
NQF Endorsement Criteria

NQF Consensus Development Process

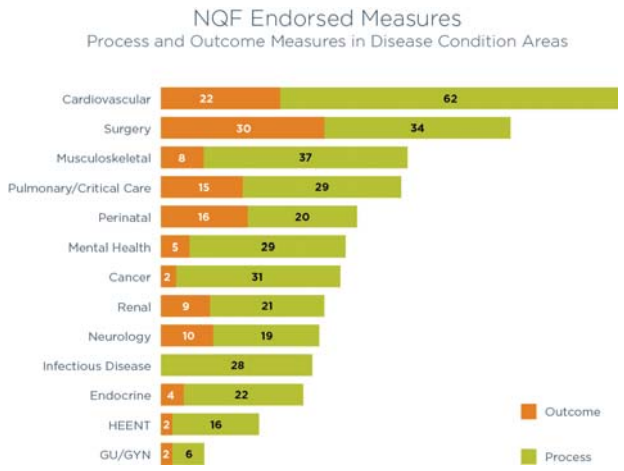
More info about NQF's CDP Process

How and Where are Measures Used?

Measures in HHS Programs by NQS Priority Area 2014

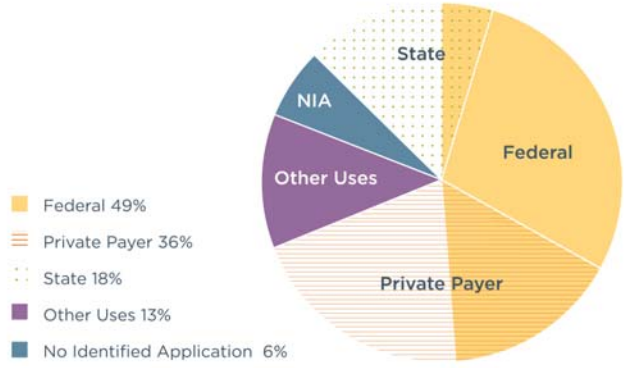


What Kind of Measures are Endorsed?



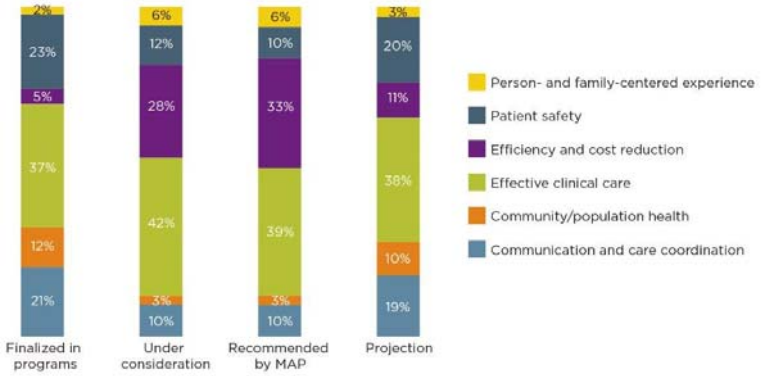
How and Where are Measures Used?

Uses of NQF Endorsed Measures in Leading Accountability and Quality Improvement Programs



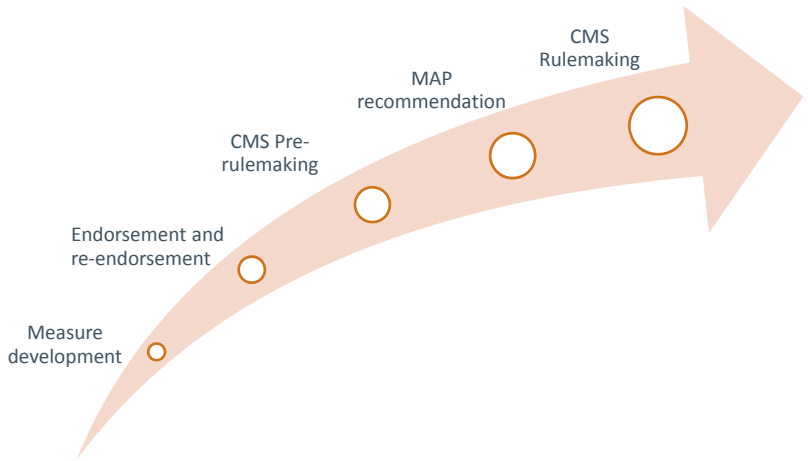
How and Where are Measures Used?

Measures in HHS Programs by NQS Priority Area 2014



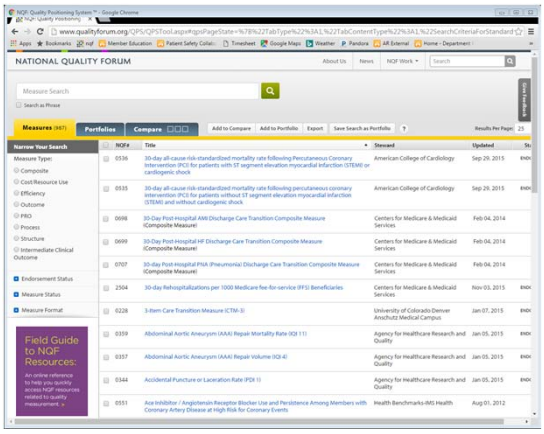
Note: percentages may not sum to 100 because of rounding.

A Measure's Path to Medicare



Where to Find NQF Endorsed Measures – Quality Positioning System (QPS)

www.qualityforum.org/qps



Hospital Compare

www.medicare.gov/hospitalcompare

Example from Emergency Medicine

Measures saving lives for patients experiencing heart attack

Measures at Work in the Field

Type of Measure	Example from cardiology
Structural	Participation in a systematic database for cardiac surgery
Process	Primary PCI* received within 90 minutes of hospital arrival ("door to balloon" time)
Outcome	30-day mortality AMI*

AMI = Acute Myocardial Infarction, or heart attack
PCI = Percutaneous Coronary Intervention
EKG or ECG = Electrocardiogram

Measuring Heart Attack Care

Focus Area	Measure Steward	Example of NQF Endorsed Measure	Example of Hospital Compare Measure	Type of Measure
Time from door to EKG	CMS	#0289 Median time to ECG – *Endorsement Removed in 2014*	OP-5 Median time to ECG	Process
Time from door to balloon	CMS	#0163 Primary PCI received within 90 minutes of hospital arrival	AMI-8a Primary PCI received within 90 minute of hospital to arrival	Process
AMI readmissions	CMS	#0230 Hospital 30-day, all-cause, risk-standardized mortality rate following AMI hospitalization	READM-30-AMI AMI 30-day readmission rate	**Outcome** (notice the move toward outcomes)
AMI mortality	AHRQ	#0730 Acute myocardial infarction mortality rate	MORT-30-AMI AMI 30-day mortality rate	**Outcome**

Reducing Door to EKG Time

Success story from the field:
Driving change with measure #0163

Measure NQF #0163:
Primary Percutaneous Coronary Intervention (PCI) Received within 90 Minutes of Hospital Arrival

Reducing Door to EKG Time

90 minutes

Patient arrives → Triage assessment → EKG → Activate cath lab → Conduct procedure

Critical first 10 minutes

Door

Balloon

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Reducing Door to EKG Time

10 minutes

Patient arrives → Triage assessment → EKG

Critical first 10 minutes

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Reducing Door to EKG Time

The challenges:

- Quick triage
- Data collection
- Working as a team
- Getting data in real time

Reducing Door to EKG Time

The solutions:

- Prioritize speed over data collection for patients with chest pain
- Work together as a team
- Provide real time data to nurses

Reducing Door to EKG Time

The results:

- Rapid triage and assessment
- Saving lives
- Becoming a leading hospital

Measures making an impact

Q and A

Comments? Questions?


THANK YOU

Mastering the Basics of Quality Measurement

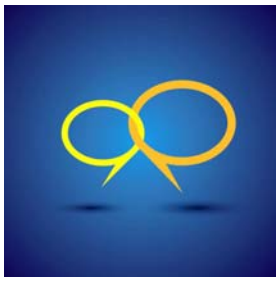
Tying it all together and taking it home

NATIONAL QUALITY FORUM

Camille Espinoza
Director, Member Education
National Quality Forum

June 21, 2016

Audience Activity: Reflections on Quality



Think back to the activity from this morning. Recall what you thought about quality, and apply your new *measurement* lens.

In the same pairs as this morning, talk about how you might measure those aspects of quality.

Next Steps

NQF Membership:
Giving you tools and support to take the next step

Member exclusive resources
Special events
20+ projects at NQF
Special Member communications
Member webpage
Downloadable tools to share

Pick Up Your Certificate

- Last name **A – H**: Pickup from Amy Shaw
- Last name **I – R**: Pickup from Lois Frankel
- Last name **S – Z**: Pickup from Jonathan Grau

Email membereducation@qualityforum.org for an electronic copy


THANK YOU

Comparison of Three Types of Measures

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		Influenza	Breast Cancer	30-Day Hospital Readmissions
Structure To assess if there are adequate resources (such as imaging machines) and staffing support (such as nursing care hours per patient) to provide the best quality care.	THIS TYPE OF MEASURE ASKS: **Are there enough resources?**	• How many doses of the flu vaccine are available? • How many qualified flu shot providers are there within a geographic area?	• How many hospitals within a geographic area have digital mammography machines? • How many qualified radiologists are within a geographic area?	• How many nursing hours per patient in the intensive care unit?
Process To assess if patients are receiving the right care. Usually evaluates if a patient receives a specified treatment, screenings, assessment, or preventative care.	THIS TYPE OF MEASURE ASKS: **Are best practices being applied?**	• How many adults got the flu shot immunization during a certain time period? (NAF #0039)	• How many eligible women received mammograms? (NQF #2372) • Of women with diagnosed breast cancer, how many received the recommended treatment? (NQF #0559)	• How many patients received a discharge plan?
Outcome To assess the short or long-term result of care. Usually assesses if the patient's condition improved, worsened, or stayed the same.	THIS TYPE OF MEASURE ASKS: **What are the results of care?**	• How many adults got the flu? • Of those hospitalized for flu, how many died?	• Of women with diagnosed breast cancer, how many have no evidence of cancer five years later (remission)?	• How many patients were readmitted within 30 days of discharge from a hospital? (NQF #1789)

NATIONAL QUALITY FORUM

Understanding Performance Measures: Anatomy and Types

WHAT IS A PERFORMANCE MEASURE?

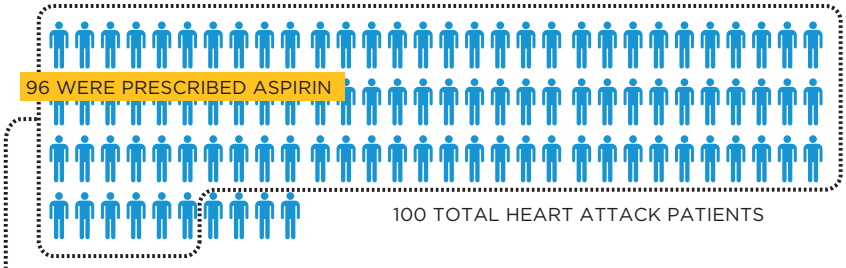
A healthcare performance measure is a way to calculate whether and how often the health and healthcare system does what it should.

Measures are based on scientific evidence about **processes, outcomes, perceptions, or systems** that relate to high-quality care.

Health and Healthcare System

CONSTRUCTING A MEASURE

The result of a measure is usually shown as a ratio or a percentage, and allows for comparison to other providers and benchmarking against national and local performance.



MEASURE FORMULA

NUMERATOR: # WHO HAD A SPECIFIC TREATMENT / # ELIGIBLE FOR TREATMENT = % (RESULT)

DENOMINATOR

MEASURE EXAMPLE

96 HEART ATTACK PATIENTS WERE APPROPRIATELY PRESCRIBED ASPIRIN AT DISCHARGE / 100 TOTAL HEART ATTACK PATIENTS = 96%

EXAMPLE: Once a person has had a heart attack, taking aspirin daily has been shown to reduce the chance of having a second one. Guidelines tell physicians to prescribe aspirin to all patients leaving the hospital after treatment.

TYPES OF PERFORMANCE MEASURES

STRUCTURAL MEASURES

ASSESS HEALTHCARE INFRASTRUCTURE

EXAMPLE: The percentage of physicians in a practice who have systems to track and follow patients with diabetes.

PROCESS MEASURES

ASSESS STEPS THAT SHOULD BE FOLLOWED TO PROVIDE GOOD CARE

EXAMPLE: The percentage of patients with diabetes who have had an annual eye exam in the last year.

OUTCOME MEASURES

ASSESS THE RESULTS OF HEALTHCARE THAT ARE EXPERIENCED BY PATIENTS

EXAMPLE: The percentage of diabetes patients who are blind or have compromised vision.

08-2013
Illustration: Funnel, Inc.

NATIONAL QUALITY FORUM

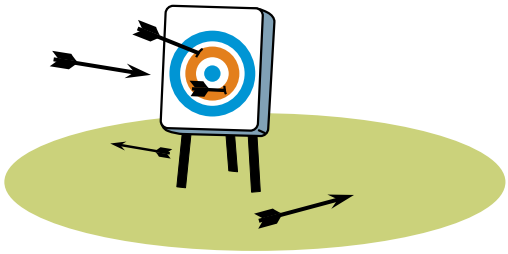
Multi-stakeholder Review: Criteria for Evaluating a Measure

MULTI-STAKEHOLDER COMMITTEES OVERSEE ENDORSEMENT

These committees evaluate measures by clinical condition against agreed upon criteria. Measures reviewed are endorsed and receive the NQF seal of approval. In order to receive NQF endorsement, measures must meet all five endorsement criteria.

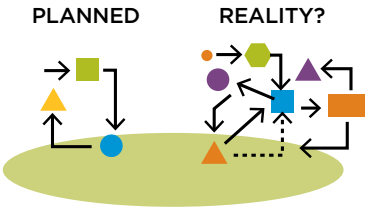
1 IMPORTANCE TO MEASURE AND REPORT

Evaluate whether the measure has potential to drive improvements in care, is aligned with the National Quality Strategy, and is based on strong clinical evidence.



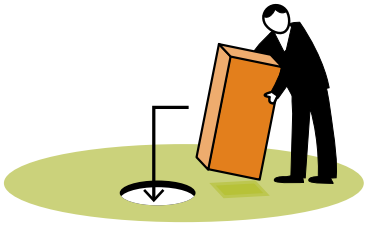
2 SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Determine if the measure will allow for valid conclusions about quality based on performance scores. If measures are not reliable (consistent) and valid (correct), results may mis-classify providers.



3 FEASIBILITY

Assess the burden involved with collecting measure information.



4 USABILITY AND USE

Evaluate if the measure can be appropriately used in accountability and improvement efforts.

5 ASSESS RELATED AND COMPETING MEASURES

Determine whether the measure is duplicative of other measures. If other criteria are met, harmonize or select the best measure among duplicative measures.

ACTION

08-2013
Illustration: Funnel, Inc.

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Measure Evaluation Criteria

1. Importance to measure and report (must-pass)

1a. Evidence to Support the Measure Focus (must-pass)
1b. Performance Gap, including disparities (must-pass)
1c. For composite measures: quality construct and rationale (must-pass)

2. Scientific acceptability of measure properties (must-pass)

2a. Reliability [includes additional subcriteria] (must-pass)
2b. Validity [includes additional subcriteria] (must-pass)
2c. Disparities (addressed in 1b)
2d. For composite measures: empirical analysis supporting composite construction (must-pass)

3. Feasibility

3a. Required data elements routinely generated and used during care delivery
3b. Availability in electronic health records or other electronic sources OR a credible, near-term path to electronic collection is specified
3c. Data collection strategy can be implemented

4. Usability and Use

4a. Accountability and Transparency
4b. Improvement
4c. The benefits to patients outweigh evidence of unintended negative consequences to patients

5. Comparison to Related or Competing Measures

5a. Measure specifications are harmonized OR differences are justified
5b. Superior measure is identified OR multiple measures are justified

Further details are available in the Committee Guidebook for the NQF Measure Endorsement Process.

Updated August 2015.

NATIONAL QUALITY FORUM

A Tale Of Two Hearts

TWO DIFFERENT JOURNEYS FROM THE DOOR TO BALLOON

"> 90 minutes after arrival = 42% higher risk of dying in the hospital,"
Dr. Robert L. McNamara, M.D.[1]

1 Woman at home grabbing at chest calls ambulance

2 Ambulance arrives and picks up for transport to the hospital

DOES MEET
THE "DOOR TO BALLOON" QUALITY GUIDELINES

3 While in the ambulance, ECG performed and transmitted to hospital.

4 ED Doctor diagnoses heart attack and alerts cardiac response team.

5 Ambulance arrives at the hospital.

6 Patient met by cardiac response team and rushed off for treatment

7 Start procedure

TOTAL ELAPSED TIME:
LESS THAN 90 MINUTES*

Endorsed Measure –
< 90 minutes
Door to Balloon time
NQF Measure No. 0163

DOES NOT MEET
THE "DOOR TO BALLOON" QUALITY GUIDELINES

3

4 Ambulance arrives at the hospital.

5 ED Doctor orders ECG

6 ED Doctor diagnoses heart attack

7 Interventional Cardiologist then pages the cardiac response team.

8 Patient brought in for treatment by cardiac response team.

9 Start procedure

TOTAL ELAPSED TIME:
90 MINUTES TO 2 HOURS

* Procedural timeline as published by the American College of Cardiologists. J Am Coll Cardiol. 2006;46(7):1236-1241

1 McNamara RL et al. "Effect of Door-to-Balloon Time on Mortality in Patients With ST-Segment Elevation Myocardial Infarction." J Am Coll Cardiol. 2006;47:2180-6

2003 – 2013: Death rate from coronary heart disease fell 38%
Door to Balloon time is one of the advances contributing to the reduction in mortality rate

NATIONAL
QUALITY FORUM

phrase book

a plain language guide
to NQF jargon

Your Guide to this Guide

Every field develops its own terminology and jargon. Healthcare quality measurement is no exception.

Specialized words do have a purpose, but they can also disguise meaning and confuse people. All too often, those of us at the National Quality Forum (NQF) often use technical terms without providing enough context or explanation. At times it feels like a completely foreign language.

NQF brings together people and organizations working to improve healthcare quality. Our work is inclusive—strengthened by diverse perspectives. Everyone should be able to contribute, whether they are a longstanding leader in the field or new to quality measurement.

This Phrasebook is a guide to NQF's most commonly used terms. It is an attempt to translate our jargon into plain English. Just as you might use a pocket translator to order dinner abroad in Portuguese or Korean, use this booklet to understand "NQF-speak" and join us in collaborating.

Quality

Quality is how good something is. For healthcare, it is often expressed in a range. When a person receives high-quality healthcare, he or she has received the right services, at the right time, and in the right way to achieve the best possible health.

Quality Improvement

Quality improvement (QI) encompasses all of the work people are doing to improve healthcare and the health of individuals and populations. QI is both systematic and ongoing. Healthcare professionals and providers, consumers, researchers, employers, health plans, suppliers and other stakeholders all contribute to effective quality improvement.

Clinical quality improvement is a type of QI specifically designed to raise the standards for preventing, diagnosing, and treating poor health.

National Quality Strategy (NQS)

The NQS is a nationwide effort to provide direction for improving the quality of health and healthcare in the United States. It is guided by three aims: better care, healthy people and communities, and affordable care.

National Quality Forum

The *National Quality Forum* (NQF) is a nonprofit, nonpartisan, organization working toward healthcare that is safe, equitable, and of the highest value. NQF reviews, endorses, and recommends use of standardized healthcare performance measures while encouraging collaboration to accomplish quality goals. NQF is always busy with projects, large and small, and their names often get abbreviated. Some that you might encounter are:

Consensus Development Process (CDP)

NQF uses its formal CDP to evaluate and endorse different types of consensus standards. Standards are most often performance measures. They can also include best practices, frameworks, and reporting guidelines. The CDP follows carefully delineated steps to balance the opinions of all stakeholders to reach consensus. The collection of measures and other resources resulting from CDP projects are sometimes called the *NQF portfolio*.

Measure Applications Partnership (MAP)

The federal government and others who run healthcare programs are often considering new measures for their public reporting and performance-based payment programs. MAP is a large group of stakeholders that reviews those measures and makes recommendations about how they should be used. MAP also works to improve the consistency of measures being used in public- and private-sector programs.

National Priorities Partnership (NPP)

NPP is a partnership of 52 major national organizations with a shared vision to achieve better health, and a safe, equitable, and value-driven healthcare system. NPP was an early advocate for the creation of the National Quality Strategy (NQS) as a blueprint for achieving a high-value healthcare system. NPP continues to provide direction on healthcare policy and helps organizations pursuing the NQS to achieve quality improvement by making connections and helping to share information about innovative approaches.

High-Impact Condition

When a condition affects a large group of people, is expensive to treat, or has a large and long-lasting impact on a person's well-being, it is a high-impact condition. NQF has developed two lists of high-impact conditions and health risks, one for children and another for people with Medicare.

Some of the high-impact conditions in the Medicare population are depression, congestive heart failure, stroke, osteoporosis, and breast cancer.

Cross-Cutting Area

Cross-cutting areas refer to broad topics that people are interested in measuring and improving across the healthcare system. Sometimes we think about high-quality healthcare in the context of a disease, such as cancer, and making the right choices for treatment. At other times we think about factors that affect everyone receiving healthcare regardless of disease, like how well doctors and nurses communicate with patients.

Examples of cross-cutting topic areas include care coordination, healthcare disparities, patient safety, and palliative care.

Measure

A healthcare performance measure is a way to calculate whether and how often the healthcare system does what it should. Measures are based on scientific evidence about processes, outcomes, perceptions, or systems that relate to high-quality care. NQF-endorsed measures are tools that show whether the standards for prevention, screening, and managing health conditions are being met.

The result of a measure is usually shown as a ratio or a percentage. If you have a question about the health of a community or group of people or how well the health system is performing, a measure can give you the information you need.

A measure can be very narrow, such as the percentage of diabetic patients whose blood sugar reaches a certain level, or broad, such as the number of community members whose diabetes is well-managed according to specified criteria.

Please see **NQF's ABCs of Measurement**

Once a person has had a heart attack, taking aspirin daily has been shown to reduce the chance of having a second heart attack. Guidelines tell physicians to prescribe aspirin to all patients leaving the hospital after a heart attack. This practice can be measured, with higher percentages indicating better performance.

$$\frac{\text{96 HEART ATTACK PATIENTS WERE APPROPRIATELY PRESCRIBED ASPIRIN AT DISCHARGE}}{\text{100 TOTAL HEART ATTACK PATIENTS}} = 96\%$$

Types of Performance Measures

Structural measures

Structural measures assess healthcare infrastructure.

> **EXAMPLE:** *The percentage of physicians in a state who can send prescription information to a pharmacy electronically.*

Process measures

Process measures assess steps that should be followed to provide good care.

> **EXAMPLE:** *The percentage of patients leaving the hospital who had a full, updated list of medications sent to their primary care provider within 24 hours.*

Outcome measures

Outcome measures assess the results of healthcare that are experienced by patients. They include endpoints like well-being, ability to perform daily activities, or even death. An intermediate outcome measure assesses a factor or short-term result that contributes to an ultimate outcome, such as having an appropriate cholesterol level. Over time, low cholesterol helps protect against heart disease.

> **OUTCOME EXAMPLE:** *The percentage of a health plan's members who died of cardiovascular disease in the last year.*

> **INTERMEDIATE OUTCOME EXAMPLE:** *The percentage of a health plan's members who are maintaining their blood pressure within a healthy range.*

Patient engagement and patient experience measures

Patient engagement and patient experience measures use direct feedback from patients and their caregivers about the experience of receiving care. The information is usually collected through surveys.

EXAMPLES: *The percentage of patients who said they were as involved as they wanted to be in making decisions about their treatment.*
The percentage of caregivers who felt confident about their ability to give medication to a family member properly.

Composite measures

Composite measures combine multiple measures to produce a single score. The information can be greater than the sum of its parts because it paints a more complete picture.

EXAMPLE: *How successful were care transitions after patients left the hospital after a heart attack, based on three factors: follow-up by a primary care provider, visits to the emergency department, and hospital readmissions?*

MORE AHEAD

Measure specifications

Measure specifications are the technical instructions for how to build and calculate a measure. They describe a measure's building blocks: numerator, denominator, exclusions, target population, how results might be split to show differences across groups (stratification scheme), risk adjustment methodology, how results are calculated (calculation algorithm), sampling methodology, data source, level of analysis, how data are attributed to providers and/or hospitals (attribution model), and care setting.

Taken together, measure specifications are a blueprint that tells the user how to properly implement the measure within their organization.

Disparities-sensitive measure

Performance measures identified as *disparities-sensitive* highlight inequalities in care. Measure results can be split, or *stratified,* to show whether there are differences between two or more groups. Once disparities are visible, targeted strategies can be developed to address them.

Please see **NQF's project on Healthcare Disparities and Cultural Competency**

Patient-reported outcomes and measurement

Patients are a great source of information on health outcomes. Who better to answer questions such as, “Did you understand your doctor’s instructions?” or ”Can you walk several steps without pain?” NQF is working to increase the use of patient-generated information as part of performance measurement.

PATIENT-REPORTED OUTCOME (PRO): information about the patient, as communicated by that person

PRO MEASURE (PROM): an instrument, scale, or single-item measure that gathers the information directly from the patient

PRO-BASED PERFORMANCE MEASURE (PRO-PM): a way to aggregate the information that has been shared by the patient and collected into a reliable, valid measure of health system performance.

Please see **NQF’s Fast Forward: Creating Valid and Reliable Patient-Reported Outcome Measures**

Measurement of Affordability

Affordability is emerging as a high priority in performance measurement. Many terms related to this topic have subtle differences.

Cost

An amount, usually specified in dollars, related to receiving, providing, or paying for medical care. Things that contribute to cost include visits to healthcare providers, healthcare services, equipment and supplies, and insurance premiums.

Costs can be direct, such as when a person gives a copay at a pharmacy window. They can also be indirect, such as when poor health leads to lost productivity in the workplace.

Resource Use

Resources are the goods or services that are combined to produce medical care. They are inputs that have a price assigned to them. When a procedure is done many times, resource use can be measured and predicted. For example, the people and things needed to perform cataract surgery are a set of resources.

Efficiency

This concept combines cost and quality. At a given level of quality, services can be highly efficient or inefficient. Improved efficiency comes from providing high-quality healthcare at lower cost.

Value

The value of healthcare is subjective. It weighs costs against the health outcomes achieved, including patient satisfaction and quality of life.

Quality Measurement Tools Developed by NQF

Quality Positioning System (QPS)

The Quality Positioning System (QPS) is a web-based tool developed by NQF to help people more easily select and use NQF-endorsed® measures. You can search QPS for many helpful details about endorsed measures. Give it a try!

QPS Portfolio

A portfolio is a customized collection of NQF-endorsed measures selected by a QPS user. Some users have created portfolios of measures about specific topics or programs and published them in the system for others to view and use.

Please see **NQF's Quality Positioning System**

Quality Data Model (QDM)

The QDM is part of NQF's work in health information technology. It is an "information model" that defines concepts used in quality measures and clinical care so that users can clearly and concisely locate and communicate pieces of electronic information.

The QDM can be used to help the designers of electronic health records to improve consistency between different systems. This improves automation and the ability of different systems to exchange electronic information.

Endorsement/ NQF-endorsed®

When a measure is submitted for NQF endorsement, it goes through a standard process that includes a thorough review by a multi-stakeholder group of experts, a public comment period, voting by NQF's membership, and approval by NQF's Board of Directors. Measures endorsed by NQF meet tough requirements, so national, state, and local programs often prefer to use them.

Time-limited endorsement

Under rare circumstances, a measure can receive time-limited endorsement for up to a year. In addition to meeting the NQF the Measure Evaluation Criteria, a measure with time-limited endorsement must:

- relate to a topic not addressed by an endorsed measure,
- meet a critical timeline for implementing an endorsed measure (e.g., legislative mandate),
- not be complex (e.g., requiring risk adjustment or a composite), and,
- have testing completed within the 12 month time-limited endorsement period.

Due to the urgent need for a measure that addressed dementia, a recently submitted measure on that topic was given time-limited endorsement so that data would not be lost while the required testing was completed.

Please see **NQF's Measure Evaluation Criteria**

Endorsement Maintenance

Because healthcare is always changing, measures need ongoing maintenance and updates. Endorsement maintenance is a review process completed every three years to ensure that measures continue to meet the measure evaluation criteria and that their specifications are up to date.

The endorsement maintenance process creates an opportunity to consider all available measures in a topical area, harmonize them (see page 17), and endorse the "best in class."

Measure Evaluation Criteria

NQF uses standard criteria to evaluate a measure and decide if it should be recommended for endorsement.

Importance to measure and report

This principle asks if there is evidence that measuring this topic will improve healthcare quality. The goal of this principle is to keep the focus on the most important areas for quality improvement. As the saying goes, "Not everything that can be counted counts." There must also be scientific evidence to support the topic being measured and a significant opportunity to improve achievement.

Scientific acceptability of the measurement properties

This principle asks if a measure will provide consistent and credible information about the quality of care by evaluating its reliability and validity. In case you need a reminder:

- **RELIABILITY** reflects the amount of error in a measure and how well it distinguishes differences in performance. An unreliable measure doesn't function well across users or over time.

- **VALIDITY** asks if a measure truly provides the information that it claims to. A measure that isn't valid is mistakenly evaluating something besides the topic of the measure. Such a measure will not lead to sound conclusions about the quality of care provided.

Feasibility

This principle makes sure that the information needed to calculate a measure is readily available so that the effort of measurement is worth it. The most feasible measures use electronic data that is routinely collected during the delivery of care.

Usability

This principle checks that users of a measure—employers, patients, providers, hospitals, and health plans—will be able to understand the measure's results and find them useful for quality improvement and decision-making. It asks if the measure is strong enough to be used for various types of measurement programs, including public reporting, whether it leads to actual improvement for patients, and whether the benefits of the measure outweigh any potential harms.

Please see **NQF's Measure Evaluation Criteria.**

Measure Harmonization

When measures are similar, the endorsement process will select the best one, recommend how they can be better aligned, or justify why more than one measure is needed.

Competing measures

Competing measures address the same topic **and** the same population.

> **EXAMPLE:** *Two measures that address the rate of patient falls among older adults in nursing homes.*

Related measures

Related measures address **either** the same topic or the same population.

> **EXAMPLES:** *Two measures about flu shots, one for patients in hospitals and one for patients in nursing homes (same topic). Two measures for patients with diabetes, one addressing eye exams and another addressing foot exams (same population).*

Harmonization

Having multiple similar measures can make it difficult to choose one to use**.** *Harmonization* is the process of editing the design of similar measures to ensure they are compatible. Measure developers can make changes to the way a topic or population is defined. Harmonization helps reduce the confusion of having measures that are similar but different.

> **EXAMPLE:** *Two measures may give different age ranges for the population of "children."*

Please see **NQF's "Measure Evaluation Criteria"**

Measure Developer

Measure developers are individuals or organizations that design and build measures. Many people think that NQF develops measures but we do not.

Measure Steward

An individual or organization that owns a measure is responsible for maintaining the measure. Measure stewards are often the same as measure developers, but not always. Measure stewards are also an ongoing point of contact for people interested in a given measure.

Many medical specialty societies such as the American College of Surgeons and government agencies such as the Agency for Healthcare Research and Quality (AHRQ) develop and steward measures.

Health Information Technology (HIT)

HIT is of increasing importance for healthcare. Using HIT means that computer hardware and software are doing the work of storing, retrieving, sharing, and analyzing healthcare data. HIT helps healthcare providers to communicate securely, coordinate care, and better manage services for their patients. HIT can include the use of electronic health records (EHRs) as well as personal health records (PHRs).

Electronic health record (EHR) system

An electronic health record (EHR) is just like it sounds: a systematic collection of health information about a patient or population in a digital format. At its simplest, an EHR is a computerized version of a doctor's traditional paper charts. Electronic information in EHRs can be more easily shared through connected systems and other information networks.

eMeasure

eMeasures are performance measures that have been developed for use in an EHR or other electronic system. eMeasures pull the information needed to evaluate performance directly from the electronic record. They can be far more efficient than traditional approaches of extracting data from paper charts or claims databases.

Value set

A value set is a list of specific clinical terms and the codes that correspond with them. A value set defines each of the clinical terms in the elements of a quality measure. Value sets support the calculation of eMeasures and the systematic exchange of health information.

EHR standards

Healthcare providers use different types of EHR systems that need to be able to communicate, translate, and use information from many sources. Standards are sets of rules or guidelines that allow for inter-operability (the exchange of useful data across different systems).

Code System / Code Set

Sometimes using ordinary spoken or written language is not the easiest way to communicate – like when complex and technical health information needs to be shared system-wide. A code system is a way to turn health information like a diagnosis or procedure name into numbers or code to make sharing information easier and faster. A code set is a specific version of that system's rules.

EXAMPLE: *ICD-10, Health Care Procedure Coding System (HCPCS)*

Multi-Stakeholder Input

NQF brings together different subject matter experts and organizations that want to improve healthcare quality. Because these groups include both government and private sector representatives, they are considered *public-private partnerships.*

Balancing different groups' perspectives in an open and honest dialogue is core to our work. NQF brings together many multi-stakeholder groups to build consensus. They include:

- Steering Committees and the Consensus Standards Approval Committee (CSAC) for measure endorsement,
- Health Information Technology Advisory Committee (HITAC) to provide guidance and expertise on HIT projects,
- Measure Applications Partnership (MAP) to provide input to the government on measure use, and,
- National Priorities Partnership (NPP) to provide input to the government on measurement priorities.

Measure Selection Criteria

To help guide its decisions, the Measure Applications Partnership (MAP) developed a set of Measure Selection Criteria. These criteria are guidelines for deciding the best measures to use in important programs. The criteria recommend that measures in a set:

- Are NQF-endorsed,
- Address each of the priorities of the National Quality Strategy,
- Address high-impact conditions for which measurement is needed,
- Align with measurement requirements in other programs,
- Include an appropriate mix of measure types,
- Cover a patient's entire care experience,
- Take into consideration healthcare disparities, and
- Promote efficiency in measurement.

Please see **MAP Measure Selection Criteria and the Measure Applications Partnership**

Burden

While crucial to improving healthcare quality, measurement can have a downside: *it takes a lot of hard work!* Measurement burden can be the result of a number of factors, including costs and time associated with increased, duplicative, or labor-intensive data collection, analysis, or reporting.

Parsimony

Being parsimonious with measures means using only as many measures as necessary to meet a program's goals – no more, no less. A negative view of parsimony is stinginess; a positive one is minimizing burden.

Alignment

Another way NQF is working to reduce the burden of measurement is by promoting alignment. Alignment is achieved when a set of measures works well across settings or programs to produce meaningful information without creating extra work for those responsible for the measurement.

Alignment includes using the same quality measures in multiple programs when possible. It can also come from consistently measuring important topics across settings. NQF uses several tools to promote alignment including measure harmonization and identifying families of measures and core measure sets.

Family of measures

A family of measures is a group of measures that addresses an NQS priority or high-impact condition across various settings of care, type of data analysis, populations, or reporting programs. High priority measure gaps are also included when there are few or no measures to address important elements of care for a topic. NQF's past work has defined families of measures for cardiovascular disease, diabetes, patient safety, and care coordination.

Core set of measures

A core set of measures is a group of measures identified as the best possible measures for a specific care setting. NQF's past work has developed core sets of measures for hospital care, long-term care, and ambulatory care.

Accountability programs

These programs vary in scope but all tie rewards to performance on quality measures. Accountability programs may also be referred to as incentive programs or high-stakes uses of measurement. When incentives such as payment and market competition are on the line, measurement programs have more impact and also come under more scrutiny.

- **PRIVATE REPORTING:** sharing quality measurement results with internal stakeholders only, such as within a single health system
- **PUBLIC REPORTING:** sharing quality measurement results with the general public, such as through a website or printed report.
- **PERFORMANCE-BASED PAYMENT:** payment for care that is contingent on performance measurement results.
- **MEANINGFUL USE OF HIT:** a well-known incentive program to expand the use of electronic health records. It allows eligible providers and hospitals to earn payments by meeting specific criteria regarding the use of electronic information to improve care.

Serious reportable events

Despite the doctor's vow to "first do no harm," medical errors injure or kill thousands of patients each year. NQF has defined a list of serious reportable events (SREs) that cause or could cause significant patient harm. They include preventable events such as giving medication to the wrong person, failing to follow up on critical test results, operating on the wrong side of a patient's body, or operating on the wrong patient altogether.

Please see **NQF's Serious Reportable Events In Healthcare—2011 Update: A Consensus Report**

Never events

This informal term is often used in place of *serious reportable event*. Eliminating harm completely is important but difficult to do. Because of this, NQF uses *serious reportable event* instead of *never event.*

Safe practices

Part of NQF's work in promoting patient safety includes recommending this set of actions to improve patient safety. Hand hygiene, teamwork training, and informed consent are all examples of safe practices.

Please see **NQF's Safe Practices for Better Healthcare–2010 Update: A Consensus Report**

Episode of Care

Treatment of many health conditions crosses time and place. An *episode of care* includes all care related to a patient's condition over time, including prevention of disease, screening and assessment, appropriate treatment in any setting, and ongoing management.

Please see **NQF's Episode of Care Framework**

Feedback Loops

Quality measurement is a constant work in progress. Feedback loops are a way to collect and share useful information. They can be used for healthcare quality measurement by identifying measures that need modification or areas where adequate measures are not available. Such an exchange of information promotes continuous learning and improvement across the entire healthcare system.

SEE YOU SOON!

Index

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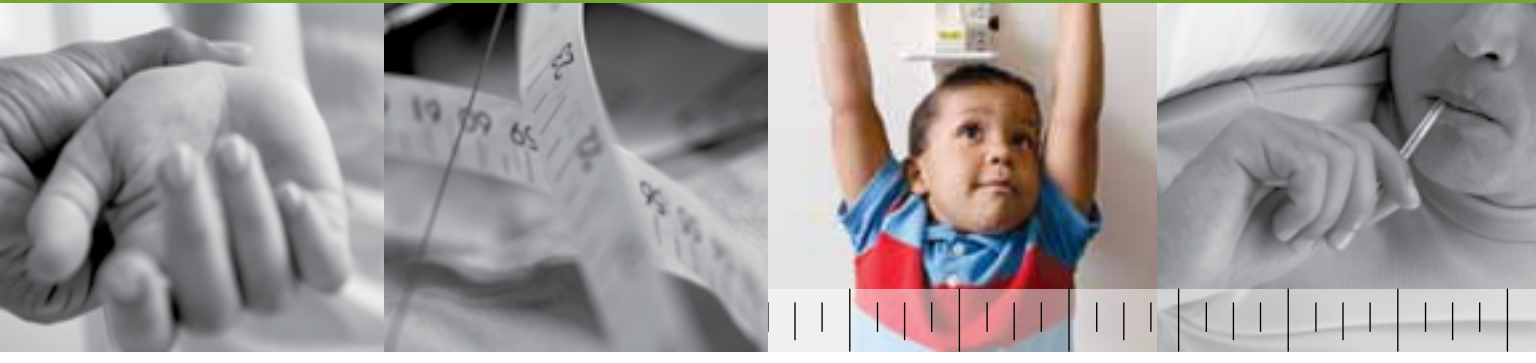
The ABCs *of* Measurement



NATIONAL QUALITY FORUM

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 and 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 MetroHealth 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 benefitting 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:**

Universal Documentation and Verification of Current Medications in the Medical Record	Percentage of patients whose medical record contains a list of current medications with dosages verified with the patient or authorized representative.
Initial antibiotic received within 6 hours of hospital arrival	Percentage of patients with pneumonia who receive their first dose of antibiotics promptly after arrival at the hospital.
Cervical Cancer Screening	The percentage of women who had a cervical cancer screening with a Pap test.
Childhood Immunization Status	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:**

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

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

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

Nursing Care Hours per Patient Day	Number of productive hours worked by nursing staff with direct patient care responsibilities per patient day.
Adoption of Medication e-Prescribing	Documents whether provider has adopted a qualified e-prescribing system and the extent of use in the ambulatory setting.
Medical Home System Survey	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:**

Mortality for Selected Conditions	Measure of in-hospital mortality indicators for selected conditions.
Pediatric Patient Safety for Selected Indicators	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

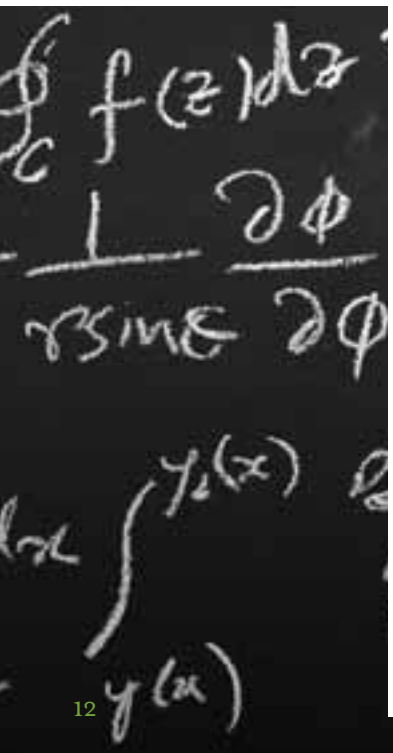
AMI-8a Percutaneous coronary intervention (PCI) received within 90 minutes of hospital arrival

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.

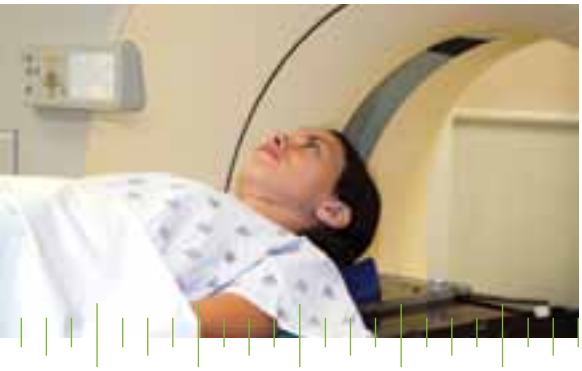
WHEN A PICTURE SAYS ENOUGH

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.

"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, 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

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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