
Key Measure Attributes: Using the National Quality Measures Clearinghouse Template of Measure Attributes to Select Measures

Mark Monteforte, MD, ECRI Institute

Melanie Swan, MPH, ECRI Institute

Mary Nix, MS, MT(ASCP)SBB, Agency for Healthcare
Research and Quality

Vivian Coates, MBA, ECRI Institute

National Quality Measures Clearinghouse™

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NQMC Overview


- **NQMC is a sister clearinghouse** to the National Guideline Clearinghouse (NGC) and the AHRQ Health Care Innovations Exchange; all are sponsored by the Agency for Healthcare Research and Quality (AHRQ).
- **NQMC and NGC are Internet-accessible relational databases** of evidence-based quality measures and clinical practice guidelines respectively.
- **NQMC and NGC users are diverse and include** clinicians, guideline/measure developers, health plans, hospitals and health systems, state and federal agencies, policymakers, researchers to help inform patient care decisions

NQMC Overview


- **NQMC Web site went live Feb. 19, 2003**
- **1973 measure summaries** currently published from **~48 orgs** (as of Aug. 11, 2010)
- **Expert Resources** include an Expert Panel and Editorial Board
- **New Web Site** launched **July 28, 2010**


www.qualitymeasures.ahrq.gov


www.hhs.gov


www.ahrq.gov

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NQMC is a public resource for evidence-based quality measures and measure sets.


Search the site: GO

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Find

Browse measure summaries by **Topic**, **Organization**, or **Domain**. Find **NQF-Endorsed Measures**, and more.




Learn

Just getting started? Try **Selecting and Using Measures**. Go to **Expert Commentaries** for editorial insights on current issues in the field of quality measurement. Find out more about NQMC and measure summaries under **About**.



Compare

Compare two or more measure summaries in a side-by-side comparison.




Ask

Contact Us with questions or comments about specific measures or about the NQMC Web site. You can find useful tips on the **FAQ** and **Help** pages.

Browse the HHS Measures Inventory

Measures used within the U.S. Department of Health and Human Services for quality measurement, improvement, and reporting



New This Week

August 16, 2010

Welcome to the newly redesigned NQMC Web site!

NQMC now offers:

- Updated design elements
- New measure summary display
- Enhanced searching
- Easier access to all content

Measure Summaries

- Updated AHRQ Patient Safety Indicators

[View All](#)


Announcements

Coming Soon

- New [Canadian Institute for Health Information](#) Health Indicators 2010

Newly Submitted

- New [Child and Adolescent Health Measurement Initiative](#) Children with Special Health Care Needs Screener Measure



National Quality Measures Clearinghouse
qualitymeasures.ahrq.gov

GIN Submission 2429 - August 2010

Key Components of NQMC

- **Structured, standardized summaries** of measures to allow for comparisons across measures
- **Measure Hierarchy** provides information on how measures fit into collections and sets
- **Background information/mini-tutorials on:**
 - Selecting and using quality measures
 - Convention used for renaming measures in NQMC
 - Assessing the validity of measures

Key Components of NQMC

- **Measure Initiative Browse** facilitates identification of measures in NQMC that are associated with a specific measurement initiative
- **NQF-Endorsed Measures Browse** identifies measures in NQMC that have been endorsed by the National Quality Forum (NQF)

NQMC Content Statistics

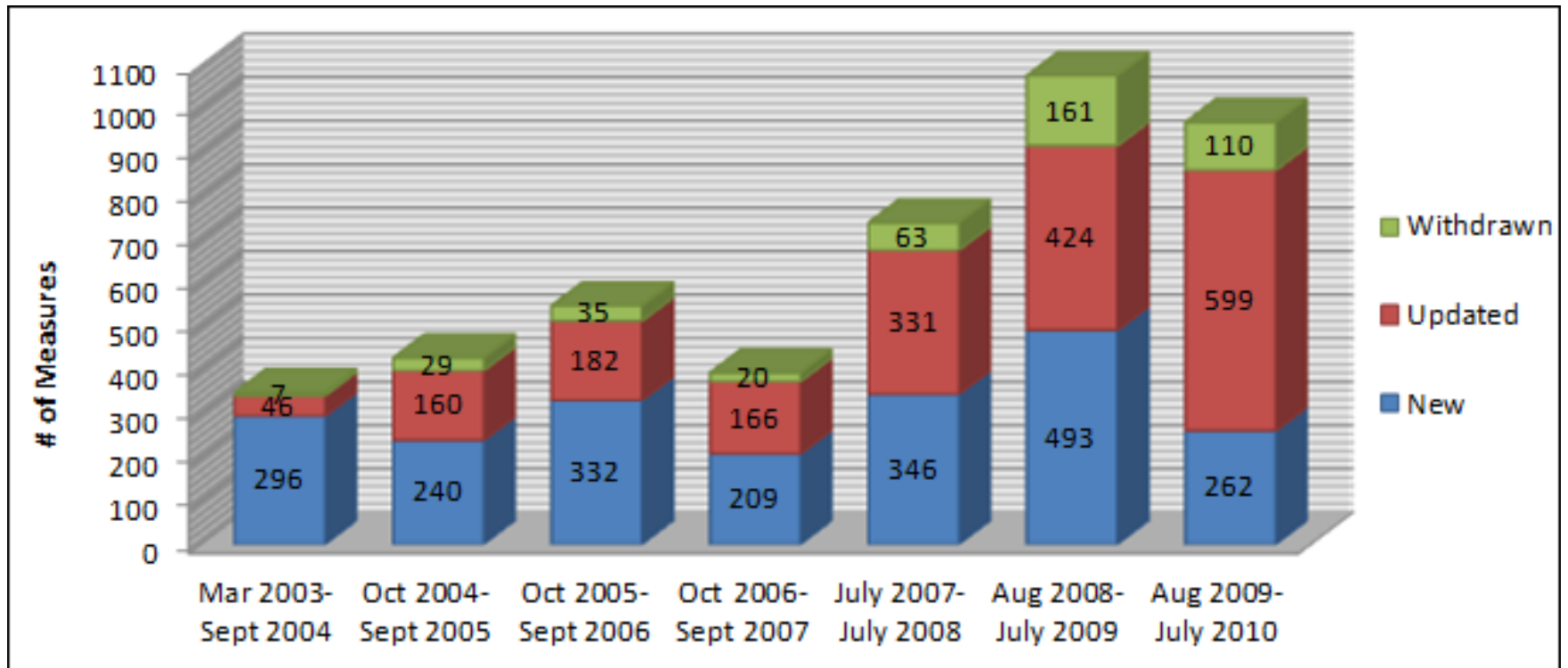
Published Content – August 11, 2010

- 998 Process Measures (51%)
- 362 Outcome Measures (18%)
- 326 Patient Experience Measures (17%)
- 114 Structure Measures (6%)
- 79 Use of Services Measures (4%)
- 33 Population Health Measures (2%)
- 29 Access Measures (1%)

Publication Distribution New/Updated/Withdrawn Measures

October 2003 - July 2010

[Years denoted as contract years]



NQMC Web Site Usage and E-mail Stats

- **NQMC Web Site Usage**
 - **Total visits: 1,738,448** (August 1, 2009-July 31, 2010)
 - **Average week day visits: 5,135** (August 1, 2009-July 31, 2010)
 - **Average time spent per visit: 12:28 minutes**
- Now sending weekly “**What’s New e-mail alerts**” to more than **35,508 subscribers** (as of July, 2010)

15% of all visits come from outside of the U.S.

International Usage: Top 10 Countries*	
Country	# of Visits
United States	1,477,681
China	54,207
France	53,023
United Kingdom	17,298
Australia	16,454
Canada	14,237
Western Europe - country unspecified	11,011
Germany	8,361
Netherlands	7,563
Sweden	5,493

*August 1 2009—July 31, 2010

U.S. Developers Participating in NQMC

- Accreditation Association for Ambulatory Health Care (AAAHC) Institute for Quality Improvement
- Agency for Healthcare Research and Quality (AHRQ)
- Ambulatory Surgery Center (ASC) Quality Collaboration
- American Association of Cardiovascular and Pulmonary Rehabilitation/American College of Cardiology/American Heart Association (AACPR/ACC/AHA)
- American Medical Association/Physician Consortium for Performance Improvement (AMA/PCPI)
- American Medical Directors Association (AMDA)
- American Physical Therapy Association (APTA)
- American Podiatric Medical Association
- American Society of Clinical Oncology/National Comprehensive Cancer Network (ASCO/NCCN)

U.S. Developers Participating in NQMC

- American Speech-Language-Hearing Association
- Anderson, Roger T., Ph.D., Medical Quality Enhancement Corporation
- Arthritis Foundation
- Asian Liver Center at Stanford University
- Atkinson, Mark J, Ph.D.; Hass, Steven L, Ph.D.
- Boston University Health & Disability Research Institute
- Casarett, David, MD, MA; VA Medical Center
- Center for Health Care Quality, Department of Health Policy, George Washington University School of Public Health and Health Services
- Center for Quality Assessment and Improvement in Mental Health (CQAIMH)
- Centers for Medicare & Medicaid Services (CMS)
- Child and Adolescent Health Measurement Initiative (CAHMI)

U.S. Developers Participating in NQMC

- Chinman, Matthew, Ph.D.; Young, Alexander S., M.D., M.S.H.S.; Veterans Administration Desert Pacific Mental Illness Research, Education and Clinical Center (MIRECC)
- Family Violence Prevention Fund
- Focus On Therapeutic Outcomes, Inc.
- Health Resources and Services Administration (HRSA)
- HealthPartners
- Inouye, Sharon K. M.D., M.P.H.
- Institute for Clinical Systems Improvement (ICSI)
- The Joint Commission
- Kolcaba, Katharine Ph.D.
- McLean Hospital, Department of Mental Health Services Evaluation
- Mercer, Stewart W., BSc, MSc, PhD, MBChB, MRCGP

U.S. Developers Participating in NQMC

- National Committee for Quality Assurance (NCQA)
- New York State Department of Health AIDS Institute
- Press Ganey Associates, Inc.
- Renal Physicians Association (RPA)
- Therapeutic Associates, Inc.
- Veterans Health Administration (VHA)
- Veterans Health Administration Parkinson's Disease Research, Education, and Clinical Center
- VHA, Inc.
- Wisconsin Collaborative for Healthcare Quality

Non-U.S. Developers Participating in NQMC

- Australian Council on Healthcare Standards (ACHS)
- British Medical Association (BMA)/National Health Service (NHS)
- Canadian Institute for Health Information (CIHI)
- Danish National Indicator Project
- National Stroke Foundation (Australia)
- Spanish Ministry of Health (SMOH)

NQMC's Template of Measure Attributes

70+ measure attributes;

10 of these are required for inclusion in NQMC

NQMC: Minimum Requirements

- Title
- Primary measure domain
- Rationale
- Denominator/Numerator description
- Evidence supporting the measure
- State of Use (current use)
- Relationship of denominator to numerator
- Measure results under control of health care professionals, organizations, and/or policymakers
- Data source
- Interpretation of score
- Evaluation of measure properties

Primary Measure Domain

- Key component to understanding a measures purpose/suitability
- Domain assignment is a non-trivial task
- Sets stage for populating the NQMC Template

Measure Domains in NQMC

NQMC went live in 2003 with 4 Measure Domains

1. Process
 2. Outcome
 3. Access
 4. Patient Experience
- All have **patients** as the **denominator** in common
 - All have a clear **direction of quality** (i.e., a higher score is associated with higher or lower quality)
 - Measure **results** are under the **control** of the health care professionals, organizations and/or policy makers to whom the measure applies

Measure Domains in NQMC

Not all measures that were submitted to NQMC satisfied those criteria

Three additional domains were added

5. Structure
6. Use of Services
7. Population Health

Measure Domains in NQMC

Structure

- “Structure of care is a feature of a healthcare organization or clinician relevant to its capacity to provide health care.”
- Structure measures should be **supported by evidence** that an association exists between the measure and one of the other clinical quality measure domains.
- These measures can focus on either healthcare organizations or individual clinicians.

Measure Domains in NQMC

Structure

Example:

Does the health care organization use Computerized Physician Order Entry (CPOE)?

Measure is based on evidence that the presence of CPOE is associated with better performance and lower rates of medication error.

Measure Domains in NQMC

Use of Services

- “Use of services is the provision of a service to, on behalf of, or by a group of persons identified by enrollment in a health plan or through use of clinical services.”
- Use of service measures can assess encounters, tests or interventions that are **not supported by evidence** of the appropriateness of the service for the specified individuals.

Measure Domains in NQMC

Use of Services

Example:

The percentage of patients in a health plan with an inpatient admission in the prior twelve months.

There is no evidence of an association with quality.

Measure Domains in NQMC

Population Health

- “Population health is the state of health of a group of persons defined by geographic location, organizational affiliation or non-clinical characteristics.”
- By definition, population health is not known to be the result of antecedent health care.

Measure Domains in NQMC

Population Health

Example:

The disease prevalence of a county.

The denominator includes persons that did **not** receive antecedent health care.

Difficult to identify an **accountable** care entity.

Measure Domains in NQMC

7 Measure Domains Currently in NQMC

1. Process
2. Outcome
3. Access
4. Patient Experience
5. Structure
6. Use of Services
7. Population Health

With more on the way...

Future Measure Domains in NQMC

Other measure types identified during the course of our work prompted to ask...

What additional domains might be included in NQMC?

- Management
- Cost
- Efficiency
- Expansion of Population Health

Future Measure Domains in NQMC

Management

- “Management of care is a feature of a health care organization related to the administration and oversight of facilities, organizations, teams, professionals, and staff that deliver health services to individuals or populations.”
- Management measures assess **administrative activities** important to health care but not part of the direct interaction between individual patients and health care professionals.

Future Measure Domains in NQMC

Management

Example:

Whether a practice has a policy to ensure the prevention of fraud and has defined levels of financial responsibility for staff members

Activity is **not** part of the direct interaction between individual patients and health care professionals

Future Measure Domains in NQMC

Cost

- “Costs of care are the monetary or resource units expended by a health care organization or clinician to deliver health care to individuals or populations. Cost measures are computed from data in monetary or resource units.”
- Costs may be reported directly (i.e. actual costs) or estimated based on the volume of resource units provided and the charges for those units.

Future Measure Domains in NQMC

Cost

Example:

Hospital net inpatient revenue per discharge

Note: Unit is monetary with **no** associated quality component.

Future Measure Domains in NQMC

Efficiency

- “Efficiency of care is the propensity of a healthcare organization or clinician to maximize the number of comparable units of health care delivered for a given unit of health resources used.”
- In the context of NQMC, efficiency measures typically assess the relationship of the **cost** of care associated with a specified level of **quality** of care.

Future Measure Domains in NQMC

Efficiency

Example:

Percentage of gastric ulcers treated with omeprazole

Measure is based on evidence that this is **lower cost** and at least **equally effective** as surgery.

Future Measure Domains in NQMC

Rationale for Expansion of Population Health Domain

- New recognition of public health measures as an important component of population health
- Federal and state agencies are making an investment in public health initiatives

Public Health vs. Population Health

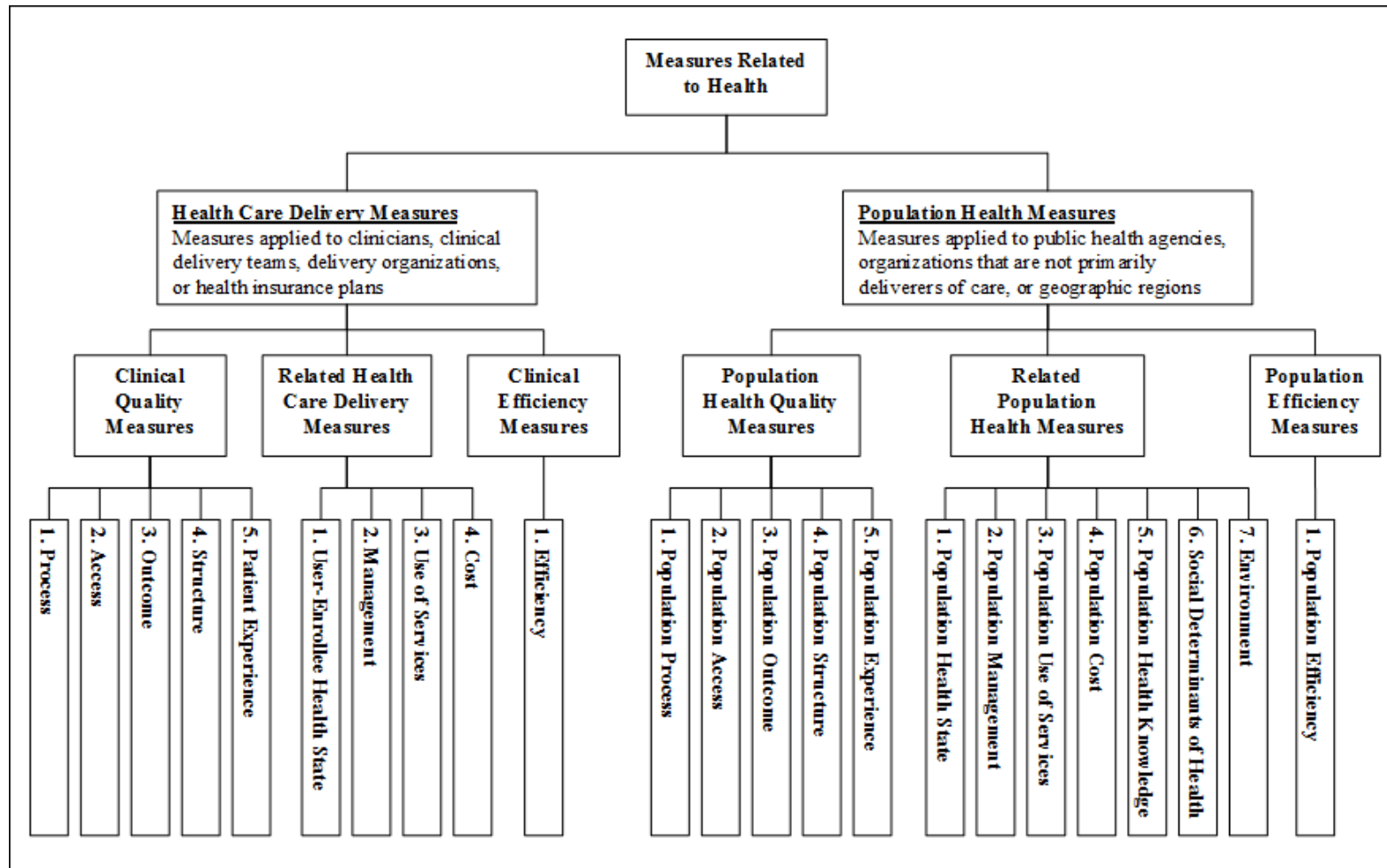
Population Health has been defined as “the health outcomes of a group of individuals, including the distribution of such outcomes within the group.” There are “multiple determinants of such health outcomes, however measured. These determinants include medical care, public health interventions, aspects of the social environment (income, education, employment, social support, culture) and of the physical environment (urban design, clean air and water), genetics, and individual behavior.”

Kindig & Stoddart, *American Journal of Public Health*
March 2003 Vol 93, No. 3

Population Health Sub-Domains

1. Population Process
2. Population Access
3. Population Outcome
4. Population Structure
5. Population Experience
6. Population Health State
7. Population Management
8. Population Use of Services
9. Population Cost
10. Population Health Knowledge
11. Social Determinants of Health
12. Environment
13. Population Efficiency

NQMC Domain Framework Modified Version 2009



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- Christopher Schnyer, MPP, RAND Boston

Population Health Sub-Domains Examples

- Population Health State
 - Incidence of invasive breast cancer (CDC Indicators for Chronic Disease Surveillance; data source: cancer registry)
- Population Health Risk Status
 - Cigarette smoking among adults 18 yrs. and older (CDC Indicators for Chronic Disease Surveillance; data source: BRFSS)
- Population Health Outcome
 - Mortality from breast cancer (CDC Indicators for Chronic Disease Surveillance; data source: vital statistics)

Example: Population Process

The percentage of non-institutionalized adults, 65 yrs. and older, who received an influenza vaccine in the past 12 months

(Healthy People 2010)

Example: Population Access

The percentage of children, age 0-17, who are uninsured

(LA County Dept. of Public Health)

Example: Population Use of Services

Hospitalization for asthma among children, age
0-14

(LA County Dept. of Public Health)

Example: Environment

The percentage of days per year that the state standards for air quality have not been met

(LA County Dept. of Public Health)

Implications for NQMC

Broadening the Domain Framework:

- Allows other types of measures to be represented in NQM
- Requires a universal template of attributes that is not domain-specific (more later...)
- Requires more robust guidance for the user

PART 2

NQMC Attributes

Using the NQMC Template of Measure Attributes to Select Measures

- Why certain measure attributes are useful to evaluate measures
- Use-case scenarios
- Future enhancements to NQMC

Please take a moment to complete the Measure Attribute Importance Worksheet

MEASURE ATTRIBUTE IMPORTANCE WORKSHEET					
For each Measure attribute below, circle the number to the right that best fits your opinion on the importance of the attribute for assessing the <u>rigor</u> and <u>usability</u> of the measure .					
Measure Attribute	Scale of Importance				
	Not at all	Not very	No Opinion	Somewhat	Extremely
Rationale/need for measure	1	2	3	4	5
Denominator inclusions/exclusions	1	2	3	4	5
Numerator inclusions/exclusions	1	2	3	4	5
Evidence supporting the measure	1	2	3	4	5
Current use (e.g., accreditation, pay-for-performance, policymaking)	1	2	3	4	5
Measure results under control of health care professionals, organizations and/or policymakers?	1	2	3	4	5
All cases in the denominator equally eligible to appear in the numerator?	1	2	3	4	5
Data source (administrative data, medical record, etc.)	1	2	3	4	5
Interpretation of score	1	2	3	4	5
Allowance for patient factors (case-mix, risk-adjustment)	1	2	3	4	5
Reliability/validity testing	1	2	3	4	5
Additional attributes under consideration for inclusion in NQMC How important do you consider them?	Scale of Importance				
	Not at all	Not very	No Opinion	Somewhat	Extremely
Measure Maintenance (measure update cycle)	1	2	3	4	5
Measure Results (availability of benchmark data)	1	2	3	4	5
Other <u>measure</u> attribute(s) that should be identified?					
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5

NQMC's Template of Measure Attributes

- **70+** measure attributes; **10** of these are required for inclusion in NQMC
- **Attributes grouped by categories**
 - Evidence supporting the measure
 - Evidence supporting need for the measure
 - State of use of the measure
 - Data collection for and computation of the measure
 - Evaluation of measure properties

NQMC: Minimum Requirements

- Title
- Primary measure domain
- Rationale
- Denominator/Numerator description
- Evidence supporting the measure
- State of Use (current use)
- Relationship of denominator to numerator
- Measure results under control of health care professionals, organizations, and/or policymakers
- Data source
- Interpretation of score
- Evaluation of measure properties

Which measure attributes are important?

All of them!

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>

Why are these attributes important?

NQMC's Perspective:

- To facilitate **inclusion review**
- To facilitate preparation of **comprehensive summaries** for our user


Health Professional's Perspective:

- They help the potential user determine if this measure is **appropriate for their needs**

Rationale/Need for the Measure

Why is something worth measuring?

- Evidence of poor quality/variation in quality?
- Evidence that measure is associated with improved care?

Measure Attribute	Important?
 Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>

NQMC: Evidence Supporting the Measure

Documentation of one of the following:

- Published research study
- Systematic review of the clinical literature
- Clinical practice guideline
- Formal consensus process

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>

Current Use (e.g., Accreditation, Pay-For-Performance, Policymaking)

Why is this important?

- Measure specifications may vary depending on how a measure is being used
- Specifications may be less stringent if measuring internal quality improvement as opposed to measures used for public report cards or pay-for-performance initiatives
- Helps users decide whether to adopt measures for their own purposes

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>




Data Source

(Administrative Data, Medical Record, etc.)

Why is this important?


- Allows potential users to determine what type of information is required for implementation
 - Informs decision making regarding resource allocation (e.g., Medical Records may be a better source of information for certain measures, but may be more expensive to use than Administrative data)

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
 Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>

Interpretation of Score

Is a higher (or lower) measure result associated with better quality?

- Typically dictated by the “Criterion of Quality”
- However, may not always be apparent (e.g., VBAC rates)

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
Measure results under control of health care professionals, organizations and/or policymakers?	<input checked="" type="checkbox"/>
All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
 Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
Reliability/validity testing	<input checked="" type="checkbox"/>


NQMC: Evaluation of Measure Properties

- The measure has been cited in one or more reports in a National Library of Medicine (NLM) indexed, peer-reviewed journal, applying or evaluating the measure's properties.
- The submitter provides documented peer-reviewed evidence evaluating the reliability and validity of the measure.
- The measure has been developed, adopted, adapted, or endorsed by an organization that promotes rigorous development and use of clinical performance measures

Reliability/Validity Testing

Has the measure been tested to ensure that its results are:

- Free from random error?
- and**
- Associated with what it purports to measure?

Measure Attribute	Important?
Rationale/need for measure	<input checked="" type="checkbox"/>
Denominator inclusions/exclusions	<input checked="" type="checkbox"/>
Numerator inclusions/exclusions	<input checked="" type="checkbox"/>
Evidence Supporting the Measure	<input checked="" type="checkbox"/>
Current use (e.g., accreditation, pay-for-performance, policymaking)	<input checked="" type="checkbox"/>
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All cases in the denominator are equally eligible to appear in the numerator?	<input checked="" type="checkbox"/>
Data source (administrative data, medical record, etc.)	<input checked="" type="checkbox"/>
Interpretation of score	<input checked="" type="checkbox"/>
Allowance for patient factors (case-mix, risk-adjustment)	<input checked="" type="checkbox"/>
 Reliability/validity testing	<input checked="" type="checkbox"/>

Assessing the Validity of Measures

NQMC Summary can be used to assess key questions regarding validity of a measure

How strong is the scientific evidence supporting the validity of this measure as a quality measure?

- Evidence Supporting the Criterion of Quality

Assessing the Validity of Measures

NQMC Summary can be used to assess key questions regarding validity of a measure

Are all individuals in the denominator equally eligible for inclusion in the numerator?

➤ Relationship of Denominator to Numerator

Criterion of Quality/Relationship of Denominator to Numerator

On a quality measure, comparing differing results of two providers, one can decide which provider has delivered higher quality on that measure

- **Appropriate care:**

Based on scientific evidence,

- The benefit of treatment exceeds the risk or
- The outcome is known to be superior (or inferior)

- **Appropriate selection of patients:**

Denominator includes only those individuals “eligible” for treatment or at risk for the outcome

Criterion of Quality/Relationship of Denominator to Numerator

Two mental health centers (A and B)

Percent of patients diagnosed with substance abuse

- Center A: 30%
- Center B: 60%

Which mental health center provides higher quality?

You can't tell!

Is There a Criterion of Quality?

YES

Detecting substance abuse is necessary to effect treatment

Relationship of Denominator to Numerator

Was every individual in the denominator equally eligible to be included in the numerator?

NO

Prevalence of substance abuse may differ among patients seen at mental health centers A and B

Relationship of Denominator to Numerator

Two mental health centers (A and B)

Percent of patients diagnosed with substance abuse

- Center A: 30%
- Center B: 60%

So, which mental health center provides higher quality?

It depends on which facility is detecting a higher percentage of patients with substance abuse

(Center A may actually be doing better!)

Assessing the Validity of Measures

NQMC Summary can be used to assess key questions regarding validity of a measure

Is the measure result under control of those whom the measure evaluates?

➤ Measures Results under Control of Health Care Professionals, Organizations, and/or Policymakers

Is the measure result under control of those whom the measure evaluates?

Example:

% of plan beneficiaries with one or more services for treatment of asthma

- Although providers may influence rate of services provided through detection & treatment, illness prevalence remains a primary determinant
- “Use of Services” Measure
- Direction of Quality is Undetermined

Measure Results Under Provider Control?

Area mortality rate

- Overall age adjusted mortality rate

Utah	7.8/10,000
------	------------

Pennsylvania	8.5/10,000
--------------	------------

- Which state has higher quality of care?

You can't tell

Results Susceptible to Influence by Providers?

Did every individual in the denominator receive care from a provider or care system?

- Patient under care (hospital, clinic, office)

OR

- Enrollee (insured by a health care organization)

Is the measure result under control of those whom the measure evaluates?

Area mortality rate

- Overall age adjusted mortality rate

Utah	7.8/10,000
Pennsylvania	8.5/10,000

“Population Health” Measure

- Although lower mortality rates are desirable, it is unclear who is accountable

Assessing the Validity of Measures

NQMC Summary can be used to assess key questions regarding validity of a measure

How well do the measure specifications capture the event that is the subject of the measure?

- Numerator Inclusions/Exclusions
- Denominator Inclusions/Exclusions

Denominator Inclusions/Exclusions

Do the measure specifications appropriately indicate

- Who should be included in the measure?
- Who should NOT be included in the measure?

Denominator Inclusions/Exclusions

Example: Screening Mammography

- Denominator Inclusions
 - Female enrollees age 40 years and older
- Denominator Exclusions
 - All enrollees with a history of bilateral radical mastectomy

Numerator Inclusions/Exclusions

Do the measure specifications appropriately indicate

- What events should be included in the numerator?
- What events should NOT be included in the numerator?

Numerator Inclusions/Exclusions

Example: Colon Cancer Screening

- Numerator Inclusions
 - Fecal occult blood test
 - Flexible sigmoidoscopy
 - Colonoscopy

- Numerator Exclusions
 - Digital rectal exam

Assessing the Validity of Measures

NQMC Summary can be used to assess key questions regarding validity of a measure

Does the measure provide for fair comparisons of the performance of providers, facilities, health plans, or geographic areas?

- Allowance for Patient Factors (e.g., Case-mix or Risk-adjustment)

Allowance for Patient Factors (e.g., case-mix, risk-adjustment)

Why is this important?

- Increases the “signal-to-noise” ratio—filtering out factors unrelated to the care provided that may be contributing to a measure’s results
- Enables “apples-to-apples” comparison of measure results
- Important if measures are used for accountability (e.g., pay-for-performance)
- Particularly important for “Outcome” measures

Does the measure provide for fair comparisons of performance?

Example:

Coronary artery bypass graft (CABG) : mortality rate

- Results for this measure can be influenced by a number of patient demographic and clinical characteristics
- Risk-adjustment for clinical factors (such as cardiac function or disease severity) would help make comparisons more equitable

What's Coming for NQMC?

Enhanced NQMC Template

- Expanded Measure Domains
- Measure Maintenance Information
- Minimal Sample Size Requirements
- Availability of EHR Measure Specifications

Measure Caveats and Tutorial

- User guidance for evaluating measures

NQMC: Draft Measure Caveats

1. Is there a criterion of quality?
2. Is there documentation that the measure has been evaluated?
3. Is a recommended sample size specified at the lowest level of reporting?
4. Are denominator exclusions specified?
5. Are any of the following specified:
 - Risk adjustment?
 - Subgroup analysis?
 - Stratification?
6. Is a process serving as a proxy for outcome?*
7. Has the measure been endorsed (*or included in quality alliances or initiatives*)?

*Negative attribute

Thank You!

Questions?