



2013 NAIIS Summit Section 6: Quality and Measures Workgroup: Overview of Measures – Measures 101

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What are Measures?

Definition Measure

- 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: NQF ABC's of Measurement



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Why are Measures Important?

- ▶ Qualitative tool
- ▶ Quality Improvement
- ▶ Drive better health care
- ▶ Consumers/Purchasers informed decisions
- ▶ Accreditation/Certification
- ▶ Public reporting
- ▶ Payment (Private and Public)
 - Pay for Reporting
 - Pay for Performance



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The Donabedian Model

- ▶ Avedis Donabedian, known for his contributions to the field of health care, first described in 1966 three dimensions that can be used to assess quality, which became known as the Donabedian model
- ▶ According to the model, information about quality of care can be drawn from three categories: “structure,” “process,” and “outcomes”



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Structural Measures

▶ **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

▶ **Example:** Adoption of Medication e-Prescribing

- Documents whether provider has adopted a qualified e-prescribing system and the extent of use in the ambulatory setting.

Source: National Quality Forum (NQF)
ABC's of Measurement



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Process Measures

▶ **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.

▶ **Example:** 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.

Source: NQF ABC's of Measurement



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Outcome Measures

▶ **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.

▶ **Example:** Surgical Site Infections

- Percentage of surgical site infections occurring within 30 days after the operative procedure.

Source: NQF ABC's of Measurement



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Patient Experience Measures

▶ **Patient Experience Measures** record patients' perspectives on their care

▶ **Example:** 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

Source: NQF ABC's of Measurement



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Composite Performance Measures

- ▶ **Composite Performance Measure** is a combination of two or more component measures, each of which individually reflects quality of care, into a single performance measure with a single score.
- ▶ **Example: Mortality for Selected Conditions**
 - Measure of in-hospital mortality indicators for selected conditions

Source: National Quality Forum.
NQF Composite Performance
Measure Evaluation Guidance
2013



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Additional Examples Composite Measures

- ▶ STS CABG Composite Score, NQF#0696 consists of four domains and 11 individual measures
- ▶ AHRQ Patient Safety for Selected Indicators Composite (PSI #90), NQF#0531 consists of 8 individual measures

Source: <http://www.qualityforum.org/QPS/>



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Measure Calculations

Rate-based

- Proportion: numerator is a subset of the denominator population
 - Pneumococcal Immunization (PPV 23)
- Ratio: numerator is not a subset of denominator, but a relationship exists between them
 - Central line-associated bloodstream infections per central line device days

Continuous Variable Measure (aka central tendency): a simple mathematical average

- Median Time from ED Arrival to ED Departure for Admitted ED Patients

What Does Measure Harmonization Mean?

- ▶ The standardization of specifications for related measures with the same measure focus (e.g., **influenza immunization** of patient in hospitals or nursing homes), or related measures for the same target population (e.g., eye exam and HbA1c for **patients with diabetes**), or definitions applicable to many measures (e.g., age designation for children) so that they are uniform or compatible, unless differences are justified (e.g., dictated by the evidence).

Source: NQF

What Does Measure Harmonization Mean?

- ▶ The dimensions of harmonization can include numerator, denominator, exclusions, calculation, and data source and collection instructions.
- ▶ The extent of harmonization depends on the relationship of the measures, the evidence for the specific measure focus, and differences in data sources.

Source: NQF

How are Measures Developed?

- ▶ Identify focus/measure concept(s)
- ▶ Literature review/evidence review
- ▶ Expert input, e.g., Expert Advisory Panel
- ▶ Measure identification
- ▶ Measure specifications
- ▶ Public comment
- ▶ Testing
- ▶ Implementation
- ▶ NQF endorsement

How are Measures Endorsed? National Quality Forum (NQF)

- ▶ The NQF is a nonprofit organization that operates under a three-part mission to improve the quality of American healthcare by:
 - Building consensus on national priorities and goals for performance improvement and working in partnership to achieve them;
 - **Endorsing national consensus standards** for measuring and publicly reporting on performance; and
 - Promoting the attainment of national goals through education and outreach programs.



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NQF - Voluntary Consensus Standards-Setting Organization

- ▶ NQF uses a formal Consensus Development Process, and is recognized as a voluntary consensus standards-setting organization as defined by the National Technology Transfer and Advancement Act of 1995 and Office of Management and Budget Circular A-119.



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NQF Endorsement Measure Evaluation Criteria

- ▶ 1. Evidence, Performance Gap, and Priority (Impact)—Importance to Measure and Report
- ▶ 2. Reliability and Validity—Scientific Acceptability of Measure Properties
- ▶ 3. Feasibility
- ▶ 4. Usability and Use
- ▶ 5. Comparison to Related or Competing Measures to address harmonization and/or selection of the best measure



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The Changing National Measure Landscape

Ten Years Ago	Today	ACA – Going Forward
Few measures across relevant areas	Too many measures or not the right ones, yet measure gaps	<i>National Strategy for Quality Improvement in Health Care</i> with national priorities, catalyst and compass for nationwide focus public and private sector. Aligned measures across programs.
Industry resistance	Willing participation	Interagency Working Group on Health Care Quality; multi-stakeholder input
No uniform data collection	Increasing standardized data collection and reporting	Secretary established and implemented overall framework public reporting; defined steps between measure identification and public reporting
Little improvement driven by measures	More efforts devoted to improvement	Use performance measures to track quality, form the basis of payment incentives or reductions, and help the public make informed choices
No experience with measure use	Increasing experience with measure use	AHRQ authority to identify, develop, evaluate, and disseminate innovative strategies for QI practices

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Some of the EHR Challenges to Measurement: People

- ▶ **Workflow issues**

- ▶ **EHR use**

- Copy and paste
- Location of information and comprehensiveness



Some of the EHR Challenges to Measurement: Technical

- ▶ **Lack of EHR standardization**

- ▶ **Constraints and artifacts of clinical documentation**

- A plethora of terminologies (SNOMED, LOINC, RxNorm)

- ▶ **Immature Health Information Exchanges (HIE) Networks**

- Interoperability



Some of the EHR Challenges to Measurement: Technical

- ▶ **Clinical Decision Support (CDS) evolving**
- ▶ **Immature frameworks and tools for standardized eMeasure representation and reporting**
 - HL7 standards for eMeasure specifications (HQMF) and data transmission (QRDA)
 - Information model for electronic representation of measures (QDM)



THANK YOU