ISSUE BRIEF

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THE NEXT ERA OF PERFORMANCE MEASUREMENT

Advancing Measure Sets and Measurement Systems to Drive Measurable Improvement

INTRODUCTION

The quality enterprise began its improvement journey by defining individual measures that can be used to assess safety and quality. These measures have helped propel a movement that values a culture of safety and improves quality for people at the center of care.

Yet, the current state of quality is marred by competing measures that do not work in sufficient synchrony to drive comprehensive improvements in care and outcomes. As the nation's healthcare delivery system transitions to value-driven models of care, quality measurement must support a more comprehensively informed view of quality and more aggressively drive measure alignment across stakeholders.

MOVING BEYOND INDIVIDUAL MEASURES

While NQF evaluates the scientific merits of individual measures and provides guidance on their use, there is no established process for assessing how measures work together. Measures are often grouped into measure sets and systematically used as part of a measurement system to evaluate quality in relationship to a goal. The way in which measures are aggregated affects provider performance independent of a change in performance on an individual measure. Increasing use of measure sets and measurement systems for accountability and payment necessitates greater transparency and multistakeholder input. Yet, there is no consensus on the components of sets and systems and, often, there is a lack of clarity and consistency in the way measures are used together to make inferences about quality.

Measure sets and measurement systems should provide accurate assessments of quality and reliable results to drive performance improvement, appropriately influence payment, and empower patients and other users to make more informed healthcare decisions. NQF has increasingly led initiatives to further these goals. In phase 1 of our work, NQF created **an initial framework** outlining definitions of measure sets and measurement systems. Building on this foundational work, NQF recently applied concepts from the framework to convene the **Hospital Quality Star Rating Summit** and provide concrete recommendations to strengthen the reporting program. The Summit is an example of how a multistakeholder review can drive transparency and assess how performance measures are used together to support inferences about differences in provider quality performance.

In phase 2 of the measure sets and measurement systems project, NQF convened a Technical Expert Panel (TEP) to test the initial framework, refine the elements of sets and systems, and help establish guidance for their design and evaluation. With this input, NQF intends to create a standardized, consensus-driven, and transparent method to assess whether measure sets and measurement systems are of sound design.

PROJECT DESIGN

The goal of phase 2 was to develop consensus on components of measure sets and measurement systems and create approaches for piloting the analysis of each. To help accomplish this goal, NQF convened a TEP of 25 members divided into two subgroups—one focused on sets and another focused on systems. To date, each subgroup has met several times, individually and jointly as a full TEP, to ensure alignment in recommendations across subgroups. NQF is drafting

a technical report that comprehensively covers all findings, including initial submission forms that NQF could use to evaluate sets and systems.

PRELIMINARY FINDINGS

Initial efforts have demonstrated the importance of transparency and multistakeholder evaluation for how measures are used in sets and systems. Many of the elements of a measure set and measurement system are not transparent, nor are they evaluated for their scientific properties by a multistakeholder body, but they are used to assess provider performance. The way measures are used together may have a significant impact on how a provider is judged and how patients are making selections. Our work demonstrates that several elements should be made transparent and evaluated to ensure appropriate scientific methods are used to develop sets and systems and that their results accurately reflect quality of care. NQF puts these elements out to the field as a first attempt to characterize the significance of sets and systems and draw attention to this important measurement and implementation opportunity.

Measure Sets

A measure set is defined as a group of individual measures that address an aspect of quality or cost, created for a specific purpose. Developing measure sets is a strategy to comprehensively assess quality for a particular topic. Using measure sets may also reduce measurement burden by promoting implementation of the same measures, those deemed most valuable, across users.

The following elements form a measure set: purpose, context, measure selection, data, implementation, and maintenance/feedback. A brief description of each element in the context of this work is provided.

Purpose: The aspect of quality that a set is measuring.

Context: Background details such as topic area, accountable entity, target population, setting, intended use(s), and user(s).

Measure selection: The process of choosing measures, the measures themselves, and how they fit a particular purpose.

Data: The information source(s), collection and verification methods, and how missing data will be handled.

Implementation: Guidance provided to users about how the measure set is to be implemented.

Maintenance/feedback: Processes for updating the measure set and communicating performance results.

Several important themes have emerged regarding the design and implementation of measure sets that should be considered.

1. The defining components should be transparent and clearly communicated to users. If there is more than one intended use, for example, each use should be delineated.
2. The measure selection principles and all of the measures should align with the purpose. The Measure Applications Partnership (MAP) and Core Quality Measures Collaborative (CQMC) have established selection principles that should be considered when developing measure sets.
3. Generally, measure sets should be created so that all measures are used together to comprehensively assess quality. It may be problematic, if a "pick-list" approach is used. There will be a need to consider if all providers or organizations can report all measures and how to handle missing data.
4. The TEP also encouraged a proactive approach to measure alignment, which this work may help address.

Measurement Systems

A measurement system is a group of measures that, based on a predefined methodology, work together to assess quality or cost in relationship to a goal. Elements that make up a measurement system include goal, context, measure selection, measure grouping, scoring approaches, risk adjustment, and usability.

Each element is briefly described below.

Goal: The objective that the system is assessing.

Context: Background details such as accountable entity, intended use, incentive structure, measurement periodicity, and attribution method.

Measure selection: The process of choosing and retiring measures, the measures themselves, and how they reflect the goal.

Measure grouping: How measures are aggregated or assigned to domains.

Scoring approaches: The methods by which overall performance is determined.

Risk adjustment: The approach to isolate quality differences by accounting for differences in patient mix across entities.

Usability: How the methods and performance results are communicated.

Several important themes related to measurement systems arose from the TEP's discussion.

1. Similar to measure sets, the elements of a measurement system should also be transparent and clearly communicated.
2. System design should start with the conceptualization of the specific intent and consider unintended consequences. System design decisions are often value judgements. Methods should be transparent, statistically appropriate, and aligned across programs when possible, and the rationale for decisions should be subject to multistakeholder review.
3. Evaluation should consider the transparency and appropriateness of the decisions made in system design based on intent.
4. It is necessary to ensure usability of the system and actionability of the results by relevant audiences, especially consumers. There is a need to promote the efficient use of measurement resources through system design and to do so without limiting the creation of innovative or unique systems to suit specific needs.

Relationship between Sets and Systems

There is cohesion between measure sets and measurement systems, evident from several common elements across both. While a pathway exists that links individual measures to sets and then to systems, for the purposes of design and evaluation, there are distinctions to consider.

1. Measure sets may be designed to fit more than one system. Ideally, measure sets would be thoroughly vetted so they could be used in different systems without an expectation of changing measure set constructs.
2. A pre-established method to determine performance of entities relative to one another is not an inherent characteristic of a measure set—that remains a distinct aspect of a measurement system. Since measure sets may be applied to more than one system, similar to individual measures being used for multiple purposes, there may be value in distinct evaluation processes. For measure sets, assessment would determine if the set, collectively, is appropriately aligned with the purpose for which it was developed.
3. Generally, measurement systems contain a measure set, plus other components. Note that all sets and systems may not have all of the outlined components. For example, a system might not risk adjust or assign measures to groups, but, if applicable, each of these elements should be considered. When designing or evaluating a measurement system, its measure set would be considered within the context of the specific system as would the other system components. There is currently no agreed-upon way to evaluate how a measurement system's design aligns with its goal.

With the TEP's guidance, NQF has defined components of sets and systems that should be transparent and developed standardized, multistakeholder approaches to assess their scientific appropriateness. These approaches are ready for pilot testing.

NEXT STEPS

NQF will release the draft technical report for measure sets and measurement systems in early 2020 for comment. The technical report will include more detailed information about each component of sets and systems, the key themes identified, and additional considerations from the TEP's dialogue. Following a commenting period and additional TEP meetings, the final technical report will be released. NQF also plans to feature this work as part of Annual Conference activities in March. TEP webinars are open to the public, and details can be found on the project webpage. Please direct feedback or questions by email to measuresets@qualityforum.org.

During the next phase of this work, phase 3, NQF looks to partner with NQF member organizations to pilot test the TEP's recommendations and review processes using existing sets and systems. NQF recognizes the importance of a consensus-based entity in this area and continues to explore opportunities to advance the science of measure sets and measurement systems.

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