



TO: Consensus Standards Approval Committee (CSAC)

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RE: Improving Diagnostic Quality & Safety, 2016-2017: Informational Update

DA: August 8, 2017

NQF will provide an informational update to the CSAC on the Improving Diagnostic Quality & Safety project at its August 8, 2017 meeting.

This memo includes a summary of the project, and themes identified from and responses to the public and member comments. Accompanying this memo is the [draft report](#), which is available on the project webpage.

BACKGROUND

Diagnostic errors persist through all care settings and can result in physical, psychological, or financial repercussions for the patient. A 2015 report by the National Academies of Sciences, Engineering, and Medicine (NASEM), *Improving Diagnosis in Health Care*, found that these types of errors contribute to nearly 10 percent of deaths each year, and up to 17 percent of adverse hospital events.¹ However, despite the importance of accurate and timely diagnosis, stakeholders responsible for quality care and patient safety have largely neglected the issue. In follow-up to NASEM report, NQF convened a multistakeholder expert Committee to develop a conceptual framework for measuring diagnostic quality and safety, to identify gaps in measurement of diagnostic quality and safety, and to identify priorities for future measure development. The conceptual framework is intended to facilitate systematic identification and prioritization of measure gaps, and to help guide efforts to fill those gaps through measure development and endorsement.

APPROACH

With guidance from the Committee, NQF staff conducted an environmental scan to identify existing measures related to diagnostic quality and safety and to inform development of the measurement framework. Following two 2-day in-person meetings and five webinars, the Committee agreed on a measurement framework comprised of three domains and 14 subdomains, as described below. The Committee also reviewed measures identified through the environmental scan and measure concepts identified through brainstorming sessions at the in-person meetings, and worked to build consensus around a set of prioritized measurement areas to guide future measure development.

MEASUREMENT FRAMEWORK

The measurement framework derived many of its elements from NASEM's conceptual model of the diagnostic process, while also drawing from other models identified in the environmental

scan and input from Committee members. Domains and subdomains are presented below:

Domain I. Patients, Families, and Caregivers

The Patients, Families, and Caregivers domain includes the patient's perception of the diagnostic process, inclusion of patients in the diagnostic process, and communication between patients and providers.

Subdomains:

- *Patient Experience:* Addresses the patient perception of diagnostic activities and outcomes
- *Patient Engagement:* Includes actions to facilitate patient involvement with the diagnostic process such as communication with the patient, patient's family, and/or patient's caregiver (e.g., provider-patient/caregiver, system-patient/caregiver communication)

Domain II. The Diagnostic Process

The diagnostic process domain focuses on the actions and processes that are carried out by the healthcare providers to develop, refine, confirm a diagnosis, or to explain the patient's health problems.

Subdomains:

- *Information Gathering and Documentation:* Includes the collection and documentation of symptoms and diagnostic related information
- *Information Integration:* Includes the use of consultants, handoffs, and care transitions between providers (e.g., provider-provider, provider-system communication)
- *Information Interpretation:* Includes the use of decision support and best practices, cognitive processing, and machine computation
- *Diagnostic Efficiency:* Includes timeliness, efficiency, and appropriate use of diagnostic resources and tests
- *Diagnostic Accuracy:* Includes diagnostic errors, delay in diagnoses, and missed diagnosis
- *Follow Up:* Includes appropriate follow up of labs, radiology, consultation notes, and other diagnostic findings

Domain III. Organizational & Policy Opportunities

The Organizational & Policy Opportunities domain addresses organizational attributes that affect diagnostic performance. This includes organizational learning from diagnostic errors and quality improvement activities, availability of diagnostic resources (e.g., organizational access to on-call radiology services), workforce sentiment, and policy and cost issues around diagnostic quality.

Subdomains:

- *Diagnostic Quality Improvement Activities:* Includes organizational activities that facilitate diagnostic quality and continued learning such as outcome analyses, root cause analyses, peer review, and tumor boards
- *Access to Care and Diagnostic Services:* Includes timely availability of appropriate provider and human and diagnostic resources
- *Workforce:* Includes staffing and workforce sentiment
- *External Environment:* Includes policy, cost, and legal issues that influence diagnostic quality and safety

Cross-Cutting Themes and Recommendations

There were a number of issues or considerations that did not fit within the framework domains, but that Committee members felt were important to note and address. These include The impact of electronic health records and their capacity to aid or hinder diagnosis; the need to improve communication and coordination across transitions of care; the importance of health literacy and cultural competency; the value of specialty societies in addressing diagnostic quality and safety; and the legal and policy environment.

PRIORITIZATION OF MEASURES

The Committee reviewed a list of potential measure concepts submitted by Committee members and members of the public during their second in-person meeting. Committee members evaluated the concepts through a series of small group exercises and full Committee discussions. The Committee also conducted a preliminary prioritization exercise to identify an initial set of 62 prioritized measure concepts. Themes identified as high-priority areas by the Committee include timeliness of diagnosis, timeliness of test result follow-up, communication and handoffs, patient-reported diagnostic errors, and patient experience of diagnostic care.

COMMENTS AND THEIR DISPOSITION

NQF received 24 comments from 14 organizations (including five member organizations) and individuals pertaining to the draft report.

A table of comments submitted during the comment period, with the responses to each comment and the actions taken by the Standing Committee and measure developers, is posted to the Improving Diagnostic Quality & Safety [project page](#) under the Public and Member Comment section.

Comment Themes and Committee Responses

The Committee reviewed all of the submitted comments and focused their discussion on topic areas with the most significant and recurring issues.

Theme 1 – Evidence for Measure Concepts

Commenters noted that there may be little or no evidence base for many of the proposed measure concepts.

Committee Response: The Committee concurs that there may be limited evidence for many of the proposed concepts. However, Committee members noted that this project is not intended to produce measures ready for accountability, but to provide high-level guidance to the field on high-priority areas for measurement of diagnostic quality and safety. The report will be updated to clarify the intent of the project as well as the distinction between a measure and a measure concept.

Theme 2 – Use of Diagnostic Quality & Safety Measures

Commenters suggested that many of the measure concepts may not be suitable for performance measurement and accountability, but would be better suited for purposes such as quality improvement, benchmarking, certification, etc.

Committee Response: The Committee agrees that many of the suggested concepts may be more suited to certain application than others; the Committee believes that as measures of diagnostic quality and safety are developed, they should be well-vetted and tested for reliability and validity before being used for accountability purposes.

Theme 3 – Rationale for Measurement

Commenters raised questions about the need and/or rationale for measurement in certain areas, such as documenting the certainty of diagnosis and assessing patients' understanding of their diagnoses. Commenters were also concerned whether measurement in these areas would improve diagnostic accuracy and whether they would add unnecessary measurement burden.

Committee Response: The Committee noted that the scope of this project was expanded beyond 'diagnostic accuracy' to include other issues related to diagnostic quality and safety, and that the topics cited by commenters are an important part of ensuring timely and accurate diagnoses that are appropriately communicated to patients.

Theme 4 – Requests for Additional Cross Cutting Themes/Recommendations

Commenters suggested that the report should place more emphasis on the importance of the patient and his/her knowledge of their own medical history in the diagnostic process. Commenters also noted that physician feedback and satisfaction with the diagnostic process should be assessed since system level issues could lead to burnout and overwork, which may affect physicians' ability to make correct diagnoses.

Committee Response: The Committee agreed that issues related to patient engagement and physician feedback and satisfaction warrant additional emphasis in the final report.

Theme 5 – Requests for Additional Measurement Concepts

Commenters submitted several additional measure concepts or revisions to existing concepts for the Committee's consideration.

Committee Response: Committee members noted that many of the proposed concepts were already covered or related to current concepts; the Committee agreed to address a number of issues raised by commenters in the text of the report in lieu of modifying the identified concepts.

NEXT STEPS

NQF will finalize the report and submit the final deliverable to HHS by September 19, 2017.

¹Institute of Medicine (IOM). *Improving Diagnosis in Health Care*. Washington, DC: National Academies Press; 2015.