







Overview of Evaluation Process

Four Major Endorsement Criteria Hierarchy and Rationale

- Describe desirable characteristics of quality performance measures for endorsement
- Importance to measure and report: Measure those aspects with greatest potential of driving improvements; if not important, the other criteria less meaningful (must-pass)
- Scientific acceptability of measure properties: Goal is to make valid conclusions about quality; if not reliable and valid, risk of improper interpretation (*must-pass*)
- Usable: Goal is to use for decisions related to accountability and improvement; if not useful, probably do not care if feasible
- Feasible: Ideally, cause as little burden as possible; if not feasible, consider alternative approaches
- If suitable for endorsement, evaluate measure harmonization and best-in-class

NATIONAL QUALITY FORUM

Evaluation of Already-Endorsed Measures All measures are expected to meet current criteria and guidance Subcriterion 1b (Opportunity for Improvement): Expect data from implementation of the measure Potential for reserve status Expanded reliability and validity testing (unless already meet high rating) Usability: Actual use in public reporting/other accountability and improvement OR specific plans and timeline Feasibility: Problems with implementation or unintended consequences

-67	VS
Rating	Definition
High	Based on the information submitted, there is high confidence (or certainty) that the criterion is met
Moderate	Based on the information submitted, there is moderate confidence (or certainty) that the criterion is met
Low	Based on the information submitted, there is low confidence (or certainty) that the criterion is met
Insufficient	There is insufficient information submitted to evaluate whether the criterion is met (e.g., blank, incomplete, or not relevant, responsive, or specific to the particular question)

Low Rating vs. Rating of Insufficient Evidence

- A low rating generally means the evidence/information demonstrates that a criterion is not met
- For evidence: Depends on combination of quantity, quality, consistency
- Insufficient evidence means either:
 - The evidence does exist and was presented but is not adequate for a definitive answer OR
 - The submission was incomplete or deficient in presenting evidence/information that does exist
- Ratings of Low or Insufficient Evidence for a subcriterion result in not passing a criterion but signify different reasons
- ^o For evidence: Depends on combination of quantity, quality, consistency

NATIONAL QUALITY FORUM

1. Importance to Measure and Report

Must-pass criterion: Must meet all 3 subcriteria

1a. High impact

- National health goal or priority
- Data on numbers of persons affected, high resource use, severity of illness, consequences of poor quality

1b. Performance gap/Opportunity for improvement

- Data demonstrating considerable variation in performance OR overall less than optimal performance
- Data on disparities in care
- Potential for reserve status for endorsed measures

1c. Evidence

Quantity, quality, consistency of body of evidence

NATIONAL QUALITY FORUM

10

Criteria for Reserve Status

Potential <u>Reserve Status</u> for endorsed measures with <u>demonstrated high</u> <u>levels of performance</u>

- The purpose is to retain endorsement of reliable and valid quality performance measures that have overall high levels of performance with little variability so that performance could be monitored in the future if necessary to ensure that performance does not decline
- Exceptional circumstance, not the rule
- Applies only to highly credible, reliable, and valid measures that have high levels of performance due to quality improvement actions (often facilitated or motivated through public reporting and other accountability programs)
- Additional criteria must be met, so will need to continue evaluation beyond 1b if think might quality

NATIONAL QUALITY FORUM

Criteria for Reserve Status

- Evidence for measure focus (1c): Strong direct evidence of a link to a desired health outcome
- For process and structure measures, the measure focus should be proximal to the desired outcome
 - Generally, measures more distal to the desired outcome would not be eligible for reserve status
- Reliability (2a) high rating
- Validity (2b) high rating
- The reason for high levels of performance is better performance, not an issue with measure construction
- Demonstrated usefulness for improving quality
- Demonstrated use of the measure

NATIONAL QUALITY FORUM

12

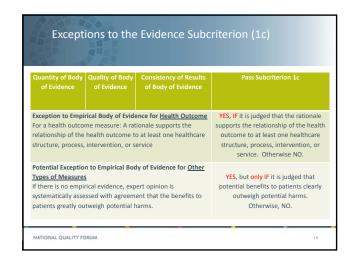
Subcriterion 1c: Submitted vs. Existing Evidence Individual committee member preliminary evaluation Rate the measures based on evidence submitted Note if aware of additional evidence Continue to evaluate all remaining criteria After workgroup discussion If confident in the evidence presented by committee members AND the measure is likely to meet criteria for: High impact (1a), Performance gap (1b) and Scientific acceptability of measure properties Reliability (2a) & Validity (2b) Could ask developer to provide the additional evidence for consideration

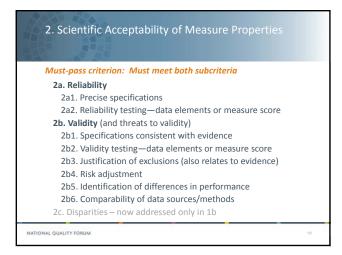
Rating	Quantity of Body of Evidence: Total number of studies (not articles or papers)	
High	5+ studies	
Moderate	2-4 studies	
Low	1 study	
Insufficient to evaluate	No empirical evidence OR Only selected studies from a larger body of evidence	

Rating	Quality of Body of Evidence: Certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence
High	RCTs; direct evidence for specific measure focus; adequate size to obtain precise estimates of effect; without serious flaws that introduce bias
Moderate	Non-RCTs w/control for confounders; large, precise estimates of effect OR RCTs without serious flaws, but either indirect evidence or imprecise estimate of effect
Low	RCTs w/flaws introduce bias OR Non-RCTs w/small or imprecise estimate of effect or without control of confounders
Insufficient to evaluate	No empirical evidence OR Only selected studies from a larger body of evidence

Rating	Consistency of Results of Body of Evidence: Stability in both the direction and magnitude of clinically/practically meaningful benefits and harms to patients (benefit over harms) across studies in the body of evidence
High	Estimates of clinically/practically meaningful benefits & harms to patients consistent in direction & similar in magnitude across preponderance of studies
Moderate	Estimates of benefits & harms consistent in direction but may differ in magnitude (If 1 study then estimate of benefits greatly outweigh harms)
Low	Estimates of benefits & harms differ in both direction and magnitude OR wide confidence intervals prevent estimating net benefit (If 1 study then estimate of benefits do not greatly outweigh harms)
Insufficient to evaluate	No assessment of magnitude and direction of benefits and harms to patients

Quantity	Quality	Consistency	Does the measure meet subcriterion 1c?
Moderate or High	Moderate or High	Moderate or High	YES
Low	Moderate or High	Moderate	YES, IF additional research unlikely to change conclusion that benefits to patients outweigh harm Otherwise NO.
Moderate or High	Low	Moderate or High	YES, IF potential benefits to patients clearly outweig potential harms. Otherwise NO.
Low, Moderate, or High	Low, Moderate, or High	Low	NO





	A 22	
Rating	Reliability	Validity
High	Precise specifications; AND Empirical evidence of reliability of <u>BOTH</u> data elements AND measure score	Specifications consistent w/ evidence; AND Empirical evidence of validity of <u>BOTH</u> data elements AND measure score; AND Threats to validity empirically assessed and addressed
Moderate	Precise specifications; AND Empirical evidence of reliability of <u>EITHER</u> data elements OR measure score	Specifications consistent w/ evidence; AND Empirical evidence of validity of <u>EITHER</u> data elements OR measure score OR systematic assessment of face validity; AND Threats to validity empirically assessed and addressed

Rating Reliability Validity Low • Ambiguous specifications; OR • Empirical evidence of unreliability OR Insufficient Evidence Inappropriate method/scope • Inappropriate method/scope; OR • Threats empirically assessed and bias results • Inappropriate method/scope; OR • Threats not assessed

Validity Rating	Reliability Pass Scientific Acceptability of Measure Properties Rating for Initial Endorsement*		
High	Moderate or High	Yes	Evidence of reliability and validity
	Low	No	Represents inconsistent evidence—reliability is usually considered necessary for validity
Moderate	Moderate or High	Yes	Evidence of reliability and validity
	Low	No	Represents inconsistent evidence—reliability is usually considered necessary for validity
Low	Any rating	No	Validity of conclusions about quality is the primary concern. If evidence of validity is rated low, the reliability rating will usually also be low. Low validity and moderate high reliability represents inconsistent evidence.

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. 1 3a. Meaningful, understandable, and useful for public reporting 1 Is it in use for public reporting or an accountability application and if not, what is plan/progress? 1 Is the rationale for use in accountability credible? 2 3b. Meaningful, understandable, and useful for quality improvement is it in use for improvement, and if not what is the plan/progress? 2 Is the rationale for use in QI credible? 3 **Currently being revised**

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. 4 a. Clinical data generated and used during care process Blood pressure, lab value vs. survey or observation 4 b. Electronic sources EHR, claims vs. abstracted and entered into database/registry Is there a credible, near-term path to electronic collection? 4 c. Susceptibility to inaccuracies/ unintended consequences identified Ability to audit and detect? 4 d. Data collection strategy can be implemented Is it already in operational use or testing indicated ready for operational use?

4. Feasibility

Criteria for Evaluation – Composite measures

- Individual measures included in a composite must be
 - NQF endorsed; OR
- Assessed to have met the individual measure evaluation criteria as a first step in evaluating the composite measure

NATIONAL QUALITY FORUM

TIONAL QUALITY FORUM

Importance to Measure and Report

- If the component measures meet the criteria 1a, 1b, and 1c, then the composite meets the criteria.
 - A component measure may not be important as an individual measure, but could be an important component of a composite.
- The construct for quality of the composite is clearly described.
- The component measures are consistent with and representative of the conceptual construct of quality.

NATIONAL QUALITY FORUM

26

Scientific Acceptability of the Measure Properties

- Composite specifications include methods for standardizing scales across component scores, scoring rules, weighting rules, handling of missing data and sample size.
- Reliability testing, validity testing, meaningful differences sub-criteria
- Component analysis demonstrates that the included components fit the conceptual construct.
- Component analysis demonstrates that the included components contribute to the overall variation in the score
- Scoring and weighting rules are consistent with conceptual construct.
- Analysis of missing component effects

NATIONAL QUALITY FORUM

27

Usability and Feasibility

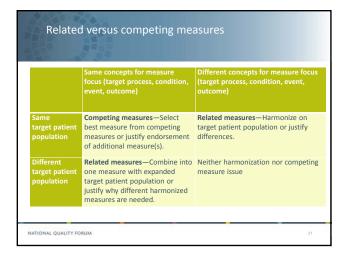
- Usability
 - Data detail is maintained such that the composite can be deconstructed into its components to facilitate transparency and understanding
 - Demonstration that the composite measure achieves the stated purpose (pilot testing or operational data)
- Feasibility
 - Same sub-criteria as for individual measures

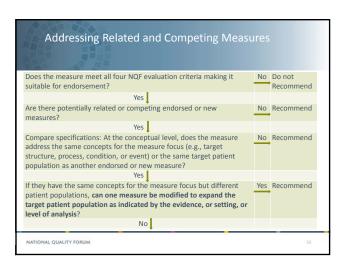
NATIONAL QUALITY FORUM

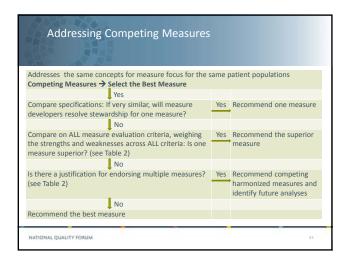
28

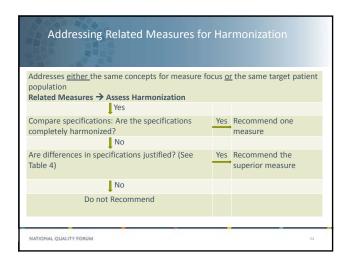
If a measure meets the four criteria and there are endorsed/new related measures (same measure focus or same target population) or competing measures (both the same measure focus and same target population), the measures are compared to address harmonization and/or selection of the best measure. 5a. The measure specifications are harmonized with related measures OR the differences in specifications are justified. 5b. The measure is superior to competing measures (e.g., is a more valid or efficient way to measure) OR multiple measures are justified.











Impact, Opportunity, Evidence—Importance to measure and report
 Reliability and Validity—Scientific Acceptability of Measure Properties
 Untested measures cannot be considered superior
 Preference for measures with broadest application and those that address disparities in care
 Usability
 Preference for measures publicly reported, widest use, in use
 Feasibility
 Preference for measures based on electronic sources, clinical data from EHRs, freely available

MATIONAL QUALITY FORM

Value
 To change to EHR-based measurement
 Broader applicability if one measure cannot accommodate all patient populations, settings, etc.
 Increased availability of performance results
 Burden
 Interpretability across measures
 Increased data collection
 Does value outweigh burden?

NATIONAL QUALITY FORUM

