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QUALITY FORUM**

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Scientific Methods Panel Web Meeting

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August 25, 2020

Welcome & Introductions



NQF Scientific Methods Panel Team

- Senior Leads
 - ▣ Sai Ma, PhD
- Project Management
 - ▣ Mike DiVecchia, PMP
 - ▣ Hannah Ingber, MPH
 - ▣ Caitlin Flouton, MS



Scientific Methods Panel Members

J. Matt Austin, PhD	Jack Needleman, PhD
Bijan Borah, MSc, PhD	David Nerenz, PhD, Co-chair
John Bott, MBA, MSSW	Eugene Nuccio, PhD
David Cella, PhD, Co-chair	Sean O'Brien, PhD
Daniel Deutscher, PT, PhD	Jennifer Perloff, PhD
Lacy Fabian, PhD	Patrick Romano, MD, MPH
Marybeth Farquhar, PhD, MSN, RN	Sam Simon, PhD
Jeffrey Geppert, EdM, JD	Alex Sox-Harris, PhD, MS
Laurent Glance, MD	Michael Stoto, PhD
Joseph Hyder, MD	Christie Teigland, PhD
Sherrie Kaplan, PhD, MPH	Ronald Walters, MD, MBA, MHA, MS
Joseph Kunisch, PhD, RN-BC, CPHQ	Terri Warholak, PhD, RPh, CPHQ, FAPhA
Paul Kurlansky, MD	Eric Weinhandl, PhD, MS
Zhenqiu Lin, PhD	Susan White, PhD, RHIA, CHDA

Meeting Overview



Meeting Agenda

- Measure Evaluation Process and Fall 2020 Cycle Update
- Follow Up on July Validity Discussion
- Provisional Endorsement
- Public Comment
- Next Steps
- SMP Member Updates

Measure Evaluation Process and Fall 2020 Cycle Update



Key Process Dates

Date / Deadline	Activity
August 3	Submission of Testing Documentation
August 11	Send MS DOI forms to Panel members
August 19	Panel members return MS DOI forms
August 26	Send measures to Panel members for review
September 21	Panel members return measures to project team



Fall 2020 Measures Submitted

- 58 measures filed for review in the Fall 2020 cycle
 - ▣ 13 are new measures
- 25 measures are recommended to be reviewed by the SMP
 - ▣ 21 outcome measures
 - » including 1 intermediate clinical outcome and 2 PRO-PMs
 - ▣ 3 composite measures
 - ▣ 1 cost/resource use measure

Follow Up on July Validity Discussion



July Discussion

- **Question:** Does the term “critical data element” include data elements used in risk-adjustment models? All data elements in risk-adjustment models?
 - ▣ **Responses:** The Panel confirmed that developers do not have to do primary data analysis of all aspects of reliability and validity. They can cite existing evidence, including published evidence by others or their own evidence from prior submissions if the relevant parameters have not changed.
- **Question:** Is it ever acceptable to have just data element reliability? If not, should the current requirement for either data element OR measure score reliability be changed?
 - ▣ **Consensus:** Given the burden of this additional requirement, the Panel generally felt that new measures with acceptable validity could go forward for further consideration with evidence of data element reliability only.



July Discussion

- **Question:** Does data element validity guarantee data element reliability, so that showing validity removes the requirement to show reliability?
 - ▣ **Yes/no variables derived from an EHR through a computer algorithm:** there would generally be no question of reliability, as the same result will always be obtained
 - ▣ **Clinical process/Outcome variables:** involving some degree of human abstraction or coding would bring data element reliability into question
 - ▣ **Patient-reported outcomes:** data element reliability is a concern and developers should provide evidence of data element reliability
- **Question:** Should face validity continue to be accepted as the minimum requirement for new measure submissions?
 - ▣ **Consensus:** Face validity can be accepted as a minimum requirement for new measures as long as reliability passes.

July Discussion

- **Question:** Should we require both data element and measure score validity testing?
 - ▣ **Consensus:** Requiring both data element and measure score validity information should be required for most measures, but with the “when possible” caveat.
- **Question:** What guidance can we offer developers about the range of variables that can be used to establish validity by their correlation with the specific measure being evaluated?
 - ▣ **Suggestion:** Submit more detailed explanations of any specific data limitations that restrict the range of validity analyses that can be done, of reasoning behind the choice of other measures or variables used to establish validity of the proposed measure, and of the presumed process-outcome relationships that justify the measure as a measure of quality of care.

Data Element Validity Example: NQF 0469e

- **Measure Title:** PC-01 Elective Delivery
- **Type:** Process
- **Test Data:** eMeasure (HQMF) implemented in EHRs
- **Description:** This measure assesses the proportion of patients delivering newborns with ≥ 37 and < 39 weeks of gestation completed with an elective delivery. The intended use of the measure is to assess the quality of perinatal care in hospitals across the population.
- **Entities in reliability and validity testing:** Results were calculated from Joint Commission data that included 131 hospitals submitting the measure using three months of 2018 discharges. These are records from hospitals that submitted both chart-abstracted and eCQM data for the same time period. The hospitals were geographically diverse and varied in size.



Reliability Testing: NQF 0469e

- What level of reliability testing was conducted?
 - ▣ **Critical data elements used in the measure**
 - ▣ *Per NQF Measure Evaluation Criteria, reliability testing is not required if empiric validity of the data elements is assessed. See section 2b2 for validity testing of data elements.*

Validity Testing: NQF 0469e

- What level of validity testing was conducted? (*may be one or both levels*)
 - ▣ ⊗ **Critical data elements** (*data element validity must address ALL critical data elements*)
 - ▣ ⊗ **Performance measure score**
 - » ⊗ **Empirical validity testing**
 - » ○ **Systematic assessment of face validity of performance measure score as an indicator of quality or resource use**
- Data Element Validity: Comparison of Electronic EHR extraction and manual chart abstraction

Measure Score Validity Statistics for Sample Between Electronic EHR Extraction and Manual Chart Abstraction (Sensitivity, Specificity, Kappa): Data Elements

Measure Component	N	Sensitivity	Specificity	Kappa (95% CI)
Gestational age in range	3738	97.8%	98.4%	.96 (.95, .97)
Conditions possibly justifying elective delivery	2859	96.1%	97.2%	.91 (.89, .93)
Cesarean birth	3753	94.3%	96.5%	.91 (.89, .92)
Medical induction of labor	3753	52.9%	76.4%	.30 (.27, .33)
Active labor	674	68.0%	32.4%	.00 (-.01, .08)
Prior Uterine Surgery	326	0%	100%	NA

Validity Testing (continued): NQF 0469e

Empirical Measure Score Validity:

Table 3. Measure Score Validity Statistics for Sample Between Electronic EHR Extraction and Manual Chart Abstraction (Sensitivity, Specificity, Kappa): Measure Score

Measure Component	Sensitivity	Specificity	Kappa (95% CI)
Initial patient population/denominator	88.0%	96.3%	.83 (.81, .85)
Numerator	44.4%	83.3%	.01 (-.01, .10)



Validity Testing (continued): NQF 0469e

Correlation with other measures of perinatal care quality

Measure	PC-01	PC-02	PC-05	ePC-01	ePC-05
PC-01-Elective Delivery	1				
PC-02-Cesarean Birth	0.133192	1			
PC-05-Exclusive Breast Milk Feeding	-0.02553	-0.28103	1		
ePC-01-Elective Delivery	0.008936	0.108322	0.022812		
ePC-05-Exclusive Breast Milk Feeding	0.040365	-0.17522	0.748033	-0.45737	1

“Provisional Endorsement”



“Provisional Endorsement” as a Possibility

- Background: Currently CSAC adjudicates decisions between “endorsement” and “rejection”.
- Discussion:
 - ▣ What would “provisional endorsement” mean?
 - ▣ What criteria would a measure need to meet in order to gain the provisional endorsement status?
 - ▣ Under what conditions would a provisionally endorsed measure need to be resubmitted or lose the status?

Opportunity for Public Comment

Next Steps



Next Steps

- Please return any outstanding forms by August 25
- Measure evaluation begins August 26
- Measure evaluation meeting October 28-29

SMP Member Updates

Thank You, Dave Cella!

- Dave Cella has been a leader on the SMP as Co-Chair since 2017
- We are grateful for his expertise and contributions to this important work
- On behalf of the entire team at NQF, thank you!

Thank You, Michael Stoto!

- Michael Stoto has been with us since September 2017
- We are grateful for his expertise and contributions to this important work
- On behalf of the entire team at NQF, thank you!

Welcome New Co-Chair!

- NQF is happy to announce Christie Teigland has agreed to serve as the new SMP Co-Chair
- Christie has served on the Panel since 2017
- Thank you for accepting this new role!



Project Contact Info

- Email: MethodsPanel@qualityforum.org
- NQF phone: 202-783-1300
- Project page:
http://www.qualityforum.org/Measuring_Performance/Scientific_Methods_Panel.aspx
- SharePoint site:
<http://share.qualityforum.org/Projects/NQF%20Scientific%20Methods%20Panel/SitePages/Home.aspx>

THANK YOU.

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