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Best Practices for Developing and Testing Risk Adjustment Models

Option Period Web Meeting #2

May 12, 2022

This project is funded by the Centers for Medicare and Medicaid Services under contract HHSM-500-2017-00060I – 75FCMC20F0001 - Best Practices for Developing and Testing Risk Adjustment Models.

Housekeeping Reminders

- This is a Webex meeting with audio and video capabilities:
  - **Meeting link:** https://nqf.webex.com/nqf/j.php?MTID=m1bcaacf7bb061cc81cef7e720a68cd68
  - **Meeting number:** 2339 444 6891
  - **Password**: Quality2022!
  - Optional: 1-844-621-3956
- Please place yourself on mute when you are not speaking
- We encourage you to use the following features
  - Chat box: to message NQF staff or the group
  - Raise hand: to be called upon to speak
- We will conduct roll call once the meeting begins
- If you are experiencing technical issues, please contact the NQF project team at raguidance@qualityforum.org

Agenda

- Roll Call and Review of Meeting Objectives
- Discuss Potential Updates to the Technical Guidance based on Stakeholder Feedback
- NQF Member and Public Comment
- Next Steps

Roll Call and Review of Meeting Objectives

NQF Project Team

- Tricia Elliott, Senior Managing Director
- Matthew Pickering, PharmD, Senior Director
- Monika Harvey, MBA, PMP, Project Manager
- Hannah Ingber, MPH, Manager
- Simone Bernateau, Analyst
- Tristan Wind, BS, ACHE-SA, Analyst
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CMS Staff

- Laura de Nobel, JD, RN, TO COR, DPMS
- Sophia Chan, PhD, MPH, DVIQR
- Helen Dollar-Maples, RN, MSN, Director, DPMS
- Nidhi Singh-Shah, MPH, Deputy Director, DPMS
- Gequincia Polk, MPA, IDIQ COR, DPMS
- Marsha Smith, MD, MPH, Medical Officer, DPMS

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Technical Expert Panel (TEP) Members

- **Philip Alberti, PhD** (Co-Chair)
- **Karen Joynt Maddox, MD, MPH** (Co-Chair)
- Arlene Ash, PhD
- Susannah Bernheim, MD, MHS
- Melissa Castora-Binkley, PhD, MA, PMP
- Lukejohn Day, MD
- Marc Elliott, PhD, MA
- Rachel Harrington, PhD
- Vincent Liu, MD, MS
- Danielle Lloyd, MPH
- John Martin, PhD, MPH
- Shalini Prakash, MS
- Sandra Richardson, MS
- Clarke Ross, DPA
- David Shahian, MD
- Cristie Upshaw Travis, MSHHA
- Janice Tufte

Federal Liaisons

- Andy Frankos-Rey, MA, CMCS/CMS
- Craig Caplin, PhD, HRSA
- David Nyweide, PhD, CMMI/CMS
- Joel Andress, PhD, CCSQ/CMS
- Lok Wong Samson, PhD, ASPE
- Maushami (Mia) DeSoto, PhD, HRSA
- Rachael Zuckerman, PhD, ASPE
- Sarah Gaillot, PhD, CM/CMS
- Shafa Al-Showk, PhD, CM/CMS

Meeting Objectives

Meeting Objectives

- Review the scope of the option period
- Discuss the stakeholder feedback approach and key findings
- Obtain TEP input on potential updates to the Technical Guidance based on stakeholder feedback

Overview of Option Period Scope

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Option Period Activities

- Conduct six (6) focus groups to be inclusive of individuals with minority viewpoints and those from medically underserved communities, as noted in the White House Executive Order
- Present and receive feedback at CMS-convened meetings
- Aggregate stakeholder feedback to inform updates to Technical Guidance
- Update the Technical Guidance based on findings from focus groups and CMS-funded meetings
- Garner public comments on the updated Technical Guidance

Discuss Potential Updates to Technical Guidance

Flow for Discussion of Updates

1. NQF staff will screenshare the Technical Guidance and note key sections that are affected by stakeholder feedback
2. NQF staff will describe the section(s), summarize the feedback received that relates to that section(s), and pose questions for TEP discussion
3. Co-chairs will also ask the TEP for feedback on whether any new sections or information must be added that has not yet been covered

Note: Line edit changes will be reserved for your review once the Technical Guidance has been fully updated and is sent out

Differentiating Race and Ethnicity and Their Use as Proxies

Technical Guidance Section(s)	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Core Principles (pages 8-9) • Standard Risk Adjustment Framework (pages 13 and 18) • Conceptualizing the Model (pages 17-18)	• Race and ethnicity are not the same. The guidance currently uses "race/ethnicity", and these concepts should be separated throughout. • There is disagreement about whether race can be an appropriate proxy variable for social risk. • Race should not be included in the risk model, as it is not clear what the variable truly represents. • Using race and ethnicity as proxy for social risk could perpetuate the thinking that social needs and social risk are causally connected to race, and this is not the case.	• **Considering this feedback, how should developers assess whether it is appropriate to include a race or ethnicity variable as a risk factor? Or does the TEP agree that we should recommend against adjusting quality measures for race and ethnicity?** • **With respect to proxy use, can we safely assume that developers truly do not have access to needed data? If they do have access to data they need, is it true that they would not need to use race and ethnicity data as proxy variables?** • **What are tradeoffs of including/not including race and ethnicity and how should we capture this within the Technical Guidance?**

Evidence to Support Risk Factor Inclusion in the Conceptual Model

Technical Guidance Section(s)	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Standard Risk Adjustment Framework (pages 13 and 18) • Conceptualizing the Model (pages 17-18)	• Focus groups requested additional guidance on what constitutes evidence to support risk factor inclusion in the conceptual model • Example: Empirical contribution of the risk factor to the measured outcome • Example: One literature review supporting the conclusion that the measured outcome varies for different populations (i.e., risk varies) • Both may be burdensome to measure developers in their own way	• **What is the evidence standard that we are looking for to link a social or functional risk factor to the outcome in the conceptual model?**

Evidence of the Ability to Meaningfully Influence

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Conceptualizing the Model (pages 16; 18-19)	• The ability to "meaningfully influence" should be explained; the definition is unclear, and more clarity is needed on how to support this with evidence • The assumption should be NOT risk adjusting for SRFs as the default. Then empirical analysis of how the SRFs ARE NOT under the entity's control would be appropriate to test for inclusion in a model, rather than exclusion from a model. • Differing viewpoints about whether quality measures that reflect a more aspirational view of what providers can influence, should be used in incentive programs	• **How should we define *meaningfully influence*, ensuring that the definition can be operationalized by NQF Standing Committees (i.e., What should the Committee focus on to adjudicate this?)?** • **Is it sufficient to demonstrate what an accountable entity can meaningfully influence via literature review, case studies/reports of VBP, or something else?** • **Is there additional guidance about meaningfully influence that we need to capture in the Technical Guidance standards?**

Selecting Variables and Determining Bias without Data

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Standard Risk Adjustment Framework (pages 13 and 20) • Identifying and Selecting Potential Data Sources and Variables (pages 19 – 20)	• Focus group participants stated that it is not possible to analyze the impact of a variable for bias if you do not have the data available. • Focus group members were unclear about what type of bias this is referring to. • Instead, developers should be asked to make their best effort to explain their methods to capture the variable and their best efforts to mitigate potential bias and how they will improve this at maintenance.	• **What description can be added to better define the type of bias that is mentioned?** • **What would be an acceptable degree of "best effort“ to identify potential bias if data are not available for the entire measured population or not generalizable? For example, is it acceptable to look at the impact of a social/functional risk factor variable on the outcome being measured for a subset of a population or as demonstrated in the literature?**

Determining Relevant Subpopulations for Calibration

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Standard Risk Adjustment Framework (pages 13 and 24) • Empirically Testing the Adequacy of the Risk Model (pages 23 – 24)	• The minimum standard that requires calibration to be conducted within the overall population and within relevant at-risk clinical, social, and functional subpopulations, without further specificity, developers may determine various relevant subpopulations, which could be burdensome or ill-advised. • Calibration can be thought of in multiple ways, which could be burdensome or ill-advised and that more specificity is needed.	• **How can the guidance provide more clarity on defining the relevant subpopulations of interest for which the risk adjustment model should be calibrated?** • **How should we incorporate this additional guidance, such that we are mindful of reducing the burden to developers?**

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Stratification, Risk Stratification, and Risk Adjustment

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Introduction and Key Terms (pages 5 and 8) • Standard Risk Adjustment Framework (pages 13 and 25) • Considerations for Determining the Final Risk Adjustment Model (pages 25-26)	• Focus groups sought clarity on distinctions between definitions of stratification, risk stratification, and risk adjustment • Measure developers must weigh decisions about all three when constructing the conceptual model • The guidance implies that developers should risk adjust and stratify on the same variable. Participants disagreed and stated that this is not appropriate. • More guidance is needed for choosing between stratification, risk stratification, and risk adjustment. • More guidance is needed for determining which variables should be used for stratification.	• **Is there a meaningful difference between risk stratification and stratification to be distinguished in this report?** • **What can be added or clarified in the guidance to address the stakeholder feedback regarding the concurrent use of risk adjustment and stratification on the same variable (i.e., it is inappropriate)?** • **Are there methodological limitations to stratification that should be outlined, beyond reliability challenges with small numbers, or the ability to identify target populations (e.g., patients from the LBGTQ + community)?** • **What guidance can be added for helping developers select variables for stratification?**

Glide Path for Risk Adjustment

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates
• Considerations for Determining the Final Risk Adjustment Model (page 26) • NQF Policy (page 27) • Healthcare Policy (page 28)	• Focus group participants expressed that there should be a glide path that transitions from initially risk adjusting measures for social and functional risk factors currently viewed commonly to be outside of providers' control, then over time decreasing adjustment for these risk factors, as health care providers and payers learn how to better reduce the impact social risk factors have on the measured outcomes.	• **Does the TEP generally agree that there should be a glide path to risk adjustment that can begin with adjustment at the performance measure level, and potentially replacing this measure-level adjustment with adjustment within the payment model design as they mature?** • **If yes, how should we include this feedback in the guidance? For example, what does this glide path look like (i.e., Should there be a time limit on how long we should adjust at the measure-level? Why would there be this waiting period or glide path?)?**

Risk Adjustment for Certain Measure Types

Technical Guidance Section	Stakeholder Feedback	Questions for the TEP for Potential Updates

• Intended Use (page 19)
• NQF Policy (page 27)
	• The guidance should reflect considerations of the second report to Congress from the Office of the Assistant Secretary for Planning and Evaluation language specific to types of measures not appropriate for this type [social risk] of adjustment
	• Several focus groups noted that risk adjustment is never appropriate for certain measure types, uses, etc.:
	  • Structure and process measures
	  • Measures used for quality improvement
	  • Measures of public health priority/significance
		• **When can risk adjustment be considered beyond a case-by-case basis?**
		• **What measure categories (i.e., measure type, measure use), if any, should not be adjusted for social and/or functional risk?**

New Sections

- Measures of health equity and disparities-sensitive measures
  - Disparities-sensitive measures are those that serve to detect not only differences in quality across institutions or in relation to certain benchmarks, but also differences in quality among populations or social groupings (race/ethnicity, language, etc.).
  - Multiple focus group members stressed the influence that the quality measurement enterprise can have on improving health equity. Measurement organizations, such as NQF, can help identify disparity-sensitive measures that can be used to help improve disparities in care.
  - It is important to know if tools and resources will be available for providers to address inequities.
- Burden to measure users
  - Some focus group participants noted that risk adjustment can have implications for burden to users as well as developers.
  - The benefits of measure use should outweigh the burdens. For example, risk adjustment can prevent a measure user from being able to calculate their own scores, limiting usability for QI and improvements to quality of care.
- **Questions for the TEP:**
  - **Do you agree with the addition of these new sections? If so, where and how should NQF incorporate these concepts into the guidance (e.g., the conceptual model)?**
  - **Have any other new sections come up as a result of discussions during this meeting?**

NQF Member and Public Comment

Next Steps

Next Steps

- **Web Meeting #3 (July 13, 2022)**
  - Review and discuss updates made to the Technical Guidance
- **Public Comment for Technical Guidance**
  - August 23 – September 14
- **Web Meeting #4 (October 24, 2022)**
  - Discuss and adjudicate public comments received on Technical Guidance
  - Finalize Technical Guidance updates
- **Updated Technical Guidance Published**
  - December 21, 2022

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Project Contact Info

- Email: RAGuidance@qualityforum.org
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- Project page:
  - http://www.qualityforum.org/Risk_Adjustment_Guidance.aspx
- SharePoint site:
  - https://share.qualityforum.org/portfolio/DevelopingandTestingRisk/SitePages/Home.aspx

THANK YOU.

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Appendix A:
Stakeholder Feedback Approach and Findings

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Purpose of Stakeholder Feedback

- While the Technical Guidance was developed with input from a multistakeholder TEP, NQF and CMS sought additional feedback from stakeholder groups that may not have been fully represented when the Technical Guidance was drafted during the Base Period
- Focus groups included stakeholder groups whose points of view may have been under-represented in the TEP's composition, but are critical to development of the guidance
- Incorporating stakeholder feedback will facilitate that the final recommendations are holistically informed, which will have a broader acceptance among stakeholders
- The feedback received from this expanded stakeholder engagement will be presented to the TEP today and will be used to make updates to the Technical Guidance

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Methods

Between September 15, 2021, and March 11, 2022, NQF presented the Technical Guidance to two, web-based CMS-convened groups and conducted six, two-hour, web-based focus groups.

- **CMS-convened Meetings:**
  - Measure and Instrument Development and Support (MIDS) C3 Forum
  - Quality Measurement Technical Forum (QMTF)
- **Focus Groups:**
  - Providers
  - Measure Developers
  - Patients And Consumers
  - Payers And Purchasers
  - Quality Improvement Program Leadership
  - NQF-convened groups

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Methods (cont'd)

- NQF developed and used an in-depth discussion guide to solicit feedback
- NQF used targeted facilitation and round-robin approaches
- Similar topics were discussed across each focus group. Other discussion topics were customized to solicit feedback that was relevant to the specific stakeholder category.
- In general, focus groups explored the relevance, feasibility, applicability, implementation, value, optimization, policy and program implications, and patient perspectives on the Technical Guidance

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Minority Viewpoints and Medically Underserved Perspectives

- Minority viewpoints are those that disagree with the TEP's recommendations in the Base Period Technical Guidance related to functional status and social risk adjustments in general or individual recommendations for implementing functional status and social risk adjustment.
- To support the White House Executive Order to advance racial equity and support underserved communities through the Federal Government[1], we engaged with members of underserved communities to ensure they are represented in each focus group. Underserved communities refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.

1. The White House (January 20, 2021). Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government | The White House; accessed 04/10/2022

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Discussion Topics

- Standard Risk Adjustment Framework
- Conceptualizing the Model
- Intended Use
- Level of Measurement (i.e., Locus of Control)
- Identifying and Selecting Potential Data Sources and Variables
- Considerations for Determining the Final Risk Adjustment Model
- Stratification
- Accounting for Social and/or Functional Challenges in Provider Performance Scores
- Use of Quality Measure Information in Selection
- Social or Functional Adjustment and Measure Type

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Key Themes

- After reviewing all inputs from the focus groups and CMS-convened meetings, NQF created a Stakeholder Feedback Memo theming the feedback across stakeholder groups
- Eight themes identified:
  - Improvements to the Conceptual Model
  - Expanding the Locus of Control
  - Burden to the Developer
  - Providing Clarity
  - Stratification
  - Risk Factor Selection
  - Focus on Health Equity
  - The Future of Measurement

Appendix B:
Key Themes and Considerations from Stakeholder Feedback Memo

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Improvements to the Conceptual Model

- A strong conceptual model is useful and needed
- More guidance on what constitutes evidence to support risk factor inclusion
- Focus guidance on health equity
- Disagreement on the conceptual guidance to risk adjust for race
- The quality of the data should have implications for the intended use of the measure, and therefore, the conceptual model
- More guidance on risk adjustment by measure use and endorsing measures for use, which have implications for conceptual model design

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Expanding the Locus of Control

- Locus of control refers to the scope of actions the conceptual model assumes the measured entity can take to influence the outcome
- Differing opinions on expanding the locus of control
  - Measurement can leverage a broader locus of control and shared accountability
  - Validity of measures is primary and the locus of control should match the accountable entity
- Stakeholders are likely to disagree about how aspirational each individual measure should be. However, the conceptual model will help illuminate assumptions about the locus of control so the issue can be debated as part of individual measure review.

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Burden to the Developer

- Some analytic requirements of the technical guidance are ambiguous and therefore burdensome
- More guidance is needed for the justifications for including or not including risk factors to avoid analysis of too many risk factors
- More specificity is requested for the guidance that requires calibration to be conducted within the overall population and within relevant at-risk clinical, social, and functional subpopulations.
- Developers should not have to review measure specifications in all contexts but should enumerate considerations for measure users, especially as it relates to stratification.

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Providing Clarity

- Requirements for empirical testing of risk factors and how to incorporate that into decision making for the final model are ambiguous
- Describing bias that exists in the absence of a risk factor is not possible. More specificity for this requirement is needed.
- Requested updates to definitions of “meaningfully influence”, “locus of control”, and “intended use”

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Stratification

- All focus group participants agreed that stratification can help to reveal disparities in the measured process or outcome
- Stratification can create small number reliability problems, necessitating tradeoffs in specifications
- When determining the specific stratum, this should depend on actions providers can take to influence the measured outcome, which are unique for that stratum
- Stratification only has utility to patients if they can see the characteristics of the patients and communities that providers serve, and which are important to them
- Disagreement about whether it is ever appropriate to risk adjust and stratify at the same time
- Agreement that developers should not risk adjust and stratify on the same variable
- Risk stratification should be distinguished from stratification

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Risk Factor Selection

- Dual eligibility is not a consistent population across the nation because of state-level variability in Medicaid eligibility requirements
- All focus group members agreed that more standardization of data, including data on race, ethnicity, and language, is needed

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Focus on Health Equity

- NQF can identify disparity-sensitive measures that can be used to help identify and reduce or eliminate disparities in care
- Stratified reporting by groups or categories (race, ethnicity, gender, rural, urban, etc.) could be useful for both accountability and quality improvement
- Further work to refine guidance on stratification in the report could advance the use of disparities-sensitive measures.

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The Future of Measurement

- The concept of a glide path:
  - The measurement enterprise should aim to transition from risk adjusting measures for social and functional risk factors (currently and commonly viewed as outside of providers' control) to decreasing adjustment as health care providers and payers learn how to and are better equipped to reduce the impact social risk factors have on measured outcomes.
  - Adjustment in risk by measure should be transitioned to adjustment in payment models
- Additional research on how payment models can incentivize an expanding locus of control is needed
- Additional research on how payment models can advance the health of particular populations at the program level is needed
- Until then, risk adjustment of some measures will be necessary to ensure fair comparisons