



Best Practices for Developing and Testing Risk Adjustment Models Technical Expert Panel - Web Meeting 2

The National Quality Forum (NQF) convened a public web meeting for the Best Practices for Developing and Testing Risk Adjustment Models Technical Expert Panel (TEP) on May 12, 2022.

Welcome, Roll Call, and Review of Web Meeting Objectives

Matt Pickering, NQF senior director, Elizabeth Drye, NQF chief scientific officer, and the TEP co-chairs, Philip Alberti and Karen Joynt Maddox provided welcoming remarks to the participants. Hannah Ingber, NQF manager, facilitated roll call and reviewed the meeting agenda and objectives, which were to 1) review the scope of the Option Period, 2) discuss the stakeholder feedback findings, and 3) obtain TEP input on potential updates to the [Technical Guidance](#) based on the stakeholder feedback. Ms. Ingber also introduced four new TEP members, Susannah Bernheim (Yale Center for Outcomes Research & Evaluation [CORE]) replacing Elizabeth Drye (formerly Yale CORE), Melissa Castora-Binkley (Pharmacy Quality Alliance [PQA]) replacing Patrick Campbell (PQA), Clarke Ross (American Association on Health and Disability [AAHD]) replacing Bellinda King-Kallimanis (Lungevity), and Lukejohn Day (Zuckerberg San Francisco General Hospital [ZSFG]) replacing Katherine Vickery (Hennepin Healthcare Research Institute). New TEP members provided a brief highlight of their background.

Stakeholder Approach and Findings Feedback

Ms. Ingber reviewed the scope of this option period, in which NQF conducted six focus groups and two presentations to healthcare quality stakeholders, convened by the Centers for Medicare & Medicaid Services (CMS). The focus groups included individuals with minority viewpoints and those from medically underserved communities, as noted in the [White House Executive Order](#). These minority viewpoints are defined as stakeholders who may not agree with the recommendations and minimum standards in the Technical Guidance. Medically underserved communities are defined as individuals who serve or are members of historically underserved communities, including those with disabilities, racial and ethnic minorities, and individuals residing in rural areas. The purpose of the focus groups was to inform potential updates to and the further development of the Technical Guidance. Additionally, NQF presented and received feedback at two CMS-convened meetings that included the Measure and Instrument Development and Support (MIDS) C3 Forum and the Quality Measurement Technical Forum (QMTF). NQF aggregated the stakeholder feedback for all six focus groups and the two CMS-convened meetings into key themes and considerations for updating the Technical Guidance. Ms. Ingber shared that following this web meeting, the NQF team will begin making updates the Technical Guidance based on the TEP's input and consideration of the stakeholder feedback. The updates will be shared with the TEP prior to web meeting #3 in July, after which point the Technical Guidance will be posted publicly to garner public comments that will be discussed during the last web meeting in October.

Discuss Potential Updates to Technical Guidance

During this portion of the web meeting, NQF staff, Dr. Pickering and Ms. Ingber, summarized the findings from the stakeholder feedback for each respective topic presented. These topics were

formulated from the stakeholder feedback and included, Differentiating Race and Ethnicity and Their Use as Proxies, Evidence to Support Risk Factor Inclusion in the Conceptual Model, Evidence of the Ability to Meaningfully Influence, Selecting Variables and Determining Bias without Data, Determining Relevant Subpopulations for Calibration, Stratification, Glide Path for Risk Adjustment, Risk Adjustment for Certain Measure Types, Health Equity, and Burden to Measure Users. The relevant Technical Guidance section was displayed on the Webex platform along with questions for the TEP, which the co-chairs utilized to facilitate the discussion.

Due to time constraints, the TEP was not able to discuss all topics. For the topics that were discussed, a summary of that deliberation is provided below. For each topic discussed, the TEP provided input on potential updates to the Technical Guidance, including adding clarification to some of the standards and recommendations and adding new sections within the guidance. For the topics that were not discussed, the TEP will revisit these during web meeting #3, along with the respective edits made within the Technical Guidance.

Differentiating Race and Ethnicity

Dr. Pickering summarized the stakeholder feedback related to the topic of race and ethnicity, which emphasized that race and ethnicity are not the same and therefore should be treated as separate concepts in the guidance. There was also disagreement with using race at all within a risk adjustment model, including its use as a proxy variable for social risk. Stakeholders posited that using race as a proxy could perpetuate the thinking that social needs and social risk are causally connected to race, and this is not the case. Dr. Pickering noted that the major section of the guidance that would be impacted by this topic is the core principles section, as it currently notes the use of race as a proxy variable. He further noted that other sections in the guidance, such as the conceptual model and minimum standards would also be impacted by any change made, based on this feedback.

Co-chair, Dr. Alberti, facilitated the TEP's discussion on this topic. He began by dividing this topic into three parts: the conceptual model, the relationship of race and ethnicity to quality, and how to operationalize the recommendation of using or not using race and ethnicity. He first gained TEP agreement that the actual risk factors are not the racial and ethnic categories in the conceptual model, but rather, it is the phobias and -isms that are reflected, i.e., racism. Dr. Alberti guided the TEP discussion toward the relationship between exposure to the -isms and its relationship to quality, including when it is appropriate to adjust for the exposures to the -isms. One TEP member suggested that the guidance should acknowledge this with respect to the social construct of race and ethnicity and their use as risk adjusters. The TEP member further stated that these factors are poor proxies, as we cannot distinguish between the -isms. One TEP member questioned whether it is better to be conservative by accounting for the factors, like race, or to account for the -isms and the discrimination that may be the underlying factor. There was general agreement from the TEP that race should not be included in the conceptual model due to the concerns that it may represent underlying discrimination. Additionally, there are other factors that can be used instead of race, which target the social and/or functional risks of interest, such as place of residence or social determinants of health indices. One TEP member raised some hesitancy with excluding race altogether, stating that if race is not accounted for in certain instances, such as when there is pharmacogenomic evidence, then the risk model will be inaccurate. The TEP further noted that race and ethnicity may be useful for stratification and visibility of care across these populations. Dr. Alberti summarized that there should be an acknowledgment of the underlying concepts of the -isms and/or phobias (i.e., racism, homophobia) within the conceptual model section of the guidance with respect to the use of factors like race and/or LGBTQ+, for example. He further stated that use of these factors, like race, may be appropriate in instances where there is pharmacogenomic evidence. The guidance should further note that race and ethnicity should not be

used as proxies (as noted above), as other factors, which target the social and/or functional risks of interest, may be used instead. Dr. Alberti turned the discussion back to Dr. Pickering to summarize the next discussion topic.

Evidence to Support Risk Factor Inclusion in the Conceptual Model

For the next topic, Dr. Pickering stated that the sections within the Technical Guidance that would primarily be impacted are the standard risk adjustment framework and conceptualizing the model. He proceeded to summarize the stakeholder feedback, in which focus group participants requested additional guidance on what constitutes evidence to support risk factor inclusion in the conceptual model.

Co-chair, Dr. Maddox, led the discussion by reminding the TEP that the goal for reviewing this feedback is to operationalize the Technical Guidance. She then proceeded to ask the TEP 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? A TEP member stated that an evidence standard may not always exist, yet at a minimum, a literature review is appropriate. A literature review signals to a measure reviewer that the available evidence has been reviewed to justify a conceptual model. The same TEP member further stated that if research does not exist in an area, a conceptual model allows for the opportunity to highlight gaps or areas where new research is needed. One TEP member raised a point of consideration when it comes to risk factor inclusion and being overly prescriptive with what it means to have a conceptual relationship between factors. The TEP member stated that when it comes to quality measurement, maximum prediction of a factor to the measured outcome is not always the best assessment of quality. The same TEP member further expressed that adding certain factors to the model should not be done to simply make the model better, similarly additions should not be discarded due to complexities with their explanation. Other TEP members agreed that a literature review is an adequate addition to the minimum standards for building the conceptual model. Dr. Pickering asked the TEP if there is no supporting literature, is there other supplemental evidence or information a developer can provide to support the decision making for the conceptual model. The TEP stated that if there is no supporting literature that inclusion of risk factors in the conceptual model can be based on expert opinion in addition to the literature review. One TEP member suggested including examples to assist measure developers in generating the scale and scope of the literature review. Dr. Maddox turned the discussion back to Dr. Pickering to summarize the next topic.

Evidence of the Ability to Meaningfully Influence

Dr. Pickering summarized the feedback for this next topic, stating that stakeholders sought more clarity on the aspect of the conceptual model, in which developers should carefully assess the locus of control of the accountable entity to “meaningfully influence” a risk factor. Stakeholders shared that this is unclear and that more guidance is needed on how to appropriately assess the degree of control that resides with the accountable entity to influence the risk factor within the conceptual model. Dr. Pickering continued to summarize the stakeholder feedback, noting that more clarity is needed on how to support this concept with evidence. He underscored the minority viewpoint expressed, which was that the default should be to not risk-adjust for social risk factors, and that an empirical analysis of how the social risk factors are not under the entity’s control would be appropriate for assessing whether a factor should be included within a risk model. Lastly, Dr. Pickering noted that the major section within the guidance that would be impacted by this topic would be the section about conceptualizing the model.

Dr. Alberti suggested that the TEP start the discussion by focusing on defining “meaningfully influence” across accountable entities such as clinicians, facilities, and health plans. The TEP recommended to not

recreate the wheel and to look at other resources, such as the Institute for Healthcare Improvement or the National Center for Complex Care and Social Needs for similar terms and definitions. Dr. Alberti asked the TEP what kind of evidence it would want measure developers to provide that supports the assertion that a certain risk factor can be influenced by the accountable entity. One TEP member highlighted that meaningfully influence should consider the coefficient of the risk factor in the model, instead of whether to simply include or not within the model. In other words, meaningfully influence doesn't mean that an accountable entity can negate all effects over a certain timeframe. There may be a certain providers that perform better on an outcome due to their ability to influence a risk factor. However, including these factors may lead to a problem in which the factor could be overweighted in the model. Therefore, developers should be careful about adding risk factors into the model if only some providers can meaningfully influence the factor to gain better outcomes. The TEP member stated that developers can look to the literature or use internal analyses to determine the variation and degree of impact of a social risk factor to a measured outcome. This suggests that some providers can do better to influence that factor, due to those differences in outcomes.

Dr. Maddox agreed and added that the science of how to determine the degree of influence an accountable entity has on a risk factor is not currently definitive. Dr. Maddox continued by stating that the first Assistant Secretary for Planning and Evaluation (ASPE) report attempted to do this by displaying the size and width of the range of effect of dual eligibility on outcomes for hospitals. Dr. Maddox explained the results showed that for every single hospital, dual status had a meaningfully strong effect and the range of that effect varied somewhat but not by condition. Rather, the range was much wider for different outcomes. Dr. Maddox summarized by stating that there are ways to not credit everyone for poor quality, but instead consider the best ability to ascertain the average effect of a risk factor with an understanding that that average effect is a blend of a lack of historical access to care or the structural racism that exists. Currently, the science doesn't tease apart the quality signal from these underlying issues. With these considerations in mind, the TEP suggested that developers can demonstrate an accountable entity's ability to meaningfully influence through examples from the literature and/or internal analyses. For example, the implementation of [Re-Engineered Discharge \(RED\)](#) toolkit interventions by high performing entities have resulted in lower risk-adjusted readmission rates. Dr. Alberti turned the discussion back to Dr. Pickering to proceed to the next topic.

Selecting Variables and Determining Bias without Data

For this next topic, Dr. Pickering summarized that stakeholders expressed that it is not possible to analyze the impact of a variable for bias if the data are not available. Stakeholders further suggested that developers should make their best effort to explain their methods in capturing the variable. Developers should also make their best effort to mitigate potential bias and how this bias may be improved at maintenance endorsement. Dr. Pickering further noted that the section within the guidance that would be impacted by this topic would be the identifying and selecting potential data sources and variables.

Dr. Maddox facilitated the discussion by first asking if there is an example of guiding measure developers to give an explanation of bias without data. One TEP member voiced concern with current minimum standard language in the Technical Guidance, which uses the term "magnitude" if there are no data. One TEP member expanded on this concern and recommended that developers examine previous published evidence, and in the case where there is no empiric evidence, developers should estimate the directionality for the factor of interest from other studies.

Dr. Maddox asked the TEP whether the developer should note that frailty, for example, is not evenly distributed across patients resulting in a bias against providers and specific impact on groups with high

death rates of frailty. One TEP member responded by noting that providers who care for frail patients would likely underestimate the risk of the patient. Another TEP member underlined that there will always be missing data resulting in not having a perfect model. As a result, the TEP suggested that the developer should attempt to review the literature and determine how a risk factor might affect particular subsets of the measured entity based on how those patients at-risk are distributed across those providers. Dr. Maddox turned the discussion back to Dr. Pickering to proceed to the next topic.

Glide Path for Risk Adjustment

Ms. Ingber noted that this topic impacts the Technical Guidance sections on considerations for determining final risk adjustment model, NQF policies, and healthcare policies. Ms. Ingber continued by stating that some of the feedback from stakeholders expressed that there should be a glide path that transitions from initially risk adjusting measures for social and functional risk factors that are currently outside of providers' control, to then, over time, decreasing adjustment for these risk factors, as healthcare providers and payers learn how to or become better equipped to reduce the impact social risk factors have on the measured outcomes through their increased ability to meaningfully influence those factors.

Dr. Alberti opened the TEP discussion by highlighting the importance of paving the way for future guidance and inquiring TEP feedback on whether this glide path is the future of this work and how to address this within the Technical Guidance. One TEP member noted that there is difficulty in defining and operationalizing this due to the various settings of care, types of conditions, and patient populations. Another TEP member raised concern that this approach attempts to broadly improve health equity, and that accountable entities should instead convene panels within communities to address probable systemic forces that are resulting in inequities. Dr. Maddox agreed and added that providing specific guidance on a glide path would presuppose that the equity path is seen as a linear transition when the TEP does not find that to be true. The TEP agreed, noting that the discussion of health equity will assist in the discussion of the glide path. Dr. Alberti added to the discussion by stating the Technical Guidance will require iteration over time as new data and variables arise, which would have an impact on health equity. A TEP member requested clarification of stakeholder feedback by inquiring if these issues are to be addressed in payment reform. Dr. Pickering clarified by stating that the feedback was related to a future state in quality, where there is a move from measure-level adjustment to payment- or program-level adjustment. Dr. Alberti added by stating there are multiple ways to consider healthcare equity at various levels by examining the totality of how measurement affects health equity. Dr. Alberti turned the discussion back to NQF staff to cover the next topic.

Measures of Health Equity and Disparities-Sensitive Measures

Ms. Ingber highlighted that health equity is an area of importance, as noted in the focus groups and within this web meeting. She further summarized feedback received for this topic, which emphasized that the Technical Guidance should pay more attention to health equity. Stakeholders suggested that identifying disparities through measurement would be a means to address health equity issues. It was proposed that using disparities-sensitive measurement could help identify areas needing improvement. Ms. Ingber explained that 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 performance measure outcomes among populations or social groupings (race, ethnicity, language, etc.). Ms. Ingber noted that NQF has previously conducted work in this area by developing [criteria](#) to determine whether a quality measure would qualify as disparities-sensitive. Stratified reporting by groups or categories (e.g., race, ethnicity, gender, rural, and urban), which is subject to adequate sample size and availability of demographic data, could be useful for reducing disparities through accountability and quality improvement.

Dr. Alberti opened the discussion by asking if the TEP agrees with the addition of health equity and disparities-sensitive measurement within the guidance, and if so, how should these concepts be incorporated? Additionally, Dr. Alberti stated that the TEP should consider how risk adjustment and disparities-sensitive measurement relate to each other in addition to how the guidance and the conceptual model and can be strengthened. One TEP member suggested NQF staff to coordinate with the [Core Quality Measure Collaborative](#) as the definition of disparities-sensitive measures is being revisited. Dr. Maddox highlighted this is an opportunity to discuss future state or driving towards equity across programs and measures. One TEP member added that the inclusion of social risk factors in a risk adjustment model may, in some instances, obscure disparities, in which case there should be stratification by those social risk factors for that same outcome. Dr. Alberti underscored that that approach has been endorsed by this TEP numerous times in the prior development of this guidance. Another TEP member added that there continues to be incomplete data [for social risk], but the guidance should acknowledge the ongoing efforts to improve data collection, stratification, and analysis of the data. Dr. Alberti agreed with the previous TEP member's comment by noting that these data deficiencies have been highlighted within the guidance from the TEP's work in the Base Period. However, Dr. Alberti continued by expressing missing data and the lack of data should be the focus of future state.

One TEP member cautioned about moving too far off track with health equity and measurement. The TEP member expressed that the guidance should consider how including or excluding certain factors might further inequities, and it will be difficult to make the case that we can improve health equity by risk adjustment itself. However, the guidance can draw attention to mitigating further inequities by disincentivizing certain providers for caring for certain patients that may be more at-risk for the measured outcome. Dr. Alberti expanded on the TEP member's comment by stating that some argue that safety net providers might be unfairly penalized in the absence of risk adjustment, and that this has been discussed repeatedly by this TEP. Another TEP member commented that this is an important topic but would caution going too far into the broader discussion of health equity within this guidance. The TEP member added that there are certainly intersections of this work and health equity, such as stratification, but to further incorporate this broader equity discussion into the guidance may not be appropriate, as it is already very extensive and complex. However, the TEP member expressed agreement with the addition of a section or paragraph highlighting how this work contributes to goals of health equity. Another TEP member agreed and suggested that it might be beneficial to include in that section a discussion about the role of risk adjustment, and how risk adjustment, as a tool, can be used with other approaches, like stratification, to reduce disparities. Dr. Alberti summarized stating that there is agreement that there should be an acknowledgement of how this work fits into the broader context of health equity, but not to have this guidance be the venue to dive into the overall measurement approach to healthcare equity.

Dr. Pickering thanked the TEP for the insightful dialogue and further encouraged the TEP to share any additional comments they have outside of today's meeting with the NQF team via email by 5:00 PM ET, Monday, May 16.

Public Comment

Dr. Pickering opened the web meeting for public comment. John Shaw, from Next Wave, provided a comment by first thanking the TEP for its inclusion of the patient and caregiver voice. Mr. Shaw further commented in support with the inclusion of a section that discusses health equity. He emphasized focusing on its importance with respect to the avoidance of perverse incentives due to bias in the measures that are disparity related. Lastly, Mr. Shaw commented on the issue of data and suggested

that CMS should work with NQF to develop a standardized geographical, social needs database at the zip-code level that is de-identified and merges claims data with social needs data.

Next Steps

Tristan Wind, NQF analyst, began by thanking the TEP for their time and input. Mr. Wind noted the web meeting #2 summary will be posted to the NQF webpage and the TEP SharePoint site. Additionally, dates for web meeting #3 and web meeting #4 will be on July 13, 2022 and October 24, 2022, respectively. Lastly, the TEP was informed that the Technical Guidance will be finalized following web meeting #4 and will be posted on December 21.

Dr. Pickering then thanked the TEP, including the leadership of its co-chairs, Drs. Maddox and Alberti, the Federal Liaisons, and the members of the public for their time and participation. He then adjourned the call.