



### Best Practices for Developing and Testing Risk Adjustment Models Technical Expert Panel - Web Meeting 1

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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 December 15, 2020.

#### Welcome, Introductions, and Review of Web Meeting Objectives

Sai Ma, NQF Managing Director / Senior Technical Expert, began by welcoming participants to the web meeting. NQF CEO Dr. Shantanu Agrawal and CMS Chief Medical Officer and Director of the Center for Clinical Standards and Quality Dr. Lee Fleisher provided opening remarks. They both highlighted the importance of this project, the long-standing need for this work, and its relevance to multiple stakeholders in the field of healthcare quality. Roll was taken for the TEP, and members were asked to introduce themselves. Matt Pickering, NQF Senior Director, then reviewed the call agenda and meeting objectives.

#### Project Overview and Timeline

Dr. Pickering reviewed the goals and objectives of this project. In response to the increasing number of outcome and resource use measures within quality reporting programs, this project aims to build consensus on guidance for specific questions about social and functional status-related risk adjustment modeling. In 2014, NQF reviewed the status of risk adjustment in the field and since 2017, NQF has conducted a social risk trial to examine inclusion of social risk factors in risk adjustment models. This project is a continuation of those efforts. The previous work has focused on the “whether” and the “why” of social factor risk adjustment is needed within quality measurement. This project is focused on the “how” and the “to what end” for both social and functional status-related risk adjustment within quality measurement. This work will support NQF’s consensus development processes and provide guidance that measure developers have sought.

The scope of this project will include an environmental scan and a technical guidance report, informed by the TEP. First the environmental scan will cover different data sources and factors available for testing or inclusion in risk adjustment models in the context of quality measurement. From the scan, NQF and the TEP will develop technical guidance. For the first TEP web meeting, NQF sought input from the TEP on the environmental scan approach, specifically the methods and the structure of the summary tables. An offline survey has been sent to the TEP and is used to collect more detailed input as well.

#### Environmental Scan: Three-Pronged approach

The environmental scan will use a three-pronged approach to cover various considerations for the current landscape of risk adjustment. The literature review will identify the conceptual models, statistical methods, and data sets used for social and function status-related risk adjustment, as well as the availability of data sources. The Consensus Development Process (CDP) submission scan (or measures review) will examine measures that have gone through the NQF measure endorsement process for similar elements within the literature review. The program review will examine program-level considerations for developing and testing risk adjusted measures.

## Technical Guidance

Later in the project, NQF and the TEP will develop new technical guidance, which will include step-by-step details on best practices for when and how to adjust for social and functional risk factors in measure development.

If renewed, the project will continue for another 12 months to utilize the TEP's expertise for continuing guidance in this area. In the future, the technical guidance report will build on the environmental scan to detail methods and considerations for risk adjustment.

## Overview of Roles and Responsibilities

Dr. Pickering reviewed the roles and responsibilities of the TEP, co-chairs, Federal liaisons, NQF staff and Centers for Medicare & Medicaid Services (CMS). The TEP will serve as experts working with NQF staff to achieve the goals of the project. To serve this purpose the TEP is expected to complete work outside of the web meetings including: review meeting materials in advance and engage in meeting discussions, provide timely and relevant feedback on project deliverables, and help respond to public comments submitted during the review period. The TEP will steer the development of major project components by providing input and guidance on the current state of risk adjustment for social and functional status in measurement, including emerging best practices; the appropriateness of a standard risk adjustment framework; the environmental scan; and the development of technical guidance. The co-chairs have an additional role of helping to lead discussion during web meetings and provide additional more detailed input on deliverables. The Federal liaisons serve as a resource to supplement discussions for matters of factual and accuracy questions related to Federal programs and/or measures used within those programs. NQF will work with CMS colleagues to leverage their expertise and knowledge for this project. NQF is a neutral convener to gather multistakeholder perspectives and facilitates the consensus development of the TEP. CMS funds this task order and provides input to ensure the project is completed accurately.

## Environmental Scan Overview and Committee Discussion

During this portion of the web meeting, the TEP provided input on the approach and overall structure of the three environmental scan prongs (literature review, measures review, and program review).

### Literature Review

The literature review covers the previous six years, beginning with the year of release of the last NQF report in 2014. A reference review has been conducted of NQF's 2014 report on [Risk Adjustment for Socioeconomic Status or Other Sociodemographic Factors](#) and the 2016 and 2020 [Assistant Secretary for Planning and Evaluation \(ASPE\) reports](#). Finally, a forward search has been performed to identify additional relevant articles and NQF staff will engage experts in the field to identify additional literature for inclusion, particularly on functional risk adjustment. The literature review will focus on the United States, includes empirical testing or explicit guidance, and that includes risk adjustment for social and/or functional related risk factors for quality measurement.

Broadly, the TEP agreed that the literature review approach was appropriate. The TEP stressed that both social and functional risk factors are vital for inclusion in this project. Social factors remain incompletely characterized, especially when electronic health record data are used. The TEP noted that more definitions and standardization are critical, particularly for functional risk adjustment. One TEP member recommended establishing consensus on a framework for defining functional status. The TEP recommended that some scanning outside of the quality measurement field, which may address the paucity of data on these issues. Lastly, the TEP recommended adding a column on literature conclusions or results in the table.

## Measures Review

NQF staff will also review measures submitted for the NQF endorsement process. Utilizing the selection logic presented in the [discussion guide](#), ten illustrative measures will be selected to give examples of data sets, functional and social risk factors available for testing, the conceptual and statistical approaches for testing variables, and what considerations were used by developers to include or not include functional or social risk factors in the final model. NQF will look specifically at the question of ordering of risk factor inclusion. There will need to be some level of subjectivity in the final selection to ensure there is a cross-section of measure types, levels of analyses, etc. Across some conceptual domains, are we seeing best practices utilized?

Generally the TEP felt the approach was sound and that the table was populated in a manner that is helpful to the TEP, but offered a few suggestions. As suggested in the literature review discussion, the TEP agreed that a functional status framework will be helpful for this prong as it will help answer whether it was or was not included for measures under an agreed-upon definition. They suggested that because there are some patient experience measures that are adjusted for social risk, they should not be eliminated a-priori from the measure review and that a process measure might be included as well as an illustrative example. One TEP member encouraged using measures that are newer and therefore have not gone through the full NQF CDP to final endorsement because the field has advanced quickly, and older measures may not illustrate the current approaches and issues in the field.

## Program Review

For the purposes of this project, “program” is defined in a broad way to refer to any payment or public reporting program, system or model that contains quality measures, such as Medicare Shared Savings Accountable Care Organization program, Star Ratings, Hospital Compare, etc. Programs that are included in the review will pull from federal, state, and private programs. The purpose of this prong is not to conduct an exhaustive review of all programs but to illustrate a variety of program-level approaches to risk adjustment and stratification.

Broadly, the TEP agreed with the suggested approach and highlighted the benefits of interviewing programs to investigate why their methodologies are not publicly available or why they did not include risk adjustment at the program level. There was a question about the searching strategy for available programs. In the data table, the TEP encouraged the team to include data sources for these programs and what risk adjustment factors were considered vs. those included in the final model.

## Future Considerations for the Technical Guidance Report

During the meeting TEP members flagged a number of considerations for the technical guidance report. One TEP member offered an example on the impact of wearables on functional status, suggesting that the TEP should look to the future in terms of risk adjustment possibilities especially in relation to functional status. Another TEP member noted that risk adjusted measures should be considered as embedded within a holistic approach to care. This includes considering, for example, surgery centers that reach out to vulnerable populations who are offered hip-replacement surgeries less frequently to do pre-habilitation work so that when patients do have the surgery their outcomes are improved. A measure itself cannot hold the whole burden of reducing inequities. If adjustment reduces the funding for safety net hospitals, it will not have the expected impact on healthcare outcomes.

In the future, there should be a significant analysis of what social indicators are used in the field. One example given was the [Wisconsin-based Area Deprivation Index](#). Indicators that can help increase our level of geographic granularity are particularly important. TEP members agreed that many indicators currently used are proxies. For example, simple dual-eligible status or ZIP code do not provide the level of granularity needed to adjust properly. The TEP also suggested a consideration of unintended

consequences of adjustment and how to mitigate them. They mentioned that the use of the measure is important to consider as adjustment impacts appropriateness of use. Finally, the TEP will need to discuss further the contention that measure should always stratify by race, equity, and language. Members of the TEP raised that health literacy and English as a second language can have large impacts on health outcomes and should be considered as well.

## **Public Comment**

Dr. Pickering opened the web meeting to allow for public comment. Dr. Jack Needleman offered a public comment to highlight four considerations for the TEP. First, he noted that CMS has tried to standardize the risk adjustment model they use, but it may be not adequately tailored to specific issues and it may not be wise to have extensive standardization in this matter. Second, he asked the TEP to consider the temporality issue for 30- and 90-day episodes of care and per-capita measures as it is relevant to how costs and risks are included or excluded. For small-volume practices this can be particularly important. One TEP member agreed that it is particularly important to analyze temporality and the relationship between adjustment and admissions causes. Third, Dr. Needleman stressed that variable-by-variable assessment of models is not best practice. Measure developers should consider bundling correlated measures when testing their models. Finally, he asked the TEP to review data quality as they think about the models in use.

## **Sharepoint 2019 Tutorial**

This portion of the meeting was skipped due to time limitations and the tutorial will be offered to the TEP offline.

## **Next Steps**

Dr. Pickering encouraged the TEP members to complete the offline survey to add additional considerations and thoughts on the environmental scan approach. He also asked the TEP members to complete a poll so that the remaining web meeting dates could be secured. The next web meeting will take place on February 2, 2021 from 1:00 – 3:00pm ET.