



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 February 2, 2021.

Welcome, Introductions, and Review of Web Meeting Objectives

Matthew Pickering, NQF Senior Director, began by welcoming participants to the web meeting. Dr. Pickering provided opening remarks and reviewed the meeting agenda and the following meeting objectives: provide a recap of web meeting #1, discuss updates to the environmental scan approach, review and discuss environmental scan findings, focusing on key themes.

Web Meeting #1 Recap

Dr. Pickering provided a recap of web meeting #1, which was held December 15, 2020. He then reviewed the key milestones (dates and deliverables) for the base year. Dr. Pickering further reminded the TEP that the final deliverable for the base year is a technical guidance report for social and/or functional status-related risk factor adjustment within quality measurement.

Dr. Pickering briefly summarized the feedback and recommendations received during and following web meeting #1 for each of the three environmental scan prongs: literature review, quality measure review, and program review. The TEP generally agreed with the respective approaches for each of the three prongs and provided recommendations for consideration. For the literature prong, the TEP recommended establishing a framework for defining functional status; scanning outside of the quality measurement field, which may address the paucity of [functional status] data for risk adjustment; and adding a column on literature results in the summary table. For the measure prong, the TEP recommended a review of newer measures, since older measures may not illustrate the current [risk adjustment] approaches and issues in the field. For the program prong, the TEP recommended including data sources for the reviewed programs and identifying which risk adjustment factors were considered versus which risk factors were included in the final model; describing what “program” meant in this context; and describing the search strategy. Dr. Pickering mentioned that the NQF project team has incorporated these recommendations into the environmental scan report and summary tables.

Environmental Scan Approach: Literature, Measures, Programs

Dr. Pickering briefly recapped the environmental scan approach and shared that the focus of the environmental scan findings discussion for each of the three prongs will include a review of datasets used, approaches to conceptual and statistical risk adjustment models, and determination of existing guidance outlining a step-by-step process to adjusting quality measures for social and/or functional status-related risk factors. Regarding the review of programs, the scan focused on how federal and non-federal programs adjust for these factors for payment at the measure-level versus the payment/program-level.

Environmental Scan Findings: Review and Discussion

The NQF staff provided a high-level overview of the environmental scan findings and summary tables. The TEP also provided input on key themes, elements that might be missing, and any additional information that would be useful in finalizing the environmental scan report.

Dr. Pickering began by providing a summary of the literature review findings. Dr. Pickering shared that a total of 48 articles were included for qualitative analysis and the information is summarized in Tables 1-4. Table 1 includes descriptive characteristics, such as the measure type, level of analysis, and whether social and/or functional status-related risk factor analysis was conducted. Most of the literature identified included measures of cost/resource use with the most common level of analysis was at the hospital/facility level. Additionally, the literature largely included an analysis of social risk factors within the risk adjustment model with functional risk factors being included to a lesser extent.

Taroon Amin, NQF Consultant, provided an overview of the findings from the measures review. Dr. Amin reminded the TEP that the measure review was not an exhaustive search, rather the goal was to provide illustrative examples of measures with novel and robust approaches to social and/or functional status risk factor analyses. Measures were considered for inclusion regardless if the measure was NQF-endorsed. Dr. Amin outlined the measure analysis information provided in Table 1 by sharing that the focus for most of the measures was related to hospital admissions and readmissions, and thus, similar to the literature results, the most common level of analysis was at the hospital/facility level. Social risk factors were also more commonly analyzed for inclusion in the risk adjustment model.

Co-chair, Karen Joynt Maddox, guided the discussion to elicit feedback from the TEP. Some TEP members recommended further separating the 'social/functional status risk factors included in final risk adjustment model' in Table 1 into two rows: one for social risk factors and a second for functional status risk factors. The TEP discussed that the data may be aggregated and clustered too broadly, especially as it relates to social risk factors, and recommended that the NQF staff consider greater stratification and parsing of the data. Members of the TEP also recommended reviewing if age was analyzed as a true social risk factor, a demographic factor, or a clinical factor. The TEP recommended greater consideration for the potential that one variable may have multiple roles in the same measure as well as in different measures.

Moving to Table 2, Dr. Pickering described the information displayed, which outlines data sources used for calculation of the outcome/measure and the data sources used for the social and/or functional status-related risk factor analysis. TEP members commented that the data sources included in Table 2 convey gaps in populations that are and are not represented. To address this gap, TEP members considered the use of geographic imputation methods as opposed to using data directly sourced from Medicare and/or Medicaid. Discussion revealed that the following updates should be considered for Table 2: replacing zeros with dashes for easier reading; providing a greater breakdown of Medicare claims data; further specification of the non-public sources that were analyzed; adding a list of emerging data sources for inclusion in an appendix; and further description and clarification of data that were sourced from the "United States Census". Members of the TEP shared several emerging data sources and databases for the project team to consider.

Dr. Pickering then reviewed Table 3, which outlines the different empirical approaches described in the literature and for each measure. The TEP provided the following recommendations: revising the stepwise designation, since it is not hierarchical as described in the table; and further distinguishing between the statistical analysis used (e.g., multivariate regression, hierarchical modeling) and the tests

or approaches for assessing model fit and for testing correlations of social and/or functional status risk factors to the outcome.

Lastly, Dr. Pickering shared that Table 4 provides insight into different social and functional status-related factors used, separated at the patient-, community-, and hospital-level. Dr. Pickering further shared that many of the factors analyzed within the literature and measures reviewed were at the patient-level. The TEP recommended rearranging the order of the tables in the report so that Table 4 follows Table 1. Additionally, similar to the recommendations provided for Table 2, the TEP recommended replacing zeros with dashes and including a list of additional social and functional status-related factors (not identified from the reviews) in the appendix. Sai Ma, NQF Managing Director and Senior Technical Expert, informed the TEP that a systematic review of additional “missing” factors to include in the report is beyond the scope of the project. Rather, factors included in Table 4 were gleaned from the information detailed within the literature and measure review.

Moving to the program review, Dr. Ma provided an overview of the findings, which included a review of Figures 4-6. Each figure conveys how performance measures have been utilized to drive quality improvement, and how risk adjustment is completed for the specified programs. TEP members suggested including narrative descriptions for the figures. Dr. Ma further shared that the three main risk adjustment approaches for social and functional status in the design of a program included: 1) Program performance adjusted for within-entity differences, 2) Program performance stratified by reporting unit characteristics, and 3) Performance adjusted for social and/or functional risk factors at the individual-level, without additional program adjustment or stratification. Co-chair, Philip Alberti, guided the discussion to elicit feedback from the TEP. Discussion among TEP members led to consensus regarding the complexity of programs due to adjustment occurring at varying levels. TEP members discussed that some programs are implementing disparity scoring, where measures are stratified and scoring occurs on the degree of gap in disparities. For example, the state of Michigan is utilizing this approach. For programs with varying approaches, it was recommended that describing and classifying the approach would be beneficial and will allow for better grouping, as opposed to grouping by program. TEP members were further reminded that the program scan is out of scope for inclusion in the technical guidance report but does present an opportunity for future projects.

Public Comment

Dr. Pickering opened the web meeting to allow for public comment. No public comments were offered.

Next Steps

NQF staff reminded the TEP and members of the public that the public commenting period for version 2 of the environmental scan will be open from February 24, 2021 to March 17, 2021. TEP-input received during web meeting #2 will be incorporated into the environmental scan report during the public commenting period. The next web meeting will take place on Friday, April 2, 2021 from 1:00 – 3:00pm ET. During this web meeting, the TEP will review public comments provided on version 2 of the environmental scan and provide input towards the technical guidance outline. NQF staff shared the contact information for the project and adjourned the meeting by thanking the TEP for their continued participation and engagement.