Scientific Methods Panel (SMP) Advisory Meeting Questions

Overview:

- The National Quality Forum (NQF) is convening the SMP on March 10 from 1 – 3pm ET to gain input on the incorporation of the recommendations from NQF's recently released risk adjustment Technical Guidance into scientific acceptability criteria.
- NQF has provided questions below to help guide the discussions, which are grouped into two major categories:
    - Statistical risk model and stratification specification, design, testing, and implementation; and
    - Risk model data sources/variables/etc. on which we need more information.
- Please review the questions below and the additional resources, as needed, to prepare for the meeting.
- Lastly, the Guidance defines several core principles for social and functional risk adjustment. The principles are not intended to imply a particular direction for recommendations related to risk adjustment for social and/or functional status risk. Rather, they represent a baseline of agreement on the key issues that must be considered in making recommendations. For instance, one of these core principle was to not be overly prescriptive as to cause significant burden to developers. Therefore, we kindly ask the SMP to keep these principles in mind during the discussion of the questions below.

Additional Resources:

- Risk Adjustment Technical Guidance.
- NQF Measure Submission Form (pages 30 – 41 target reliability and validity)
- Risk Adjustment Pocket Guide (see attachment)

Definitions:

For the purpose of SMP discussion of the questions below, the Guidance definitions of **risk adjustment** and **stratification** are as follows:

- ***Risk adjustment*** *(also known as case-mix adjustment), in the context of quality measurement, refers to statistical methods to control or account for patient- and/or community-level factors when computing performance measure scores; methods include modeling techniques, indirect standardization, or direct standardization. These methods can be used to produce a ratio of O/E, a risk-adjusted rate, or another estimate of performance. Methods include, but are not limited to, adjustment for mean within reporting unit differences in multivariable models with reporting unit fixed effects, indirect standardization, direct standardization, and matched cohort comparisons.*

- ***Stratification*** *refers to an approach to identifying disparities. In addition to reporting overall performance, stratification consists of computing performance separately for different strata or groupings of patients based on some patient-level characteristic(s), namely those that are social and functional status-related for the purposes of this guidance. Thus, each accountable entity has multiple performance scores, one for each stratum rather than one overall performance score.*

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SMP Discussion Questions:

1. **Statistical risk model and stratification specification, design, testing, and implementation**
    a. What stratification specifications should NQF require as part of future candidate measure submissions?
        1. What level of burden do these additional specification requirements pose to measure developers?
    b. What criteria should Standing Committees use to evaluate the validity of a stratification methodology?
    c. On page 27, the Technical Guidance states that *"evidence for inclusion [of a risk factor] in the conceptual model should include a literature review to identify the most important and plausible factors."*
        1. Are there specific aspects of a literature review that should be conducted to satisfy this requirement?
    d. Developers often cannot perform desired stratification or risk adjustment because data are unavailable or there is a lack of adequate resources (such as the expertise of a data scientist or statistician). A lack of data or resources may can present bias.
        1. What justifications should Standing Committees accept if the developers claim they do not have adequate data or resources?
    e. If, while developing the conceptual model, a measure developer must conduct their own empirical analyses to determine the variation and degree of impact of a risk factor to a measured outcome, which tests should be required?
    f. What methods would you put on a list of common data manipulation techniques?
        1. What guidance can be provided to assess their effect on the measure?
    g. What guidance can be given in assessing a developer's submission regarding a risk model's discrimination?
    h. Finally, given all of these considerations, what updates can be made to the validity testing algorithm regarding how to rate the risk adjustment strategy pertaining to the validity criteria (i.e., is it a H, M, L, I scale, a pass/no pass decision)?
    i. As mentioned on previous calls, can testing of the risk adjustment model serve as validity testing to reduce developer burden? At what level would this testing be considered?
2. **Risk model data sources/variables/etc. on which we need more information**
    a. What data sources would you put on a list of common, readily available patient- and area-level social and functional risk data sources?
    b. The Guidance identifies specific risk factors and variables that should always be considered and/or tested in minimum standards #2, #6, and #7. What level of burden do these additional requirements pose to measure developers?
    c. Do composite constructs of social or functional risk factors require any additional evaluation or can they be treated as any other single-item variable?