Health Equity Update: Guidance on the Social Risk Trial

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## Summary of Submissions for Fall 2017-Spring 2019

<table>
<thead>
<tr>
<th>Total Number of Measures Submitted</th>
<th>223</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures Using Risk Adjustment</td>
<td>88</td>
</tr>
<tr>
<td>Measures with a Conceptual Model Outlining Impact of Social Risk*</td>
<td>80</td>
</tr>
<tr>
<td>Used published literature to develop rationale</td>
<td>62</td>
</tr>
<tr>
<td>Used “Expert Group Consensus” to develop rationale</td>
<td>15</td>
</tr>
<tr>
<td>Used “Internal Data Analysis” to develop rationale</td>
<td>38</td>
</tr>
<tr>
<td>Measures with a Social Risk Factor included in Model</td>
<td>18</td>
</tr>
</tbody>
</table>

*methods were not mutually exclusive
Findings on Variables Explored

- Race/Ethnicity
- Payer
- AHRQ SES Index
- Education
- Employment Status
- Zip Code
- Rural Location
Findings on Modeling Approaches Used

- Statistical models and stratification were the most common techniques used in measures submitted for endorsement.

- Developers who used statistical models used various forms of regression analysis:
  - Hierarchical logistic regression
  - Poisson regression
  - Ordinary least squares regression (generally the same of linear regression)
  - Negative binomial regression
Findings on Model Interpretation

There was greater variation in how developers interpreted results and made decisions about which factors to include:

- Rationales for not including:
  - Lack of available data
  - Unable to differentiate patient level or hospital level effect
  - Concerns about masking disparities
  - Factor was significant but small effect size
  - Factor was significant but clinical variables capture the majority of risk
  - Factor was significant but no improvement to model (e.g., c-statistic is unchanged)

- Rationales for including:
  - Factor was significant
  - Hospital level effects not entirely driving results
## Interpretation Example

<table>
<thead>
<tr>
<th>Measure</th>
<th>3188 30-Day Unplanned Readmissions for Cancer Patients</th>
<th>1789 Hospital-Wide All-Cause Unplanned Readmission Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rate at which adult cancer patients covered as FFS Medicare beneficiaries have an unplanned readmission within 30 days of discharge</td>
<td>Hospital-level risk-standardized readmission rate (RSRR) of unplanned, all-cause readmission after admission for any eligible condition within 30 days</td>
</tr>
<tr>
<td><strong>Risk Model Used</strong></td>
<td>Logistic regression</td>
<td>Hierarchical logistic regression</td>
</tr>
<tr>
<td><strong>Conceptual model development</strong></td>
<td>Literature review, multidisciplinary workgroup</td>
<td>Literature review</td>
</tr>
<tr>
<td><strong>Empirical analysis</strong></td>
<td>Dual eligible status: estimate 0.069, p&lt;.0001</td>
<td>Decomposition analysis found stronger hospital level effect, little impact on hospital distribution</td>
</tr>
<tr>
<td><strong>Social risk factor included</strong></td>
<td>Yes, dual eligible status</td>
<td>No, dual eligible status, race, AHRQ SES index tested</td>
</tr>
<tr>
<td><strong>Rationale</strong></td>
<td>Fit for model, considered out of hospital’s control, WG did not think would mask disparities</td>
<td>Decomposition analysis results indicated adjustments could mask quality concerns; complex pathways between SES and readmissions</td>
</tr>
</tbody>
</table>
CSAC Feedback from the April Meeting

Current limitations:

- **Role of risk adjustment vs. role of program payment methodology**
- **CDP can only review measures submitted**
- **Needs may very by use: needs for reporting may be different than payment**

Desired future state:

- **Desire to move beyond the use of proxy data**
- **Better understanding of successful methodologies**
  - Need to identify examples of successful adjustment for social risk
  - Improved guidance for measure developers on developing conceptual models and factors to examine
- **Measurement is meaningful; driving to reductions in disparities**
May 2019 Disparities Standing Committee (DSC) Meeting

- **DSC Goals for the Trial:**
  - *Advance the science of adjustment for social risk factors*
  - *Inform NQF’s decision on Social Risk Trial at conclusion of 5 years*

- Desire to see more innovative methods and data used but recognition that this is an emerging area of measurement science

- Need to take a more active role in sharing learnings and best practices with measure developers
  - *Committee would like to create a toolkit with guidance on available data, potential methodologies to use, and factors to examine.*
Areas for Further Examination

- Exploring the potential use of ICD-10 z codes
- Understanding what is a property of a measure and what is the property of a measurement system
  - How should measure use impact endorsement decisions?
  - How to consider the limited role of NQF on influencing program level adjustments?
- Clarifying the goal of adjusting measures for social risk:
  - Isolate quality signals
  - Level the playing field for providers in VBP arrangements
- Recognition of the need for data to address disparities
  - How to consider needs of reporting programs versus challenges of VBP?
CSAC Discussion

- What disparities could adjusting for social risk factors potentially mask?
- What role could NQF have in monitoring for worsening of disparities?
- How should NQF consider measure use and properties of a measurement system?
- What information would CSAC like to see included in a toolkit for measure developers?