NATIONAL QUALITY FORUM
Driving measurable health improvements together

Meeting Summary

Electronic Health Record (EHR) Data Quality Best Practices for Increased Scientific Acceptability Technical Expert Panel (TEP) Web Meeting 4

The National Quality Forum (NQF) convened the Electronic Health Record (EHR) Data Quality Best Practices for Increased Scientific Acceptability Technical Expert Panel (TEP) on April 29, 2020 for their fourth web meeting.

Welcome, Introductions, and Review of Meeting Objectives

NQF staff welcomed the TEP Committee and participants to the web meeting, while providing updates about staff changes to the project team. NQF staff provided an overview of the agenda, the meeting, and recited roll call of the TEP. The objective included identifying best practices for data quality. NQF staff also reminded the TEP of the scope and definition of data quality as it relates to this task order.

Challenges Identified in Environmental Scan and Potential Solutions

NQF staff reviewed the challenges identified in the environmental scan and during TEP web meeting 3 as a starting point to identify potential solutions to focus on for the duration of the project.

Challenges with Electronic Clinical Quality Measures (eCQMs)

Staff summarized the previously discussed challenges:

- Raw data (from data collection/point of care) must align with eCQM data criteria
- eCQM reporting depends on interoperability of all source systems (multiple EHR systems, Laboratory Information Systems, etc.)
- eCQM standards and measure specifications are a moving target for EHR system vendors

The TEP agreed that all three bullets were challenges to EHR data quality. One member mentioned that it would be beneficial to check that CQM value sets are also defined in the raw data because billing codes and clinical terminologies are being used interchangeably. As a result, does a developer focus on coding for specific factors, or does one continue to keep coding more generalized to incorporate more variables? Another colleague commented that interoperability would make the most impact, but standards would receive the most buy in from vendors. Developers use a variety of terminologies to include in a value set, and this can cause vendors to mix values and their attributes. The TEP noted that each of the challenges are interrelated and have equal importance, for example, raw data is necessary for interoperability and standards are necessary for interoperability. Any solutions would have to factor in the interdependency of policy, programs, and standards to be successful.

The TEP emphasized the ongoing challenge of semantic interoperability. The TEP noted that there is an opportunity to establish baseline standards for eCQM code systems that change infrequently while maintaining annual updates to delete and add codes.

The TEP also specifically pointed to value sets as an opportunity to address the challenges with semantic interoperability. While previous work by NQF resulted in recommendations for how to harmonize value

sets, that project further confirmed the difficulty of harmonizing value sets. For example, no single group felt it was appropriate to make the judgement calls on choosing one value set over another. The TEP discussed how clarifying the intent and purpose of value sets may help with making such judgement calls. The TEP identified a new CMS work group focusing on value set meta data that may be useful to make additional recommendations.

Challenges with Post-Acute Care (PAC) Settings

Staff summarized the previously discussed challenges:

- Lack of alignment of incentives for providers and vendors causing:
    - Lower EHR system adoption in PAC settings compared to other setting
    - Lack of availability of EHR based measures for PAC settings

The TEP generally agreed that the challenges for PAC were captured in the environmental scan. The TEP clarified that for the first bullet, while EHR system adoption may not be as high as in the hospital setting, EHR systems are widely used in the PAC settings, especially in some of the larger PAC facilities. However, funding for upgrading IT systems presents ongoing challenges. The TEP noted that most quality measures in the PAC setting are currently specified at the facility level rather than patient level to capture transitions that span PAC, inpatient, and outpatient settings. Additionally, it was noted that quality measures addressing multiple comorbidities (as opposed to a single disease) present more challenges as well. The TEP agreed that there is an opportunity for the development of outcome measures that track an episode of care across care settings, such as from hospital to skilled nursing facility to home health. Finally, the TEP noted that incentives in PAC settings emphasize penalties rather than rewards when compared to incentives in other settings.

Challenges in Unstructured EHR Data

Staff summarized the previously discussed challenges:

- How to balance the ease and patient-focus of unstructured data with analytic value of structured data
- Data quality issues associated with natural language processing (NLP)
- Burden of manually validating NLP
- Unrealized opportunities for expanded use of C-CDA to reduce unstructured data

The TEP noted that when NLP is used to translate free text into structured data, it is more difficult than taking a targeted approach because the structured data does not capture the level of granularity that unstructured data tend to have. Clinicians have indicated that unstructured data tend to be more convenient in documenting their patient assessments, but it is more difficult to translate the free text to structured data and pass regulatory standards. The TEP mentioned that while there is an opportunity to develop algorithms for translating unstructured data to structured data, there may not be a general use case for it. One TEP member also mentioned that the categorization of free text data is also a factor to consider as it is important to determine how much of the unstructured data is necessary for the quality measure.

The TEP noted that there may be an opportunity to use FHIR to develop an application for the task of translating unstructured data into structured data. FHIR is helping to promote many patient facing applications that can be used by patients to enter data themselves rather than the clinician capturing as unstructured data.

Challenges in Data Quality Issues and NQF Endorsement

Staff summarized the previously discussed challenges:

- EHR data needed to support the testing required for scientific acceptability are not always readily available
- Test sites need to implement measures in advance of formal inclusion in a CMS federal program for developers to meet NQF testing requirements
- EHR systems within health care organizations would need to be willing and able to participate in testing scientific acceptability
- Identifying test sites that are currently collecting all required data elements can be difficult
- Endorsement criteria are occasionally unclear or challenging to meet
- Lack of consistency among Standing Committees in the application of the measure endorsement criteria

One solution identified by the TEP to increase or reduce barriers to testing measures was the establishment of incentives for test sites who participate in testing. For example, the TEP suggested offering credit for the CMS Promoting Interoperability Programs to providers who participate in measure testing. The TEP also noted that the incentives for promoting interoperability as part of Merit-based Incentive Payment System could be used as a model for hospital sites. The TEP suggested that if a hospital supported testing, they could get credit for it.

The TEP also noted that testing has a major impact on workflow and would require modification to existing workflows. One TEP member pointed out that from the provider perspective, since there is no structure for alpha and beta testing, it would be helpful to highlight the value proposition of testing as well as standardizing the process through CMS rather than multiple contractors. One TEP member noted that there are varying degrees of ability among practices when it comes to implementing a measure and performing the abstractions needed for validation.

In terms of endorsement criteria, the TEP noted that the criteria are often unclear; for example, what is needed for normalization or what data are appropriate to include, e.g., MIPS data. One TEP member commented that they know of stakeholders who have experienced difficulty applying the feasibility scorecard in their activities. Another TEP member suggested a collaboration with AHRQ's ACTION IV Network IDIQ National Testing Collaborative.

Challenges in Frameworks for Assessing EHR Data Quality and Guidance from Standard-Setting Bodies

Staff summarized the challenges identified during Web Meeting 3:

- Inconsistency among frameworks
- Few frameworks support generalizable and standard approaches
- Misalignment with NQF eCQM Feasibility Scorecard
- Need for greater contribution from regulatory bodies and accrediting organizations in setting EHR data quality standards

The TEP mentioned that the National Council for Prescription Drug Programs is the standard setting body for medications and that perhaps Logical Observation Identifiers Names and Codes (LOINC) could be a potential topic area discussed by the TEP. Due to time constraints, the remainder of the TEP discussion around this topic will be deferred to a future web meeting. TEP members were also invited to share comments via email.

Public Comment

No comments were received during the member and public comment period.

Next Steps

The TEP Committee will reconvene on June 11, 2020 to prioritize best practices, discuss tradeoffs, and discuss setting or measure-specific considerations. The TEP will also discuss the role of standard-setting organizations in promoting EHR data quality and suggest new nationwide initiatives. The final environmental scan report will be submitted to HHS on May 19, 2020.