NATIONAL QUALITY FORUM
Driving measurable health improvements together

Meeting Summary

Electronic Health Record Data Quality Technical Expert Panel Web Meeting 1

The National Quality Forum (NQF) convened a public web meeting for the Electronic Health Record (EHR) Data Quality Technical Expert Panel (TEP) on November 13, 2019.

Welcome, Introductions, and Review of Web Meeting Objectives

Jean-Luc Tilly, NQF Senior Project Manager, welcomed participants to the orientation meeting for the EHR Data Quality project. Mr. Tilly provided opening remarks and conducted roll call. TEP members briefly introduced themselves. Mr. Tilly acknowleged the TEP co-chairs and federal liaisons.

Mr. Tilly then reviewed the following meeting objectives:

- Overview of NQF
- Overview of the TEP charge and project scope
- Review of the project timeline
- Review of the environmental scan findings to date

Overview of NQF and Project Goals and Objectives

Mr. Tilly provided a general overview of NQF's mission and activities. He then reviewed the overarching goal and objectives of the current project. The objectives of the project are to:

- Identify the causes, nature, and extent of EHR data quality issues (including but not limited to data completeness, accuracy, comparability, and validation);
- Discuss and asses the impact of poor EHR data quality on scientific acceptability, use and usability, and feasibility; and
- Make recommendations to the Department of Health and Human Services (HHS) for best practices in assessing and improving EHR data quality to enhance the reliability and vailidty, use and usability, and feasibility of electronic clinical quality measures (eCQMs).

Project Activities and Timeline

Kathryn Goodwin, NQF Senior Project Manager, reviewed project activities including an overview of the environmental scan and the final report. Ms. Goodwin described how the environmental scan will identify and present how EHR data quality is currently assessed and also establish what data are needed to support the development and testing of eCQMs. For the final report, Ms. Goodwin described how it will include the TEP's appraisal of EHR data quality issues, their discussion on contentious issues, and their rationale for best practices to resolve EHR data quality issues. The report will also present the TEP's recommendations on how to implement best practices, along with their limitations, as well as the TEP's assessment NQF's eCQM evaluation criteria within the Consensus Development Process (CDP). Ms. Goodwin then provided an overview of the project timeline. The period of performance for this project is 18 months.

One TEP member asked if there was a nuance between assessing EHR data and the precursor ability to access EHR data. Christopher Millet, NQF consultant, stated that accessing data quality isn't necessarily a precursor to assessing it; however, this project can potentially address the ability to access and assess EHR data and elucidate the relationship between the two. There were no additional questions.

Roles and Responsibilities

Ms. Goodwin presented the roles and responsibilities of the TEP members, TEP co-chairs, NQF staff, and NQF members and the public.

Environmental Scan

Mr. Tilly presented a set of research questions used in the environmental scan to date. Those questions included:

- How do measure developers currently assess EHR data quality prior to developing, testing, and implementing eCQMs?
- What are the approaches currently used to mitigate data quality challenges? How do the approaches vary based on the specific data quality issue (i.e., validity, lack of structured data)?
- What data are needed to support development and testing of eCQMs?
- What are the structural and organizational attributes of institutions that have successfully implemented eCQMs supported by EHRs with validated data quality?
- How have data quality issues impeded endorsement of eCQMs submitted to NQF's Consensus Development Process?
- What guidance have standard-setting bodies already promulgated to help mitigate EHR data quality issues?

Mr. Tilly then reviewed the literature review sources used.

One TEP member asked if data quality was defined in the environmental scan, as it is important to have a common understanding of what constitutes a quality issue. Mr. Tilly stated that the first research question aims to capture this; however, the TEP's input and consensus will be crucial in defining the concept of data quality.

Another TEP member suggested clarification of two overlapping but potentially separate use cases: the measure development and endorsement process versus the actual implementation and reporting of measures.

A TEP member recommended expanding the fourth research question to include the extent to which measure developers engage with individual facilities or practice sites for testing versus larger data suppliers that have normalized or centralized data.

One TEP member asked what NQF looks for in terms of data quality as part of the endorsement process and if there are specific data quality questions asked of the developer as part of the submission process. Mr. Millet explained that as part of this effort, the TEP will be examining this very point and addressing whether or not the NQF eCQM endorsement criteria should be updated. It has been noted that measure developers have experienced difficulties in securing sites at which to perform testing. Additionally, there are sometimes issues with the evidence submitted to support the focus of the measure, and the testing doesn't always match the measure specifications as expected. Staff are in the process of looking through eCQMs previously submitted to NQF for endorsement consideration to identify reasons why they were not recommended for endorsement.

One TEP member asked if the project scope includes only ONC-certified EHRs or all EHRs. The TEP member suggested that the scope include not just ONC-certified EHR technology, but the broad spectrum of EHR technology in use. The TEP member suggested that the focus should include the whole sector of care (including long-term post-acute care) and not just EHRs as part of Meaningful Use.

Another TEP member suggested that as part of research question 4, it is important to consider clinical and technical workflow and the impact it has on the validity of data. Both workflows should be in harmony.

The importance of level setting expectations with measure developers, standing committee members, and Scientific Methods Panel members was noted, particularly about what is acceptable during the current state of EHR data quality and NQF endorsement versus the ideal future state.

TEP members suggested that additional search terms for the literature review should include "HIT Data Quality," "digitial quality measures," and "EMR." The TEP suggested including other data sources such as pharmacy, oncology, dietary, social, and therapy that contribute to a patient's health record. TEP members pointed out that while we don't want everything in all these different data sources, but rather to get the relevant information from each data source when it matters. TEP members offered an example of receiving data from systems outside of the EHR system even just three days after a patient is admitted, which is much too late to be useful. Additionally, TEP members suggested the inclusion of other groups that do measurement besides EHR systems such as registries and QCDRs.

Mr. Tilly shared that several frameworks exist for assessing data quality that have a lot of consistent quality constructs between them including completeness, correctness, concordance, and plausibility. Other quality constructs include uniformity, time pattern, granularity, and structuredness. The TEP mentioned that these frameworks look at EHR data quality and not necessarily the data quality of an EHR when using an eCQM specification. Several TEP members had comments related to defining the above constructs.

Additionally, the concept of attribution was raised as a component of EHR data quality and its impact on validity. TEP members agreed that the attribution issue will most likely come up throughout the work of this project. Specifically, the TEP asked about attribution as done in eCQMs, and mentioned that attribution is a leading cause of variability and inaccuracy. For example, eCQM measure developers have experienced attribution issues in eCQMs. Using new data elements to capture attribution in eCQMs may come up and be relevant for looking at data quality.

TEP members highlighted the issue that measure developers face when adding data elements for attribution because EHRs do not capture these data elements currently, and data elements that are currently captured may not be relevant for attribution. One of the challenges with attribution is that it varies based on how measures are used in programs and is often determined after measure specifications are developed.

Mr. Tilly then walked the TEP through the remaining initial findings from the environmental scan.

A TEP member highlighted that interoperability standards that deal with data elements and logic both can contribute to data quality problems.

A TEP member noted that EHR data are used primarily for care delivery and questioned how standards could be established for EHR data with a secondary purpose for measurement. Interoperability standards for care delivery and measurement have a lot in common. However, semantic interoperability

is a requirement for eCQMs, whereas the same level of semantic interoperability is not needed for delivery of care, since human beings are more involved in the interpretation of the data.

Mr. Tilly stated that the literature review is examining data quality issues more broadly in both clincal and measurement contexts, and the assumption is that the TEP would focus on those in a measurement context.

Public Comment

Mr. Tilly opened the web meeting for public comment. No public comments were offered.

SharePoint Overview

Mr. Tilly provided a general overview of SharePoint and indicated how TEP members can find relevant information on the site. He also noted that Panel members must use their individual login credentials to access the site.

Next Steps

Mr. Tilly then reminded the TEP of the next web meeting, which is scheduled for December 12, 2019, and he provided NQF contact information. He also reviewed the objectives of web meeting 2 through web meeting 7.