Meeting Summary

Leveraging Electronic Health Records (EHR) Sourced Measures to Improve Care Communication and Coordination Option Year Web Meeting 4

The National Quality Forum (NQF) convened a multistakeholder Committee web meeting for the Leveraging Electronic Health Record (EHR) Sourced Measures to Improve Care Communication and Coordination Project on March 21, 2022.

Welcoming Remarks, Meeting Objectives, and Attendance

Chelsea Lynch, NQF Director, welcomed participants to the web meeting and reviewed housekeeping reminders. Ms. Lynch introduced the Committee Co-Chairs, Dr. Richard Antonelli and Dr. Gerri Lamb, who provided welcoming remarks. Ms. Lynch reviewed the project timeline, meeting agenda, and the following meeting objectives:

- Review current approaches to digital quality measurement
- Discuss how existing and future development of EHR-sourced measures can be leveraged to improve care communication and care coordination
- Identify measure topic areas from which measure concepts could be developed for EHR-based care communication and care coordination

Debbie Olawuyi, NQF Analyst, conducted attendance for Committee members and Federal Liaisons. Ms. Lynch introduced the NQF project team and CMS staff before reviewing the meeting ground rules for conducting a respectful and insightful discussion.

Recap of Web Meeting 3

Ms. Lynch provided a brief overview of the third web meeting. Ms. Lynch noted that Committee members reviewed and assessed social determinants of health (SDOH) domains within the Gravity Project and discussed the impact of SDOH data on EHR-based care communication and care coordination. Ms. Lynch reminded the Committee that the Gravity Project is a Health Level Seven International (HL7) Fast Healthcare Interoperability Resources (FHIR) Accelerator project that addresses the needs for both semantic and structural level interoperability of electronic SDOH data. It is a multistakeholder public collaborative with the goal to develop, test, and validate standardized SDOH data within the EHR using identified coded data elements. The Gravity Project has identified 18 social risk domains and they are attempting to create terminology workstreams for each one that will create consensus-based representative data sets for screening, diagnosing, goal setting, and intervening. The intent of the Gravity Project is not to redefine any of these elements, rather it is to identify existing ways to gather this data and capture it within the EHR so there is more standard data collected.

Ms. Lynch highlighted key themes discussed during the meeting, including building trust between patients and the healthcare team, standardizing SDOH data elements to allow interoperability, improving performance measures with SDOH data, and incorporating an efficient data collection process.

Overview of Digital Quality Measurement

Ms. Lynch introduced Joel Andress, EHR Technical Advisor, CMS and Kyle Cobb, Tools & Testing Branch Chief, Office of the National Coordinator for Health Information Technology (ONC), as they began their presentation on digital quality measurement (see presentation slide deck, starting on slide 17). Dr. Andress and Ms. Cobb introduced themselves before reviewing the objectives of the presentation:

- Outline how CMS and ONC are coordinating to ensure data sets are harmonized across national standards
- Explain the importance of creating a complete data set of elements for CMS quality measurement
- Give examples of the ONC's United States Core Data for Interoperability (USCDI) as a standardized data set for nationwide, interoperable health information exchange and USCDI+ program

Dr. Andress shared a figure demonstrating digital quality measurement in the learning health system, adapted from the Centers for Disease Control and Prevention (CDC) and later by an HL7 Clinical Quality Workgroup. The figure shows USCDI and USCDI+ Quality Measurement at the center of digital measurement alongside associated data elements including tools and platforms, coordination and support, global standards, digitally structured data, trustworthy evidence, aligned data and measures, and culture for sharing innovation. In tandem, USCDI and the associated data elements can work to ensure that different levels of the healthcare system are able to read and make use of data collected. Dr. Andress highlighted the importance of having standards in place, along with tools and systems that use the standards appropriately. In addition, requirements at the federal, state, and local levels need to be aligned to make use of the standards appropriately and avoid the creation of silos within the healthcare system.

Ms. Cobb and Dr. Andress briefly highlighted the initiatives in place within ONC and CMS related to data standardization. ONC developed the USCDI, a standardized set of health data classes and constituent data elements to create baseline data elements for EHR interoperability, and recently launched the USCDI+ program. Dr. Andress noted CMS is transitioning to digital quality measurement and is collaborating with ONC to support advancing standardized data elements for digital quality measurement and other uses cases as well as enhancing interoperability for using data in quality measurement. Ms. Cobb proceeded to explain that data standardization is a part of the ONC mission to promote health information technology (IT) infrastructure and the advancement of health information exchange (HIE). Dr. Andress added that from CMS' perspective, data standardization will reduce silos in the healthcare system and reduce the measurement burden. Ms. Cobb then provided ONC's rationale for adopting the FHIR standards, noting that these standards support various interoperability scenarios including quality measurement. Ms. Cobb also noted that by the end of 2022, all certified EHRs need to conform to a criterion for application programming interface (API) access using the USCDI implementation guide.

Dr. Andress proceeded to provide an overview of CMS' work in federal data standards. Dr. Andress highlighted CMS' commitment to transitioning quality measures from traditional paper quality measures and electronic clinical quality measures (eCQMs) to digital quality measures (dQMs). Dr. Andress provided a brief overview of CMS' definition of dQMs, highlighting that these quality measures will leverage data from several sources, including EHR-based data, to transit information electronically across interoperable systems. Dr. Andress then addressed current provider challenges with implementing eCQMS, including increased administrative burden and redundancies, data silos, and measure requirements that are not usable across the broad intersection. As CMS transitions to dQMs, the focus on standardized data (i.e., FHIR, USCDI) enables automated extraction from data sources to reduce the burden on providers. dQM implementation will also eliminate workflow changes required for measurement and focus attention on measures that align with quality improvement priorities. Dr. Andress also noted that standardized data collection will facilitate valid and reliable data mapping and streamline auditing processes.

Ms. Cobb transitioned to discussing ONC's work in federal data standards. Ms. Cobb provided a brief overview of the core principles of USCDI, reiterating that ONC views USCDI as the standard to promote interoperability. Ms. Cobb emphasized how ONC had discussions with CMS and investigated how USCDI can be used to support a dQM reporting model. Ms. Cobb presented the new initiative called USCDI+ which is a service that ONC provides to federal partners who have a need to establish, harmonize, and advance the use of interoperable data sets that extend beyond the core data in the USCDI to meet agency-specific programmatic requirements. Ms. Cobb explained how this initiative has assisted agencies such as CMS and CDC in addressing their program-specific needs. Ms. Cobb noted that ONC has received interest from other organizations and specialty societies to participate in these data sets in the future.

Dr. Andress proceeded to describe the key takeaway that ONC and CMS have learned is that the data needs to be standardized in order to align quality measures. The USCDI and USCDI+ initiatives provide a mechanism to standardize which individual data elements are included and how they are presented. This helps to curate standards that can be applied to various use cases (e.g., public health, care coordination, guideline development) and quality measurement. He transitioned to highlight the challenges that CMS has faced is the implementation level of FHIR is relative depending on the different care settings (e.g., implementation is more advance in acute care settings versus long-term care settings). In addition, this requires CMS to consider how to advance the readiness of all settings to collect data and make it available for exchange through FHIR.

Ms. Lynch then opened the conversation to questions and a Committee member requested an additional explanation about how data will be aligned with quality measurement. Dr. Andress explained that the goal is to standardize how data elements are captured and communicated so they are readable across programs and can be used for different purposes. For example, blood pressure could be captured in the EHR as part of patient care and then those data could also be used for clinical decision support or to calculate a quality measure.

Overview of Measurement

Ms. Lynch presented brief overview of general quality measurement concepts and terms to set the foundation for how the Committee members should tailor their discussion during the working session.

Ms. Lynch reviewed what a measure concept is and how it functions in the measurement development process. She emphasized that measure concepts are ideas for measures, and they strive to include a variety of healthcare perspectives when being identified. Measure concepts are the steppingstone in developing measures that are deemed meaningful for various stakeholders. She reviewed quality measures and how they can be used, such as for quality improvement by identifying opportunities for healthcare organizations to improve their care and services. Measure can be used for accountability by creating opportunities for health systems to hold themselves accountable internally or an external body holds the system accountable through different levers such as payment and accreditation. Quality measures also create opportunities for reporting and inform report developers of the prioritization of what information needs to be shared with stakeholders.

Then Ms. Lynch reviewed definitions for key terms including a measure, measure concept, and EHR-sources measures. A measures is a fully developed metric that includes detailed specifications and are tools to quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care. A measure concept is an idea for a measure that includes a description of the measure but is not fully specified or tested. An EHR-sourced measure is a measure that relies on data that originally comes from an EHR but may be evaluated outside of the original EHR system from which the data were collected (e.g., registry, data warehouse, other separate systems system). Ms. Lynch also reviewed an example of the differences between a measure topic area, measure concept, and measure. In the example, the measure topic area is blood pressure control, with the measure concept being the percentage of patients with controlled blood pressure, and the measure containing the specifications.

Working Session: Purpose and Approach

Ms. Lynch outlined that the breakout sessions allow for a more in-depth discussion for the development of recommendations related to how existing and future development of EHR-sourced measures can be leveraged to improve care communication and care coordination. Ms. Lynch clarified that both breakout groups will start by comparing EHR-based data to claims-based data and discussing which data categories would be important to measure care communication and care coordination. Breakout Group 1 will then explore and prioritize measure topic areas that are most important to measure outcomes and processes related to EHR-based care communication and care coordination while Breakout Group 2 will discuss how EHR-based data could improve the measurement of care communication and care coordination activities. The intent of these discussions is to both start developing recommendations as well as start to identifying measurement priority areas. Each Committee member, Federal Liaison, and member of the public was assigned to a breakout group with one of the co-chairs and several NQF staff. Ms. Lynch emphasized that each group would have 50 minutes to brainstorm and discuss recommendations before reporting out from the session and addressing any final points for discussion as a group.

Breakout Group 1 Discussion

Prior to the discussion, Dr. Lamb ensured that all group members had access to the breakout group worksheet and briefly reviewed the breakout session discussion questions:

- Considering the differences between EHR-based data and claims-based data described above, how can the EHR-based data improve the measurement of care communication and care coordination?
- What additional data categories would be important for measuring care communication and care coordination?
- What measure topic areas are most important to measure outcomes related to EHR-based care communication and care coordination?
- What additional measure topics should be included to measure outcomes related to EHR-based care communication and care coordination?

Dr. Lamb introduced the first discussion question and asked Committee members to provide feedback on how EHR-based data can improve the measurement of care communication and care coordination. One Committee member noted that EHR-based data, which are created at the point of care and includes patient and provider active participation, are a preferable means for gathering necessary information compared to claims-based data which are extracted by nonclinical personnel reviewing the EHR to identify billing codes. The Committee member also noted the availability of registries-based data, citing that these were closer to EHR-based data than claims-based data. Another Committee member highlighted the challenge associated with the accessibility of EHR-based data across the entire healthcare ecosystem, noting, for example, that major health plans have access to more data through claims which are readily available to them. A Committee member noted that the discussion should not focus on EHR-based data versus claims-based data but rather be inclusive of both types of data as there is value in using both. Another member expressed their agreement of using both EHR-based and claims-based data, noting that it is important to recall that data is collected differently across EHR vendors and healthcare systems. A member of the Committee also noted that through their experience in value-based care, they observed a large discrepancy between EHR-based data and the data that providers have access to related to their EHR vendor and the cost associated with accessing the data. Another member highlighted the benefit of collecting qualitative data through the EHR which could lead to more quality-based outcomes rather than count-based outcomes as well as lead to more patient-focused outcomes. She also stated hesitation at the transition to EHR-based data before discussing necessary requirements for EHRs to allow for standardized data collection. A member in the chat reiterated that timeliness and accuracy of data is important. They also noted that not every healthcare setting has kept pace with efforts around data interoperability due to legislation or limited resources (example: post-acute care under the Improving Medicare Post-Acute Care Transformation (IMPACT) Act). One Committee member highlighted the current customization of EHRs by providers and healthcare systems and noted potential challenges to data collection if there is no regulation.

Dr. Lamb introduced the second discussion question and asked Committee members for additional data categories that would be important for measuring care communication and care coordination. One member asked whether group members were prioritizing data categories or providing suggestions for additional categories. Dr. Lamb clarified that the discussion is focused on providing additional data categories that would be important for measuring care communication and care coordination. Dr. Lamb started the discussion by suggesting the addition of shared decision making and the patient-provider experience and trust, noting that there is little mention of the patient experience and outcomes. One member of the Committee agreed with the focus on the patient experience and suggested adding more on goals of care and being inclusive of caregivers. Another member, via chat, suggested the addition of person-centered planning and coordination of care to highlight how healthcare systems are coordinated and supported as they carry out a patient’s expressed needs and goals. The same Committee member reiterated the importance of the patient voice and personal choice within care goals, stating how the standard clinically structured measures do not fully capture this. They suggested the potential of a new type of quality measure or data element aimed at measuring patient experience. Another Committee member suggested the addition of compliance to measure the volume of patients following prescribed treatment and/or providers closing the loop on a referral. Committee members, via the chat, suggested the inclusion of financial coordination and measures around the financial perspective of healthcare (i.e., what is covered under benefits), movement towards patient-reported outcome performance measures (PRO-PMs), and the importance of advanced directives.

Dr. Lamb introduced the third discussion question and asked Committee members to provide feedback on what measure topic areas are most important to measure outcomes related to EHR-based care communication and care coordination. Dr. Lamb reiterated the importance of the patient experience along with personal choice within care goals. One Committee member highlighted that the use of care plans should be prioritized. Another member of the Committee suggested the addition and prioritization of the clinical diagnosis, noting that a diagnosis is essential before a care plan, need for referrals and follow-up, or even patient goals can be developed or identified. Committee members stated support for measuring the following observable outcomes of poor care communication and care coordination:

- hospital readmissions within 30 days of discharge
- unexpected return emergency department (ED) visits with 72 hours of discharge with hospital admission
- frequency of duplicate, unnecessary testing (i.e., repeat imaging or laboratory tests)
- frequency of follow-up care that was not completed with the recommended time frame

Another Committee member, via the chat, shared that admission, discharge, and transfer (ADT), medications, and SDOH are important for measuring outcomes.

Dr. Lamb asked Committee members for any additional comments pertaining to the discussion questions. Jesse Pines, NQF Consultant, brought forward the discussion of care goals as a measure concept and asked the Committee members to brainstorm what a care goal-related measure would encompass. One member stated that they were doing preliminary work on something similar by using a functional status assessment tool, setting a goal, and tracking change/status over time. Dr. Lamb encouraged Committee members to start thinking beyond the measure concepts and, in terms of potential measures, urging members to work on these ideas and submit them to the NQF staff. Dr. Lamb shared two examples for a patient experience measure concept, the percentage of patients stating they were involved in setting their own priorities and the percentage of patients stating that they participated in identifying their goals, were comfortable with their goals, and made improvement with their activation scores.

Breakout Group 2 Discussion

Dr. Antonelli began the discussion by going over the discussion questions from the worksheet and introduced the first discussion question, asking Committee members to provide feedback on the differences between EHR-based data and claim-based data. Many Committee members agreed that EHR-based data provide richer, more granular information and may have better veracity compared to claims-based data. Committee members discussed that EHR systems are normally built for fee-for-service models rather than to capture the quality of care provided. Committee members also discussed how some health professionals do not document their services within the EHR so the EHR will not always capture the necessary data for each visit with a patient. Some of the Committee members elaborated that the lack of standardization for data entry in EHRs may decrease the veracity and validity of the data. A Committee member suggested there should be an inclusion of the patient's voice as part of the data elements that should be captured in the EHR. In addition, there should be functions to correct the data if data are incorrectly entered in the EHR.

The discussion transitioned to how data are collected to meet the requirements of a measure rather than to document how care is provided. A Committee member mentioned creating new measures or improving existing measures that reflect the reasons why some data may not be captured (e.g., the patient was not asked, the patient refused to answer, the patient unable to answer, etc.). The data collected in the EHR should allow for more detailed measure specifications that can provide more information compared to measures that include a check-box question (e.g., is there a care plan documented in the EHR). Committee members discussed that EHRs could be expanded to include various answer options to some questions to help inform the evaluation of care provided. The group noted that patients, family members, and caregivers should be a part of the development of measure specifications to ensure meaningful answer options are included.

Some Committee members identified that the feasibility of analyzing EHR-based data that are inputted in a standard way would be much easier than analyzing free-text answers, noting more qualitative research methods may be needed to extract those data. The cost of analyzing and collecting granular data was shared as a barrier to consider when looking for ways to improve the data being collected. The increase in cost can be due to the change in workflow required to match the demand of collecting the data within in the EHR. Committee members suggested that the data categories on the worksheet, particularly care plans, should be standardized across different healthcare settings with consideration to how different members of the care team might use them to help capture data that are meaningful for the entire care team. Committee members elaborated that the definition of medication in the data category is vague and there should be a separate category for different treatments. Lastly, Committee members discussed that the workflow for collecting data could improve if EHR-based data are standardized and includes patient-centered data.

The group transitioned to discussing the data categories of ADT, referrals, and care transitions (e.g., transitioning from primary care provider to a specialist), and how this can influence care coordination. A Committee member, who has worked with chart extracted measures, explained how orders for patient care (e.g., discharge orders) can be used as a tool for quality measures using the related billing codes for these orders. In addition, these codes can be used to promote care coordination so other providers can pick up where previous providers left off to continue the patient's care plan. Another Committee member mentioned that ADT should be expanded to be more inclusive and identify additional care transitions such as amongst providers, sectors, settings, and other care team members. There was a discussion on how EHR-based data can be shared with community health teams. A Committee member shared that with interoperability it would be possible to share data from an EHR and transfer them to another system (e.g., a population health system) which would be beneficial for care coordination.

Working Session: Breakout Group Report Outs

Ms. Lynch welcomed everyone back from the breakout sessions before asking Dr. Lamb and Dr. Antonelli to share key recommendations from the breakout group discussions. First, Dr. Lamb shared the report out for Breakout Group 1 followed by Dr. Antonelli's report out for Breakout Group 2.

Breakout Group 1 – Report Out

Dr. Lamb shared that the breakout group's main takeaway was that the focus should not be EHR-based data versus claims-based data but rather acknowledging both data sources can be beneficial. Dr. Lamb noted that EHR-based data are preferable, as it is collected at the point of care, has the potential to address SDOH concerns, and can provide more qualitative data. However, the group addressed certain challenges associated with using EHR-based data including accessibility and cost associated with access. Dr. Lamb also shared the group's suggestions for additional data categories, including the patient experience, citing the addition of PRO-PMs, care goals, person-centered planning and care coordination, advanced directives, and the inclusion of caregivers and medical proxies. Dr. Lamb also noted the discussion related to compliance and closing the loop on referrals. To close out, Dr. Lamb shared the group's feedback on which measure topic areas are most important. The group prioritized service use, ADT data and access to those data, as well as the NQF endorsement criteria linking a process to an outcome. The group also emphasized the transition to a person-centered care plan and coordination of care, patient and caregiver involvement, and evaluation of care goals for meaningfulness. Dr. Lamb also noted the importance of the medical diagnosis but noted the inclusion of the patient voice in addition to the providers. The group also prioritized closing the loop on referrals, self-care, chronic illness management, and attribution. Dr. Lamb noted she encouraged breakout group members to work on what desired measure concepts will look like for the future.

Breakout Group 2 – Report Out

Dr. Antonelli shared that Breakout Group 2 focused on the gaps that need meaningful measures. He mentioned the group discussed how EHR-based data can lead to more granular data that might have more veracity and validity than claims-based. In addition, the group discussed how to capture granular data and patient-reported outcomes data simultaneously. He also added that standardizing the definition of the data elements can help with the consistency of the data being collected. Then he transitioned to the group's robust discussion on how to create room to put in more data on the context of the patient's visit (e.g., having additional answer options for screening questions). However, the group also acknowledged this could increase the burden on providers. The group concluded that they should focus on meaningful high-value measures that promote equity. The group also discussed care plans and how they are dependent on the perspective of the healthcare provider (e.g., a care plan can mean something different for a nurse than for a social worker). They discussed if the care plan captured the priorities of the patient, including SDOH, and could be used across disciplines and settings. Then he transitioned to highlighting the discussion on ADT, noting these data need to be contextualized and span to non-medical and other medical settings. This led to the conversation about the structure of the care team should incorporate non-medical professionals and allow access to relevant data to help them continue care. Lastly, the group discussed there need to be reminders for collecting SDOH data. He highlighted the conversation on who needs to collect this data and how this data can be a part of a measurable care plan.

Overview of Final Recommendation Reports

Ms. Lynch provided a brief overview on the Final Recommendations Reports. Ms. Lynch reminded the Committee that two recommendations reports will be developed concurrently as the final project deliverables. One is a longer, detailed, technical report targeted to measure developers, EHR vendors, healthcare providers, and other quality measurement stakeholders. The purpose of this recommendations report is to support the evolution of EHR-based care communication and care coordination and performance measurement to drive quality improvement and equitable health outcomes. The second report is shorter, nontechnical, and visually appealing, targeted to change-makers, policy and legislative professionals, and nontechnical individuals. The purpose of this report is to educate a broad audience of individuals who may or may not have healthcare expertise regarding the topic area. The Committee will have the opportunity to review both reports in May, before Web Meeting 5.

Member and Public Comment

Ms. Freire opened the web meeting to allow for public comment. No public comments were offered.

Next Steps

Ms. Freire reminded the Committee that any additional input on the measure concepts for EHR-based care communication and care coordination could be shared via email to EHRCarecoordination@qualityforum.org. Ms. Freire also noted that the next web meeting will be held on Tuesday, May 24, 2022. Ms. Lynch, Dr. Lamb, and Dr. Antonelli offered final remarks and concluded the meeting.