Meeting Summary

Digital Measurement Workgroup Web Meeting 1

The National Quality Forum (NQF) convened a web meeting for the Digital Measurement Workgroup on Monday, July 18, 2022.

Welcome and Review of Workgroup Scope

Dr. Nicolette Mehas, NQF Senior Director, welcomed participants to the meeting, as well as introducing the co-chairs of the Digital Measurement Workgroup. Co-chairs Dr. Helen Burstin and Mr. Patrick Sturgeon provided welcoming remarks to the group.

Dr. Mehas reviewed the antitrust statement, as well as acknowledging that CQMC is a member-funded effort with additional support from the Centers for Medicare & Medicaid Services (CMS) and America's Health Insurance Plans (AHIP). Dr. Mehas noted that there would not be a formal roll call, but attendance would be recorded through the web platform. Dr. Mehas also acknowledged the project staff supporting the Digital Measurement Workgroup.

Dr. Mehas provided a brief overview of the scope, past activities, and goals of the Digital Measurement Workgroup. The Digital Measurement Workgroup is charged with providing recommendations for facilitating greater uptake of digital measures for the CQMC core sets. While the core sets already contain some measures that use digital data, infrastructure barriers remain that prevent the uptake and implementation of these measures. The Digital Measurement Workgroup has discussed topics including the current landscape for digital quality measure (dQM) implementation, the business case for CQMC using digital data to advance alignment, barriers to implementation, and potential paths forward for the CQMC to promote dQM implementation.

Dr. Mehas shared that this year's Digital Measurement meetings will focus on defining paths forward for the CQMC, which may include topics suggested during the April 2022 Full Collaborative meeting (e.g., piloting and understanding data pathways from providers to payers). During Meeting 1, the group will review data flow diagrams from the Centers for Medicare & Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA) and agree on a common vision for the near-term future. During Meeting 2, the group will continue to discuss potential work for the CQMC Digital Workgroup in the future.

Dr. Mehas also shared additional comments on digital measurement received during the Full Collaborative meeting in April 2022. These comments included the need for CQMC to encourage the use of innovative measures without promoting measures that would cause extensive burden to implement in the current landscape (e.g., measures that use natural language processing from free-text fields), as well as the importance of working in parallel with other existing efforts in digital measurement.

Data Flow Mapping

Introduction

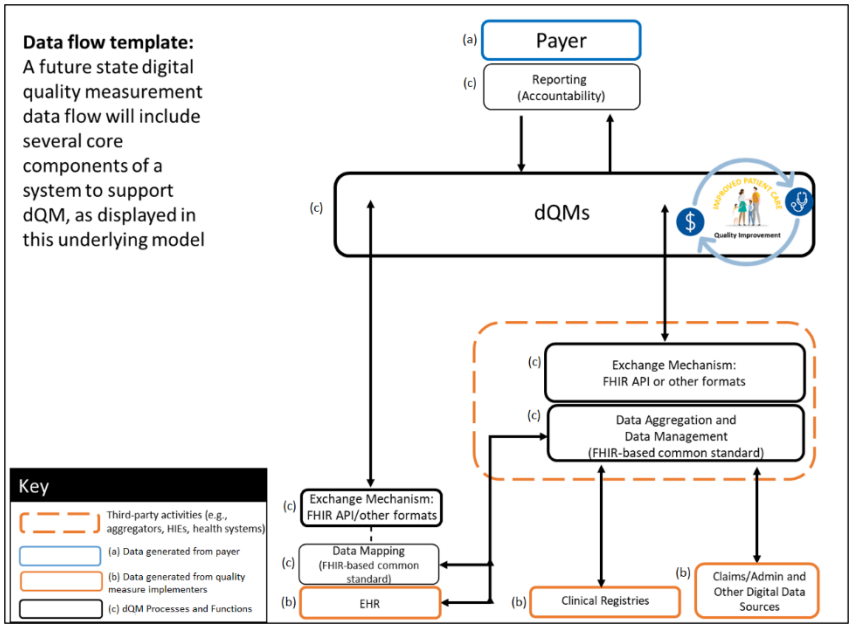
Dr. Helen Burstin, Workgroup co-chair, provided context on the goal of discussing data flow mapping. Dr. Burstin shared that last year, the Digital Measurement Workgroup's initial task was to create a roadmap for advancing digital measurement. Ultimately, the group agreed it would instead be appropriate to do further work to understand public and private sector activities already underway to create a roadmap for the transition to digital measurement, and to look for opportunities to align with these activities to develop an approach that reduces reporting burden for clinicians. Dr. Burstin shared that to lay the groundwork for this approach and facilitate discussion on technical issues, a smaller group (CMS, NCQA, NQF, and the Council of Medical Specialty Societies [CMSS]) has worked to draft core components of data flows from providers to payers and agree upon a common set of terms related to digital measurement. The goal of this meeting (2022 Meeting 1 of 2) is to review these data flows, agree on common terms, and begin discussing how different data sources (e.g., registry data) can be incorporated into these flows. Dr. Elizabeth Drye, NQF Chief Scientific Officer, thanked the group for their preparation and reiterated the importance of discussion for the group to come to a common understanding of data flows and terminology before discussing how the CQMC can support broader efforts for the digital transition.

Overview of CMS and NCQA Data Flows

Dr. Joel Andress, who leads the digital quality measure transition at CMS, shared an overview of CMS' activities supporting the transition to digital measurement. Dr. Andress highlighted the importance of aligning not just quality measures, but data elements; aligned data elements not only allow stakeholders to improve measurement across a broad range of systems and locations, but can also be used for novel applications within and outside of quality measurement to help improve the healthcare system. CMS seeks to move towards a continuously learning health system that can use data to drive continuous improvement over time.

Dr. Andress reviewed definitions related to digital quality measurement. Digital quality measures (dQMs) are defined as quality measures that capture and store data in a standardized digital format (e.g., Fast Healthcare Interoperability Resources, or FHIR). dQMs must be electronically transmittable through interoperable healthcare data systems. Dr. Andress noted that standardized data formats, data, transmission protocols, and data system infrastructure are required in order to implement dQMs. Dr. Andress also noted that the small group that has been discussing data flows has also been considering an addition to this definition related to compatibility – i.e., measure specifications can be used to directly compute quality metrics which can be used in a way that is self-interoperable with the system (does not require customization within individual systems).

Dr. Andress presented a template of digital data flows developed by CMS. The diagram represents core components that will be included in all data flows regardless of which organization or organizations are implementing them.



Dr. Andress reviewed the following key components of the diagram:

- Three major examples of data types – EHR data, clinical registries, and other claims and administrative data – are listed at the **bottom of the diagram**. These are provided to illustrate that measures should be calculable regardless of data source(s) they use, and that data should be easily exchangeable to allow for flexibility in reporting pathways.
- The **left side of the diagram** represents data flowing directly from the provider or vendor to a payer – e.g., data in its native EHR format, or data that has been mapped to the FHIR standard, is exchanged through a FHIR application programming interface (API). Data may flow through additional data aggregation steps if multiple sources of data are relevant and need to be submitted to the payer.
- The **right side of the diagram** represents an alternate, more indirect pathway by which data flows to the payer. Data may flow through external parties who can aggregate and manage data across multiple sources (e.g., data mapping, data normalization, patient matching, deduplication of data elements). The use of multiple data sources is enabled by mapping data to the FHIR standard, and allows data to be used from a broad range of sources.
- The **top of the diagram** represents quality measurement reporting and accountability reporting at the payer level.
- The **multi-directional arrows throughout the diagram** represent the importance of ongoing learning from quality reporting. Data from quality reporting should flow back into the ecosystem to patients and providers in near-real time to support quality improvement and inform clinical decisions.

Dr. Andress noted that CMS must collect data consistent with a set of regulatory requirements, and

their organizational focus has been on building a system able to identify and capture these data consistent with the left side of the diagram. However, the more flexible approach with a third-party aggregator may be relevant for providers who do not have the resources to manage data in-house. Dr. Andress emphasized again that there will be variation in data flow implementation between different organizations, but the main functions described in the draft diagram will be present across all systems regardless of the organization(s) implementing each step. To align on core measures for programs, stakeholders will need to agree on common, standardized data elements that can be successfully aggregated; stakeholders will also need to think about how these elements will be updated over time to reflect additions to core sets, changes to measure specifications, retired measures, etc.

Next, Dr. Brad Ryan, Chief Product Officer at NCQA, shared an overview of a diagram of digital data flows that illustrates NCQA's representation of data flows using an approach that is now aligned with the data flows Dr. Andress presented. Dr. Ryan noted that the basic layout of the diagram is similar to that shared by Dr. Andress, with the same three categories of data represented at the bottom of the diagram and two pathways (one more direct pathway and one indirect pathway through an aggregator) by which data travels between the provider and the payer. Both diagrams also share a layer related to quality improvement efforts. However, NCQA's efforts are focused on the right-side indirect pathway, given NCQA's emphasis on plan and population-level measures that require aggregation of data from multiple sources.

Dr. Ryan shared that CMS and NCQA are aligned around the overall architecture and data model for future state operations. He emphasized the distinction between the data model (the content of the data being shared, e.g. FHIR) and data formats (the formats in which the data is transmitted). NCQA plans to align with the FHIR data model to align with US Core and other Office of the National Coordinator for Health Information Technology (ONC) work (e.g., United States Core Data for Interoperability, or USCDI, initiative). Since most of these data flows already exist for NCQA measures and are not being sourced directly from their native systems in a FHIR format, NCQA is focused on building flexibility around data transmission requirements (i.e., FHIR APIs will be recommended but will not be required) on the way to FHIR as a transmission focus. He noted in all cases the dQMs will be written using the FHIR data model as the substrate.

Dr. Ryan highlighted that NCQA has an active program, NCQA Data Aggregator Validation (DAV), which will validate data to ensure it is in a standard format and accurate for use in quality measurement calculations (e.g., for Healthcare Effectiveness Data and Information Set [HEDIS] purposes). NCQA is also developing a future program, NCQA DAV-FHIR EHR, with the goal of data validation for data directly sourced from a FHIR-enabled EHR (instead of through an aggregator). Finally, NCQA is also reviewing pathways for validating data abstracted through algorithms from unstructured data.

Next, Dr. Ryan shared NCQA activities related to data for quality improvement. NCQA is developing a next generation of measure-related content; in contrast to current tools that focus solely on end-of-period measure reporting to payers, future tools would be more dynamic and could be configured to provide continuous feedback to inform quality improvement activities throughout the measurement

period. Dr. Drye opened discussion for questions and comments from the Workgroup.

Discussion of Data Flow Diagrams

A Workgroup member thanked CMS and NCQA for the helpful presentations, and noted that physicians are involved in many steps before the current data flow diagram begins. For example, an updated diagram might account for steps to collect and enter the data into the EHR. For some groups, different EHR systems are used within each specialty, so additional cleaning and aggregation may be required before the data is transmitted for quality reporting purposes. A co-chair noted that the small group had previously discussed this, and agreed that adding steps at the source level could be a helpful addition to understand opportunities for alignment. Dr. Ryan agreed that there are many steps prior to the current draft diagram, and explained that NCQA has started the diagram at the point of the EHR to avoid being prescriptive about physician workflows. Instead, their main goal is to set a common target for the types and formats of data that should be captured by every organization. Dr. Andress also added that before building standards, stakeholders need to achieve a better understanding of what standards need to be built. For example, the USCDI discussion started with the idea of identifying core clinical concepts, but after discussion stakeholders realized that administrative data needs to be standardized in order to perform functions such as deduplication, patient matching, etc. that are essential to understanding context and to whom the data pertains. A co-chair encouraged Workgroup members to participate in ongoing data mapping efforts to help ensure that relevant key terms and concepts are captured; the chair also shared that ONC is holding a July 25 webinar to discuss USCDI/USCDI+ and the role of specialty societies.

A Workgroup member commented that for the CQMC's purposes, it may be helpful to adopt a data flow diagram that more explicitly diagrams the process for entering data into the EHR and acknowledges the multiple paths by which data may be aggregated, managed, benchmarked, and shared back with providers. The member commented that depending on the specific measure, payer, and provider, the process for data flow may be different (e.g., certain EHRs will automatically calculate certain measures, or registries may already calculate certain measures); the CQMC should not define the "best" pathway but should lay out the multiple options available. Dr. Ryan shared that the data flow diagram is intended to serve as a demonstration of how a set of systems works together, and the architecture is agnostic to what organizations implement it; it could apply to either one organization or multiple organizations. Dr. Andress also shared a CMS-specific data flow, noting that flexibility around pathways for data transmission is reflected in the diagram and acknowledging that discussion on pathways for developing supplemental tools (e.g., measure calculation tools) is still underway. The member shared that it may make sense for a CMS-specific diagram to call out specific partners, but a CQMC version of the diagram may need to be more neutral. The member also shared that the diagram structure may be confusing because it presents the "who," "what," and "how" all at once; Dr. Andress thanked the member for their feedback on effective data flow presentation and shared that they may consider separating out the pathways (e.g., transmission through vendors, use of calculation tools) in future versions to communicate more effectively.

A Workgroup member commented that the USCDI is referenced in various regulatory formats and is used to determine interoperability requirements for plans. Information contained within USCDI must

be made available for third-party developers and is no longer Health Insurance Portability and Accountability Act (HIPAA)-protected. The member shared that, from the plan perspective, they support coordination on making more data interoperable but want to be thoughtful about what data specifically goes to USCDI given these downstream implications.

Reflections from the Plan Perspective

Patrick Sturgeon, Workgroup co-chair, shared an overview of Elevance Health's experience to date with dQM implementation. Mr. Sturgeon shared that Elevance's strategic efforts related to data collection for Electronic Clinical Data Systems (ECDS) measures started in measurement year 2019. In 2019, Elevance secured initial CCDA (Consolidated Clinical Document Architecture) sources from which HEDIS-related elements were pulled; in addition, Elevance worked with providers to obtain direct flat files containing clinical data that can support reporting. In 2020, Elevance added additional CCDA sources and direct flat file sources, as well as enhancing a primary source verification (PSV) strategy to meet NCQA auditing requirements for CCDAs. These activities also continued in 2021, as well as the addition of CCDA-like flat files and additional DAV validated sources. Elevance also conducted a limited chart review for PND-E screenings *(Prenatal Depression Screening and Follow-Up)* to collect supplemental data. In 2022, Elevance plans to continue adding CCDA, direct flat file, CCDA-like flat file, and DAV certified sources and continue developing their PSV strategy; in addition, they will begin to evaluate internally available case management data as well as developing a provider engagement strategy to support more complete capture of data related to screenings (e.g., depression screenings or adverse alcohol use). Elevance also continues to work towards adopting FHIR in the future.

Dr. Burstin commented that Elevance Health's experience seems to be aligned with the plans being shared from CMS, and is a helpful example of a plan moving towards the broader vision of the FHIR model. Dr. Burstin invited Workgroup members to share their experience with implementation to date.

A Workgroup member shared that their organization is interested in improving standardization, but after transitioning to Cerner they have had significant challenges with data that have impacted care beyond quality measurement. The member shared that their main concerns are with the earlier process – e.g., cognitive load on physicians and impacts to workflow – rather than the final submission of quality measure data to CMS. The member added that multiple team members from his organization are involved in CQMC workgroups and acknowledged the benefits of not working on these processes alone. Another Workgroup member shared that health systems commonly experience similar challenges when transitioning to new healthcare information technology systems, but standardization eventually leads to a more streamlined experience.

Dr. Andress commented that as CMS develops reporting programs, there are often differences between the reporting requirements laid out for the programs and the intent of the programs. While the quality reporting data is used to determine payments as an incentive, the main intent of the programs is to improve care. However, stakeholders have shared that current infrastructure has been built to support end-of-year quality reporting to CMS rather than sharing ongoing data to support

quality improvement processes over the course of the year. Dr. Andress shared that as the group identifies opportunities to shift incentives and improve infrastructure, they encourage providers and vendors to consider ways to review data on an ongoing basis. Workgroup members noted a recent series of articles in the New England Journal of Medicine addresses this issue (1, 2, 3). A Workgroup member also noted that clinical data registries are intended to share back performance data on an ongoing basis, and that aggregation and management functions can sometimes be fulfilled by registries. Dr. Andress acknowledged that the small group had discussed where registries should fit within the data flow and welcomed any feedback on how to better incorporate registries into the diagram.

A Workgroup member asked for clarification on the draft report created during the Digital Measurement Workgroup's meetings in 2021, and how it relates to this year's work. The Steering Committee Chair shared that given the large scope of the report and the limited number of meetings in 2021, the meetings were expanded into 2022. Discussion from this year's meetings will be added to the current version of the report before it is published later this year.

Questions and Discussion of Workgroup Aims

Dr. Drye reminded the Workgroup of suggestions from the full Collaborative on next steps for the CQMC to advance digital measurement – e.g., Collaborative-wide discussion of pursuing a measure-driven approach to setting priorities for interoperable data. A measure-driven approach would set priorities for digital measures in the core sets and identify the data elements that would need to be interoperable to support these priority measures. Dr. Drye invited the Workgroup to share additional input on activities that could help promote dQM implementation among the Collaborative.

A Workgroup member shared support for identifying standard data elements that are needed to report on CQMC measures. The member also suggested that the group could identify one or two key measures that are already included with the CQMC core sets and could be applicable across multiple programs; the group could map a use case scenario for these measures once identified. Another Workgroup member noted that this could tie in with the work of the CQMC Cross-Cutting Workgroup and agreed that broadly applicable measures might be higher priority.

A Workgroup member suggested that the group consider two streams of work, (1) identification of important measures that are claims-based only and identifying possible data flow for these measures and (2) identifying important measures that were discussed by the CQMC but were not included in the core sets due to implementation concerns (e.g., specialty registry measures). The member asked whether NQF has any data available on measures that were not included based on implementation challenges. NQF staff shared that this rationale applied to some measures discussed by the group, although some measures with implementation concerns were still added to the core sets and have low levels of adoption. While the CQMC Analysis of Measurement Gap Areas and Measure Alignment Report includes a breakdown of measures by data source, a more detailed review of decision-making rationale could be a helpful supplement.

A Workgroup member shared that the American Society for Radiation Oncology, American Society of Clinical Oncology, MITRE, and Telligen are in the early process of using mCODE and CodeX to develop

use cases for a few measures. The American Society of Clinical Oncology's pain intensity measures will be reviewed during an upcoming Connectathon event. A co-chair suggested that the mCODE (common data elements for medical oncology) and/or mCARD (common data elements for cardiology) teams could be helpful additions to future Digital Workgroup meetings. Another member agreed, noting that coordinating with multiple specialty groups could be helpful for awareness and for coordinating activities.

A Workgroup member shared that it would be helpful to have more detailed guidelines for Workgroup members to consider digital measures as part of the maintenance and measure evaluation process. The member shared that it could be helpful to have concrete criteria that can be shared with developers on why measures were included or not included, so that developers can refine their measures and increase the chance of adoption over time.

A co-chair suggested that before Meeting 2, it could be helpful to share a few written options for upcoming CQMC activities for the group to consider. NQF shared that they will circulate the updated slide deck and suggested potential future work opportunities based on the Workgroup's discussion prior to the next meeting.

Next Steps

Dr. Mehas thanked the Workgroup for sharing their feedback during the meeting, and encouraged Workgroup members to share any additional feedback via email. Dr. Mehas noted that the NQF team will work with the Workgroup co-chairs and colleagues at CMS and AHIP to continue building out additional ideas for CQMC's future work; this will be discussed in more detail during Meeting 2 in late summer. NQF will also continue to adapt the draft Digital Measurement report and will update it with discussion from this year; when an updated version is ready for additional review, NQF will circulate with the group via email for comments. NQF staff and co-chairs thanked the Workgroup members for their engagement before adjourning the meeting.