Quality Data Implementation (QDI) User Group Charter

October 2022

The User Group Charter is subject to review, change, and approval by The Centers for Medicare & Medicaid Services with input from The Office of the National Coordinator for Health IT. All changes will be posted to the QDI home page in the eCQI Resource Center https://ecqi.healthit.gov/qdm .

1) Mission—The User Group will ensure broad stakeholder collaboration in the data model guidance, development, maintenance, and harmonization with quality and clinical decision support (CDS) standards. The primary intent is to clearly understand data capture and use with respect to workflow in software implementations such that measure requests for data are feasible and provide accurate, comprehensive, and reliable data for evaluation. The data model efforts support the Electronic Clinical Quality Improvement (eCQI) landscape and the evolving transition from the Quality Data Model (QDM) to the FHIR model (Quality Improvement Core – QI-Core) for authoring Electronic Clinical Quality Measures (eCQMs) and Digital Quality Measures (dQMs). Using the expertise of a broad spectrum of interested parties, the User Group will provide oversight for the continued use of QDM during the transition to FHIR, and to gain insight on data representation and data access feasibility using FHIR and QI-Core resulting in greater accuracy and precision of the resulting eCQMs and dQMs. The group achieves this mission using a consensus approach to review and provide input on data model issues and change requests, and to make recommendations that will be presented for any potential QDM changes for approval to the eCQM Governance Group. Modifications to HL7 standards will be managed using the HL7 process of change requests in the HL7 FHIR tracker for QI-Core and other respective implementation guides and/or base FHIR. The User Group may also serve to help disseminate information to interested parties.

2) Background—Initiated by the National Quality Forum (NQF), the QDM is stewarded by the standards contractor and aligned with the HL7 QI-Core implementation guide, under the direction of CMS. The QDM and QI-Core are the backbone for representing criteria for eCQMs and dQMs used in measurement development and reporting.

   The QDM and QI-Core Implementation Guide function as one part of the broader eCQI landscape that operates concurrently with changing measure concepts, tools, and standards for electronically representing quality measures. The QDM and QI-Core define the data resources used to specify eCQMs. These data models are central to the eCQM ecosystem because they specify the data retrieval requirements to support the accuracy of the

resulting eCQMs, impacting the productivity of measure developers. eCQMs selected for use in the Centers for Medicare & Medicaid Services (CMS) quality reporting programs have each measure concept represented through these data models and CQL logical expressions. eCQM tools enable measure developers to author their measures in standard formats for implementation by EHR vendors using the structure and definitions from the QDM-using tooling developed by CMS contractors to express the measures and to test the logic. Future eCQM tooling (called MADiE) will enable the use of multiple data models (for example QDM and QI Core) and will allow measure developers to create measure logic and test it in the same tool.

The data models must adapt and evolve as interoperability standards increase in precision driven in part by the US Core Data for Interoperability (USCDI) and the Standards Version Advancement Process (SVAP). These adaptations increasingly support the advancement from process- to outcomes-based measures and increasing use of patient-reported data. These standards allow representation of data for interoperability regardless of the software in which the data are initially captured. The QI-Core further evolves to align CDS rules with quality measurement. As the QDM mapping to QI-Core and additional QI-Core profiles change to enable expression of new measure types and CDS rules, the updates must be capable of incorporation into CMS tools used to express and evaluate measures and be compatible with quality and CDS standards.

3) Purpose—The User Group will identify, discuss, and review the needs of the eCQI community through a formal process initiated by change requests or clarification of data models used for measure development. The topic-specific discussions result one of three outcomes: (a) answers to questions submitted, (b) clarification of guidance provided to measure developers and implementers, or (c) change requests for data model requirements. Suggested changes to QDM guidance or model structure result in recommendations to the eCQM Governance Group for review, resolution, and formal approval. Change requests for HL7 standards are submitted directly to the HL7 Jira change request process for management by the respective HL7 Workgroup that manages the artifact. The User Group provides a forum to engage cross-functional expertise on real world practices and implementation to proposed changes to the applicable data models.
4) Scope of Responsibilities—The User Group will:
    a) Systematically identify, discuss, and review data model issues and proposed change requests, including those submitted by members of the User Group
    b) Contribute expertise to aide in understanding all implications of a proposed change to the respective data models evaluating each request with stakeholders in the domains of measure development, implementation, clinical workflow, and feasibility.
    c) Advance harmonization with standards relevant to the eCQI initiative – HQMF, QRDA, CQL, CQL-based HQMF, FHIR Clinical Reasoning, QMIG, DEQM and, QI-Core[1] – to achieve interoperability between system implementations using those respective standards.
    d) For QDM issues and change requests brought to the User Group, it will attempt to achieve consensus on a course of action, which may include the following:
        i) Further research for follow-up evaluation
        ii) Referral to an external entity (e.g., VSAC)

iii) Evaluation for a change to the MAT (or MADiE) or related quality standards (e.g., HQMF, CQL-based HQMF, QRDA, FHIR Clinical Reasoning, QMIG, DEQM, QI-Core)
iv) Clarification of QI-Core and FHIR modeling with HL7 Workgroups and standards experts
v) Addition to the QDM
vi) No addition to the QDM and dismissal for future evaluation
vii) No addition to the QDM, but retention for future evaluation and consideration
User Group members can request additional meetings for further deliberation on a topic, if required.

5) Guiding principles—Developing consensus on data models across a broad group of stakeholders is a challenging undertaking. The User Group will use the guiding principles below whenever possible, using subgroups that report to the larger body in instances where that may expedite the evaluation process.
   a) Focus on proposed data model modifications requiring input from a broad group of stakeholders
   b) Come to consensus on standard understanding of data model components
   c) Identify and catalog critical gaps in measure components and propose mitigation strategies to address these gaps
   d) Seek to harmonize the QDM with QI-Core and other FHIR IGs, including CDS standard models
   e) Leverage "lessons learned" from implementation of the current QDM model and FHIR Connectathons
   f) Guarantee compatibility with both existing and upcoming Standards to achieve interoperability.
   g) Ensure that the MAT, Bonnie, and MADIE use the same specifications for consistency.
   h) Assure alignment of documentation to accurately coordinate expressions using the data model with the expression language for completeness
   i) Use subgroups to explore implications and develop suggestions to submit to the User Group, if needed
   j) eCQM and dQM feasibility issues will be reviewed in the eCQM Working Group sessions and significant changes in process reviewed with the eCQM Governance Group.
   k) Terminology issues will be reviewed with the eCQM Value Set Workgroup for consideration and recommendations.
6) Membership—The User Group members should represent the eCQM and dQM primary and secondary users, including members from among the following stakeholder types:
   a) Measure developers
   b) MAT and MADiE users
   c) Electronic Health Record (EHR) and other clinically focused software vendors
   d) Practitioners and organizational providers reporting eCQMs and dQMs
   e) Standards representatives with knowledge of FHIR modeling
   f) Measure reporting organizations
   g) Data aggregators participating in quality reporting programs including Health Information Exchanges (HIEs)
   h) Payers

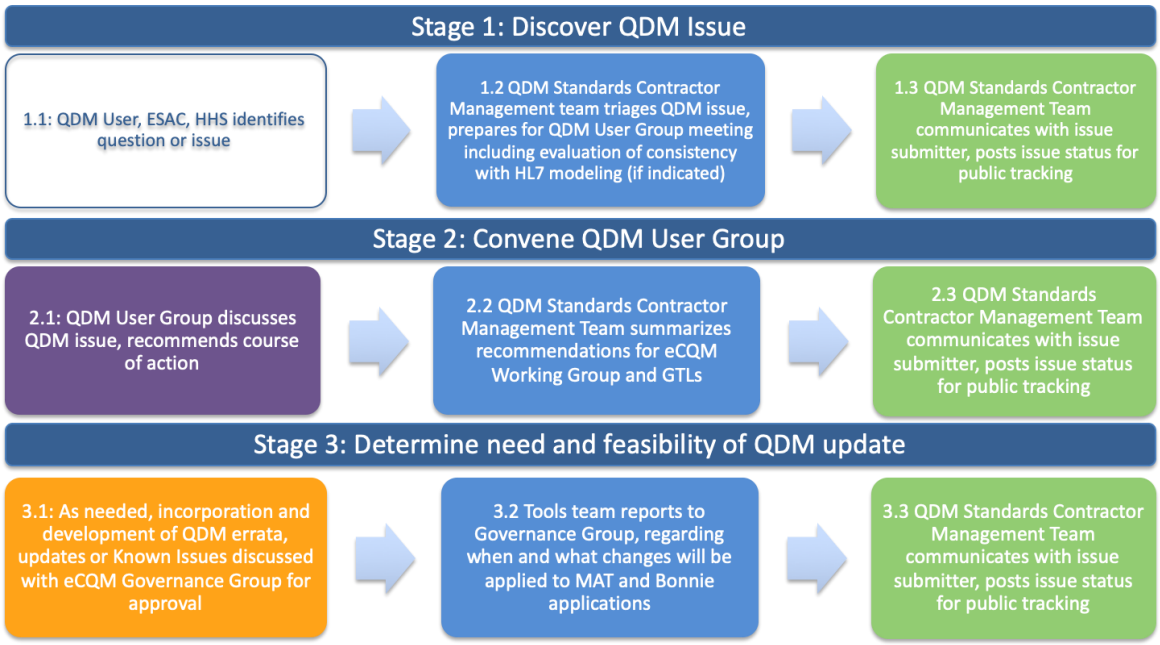
i) State health departments and credentialing organizations that evaluate performance and outcomes of healthcare organizations and practices
j) Professional societies performing performance and outcome measurements associated with accreditation programs

Such broad community membership will make the User Group's recommendations more effective and efficient for users.

7) Core members (or their organizations)—Membership will be open to any user who requests to participate in the User Group. Where gaps in expertise exist, the Data Model Management Team will work to fill them with the appropriate users in coordination with CMS. The standards contractor leads the User Group and presents the User Group's discussion and/or recommendations to the eCQM Governance Group.
8) Role of the User Group Facilitator—The Task Lead from the standards contractor will facilitate the User Group meetings. The facilitator will guide discussion, and identify areas of consensus, as well as disagreement. The facilitator is responsible for moving discussion about a data model issue to its next course of action, which may include assigning stakeholders to continue offline discussions and develop recommendations prior to review by the full group. The facilitator is responsible for determining when discussion on a data model issue has concluded and whether consensus has been reached and prepare the issue for presentation to the eCQM Governance Group as necessary which makes final decisions on timing of governance or potential QDM changes to assure consistent timelines for data model versions and availability in the MAT, Bonnie, and MADIE.
9) Meetings:
   a) Meeting frequency and duration—The usual schedule will be a ninety-minute meeting held on the third Wednesday of each month, with additional meetings scheduled as needed (https://ecqi.healthit.gov/calendar).
   b) Parameters around when not to meet—In the event that there are no data model issues or change requests to discuss, or conflicts with meetings such as HL7 Working Group Meetings (WGMs), or Connectathons, the User Group meeting will reconvene at the next scheduled monthly meeting.
   c) Longevity of the group—The longevity is indefinite, based on the need for expertise on the data models used over the life of eCQM measure contracts and CDS standards harmonization in support of the eCQI landscape.
10) Agendas and Minutes
   a) Agendas and minutes will be generated to guide discussions and document conclusions reached. They may be combined into a single template, such that the minutes can be efficiently filled out during the actual meeting. Minutes will include a section for decisions made, directions for communicating decisions made, and action items for follow up.
   b) The Data Model Management Team will provide a prioritized list of data model issues and change requests for discussion at the User Group meeting.
   c) Action items will be directly assigned to members via the meeting notes or ONC JIRA when referencing QDM issues and in HL7 Jira when referencing QI-Core or other HL7 standard questions or issues.

d) The agenda and any supporting materials will be available to User Group members within 5 calendar days prior to the next meeting via email and HealthIT.gov (https://ecqi.healthit.gov/qdm).
e) Minutes will be available to User Group members within 10 business days after the meeting via email and HealthIT.gov (https://ecqi.healthit.gov/qdm-user-group-meeting-notes)
f) At each meeting, the group will review and approve the minutes prepared from the previous meeting.

11) QDM Decision Model—The User Group's discussion of QDM issues and change requests will be facilitated by the standards contractor toward consensus. There may be notable disagreement or concern indicated by a QDM User Group member about the course of action. Such perspective will be recorded in the meeting minutes and represented in the Data Model Management Team's summary of the discussion to inform the eCQM Governance Group. See the figure below for an illustration of the decision-making process for QDM issues and change requests.



12) Reporting Up—Recommendations regarding QDM issues and change requests will be summarized and represented by the QDM Management Team to the eCQM Governance Group. The QDM Task Lead will communicate with the CMS eCQM Measure Development Lead to request a QDM agenda item following the conclusion of the QDM User Group's deliberations. Additionally, the agenda and supporting materials will be delivered 5 days prior to the eCQM Governance Group meeting. The QDM Task Lead also reviews all potential QDM changes with the Measure Authoring Tool team to maintain consistent versions of the QDM and the MAT. CMS and the eCQM Governance Group reviews and decides on the content and timing of all MAT updates, and these decisions impact QDM updates as well.

13) Updates—The User Group will periodically recommend minor version changes such as those to enhance datatype definitions or to add or modify data element attributes as needed. The User Group will recommend major version changes to address significant modifications to the logic or to the data model. The User Group will recommend updates on an as needed basis, reviewing the need every six months.

Definitions (ordered alphabetically):

Bonnie – Web-based software provided by CMS and ONC to test the logic of eCQMs expressed in HQMF. Site: https://bonnie.healthit.gov/

CDS – Clinical Decision Support CMS – Centers for Medicare and Medicaid Services

CQL – Clinical Quality Language, an HL7 standard used to express logic for eCQM and CDS development.

CQL-based HQMF – An HL7 standard implementation guide for expressing eCQMs using HQMF using CQL and QDM.

DEQM – Data Exchange for Quality Measures – an HL7 standard implementation guide for reporting eCQMs based on FHIR Clinical Reasoning and QI-Core

eCQI – Electronic Clinical Quality Improvement – a process that includes clinical decision support and clinical quality measurement using clinical software to enhance clinical performance of processes and achievement of outcomes.

eCQM – Electronic Clinical Quality Measure – expressed in the Health Quality Measure Format (HQMF)

eCQM Governance Group - Decision-making group that proposes, reviews, and approves decisions regarding all technical aspects of eCQMs, including but not limited to, harmonization, testing, certification, publication, implementation, reporting standards, specifications, and maintenance.

HQMF – Health Quality Measure Format, an HL7 standard used to express clinical quality measures, also known as eMeasures.

FHIR Clinical Reasoning – HL7 FHIR representation of requirements for measurement, reporting and clinical decision support.

MADiE – Measure Authoring Development integrated Environment - Web-based software provided by CMS and used by eCQM developers to express eCQMs in FHIR format. https://www.emeasuretool.cms.gov/madie-mvp

MAT – Measure Authoring Tool – Web-based software provided by CMS and used by eCQM developers to express eCQMs in HQMF format. Site: https://www.emeasuretool.cms.gov/

MCCB – Measure Authoring Tool Change Control Board, the decision-making authority that assures consistent timing of releases for the QDM and the MAT.

NQF – National Quality Forum, a consensus-based entity that endorses healthcare performance measures based on validity, reliability and feasibility.

ONC – Office of the National Coordinator for Health Information Technology

QDM – Quality Data Model

QI-Core – Quality improvement Core – an HL7 implementation guide used as the data model for expressing eCQMs based on FHIR resources.

QMIG – Quality Measure Implementation Guide – an HL7 standard implementation guide for expressing eCQMs based on FHIR Clinical Reasoning and QI-Core

QRDA – Quality Reporting Document Architecture, a set of two HL7 standards used to report results of clinical quality measures. QRDA Category I supports reporting of individual patient data for eCQMs; QRDA Category III supports reporting of a provider's (or and organization's) aggregate performance with respect to an eCQM.

SVAP – Standards version advancement process. Site: https://www.healthit.gov/isa/standards-version-advancement-process

USCDI – United States Core Data for Interoperability. Site: https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi

VSAC – Value Set Authority Center, a web-based application that allows measure developers to create, update and re-use value sets for use with eCQMs and related CDS artifacts. Site: https://vsac.nlm.nih.gov/