

Quality Data Model (QDM) User Group Charter

January 2020

The Quality Data Model (QDM) 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 QDM home page in the eCQI Resource Center <https://ecqi.healthit.gov/qdm>.

- I. **Mission**—The QDM User Group will ensure broad stakeholder collaboration in the QDM development, maintenance, and harmonization with quality and clinical decision support (CDS) standards to support the Electronic Clinical Quality Improvement (eCQI) landscape. Using their expertise, the QDM User Group will provide development process oversight for the next generation of the QDM that will enable measure developers to achieve accuracy of the resulting Electronic Clinical Quality Measures (eQMs). The group achieves this mission using a consensus approach to review and provide input on QDM issues and change requests, and to make recommendations that will be presented for approval by the eCQM Governance Group. It may also serve to help disseminate information to stakeholders.

- II. **Background**—The QDM is the backbone for representing criteria for electronic quality measures used by stakeholders involved in measurement development and reporting.

The QDM functions 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 defines the data elements and associated logical operators used to specify eQMs. The QDM is central to the eCQM ecosystem because the QDM definition constrains the accuracy of the resulting eQMs, and impacts the productivity of measure developers. eQMs selected for use in the Centers for Medicare & Medicaid Services (CMS) Electronic Health Record (EHR) Incentive Program have each measure concept represented through the logic and expressions provided by the QDM. 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 the Measure Authoring Tool (MAT) to express the measures and Bonnie to test the logic.

The QDM must adapt and evolve. It must adapt as eQMs advance from process- to outcomes-based measures and increasingly use patient-reported data. The QDM must evolve to align CDS rules with quality measurement. As the QDM changes to enable expression of new measure types and CDS rules, its updates must be capable of incorporation into the MAT – where needed – and be compatible with quality and CDS standards. Formerly managed by the National Quality Forum (NQF), the QDM is stewarded by the standards contractor, under the direction of CMS.

- III. Purpose—The QDM User Group will identify, discuss, and review the needs of the eCQI community through a formal process initiated by change requests. The outcome of the topic-specific discussions result in a recommendation to the eCQM Governance Group for formal approval. The QDM Management Team will present recommendations and input from the QDM User Group to the eCQM Governance Group, and upon approval by the Governance Group, will execute their implementation in future releases of the QDM. The User Group provides a forum to engage cross-functional expertise on real world practices and implementation to proposed changes to the QDM. Specifically, the QDM User Group should use its expertise to recommend changes to the QDM based on: 1) measurement needs, 2) real-world feasibility, and 3) harmonization with HL7 eCQM and CDS standards.
- IV. Scope of Responsibilities—The QDM User Group will:
 - i. Systematically identify, discuss, and review QDM issues and proposed change requests, including those submitted by members of the QDM User Group
 - ii. Contribute expertise to aid in understanding all implications of a proposed change to the QDM by bringing expertise to each request in order to recommend, reject, or clarify the issue raised
 - iii. Advance harmonization with standards relevant to the eCQI initiative – HQMF, QRDA, CQL, CQL-based HQMF, FHIR Clinical Reasoning, QMIG, DEQM and, QI-Core – to achieve interoperability between system implementations using those respective standards

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 related quality standards (e.g., HQMF, CQL-based HQMF, QRDA, FHIR Clinical Reasoning, QMIG, DEQM, QI-Core)
- iv. Addition to the QDM
- v. No addition to the QDM and dismissal for future evaluation
- vi. No addition to the QDM, but retention for future evaluation and consideration

QDM User Group members can request additional meetings for further deliberation on a topic, if required.

- V. Guiding principles—Developing consensus on QDM components across a broad group of stakeholders is a challenging undertaking. The QDM 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.
- i. Focus on proposed QDM updates requiring input from a broad group of stakeholders
 - ii. Come to consensus on standard definitions for QDM components
 - iii. Identify and catalog critical gaps in measure components and propose changes to fill these gaps
 - iv. Seek to harmonize the QDM with CDS standard models
 - v. Leverage “lessons learned” from implementation of the current QDM model
 - vi. Guarantee compatibility with both existing and upcoming Standards to achieve interoperability.
 - vii. Ensure that the MAT, Bonnie and the QDM use the same specification for consistency.
 - viii. Develop documentation that accurately covers both the data model and expression language for completeness
 - ix. Demonstrate practical usage of operators and syntax that employ user centric design principles
 - x. Use subgroups to explore implications and develop suggestions to submit to the User Group, if needed
- VI. Membership—The QDM User Group members should represent the QDM’s primary and secondary users, including measure developers, MAT users and builders, vendors, providers reporting eQMs, and standards representatives. Such broad community membership will make the User Group’s recommendations more effective and efficient for users. To become a member, sign into your account in the eCQI Resource Center (or create an account at: <https://ecqi.healthit.gov/user/register>), and select the “Request space membership”

link on the QDM page (<https://ecqi.healthit.gov/qdm>). You can also add QDM User Group meetings to your calendar at: <https://ecqi.healthit.gov/calendar>.

- i. 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 QDM Management Team will work to fill them with the appropriate users in coordination with CMS. The standards contractor leads the QDM User Group and presents the QDM User Group’s discussion and/or recommendations to the eCQM Governance Group.
- ii. Role of the QDM User Group Facilitator—The QDM Task Lead from the standards contractor will facilitate the QDM 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 QDM 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 QDM issue has concluded and whether consensus has been reached, and prepare the issue for presentation to the eCQM Governance Group which makes final decisions on timing of such changes to assure consistent timelines for QDM versions and availability in the MAT.

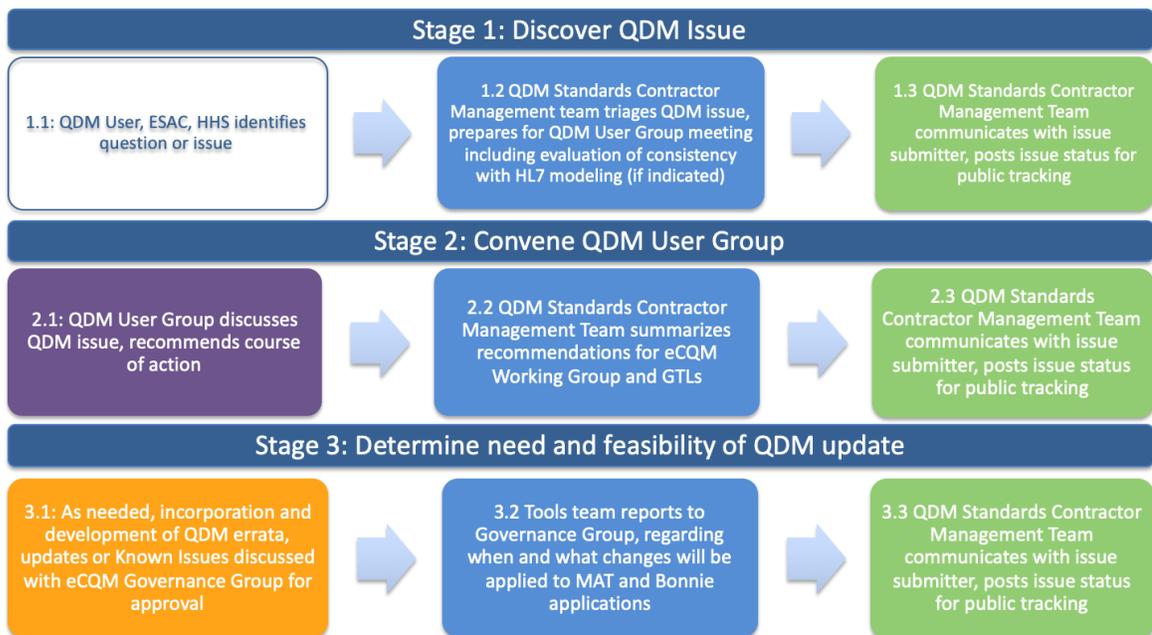
VII. Meetings

- i. Meeting frequency and duration—The usual schedule will be one two-hour meeting held on the third Wednesday of each month, with additional meetings scheduled as needed (<https://ecqi.healthit.gov/calendar>).
- ii. Parameters around when not to meet—In the event that there are no QDM issues or change requests to discuss, the QDM User Group meeting will reconvene at the next scheduled monthly meeting.
- iii. Longevity of the group—The longevity is indefinite, based on the need for expertise on the QDM over the life of eCQM measure contracts and CDS standards harmonization in support of the eCQI landscape.

VIII. Agendas and Minutes

- i. 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.

- ii. The QDM Management Team will provide a prioritized list of QDM issues and change requests for discussion at the User Group meeting.
 - iii. Action items will be directly assigned to members via the meeting notes or JIRA.
 - iv. The agenda and any supporting materials will be available to QDM User Group members within 5 calendar days prior to the next meeting via email and HealthIT.gov (<https://ecqi.healthit.gov/qdm>).
 - v. Minutes will be available to QDM User Group members within 10 business days after the meeting via email and HealthIT.gov (<https://ecqi.healthit.gov/qdm-meeting-minutes>).
 - vi. At each meeting, the group will review and approve the minutes prepared from the previous meeting.
- IX. Decision Model—The QDM 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 QDM 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.



- X. 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 (MAT) 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.
- XI. Updates—The QDM 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.

MAT – Measure Authoring Tool – Web-based software provided by CMS and used by eCQM developers to express eCQMs in HQMF format. Site: <https://www.emasuretool.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. Site: <http://qualityforum.org/>

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.

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/>