Quality Data Model (QDM) User Group Meeting |Minutes

Meeting date | *04/19/2017 2:30 PM ET* | Meeting location|Webinar link:
https://esacinc2.webex.com/esacinc2/j.php?MTID=m44a035b19cbc63ce3310c583e0354de8

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	Announcements	Chana West (ESAC)	• **Cooking with CQL Webinar was held on April 20th at 4:00pm ET**. These sessions are generally held on the third Thursday monthly. Upcoming events can be found by going to: https://ecqi.healthit.gov/ecqi/ecqi-events . ○ The upcoming session will feature open discussion from subject matter experts on the Measure Authoring Tool (MAT), show how to express measures using CQL and review prepared questions. ○ Please submit CQL-related questions to cql-esac@esacinc.com • **Clinical Quality Language (CQL) testing is underway:** ○ CMS invites electronic health record vendors to participate in testing the new CQL standard for eCQMs by providing feedback related to implementation and evaluation of measures using CQL-based standards. Participation includes implementing and/or reviewing CQL-based measures and associated artifacts, and providing feedback on the utility. ○ Interested parties should send an email expressing interest (including vendor organization, and name and contact information for 2 staff) to cql-esac@esacinc.com.
20 Minutes	Expressing Information Obtained Elsewhere in Measures	Floyd Eisenberg (ESAC)	The QDM UG reviewed this topic during the March call. The topic addresses measure data elements that may have occurred external to the practice or hospital and for which the data was not sent into the EHR. As an example, options for Laboratory test, Performed; Diagnostic Study, Performed (e.g., imaging procedures); and Procedures, Performed. Current options for finding such information include: • Find coded evidence in the EHR that the item occurred and if applicable, the result is present. • Create a US-Domain SNOMED-CT code concept to allow the clinician to attest that the item occurred. (Less preferred since it is purely managed by attestation and this option does not assure the correct procedure occurred.)

Time	Item	Presenter	Discussion/Options/Decisions
20 Minutes (con't)	Expressing Information Obtained Elsewhere in Measures (con't)	Floyd Eisenberg (ESAC) (con't)	New Option: Example, HIV testing measure – requires that all patients age 15 to 65 years have had HIV screening at least once. Principles from expert panel: • Avoid unintended consequences that the measure may cause unnecessary testing (i.e., repeated testing merely to satisfy performance for the measure) • Avoid attestation (i.e., patient indicating history of testing is insufficient) • Require that the physician was entering the lab that they saw or communicated with another physician stored in the EHR as a laboratory test. Guidance provided in the proposed measure: "Providers will view HIV screening results that were performed elsewhere and therefore the results are not present in the EHR in structured format. To allow such test to be applied to this measure, they should be entered in the EHR as a laboratory test in a manner consistent with the EHR in use, so that it is documented in the patient's record for anyone else to see. In order to accommodate this, a panel of HIV screening tests was created as a convenience panel in LOINC. It includes all individual tests that could be used for screening. The field can be mapped to the LOINC code. It could then be entered and saved as part of the lab test." Draft logic for this new option: Numerator = -AND: Union of: • "Laboratory Test, Performed: Human Immunodeficiency Virus (HIV) Laboratory Test Codes (Ab and Ag) (result)" • "Laboratory Test, Performed: HIV test documentation reviewed (result)" • >= 15 year(s) start of "Birthdate: Patient Characteristic Birthdate" • Starts before end of "Measurement Period" The User Group previously considered the use of this model for other data obtained elsewhere. To address feasibility, will likely need to implement at a site and see how many used it. ESAC asked the UG if they had an opportunity to consider this potential solution further. **Discussion:** Howard Bregman (Epic) – Suggested a restriction like this is impractical and hard to understand. It is not generalizable because it could not be used for imaging for example, or other datatypes. This is too complex for others to understand. **Action:** The QDM UG will await further testing of the respective measure to determine if similar modeling is feasible and how feasibility will be managed.

Time	Item	Presenter	Discussion/Options/Decisions
20 Minutes	"Diagnosis" attribute - Encounter, Performed	Floyd Eisenberg (ESAC)	The QDM UG addressed the intent of the "diagnosis" attribute of Encounter, Performed. QDM-503: If the 'diagnosis' attribute is intended to capture all diagnoses, including principal diagnosis, additional guidance should be added to the QDM. The QDM "diagnosis" attribute definition does not explicitly state that it includes "principal diagnosis", although it seems that everyone interprets that all diagnosis should be included. Current definitions of the attributes in QDM 4.3 (and 5.02): • "diagnosis" – A coded diagnosis/problem addressed during the encounter • "principal diagnosis" – The coded diagnosis/problem established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care. The current definition does not exclude "principal diagnosis" from the "diagnosis" definition and, therefore, can be interpreted to include all diagnosis addressed during the encounter, including the principal diagnosis. ESAC asked the QDM UG if additional language was required for clarity. The HL7 CQI Workgroup suggested adding language to the definition as guidance to more explicitly indicate that principal diagnosis is included in the "diagnosis" attribute data request. The language suggested is: "A list of coded diagnoses/problems addressed during the encounter. Such diagnoses/problems include a principal diagnosis and all other diagnoses/problems addressed during the encounter." Anne Coultas (McKesson) – Indicated she has been asked this question and that she agrees principal diagnosis should be included in the list of all diagnoses. ESAC noted there are two options to address this concern: • Add guidance to the definition, as suggested, OR • Exclusively address non-principal diagnoses and clarify the definition. ESAC noted that the initial intent of the attribute was to include all diagnoses addressed during the encounter, including the principal diagnosis. **Comments:** – Howard Bregman (Epic) – Adding guidance to clarify is unnecessary, but not erroneous. – Anne Coultas (McKesson) – Agreed with Howard. – ESAC also noted that the current implementation of QDM-based HQMF limits the description of only one diagnosis as an attribute. – ESAC presented an example of a use case of requesting multiple diagnoses within the same Encounter, Performed:

Time	Item	Presenter	Discussion/Options/Decisions
20 Minutes (con't)	"Diagnosis" attribute - Encounter, Performed (con't)	Floyd Eisenberg (ESAC) (con't)	Patient with both conditions – gestational diabetes and a single live birth: • Encounter, Performed: Inpatient Encounter (diagnosis: single live birth) • Encounter, Performed: Inpatient Encounter (diagnosis: gestational diabetes) Moving forward in QDM 5.3 to ensure these are based on the same Encounter allow diagnoses to have more than one cardinality: • Encounter, Performed: Inpatient Encounter (diagnoses: o single live birth o gestational diabetes) <u>Resolution:</u> Updating the definition is not necessary, but clarification will address the concern to make the definition more explicit. Necessary changes: • QDM v4.3 - clarify language. • QDM-based HQMF – no impact. • QDM v5.3 – Update the definition description and ensure the CQL-based model allows more than one diagnosis in the description. • CQL based HQMF - Currently being finalized for publication based on the January 2017 HL7 ballot. Cardinality greater than one can be included in the CQL-based HQMF when it is ready for publication. The official QDM version that lists cardinality would like be published in June. • QRDA Category I- this will only affect the QRDA Category I for implementation with CQL-based measures. That version will be balloted in HL7 during the September 2017 ballot cycle or later. **Discussion:** Paul Denning (MITRE) – Indicated that changes to the CQL-based Implementation Guide and references in the respective implementations in the Measure Authoring Tool (MAT) and Bonnie must indicate the specific version of QDM (i.e., 5.3 even though not yet published). To update cardinality in the templates, it would require approval of a new version of QDM. ESAC suggested a new errata version of QDM 5.02 could include this minor template change in the CQL-based HQMF. [Subsequent to the QDM UG call, discussions led to a preference to avoid changes in cardinality until QDM 5.3 is approved by the QDM UG and the MCCB.] Anne Coultas (McKesson) - Does principal diagnosis still belong in the QDM category (datatype) Diagnosis?

<table>
<tr><th>Time</th><th>Item</th><th>Presenter</th><th>Discussion/Options/Decisions</th></tr>
<tr><td>20 Minutes

(con’t)</td><td>“Diagnosis” attribute - Encounter, Performed

(con’t)</td><td>Floyd Eisenberg (ESAC)

(con’t)</td><td>Lisa Anderson (TJC) indicated modeling diagnosis two ways, as:
1. an attribute of Encounter, Performed
2. a Diagnosis (using Diagnosis datatype)
When referenced as the datatype Diagnosis: specific diagnosis, the measure developer is looking for all diagnoses related to the encounter, and the logic addresses timing relationships to the Encounter, Performed

Action:
1. Update the description for the “diagnosis” attribute to more explicitly indicate that principal diagnosis should be included in the information retrieved.
2. Await review of all QDM attribute cardinality options and subsequent approval in QDM 5.3 to make any changes to the diagnosis attribute cardinality. QDM 5.3 can then go through MCCB approval and all changes implemented in the new version.</td></tr>
<tr><td>30 Minutes</td><td>“Location” attribute - Encounter, Performed</td><td>Floyd Eisenberg (ESAC)</td><td>During the review of the diagnosis attribute definition in Jira ticket QDM-503, ESAC reviewed all attributes for Encounter, Performed. The following attributes require review:
<table>
<tr><th>Attribute</th><th>Definition</th><th>Datatypes</th></tr>
<tr><td>Facility Location: (QDM 4.3, and 5.02)</td><td>The particular location of a facility in which the diagnostic study or encounter occurs or occurred. Examples include, but are not limited to, intensive care units (ICUs), non-ICUs, burn critical-care unit, neonatal ICU, and respiratory-care unit.</td><td>Diagnostic Study, Performed
Encounter, Active
Encounter, Order
Encounter, Performed
Encounter, Recommended</td></tr>
<tr><td>Facility Location Arrival Datetime (QDM 4.3)</td><td>The time that the patient arrived at the specific facility for the encounter.</td><td>Encounter, Active
Encounter, Performed</td></tr>
<tr><td>Facility Location Departure Datetime (QDM 4.3)</td><td>The time that the patient departed the specific facility related to the encounter.</td><td>Encounter, Active
Encounter, Performed</td></tr>
<tr><td>Location Period (QDM 5.02)</td><td>The time the patient arrived at the location to the time the patient departed from the location.</td><td>Encounter, Active
Encounter, Performed</td></tr>
</table></td></tr>
</table>

Time	Item	Presenter	Discussion/Options/Decisions
30 Minutes (con't)	"Location" attribute - Encounter, Performed (con't)	Floyd Eisenberg (ESAC) (con't)	The current implementation of QDM-based HQMF limits the description to only one location as an attribute. Measure developers have generally modeled location as an Encounter, Performed: Options: Describe each location as a separate Encounter, Performed • Encounter, performed: ICU admission or transfer (facilitylocation arrival datetime) starts after start of Encounter, performed: Inpatient Encounter Basically, indicating an encounter within an encounter. Another option would require a more complex description: • Satisfies all: ○ Encounter Performed: Inpatient Admission (facility location: ICU) ○ Encounter Performed: Inpatient Admission (facility location arrival datetime) The previous pneumonia management measure attempted to address which care was provided based on location (i.e., one type of antibiotics for ICU patients, another type of antibiotics for non-ICU patients). That measure did not move forward due to complexity. However, the use case of managing different locations in a single hospitalization is important. To address expression of multiple locations within a single hospitalization, ESAC proposed location be handled similarly to components: Location. Each location will be represented a code (from a value set or a direct referenced code): • code • Location Period (arrival dateTime to departure dateTime) Example: Patient admitted to ICU, then non-ICU, then rehab • Encounter, Performed: Inpatient Admission ○ ICU (location period) ○ Non-ICU Admission (location period) ○ Rehab (Location period) ESAC asked if this change in modeling would be helpful. Lisa Anderson (TJC) thought this might address an issue vendors were experiencing when trying to determine when a patient is in the ICU. She noted a CRP JIRA ticket was submitted on this issue regarding trouble obtaining the ICU location because it uses the Encounter timestamps and not the Location timestamp. This issue could be an implementation problem, but measure developers should ensure the issue is based on modeling issues rather than sub-optimal logic representation.

Time	Item	Presenter	Discussion/Options/Decisions
30 Minutes (con't)	"Location" attribute - Encounter, Performed (con't)	Floyd Eisenberg (ESAC) (con't)	ESAC suggested that clarifying the model might help implementers and avoid this issue, and asked if such modeling would help implementers. Joe Kunisich (Memorial Hermann) suggested the time when location is changed is captured. When discharged from the ED to the inpatient location, the time of the location is used. Modeling in a way with different timeframes within one Encounter creates unnecessary complexity. If vendors need it to be modeled this way, an implementation guide should provide clear guidance on instructions for use to clearly indicate it should not be used for looking at multiple locations within the same Encounter. Pamela Mahan-Rudolph (Memorial Hermann) noted the challenge is that not all vendors handle movement of patients the same way. Much of this information is manual. Sometimes, a patient is moved in system, but physically is still in the same location. There may be interpretation problems, until all vendors are doing this the same way. Joe Kunish ((Memorial Hermann) suggested the JIRA ticket mentioned may refer to the VT Measure which looks at change in level of care, rather than change in location. The measure is trying to capture when a patient moves from standard level of care into the ICU and the patient needs to be reassessed for DVT prophylaxis. ESAC noted that prior QDM UG discussions indicated location is used as a surrogate for level of care. One option is to avoid specifying location and determine another measure-to-measure intensity of care, perhaps an assessment containing indicators of nursing and other clinician activities. Pamela Mahan-Rudolph suggested this issue requires further thought, including how to best to manage observation patients (observation patients use inpatient beds but are not admitted). Lisa Anderson (TJC) - Cardinality for location should have 0 to many. Patients will likely have more than one location during a hospital stay. **Actions:** ESAC will circulate the slides and minutes as a summary of the issue for the group to consider further offline and revisit at the May meeting.

<table>
<tr><th>Time</th><th>Item</th><th>Presenter</th><th>Discussion/Options/Decisions</th></tr>
<tr><td>10 Minutes</td><td>“Reason” attribute - Encounter, Performed</td><td>Floyd Eisenberg (ESAC)</td><td>
During the review of the diagnosis attribute definition in Jira ticket QDM-503, ESAC reviewed all Encounter, Performed attributes. The following additional attribute requires review:
<table>
<tr><th>Definition</th><th colspan="2">Datatypes</th></tr>
<tr><td>Reason:
The thought process or justification for the datatype. In some measures, specific treatments are acceptable inclusion criteria only if a justified reason is present. Each of these measures uses a value set (often, but not exclusively, using SNOMED-CT®) to express acceptable justification reasons. Other measures specify reasons as justification for exclusions. Examples include patient, system, or medical-related reasons for declining to perform specific actions. Each of these measures also uses a value set to express acceptable justification reasons for declining to perform expected actions.</td><td>Assessment, Performed
Assessment, Recommended
Device, Applied
Device, Order
Device, Recommended
Diagnostic Study, Order
Diagnostic Study, Performed
Encounter, Active
Encounter, Order
Encounter, Performed
Encounter, Recommended
Immunization, Administered
Immunization, Order
Intervention, Order
Intervention, Performed
Intervention, Recommended
Laboratory Test, Order
Laboratory Test, Performed
Laboratory Test, Recommended
Medication, Administered
Medication, Order
Patient Characteristic Clinical Trial Participant</td><td>Physical Exam, Performed
Physical Exam, Order
Physical Exam, Recommended
Procedure, Order
Procedure, Performed
Procedure, Recommended
Substance, Order
Substance, Recommended</td></tr>
</table>
Only 1 CMS measure (measure 185) is using the reason attribute for Encounter, Performed. The intent of the measure is percent of term singleton live births that do not have significant complications during birth or nursery care.
AND: “Occurrence A of Encounter, Performed: Encounter, Inpatient (reason: birth)
ESAC asked if there a purpose for using reason as an attribute of Encounter, Performed rather than the “diagnosis” attribute.
Lisa Anderson (TJC) – did not have information about why the measure is using the reason attribute and she will investigate.
</td></tr>
</table>

Time	Item	Presenter	Discussion/Options/Decisions
10 Minutes (Con't)	"Reason" attribute - Encounter, Performed (Con't)	Floyd Eisenberg (ESAC) (Con't)	*[Subsequent to the UG call, The Joint Commission confirmed that the measure is not longer included in the CMS measure set (and CMS publications suggest that hospitals not implement the measure. The concept intended by "reason" can be managed using the "diagnosis" attribute of Encounter, Performed (which was not available when the measure was written).]* **Action:** The QDM UG will consider further offline and revisit.
5 Minutes	Cardinality in QDM Attributes	Floyd Eisenberg (ESAC)	ESAC reviewed all attributes to assure the CQL-based HQMF Implementation Guide accurately displays cardinality. QDM has not yet specified cardinality so that existing templates are based on implicitly understanding of the intent. ESAC asked the QDM UG to review proposed cardinality for explicit referenced in the next version. ESAC reviewed a Word document containing a table of all attributes proposing a cardinality for each. Note that some attributes may have different cardinality based on the QDM datatype to which it applies. The proposed table specifies cardinality by QDM datatype. ESAC requested the group to review and provide feedback to ensure the cardinality is correct in the next version of QDM. **Action:** ESAC will make this table available to the group and allow for comment. ESAC will collate the feedback to be discussed on the next call for inclusion of cardinality in QDM 5.3.
5 Minutes	Next Meeting	Chana West (ESAC)	**Agenda items for next QDM user group meeting** – Contact us at qdm@esacinc.com – Or start a discussion: qdm-user-group-list@esacinc.com – If you attend the QDM User Group meetings but do not receive communications or have access to the QDM User Group List, please send an email to QDM@esacinc.com so you may be added to the distribution list. **Next user group meeting** – Regularly Scheduled Meeting – May 17, 2017 from 2:30 to 4:30 PM ET.

Attendees:

	Name	Organization
	Abby Rech	
	Alex Lui	Epic
	Amanda Hashman	
X	Angela Flanagan	Lantana
	Anna Bentler	The Joint Commission
X	Anne Coultas	McKesson
x	Anne Smith	NCQA
	Balu Balasubramanyam	MITRE
	Ben Hamlin	NCQA
	Brian Blaufeux	Northern Westchester Hospital
	Brittni Frederksen	
	Bryn Rhodes	ESAC
	Carolin Spice	
x	Chana West	ESAC
	Chandra Bartleman	Telligen
	Chris Markle	ESAC
	Chris Moesel	MITRE
	Cindy Lamb	Telligen
	Cynthia Barton	Lantana
	Dalana Ostile	Providence Health Systems
	Dave Stumpf	
	Dave Wade	Apprio
	Debbie Hall	University of Maryland
X	Doug Goldstein	
	Flor Cheatham	
x	Floyd Eisenberg	ESAC
X	Howard Bregman	Epic
	Jamie Jouza	PCPI
	Jean Fajen	Telligen
X	Jeff Pitcher	
	Jenna Williams-Bader	NCQA
	John Carroll	The Joint Commission
	Jennifer Bonner	
	Jessica Smails	
X	Joe Kunisch	Memorial Hermann
	Jorge Belmonte	AMA
	Julia Skapik	ONC
	Julie Koscuiszka	Nyack Hospital
	Juliet Rubini	Mathematica
	Justin Schirle	
	J Frails	Meditech
	Khadija Mohammed	ESAC

	Name	Organization
	Kendra Hanley	HSAG
	Kimberly Smuk	HSAG
	KP Sethi	Lantana
	Latasha Archer	NCQA
	Laura Pearlman	Midwest Center for Women's Healthcare
	Laurie Wissell	Allscripts
x	Lisa Anderson	The Joint Commission
	Lizzie Charboneau	MITRE
	Lynn Perrine	Lantana
	Marc Hadley	MITRE
	Margaret Dobson	Zepf Center
X	Marilyn Parenzan	The Joint Commission
X	Melissa Tindal	
x	Michelle Dardis	The Joint Commission
	Michelle Hinterberg	MediSolv
	Mike Shoemak	Telligen
	Mukesh Allu	Epic
x	Pamela Mahan-Rudolph	Memorial Hermann
	Patty McKay	FMQAI
x	Paul Denning	MITRE
	Rebecca Swain-Eng	
	Rose Almonte	MITRE
	Rob McClure	NLM Contractor
	Rukma Joshi	ESAC
	Rute Martins	MITRE
	Ruth Gatiba	Battelle
	Ryan Clark	Xcenda
	Sethuraman Ramanan	Cognizant
	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
X	Sweta Ladwa	ESAC
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
	Teresa Ansell	
	Tom Dunn	Telligen
	Toni Wing	
	Vaspaan Patel	NCQA
	Wendy Wise	Lantana
X	Yan Heras	ESAC
X	Yanyan Hu	The Joint Commission
	Yvette Apura	AMA-ASSN
	Zahid Butt	MediSolv
	Zach May	ESAC