Quality Data Model (QDM) User Group Meeting | Minutes

Meeting date | *03/20/2019 2:30 PM ET* | Meeting location| Webinar

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	Announcements	Chana West (ESAC)	– **Cooking with CQL Webinar was held on March 28th at 4:00 PM ET**. These sessions are generally held on the third Thursday monthly. Upcoming events can be found by going to the eCQI Resource Center events page. o Please submit CQL-related questions to cql-esac@esacinc.com. – **CMS has released an updated 2019 CMS Quality Reporting Document Architecture (QRDA) Category I voc.xml file.** The updated voc.xml file is a supporting vocabulary xml file for the Schematron that provides technical instructions for reporting electronic clinical quality measures (eCQMs) for the calendar year 2019 reporting period for the: o Hospital Inpatient Quality Reporting (IQR) Program o Medicare and Medicaid Promoting Interoperability (PI) Programs for Eligible Hospitals and Critical Access Hospitals (CAHs) – **CMS is now accepting public comments on the draft 2020 CMS Quality Reporting Document Architecture (QRDA) Category I Implementation Guide (IG) for Hospital Quality Reporting (HQR) for public comment starting on March 18, 2019 and ending on April 8, 2019.** The 2020CMS QRDA I IG outlines requirements for eligible hospitals and critical access hospitals to report electronic clinical quality measures for the calendar year 2020 reporting period, and has been updated to align with HL7's QRDA I STU Release 5.1, Quality Data Model (QDM) version 5.4. o Comments submitted on the QRDA-775 ONC Project Jira Tracker ticket o Please note, this is a draft document and the contents are subject to change. Content may change based on final rules.

Time	Item	Presenter	Discussion/Options/Decisions
10 Minutes	Brief Overview of Approved changes to QDM 5.5	Floyd Eisenberg (ESAC)	Contents previously approved by QDM, and now MCCB: – Add priority to Procedure, Order; Procedure, Performed; Encounter, Order; Encounter, Performed (QDM-212) – Add present on admission indicator to Encounter, Performed diagnosis (QDM-220) – Add clarification of Immunization, Administered (QDM-211) – Update negation rationale timing description (QDM-219) – Add performer attributes to QDM datatypes (QDM-218) – Update description of Encounter, Performed *diagnosis* attribute regarding timing (QRDA-545) – Add QDM entities (QDM-225)

30 Minutes	Follow up review - Entities
	[QDM-225]
		Floyd Eisenberg (ESAC)	In the process of modeling the new QDM 5.5 changes in QDM, ESAC identified some details that require clarification from the QDM User group. This topic continues the discussion from the February QDM UG meeting.
			
			Overview:
			
			To recap the previous discussion, the QDM UG approved three entities (Patient, Practitioner and Organization):
			
			• Patient - Information about an individual receiving health care services
			  ○ Identifier (1..*) [type: Identifier]
			
			Note: Entity was added for the purpose of knowing a performer. To retain backwards compatibility with prior version of QDM and to avoid the need for significant retooling, QDM 5.5 retains existing Patient Characteristics.
			
			• Practitioner - Person with formal responsibility to provide health care or related services
			  ○ identifier (1..*) [*type*: Identifier]
			  ○ role (0..*) role this practitioner may perform (e.g., nurse, doctor)
			  ○ specialty (0..*) [*type*: Code]
			  ○ qualification (0..*) [*type*: Code]
			• Organization- A grouping of people or organizations with a common purpose
			  ○ identifier (1..*) [*type*: Identifier]
			  ○ type (1..*) [*type*: Code] (kind of organization (e.g.., hospital))

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30 Minutes, Cont.	Follow up review – Entities [QDM-225],
	Cont.
		Floyd Eisenberg (ESAC), Cont.	In the process of modeling the new QDM 5.5 changes in QDM, ESAC identified some details that require clarification from the QDM User group. This topic continues the discussion from the February QDM UG meeting.
			
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			  ○ specialty (0..*) [*type*: Code]
			  ○ qualification (0..*) [*type*: Code]
			• Organization- A grouping of people or organizations with a common purpose
			  ○ identifier (1..*) [*type*: Identifier]
			  ○ type (1..*) [*type*: Code] (kind of organization (e.g.., hospital))
			
			New topic for consideration – The existing CQL specification does not allow reference to a related person when expressing information about a patient. However, new capabilities included in the May 2019 HL7 CQL ballot will allow such reference. Therefore, ESAC asked to QDM UG to consider including Related Person as an entity. There are two use cases to refer to such a related persion:
			
			1. A relative or care giver that performs a task represented by a QDM data element, e.g., a blood pressure reading performed by a patient's spouse, or an observation (assessment) performed by a child's mother.
			2. Reference to information about a related person that impacts care for the patient, e.g., the estimated delivery date for the mother of an infant for whom the measure is specified.

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			These two use cases require different solutions. The first, a performer, or actor that performs a task can be modeled as a QDM entity. The second, another person whose information is required to fulfill an expression for the patient subject of the measure, requires a unique, first class object, and thus, a QDM datatype. ESAC asked the QDM UG to consider both and suggested that using the same term (related person) for both concepts might be confusing. Therefore, ESAC suggested using *Care Partner* as the QDM entity and *Related Person* for the QDM datatype. Both *Care Partner* and *Related Person* should have the same attributes (identifier and relationship).
			
			The new entity, therefore, is:
			
			• Care Partner (a person who is related to a patient, but who is not the direct target of care)
			  ○ Identifier
			  ○ Relationship
			
			Also, since reference to any entity is *optional* and not required, and since each reference to an entity or an entity attribute is unique, the cardinality for all entities and their attributes should be 0..1.
			
			Examples:
			
			1. In this example, the *practitioner* attribute uses the practitioner entity to reference attributes of a practitioner.
			  [“Encounter, Performed”: “Office Visit”] Encounter
			  where exists (
			  __ Encounter,practitioner P
			  where P.role in “Doctor”
			  and P.specialty in “Ophthalmology”
			2. A second example shows how to determine that the primary participant (performer) of an inpatient encounter is the same as the primary participant (performer) of and emergency department encounter using the *organization* entity. The example defines a function that the required identifier is a Coordinated Care Network (CCN).

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30 Minutes, Cont.	Follow up review – Entities [QDM-225], Cont.	Floyd Eisenberg (ESAC), Cont.	Define "Qualifying Encounters": ["Encounter, Performed": "Inpatient"] Encounter with ["Encounter, Performed": "ED"] ED such that ED.relevantPeriod ends 1 hour or less on or before start of Encounter,releventPeriod and CCNOf(ED.organization) != CCNOf(Encounter.organization) Definition statement define function CCNOf(identifiers: List<identifier>): singleton from (identifiers | where I.namingSystem = "CCN Identifier System" return I) 3. The third example shows how to request that blood pressure was performed by a Care Partner (a person that is related to a patient, but who is not the direct target of care) for inclusion in the eCQM. The example expects that the Care Partner is a member of the patient's family which is defined by a value set. ["Physical Exam, Performed": "Blood Pressure"] BloodPressure where (BloodPressure.performer is CarePartner and BloodPressure.relationship in "Family") Rob McClure (NLM Contractor): Noted that the identifier used for an entity may require a known identifier (i.e., naming system) and a method to indicate which naming system should be used versus allowing whatever that Institution wants to use in that particular situation. ESAC noted the measure developer could choose to specify the identification system, but they do not have to do so. In this example, they could say participant identifier without identifying a system. He also raised a concern that attributes such as *qualification* and *specialty* and *role* might be self-defined or defined by a specific organization rather than requiring specific strict criteria. Thus, measure developers will need to determine which value sets might be used and evaluate the type of data implementers might retrieve to assure consistency across settings and conformance with their expected results. **Resolution:** The QDM User Group approved the new Care Partner entity as discussed. ESAC to follow-up with Rob McClure on terminology and representation of the attributes.

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15 Minutes	New QDM datatype – Related Person [QDM-225]	Floyd Eisenberg (ESAC)	**Overview:** Following from the first topic, ESAC asked the QDM UG to consider adding a new QDM datatype to address reference to an individual whose information is critical to retrieving information about a patient's care. Currently, QDM requires use of an observation about the patient (Assessment, Performed) that references information about the other person. For example, to identify, the mother's expected delivery date on infant's chart. To identify a Related Person as the source for information requires a first-class element, or a QDM datatype. For the example that directly references the mother's record for an estimated due date to calculate gestational age in an infant's medical record, this Related Person datatype allows authors to reference information from other patients. The CQL expression for this information assuming the infant is the subject of the measure: context Patient define "Mother": (singleton from (["Related Person": "Mother Relationship"])) define "Estimated Due Date" Last (["Mother" -> "Physical Exam, Performed": "Estimated Due Date"] Exam Sort by start of relevantPeriod).result as DateTime define "Gestational Age in Days at Birth": (280 – (duration in days between "Estimated Due Date" and "Birth Date")) div 7 **Discussion:** Lisa Anderson (TJC) - Provided more information regarding the relevant use case. TJC tested a perinatal care measure on a newborn and learned from sites that they have a calculated gestation age using estimated due date from mothers chart and birth date from child's chart. When the measure was converted to CQL, TJC tried to determine if they can get those two pieces of data in

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15 Minutes, Cont.	New QDM datatype – Related Person [QDM-225], Cont.	Floyd Eisenberg (ESAC), Cont.	order to calculate gestational age, making it easier for implementers. As they move forward with new measures, they might need this capability to retrieve data from somewhere else when data is not naturally found on either chart. This capability will be tested prior to including in any measure. ESAC noted that each measure developer will need to test the capability to ensure feasibility prior to including in a measure, and that such language would be included in the QDM documentation. Lizzie Charboneau (MITRE) - Our understanding is that the entity datatype included this year, but that the relationship syntax is a ballot question for CQL. ESAC noted the upcoming CQL ballot does include full reference to Related Person; not limited to comment only. [Subsequent to the call, ESAC confirmed this information.] Assuming that the ballot is successful, it will allow QDM to use that capability. Since QDM only updates annually, inclusion in QDM version 5.5 will allow testing. Lizzie Charboneau (MITRE) - Noted there are concerns from a tooling perspective with regard to being able to incorporate this change into CQL execution environment within the time period to make it available for an upcoming annual update. ESAC noted this will be discussed in MCCB if this proposal goes forward. Joe Kunisch (Memorial Hermann) - There is a challenge in linking the two charts. Asked vendors if there is a way to link the encounters, because in their system it is two separate charts. Additionally, if this data element is made available, are there other scenarios where there is a need to access data, e.g., information from a kidney donor's record when performing measurement about kidney transplant recipients? This capability could be opened up to any relationship of any patient. ESAC noted this datatype would not be restricted to mother and infant. Rob McClure (NLM Contractor) - Noted that the governance arises via the allowed related person relationships. In this particular example, the measure will have to support finding the data in the patient's record. One would govern the places it can be used by restricting the kind of related persons that can be defined through a value set. Lizzie Charboneau (MITRE) - Explained the reason for the singleton in the CQL. Retrieves return a list by default. In this case, this will always be a list of one, and so there is a singleton to extract that single element out of the list (i.e., so not a list of mother, but the mother).

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15 Minutes, Cont.	New QDM datatype – Related Person [QDM-225], Cont.	Floyd Eisenberg (ESAC), Cont.	Rob McClure (NLM Contractor) – Agreed with moving forward with the Related Person QDM datatype. **Resolution/Next Steps:** The QDM User Group approved the new QDM datatype, Related Person. ESAC to follow-up with MITRE and MAT team on tooling and implementation.
20 Minutes	Follow up modeling for Present on Admission [QDM-220]	Floyd Eisenberg (ESAC)	**Overview:** When modeling present on admission in QDM, several options presented: The Diagnosis Present on Admission (POA) is an indicator assigned to Inpatient Encounter Diagnosis. Valid indicators according to the UB-04 standard: • Y - diagnosis was present at time of admission • N- diagnosis was not present at time of admission • U - documentation is insufficient to determine if condition was present at the time of admission • W - clinically undetermined • 1 - unreported/not used - exempt from POA reporting Options for modeling: 1. A single element with a binary response • "yes" • "not yes" - no response or response=N, W, U or 1 (and expect implementers to "map" all N, W, U and 1 to "not yes" OR 2. Reference the specific values • Direct Reference Code "y" • Direct Reference Code "N" or a value set (N, W, U) [Note – reference to TJC indication in February that abstraction guidance maps all N, W and U to No.] Adding Present On Admission attribute would cause redundancy (i.e., the same diagnosis must be provided once as *diagnosis* and again for *diagnosis present on admission* with *indicator.*

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20 Minutes, Cont.	Follow up modeling for Present on Admission [QDM-220], Cont.	Floyd Eisenberg (ESAC), Cont.	Alternatives to reduce redundancy:
			
			Option 1: Change the diagnosis attribute of encounter to include two components:
			• Diagnosis code
			• PresentOnAdmissionIndicator code
			
			Option 2: Maintain the diagnosis attribute "as is" and add a POA with two components:
			• Present on Admission
			  • Diagnosis code
			  • PresentOnAdmissionIndicator code
			
			ESAC recommends the first option (remodeling the diagnosis attribute to have 2 components, code and POA indicator). This option reduces redundancy as an encounter diagnosis need only be retrieved once, with or without its present on admission indicator. Also, the measure developer can define which indicator(s) are preferred from the UB-04 code set. However, the first option requires that all existing uses of Encounter, Performed *diagnosis* attribute must be re-specified.
			
			Further, the current attribute, principal diagnosis, also creates redundancy. A principal diagnosis is also an encounter diagnosis. To reduce existing redundancy and more clearly manage the modeling of encounter diagnoses would add a third component to encounter diagnosis to reference principal diagnosis.
			
			Previous versions of QDM used ordinality to reference principal; however, the approach used with HL7 FHIR addresses a billing diagnosis with a rank of "1" to indicate principal diagnosis.
			
			Therefore, ESAC proposed the User Group consider the following, more comprehensive modeling change:
			
			Encounter *diagnosis* with 3 components:
			• diagnosis (code)
			• presentOnAdmissionIndicator (code)
			• rank (positive integer)
			
			<u>The change does require that all current uses of principal diagnosis and of encounter diagnosis must be re-specified for the current measures for the next AU cycle.</u>

Time	Item	Presenter	Discussion/Options/Decisions
20 Minutes, Cont.	Follow up modeling for Present on Admission [QDM-220], Cont.	Floyd Eisenberg (ESAC), Cont.	**Discussion:** Joe Kunisch (Memorial Hermann) - Fine with option one. Lisa Anderson (TJC) - TJC thinks this is the right way to go. It makes sense to align with future consideration of FHIR. ESAC presented one more modeling consideration. Current measures addressing principal procedure use the procedure attribute, ordinality. To be consistent across QDM, ESAC suggested that procedure remove ordinality and add rank similar to encounter diagnosis. Hence, rank =1 represents principal procedure. ESAC proposed that the User Group consider modeling principle procedure same way as principal diagnosis using rank. Procedure, Performed, Procedure, Order; Procedure, Recommended • rank (positive integer) • *remove ordinality (note, FHIR does not include the concept of ordinality as an attribute)* This would allow for consistency across QDM. FHIR does not have a representation of principal procedure. A FHIR tracker item was entered for this concern. Lisa Anderson (TJC) - Is okay with this suggestion. Joe Kunisch (Memorial Hermann) - Suggested that this makes sense. **Resolution/Next Steps:** The QDM UG approved the recommended present on admission, encounter diagnosis, principal diagnosis and principal procedure modeling..
15 Minutes	Communication Performed (QDM-227)	Floyd Eisenberg (ESAC)	**Overview:** In QDM: • Code - reason for the communication • Category - type of message This is modeled differently than FHIR and C-CDA, and differently than other QDM datatypes. Other modeling references the activity as a code (for communication, the type of message) and the

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15 Minutes, Cont.	Communication Performed (QDM-227), Cont.	Floyd Eisenberg (ESAC), Cont.	reason as an attribute (for communication, the reason for communicating). ESAC proposed the User Group consider the following change to make QDM more consistent: • Code should be type of message. Change the current definition of category to define the code. • Add a Reason attribute to reference the subject of the communication, i.e., use the *reason* attribute to define the expected content of the message. Impact: Each eCQM measure using Communication, Performed would require a value set or direct reference code to indicate the communication itself and use the existing value set or direct reference code as the *reason* attribute. This change would require re-work of two measures which use communication. **<u>Discussion:</u>** Jamie Lehner (PCPI) - Noted as an example, Communication, Performed is a consult report in a close referral measure. This change leads to questions about the actual workflow and whether this aligns with what clinicians are documenting. Joe Kunisch (Memorial Hermann) - Noted it would take some investigation to know if this is appropriate and not increase burden. The general workflow is to write an order for a referral. And, in the case of a referral, are you really talking about a document in this example? Jamie Lehner (PCPI) - Explained that the initial pop requires referral, but in order to satisfy the numerator, need consult report from referring physician sent back to the referring provider Rob McClure (NLM Contractor) - Asked for clarification. ESAC confirmed Category was previously optional, but if this becomes Code for Communication, Performed it is required. Rob suggested the change for the two measures might include that code may not have been used, and now will need to determine what message types are acceptable. He suggested it would be useful to engage the developer for these two measures to confirm this is feasible. Jamie Lehner (PCPI) - in thinking about these two measures, one is stewarded by CMS and one by PCPI. She suggested the changes may be more significant. She expressed concern that this seems like a drastic modification that may present issues for implementation or reporting.

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15 Minutes, Cont.	Communication Performed (QDM-227), Cont.	Floyd Eisenberg (ESAC), Cont.	ESAC noted the change is not mandatory, but it is an awkward way to refer to it using C-CDA templates. It would be better if modeled more directly. Yan Heras (ESAC) - Noted this can remain as is, recognizing it is different from other templates. She suggested code is not required. Rob McClure (NLM Contractor) - Suggested if code is not required, this change would be much easier. Yan Heras (ESAC) - Suggested reason code to be the main code and category can remain optional. Jamie Lehner (PCPI) - Suggested that leaving as is makes the most sense. Not sure it is feasible to require additional attributes for implementation. **Resolution/Next Steps:** The User Group did not support making this change.

5 Minutes	Recap Decisions	Floyd Eisenberg (ESAC)	ESAC recapped the finalized decisions based on today's call:
			• QDM Entities
			  ○ Patient
			  ○ Care Partner
			  ○ Practitioner
			  ○ Organization
			• QDM datatype (new): Related Person (Note: This needs to be tested.)
			• POA Modeling
			  ○ Code
			  ○ POA indicator
			  ○ Rank
			• Procedure, Performed; Procedure, Order; Procedure, Recommended
			  ○ Add Rank as an attribute
			  ○ Remove ordinality as an attribute

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5 Minutes, Cont.	Recap Decisions, Cont.	Floyd Eisenberg (ESAC), Cont.	**Next Steps:** Will discuss tooling and terminology implications. Plan presentation to eCQM Governance March 26 and MCCB March 28 for approval.
15 Minutes	Representing Principal Procedure [QDM-226]	Floyd Eisenberg (ESAC)	**Overview:** ESAC provided vendor feedback to date on how to identify principal procedure: • Primarily meaningful for billing • Is recognized as the active code with priority of 1. Represents principal or other codes submitted with billing claim. • Discharge abstract TJC is looking for input on whether there is another way to identify Principal Procedure. **Discussion:** Joe Kunisch (Memorial Hermann) - Suggested this is done at the time of coding. Coders determine principal procedure. Isbelia Briceno (Cerner) - Noted this is done during final coding. With no further input, the topic was closed.
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 – April 17, 2019 from 2:30 to 4:30 PM ET.

Invitees/Attendees:

	Name	Organization
	Abrar Salam	The Joint Commission
	Alex Lui	Epic
X	Angela Flanagan	Lantana
	Ann Philips	NCQA
	Anna Bentler	The Joint Commission
	Anne Coultas	McKesson
	Anne Smith	NCQA
	Balu Balasubramanyam	MITRE
	Ben Hamlin	NCQA
X	Beth Bostrom	AMA
	Brian Blaufeux	Northern Westchester Hospital
	Bryn Rhodes	ESAC
X	Chana West	ESAC
	Chris Moesel	MITRE
	Cindy Lamb	Telligen
X	Claudia Hall	Mathematica
	Corrie Dowell	BSW Health
	Dalana Ostile	Providence Health Systems
	Dave Wade	Apprio
	Debbie Hall	University of Maryland
	Deidre Sacra	McKesson
	Doug Goldstein	Epic
X	Floyd Eisenberg	ESAC
	Ganesh Shanmugam	Glenwood Systems
	Howard Bregman	Epic
	Hyok-Hee Yoo	Medisolv
X	Isbelia Briceno	Cerner
X	James Bradley	MITRE
X	Jamie Lehner	PCPI
	Jana Malinowski	Cerner
	Jean Fajen	Telligen
	Jenna Williams-Bader	NCQA
X	Jill Shuemaker	VCU Health
	John Carroll	The Joint Commission
	John Lujan	Kaiser Permanente
X	Jenny	Unknown
	Jessica Smails	Caradigm
X	Joseph Kunisch	Memorial Hermann
	Jorge Belmonte	PCPI
	Julie Koscuiszka	Nyack Hospital
	Juliet Rubini	Mathematica
	Justin Schirle	Epic
	Jay Frails	Meditech
	Kathy Benson	Unknown
	Kendra Hanley	HSAG
X	Kimberly Smuk	HSAG
	KP Sethi	Lantana

	Name	Organization
	Laura Pearlman	Midwest Center for Women's Healthcare
	Laurie Wissell	Allscripts
X	L Dejesus	Informedika
X	Lisa Anderson	The Joint Commission
X	Lizzie Charboneau	MITRE
	Lynn Perrine	Lantana
	Marc Hadley	MITRE
	Marc Hallez	Unknown
	Marc Overhage	Cerner
	Margaret Dobson	Zepf Center
	Matt Hardman	Unknown
	Marilyn Parenzan	The Joint Commission
	Martha Radford	NYU
	Melissa Van Fleet	Alliance Health Oklahoma
	Mia Nievera	The Joint Commission
	Michelle Dardis	The Joint Commission
	Michelle Hinterberg	MediSolv
	Mike Shoemaker	Telligen
	Mukesh Allu	Epic
	Neelam Zafar	The Joint Commission
X	Pamela Mahan-Rudolph	Memorial Hermann
	Paul Denning	MITRE
	Peter Muir	ESAC
	Rachel Buchanan	Oregon Urology
	Rayna Scott	PCPI
	Rebeccah Baer	NCQA
X	Rob McClure	NLM Contractor
	Rob Samples	ESAC
	Rose Almonte	MITRE
	Ruth Gatiba	Battelle
X	Ryan Clark	NCQA
	Ryan Sullivan	NYU
X	Samuel Benton	NCQA
	Sethuraman Ramanan	Cognizant
X	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
	Tom Dunn	Telligen
	Vaspaan Patel	NCQA
	Wendy Wise	Lantana
X	Yan Heras	ESAC
	Yanyan Hu	The Joint Commission
X	Yiscah Bracha	RTI
X	Yvette Apura	PCPI
	Zach May	ESAC
	Zahid Butt	MediSolv