Quality Data Model (QDM) User Group Meeting | Minutes

Meeting date | *06/19/2019 2:30 PM ET* | Meeting location|Webinar link:
https://esacinc2.webex.com/esacinc2/j.php?MTID=mc47f9747fe818b4cbbd93e2318ca61a2

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	Announcements	Zachary May (ESAC)	– **Cooking with CQL Webinar was held on June 27ᵗʰ 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. – The QDM User Group meeting will occur on July 10, 2019 - one week earlier than regularly scheduled.
10 Minutes	QDM 5.5 edits	Floyd Eisenberg (ESAC)	QDM 5.5 approved by MCCB and is in the process of being implemented in the next measure authoring tool cycle. The updated QDM is published on the eCQI Resource Center. Entities [generally used to indicate who performed an activity referenced in a QDM data element]. o Instance identifier (.id) was added to allow reference to the same individual (when appropriate) as performer of different tasks. ▪ Patient – Identifier – Id [added] ▪ Care partner – Identifier – id [added] – Relationship ▪ Practitioner – Identifier – id [added] – Role – Specialty – Qualification ▪ Organization – Identifier

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			− id [added] − type ○ Attribute Table ▪ Identifier (added as an attribute – page 61) − Related person − Patient − Care partner − Practitioner − Organization ▪ LinkedPatientId (added as an attribute – page 69) − Related Person [Note – the new Related Person QDM datatype was added to all reference to information about a related person from the index person's record. For example: When retrieving data from the record of a newborn infant determine the mother's estimated due date to compare the due date with the actual birth data as an indicator of gestational age at birth. The LinkedPatientId is the instance identifier for the Related Person to assure that each reference to that related person addresses the same person as different from another Related Person.] ▪ Relevant dateTime (page 69) − Removed Medication, Order (inadvertently included in the attribute table) ▪ Care Goal (page 26) − Added description to explain the *performer* attribute [The FHIR resource references the performer using "*expressedBy.*" The definition is the same – the individual or organization responsible for creating the goal.] ▪ Family History (page 34) − Relationships attribute - change to singular (relationship) – each individual has only one relationship with the index person. ▪ Related Person (page 49) − Added *code* attribute to align with other QDM datatypes [The *code* attribute references the relationship to the index patient.] − Added LinkedPersonId

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			− Removed *relationship* as an attribute since the *code* attribute is used to identify the required relationship.
10 Minutes	Follow-up Request to Review QDM timing in eCQMs – QDM-232 and QDM-233	Floyd Eisenberg (ESAC)	QDM-232 and QDM-233 reference a discussion during the May QDM User Group call requesting review of author dateTime usage in measures written for the 2019 reporting year. The Mathematica and ESAC teams reviewed the measures presented in the Jira tickets. o For those data elements expressed as Assessment, Performed or Immunization, Administered, the existing QDM Known Issues allow use of actual performance times rather than author dateTime. QDM restricted timing to author dateTime for Assessment, Performed and Immunization, Administered. Links to the QDM Known Issues: ▪ Assessment, Performed timing Known Issue ▪ Immunization, Administered timing Known Issue o Measure developers had the option of expressing measure statements with Relevant Time and/or author dateTime for data elements using other QDM datatypes. The response for these data elements follows: ▪ QDM v5.3 is used to support the measure specifications for the 2019 reporting/performance period and QDM 5.4 is used to support measure specifications for the 2020 reporting/performance period. With regards to author dateTime, please interpret the measure specifications as currently written with its associated timing criteria definitions as defined in QDM for each datatype* and respective reporting/performance period. Measure developers plan to review timing criteria in the next annual update to confirm and clarify alignment with intent. *This reads "data element" in the ticket, but should read "datatype".
15 Minutes	Encounter, Performed timing QDM-235	Floyd Eisenberg (ESAC)	**<u>Overview:</u>** QDM-235 questions how QDM defines the end of an encounter. Encounter, Performed timing attributes: o Relevant period ▪ startTime - The time the encounter began (admission time) ▪ stopTime - The time the encounter ended (discharge time) o author dateTime - When the encounter is documented

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○ Note, for Negation Rationale - Negation rationale indicates a one-time documentation of a reason an activity is not performed. Negation of a QDM datatype-related actions for a reason always use the author dateTime attribute to reference timing and must not use Relevant Period.

QDM-235 askes how to address the encounter end time if the encounter is not closed by the clinician for over 24 hours or more. Encounter records may not be "closed" until the practitioner has completed all documentation and that may take 48, 72 or 96 hours. Thus, a 15-minute patient visit may stay "open" for much longer than the visit duration.

Consider:

○ Encounter check-in and encounter check-out times, and hence the administrative encounter represents the intent of the defined Relevant Period. However, a patient may "check-in" before the scheduled visit time so the start and stop times of the actual encounter may be different. Note:
  ▪ The billing software may include the administrative start and end times;
  ▪ The clinical software may indicate when the record was opened and when the documentation about it is completed.
○ In HL7 FHIR, the Patient Administration Workgroup manages the Encounter as an administrative item. The FHIR Encounter Boundaries and Relationships does not provide guidance on this issue (http://hl7.org/fhir/R4/encounter.html#bnr).

Questions for the User Group:

○ Should QDM publish a Known Issue to reflect how to interpret the relevant period for an encounter, performed? How do measure developers interpret end time?

Discussion:

Dawn Lane (Covenant Health) - Noted there is a problem with clients not checking visits out. Covenant Health is an ambulatory provider network. They default the end time for encounters to checkout on the same day as the visit (insert 11:59 p.m., same day) unless the practitioner subsequently fills in the actual time the patient left. Covenant Health does not use administrative billing information as the data do not exist there.

Peter Muir (ESAC) - Noted that many ambulatory EHRs will check out in the practice management appointment/scheduling system. The clinical note might not be signed off for a while because they

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			need to add to it. Some EHRs have the capability to flag tasking in the provider workflow to ensure sign-off.
			Joe Kunisch (Memorial Hermann) - Noted the ambulatory clinic checks the patient out after the visit is completed at the appointment even though the chart remains open to allow clinicians to finish their documentation. There is a depart time after each encounter on the ambulatory side.
			ESAC asked: Would a Known Issue indicating that depending on implementation the end time of the Encounter might not be the actual time the patient left, be helpful?
			Rob McClure (NLM Contractor) - Suggested this sounds like guidance issue. Would be valuable to acknowledge that if the clinical system is not documenting when the patient leaves, this could affect quality measures; therefore best practice is to have systems that document when the patient leaves/allow for documentation for closing the Encounter even if they Encounter documentation is incomplete.
			ESAC suggested language could be added in IG for QI Core or perhaps a Known Issue around implementing QDM. He noted would need to be careful not to prescribe how to address this, but rather suggest implements be cognizant of the issue.
			Peter Muir (ESAC) - Suggested might need to differentiate between when patient is in attendance. The Encounter can begin before the patient is in attendance and end after the patient leaves.
			Rob McClure (NLM Contractor) - Suggested timing documentation of the Encounter should not be absolutely used as way of identifying start and stop. Do not want to encourage use of those times as ways of determining start and stop time of Encounter. There are different sets of timing: when chart is open versus direct patient care. Suggested it is better to decide what we call an Encounter and deal with those situations that are something else (e.g., when a chart is opened is independent of an Encounter). The Encounter timing should not refer to the documentation around the Encounter.
			Resolution/Next Steps:
			ESAC to draft guidance text for the FHIR Quality Measure Implementation Guide to address this concern.

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15 Minutes	Other QDM Issues: Procedure, Performed Timing	Floyd Eisenberg (ESAC)	Dawn Lane posed a question about Procedure, Performed, Relevant Period and author datetime are listed. She asked whether it is acceptable if no Relevant Period is provided, that author date time be used instead. As an example, CMS 130 requires colon cancer screening. If the patient indicates that they had a colonoscopy in the past, and they know it was several years ago but not exactly when, using author dateTime would indicates a colonoscopy is not needed for another 10 years; however, that is not accurate.

The question was posed to the User Group: How do other measure developers address this issue?

Discussion:

Yanyan Hu (TJC) - Suggested there are five times listed in the FHIR R4 Procedure Resource:

- performedDateTime
- performedPeriod
- performedString
- performedAge
- performedRange

US-Core restricts the procedure timing to dateTime or Period.

ESAC suggested the question is specifically pertinent to historical data entered manually, especially when the actual performance date is unknown. PerformedAge might work but if it is not available in US-Core it may not be present in EHR structured data.

Peter Muir (ESAC) - Suggested clinically, the physician would enter a year range and chase the report. Clinicians would want the copy of the colonoscopy report.

Dawn Lane (Covenant Health) - Clarified the question is if because it is a category, whether it is blanketed across the category if Relevant Period is not available that you could substitute author time. She did not feel substitution of author dateTime was valid. Covenant Health decides on author time applicability for each measure. So for colonoscopy, they ignore the data if the time period was not provided. Making inferences has implications for meeting measure intent for implementations. The measure logic should specify when interchanges can be made (e.g., author dateTime for Relevant Period) and when those interchanges cannot be made.

ESAC agreed it is important to make the measure more explicit to ensure correct inference is made. [See QDM User Group Agenda for July 10, 2019 to address this issue further – QDM-237]

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45 Minutes	QDM – QI-Core Mapping Discussion	Floyd Eisenberg (ESAC)	In transitioning to FHIR, it would be useful if the measure developer community could provide examples for the following. HL7 seeking examples for QI-Core IG in the following classes of data: • Adverse event • Allergy/intolerance • Observations o General observations o Laboratory tests o Diagnostic (imaging) studies o Physical exam (general) ▪ Vital signs o Symptoms • Care plan - care goals • Communication • Diagnoses • Devices o Device use • Encounters • Family history • Immunizations • Medications o Medication use o Non-medication substances o Mon-medication substance use • Procedures/interventions • Cross-context queries (e.g., to another individual's record) • Program participation (e.g., health plan, disease-specific program, etc.) • Requests (orders, recommendations, proposals)

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Example: Physical Exam, Performed - Vital Signs

- US-Core R4: inherits profiles from FHIR:

  http://hl7.org/fhir/R4/observation-vitalsigns.html

- Vitalsigns
- Status - final, amended, corrected
- Code - fixed 9279-1
- Relevant dateTime - Observation.effective[x]
- Performer - Observation.performer
- Results
    - Respiratory Rate - fixed code 9279-1
    - Heart Rate - fixed code 8867-4
    - Oxygen Saturation - fixed code 2708-6
    - Body Temperature - fixed code 8310-5
    - Body Height - fixed code 8302-2
    - Head Circumference - fixed code 9843-4
    - Body Weight - fixed code 29463-7
    - Body Mass Index - fixed code 39156-5
    - Blood Pressure systolic and diastolic - fixed code 85354-9
        - Systolic blood pressure (component) - fixed code 8480-6
        - Diastolic blood pressure (component) - fixed code 8462-4

Example: DiagnosticReport.Note: Ultrasound Report (ejection fraction)

US-Core R4: inherits profiles from FHIR:

http://hl7.org/fhir/R4/diagnosticreport-profiles.html

- 2D echocardiogram
- Status - final, amended, corrected, appended
- Code - 34552-0 (LOINC panel)
- Relevant dateTime - DiagnosticReport.effective [x]
- Performer - DiagnosticReport.performer
- Results

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			- Aorta diameter by ultrasound - 18010-9 - Left ventricular outflow tract Diameter by US - 18018-2 - Right ventricular outflow tract Diameter by US 2D - 20307-5 - Left ventricular internal diameter minor axis diastole by US 2D - 18083-6 - Left ventricular posterior Wall thickness during diastole by US 2D - 29442-1 - Intraventricular septum Thickness during diastole by US 2D - 29430-6 - Left ventricular Ejection fraction by 2D echo - 8806-2 - Left ventricular Fractional shortening minor axis by 2D echo - 29434-8 - Central cardiovascular Overall Study Observation by US - 18147-9 <u>Discussion:</u> Is it helpful to show how to use FHIR differently than QDM? Yanyan Hu (TJC) - Yes this is helpful to show how these are expressed in FHIR. Floyd showed an example in FHIR: https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-us-core-diagnosticreport-note.html Lisa Anderson (TJC) - Asked is this how diagnostic reports are being implemented using the enumerated list? Historically, all the info is narrative text. Peter Muir (ESAC) - Noted on an echocardiogram part of the technician report comes across as a table. In the EHR it turns into a text document. Most places will not have this information available. Many measures look for an EF of say 40%; however lower EF might be indication for anticoagulation. Basically, it would require the interface at the diagnostic facility to capture the info differently than they do now. Data capture burden on the clinician office. If we could encourage implement structured data and operate off of them rather than re-entering, this has value. ESAC added that defining in a standard and explicit way has value. If for example, you ask for two results out of same study, this makes it explicit what you're looking for rather than creating CQL to indicate timing, etc. ESAC noted that there has been discussion about the different ways to do things in HL7 and unless there is some consistency in the set of examples, we will never get where we want to be. However US Core, does have a profile for diagnostic report. The USCDI requested. Expect this

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			will be something EHRs can handle. If report includes structured data, this provides examples of why they need to do it.
			Lisa Anderson (TJC) - Suggested there is a need for terminology to support. There has to be some crossover with LOINC.
			ESAC reviewed the LOINC Panel Browser: https://loinc.org/panels
			- Laboratory order panels - Survey instruments (patient-reported) - Clinical assessments, scales and measures - Clinical documents and summaries - Diagnostic studies (non-lab) - Government - Miscellaneous - Healthcare Effectiveness Data and Information Set (HEDIS)
			ESAC noted it would be helpful to consider using these panels. Implementers can find more explicitly where to find it, and making inferences is not necessary. This helps to improve the fidelity of the data.
			Michelle Dardis (Mathematica) - Asked for clarification regarding what is being asked of measure developers.
			ESAC clarified we are asking for feedback on examples as these can be reused in measures. Examples of what you want to see referenced.
			Michelle Dardis (Mathematica) - Noted we have opportunity because we are working through a number of examples through the FHIR Measure Collaboration call. We've been taking a look with the Mathematica measure developers at coverage of QDM datatypes. Specific areas within QI Core that are particularly helpful to focus on, we can help find examples across measures or as we develop those measures with FHIR collaboration group, could use existing work as examples with this group.

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			ESAC suggested it would be useful to have examples from diagnostic reports from imaging, and others. It will be helpful when we have one or two from imaging, then lab panel, physical exam findings, and procedures. Overall, looking for examples in different classes. Example: QDM Concepts - Proposals QDM has many recommended and ordered datatypes. In FHIR this is a Service Request. Recommended • SerivceRequest o Constrain status to: active, on-hold, completed o Constrain intent to: plan Order • SerivceRequest o Constrain status to: active, on-hold, completed o Constrain intent to: order and "children" In FHIR R4, ServiceRequest is used for the following QDM Concepts: • Assessment • Diagnostic study • Laboratory test • Encounter • Intervention • Procedure • Physical exam In FHIR R4 there is a different request for the following:

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			- Substance - Use NutritionOrder - Medication - Use MedicationRequest - Device - Use DeviceRequest It would be useful to provide examples for these concepts from existing measures. Rob McClure (NLM Contractor) - Suggested that beyond examples, it would be useful to establish a way to collaborate over time with potential solutions. This might be through Confluence, Jira, as a way to gather input over time and allow stakeholders to seek examples. ESAC agreed that an example library sorted by class of data which has a collaborative nature would he useful. This is a long term goal of a broader effort should be across healthcare, not just measure developers, and should be consistent with the community. Claudia Hall (Mathematica) - Suggested perhaps the CMD Workspace is a possible application for this type of forum. ESAC noted other groups are considering how to address this in a standard way as well, including the Orders and Observations Workgroup in HL7.
5 Minutes	Next Meeting	Zachary May (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**

Time	Item	Presenter	Discussion/Options/Decisions
			– Regularly Scheduled Meeting – July 10, 2019 from 2:30 to 4:30 PM ET.

Invitees/Attendees:

	Name	Organization
	Abrar Salam	The Joint Commission
	Alex Borenstein	Greenway Health
	Alex Lui	Epic
X	Andy Kubilius	Unknown
X	Angela Flanagan	Lantana
X	Ann-Marie Dunn	Unknown
	Ann Philips	NCQA
	Anna Bentler	The Joint Commission
	Anne Coultas	McKesson
	Anne Smith	NCQA
X	Amira Elhagmusa	Battelle
	Balu Balasubramanyam	MITRE
	Ben Hamlin	NCQA
	Benjamin Bussey	Unknown
X	Beth Bostrom	AMA
	Brian Blaufeux	Northern Westchester Hospital
	Bryn Rhodes	ESAC
	Carolyn Anderson	Primary care practice
	Chana West	ESAC
	Chris Moesel	MITRE
	Cindy Lamb	Telligen
X	Claudia Hall	Mathematica
	Corrie Dowell	BSW Health
	Dalana Ostile	Providence Health Systems
X	Dawn Lane	Covenant Health
	Dave Wade	Apprio
X	David Clayman	Allscripts
X	Debbie Hall	University of Maryland
	Deidre Sacra	McKesson
	Doug Goldstein	Epic
X	Floyd Eisenberg	ESAC
	Gary Rezik	QIP
	Ganesh Shanmugam	Glenwood Systems
	Howard Bregman	Epic
	Hyok-Hee Yoo	Medisolv
X	Isbelia Briceno	Cerner
	James Bradley	MITRE
	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
	Jessica Smails	Caradigm
X	Joseph Kunisch	Memorial Hermann
X	Johanna Ward	Mathematica
	Jorge Belmonte	PCPI

	Name	Organization
	L Dejesus	Informedika
X	Lisa Anderson	The Joint Commission
	Lizzie Charboneau	MITRE
X	Lynn Perrine	Lantana
	Marc Hadley	MITRE
	Marc Hallez	Unknown
	Marc Overhage	Cerner
	Margaret Dobson	Zepf Center
	Matt Hardman	Unknown
	Marilyn Parenzan	The Joint Commission
	Marc Hallez	The Joint Commission
	Martha Radford	NYU
	Melissa Van Fleet	Alliance Health Oklahoma
X	Mia Nievera	The Joint Commission
X	Michael Mainridge	Unknown
X	Michelle Dardis	Mathematica
X	Michelle Hinterberg	MediSolv
	Mike Shoemaker	Telligen
	Mukesh Allu	Epic
	Nathan R	Unknown
	Neelam Zafar	The Joint Commission
	Norm Sirois	Unknown
	Pamela Mahan-Rudolph	Memorial Hermann
	Paul Denning	MITRE
X	Peter Muir	ESAC
	Rachel Buchanan	Oregon Urology
	Rayna Scott	PCPI
	R Swaineng	Swaineng Associates
	Rebeccah Baer	NCQA
X	Rob McClure	NLM Contractor
X	Rob Samples	ESAC
	Robin Holder	Unknown
	Rose Almonte	MITRE
	Ruth Gatiba	Battelle
	Ryan Clark	NCQA
	Ryan Sullivan	NYU
	Samuel Benton	NCQA
	Sarah Sims	Unknown
	Sethuraman Ramanan	Cognizant
	Shanna Hartman	CMS
	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
X	Thomas Hudson	Unknown
	Tom Dunn	Telligen
X	Traci Psihas	ESAC
	Vaspaan Patel	NCQA

	Name	Organization
	Julie Koscuiszka	Nyack Hospital
	Juliet Rubini	Mathematica
	Justin Schirle	Epic
	Jay Frails	Meditech
	Kathy Benson	Unknown
	Kendra Hanley	HSAG
	Kimberly Smuk	HSAG
	KP Sethi	Lantana
	Latasha Archer	NCQA
	Laura Pearlman	Midwest Center for Women's Healthcare
	Laurie Wissell	Allscripts

	Name	Organization
	Ward Holland	Unknown
	Wendy Wise	Lantana
	Yan Heras	ESAC
X	Yanyan Hu	The Joint Commission
	Yiscah Bracha	RTI
	Yvette Apura	PCPI
X	Zach May	ESAC
	Zahid Butt	MediSolv
	Zeeshan Pasha	Unknown