Quality Data Model (QDM) User Group Meeting | Minutes

Meeting date | *05/15/2019 2:30 PM ET* | Meeting location | Webinar

Time	Item	Presenter	Discussion/Options/Decisions
15 Minutes	Follow up from April QDM UG Meeting re: Adding Relevant Period to Assessment, Performed (QDM-228 / CQM-3556)	Floyd Eisenberg (ESAC)	Anne Coultas (Allscripts) asked about the issue raised in the April QDM UG meeting regarding the addition of Relevant Period to Assessment, Performed in QDM v5.5. She asked if the group will receive clarification on how to handle in 2019. She also asked what datatypes outside of Assessment, Performed, will be updated in v5.5 or should JIRA tickets be opened for each additional datatype. ESAC recommended publication of a Known Issue for Assessment, Performed author dateTime to address this concern. On an eCQM Working Group call for CMS measure developer contractors 2 weeks before this meeting, attendees raised a question about potential risk for program reporting with respect to implementers for whom use of actual effective time instead of author dateTime would have increased performance in the previous year. ESAC reviewed the issue with CMS and since there is common understanding that performance may vary from year to year due to even minor changes in annual updates to measures there should be no risk for reporting organizations or practitioners. Additionally, there are no CMS program-specific financial incentives based on the level of performance. ESAC asked what other QD datatype timing elements are problematic. Anne Coultas (Allscripts) presented a list of measures with versions expressed in QDM 5.3 and 5.4 asking only for author dateTime including several QDM datatypes, examples: Communication, Performed; Diagnostic Studies, Performed; Procedure, Performed; and Physical Exam, Performed. Anne asked if implementers can use actual performance time when eCQM expressions request author dateTime. ESAC suggested most, if not all, of these datatypes have a Relevant Period. If the eCQMs specify author dateTime, the respective measure developers may have had rationale for that decision specific to the measure's intent (versus using Relevant Period when it was available). Therefore, individual Jira tickets may be necessary to review with each respective measure developer to answer questions related to each eCQM's intent. David Clayman (Allscripts) - Suggested the issue is the CQL itself says author dateTime only. For example, CMS 165. Most likely this will be the same day, but that is not always the case.

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15 Minutes, Cont.	Follow up from April QDM UG Meeting re: Adding Relevant Period to Assessment, Performed (QDM-228 / CQM-3556), Cont.	Floyd Eisenberg (ESAC), Cont.	ESAC suggested if the measure developer had the option to use Relevant Period, they may have a rationale for not doing so. That question needs to be answered by each respective measure developer through a JIRA ticket. Mia Nievera (TJC) - Suggested her understanding is authorDatetime could apply to all datatypes, but Relevant Period cannot apply to all datatypes. She suggested author dateTime is time when captured in system and Relevant Period is when the procedure or intervention is performed. Relevant Period can be changed after and author dateTime cannot be changed. ESAC agreed and noted this is the reason to check with the measure developer regarding measure intent. **Resolution/Next Steps:** When questions arise for those datatypes where the measure developer had the opportunity to indicate a Relevant Period and chose not to, should enter JIRA ticket to confirm measure intent. Note – subsequent to the QDM User Group meeting, ESAC created a QDM Jira ticket referencing all of the items presented during the call. Please reference QDM-232 for comments and follow up. ESAC has also published the Assessment, Performed Known Issue at: https://github.com/esacinc/CQL-Formatting-and-Usage-Wiki/wiki/eCQM-Known-Issues#qdm-assessment-performed-timing-qdm-53-and-54. All Users can access all QDM Known Issues from the eCQI Resource Center QDM page at: https://ecqi.healthit.gov/qdm-quality-data-model.
60 Minutes	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core	Floyd Eisenberg (ESAC)	**Overview:** FHIR - US-Core - QA-Core Recap: FHIR has five levels. QDM primarily addresses levels 3 and 4: • Level 1 - Foundation • Level 2 - Implementer Support, Security • Level 3 - Administration (Encounter) • Level 4 - Clinical, Diagnostics, Medications, Workflow, Financials • Level 5 - Clinical Reasoning

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core,
	
	Cont.
		Floyd Eisenberg (ESAC), Cont.	FHIR Versions:
			• DSTU2 - First release. This version is the basis for the Argonaut profiles.
			• STU3 - Version that US Core, QI Core and many other implementation guides (IGs) are based on this version.
			• R4 - There is more consistency across types of data and some of this is now normative. QDM and FHIR alignment will focus on FHIR R4.
			
			<u>US Core</u>
			• Actors
			  ○ Requestor
			  ○ Responder
			• Profiles
			  ○ Describes restrictions on how resources are used (e.g., terminology used)
			  ○ Vital signs
			  ○ Pediatric BMI
			  ○ Pediatric weight
			  ○ Etc.
			
			<u>QI Core</u>
			• Uses US Core where available
			• Constraints to support eCQMs and clinical decision support
			• Built with US Core to the extent that US Core has profiled the content required

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	HL7 FHIR-related Standards for Quality • Data Export for Quality Measures (DEQM)/ Healthcare Effectiveness Data and Information Set (HEDIS) - quality measurement focused implementation guide. DEQM is the FHIR representation of requirements addressed by Quality Reporting Document Architecture (QRDA). • FHIR Quality Measure Implementation Guide, the FHIR representation of requirements addressed by the HL7 v3-based Health Quality Measure Format (HQMF) • QI Core - quality improvement focused data model and QUICK (Quality Improvement Clinical Knowledge) • US Core - US realm specific profiles • FHIR - universally applicable resources and guidance QI Core - Relationships to US Core and FHIR - http://hl7.org/fhir/us/qicore/ Modeling QDM to FHIR - Managing QDM Observation specific datatypes with US-Core US Core R4 Profiles – 25 total plus US Core uses the FHIR Vital Signs profile without change. All US Core R4 content is currently available on the FHIR build site at: https://build.fhir.org/ig/HL7/US-Core-R4/. QDM datatypes consistent with FHIR Resource “Observation”: • Assessment, Performed • Laboratory Test, Performed • Diagnostic Study, Performed • Physical Exam, Performed

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	Cont.
		Floyd Eisenberg (ESAC), Cont.	US Core Observations with specific profiles:
			• US-Core DiagnosticReport Profile for Laboratory Results Reporting
			• US-Core DiagnosticReport Profile for Report and Note Exchange
			• US-Core DiagnosticReference Profile
			• US-Core Laboratory Result Observation Reporting
			• US-Core Pediatric BMI for Age for Age Observation Profile
			• US-Core Pediatric Weight for Height for Height Observation Profile
			• US-Core Smoking Status Observation Profile
			• Vital Signs Profile from FHIR Specification
			
			US Core originated with the Argonaut FHIR DSTU 2 content for sharing clinical data and has expanded to include more information with FHIR STU 3 and now is completing updates based on FHIR STU 4/Normative. US Core provides profiles detailing how to use specific FHIR resources in the US. The US Core aligns closely with the US ONC Common Clinical Data Set (CCDS) and proposed updates for the US Core Data for Interoperability (USCDI) current proposed by an ONC Notice for Proposed Rule Making (NPRM). US Core profiles help address many of the QDM attributes.
			
			US Core directly adopts the FHIR Observation Vital Signs Profile (addressed by the QDM datatype Physical Exam, Performed). All Observation Panels must have a:
			• Status
			• category code of 'vital-signs'
			• "magic value" which tells you what is being measured
			  ○ LOINC was chosen for the "magic values" because this aligns with the most countries, but it can be treated as simply a fixed core set of common codes to communicate basic vital signs. Implementers that need to use a different code system can still map accordingly.
			• patient
			• time indicating when the measurement was taken
			• numeric result value and standard UCUM unit which is taken from the Unit Code column in the table below.
			  ○ note: if there is no numeric result then you have to supply a reason

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	FHIR Vital Signs Panel Details [http://build.fhir.org/observation-vitalsigns.html]: • ”Magic value” (LOINC) – 85353-1 • *Vital signs, weight, height, head circumference, oxygen saturation and BMI panel* - It represent a panel of vital signs listed in this table. All members of the panel are optional and note that querying for the panel may miss individual results that are not part of the actual panel. When used, Observation.valueQuantity is not present; instead, related links (with type=has-member) reference the vital signs observations (e.g. respiratory rate, heart rate, BP, etc.). This code replaces the deprecated code 8716-3 - *Vital signs* which is used in the Argonaut Data Query Implementation Guide. • UCUM Code – N/A • Examples: Vital Signs Panel Example • General Vital Signs Panel Example: id: vitals-panel meta: status: final id: vitals-panel meta: status: final category: Vital Signs code: Vital signs Panel subject: Patient/example effective: July 2, 1999 hasMember: (Examples): • Respiratory Rate • Heart rate • Blood Pressure • Body Temperature

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core,
	
	Cont.
		Floyd Eisenberg (ESAC), Cont.	• FHIR Vital Signs - Respiratory Rate
			  ○ mandatory requirements
			  • One code in observation code which must have
			  ○ A fixed Observation.code.coding.system=**'http://loinc.org'**
			  ○ A fixed Observation.code.coding.code='**9279-1'**
			  ○ Other additional Codings are allowed in Observation.code (e.g., more specific LOINC codes, SNOMED CT concepts, system specific codes).
			  • Either one Observation.valueQuantity or, if there is no value, one code in Observation.DataAbsentReason
			  ○ Each Observation.valueQuantity must have
			  ▪ One numeric value in Observation.valueQuantity.value
			  ▪ A fixed Observation.valueQuantity.system="http://unitsofmeasure.org"
			  ▪ A UCUM unit code in Observation.Quantity.code='/min'
			  • Mandatory 3 elements (+ 4 nested mandatory elements)
			  • Must Support: 4 elements
			  • Fixed Value: 4 elements
			
			Reference the following links for additional vital signs examples:
			• Respiratory rate: http.//build/fhir.org/resprate.html
			• Heart rate: http://build.fhir.org/heartrate.html
			• Oxygen saturation: http://build.fhir.org/oxygensat.html
			• Body temperature: http://build.fhir.org/bodytemp.html
			• Height: http://build.fhir.org/bodyheight.html
			• Head circumference: http://build.fhir.org/headcircum.html
			• Body weight: http://build.fhir.org/bodyweight.html
			• Body mass index: http://build.fhir.org/bmi.html
			• Blood pressure (with subsections for each of systolic and diastolic components): http://build.fhir.org/bp.html

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	• US-Core R4 - Diagnostic Report for Lab (QDM Laboratory Test, Performed) each must have a: • Status • A category code of 'LAB" • A code (preferably a LOINC code) • Patient • Time when measurement was taken • Time when measurement was reported • At least one result https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-us-core-diagnosticreport-lab.html Examples: • Diagnosticreport-urinalysis • Diagnosticreport-metabolic-panel • Diagnosticreport-cbc • US-Core R4 - Diagnostic Report Note (QDM Diagnostic Study, Performed) Each must have a: • Status • A category • A code describing the type of report • Patient • Date and time the report was created • Author (actor) producing the report

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	Each must support: • The encounter the report occurred within • Instant the report was released • An Image • A reference to the whole report (presentedForm) https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-us-core-diagnosticreport-note.html Examples: • Cardiology Report • Radiology Report • US-Core R4 – Document Reference Profile (QDM Assessment, Performed) Each must have a: • Status • A code describing the type of document • A document category • Patient • The MIME type (i.e., contentType) of the document • An address (e.g., url) where the document can be retrieved or the content as inline base64 encoded data

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	Each must support: • A business identifier for the Document Reference (possibly generated by the transcription system for EHR) • Date and time the reference was created • An author • The organization responsible for the document, referred to as custodian • A code identifying the specific details about the format of the document – over and above the content's MIME type • The patient encounter that is being referenced • Clinically relevant data https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-us-core-documentreference.html Example: • DocumentReference-episode-summary Retrieve a URL for an episode summary note (CCD) • US-Core R4 Laboratory Result Observation Profile (QDM Laboratory Test, Performed) each must have: • Status • Category code of 'laboratory' • LOINC code • Patient • Result value Each Observation should have: • Time indicating when the measurement was taken • Reference range https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-us-core-observation-lab.html

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	Examples: • observation-usg • observation-serum-total-bilirubin • observation-erythrocytes • US-Core R4 Smoking Status (QDM Assessment, Performed) each must have: • Status • A code for smoking observation • Patient • A date representing when the smoking status when recorded • A result value code for smoking status • US-Core R4 Pediatric Body Mass index for Age (QDM Physical Exam, Performed) each must have: • A fixed code for pediatric BMI per age and gender measurement • A result value https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-pediatric-bmi-for-age.html Examples • Pediatric BMI for Age Example • US-Core R4 Pediatric Weight for Height (QDM Physical Exam, Performed) each must have: • A fixed code for pediatric weight for height and age measurement • A result value https://build.fhir.org/ig/HL7/US-Core-R4/StructureDefinition-pediatric-weight-for-height.html

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60 Minutes, Cont.	Continued Guidance on Converting QDM v.5.5 content to FHIR/QI-Core, Cont.	Floyd Eisenberg (ESAC), Cont.	Sarah Sims - Asked about a use case she want to align with QI Core. Automate extraction of heart failure and chest pain accreditation measures. They map to FHIR resources where possible. Who can she reach out to offline to share questions? ESAC suggested she can bring questions to the HL7 CQI WG; this is an open forum. She can also send an email to qdm@esacinc.com or ESAC directly to schedule a time to discuss. ESAC noted the work to update QI-Core and QUICK, will occur on the Friday CQI WG calls (1-3pm). Quality Improvement Clinical Knowledge (QUICK) QUICK is a high-level view and is intended as a logical data model of what is needed to manage measures and clinical decision support. Plans are to write it at a level where one can write what they're looking for an export to FHIR R3, R4 or, ultimately R5.
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** – Regularly Scheduled Meeting – June 19, 2019 from 2:30 to 4:30 PM ET.

Invitees/Attendees:

	Name	Organization
X	Alex Borenstein	Greenway Health
	Angela Flanagan	Lantana
X	Ann-Marie Dunn	Unknown
	Ann Philips	NCQA
X	Anne Coultas	McKesson
	Anne Smith	NCQA
	Balu Balasubramanyam	MITRE
X	Benjamin Bussey	Unknown
X	Beth Bostrom	AMA
	Brian Blaufeux	Northern Westchester Hospital
	Carolyn Anderson	Primary care practice
X	Chana West	IMPAQ
	Cindy Lamb	Telligen
X	Claudia Hall	Mathematica
	Corrie Dowell	BSW Health
X	Dawn Lane	Unknown
	Dave Wade	Apprio
X	David Clayman	Allscripts
X	Floyd Eisenberg	ESAC
X	Gary Rezik	QIP
	Ganesh Shanmugam	Glenwood Systems
	Howard Bregman	Epic
	Hyok-Hee Yoo	Medisolv
X	Isbelia Briceno	Cerner
	James Bradley	MITRE
	Jamie Lehner	PCPI
X	Jana Malinowski	Cerner
	Jean Fajen	Telligen
	Jenna Williams-Bader	NCQA
X	Jill Shuemaker	VCU Health
	John Carroll	The Joint Commission
	John Lujan	Kaiser Permanente
	Jenny	Unknown
	Jessica Smails	Caradigm
	Joseph Kunisch	Memorial Hermann
	Jorge Belmonte	PCPI
	Julie Koscuiszka	Nyack Hospital
X	Juliet Rubini	Mathematica
	Justin Schirle	Epic
	Jay Frails	Meditech
	Kathy Benson	Unknown
	Kendra Hanley	HSAG
	Kimberly Smuk	HSAG
	KP Sethi	Lantana
	Latasha Archer	NCQA

	Name	Organization
	Lisa Anderson	The Joint Commission
X	Lynn Perrine	Lantana
	Marc Hadley	MITRE
X	Marc Hallez	Unknown
	Margaret Dobson	Zepf Center
	Matt Hardman	Unknown
X	Marilyn Parenzan	The Joint Commission
	Martha Radford	NYU
	Melissa Van Fleet	Alliance Health Oklahoma
X	Mia Nievera	The Joint Commission
X	Michelle Hinterberg	MediSolv
	Mike Shoemaker	Telligen
X	Nathan R	Unknown
	Neelam Zafar	The Joint Commission
X	Norm Sirois	Unknown
X	Paul Denning	MITRE
X	Peter Muir	ESAC
	Rachel Buchanan	Oregon Urology
X	Rob McClure	NLM Contractor
	Rob Samples	ESAC
	Robin Holder	Unknown
	Rose Almonte	MITRE
	Ruth Gatiba	Battelle
	Ryan Clark	NCQA
	Ryan Sullivan	NYU
	Samuel Benton	NCQA
X	Sarah Sims	Unknown
	Sethuraman Ramanan	Cognizant
X	Shanna Hartman	CMS
	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
	Tom Dunn	Telligen
	Traci Psihas	ESAC
	Vaspaan Patel	NCQA
	Ward Holland	Unknown
	Wendy Wise	Lantana
X	Yan Heras	ESAC
X	Yanyan Hu	The Joint Commission
	Yiscah Bracha	RTI
X	Yvette Apura	PCPI
X	Zach May	ESAC
	Zahid Butt	MediSolv
	Zeeshan Pasha	Unknown