

Quality Data Model (QDM) User Group Meeting |Minutes

Meeting date | 07/18/2018 2:30 PM ET | Meeting location|Webinar link:
<https://esacinc2.webex.com/esacinc2/j.php?MTID=me8d6277dca528e02526f28ca60f9397b>

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	Announcements	Chana West (ESAC)	<ul style="list-style-type: none"> - Cooking with CQL Webinar was held on Thursday, July 26th at 4pm 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. <ul style="list-style-type: none"> o Please submit CQL-related questions and/or measure examples to cql-esac@esacinc.com - QDM v5.4 is available on the eCQI Resource Center (https://ecqi.healthit.gov/system/files/QDM_v5_4_508.pdf) <ul style="list-style-type: none"> o Support for the new QDM features and modifications will be implemented in the production version of the Measure Authoring Tool to be released in Fall 2018 (MAT v5.6)
30 Minutes	Consider QDM evaluation with respect to HL7 FHIR for testing and feasibility (QDM -206)	Floyd Eisenberg (ESAC)	<p>In the interest of interoperability, the ESAC Team considered the impact of implementing the eCQM measures in FHIR by mapping QDM to what is currently available in the FHIR Argonaut implementation. Current implementations are based on FHIR Argonaut (DSTU 2.0). ESAC reviewed the QDM to FHIR Argonaut mapping document as posted on JIRA. This document outlines how QDM maps to what is currently available in an Argonaut implementation.</p> <p>The first question focused on the intended audience and users for this type of mapping. ESAC noted that there is much industry interest in moving healthcare interoperability to FHIR to enable more facile APIs and data sharing. Assuming the healthcare industry is moving to FHIR, thus supplanting C-CDA, HL7 V3 and HL7 2.x standards, the eCQM and CDS efforts will eventually need to consider transitioning to FHIR as well. ESAC noted the following items:</p> <ol style="list-style-type: none"> 1. Various pilot programs implementing FHIR are evaluating different versions of FHIR 2. Argonaut is a group of private sector organizations and vendors that are early adopters of FHIR using an early version based on the ONC Common Clinical Data Set (CCDS) and published as FHIR Argonaut Implementation Guides (http://www.fhir.org/guides/argonaut/). The most recently published version addressing data query uses FHIR DSTU 2.0 (http://www.fhir.org/guides/argonaut/r2/).

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30 Minutes, Cont.	Consider QDM evaluation with respect to HL7 FHIR for testing and feasibility (QDM-206), Cont.	Floyd Eisenberg (ESAC), Cont.	<p>3. Some early adopters are piloting use of some portions of FHIR 3.0 (http://hl7.org/fhir/index.html) specifically those resources in FHIR US Core (http://www.hl7.org/fhir/us/core/),</p> <p>4. The HL7 Clinical Quality Information (CQI) Workgroup recently completed a publication of the FHIR Implementation Guide (IG) for measures and clinical decision support (QI Core / QUICK). That publication is available on the FHIR build site (http://build.fhir.org/ig/cqframework/qi-core/index.html) and should be published formally on an HL7 site in the next several weeks. The QI Core/QUICK IG is based on US Core 3.0 where US Core includes the needed resources and FHIR 3.0 where US Core does not have the required resources.</p> <p>While there has been no decision to transition to FHIR, it is a valuable exercise to review the existing FHIR implementation capabilities with respect to data availability and determine the impact such available information might have on existing eQMs and those under consideration.</p> <p>Sam Sayer (MITRE) supported the effort on the call indicating that the HL7 FHIR Connectathon in September 2018 includes testing tooling to convert a CQL-QDM-based measure to FHIR for processing and reporting. Thus, evaluating QDM capabilities with respect to existing Argonaut data availability will be helpful in testing. The evaluation will also assist considerations for future strategic planning for potential transitions to FHIR when sufficient implementations exist.</p> <p>ESAC also indicated that the mapping under review during this User Group session may help determine which existing measures may be impacted and the extent of that impact if FHIR resources were used.</p> <p>The QDM User Group was notified about this Jira posting on July 12, 2018. ESAC reviewed the structure of the mapping table:</p> <ul style="list-style-type: none"> • QDM Datatype in the left-hand column • General representation of availability in columns 2 (now - highlighted in green), 3 (soon - highlighted in yellow), and 4 (late - highlighted in red) • Common Clinical Data Set (CCDS) Data Element name in column 5 • FHIR Resource (in Argonaut) in column 6 • Comments for clarification in column 7

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30 Minutes, Cont.	Consider QDM evaluation with respect to HL7 FHIR for testing and feasibility (QDM-206), Cont.	Floyd Eisenberg (ESAC), Cont.	<p>ESAC further reviewed each of the QDM datatypes, providing guidance and rationale for the mappings presented in the table. QDM to FHIR Mapping:</p> <ul style="list-style-type: none"> • <u>Patient Characteristic (Generic) QDM Datatype</u> - In CCDS, this is Patient Name. Generally, measures do not identify patient name. • <u>Sex</u> - CCDS asks birth sex, and our measures capture administrative sex. • <u>Birth Date, Race, Ethnicity</u> – There is a way to identify all of these in CCDS. • <u>Preferred Language</u> - CCDS has this item, QDM does not. Could potentially use Patient Characteristic (Generic) to ask for this. • <u>Patient Characteristic: expired</u> - There is the ability to indicate deceased value, but not expiration date/time. May not have date/time. • <u>Patient Characteristic: Clinical trial participant</u> - extension in FHIR, but not part of Argonaut. • <u>Patient Characteristic: Payer</u> - there is a coverage payer as a financial responsible party, but is not covered in Argonaut. • <u>Assessment, Performed</u> - Smoking status is only one we have so this is limited. Can map to smoking status, but CCDS is limited to tobacco smoking. • <u>Diagnosis</u> - Generally maps to condition. Have onset time. Sometimes we only know partial date (i.e., year only). There is discussion of that in the FHIR spec. • <u>Medication, Order and Medication, Active</u> - Most mapped well. • <u>Medication, Administered; Medication, Dispensed; Medication, Discharged</u> - Most is a statement of specific med in use or specific med requested, but not necessarily administered or dispensed. • <u>Substance, Order</u> - not covered in Argonaut spec. • <u>Allergy</u> - covered fairly well • <u>Laboratory Test, Performed</u> - fairly well covered under shared observation where result is known • <u>Laboratory Test, Ordered</u> - may not have this • <u>Laboratory Values</u> - map fairly well as results • <u>Diagnostic Studies</u> - not covered very well • <u>Physical exam</u> - vital signs only

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30 Minutes, Cont.	Consider QDM evaluation with respect to HL7 FHIR for testing and feasibility (QDM-206), Cont.	Floyd Eisenberg (ESAC), Cont.	<ul style="list-style-type: none"> • <u>Procedure, performed</u> - covered • <u>Intervention, Performed</u> - most likely Argonaut does not consider education or counseling • <u>Procedure, Ordered</u> - not covered • <u>Provider Characteristics</u> - Can map only those providers related to a Care Plan. • <u>Immunizations</u> - covered, but not orders • <u>Device, Applied</u> - maps well • <u>Device, Order and Device, Recommended</u> - Does not map. • <u>Assessment, Performed</u> - In Argonaut as part of Care Plan • <u>Care Goals</u> - related to a Care Plan • <u>Symptoms</u> - if captured on problem list can map these. • <u>Encounters</u> - should be available in US Core in the future and will be available in Argonaut. • Not included: <ul style="list-style-type: none"> ○ Adverse Reaction ○ Encounter, Order ○ Encounter, Recommended ○ Communication, Performed ○ Family History ○ Patient Care Experience ○ Provider Care Experience <p>Discussion:</p> <p>Comments from the User Group:</p> <ul style="list-style-type: none"> • Peter Muir (ESAC) - It may be helpful to add information about the level of detail expressed in the standard, especially when the level of granularity may be less than expected (e.g., birthDateTime may include day, month, year and birth time for infants but only day, month, year for older children and adults, allergy/intolerance or diagnosis may have an onset year without a day and month, or perhaps an onset age.

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30 Minutes, Cont.	Consider QDM evaluation with respect to HL7 FHIR for testing and feasibility (QDM-206), Cont.	Floyd Eisenberg (ESAC), Cont.	<ul style="list-style-type: none"> ○ ESAC noted that the QDM to QI Core mapping in the recent QI Core IG publication work effort does include such detail. ESAC welcomed members of the User Group to provide examples of additional examples of granularity required. • Marilyn Parenzan (TJC) - Encounter is listed as "soon" (yellow). Since Encounter, Performed is essential to define inpatient measures and highly significant (if not essential) for ambulatory care focused measures, when will it be available in US Core and will the metadata be sufficient (e.g., Encounter.diagnosis)? <ul style="list-style-type: none"> ○ ESAC noted that the HL7 US Realm chairperson indicated a publication of a US Core STU 3 Update is forthcoming in August or September (approximate dates). And, that publication will include Encounter as the Encounter resource was part of the May 2018 US Core ballot. The exact detail about which metadata will be included is not currently available. However, it is likely the metadata will include the standard metadata in the referenced FHIR 3.0 resource, perhaps with the exception that US Core 3.0 will add vocabulary bindings or extensions to the underlying FHIR resource. • Juliet Rubini (Mathematica) - Does ESAC plan to create a new, constrained, version of QDM or QDM/QICore/QUICK based on the mapping presented? <ul style="list-style-type: none"> ○ ESAC responded that there is no current plan for a new constrained implementation guide (IG) to address FHIR Argonaut or similar constraints. Such a constrained IG is a possibility but, thus far, there have been no direct calls for such an IG. <p><u>Resolution/Next Steps:</u></p> <p>ESAC noted that the QDM-206 Jira ticket will remain open and welcomed all QDM users to use the site as an opportunity for dialogue regarding the mapping provided. ESAC also welcomed users to upload any new recommendations in revised versions of the Word document uploaded on this site.</p> <ul style="list-style-type: none"> ○ The QDM User Group took no further action during this meeting. The discussion indicates significant interest and further discussion will occur at subsequent QDM User Group calls.

Time	Item	Presenter	Discussion/Options/Decisions
10 Minutes	QDM medication "frequency" attribute – add range (QDM-205)	Floyd Eisenberg (ESAC)	<p>To recap, ESAC noted the issue was to update the "Medication, Order" and "Medication, Dispensed" and "Medication, Discharge" frequency attribute to allow a frequencyRangeHigh and a frequencyRangeLow option to account for "as needed" or PRN medication orders. The issue arose from measure developers defining total doses of medications to calculate morphine milligram equivalents (MMEs). The use of PRN is common with such pain medications and the existing QDM frequency attribute requires the measure implementer to parse the content of the frequency field to determine the most frequent or least frequent potential usage. The issue impacts medications order or dispensed. The discussion led to discovery of two additional metadata items:</p> <ol style="list-style-type: none"> 1. "Medication, Order" or "Medication, Dispensed" daysSupplied. 2. "Medication, Order" or "Medication, Dispensed" expectedUsePeriod (i.e., when the medication is expected to be used by the patient. Example: a prescription written and dispensed in March may indicate usage for a 10-day period several months into the future. Use cases: <ul style="list-style-type: none"> ○ Ordering medication to avoid altitude sickness a few months before the patient leaves for the trip ○ Ordering a medication to begin 1 hour before future planned surgery and continue for 3 days after the planned surgery <p>Discussion:</p> <p>Ann Phillips (NCQA) supported the addition of daysSupplied as it would enable an alternate method to calculate average daily dose or maximum potential daily dose without having to derive the number of days supplied. Currently, QDM only allows the number of days to be derived [number of doses / frequency = days supplied]. A change in the near future would be helpful for measures currently in the development queue.</p> <p>Angela Flanagan (Lantana) indicated the addition of daysSupplied might be helpful but it should not overwrite the current supply attribute which provides the number of doses supplied.</p> <p>Peter Muir (ESAC) noted that his EHR and many other ambulatory EHRs include two fields used to populate the active medication list during the medication ordering workflow. The first field (indicated the day the medication started) defaults to the day the medication is prescribed. Physicians could potentially modify the start date but changing the data would be seen as additional burden. Physicians do enter the second field that represents when the medication will stop. In general, physicians enter an end date beyond the actual date that the prescription will run out if the patient takes the medication</p>

Time	Item	Presenter	Discussion/Options/Decisions
10 Minutes, Cont.	QDM medication "frequency" attribute – add range (QDM-205), Cont.	Floyd Eisenberg (ESAC), Cont.	<p>as directed. The reason for entering a later date is to accommodate the fact that patients may miss doses and continue taking the medication until finished. Another reason for the later date is so the medication stays on the active medication list long enough for the physician to evaluate adequate therapy and to consider potential adverse effects. However, these two fields would not support the data required for the expected period during which the medication should be taken. In the scenario provided, the start date would still be the date ordered and the end date would be at some point after the expected end date - thus the medication list would be useful to the practicing physician.</p> <p>ESAC summarized the discussion as a potential request for 4 new QDM attributes:</p> <ul style="list-style-type: none"> • frequencyRangeHigh - only for "Medication, Order"; "Medication, Dispensed" and "Medication, Discharge" • frequencyRangeLow - only for "Medication, Order"; "Medication, Dispensed" and "Medication, Discharge" • daysSupplied - only for "Medication, Order"; "Medication, Dispensed" and "Medication, Discharge" • expectedPeriod - see QDM-201 - the expected start and stop time for the "Medication, Order", "Medication, Dispensed" and other QDM datatypes described in QDM-201. <p>ESAC requested attendees on the call to indicate if any of these new QDM attributes might be considered more urgent, i.e., considered to be errata that limit measure development capabilities in the next several months.</p> <p>Ann Phillips (NCQA) suggested that daysSupplied would be very beneficial in the near term.</p> <p>There were no requests for near term incorporation of the other attributes on the list.</p> <p>Resolution/Next Steps:</p> <p>For daysSupplied, ESAC will review information available in a standard message received today indicating that a medication has been dispensed (i.e., does the message include frequency, dose, # doses and days supplied, or a subset of those data). ESAC will further specify and review the request with the respective tooling groups, the Governance Group and MCCB once the details are fully available.</p> <p>ESAC welcomes additional feedback on these other additional attributes for consideration for the QDM version to be published later Spring 2019.</p>

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	QDM attribute "relatedTo" – potential expansion (QDM-198)	Floyd Eisenberg (ESAC)	<p>QDM v5.4 currently only allows relatedTo for the following QDM datatypes:</p> <ul style="list-style-type: none"> – Assessment, Performed – Communication, Provider to Patient (changing to Communication, Performed in QDM 5.4) – Communication, Patient to Provider (changing to Communication, Performed in QDM 5.4) – Communication, Provider to Provider (changing to Communication, Performed in QDM 5.4) – Care Goal <p>What other items should we add it to? Device, Applied is one recommendation.</p> <p>Paul Denning - Suggested for example, a procedure where you install a pacemaker and the Procedure, Performed might not have detail about the device; but if you could relate to device could obtain more data (e.g., model number).</p> <p><u>Resolution/Next Steps:</u></p> <p>This JIRA ticket will remain open for QDM UG comment.</p>
10 Minutes	QDM Intervention and Procedure Categories (QDM-201)	Floyd Eisenberg (ESAC)	<p>As a recap from the June QDM UG call:</p> <p>Additional discussions took place with the HL7 Clinical Quality Improvement Workgroup participants about whether Intervention might be more appropriately mapped to the HL7 FHIR Task Resource (http://hl7.org/fhir/task.html). The FHIR Task Resource is defined as an activity that can be performed and tracks the state of completion of that activity. It is a representation that an activity should be or has been initiated and eventually represents the successful or unsuccessful completion of that activity.</p> <ul style="list-style-type: none"> – Use Case: In the DaVinci project (how payers share information with clinicians), there is a request from provider for evidence of performing medication reconciliation. The payer knows whether the patient was discharged along with discharge date and can determine whether the reconciliation was within 30 days of discharge, then let the doctor know about compliance with the measure expectation. The question arose about how to represent medication reconciliation activity in QDM <p>Intervention maps to HL7 concept of procedure. However, as defined, procedure is not consistent with medication reconciliation as it does not changing the condition of the subject or alter the subject</p>

Time	Item	Presenter	Discussion/Options/Decisions
10 Minutes, Cont.	QDM Intervention and Procedure Categories (QDM-201), Cont.	Floyd Eisenberg (ESAC), Cont.	<p>physically. The FHIR task resource may work better for this use case, because the provider is not doing something to the patient (i.e., educating, procedure), but is performing a task to reconcile something.</p> <p><u>Discussion:</u></p> <p>The attendees agreed there is a distinction between interventions such as education and counseling and procedures such as invasive surgery. The agenda included the item to continue validation of the solution and to indicate that mapping of Intervention may occur for activities that involve the patient (e.g., education) and for tasks that do not directly involve the patient (e.g., checking a box that medication reconciliation is completed). The former (education) would map QDM Intervention, Performed to FHIR Procedure; the latter would map QDM Intervention to FHIR Task.</p> <p>Peter Muir (ESAC) confirmed the value of the mappings noted. Specifically for medication reconciliation, he noted that reconciliation of medications in the presence of the patient associated with education and counseling about the medications is the ideal and represents a true intervention. Merely checking a box that two medication lists have been reconciled in the absence of the patient (i.e., confirming the existing EHR med is correct because it corresponds to the hospital formulary alternative) represents a task. The value of checking a box notwithstanding, the current approach is reasonable.</p> <p>Ann Phillips (NCQA) - Can see where this would be useful, particularly in mental health measures where counseling is the intervention and might trigger another evaluation. Specifically NCQA measures using drugs to treat depression and evaluating depression. Can be useful in trying to tie a treatment to the intervention, which is not a procedure.</p> <p><u>Resolution/Next Steps:</u></p> <p>Intervention can be a task or a procedure when converted into FHIR, depending on the intervention. ESAC did not recommend the addition of new datatype, "task". However this is can be revisited in future versions, if needed.</p>

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	<p>QDM Intervention and Procedure Categories (QDM-201)</p> <p>Consider addition of expected time frame (Task.restriction.period)</p>	Floyd Eisenberg (ESAC)	<p>The QDM UG discussed the potential value of adding an expectedPeriod attribute for the items noted below:</p> <ul style="list-style-type: none"> • Assessment, Order • Care Goal (already has target outcome RelevantPeriod) • Device, Order • Device, Recommended • Diagnostic Study, Order • Encounter, Order • Encounter, Recommended • Immunization, Order • Intervention, Order • Intervention, Recommended • Laboratory Test, Order • Laboratory Test, Recommended • Medication, Dispensed (added to the list originally provided) • Medication, Order • Physical Exam, Order • Physical Exam, Recommended • Procedure, Order • Procedure, Recommended • Substance, Order • Substance, Recommended <p>Paul Denning - Suggested for example, a procedure where you install a pacemaker and the Procedure, Performed might not have detail about the device; but if you could relate to device could obtain more data (e.g., model number).</p> <p>The QDM User Group attendees did not have specific interest in adding the expectedPeriod attribute at this time.</p> <p>Resolution/Next Steps:</p> <p>This JIRA ticket will remain open for QDM UG comments.</p>

Time	Item	Presenter	Discussion/Options/Decisions
2 Minutes	QDM Medication Class for Allergies (QDM-188)	Floyd Eisenberg (ESAC)	Since the terminology expert with information to address this issue was not available, the issue was deferred until the next QDM User Group meeting.
5 Minutes	HL7 QI Core – QDM mapping update	Floyd Eisenberg (ESAC)	<p>QI Core ballot reconciliation has been completed and QI Core STU 3.0 publication in progress.</p> <p>QI Core Build Site: http://build.fhir.org/ig/cqframework/qi-core/index.html</p> <p>Updated QDM to QI Core mapping available at: http://wiki.hl7.org/index.php?title=Harmonization_of_Health_Quality_Information_models</p>
2 Minutes	Next Meeting	Chana West (ESAC)	<p>Agenda items for next QDM user group meeting</p> <ul style="list-style-type: none"> – Contact us at qdm@esacinc.com – Or start a discussion: qdm-user-group-list@esacinc.com <p>Next Meeting – August 15, 2018 2:30pm – 4:30 PM ET (tentative, and September meeting off-cycle)</p>

Invitees/Attendees:

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

	Name	Organization
	Laura Pearlman	Midwest Center for Women's Healthcare
	Laurie Wissell	Allscripts
	Lindsey Clapper	Unknown
	Lisa Anderson	The Joint Commission
	Lizzie Charboneau	MITRE
X	Lynn Perrine	Lantana
	Marc Hadley	MITRE
	Marc Overhage	Cerner
	Margaret Dobson	Zepf Center
X	Marilyn Parenzan	The Joint Commission
	Martha Radford	NYU
	Melissa Van Fleet	Alliance Health Oklahoma
	Mia	Unknown
	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
	Patty McKay	FMQAI
X	Paul Denning	MITRE
X	Peter Muir	ESAC
	Rachel Buchanan	Oregon Urology
	Rayna Scott	PCPI
X	Rebeccah Baer	NCQA
	Rob McClure	NLM Contractor
	Rob Samples	ESAC
	Rose Almonte	MITRE
	Rukma Joshi	ESAC
	Rute Martins	MITRE
	Ruth Gatiba	Battelle
	Ryan Clark	Xcenda
	Ryan Sullivan	NYU
X	Sam Sayer	MITRE
X	Samuel Benton	NCQA
	Sethuraman Ramanan	Cognizant
	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
	Sweta Ladwa	ESAC
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
	Wendy Wise	Lantana
	Yan Heras	ESAC
X	Yanyan Hu	The Joint Commission
X	Yvette Apura	PCPI
	Zahid Butt	MediSolv