

Quality Data Model (QDM) User Group Meeting | AGENDA/MEETING MINUTES

Meeting date | 2/18/2015 2:30 PM EDT | Meeting location | Webinar video link: <https://www4.gotomeeting.com/register/303510935>

Attendees: Balu Balasubramanyam, Itara Barnes, Elizabeth Bostrom, Sasha Brellenthin, Zahid Butt, Cathy Campbell, John Carroll, Jeffrey Clyman, Anne Coultas, David Czulada, Michelle Dardis, Jay Frails, David Fram, Pavla Frazier, Jeffrey Geppert, Jen Harper, Sharon Hibay, Michelle Hinterberg, Yanyan Hu, Jamie Jouza, Joseph Kunisch, Tammy LaFavcr, Jana Malinowski, Rute Martins, Susan Mateja, Patti McKay, Christopher Moesel, David Nilasena, Juliet Rubini, Rob Savage, Sharon Sebastian, Julia Skapik, Anne Smith, Kimberly Smuk, Rob Snelick, Carolin Spice

Time	Item	Discussion/Options/Decisions
2:30 PM	Recap QDM-104 : <i>Consider Adding More Specificity to QDM Diagnosis</i>	<p>MITRE shared the previous sub-group meeting results:</p> <ul style="list-style-type: none">• The <i>Diagnosis</i> datatype does not need to distinguish between sub-types such as diagnosis, problem, etc.• Not all findings are <i>diagnoses</i>.• Current category and datatype definitions in QDM 4.1.2 need work.• QDM should retain the current names: <i>Condition/Diagnosis/Problem</i> category and <i>Diagnosis</i> datatype. <p>Despite the consensus on the sub-group call, the larger QDM User Group (UG) disagreed with the notion that diagnoses and problems should be treated equivalently. To generalize the distinction, <i>diagnoses</i> are usually associated with an <i>encounter</i> (therefore reflecting a specific situation and point in time), while <i>problems</i> are usually associated with a <i>patient</i> (therefore more longitudinal in nature). In many systems, <i>diagnoses</i> are likely to be encoded using ICD-9/10, while <i>problems</i> are likely to be encoded using SNOMED-CT – but conversion from one type to another may also be supported.</p> <p>Some participants noted that diagnoses don't necessarily <i>require</i> an encounter, but most subsequent conversation seemed to revolve around the basic <i>encounter/diagnosis</i> generalization.</p>

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		<p>Because <i>diagnoses</i> are generally encounter-based, the lack of a <i>diagnosis</i> end-date should not be interpreted to mean the diagnosis is <i>unresolved</i>. Rather, the diagnosis is likely to be scoped within the context of the encounter only (so an end-date is not necessary). Conversely, lack of a <i>problem</i> end-date is generally interpreted to mean the problem is <i>unresolved/ongoing</i>. If QDM treats <i>diagnoses</i> and <i>problems</i> as the same, this discrepancy in end-date representation can cause significant inconsistency based on whether the condition comes from the encounter diagnoses or the patient’s problem list.</p> <p>On the other hand, arguments for grouping <i>diagnoses</i> and <i>problems</i> together can also be made. For example, measure authors may only wish to assert that a patient had a <i>diagnosis/problem</i> in the past (regardless of whether it was an encounter diagnosis or an entry on a problem list). Requiring measure authors to search across multiple datatypes/sources introduces additional complexity. This could potentially be addressed by having <i>diagnosis</i> and <i>problem</i> act as subtypes of a <i>Condition</i> datatype, but then the inconsistency of end-date interpretation still needs to be resolved.</p> <p>In addition to the distinction between <i>diagnoses</i> and <i>problems</i>, other flavors of diagnoses were also discussed – with the most notable being <i>differential</i> diagnoses. A <i>differential diagnosis</i> represents a potential diagnosis that is being investigated to rule out (or not) a specific diagnosis. This concept is especially important for Clinical Decision Support (CDS), but may also be useful for eCQMs that attempt to determine the quality of the process leading to a diagnosis. In addition to <i>differential</i> diagnosis, the following other flavors were also briefly mentioned: <i>admission</i> diagnosis, <i>discharge</i> diagnosis, <i>principal</i> diagnosis, <i>primary</i> diagnosis, <i>secondary</i> diagnosis, and conditions <i>acquired during the encounter</i>.</p> <p>It was suggested that if diagnoses are tied to encounters, that perhaps they should be represented within the encounter type. In this case, would the many diagnosis “flavors” require separate attributes on the encounter? Would details about the diagnosis (such as onset) be exposed, or would the representation simply be a code? Would measure authors need to query on the Encounter</p>

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		<p>diagnoses <i>and</i> the separate <i>Diagnosis</i> datatype? Measure authors expressed concern regarding the complexity of many different diagnosis flavors as well as the disparate places to find them.</p> <p>While no solution has yet been reached, the user group proposed several efforts that may help to reach a solution:</p> <ul style="list-style-type: none"> • Investigate current systems and standards to better understand the play between diagnoses and problems, as well as downstream impacts. This may include introducing discussion on related HL7 lists. • Investigate certification criteria to determine how it defines diagnoses and problems. The distinction, as it applies to certification requirements, may give an indication of what to expect from EHRs. • Investigate what is being done in care settings today. Everyone is likely doing things differently, but how does the <i>average</i> hospital distinguish between diagnoses and problems? • The implementation and workflow group from the most recent kaizen may be able to provide some insight or direction regarding where more information can be found. <p>All participants agreed that the QDM needs to provide clarity on this topic. This discussion will be continued in further user group meetings and/or sub-group meetings. Understanding how the QDM will represent encounter diagnoses (e.g., QDM-106) may also lend clarity to this discussion.</p>
3:40 PM	Continue discussion on QDM-87 : <i>Ability to refer to immunizations is inconsistent with interoperability standards</i>	<p>MITRE provided a recap of the issue:</p> <ul style="list-style-type: none"> • The current approach of representing immunizations using Medication Administered causes misalignment between QRDA Cat I and C-CDA R2. • C-CDA R2 distinguishes between medications and immunizations. • FHIR distinguishes between medications and immunizations. <p>MITRE then shared recent feedback from the HL7 PHER group:</p> <ul style="list-style-type: none"> • FHIR's <i>Immunization</i> resource was recently "harmonized" with the <i>MedicationAdministration</i> resource.

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		<ul style="list-style-type: none"> • There are plans to change <i>Immunization</i> from a resource to a profile of <i>MedicationAdministration</i> with immunization-specific extensions. • Immunizations can be coded using CVX, MVX, and/or NDC. • Data provenance is important. <p>An HL7 PHER co-chair then provided addition details and clarifications on immunization coding. CVX codes represent the vaccine, while MVX codes represent the manufacturer. NDC codes are expected to become more prominent because they are built into the vaccination barcodes.</p> <p>The PHER co-chair also re-affirmed that provenance is especially important for immunizations, having two main purposes: (1) to establish reliability, and (2) to indicate the level of detail that should be expected. As an example, he suggested that a recommendation system would not provide a recommendation based on what a patient’s parent may or may not remember.</p> <p>Regarding provenance, MITRE shared that the QDM has a <i>data-flow</i> attribute called <i>source</i>, which may be appropriate for representing data provenance. That said, it is not currently used and may not be implemented by vendors. Furthermore, the underlying HL7 standards (such as QRDA and CDA R2) lack an agreed-upon representation for data provenance. This means that even if the QDM supported data provenance, there would be no way to report it in QRDA Cat I documents.</p> <p>MITRE then went on to introduce proposed <i>Immunization</i> datatypes, which were created using the corresponding <i>Medication</i> datatypes as a basis. Immunization datatypes for <i>Administered</i>, <i>Allergy</i>, <i>Intolerance</i>, and <i>Order</i> were suggested.</p> <p>MITRE questioned if a distinct <i>Immunization</i>, <i>Intolerance</i> datatype was necessary, indicating that some people had expressed confusion as to what that might mean. In addition, FHIR uses a single <i>AllergyIntolerance</i> resource to represent both allergies <i>and</i> intolerances—which is an approach QDM may consider. Many in the QDM user group did not seem to support this idea,</p>

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		<p>stating how and why allergies were different from intolerances, as well as the importance of distinguishing that difference in measurement.</p> <p>One participant noted that perhaps intolerances are only needed as reasons for <i>Immunizations not done</i> (i.e., negation rationale). In that case, an <i>Immunization, Intolerance</i> datatype would not be necessary. The PHER co-chair stated, however, that he didn't believe that most systems would record the reason for not giving a vaccination. MITRE then indicated that the general discussion regarding representation of allergies and intolerances should be tackled another day, but for now Immunization can have an Intolerance datatype to remain consistent with the other datatypes.</p> <p>The user group also suggested that an important concept was missing from the proposed Immunization datatypes: the concept of <i>Immunization History</i>. These are records of immunizations that the patient has received, but were not administered directly by the provider. The PHER co-chair confirmed the importance of this concept, indicating that the FHIR <i>Immunization</i> resource has an attribute for indicating if the provider directly administered the immunization. The QDM could also represent this using an attribute or could introduce a new datatype such as <i>Immunization, History</i>, or <i>Immunization, Received</i>, or <i>Immunization Record</i>.</p> <p>MITRE asked for clarification regarding the FHIR <i>ImmunizationRecommendation</i> resource and if a similar datatype was needed in QDM. The PHER co-chair provided detail regarding the <i>ImmunizationRecommendation</i> (which generally represents an immunization based on a recommendation or schedule within the context of an authority such as ACIP). MITRE suggested that the QDM should not support this to begin with but could potentially add it in the future.</p> <p>The PHER co-chair then suggested that one important concept for measurement is determining if a given dose was <i>valid</i>. The rules for determining validity can be complex, but would be an important measure of quality. It was noted that while QDM can express this type of requirement to some degree, it is limited in what it can express. The future Clinical Quality</p>

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		Language (CQL) standard should allow for better representation of complex logic such as this. This conversation will be continued in a future QDM user group meeting.
N/A	QDM-105 : Consider New Ways to Represent Diagnosis State	<i>Not discussed</i>
N/A	Sneak-peek at upcoming QDM topics	<i>Not discussed</i>

Next QDM User Group meeting will be held March 18th from 2:30-4:30PM EST.

Action item	Assignee
Investigate distinction between diagnoses and problems in systems, standards, care settings, etc.	MITRE
Incorporate feedback into Immunization datatype recommendations	MITRE