

**HIT Standards Committee
Clinical Quality Workgroup
Transcript
February 21, 2014**

Presentation

Operator

All lines are bridged.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Thank you, good afternoon everyone. This is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Standards Committee's Clinical Quality Workgroup. This is a public call and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I'll now take roll. Marjorie Rallins?

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Present.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Marjorie. Danny Rosenthal?

Danny Rosenthal, MD, MSc, MPH – Director of Healthcare Intelligence – INOVA Health System

Present.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Danny. Anne Castro? Bob Dolin? Brian Levy? Chris Chute? David Baker? David Lansky? Eric Rose? Floyd Eisenberg?

Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC

Present.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Floyd. Galen Murdock?

Galen Murdock – President & Chief Executive Officer – Veracity Solutions

Present.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Galen. Gene Nelson?

Gene Nelson, DSc, MPH – Dartmouth University

Here.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Gene.

Gene Nelson, DSc, MPH – Dartmouth University

Good morning.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Jason Colquitt? Joachim Roski? John Derr? Kate Goodrich? Keith Boone? Kim Schwartz? Philip Renner? Randy Woodward? Rob McClure? Rosemary Kennedy? And from ONC do we have Julie Crouse? And Alicia Morton?

Alicia Morton, DNP, RN-BC – Deputy Director Office of the Chief Medical Office – Office of the National Coordinator for Health Information Technology

Here.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Hi Alicia. I think Julie is on as well and with that I will turn it back to you Marjorie and Danny.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay, so good morning everyone I thought, Michelle I thought you were going to give an overview but I can do that as well.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

I'm happy to speak to that I didn't know if you wanted to go through the agenda and then we can do that?

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Yeah, why don't I go through the agenda today? So, for today's meeting we're going to focus on some standards and some standards harmonization efforts and we're going to do that because we're waiting on guidance from ONC for our work plan and we've already started some activities to help us walk through how we evaluate standards, Keith, you know, graciously spearheaded that effort for us and many of you helped in providing us with that guidance.

So, today what we thought we would do is have two presentations on some standards efforts, the Health eDecision's work and some harmonization efforts between clinical quality measures and clinical decision support in advance of knowing what we'll actually need to do from the work plan to help us begin to think through these efforts that will probably be on that work plan. With that Michelle, did you want to sort of give us some updates on what's happening in ONC before we proceed?

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Sure, thanks Marjorie, so I just wanted to make sure everyone was aware, because we have been talking for some time about waiting to finalize the work plan at the Standards Committee level and we had talked about perhaps looking at changing some of the Workgroups and, you know, having a new path forward. We've put some of those concepts or ideas on hold for the moment and we had talked about this at the December Standards Committee meeting and there was more discussion about the work plan and the path forward for the Standards Committee at the last meeting earlier this week.

But, as you all know we have a new National Coordinator who I'm sure has some of her own ideas and so what we are starting to do and what we want to do is make sure that the Policy Committee and the Standards Committee are very interconnected and are working collaboratively and so we're going to start with the Policy Committee's work plan and make sure that we have the right Workgroups there and make sure that we are able to set the Workgroups in a way that we can plan a strategic path forward for the Policy Committee and then we will then make sure that we are aligned well and have kind of counter groups and collaborative groups on the standards side that can also help us in that strategic direction.

So, we are working through that and we are hoping to have a strawman at the March Policy Committee meeting which is on March 11th. So, that will then inform what happens on the standards side. So, things are – you know we're working toward a refined work plan but they are a little bit up in the air at the moment. So, I just wanted to set expectations for everyone. Thank you Marjorie.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Thank you Michelle. Before we move on there is one other, the third item on the agenda and many of you are aware that there was a Kaizen Event last week in Washington to look at improving the eCQM development process as it relates to Meaningful Use and other programs such as PQRS. Floyd and I attended and some of you on the phone might have attended as well and we'll provide an overview of that later on in the agenda. But I'd like to turn it over to, I believe, Aziz you're on the phone?

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Yes I am.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay and you'll be giving both presentations today?

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

No, actually there are three of us doing the first one that's Ken, Bryn Rhodes and myself.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay.

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

And then I think Marc Hadley is giving the second one.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay, so they're on the phone, I didn't hear their names. Okay, so I'll turn that over to you, Aziz, you're going to start with the first one?

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Yes, Ken's going to start the first one.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

So, Ken, go ahead and welcome. Are we ready?

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

I'm actually not sure if we have Ken on the line.

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Okay, I'll start for Ken and if he joins he can take over then.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Thank you Aziz.

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Sure. So, our ask today was to describe the sort of where we are with the Health eDecisions Project and the standardization. This is a project that involved creating specifications for clinical decision support. Next slide, please. And I'll do part of it and then Bryn Rhodes will describe the rest of it.

So, the Health eDecision's scope involved two use cases one was where – the first one was where we shared knowledge artifacts that's things such as rules and order sets, and documentation templates and our goal was that these kind of knowledge artifacts can be shared, can be created by one organization and imported to any EHR system.

And the second use case was a standard interface for accessing CDS web services so that we could get guidance by sending patient data to a web service and getting the guidance back from it. Next slide, please.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Hey, Aziz, can you hear me?

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Oh, yes, hi Ken.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Hey, sorry, I was on my headset but apparently nobody could hear me, so I can –

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Take it away.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

I can talk through this a little bit, thanks. So, in terms of our work and our two uses cases obviously there has been a lot of prior work in the areas of standardizing knowledge and using clinical decision support services so this slide just acknowledges, I won't go through these in detail, but just acknowledges that there has been a lot of work here that we've been trying to incorporate and a lot of what we did in Health eDecisions was to explicitly analyze these and either formally incorporate or to learn from and use these prior works.

And if you look at the last bullet point there has been a lot of work on standard information models, we've done a lot of work to try to incorporate them in what we do and part of what we've done also is to look forward, and we'll get into this in Marc's presentation, in our future directions of how we can align further with all the great work that's going on with standard information models moving forward. Next slide, please.

So, this just provides an overview of the work that the HeD Team has been working on for the last year and a half and as you can see we've now published six standards to fulfill our use cases so I do think from a standards perspective we've been quite productive and successful.

The first specification you see there is the clinical decision support knowledge artifact implementation guide this covers our use case one of sharing clinical decision support artifacts. So, you can see here it's essentially an XML schema for rules, order sets and documentation templates this has been just published as a DSTU and Bryn will be talking about that.

The decision support service implementation guide, this is an implementation guide for how you use clinical decision support web services for the US realm. This covers our second use case of sharing decision support executable services and the DSTU for this the draft standard has again been published.

And then underlying the next four specifications are basically building blocks that are referenced by these implementation guides which are I guess the end products that you would actually implement. So, if you look at three of them these are labeled with vMR that stands for Virtual Medical Record which is a data model for clinical decision support I'll briefly describe next, which is intended to really simplify the development of these clinical decision support artifacts and to make them pretty clear what they mean.

These include the logical model which is a UML data model for clinical decision support it includes also a template specification which provides terminology bindings on the vMR and other constraints, so this is similar to how a C-CDA specification constrains the CDA.

There is also an XML specification which provides an XML format for the vMR. So, all three of these vMR specifications have now been published as informative specifications we balloted them as draft standards in January and we've successfully balloted them, finish all the ballot reconciliation and we anticipate that these will be published as draft standards next month.

We also have a decision support service specification which formally was a normative ANSI standard, we updated it for release 2 in particular to add a REST interface in addition to a SOAP interface and this also has been published as a draft standard. Next slide, please.

So, obviously we don't have that much time to go through and, oh, this doesn't look like it came through when it got converted from a PowerPoint, but this is essentially an example of a logical model UML model.

So, obviously, I can't read it so I assume you can't read it, but this is showing the kind of structure that we have in the vMR. So, if you look on the right hand side where you see all those boxes those are actually leaf level classes that we have in the vMR such as an appointment proposal, an appointment request, a scheduled appointment, a missed appointment and an encounter event. And what we basically tried to do, and obviously it's kind of hard to read in this rendition, is to make the classes fairly easy to understand. Next slide, please.

So, if you take a look here this is an example of a vMR in its template form. So, again, we have a base CML model like a base CDA and we want to constrain it further for interoperability purposes so this for example is a template which is for an active problem list entry where all we care about is the code and as you can see in the description this is a patient's current active problem consisting solely of a problem code specified in ICD-9, ICD-10 or SNOMED.

So, you can imagine that for a lot of decision support use cases all you care for is the active problem list and all you care about is, you know, what they have in a particular code set. So, you can see below in the actual specification it says, you know, all you need to include for this template is a template ID saying this is the active problem list entry with a code only and a problem code in ICD-9, ICD-10 or SNOMED. So, this is the kind of semantic binding we've been building in.

And one thing to note as you can see in the comments to the right is we made sure to align with C-CDA and QRDA templates and only defer when we had a really good reason to and to identify explicitly what that was. Next slide, please. Great, oh, there is that omission, next please.

So, you can see on the bottom, one back please, right there, you can see on the bottom this is just an XML instantiation example. So, this gives you a sense of how lightweight and simplified the vMR is and this is clearly by intent. So, if you want to give a problem list and the codes of the problems that the patient has this is all you need. So, you have a clinical statement which is a problem type and you have a template that identifies it as an active problem list entry with a code only and you have a problem code, in this case in SNOMED, saying the patient has asthma.

So, again for clinical decision support purposes we wanted a data model that could be very easily used by knowledge artifact developers and implementers and has very little chance of ambiguity and complexity that could confuse implementers which would obviously not be a good thing for decision support purposes and that's what we had them working on and have now published.

And that's it for the vMR part. I'm going to pass it over now to Bryn Rhodes who will talk about our use case one implementation guide. Next slide, please.

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

Thanks, Ken. So, our use case one, I'm hearing an echo am I the only one who is hearing that?

Caitlin Collins – Project Coordinator – Altarum Institute

It sounds like you might have your computer speakers on, if you turn that off that should fix the problem.

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

Okay, but now you can hear me but I can't hear you.

Caitlin Collins – Project Coordinator – Altarum Institute

We can hear you.

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

So, our use case one involves the simplest possible scenario where all we're interested in is sharing knowledge, so knowledge artifacts apply to someone that either authors or publishes an artifact and that's not really within scope, we're not interested in whether or not they're the publisher or the author only that that's a repository of information and the artifact integrator is something that's a consumer of that artifact they may be implementing, they may be translating, they may be writing it on a native engine so that's all out of scope as well.

All we're interested in is how that knowledge is transferred from the supplier to the integrator and making sure that backing is done accurately and computably. We're also not dealing with the actual API of this repository or how it's called, it could be a file transfer, it could be sent via e-mail, it could be set up as a full service all of that is out of scope, we're only talking about the format used to share that knowledge. Next slide, please.

So, what we came up with, Ken mentioned, we looked at a lot of the existing formats and nothing really worked completely. So, what we tried to do was build out of the best idea of all of those and put together kind of a component that allowed us to express all the different aspects of a clinical decision support aspect artifact. So, those aspects are things like metadata, the actual decision support logic, what kind of data is involved and the actions that are actually needed to be returned.

So, the schema is defined to support definition of each of these different types of components meaning basically modular components of the XML schema. Then we put those components in together in different ways to support different types of CDS interventions so we could support event, condition, action rules, order sets, structured documentation templates and in the future it's designed to be able to be expanded to support things like plans of care, InfoButton rules and other types of artifact. So, next slide, please.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

I'm sorry, this is Michelle, we're still getting a lot of feedback and it does make it a little hard to hear.

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

I'm not sure what to do, I mean, I can try to call back in? I only have one –

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

And Bryn, this is Ken, at least on my end I can hear the echo but it's not – I mean, it's not too terrible, if it's not easy for you to call back in perhaps you can, you only have two or three slides left right?

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

Did that fix it?

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Much better.

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

Okay, all right, sorry. Okay, so on this slide we're showing an example of how within a clinical decision support artifact we specify the data of interest for the artifact, in this case it's a set of pertussis problems so the first thing you do is name it and that name means that that expression can then be referenced within any other expression within the artifact. So, if I ever need to talk about pertussis problems anywhere else in the artifact I just reference that name and it means this whole expression.

The next aspect is the clinical request. So, we're saying this is the data that we need, this is basically an external request to pull information, so we have a data type, a vMR problem, it's specifying what properties of that type are used to filter on dates and codes and has a short description of kind of a user visible description of what this expression is and then the codes that are actually used to filter, in this case, a value set is specified and the use value set indicates whether or not you preserve the value set when you communicate that data requirement to the client or whether you – download the code set and communicate all the codes so that gives the artifact developer some control of the semantics around that, whether or not to use value sets, whether or not the client is expected to understand what that value set is or if they need that interpreted and then sent in. So, the result of this expression is going to be the set of problems that match that – the codes in that value set. So, next slide, please.

Okay, so go two more, sorry, I didn't realize there was an animation here. Okay, there we go. So this is kind of the meat of this particular artifact, this is the poor condition, it's called the applicable scenario in the artifact. This is what evaluates the true or false and the result of this determines whether the condition is satisfied and if its satisfied than an action was created so it's part of an event condition action rule.

In this case we're just specifying kind of a really high level logic because we're able to reference expressions by their names. So, we have patient lives in San Diego County, encounter was in San Diego County those are expressions to find elsewhere in the artifact and because we can name them the logic is pretty clear as to what's going on and we're just saying, you know, they live in San Diego County or the encounter was in San Diego County and these three conditions about pertussis if any of those evaluate to true then the condition is satisfied and the artifact triggers. So, next slide, please.

Yeah, go ahead, so in this case an action is created with a simple message saying this patient has or is suspected of having pertussis as you can see. The thing to note here is that these actions are built up out of vMR objects as well.

So, we're just dynamically constructing an action and this expression can be as complex as any other logic within the logic, within the artifact allowing us to dynamically create messages based on even content within the patient's information.

So, it's a very flexible way to construction those actions. And then that action becomes the actual result of the artifact. Next slide. And this probably has some animations. So, this is use case two and I'll turn it over to Aziz.

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

Thanks, thank you Bryn. So this use case kind of flips the first case around and instead of sending knowledge into the EHR what we're doing is sending patient data out of the EHR to a CDS web service and the web service in turn provides guidance for that particular patient back to the EHR. Next slide, please.

So, this is – and I think you'll have to just click forward through three or four of these, these are some examples of web services. So given the input on the left hand side like if you give the patient's age, gender and past procedures it will recommend what the next set of procedures that are due for this patient. Next please. And then there are a couple more of these examples. This one is for dosing for patients with renal compromise. Next please. And again prior authorization giving some data and giving a patient summary and getting a whole set of preventive care recommendations back. Next slide, please.

So, these slides now just talk about the use case, the pilots that we've done so that the use case one now, last year we had done a set of pilots towards the end of the S&I Framework activity for that phase. We did an order set pilot and designed clinical consuming an order set from Zynx and an Allscripts consuming rule from a Million Hearts Initiative from newMentor and also consuming a rule which Bryn just actually illustrated from the CDC for reporting pertussis in San Diego County and demonstrating that the VA's system could also take any documentation template provided by Wolters Kluwer Health. Next slide, please.

These are the examples of web service implementers so the open CDS actually implements the DSS specification that Ken mentioned early on and this is a large project that's actually implemented some immunization related decision support that's being used within New York City and the State of Alabama and the eClinicalWorks EHR product.

The Partners led enterprise clinical rules, service Partners healthcare led enterprise clinical rules, service also implements a CDS web service which is developed as part of a CDS Consortium Project and Epic is also starting to build CDS guidance services that they're going to release very soon. Next slide, please.

Here is another project we are just wrapping up now is to build, represent eMeasures using Health eDecisions format with the logic specification that Bryn showed earlier and we've built these measures that you're seeing on the screen some of them very complex for example that 179v2, the second measure shown there, that has several pages of SQL, the HQMF had an attachment of several pages of SQL, and we were able to represent that fully within the Health eDecisions expression logic format.

And then we're also working right now on a project to build measures and CDS artifacts simultaneous to the measures that are being specified in HQMF and then the CDS or related CDS artifacts are being specified in the Health eDecisions format. Next slide, please.

And then we're taking these, what we've done in these sets of projects the standardization and these last two projects I described we're using that into the harmonization activities that I will stop right here and let Marc describe those in more detail. I think there is a next slide but that might just be names. Yeah, I think we'll stop right here, these are just backup slides I guess.

Marc Hadley – Principle Software Systems Engineer – MITRE

I –

Aziz Boxwala, MD, PhD, FACMI – Principal Consultant – Meliorix, Inc.

So –

Marc Hadley – Principle Software Systems Engineer – MITRE

If we could switch to the other presentation on Tacoma I can start talking about the harmonization efforts, thank you. My name is Marc Hadley from the MITRE Corporation and I'm going to be talking a little bit about some of the work that we're doing under the Tacoma Project, if we could move to the next slide.

It's a fairly broad project in terms of scope. There are five key focus areas and in this presentation I'm going to focus on three of them but I thought I'd outline the entire project. The first one is QDM transition and evolution and MITRE is assuming stewardship of the quality data model from NQF.

The second one is development of eCQM testing tools, we're developing a Bonnie Tool that will enable test-driven development of eCQMs. Next we'll talk about CDS and eCQM standards harmonization. MITRE is also involved in eCQM consultation and review both for the current annual updates for EH, the upcoming annual update for EP and for Meaningful Use Stage 3 clinical quality measures and there we're supporting and providing QA for measure developers.

The final piece is eCQM governance and communication which is really working on the overall sort of governance and communication framework for the entire quality measurements and improvement ecosystem. Next slide, please.

Just to sort of frame the timeline that we're working in, you know, there are a number of things in play at the time that we're doing this Tacoma work. I already mentioned the annual updates so we're working with the measure developers on those.

We're also, for the standards work in particular, this, you know, requirements for getting standards developed in time for use in Meaningful Use Stage 3 and, you know, we're looking at the fall for a draft Meaningful Use Stage 3 the NPRM and the desire is to publish the Meaningful Use Stage 3, draft Meaningful Use Stage 3 eCQMs at the same time or very close to the time that the NPRM is released. So, there is a very short window for making changes to standards in order to meet those timelines. Next slide, please.

So, the first one I wanted to dive into in a little bit of detail is the QDM transition and evolution. As I said MITRE is assuming stewardship of the quality data model. This was originally developed by NQF. MITRE took responsibility for the QDM in January 2014. And in the near term we're looking at QDM enhancements for Meaningful Use Stage 3 measures, particularly in synthesizing the measure logic, reducing redundancy and overall just trying to make eCQMs easier to understand.

Longer-term we're looking to replace the QDM with a set of unified standards that cover both CQM and CDS and I'll talk a little bit more about the work that we're doing there. We're also obviously running a periodic assessment on the QDM, we're running the QDM User's Group, the eCQM Governance Group and, you know, getting feedback from measure developers on what they need in QDM to make their lives easier. Next slide, please.

Onto standards harmonization. So the recognition is that there are common requirements across CQMs and CDS, in particular in terms of capturing – about specific sets of patients. So, in the clinical quality measurement world, you know, to dump the denominator of the clinical quality measure is identifying a set of patients that should receive a particular quality of care and then the numerator is identifying the subset of those patients that actually receive the desired quality of care.

In the CDS world there is a similar requirement, you want to be able to identify if a particular patient meets a set of criteria that should trigger a particular CDS rule. But currently CDS and CQM use two entirely separate sets of standards for expressing the rules and actually the data that's being talked about. So, on the CQM side we have the QDM that's serialized as HQMF XML and data is transferred using QRDA.

On the CDS side we just heard there's a separate set of standards, patient data is expressed using the vMR and logic rules are expressed using the HeD knowledge artifact expression language. And really, you know, it doesn't make sense to have these two totally separate domains where we have such a common set of requirements.

So what we've done is we've identified three common areas across the two domains and we're going to drive to create standards for those three common areas that can be shared. So, this isn't trying to replace the entirety of CQM or the entirety of CDS with a single standard it's identifying essentially modules that can be shared between those two domains.

And the three domains are common metadata, so, you know, identifying a title for a particular rule or a measure, the clinical reasoning behind that rule or measure, etcetera. A common data model, so, you know, when you're talking about an encounter you mean the same thing, it has the same set of attributes regardless of whether you're looking at it from a CQM perspective or a CDS perspective.

And finally, having a common expression logic standard whereby you could exchange rules between the two domains. So, if you already have a clinical quality measure that has a denominator you should be able to take that and move that over and turn into a CDS rule without having to completely rewrite the thing and completely change all of your patient data references. Next slide, please.

So, there is a current set of work that's going on in HL7 and there are actually quite a few efforts underway in parallel. The first is the clinical quality common metadata. We created a conceptual model that's in ballot reconciliation and when I say "we" here I mean the broader community, actually Keith Boone is the person who spearheaded this work.

We've created on the clinical quality data model front a domain analysis model that's in ballot reconciliation and very nearly at ballot reconciliation and as part of that we did a crosswalk between the virtual medical record and the quality data model to ensure that we captured the union of all of the data, all of the patient data across the two domains.

And the latest news there is that we're now investigating the use of FHIR standard as a basis for the logical model and the plan is to ballot the results of this investigation in the HL7 May ballot cycle and this will be a common only ballot, it's not going to be as standard, it's more a "this is the approach we're thinking of" you know, please give us early comments.

On the expression language front we balloted the functional requirements for a unified expression language that supports everything that QDM supports and everything that HeD supports. And we're actually investigating the applicability of using the CDS HeD expression language for eCQMs, it seems to cover almost the entire requirements from the CQM side with one exception which is the use of specific occurrences in the QDM and we're looking into approaches to support that in HeD.

On the measure specific and the CDS specific standards we've been doing some work in HQMF, we're modularizing HQMF so that we can make use of the common standards modules so rather than HQMF be a single monolithic standard that has everything in it we're putting in extensibility points where we could actually use an alternative expression language and data model for reasoning there.

We've added a couple of additional small tweaks to HQMF R2.1 that we identified as well. Those updates are complete and it's now in the working group review phase of the DSTU update process which will complete in about two weeks' time.

We're going to be doing similar work on the HeD knowledge artifact so that the expression language is pulled out into a separate section that can be reused externally and also to make sure that that can also support an alternate data model which it almost does already. Next slide, please.

I also wanted to mention a new standard and interoperability initiative that we'll be kicking off very soon now, next month, it's the clinical quality improvement S&I initiative and this can be a follow on to the HeD S&I initiative and the Query Health initiative. And the vision here is that this group will work closely with the HL7 standards workgroups in a similar sort of model to the way the HeD S&I Framework was run, joint meetings.

We'd be looking to do some piloting of the standards with proof of concepts, implementations, really providing implementation feedback during the development of these unified standards. We'll be looking for volunteers and participants and we'll be sending out a call for participation fairly soon. Next slide, please.

And the final thing I wanted to mention was the Tacoma Resource Center. This is going to be a sort of centralized location for both QDM and other critical resources both for eCQM and CDS development, it's going to be the definitive local for the Meaningful Use Stage 2 and 3 eCQMs and the idea is to provide a single source where you can go and find all the information you need for the eCQI community.

We're not necessarily going to copy all of the information into this one site it will be linked out to other sites, particularly to the S&I Framework, to the JIRA site where all of the issues and a lot of the workflow is managed, also to the new SITE that has testing tools, etcetera.

So, we're not trying to copy everything into one place, we're trying to provide a sort of a single launching point where you can go find all the information. And that's all I have for today. Thank you very much.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

So, thank you, this is Marjorie, and thank you very much to all of you Marc, Bryn, Aziz and Ken. I know this was helpful for me in sort of putting all of the puzzle pieces together, you know, I use the QDM and a lot of the terminology standards in the work here at the AMA and this was very helpful. I would like to ask you if any of you have any questions for our presenters today before we move forward and Danny if you have any questions as well?

Danny Rosenthal, MD, MSc, MPH – Director of Healthcare Intelligence – INOVA Health System

No, I don't have any questions, this is very, very interesting work particularly the – what we just heard around the alignment of these different data models and logical models.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Exactly. Okay.

Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC

Well, this is Floyd with a question.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Sure, go ahead Floyd.

Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC

I know there has been some work, Stan Huff's group called CIMI, around data models and is there any – well, I understand the scope and a lot is being done here, is there any discussion about how that would potentially fit into this effort or this effort could at least address some of that?

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Floyd, this is Ken, I talked to Stan about that so definitely I think the notion of having detailed clinical models is really important that's along the lines where vMR templates was heading and I've also discussed with Stan our plans to move towards aligning with FHIR and building FHIR profiles and his thought is that, yes, he at least in my private conversations with him, that, you know, he thought that was generally a good direction.

I think in the end we do need detailed models that can express and unambiguously express what we're trying to say. We have included that as requirements that must carry forward because then one of the first things we learned in our HeD pilots was that if you don't have those detailed models and terminology bindings, etcetera than it's hard to achieve the kind of semantic interoperability we're aiming for.

The vMR templates were done – and we did it to sort of address those kinds of issues and I think it's definitely on the forefront of many of our minds that we must address it and I think the piloting really will tell us exactly how to do that, but I think it's definitely possible and I think it's definitely something we should address.

So, you're definitely right and the approach I think is still to be determined, but I think all of us who are in sort of the quality measurement automation or clinical decision support fields recognize that that's absolutely required.

Gene Nelson, DSc, MPH – Dartmouth University

This is Gene Nelson, question. Could you say a little bit more about your current state thinking and future thinking about the virtual medical record idea and work?

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Sure, so the vMR has a fairly long history, we've been working on it at HL7 since about 2010, but I think our thinking is at least at a high level, FHIR – well the first and foremost need is for, at least the logical model to be something that's fairly safe and easy for a typical knowledge engineer to use, so somebody who I guess, if you will, doesn't have a PhD in HL7, and we built the vMR essentially to try to accomplish that.

FHIR didn't exist when we had started the vMR work and when we were doing HeD it was not yet available as a draft standard, which is currently is in the process of being available. So, I think our consensus – we had a lot of discussions about this pretty open wide leaning discussions at the last HL7 working group meeting with various work groups and I think the consensus is it probably is time to really explore FHIR.

Now with the logical model there is the issue that FHIR itself has an implied logical model, but no explicit logical model and folks in FHIR like Lloyd MacKenzie have been really helping us to try to understand what it would mean to have a FHIR-based logical model and we still need to decide whether we are going to make that really just use the FHIR implied logical model or layer below it something that looks like PMR or the quality improvement domain analysis model that was just balloted.

And I think one of the first priorities as we move here is to really understand that, pilot it out and figure out what will work for implementers.

Gene Nelson, DSc, MPH – Dartmouth University

Thank you I appreciate that.

Rosemary Kennedy, BSN, MBA, PhD, FAAN – Vice President for Health Information Technology – National Quality Forum – Associate Professor Thomas Jefferson University School of Nursing

This is Rosemary Kennedy, I have a question I don't know if it's premature, but I was wondering if you could expand upon the eCQM consultation and review initiative?

Marc Hadley – Principle Software Systems Engineer – MITRE

Sure, so for Meaningful Use 2 we ran an informal process whereby each of the measures was vetted by MITRE, you know, for purely on the logic front to make sure that the logic really expressed the intent that the QDM operators were used correctly, etcetera.

Under the Tacoma contract we're standing up – actually we stood up a more formal process where, you know, we did the same kind of functional or it's a little bit broader, so we're managing kind of the QA of all of the annual updates, the EH updates that are going on right now and the EP updates we shall be starting shortly. And we're envisioning doing the same for the Meaningful Use 3 measures as they start to become available. Did that answer the question?

Rosemary Kennedy, BSN, MBA, PhD, FAAN – Vice President for Health Information Technology – National Quality Forum – Associate Professor Thomas Jefferson University School of Nursing

Yes, thanks, Marc.

Marc Hadley – Principle Software Systems Engineer – MITRE

Okay.

Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC

This is Floyd, one other question on HeD. I heard mention that Allscripts has done some piloting, I heard some reference to Epic is doing some work. Is there a vendor testing to – and kind of involvement to see that this is something they can implement?

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Bryn, do you want to comment on Allscripts?

Bryn Rhodes – Software Architect – Veracity Solutions, Inc.

Yes, so on the Allscripts side, we were able to translate from the HeD format into an Allscripts native format. The formats are very similar so that was a pretty straightforward process but what we did build up out of that was an HeD schema framework that, you know, actually is open source freely available, it's an ONC – ONC owns the intellectual property but they implemented the source and released it under, you know, a BSD license.

And that framework allows you to build out pretty easily by extending that framework translations into various formats. One of the things I'm hoping that we get out of this next S&I Framework Initiative is more vendor involvement in that area and see whether there are any other pilots that can take on the same kind of work from different vendor perspectives and flex that in that direction.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Yeah and Floyd I can comment on the use case two. So, use case two has some of the advantage that we built upon standards like the decision support service in vMR which already were HL7 standards before we even began Health eDecisions. We basically just updated them through the initiative and so there have been many implementations and Aziz covered that a little bit.

So, for example, the decision support service and vMR approach is in production use in eClinicalWorks for immunization guidance. So, obviously, you know, we have production level EMR level validation of the approach and talking to the Epic folks they really don't think there is – well, they already support this approach, so, I'd say use case two is really not about, you know, is this approach doable it's just saying, well let's just go ahead and standardize on the approach that vendors are already using for integrating external web services. So, I would consider both to have undergone very good strong pilots.

Galen Murdock – President & Chief Executive Officer – Veracity Solutions

And this is Galen, with respect to Tacoma, in terms of recruiting additional participants would that be an entry point – would the entry point be things like HeD use case two which would include the capabilities of use case one, are we on a moratorium for a season until Tacoma reaches a state of later maturity? What are your expectations for recruitment and participation to help the standard mature?

Marc Hadley – Principle Software Systems Engineer – MITRE

So from my perspective I think we need fairly broad recruitment if we can get EHR vendors involved I think that would really pay us a huge benefit. In terms of the actual use cases I think one of the things we need to address is, you know, specifically harmonized standards across CQM and CDS. So, I'd really like to see a use case addresses that where we're sharing an artifact between a rule and a measure.

Beyond that I think, you know, things are pretty wide open in terms of what the community wants to build, you know, as a use case. So, you know, I'd be open to all kinds of suggestions.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

And I think your comment about services is also relevant too, I mean, on an operational level at our institution for example we use the same decision support engine we use for decision support purposes for quality measurement, implementing many of these quality measures. So, as Marc mentioned there is just so much overlap that – and I think another good thing is that through a lot of discussions at HL7 and elsewhere I think the two communities and quality improvement and measurement and decision support have really bought onto the notion that “yes, let's build the same thing together, we won't have separate paths.” So, I think we have the buy in we just need to execute on it.

Galen Murdock – President & Chief Executive Officer – Veracity Solutions

This is Galen, it's a remarkable effort. I know that it's taken many years of planning in HQMF and HeD. I'm thrilled that in Tacoma things seem to be coming together well, congratulations.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Great, are there any more comments or questions?

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Well, with that, thank you again to all of our presenters, this was a very helpful discussion and will certainly inform our discussions moving forward when we have more guidance on our work plan. So, we really appreciate that.

Kensaku Kawamoto, MD, PhD – Initiative Coordinator, Health eDecisions, Associate Chief Medical Information Officer – University of Utah Health Sciences Center

Thank you.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Thank you. So, I'd like to move onto the next agenda item and give you an update on the Kaizen Event that was held in Washington, DC last week, that event was hosted by CMS and ONC and it focused on the eCQM development cycle because of their integral importance to certain programs like Meaningful Use and PQRS. And this Kaizen Event is the 5th, I believe it's the 5th in a series that began in January 2013. Okay, next slide, please.

And for the Kaizen Event we used the LEAN principles, and most of you are familiar with LEAN, to improve the processes as many of you know LEAN is a process management philosophy that is used to eliminate waste and variation and duplication. LEAN is also known as the Toyota principles because of its integral roots in improving the Toyota production line.

And the Kaizen Event is an event, it's Japanese, it's a Japanese term and it's an event or the activities that bring together all of the stakeholders that work on our process from the leadership down to the frontline worker. Next slide, please.

And so for this event there were eight groups and I'll just provide a – oh, I heard some background, we'll provide a high level overview of the eight groups and then I'll turn it over to Floyd to provide some more detail on one of the groups that focused on things that are relevant to the things that we're doing.

So, the first group focused on improving processes that relate to the measure authoring tool, the next one addressed VSAC harmonization. There was a group that focused on the measure update process. There was another that focused on logic harmonization. There was another that focused on EHR certification.

And then there were two groups that focused on data processing requirements such as the submission requirements to CMS. And the last group focused on the eCQM and CDS standards implementation which is very relevant to the discussion that we just had and that was the group known as Group Eight. I think Floyd referred to it as the his and hers group and Floyd you can share more detail on what that means. But that group focused on standard implementation as it relates to clinical decision support and eCQMs.

And with that Floyd I'd like to turn it over to you to go into more detail on that group and then if there are others of you, as I mentioned before, that participated in the Kaizen, if we have time I'd like for you to share your thoughts as well. So, we can advance the slides, next slide, yes, because I've already gone over these. Next slide. We need to get to Floyd's slide. Next one. That one.

Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC

That's it. Thanks, Marjorie, actually Marjorie is referring to – we wanted to name our group harmonize implementation of standards and because it was Valentine's Day when we presented that was his, we also had harmonized enterprise requirements for standards.

But basically, what this group looked at was not the overview that you just heard that's going on in HL7 and all these projects, but was really looking at how standards are used within programs and what was clear was first it was not just about quality standards, it was also quality measurement standards, it was also about clinical decision support so HeD is part of the consideration, but in most of the discussion what was clear is there is the standard for representing a measure that's HQMF and there is the reporting standard QRDA category one for single patients, category two for an aggregate report.

And if we go to the next slide what was identified as findings is there are actually several versions of implementation guides. Often in cases, especially for QRDA, which stood out as an example of one of those issues, we found that there was a QRDA implementation guide but when it came back to being evaluated based on programs CMS had to add to it and basically create separate hospital program implementation guides for QRDA and eligible provider implementation guides for QRDA. So, given that there was significant rework identified by having to create additional guides.

So, if we go to the next slide, the next steps that this group came up with was in addition to looking to HL7 to help coordinate the standards world also coordinate across HHS for all the quality related standards and I think what you heard earlier today addresses some of that work.

Also to consolidate the implementation guides especially for QRDA. So, a fairly near-term project will be to provide consistency for implementation across both programs eligible hospital, eligible provider, coordinate more closely with HL7 so that the guides coming out of HL7 and the support needed by CMS can be more aligned so additional guides aren't needed later and also provide a source where all of this information can be available.

I think you heard a little of that which I can't credit the Kaizen one week ago for providing the Tacoma site that was already in progress, but the thought for the Kaizen was there needs to be a standard site for measures, CDS artifacts, HeD and all relating information so much more easily retrieved and used. So, that's a general summary of what the standards group did look at. Happy to answer any questions.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Okay, so what we will say is that each of those groups then has a charge to act on the next steps, each group has a champion and will be getting to embark on sort of the – to embark on those next steps in an effort of getting to what is called “the future state.” And we’ll be happy to report what comes out of that work. So, with that I think we’ve reached the end of the agenda. Michelle or any other ONC staff do you have any other comments that you’d like to make before we go to public comment?

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Nothing for me Marjorie, this is Michelle. Alicia or Julie I’m not sure if you have any other comments?

Alicia Morton, DNP, RN-BC – Deputy Director Office of the Chief Medical Office – Office of the National Coordinator for Health Information Technology

No, I don’t. I wanted to thank all of our presenters.

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Yes, thank you very much to everyone who presented today there was a lot of great information. And with that Marjorie, do you want to open up to public comment?

Public Comment

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

Sure. Operator we’re ready for public comment.

Caitlin Collins – Project Coordinator – Altarum Institute

If you are on the phone and would like to make a public comment please press *1 at this time. If you are listening via your computer speakers you may dial 1-877-705-2976 and press *1 to be placed in the comment queue. We do not have any comment at this time.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

All right, so thank you everyone. The meeting is adjourned. Michelle and others our next call is when or you’re going to poll our group for when we will meet next?

Michelle Consolazio – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology

Yeah, we actually – there isn’t a call on the calendar but we are working to schedule the next call. We’re thinking it will be some time after the next Standards Committee meeting which is March 26th when we have a better idea of a path forward.

Marjorie Rallins, DPM – Director of Measures, Standards and Informatics for the Performance Improvement Division – American Medical Association

All right, so thank you again everyone I really enjoyed our discussion today and we’ll look forward to talking with you on our next call. Meeting adjourned.