



[SLIDE 0]

**ELHAGMUSA:** Good afternoon. My name is Amira Elhagmusa with ESAC and Battelle. Thank you for joining this webinar titled “Introducing HL7 FHIR for Implementers.” Today’s session will be presented by Shanna Hartman from CMS and Rob Samples for ESAC, Inc.

Today’s meeting is being recorded. If you would like to ask a question, please use the Q&A box on the bottom right-hand side of your screen. We will review the questions at the end. After the session a feedback form will pop up. Please take a few minutes and tell us how we did. We always appreciate your feedback. Now I’d like to turn it over to Shanna Hartman to provide an overview, thank you.

**BATTELLE**

*Introducing HL7 FHIR for Implementers*

Moderators: Amira Elhagmusa and Traci Psihas

Presenters: Shanna Hartman, CMS; Rob Samples, ESAC

January 22, 2020

[SLIDE 1]

**HARTMAN:** So the agenda topics for today's session include components of an eCQM, the FHIR specification introduction and walkthrough, use of profiles and Implementation Guides (IGs), quality improvement core, QI-Core, mapping from the Quality Data Model (QDM), quality measures IG, data exchange for quality measures, introduction to FHIR operations, and an overview of current activities on FHIR.

[SLIDE 2]

**HARTMAN:** This slide shows the building blocks or parts of an eCQM that contain the data model, or what to look for in the patient's medical record to capture and report the expression logic or how to calculate the results of the data captured in order to measure that the right care was provided and the structure which includes the metadata, numerator, denominator, exclusions and exceptions.

[SLIDE 3]

**HARTMAN:** Here we represent changes to the components of the eCQM specifications with the move to FHIR. In the top left you can see that the specs currently contain the Quality Data Model ( QDM), the Clinical Quality Language (CQL) logic, and the Health Quality Measure Format (HQMF). With a move to FHIR for eCQM reporting QI-Core replaces QDM for clinical data. FHIR measures replace HQMF for the eCQM structure, and the CQL logic will remain the same.

Below that is a representation of the changes to eCQM reporting. The QI-Core profiles are replacing QDM. The FHIR MeasureReport individual and summary replaces QRDA I and QRDA III. The goal here is to align quality measurement standards for eCQM development and reporting using FHIR. I'll now turn this over to Rob Samples to review the presentation.

[SLIDE 4]

**SAMPLES:** So beginning with what is FHIR, we are going to spend a little bit of time today going through a high-level overview of FHIR and the related Implementation Guides (IGs) as we mentioned in the agenda. FHIR stands for “Fast Healthcare Interoperability Resources (FHIR).” You can access the specification at <http://hl7.org/fhir>. FHIR is a next generation standards framework that’s been created by HL7.

The intent is to provide an interoperable platform for healthcare and so it does a couple of things. It defines a common way to structure health data, and we call these things “resources.” It also enables the exchange of that data in an automated fashion through application programming interfaces or APIs. FHIR is really built on using the latest technologies that are intended to be developer-friendly, which we will go into in a little bit more detail.

[SLIDE 5]

**SAMPLES:** So beginning with a brief history of FHIR and the related versions, the first published version was FHIR DSTU 2 back in 2015. This was an initial version of the specification that focused on a core dataset, and again using exchange, using APIs. Some of you folks might be familiar with the Argonaut project or

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heard of the ONC Common Clinical Data Set. FHIR DSTU 2 is really the foundation for those efforts.

In 2017 we moved to STU 3. The notable thing about STU 3 was that it was the first version to contain the clinical reasoning module, which is what we rely on heavily for eCQMs in quality reporting. We'll go into that in a little bit more detail. FHIR STU 3 was also the basis for our initial eCQM conversion, as well as the data exchange for quality measures and quality measure Implementation Guides (IGs) which help enable our quality measurement workflow.

FHIR Release 4 (R4) was first published in December of 2018. This was the first version to contain normative resources and that's kind of key. I'll cover what that means in a little bit more detail, but essentially it means that some of these resources are becoming adopted and in wide use. When it gets a "normative" status, there are a few things that that indicates, but a big one being that changes are essentially locked down for that resource going forward. It gives implementers a bit of stability in the specification.

Many of the EHR vendors are looking at R4 for their target implementation. Having said that, many have adopted some form of DSTU 2 or STU 3. R4 is also the version that we are currently using for converting and the testing of eCQMs.

[SLIDE 6]

**SAMPLES:** This slide shows how FHIR is used. Again, I'll go to the specification here in a moment to further illustrate this, but FHIR is organized into five levels to just kind of aid in navigation. You can see the first two levels here provide a lot of information for implementers and provide the basis for exchanging data.

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So in the foundation we have content management, how to structure documents and how to perform data exchange.

In the implementation layer we find resources for security, how to deal with terminology and how to perform testing. Moving into the upper levels we get the clinical data model, and so administration and record and exchange. This gives us the familiar health concepts that we're used to working with such as patient or practitioner, as well as how to represent things like medications and encounters and things like that. And then Level V is the clinical reasoning module. This gives us the structure for eCQMs and reporting.

[SLIDE 7]

**SAMPLES:** Now I'd like to do a quick walkthrough of the FHIR specification. Again, this is at <http://hl7.org/fhir>. We're going to look at a couple of things that are helpful for folks that are new to FHIR, like determining which site you're on using the latest published version. And then we'll take a look at a basic resource encounter which is used in quality measures pretty extensively to illustrate some of the important highlights that you'll need to know about using FHIR.

DEMO

**SAMPLES:** So if you are new to FHIR, there are several artifacts up here at the top for first-timers that give very in-depth details and overview of what FHIR is, how it works and what it does. In fact, there are summaries available for a variety of different perspectives, and so depending on how you're intending to use FHIR you can get a bit of customization on introductory-level resources.

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We've got the levels that begin at Level I to give us the basic framework and specifying documents and just kind of how things are used at the foundation layer. Moving along, again we've got Level III and IV which provide the bulk of what we're going to be looking at in terms of electronic clinical quality measures (eCQMs). And then down at the bottom is clinical reasoning which gives us the measure and MeasureReport Resources which we will use for eCQM reporting.

So just in navigating there's this ribbon at the top that will give you different ways to look for particular resources, and so you can look up resources by categorization. You can get them alphabetically which is one of the favorites that I use, because I'm usually looking for something specific. And then just a note that you'll see a number next to each of the resources, and this is its maturity level. You can see that some resources are just starting off. They have a maturity level of "one." Those that have been around for a while are normative, meaning that they're essentially locked down for changes and should be fairly stable going forward.

You can see that I'm on the R4 version of the FHIR specification. Anytime you go to this website there will be this ribbon at the top. This ribbon should also be on every Implementation Guide (IG) that you go to that will give you the directory of published versions. So if I select that link, I can see that there are a number of different versions out there. They're typically broken down into the sequence or basis for the FHIR versions. You can see we've gone from DSTU 2, STU 3, all the way up to R4. You can see that the current build version is FHIR R5. That's for those of you that are looking forward to the future.

So from this screen I'm going to select the "encounter" resource. Again, this is one that's commonly used in clinical quality measures (CQMs) so it's a good one

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to look at. At the top of the resource page I'll have just some introductory content that explains what the resource is and how it's used, and then the "boundaries and relationships" section. Scrolling down, it will typically give you a list of other resources that reference this resource, and I'll talk about what that means. But then we get here to the "structure" tab. This lays out the structure for the encounter resource type.

So going through this we've got a "flags" section. This just gives additional information about the use of an element. You can see a number of different symbols here. This Sigma means that this element is included in summaries. A "modifier" element means that it can change the entire meaning of this resource. For example, "encounter.status" is a modifier element. What that means is that I might have a status of cancelled, and so that means that this encounter never actually happened because it was cancelled. Modifier elements are elements that can change the entire meaning of what it is we're looking at.

So if I scroll down, you can see that this resources models out a number of different things that we would typically use in a data exchange scenario. It can specify value sets that are used. You can see that there are a number of different categories for value sets. It could be "preferred" meaning it's the one that they would like you to use. It can be an example. It's just meaning that here's one way to represent it, or it could be a required value set meaning you have to use that value set.

In addition, we've got a "cardinality" section that just tells us if that element is required and if more than one is allowed. Scrolling down on the "resources" page it also gives us terminology bindings. So it will give us a list of every terminology used for that resource, as well as some example usage. And then

the parameters that go along with that resource. That's a very quick overview of how FHIR structures resources.

Moving through the tabs at the top, there are a number of examples that are posted to look at how this resource would be represented. There are detailed descriptions. Everything that you saw on the homepage that had a URL associated with it — I'm sorry, has a link associated with it has a detailed description. So if you ever need to know what something is trying to say, it will take you to the "descriptions" page. There are mappings between other HL7 standards and the FHIR resource. And then it goes into the profiles and extensions, as well as operations and other resources that are available from this "resources" page.

Because this is an overview I'm not going to go too much into those, but I just wanted for folks to be familiar with using the FHIR specification and being able to navigate around. It's fairly straightforward and everything links. So if there's something that you don't know or don't understand, you're able to select it and go read additional information about it.

[SLIDES 8-9-10]

**SAMPLES:** For folks that are picking up this presentation, we have included just screenshots of what we go through. Again, we're relying on the web specification to do the walkthrough.

[SLIDE 11]

**SAMPLES:** So now that we've talked about resources and how they're sort of the basic building block of the FHIR specification — they define how data is to be structured and exchanged — the intent of resources is to be somewhat generic so that we can fit a wide range of use cases. So when we have a specific use case we typically create what's called a "profile." A profile is nothing more than a resource that has been changed in order to meet that specific use case.

Some of the things that we can do with profiles are both to restrict and extend the base resources. We can specify terminology, and we can put additional constraints on APIs. We can change the cardinality in certain cases of some elements. So if an element is not required by the base resource, we can say that it is required by a profile. There's also a flag that we can include called "must support." This is essentially that a system that wants to comply with that profile must support the ability to exchange that element. I might not need to send the information in every case, but my system must be capable of supporting it. We can specify value sets and change if we want a value set to be required. And then when we've created profiles, typically we've published those into an Implementation Guide (IG).

[SLIDE 12]

**SAMPLES:** We've got a number of Implementation Guides (IGs) that we use for quality measurement, but I just wanted to go through briefly the process for creating these Implementation Guides (IGs) and talk through how they're developed.

So then from this graphic you can see that at our base layer we have the FHIR specification. This is intended to be resources that are, as I said, applicable to a

wide variety of use cases. As we start building constraints, we can go up and become more and more and more constrained for our specific use case. In this particular case we have US Core, QI-Core, and then DEQM or a HEDIS Implementation Guide (IG) at the top that is very highly focused on quality measurement.

Throughout that process as we come up with things that we would like to see added to the Implementation Guide (IG) — that's either above it or to the base FHIR specification — we can push those changes through the consensus-based promotion. So if there's something that we determine is important for quality measurement and feel would be important for the base FHIR specification, we do have the ability to move that through the HL7 process to get it into the base specification.

[SLIDE 13]

**SAMPLES:** I mentioned that we have several Implementation Guides (IGs) specific for quality measurement, or that we're using specifically for quality measurement — the first of which is QI-Core. This is a data model type of Implementation Guide (IG) that is built upon both US Core and base FHIR resources. So whenever US Core specifies a profile, QI-Core uses that as its starting point. If US Core does not specify a profile, then we select one from the base FHIR specification. These profiles are used for representing data in eCQM reporting as well as clinical decision support (CDS).

The FHIR quality measure ID gives us the structure of an eCQM, and so our metadata populations that go along with an eCQM. This is a restraint on the base FHIR measure resource. And then the Data Exchange for Quality Measures

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(DEQM) Implementation Guide (IG) tells us how quality data is to be exchanged. Again, this is based on the FHIR MeasureReport Resource. So then these three Implementation Guides (IGs) kind of tell us how our data should look; how quality measures should look, and then how those quality measures should be reported. We're going to take a look at each of these individually.

[SLIDE 14]

**SAMPLES:** So I'm going to go out to the QI-Core site. I should have that up.

DEMO

**SAMPLES:** As I said, QI-Core is built on US Core. So then this is the US Core Implementation Guide (IG). Again, it looks very similar to the base FHIR resources. US Core profiles are all listed on the homepage. I'm not going to go too much into this, because our focus is going to be on QI-Core, but what I did want to point out, as I said, is if US Core uses or has specified a profile, that's where QI-Core would pick up the basis for that profile. So then looking within QI-Core, we may place additional constraints upon that profile as needed for representing and reporting clinical quality measures (CQMs).

I'm going to continue with our encounter example and just take a quick look. Again, to reiterate the ribbon at the top of the page tells you which version we're currently looking at. As you can see, this is currently based on the FHIR R3. If I go to the directory of published versions, I can get to an R4 sequence. Clicking on "current" takes me to the build site. You can see up at the top it's now <https://build.fhir.org> in the URL. The build site is going to contain the very latest and greatest updates. This is a work in progress version, and so I would

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caution folks on using the build site. When possible, we do want to use published versions, but I'm going here because there are a few things that I just wanted to show that are sort of brand new to QI-Core.

So then going down to "QI-Core encounter," again we've got a very similar view as we did for the base specification, but what I wanted to show here is the differential table and the snapshot table. Whenever you're in an Implementation Guide (IG) looking at the differential table, it's going to give you, as it states in the name, the difference between the profile as it exists in the Implementation Guide (IG) and then its base resource. As you can see, this profile builds on the US Core encounter profile.

As you can see here in the differential table, as I mentioned, we have flags for elements that must be supported. So under "encounter" a status reason has to be supported. And then QI-Core encounter "procedure," and then we've gone through and made some updates just to cardinality where appropriate to require certain elements, and again specify which elements the system has to support.

Going to the "snapshot" view will give you that entire profile. So whereas the differential just shows the difference between this profile and the base either resource or profile, the snapshot gives you the entire thing for implementation. Again, we've got terminology bindings down here at the bottom and then any additional constraints that have been placed for the profile. So then from an implementer's perspective when we're looking at the data model, the snapshot table and the related terminology bindings and guidance can serve as the requirements for implementation.

[SLIDE 16-17]

**SAMPLES:** So we've gone through using QI-Core. Another thing that I wanted to show that will be of particular interest is to the QDM to QI-Core mapping. So folks that are familiar with seeing electronic clinical quality measures (eCQMs) specified using the Quality Data Model (QDM), this page contains mappings from the Quality Data Model (QDM) to QI-Core. So just as an example here, you can see that I have "allergy intolerance." It gives the QI-Core mapping as well as the associated data elements required to specify any context as needed that comes from QDM.

As you can see, we've gone through a lot of background information in here, a lot of descriptions using QI-Core and mapping from QDM to QI-Core. Again, this is a very helpful section of the guide for measure developers as we're looking at converting eCQMs to use FHIR.

[SLIDE 18]

**SAMPLES:** So just some quick background on the conversion of eCQMs. We began in the spring of 2019 beginning with QDM-based electronic clinical quality measures (eCQMs) and began converting those to use the FHIR data model. We undertook this process for a number of reasons. One being identifying any gaps in the emerging standards so that we could address those gaps through the HL7 ballot process. It has also allowed us to do some initial testing of FHIR eCQMs as well as being a medium for training measure developers. Folks that are interested in looking at example FHIR eCQMs, the URL is posted here that contains the work in progress for those measures.

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**SAMPLES:** So the FHIR clinical reasoning module, as I mentioned, contains the FHIR Measure Resource as well as the FHIR MeasureReport Resource. The community has done a significant amount of work on creating Implementation Guides (IGs) to further restrain those and provide guidance for both the structure of eCQMs as well as eCQM reporting.

So just as a quick review, the Measure Resource and related Implementation Guide (IG) defines the eCQM metadata and structure. The MeasureReport Resource gives us the individual list and summary reports. For those that are familiar with QRDA, the equivalent would be category I, II and III. These are further restrained in the DEQM Implementation Guide (IG). I do have a note here that these are currently based on STU 3 which are the published versions; however, we have included the URLs for the latest version which is currently in ballot. So then it won't show the latest and greatest, but just, too, a word of caution that those will change.

[SLIDE 20-23]

**SAMPLES:** Here is a quick view of the quality measure Implementation Guide (IG). Again, you've got a lot of good background information about using the guide. It goes through and discusses the quality improvement ecosystem and sort of how this fits in, as well as the exchange and reporting mechanisms that we foresee with using FHIR. This is a lot of information that we would encourage folks on this call to go out and review. Again, we've included the URLs to do so. As part of the guide we have specified some profiles that go on top of the base

FHIR resource and define different types of quality measures, as well as how to handle libraries and bundles.

The Data Exchange for Quality Measures (DEQM) Implementation Guide (IG) is an effort that has come out of the Da Vinci group in conjunction with HL7. So again the landing page is going to provide an introduction and overview. This starts to create a framework for how to exchange data related to quality measures. We've got individual and summary reporting, as well as data exchange guidance.

This is specifically on the interactions between a consumer and a producer, which is the data of interest for a measure. These cover additional exchange scenarios that might be outside of sending an individual or summary report. We have use cases that have been defined based on electronic clinical quality measures (eCQMs). So there's a medication reconciliation measure, colorectal cancer screening, and then VTE1 so covering both ambulatory and inpatient quality measures. Again, there's a lot of overlap between the background information from the quality measure and the DEQM Implementation Guide (IG).

Again at the top we can look at profiles that are defined as part of this Implementation Guide (IG). Again, so we've got profiles that specify individual summary and summary reports, as well as medication administration and requests for one of the example use cases of medication reconciliation.

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**SAMPLES:** So one of the things that is probably going to be of most interest to implementers, and we'd like to just kind of introduce this concept here today, is

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with FHIR operations. We've talked about how the specification describes the structure for health data as well as the exchange of that information.

Operations in FHIR describe those interactions used to exchange the data that we're looking for, and so they describe basic operations. If folks are familiar with the term "CRUD," which is just Create, Read, Update, Delete, these basic operations enable the storage, search and retrieval of data from a FHIR system.

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**SAMPLES:** The clinical reasoning module defines "evaluate measure" which we are using for eCQM reporting. It allows a client system to request that a certain quality measure be evaluated. That quality measure uses input parameters, and so I would need to specify the "periodStart and End," and which measure I would like to evaluate. And then the output of that operation is a MeasureReport Resource which contains data, if any is found for that particular quality measure.

Some other operations that we're looking at in quality reporting are "\$collect-data and \$submit-data." These are just different operations that allow us to either look for or send data related to quality reporting. And then "\$data-requirements" gives us an operation that will determine the requirements that we need for a particular quality measure.

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**SAMPLES:** These operations are contained in a reference implementation. So FHIR reference implementations are used for testing specifications, and it allows implementers to test systems against a known result. We've used a reference

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implementation pretty extensively and tested it in Connectathons, and so the eCQM reference implementation does that “evaluate measure” and creates the MeasureReport.

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**SAMPLES:** Our reference implementation is called the CQF Ruler. It’s an implementation of the FHIR clinical reasoning module. This includes the CQL-to-ELM Translation and Measure Evaluation Service. For folks who are interested or looking at it as an open source Java implementation, the link to the GitHub site is included here. For those that are less tech-savvy and still would like to play around with it, we have created a Quick Start Guide that will help with the setup and deployment of the CQF Ruler so that you can participate in testing.

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**SAMPLES:** There are some additional tools for implementers that may be useful. The CQL-to-ELM Translator and the CQL execution engine. There are two different flavors of that — a Java and a JavaScript version. Again, these are probably for more technical users, and each of these services is contained within the CQF Ruler reference implementation.

[SLIDE 29]

**SAMPLES:** So just a quick update. We’re currently looking at and working on the eCQM conversion for 2020 CMS program measures. That is an ongoing effort. We have put out for ballot quality measure and DEQM Implementation Guides (IGs) based on R4. Both of those Implementation Guides (IGs) are the ones that I

showed on this call today. The ballot for those closes at the end of the month, and we'll be looking to publish later this year. We've also participated in several Connectathons. The most recent was the first week in January which was hosted by CMS. It was a wildly successful Connectathon where we successfully tested both the STU 3 and R4 measure, as well as a data exchange scenario with an EHR to CMS receiving system.

So then upcoming we've got the February Connectathon in Sydney, Australia, and then again in May in San Antonio. For those of you that will be at the CMS quality conference, we will be doing a talk there as well. So if you have additional questions or would like to come and see us, please feel free.

[SLIDE 30-31]

**SAMPLES:** I think we've got some time left for questions. There are some additional resources here for the eCQI Resource Center, as well as a way to get a hold of us with additional questions.

### Discussion Questions

[SLIDE 32]

*Q: Will the eCQM specs only use the published versions  
and not the build versions?*

**SAMPLES:** Yes, and so where we're at currently is very much in the investigational phase of looking at quality reporting using FHIR. We are trying to use the most advanced version that we have available. As we learn things, we are putting that into whichever version we can realistically get it into and still fit

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within the HL7 ballot cycle. So then as we wrap up the investigation if this should become, you know, if CMS should transition to using FHIR going forward, there would be [unintelligible] that are published and named prior to that happening. I hope that answers the question.

*Q: Are there any presentations available on Connectathons specifically on the QM for CMS?"*

**SAMPLES:** Yes, so with presentations for Connectathons we typically provide a report out of the results. I'm wondering if that's what the person asking the question is looking for. I think we have a version of that that we could share, if that's what they're looking for. If it's for future Connectathons, we typically will host an introductory orientation call a week or two before the Connectathon, which that information is available on the CQI Workgroup wiki page.

*Q: What is the relation between the Java and JS implementations and CQF Ruler?"*

**SAMPLES:** So they start with the same basis. Actually, I was going to see if Bryn has joined the call. He might have something to add here, but the intent of the reference implementations, if resources are available to do it is that we want to make them available on multiple platforms. We have a Java and JavaScript version of the evaluation engine. They have slightly different uses, and so I believe it's the JavaScript version that is used as an input for the Bonnie tool. The intent there is that we want to provide cross-platform support for reference implementations when possible.

*Q: What would the timeline be for new eCQMs to be written using QI-Core vs. QDM? If a new eCQM is being worked on today, is it helpful to write it against both data models? If so, what is the best way to provide feedback?*

**HARTMAN:** This is Shanna Hartman from CMS. Right now we don't have a defined timeline for when new eCQMs need to be written using QI-Core. Anything would be done through our proposal through rulemaking; however, you know, with CMS program measures we are converting the current program measures to FHIR for implementation testing purposes. We are also working to build the Measure Authoring Tool (MAT) and Bonnie tool in a FHIR instance. So once they're publicly available you will hear about those to be used, and then you could write the measures in FHIR or using the current MAT using the QDM, but there is no timeline at the moment until we get further direction from testing in the industry. Rob, I don't know if you have anything else to add about the best way to provide feedback at the end of that question?

**SAMPLES:** Yes, I would add that if that question did come from a measure developer currently working on eCQMs, we do have a couple of groups that are available to help and provide support. I would encourage you to join the Clinical Quality Information Workgroup which is held every Friday. We would have to do some checking because it is a closed group. We do host a collaboration call weekly as well with measure developers, and we could provide information on both of those.

*Q: When converting QDM FHIR-based eCQMs, what tools are you using to validate and test the converted eCQM?*

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**SAMPLES:** So right now we have the reference implementation which is the CQF Ruler, and so from a very high level the way that we conduct that test is that we write a test patient with known expected results. So then we expect this particular patient to be in the numerator and the denominator. And then we run that patient using CQF Ruler and as long as the result is as expected as it comes back, then we know that the measure is doing what we intended for it to do.

I do want to be clear, though, that here are a couple of different types of testing. One I would say is more of the clinical relevance to make sure that the measure is performing as expected and is evaluating patients as expected. The other is more syntactical and so just making sure that the CQL and the FHIR resources that were used to draft the measure are correct. That can be done using the validation within CQF Ruler, or we do have a tool called *Atom* that is a text editor that has a plugin that will do both syntactical checking for both CQL and FHIR. So then depending on which level of testing you're referring to, that's essentially the process that we would use to test FHIR-based measures.

*Q: When will the MAT support FHIR-based eCQM development?*

**SAMPLES:** Ah, I don't know Shanna, is that one that you wanted to take?

**HARTMAN:** Yes, the MAT will be available in the coming months. We are currently in a development and user acceptance testing phase. We look to have that within the next like three months available in a staging environment. This would not replace the current MAT production system, and so the current standards in MAT would still be available for measure development, but we will definitely communicate that once it's available.

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**SAMPLES:** I did just get a message just to clarify. I think that I may have misspoke a bit regarding QI-Core; that the current published version is STU 3. The build version is based on R4 and it is in the process of being finalized and moving to publication, and so that one should be available shortly. I just didn't want to lead folks to believe that it's currently out there and published. I also received another message.

*Q: Can you talk a little bit about how an EHR vendor will support the reporting of data to support a customized FHIR-based eCQM?*

**SAMPLES:** That's quite a big question and I'm not sure if I understand it fully. I think what you might be looking for is specified in the DEQM Implementation Guide (IG). It does propose an initial workflow of exchanging data — both between the clinical site as well as a vendor — assuming that there would be one kind of setting in between on that workflow, and then a vendor submitting to a receiving organization such as CMS. I think if that's the question that you're asking, the answer might be in the DEQM Implementation Guide (IG), but I would invite you to take a look. If it's not what you're after, please submit a question to the resource center and we'll get an answer back for you.

**PSIHAS:** Rob, he did add an additional comment that he works for CMMI where the model teams may need to create a customized measure.

**SAMPLES:** Oh, yes, we talked quite extensively at the Connectathon. Yes, that's a big question. Let me, if it's okay, we'll take that one offline and address it in the Q&A.

*Q: Is there any probability that 2021 eCQMs will be in the new format?*

**BATTELLE**

*Introducing HL7 FHIR for Implementers*

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**HARTMAN:** Hi, this is Shanna. No, we're still in testing phases right now, and so any changes to the eQMs would come through the notice comment rulemaking process. At this time we don't have plans for 2021 eQMs to be in FHIR. We're still looking to do further pilot testing with implementers to ensure that our testing is successful.

**PSIHAS:** At this time there are no additional questions in the queue.

**SAMPLES:** I wanted to thank everybody for joining and for asking these great questions.

**PSIHAS:** Thank you, Shanna and Rob. I would also like to thank everyone for joining us today. We hope you enjoyed this discussion. Please take a few moments to complete the feedback form following the close of the webinar and thank you again. Have a wonderful day.

## **WEBINAR CONCLUDES**

**BATTELLE**

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