

**HIT Policy Committee
Meaningful Use Workgroup
Transcript
December 20, 2013**

Presentation

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you; good morning everyone. This is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the HIT Policy Committee's Meaningful Use 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 and also as a reminder if you are not the one speaking please remember to mute your line. I'll now take roll. Paul Tang?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

George Hripcsak?

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

David Bates? Christine Bechtel?

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

I'm here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Neil Calman? Art Davidson?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Paul Egerman?

Paul Egerman – Businessman/Software Entrepreneur

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Marty Fattig? Leslie Kelly Hall? David Lansky? Deven McGraw? Marc Overhage?

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Present.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Patty Sengstack?

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

I'm here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Charlene Underwood?

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Mike Zaroukian?

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Amy Zimmerman?

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Tim Cromwell? Joe Francis? Greg Pace? Marty Rice? Rob Tagalicod? And are there any ONC staff members on the line?

Elise Anthony – Senior Policy Advisor for Meaningful Use – Office of the National Coordinator

Hey Michelle, Elise Anthony here.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Jim Daniel is here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Hi Jim and with that I will turn it back over to you Paul.

James Daniel – Public Health Coordinator – Office of the National Coordinator

We might have some CDC staff too Michelle.

Laura Conn, MPH – Health Scientist – Centers for Disease Control & Prevention

Hi it's Laura from CDC.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Hi, Laura, that's Laura Conn. Anyone else from CDC on? Okay, thank you, now I'll turn it back to you Paul.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, thank you very much Michelle and thank you so much for everyone taking their time before the holidays to participate in this Workgroup. We are – this is very important work and really do appreciate your participation.

So, for today first I want to update you a little bit on the timeline, as you know the timeline sort of shifts with every new announcement, the latest I think since we talked was the shift of Stage – the extension of Stage 2 and the delay of Stage 3 introduction.

That doesn't give us a whole lot of time mainly because we've always been – well, ONC and CMS has always wanted to give the industry, and that means both the providers and the vendors as much time as possible for every stage, so it doesn't actually shift anything like our timeline by a year and as you heard their intention is to put out an NPRM in the fall of 2014 with a final rule in early 2015.

So, that maybe gives us another month and what we've decided to do is take advantage of that month because as you're going to hear we were just getting in the information from the HIT Standards Committee and so we want to get our draft recommendations in really good order as we work up towards presenting to the HIT Policy Committee taking into account all the things they've told us last time, taking all the feedback we're getting from the Standards Committee and the work that we've been doing.

So, want to have enough time so that we can really go through a once over before we present to the Policy Committee. So, our plans right now are to present our final recommendations for the Policy Committee in the February meeting that gives them time to prepare their NPRM.

As you know I'll also mention is last time there is still of course information that comes in, for example information from experience in Stage 2, we would have to delay several months if we wanted to hold up for that information. So, while we may be submitting our final recommendations neither CMS/ONC or we are deaf as the experience comes in and I'm sure CMS and ONC will incorporate that feedback, that experience into their NPRM and we will have an opportunity to make a comment on their NPRM in a formal way once that comes out.

So, those – we're playing a little bit of parallel action because we want to be as timely as possible to give people notice about Stage 3 and yet want to incorporate as much information as it becomes available. Any questions about that?

So, where we are in our development is we're going to hear about – were are going to discuss category four public and population health and Art's going to lead that, and then we're going to cycle back and talk about some of the things that we've been on hold for awaiting input from the HIT Standards Committee and I believe John Halamka is going to join us around 11:00 o'clock Eastern to provide us with information and Michelle just sent around a link to his blog, I haven't even had a chance to read that, because I think it came out yesterday, but at any rate we'll hear it straight from the Policy Committee or the Standards Committee and discuss imaging, the patient generated health data and there may be a couple of other topics there.

So, we're going to pick up some of the loose ends that we've had in our parking lot and then we'll try to incorporate all that. George and Michelle and I will try to go and make sure some of the words were in keeping with all the feedback we've had and then go through a total review with this whole Workgroup between now and the February presentation. All right, well why don't we go on with review of the public and population health category with Art?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Thank you Paul, and today I just want to first start out by thanking colleagues at ONC, CDC and the Council of State and Territorial Epidemiologists who have contributed to this conversation that we'll have this morning. I think some of them are on the line and might be able to add if there are pieces that I may have misrepresented. If we can go to the next slide please?

So, after our last discussion I thought it would be helpful to start by just reviewing a little bit about where we are in Stage 1 public and population health Meaningful Use measures then review public health efforts regarding the standards and interoperability framework component, and then lastly come back to our proposed Stage 3 Meaningful Use measures given that context. Move to the next slide please.

So, here's the slide that we see every month from Rob Anthony and the Policy Committee but I've added a fourth column you can see that for the first, second and third years eligible hospitals and their public health menu objectives you can see the immunization, electronic laboratory reporting, syndromic surveillance, but when you determine which hospitals have actually had one, at least one of these performed the measure is much higher, it's over 80 percent for each of the three years. And if we move to the next slide –

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And Art if you wouldn't mind sending that over or Michelle can send it over to Rob I think that's a very useful addition, thank you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right, no and I asked Rob in our meeting earlier this month if maybe we could add that, so I think he's going to come back with that already.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Great, thank you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

But, certainly I will share that with him, thank you, Paul. So, in terms of current measures, well what have we done with those three areas?

There's a new guide that's provided some improvements in what you should do in terms of implementation for immunization, the progress moving along with providers, there is some test criteria that's making interoperability easier, public health is moving toward accepting data from the certified products and there is a new implementation guide coming out in February that will include bidirectional exchange, that's for immunization.

For electronic lab reporting there is a new implementation guide for HL7 members that's a new release and lastly, we have syndromic surveillance operating now in over 1800 hospitals around the country and a lot of that is highly dependent on a new centralized infrastructure that the Association of State and Territorial Health Offices have set up in conjunction with the CDC called BioSense 2.0. So, I think we've been making significant progress in Stage 1. If we go to the next slide.

And you can see here on this slide the darker is better and there are just a few areas of the country where it's light meaning less than 70 percent of eligible hospitals have been able to meet at least one public health measure, but the majority of the states have at least, I'd say, 80 percent or better and that is consistent with the measures I showed you on the first slide. So, you can see that we're doing I think fairly well in terms of eligible hospitals participating in the menu objective in Stage 1. Next slide, please.

And then laboratory reporting I think one of the things that we've learned is that public health has been fairly adherent to standards and trying very hard to stick with them even before Meaningful Use started we had a standard from HITSP the lab to EHR implementation guide and then as I mentioned earlier there is a new implementation guide for electronic lab reporting for Stage 1 and now Stage 2 and I think all of that just points to the fact that public health is ready to stick with new standards coming out as we'll talk about for Stage 3, and it's getting very ready for that in the subsequent slides I'll show. Next slide, please.

So, here's the portfolio, we see this occasionally and when Doug presents to us, Doug Fridsma, the S&I Initiative portfolio and this is a snapshot from a recent newsletter, this one is from August, but I circled here four of the components that are most important the transitions of care, the Health eDecisions, structure data capture and data access framework these are the four components that we'll be focusing on for the rest of the talk. Next slide, please.

So, the key principle for Stage 3 Meaningful Use in public and population health is to adhere to those S&I Framework components wherever feasible. The Consolidated CDA allows us to create a standard message format; the structured data capture is a way to populate standardized forms from one EHR to the next.

Health eDecisions is a clinical decision support measure that – or tool that allows us to implement triggers for public health screening or collecting data and the data access framework is a way to query data by provider and across multiple organizations and by population. We'll go to the next slide please.

So, let's start here with cancer reporting which is in Stage 2 Meaningful Use just starting up. It's anticipated by Stage 3 Meaningful Use, the cancer implementation guide should move to the Consolidated CDA because the vendors are required in Stage 2 to use that transition of care document that will eliminate the burden of supporting two different formats for cancer reporting and the C-CDA has been harmonized and has improved templates that will allow it to collect data from these multiple sources and the cancer program has declared that it is ready to move to this new standard.

So, in the next slide the next steps for that are that they're aligning the implementation guide section so that – and that has actually been done, but the new document level template will allow ambulatory healthcare providers to report cancer events, it will add the diagnosis section to the C-CDA, it will perform a gap and overlap analysis of the entries and allow us to understand what are the data elements, what are the attributes and data sets, value sets that should be used as part of this movement to the C-CDA and then it will go through the HL7 balloting process and it's anticipated that the balloting will happen in the spring of this year maybe into the summer.

So, if we move to the next slide I just wanted to refresh your memory about some of the things that have been going on in terms of C-CDA in general. There were three pilots for the use of C-CDA, three of them in 2012 that focused on communicable diseases, one in New York State for pertussis another one in San Diego for pertussis and then finally one in Delaware for tuberculosis.

In 2013 there were two projects around early hearing detection and intervention one in North Dakota and the other in Oregon and as I just spoke about we expect progress in the area of cancer to happen or cancer reporting to happen with C-CDA to happen in 2014.

Now I underlined the word some areas to point out that in Stage 1 we had three areas immunization, electronic laboratory reporting and syndromic surveillance for which we developed implementation guides that were based on HL7 2.5.1 primarily.

And there is no intention at this point now that the vendors have figured out and the states have figured out how to establish this transaction with an earlier version of HL7, there is no intention, at this point, to move to C-CDA in the very near future, it may happen down the road, but at this point trying to keep that consistent for those items that are in Stage 1 and Stage 2 at HL7 2.5.1. We can move to the next slide.

Here's an example, this is one that's coming up in our discussions around Stage 3 Meaningful Use healthcare associated infections detection and reporting, this slide points to the interaction between the healthcare facility at the bottom and the CDC at the top where a lot of this is being stored as part of the National Healthcare Safety Network, NHSN.

So, in this example here, I hope that you can see, that there's an attempt to share knowledge from the CDC with the EHR and in that central box in the bottom, that green box in the bottom, is where the transmission of these rules, this knowledge allows the EHR to then identify, so detect and then to complete forms that then allow the healthcare facility to send information back to the NHSN.

Currently, there are over 1000 hospitals and dialysis centers reporting to NHSN and they're using a clinical document architecture to do that reporting. The hope of the CDC is that we can continue to use that same structure in the near future and if there is a need, as there has been some discussion about, a quality reporting data document architecture that those two are not mutually exclusive that we have a way to continue the good work that 1000 hospitals are already doing with HAI in reporting to the Healthcare Safety Network.

And you can see that I've inserted here a little green circle between the two that's an example of Health eDecisions where the knowledge created at CDC creates a clinical decision support system that allows the EHR to drive behavior by infection control practitioners or others at the institutions to report healthcare associated infections.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Art, this is Amy; I have a question for you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Sure?

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

So, currently how are the hospitals transmitting today to NHSN is it through the CDA?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, yes, well they're using a web service primarily now, a lot of the reporting is done through a web service using the CDA, yes.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Okay.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

And Art this is Neil, are people using that Health eDecision tool? Is that already adopted?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, so that's an example of what we're trying to do with Health eDecisions in the future.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

I see.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, that's not something that's happening right now. There are some tests going on, a matter of fact, in my own community we're trying to figure out how to do this through the RHIO. We're having to –

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

So, one of –

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes?

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

I'm sorry, so it sounds like the Health eDecisions is something that – that's some of the concepts we've been talking about for Stage 3 is it possible to have some centralized decision support that then can go to or be –

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Integrated.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Integrated with either really in the EHR or through it hitting some sort of place that has those centralized decision rules and then going – you know, and then being able to apply them to data in the EHR. Is that correct?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Exactly.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

And in about 5 or 6 slides I'll get to showing you that.

Amy Zimmerman – State HIT Coordinator – Rhode Island Department of Health & Human Services

All right, sorry, I'm jumping ahead here.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, no we're happy that you're asking these questions.

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

We're so excited about the future come on.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, its coming Neil.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

But how often is the future just five slides away?

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

Yeah.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Next slide, please.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Next slide, please.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Next slide. Okay, one back please, okay. So, before we get to the Health eDecisions I wanted to share with you a little bit about what's been completed in terms of these clinical document architecture and structure data capture in public health pilot projects. I mentioned some of these earlier.

If you look at this slide I've circled the area in the lower left, a provider is all the way over on the left and that provider with their EHR is able to ask for a structured form, this is a form that will be requested from an intermediary that allows the EHR to then represent that form.

So, you request the form, the form is then brought back, there is some population of data like the name, the date of birth in that form and then additional information is put into that form like if it were a form about pertussis it might ask what was the drug that was used, how many context there were things like that.

So, that form is then populated as it goes back over to the left in those steps one through four in that circle, that form is then completed and then sent on as a CDA over to the right-hand side, the public health department and you can see once again listed each of those projects that I've described on an earlier slide, several pertussis projects, a tuberculosis project and early hearing and detection and intervention projects in North Dakota and Oregon.

So, those are pilot projects that have been completed and there has been success in producing a C-CDA using this structured data capture format that we are talking about in the S&I Framework components. We can move to the next slide please.

So, two pilots that have happened in addition to the ones I just described are ones in New York City and Wisconsin and these actually haven't happened in functioning EHRs but more in mockups with vendors like Epic where we're able to see that the data are collected and then sent on in this new format.

We're still working to get this embedded in a project in one of or both of these sights but these are some pilots that have moved to this test environment to show we can change the way that public health case reporting is happening using this new standard, it's lightweight, it's something that an EHR vendor could embed or could use from external source, can bring it into their environment without the EHR vendor having to develop all of these selected forms they could use a resource externally.

It would then be extensible not only, you know, we could do this in Epic we expect that it will be extensible to other and portable to other EMR vendors and then the EHR can be tailored to specifics around each jurisdiction.

So, if one state doesn't do this, doesn't do reporting for aseptic meningitis or for toxic shock as another state might there might be a form in that state that you would subscribe to being a provider with an EHR in the state where toxic shock is reportable versus in another jurisdiction it would not be required. So, there now – this project, as I said, was in a test environment now they're to bring it into a real environment for bringing this into play. The next slide please.

So, there are ongoing efforts as I mentioned, the Structured Data Capture Project is a Tiger Team that's working to carry out these projects looking for community-based efforts to identify and develop and further implement these pilots in the next year and further pilots continue to work in the area of early hearing detection and intervention, cancer reporting, and case reporting.

We'll move to the next slide where we now start to get into the other component, oh, this is just a schematic of what I just described, case reporting, ELR reporting, cancer and you can see down in the lower right hand side that there is this forms repository that EHRs are requesting forms and then receiving them back using that method that I think we're all pretty familiar with and this slide, not only to –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I'm sorry, we're getting a lot of feedback; if you aren't speaking please mute your line. Sorry, Art.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, that this is for public but also it's envisioned to be valuable as CDISC was originally designed to be worthwhile as for research and for quality measurement.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Hey, Art, this is Marc Overhage; could you say a word about these forms and their relationship to the terminologies and the completeness of the terminologies for doing these kinds of forms?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, there is still a little bit of that feedback there, but I'll – so that clinical data elements I think is what that CDE stands for that's sort of metadata contains as well the business logic. I think that is where you're using these terminologies that are standard and expected to be embedded into that form and the EHR should be able to populate some of that with standard terminologies that it recognizes or uses. Is that what you mean Marc?

James Daniel – Public Health Coordinator – Office of the National Coordinator

And Art –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Yeah, thank you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, so that's part of this whole forms repository you don't just create a form it's got to be based on some standard so that the EHR is able to say I recognize this terminology I understand what I'm supposed to be using and I know where to find that data even if I don't store it in that controlled vocabulary I'm able to master that for my own EHR. Is that –

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

So, yeah, so Art, this is Charlene, so those clinical data elements do they exist today or is there a relationship to the data elements that we're doing with quality? Do you know any of that?

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Yeah, well I know that the public health reporting initiative has done a lot of work in this area. I'm not sure I can speak in too much depth beyond that maybe Jim might be able to jump in here, Jim Daniel.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Yeah, can you hear me? Hello?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes, Jim.

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

Hello, we hear you.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Okay, yes, so those are the common data elements and the – we're actually working in the pilots that we've identified that we'd like to do to define those and so that work is going on right now in the pilots that we've identified that we like as we move forward with structured data capture, the overall structured data capture is still defining exactly how we have to define the metadata that goes along with those common data elements.

So, we're working to make sure that across the domains, across early hearing detection, across TB, across pertussis that we're asking the questions in the same way so that we really follow the intent of the common data element while we wait for the overall structure data capture to give us the exact standards for the metadata.

The pilots that Art talked about earlier were based on the IHE request for document profile which is going to be very similar to SDC but SDC is still defining the standards a little bit. So, we're very much into the progress of that but it has not been completed.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

This is Marc again, what I was trying to get at is as the common data elements of these – for example exposure to bovine farm land or whatever it is, presumably all of those common data elements before they would go into a form like this would need to exist in one of the standard terminologies otherwise it doesn't do any good.

James Daniel – Public Health Coordinator – Office of the National Coordinator

That's exactly right.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

That's correct Marc, but I think that, you know, as we get to the Stage 3 proposal about case reporting I think we're really looking at a much more constrained set of data then to get into were you exposed to a bovine farm environment, I don't think we're going that deep at this point. I think we're just trying to start with some very core elements and not try to achieve every bit of data that might be required on all public health case reports.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Right, but this is Neil, so would that stuff be covered in sort of a free text kind of a way? I mean, you don't want people to have to do two types of reporting.

So, you could envision something where whatever those specific data elements were to whatever was triggering the report, you know, might trigger specific questions to be answered.

I mean, is that all going to be included or is this just going to be, you know, we don't want to end up in a process right where we give less information to the health department than we did before.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, no, so I think the first thing is to just establish that a case report has been made that we know that there was a case of gonorrhea, that we know there was a case of whatever and that the core elements then allow us to continue to do our case report workup at a public health department as we always do.

We're not trying to reduce the amount of information sent we're just trying to make, as Marc has proven in an earlier study around electronic lab reporting, you can get a lot more reports done at a much faster rate if you do it electronically.

And right now we have a much lower case report completion or even reporting rate because we don't have any triggers going on inside of the minds of clinicians and we're trying to get that to happen through the EHR with this Health eDecision triggers.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Got it, okay, thanks.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Any further questions about that? Next slide, please. So, here we'll move to Health eDecisions and there are two use cases but we're going to focus primarily on the first one since that's the one that's been worked on in the last year and that is to take – have a standard format for sharing a clinical decision support knowledge artifact that could be a rule or an order set, or some documentation templates and, you know, we just described a little bit of that in the last set of questions.

But the goal is to have clinical decision support knowledge authored in a standard format that can then be brought to, imported and used inside of an EHR. The second use case is when we have a –

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

And Art this is, Art –

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Standard interface for accessing these clinical decision support web services and that would be the capability to encapsulate using the standard interface when integrated into or with an EHR. We've really only focused or S&I Framework efforts in the past year around Health eDecision have focused on the first use case and I'll describe a little bit of that in the next series of slides.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Art, this is Amy, I have a question.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes?

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Is this – this is all clinical decision support or just related to supporting public health places where clinical decision support is needed?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, we're using the term clinical decision support broadly here. So, it is helping – it would be helping all the things that we've talked about in the work that David described in the last call it could be preventative measures, it could be reporting, it could be chronic disease measures, it could be immunizations all of that is Health eDecisions.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Okay, so it would basically be standardizing clinical decision support across all the individual EHRs in other places where there may be applications of that now?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

That is the intention –

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Of the S&I Framework to make Health eDecisions a way to encapsulate clinical decision support rules correct.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

Great, thank you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yeah. The next slide please. So, and this here, this is the first use case where we're not trying to develop the knowledge and manage all that knowledge management in this use case we're just trying to share a decision support tool, an artifact, it's that middle section there the other two boxes were out of scope.

We're not trying to integrate it, we're just trying to share that information as if we had a knowledge management system and we had a way to integrate it, but we're trying to bring that across and that's to allow us to, as I mentioned earlier, an event condition, some action rule, an order set or some documentation template. If we move to the next slide.

So, in this slide here are the pilots that have been going on and I won't talk to all of these I'm just going to focus – it just goes back again to one of the ones I described earlier. There was a pilot in San Diego around pertussis and that one used what the Council of State and Territorial Epidemiologists have developed which is the Reportable Condition Knowledge Management System and that was used within an Allscripts EHR in San Diego to do reporting using that C-CDA and structured data capture for pertussis in this example.

And you can see there are other examples going on, back to your question Amy, this is what Health eDecisions is about order sets for heart failure, it's about, you know, the Million Hearts Campaign and doing hypertension screening, and then documentation for UTIs in this study at the VA. So, the next slide please.

And here is a schematic of what the long-term view is of the Council of State and Territorial Epidemiologists and you can see on the right side in the salmon colored this is – this Reportable Condition Knowledge Management System it's an authoring system, it's a way to create this repository that various users can subscribe to, they can take the knowledge that's in there and bring it over and you can bring it over in three different ways.

The first way is the lowest salmon colored arrow is to have it, this is a little bit small on my slide here so I'm just going to have to blow this up a second, it's – okay, you can download it and then another way is the green cloud there where you can actually use the knowledge in the cloud, your EHR could go to the cloud and receive this knowledge there or the last one is that you can then use a local instance of it, it's a box with a three in it in the gray box on the left, you could have a local instance of this in your environment where that might be in the laboratory information management system, it might be in the EHR or a variety of those put together.

So, this is the long-term view that the public health department sitting in the center at the top there is informing its Meaningful Users, the eligible providers and hospitals that there are some rules that we expect that you can use inside of our jurisdiction those being the providers sitting in the gray box on the right and this structure, this Reportable Condition Knowledge Management System would live somewhere on the web, it would be a service, a web service subscribed to and used by the public health department and the eligible hospitals and providers in their community.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, Art, this is Neil, I have a question.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes?

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, is this being triggered by a diagnosis or is the clinical decision support in support of making a diagnosis?

So, we did some of this stuff with the New York City Department of Health, right, where they would identify a community that had an outbreak of Legionella and we would put in decision supports that would be triggered by people presenting if they either lived or worked in that community and if they presented with cough and fever, you know, and then the decision support would come back with a set of recommendations for treatment or first would come back saying consider the diagnosis and then with a set of recommendations for treatment through an order set for diagnosis and potential treatment through an order set.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, is this begin triggered by somebody already figuring out that somebody has pertussis or is it being triggered by some contextual kind of information being passed that would help the provider actually make a diagnosis?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, so it's not the one where it's trying to help a provider make a diagnosis. The Reportable Condition Knowledge Management System is based on LOINC codes or SNOMED codes that have already been established within that environment.

So, I had a positive pertussis test come back to me now it says "you should consider sending a case report." I have a positive gonorrhea test "you should consider reporting this case to the health department." It is not saying "this person has urethral discharge you should consider the diagnosis of gonorrhea."

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Okay, so it's really, yeah it's really like the second step in the process.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

There is evidence there that something should be reported not that you should consider making this diagnosis.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Okay, well it just seems like if we're building this structured interface between electronic health records and public health and especially if we're building some knowledge management system that, you know, an maybe this is Stage 6 but that –

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I agree with you, I agree with you –

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

–

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

But if I said that in Stage 3 that would be the end of the conversation.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Yeah, no, no I get it, I mean, I get it.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

And I think that was part of my question before in terms of how we're defining clinical decision support on this was it more sort of at the diagnostic level or is it reporting, but Art I have another question for you.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Sure?

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

It's all right, I'll hold off on that, okay?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes.

Amy Zimmerman – State HIT Coordinator – Rhode Island Executive Office of Health & Human Services

I'll ask later.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, we can go onto the next slide and I think we're now to slide – okay, a little bit more, so this relates to our registry discussion that we will be having as we talk about Stage 3 Meaningful Use objectives. So, this is the S&I data access framework conceptual diagram and the way that it's looked at here is there is a person, a provider who is asking questions of their own EHR on the left hand side.

There is a provider in the center who is asking a question of another provider in another organization. So, there is this interoperability between one organization and another in the center and there is a way to query from one organization to another in this data access framework.

And the last column, the one all the way over in the left is an organization and that could be a public health department, an ACO, some other organization would be asking questions of multiple healthcare organizations at the same time and trying to aggregate data across those organizations.

And for instance in a public health department you might be wanting to ask a question about how many people have hypertension in this community or what percent of this community who have hypertension has controlled hypertension? So, those would be the types of questions that you would ask.

In each of these columns you're asking questions of different groups, one internal to your organization, one from one organization to another and then one asking multiple organizations the same question and aggregating, and this one on the right is exactly what I think the learning health or healthcare system is about it's the ability to ask questions broadly from multiple providers and inform us to take actions to either improve quality or change policy.

So, let's go to the next slide, I'll just give you an example of this, here's an example on the left is in New York City they definitely are in many ways in the lead about this the efforts that they've done to aggregate data across more than 2500 providers allows them now to look at a community, this is upper Manhattan, lower Bronx, and you can see the darker red area is an area of higher rates of obesity in this pilot project that New York City had done.

And in this example in the lower right is from Massachusetts where using a model that the people at Harvard, Rich Platt has developed, they've used this PopMedNet to collect data across the state and follow immunizations for flu and visits for flu as their mapped in this diagram here over three distinct flu seasons.

So, we can go to the next slide and I hope now we're at an – okay, we're at a point where hopefully this looks familiar. So, we've got these Meaningful Use outcome goals and we've spiffed them up a little bit since last when they were presented to this group.

We've got them structured as true outcome goals and you can see the functionality goals which now are about efficient and timely completion of case reports, sufficient and timely means of defining and reporting on a patient population to drive clinical care and identify areas for improvement, shared information with public health agencies or specialty societies as we will talk about the registries and then finally there is this bidirectional public health data exchange whether that be, you know, just sending information, receiving the structure data capture forms or receiving the Health eDecisions to drive structure data capture forms. So, there's a variety of ways that the bidirectional could happen. We'll go to the next slide, please.

So, I think we're now up to case reports which is where we had left off our last discussion and this is where we were asking that there be a certification criteria only, that the CEHRT uses external data as I described to prompt the end user when criteria are met for case reporting, the date and time of the prompt is available for audit, standardized, as I described the Consolidated CDA case reports are submitted to the state and local jurisdiction and date, time of submission is available for audit.

So, maybe I'll just stop there and see if there are any questions about this case report? I know the last time we brought this up Paul was concerned this was too big a lift for public health and I think that with my colleagues we've been able to prepare, in the earlier slides, I hope enough evidence to show that it's not as big as we might have thought and it's totally consistent with the efforts of ONC and the S&I Framework in other areas beside population and public health and we're just trying to leverage those components as ONC continues to develop tools that we believe are valuable and will be incorporated for other purposes in Stage 3 Meaningful Use.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

So, Art, this is Marc, could you connect a couple of dots for me on this functionality to achieve goals box? The first one is, as you say the certification technology uses external data and with all the discussion that you drove I'm not quite sure what that means. And the second –

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

It –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Okay, go ahead and do that and I'll ask the second one.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No go ahead Marc if you'd like?

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

And just the second one, the recommendation is certification criteria but then the language says, standardized case reports are submitted to, which of course you can't really do in certification you can just say that you've delivered something in a format and things right?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

That's correct, yeah. So, let me go to the external data. So, the external data that I've touched on today are two types, one is the standard – the structure data capture, so there is a form that you're retrieving that's one, but even before that form is presented to the end user Health eDecisions has determined what are triggers that would suggest to the end user to request that structured data capture form that would be the –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

So – so, I guess the question I have though is to me that's not data that's knowledge.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I'll happily revise that to knowledge.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Because otherwise you might have the implication that somehow it would say in there I can just throw data at it and it will figure it out and I didn't think that's what you were proposing.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, it is knowledge, but, you know –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

And I understand that its representative data, I guess, you know, it is kind of fungible.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right. And did we answer the second question satisfactorily? You know, the case –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

I don't think so, because, I mean, standardized case reports are submitted which isn't what we're going to do with certification.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right, but, the jurisdiction could use that as a tool to move forward.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Right, but I guess I would think that the language here would have to say something like the certified technology is able to deliver standardized case reports for submission or something like that. Because it sort of – it seems to mix into me process and implementation with something that we're saying is a certification criteria only.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think that's reasonable Marc. And I think I like the language too.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Art, this is Jim, can I ask something on that one as well?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Were we thinking about maybe if case reports were done via structured data capture that that might be part of the certification criteria that same certification that might already be there for structured data capture?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, we should expand this definition to include that specifically. Is that what you're suggesting Jim?

James Daniel – Public Health Coordinator – Office of the National Coordinator

I'm asking it as a question I think.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think, you know, I think we should be more explicit now that we have gone through all this description of what we're trying to achieve and, you know, using the components as we expect them to be available from ONC. So, I think that's reasonable also.

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

So, hi, this is Patty Sengstack, so I'm kind of new to the group so bear with me. I'm at the front lines of this stuff and so the question that I have is the sentence in there about the date and time of the prompt is available for audit and so when thinking about this and how this logistically would occur if the trigger is based on a, let's say a provider enters a diagnosis then would that then elicit the trigger to the provider?

So, I just can't imagine the physician then submitting a case report, but I guess that maybe, you know, hospitals do this differently when, you know, the person that's coding things could get the trigger than that person is responsible then to submit the case report but then the timing of it is kind of – I just think it might be a little confusing and something we should think about.

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

So, this is Mike –

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

It's just a thought.

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

This is Mike if I could add to that, so as in my primary care role in one of my EMRs we actually have sort of an analogous version of this it's an occupational disease reporting form and it is the equivalent of, if you pick a diagnosis it prompts you that it could be an occupational disease and would you like to submit it, you know, for further analysis. So, it's a similar case reporting type tool.

I think one of the keys from my perspective is how through the process of certification can we make it easy enough for the provider or the case manager or whoever it is would be involved in this to do it right without having a large burden. So, I'd want to try to build that into whatever the certification criteria are assuming all the other pieces are in place.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, this is Paul, one I want to thank Art for really preparing such an elegant description of the idea behind sort of the public health reporting infrastructure I thought that was very clear and very informative for us, so thank you very much.

As I hear these last questions I think there are four things embedded in this slide and maybe we want to tease it out that's part of the wordsmithing I think we want to do behind the scenes before the next review. So one, you're talking about as you explained in your description of the system, it's really consuming external knowledge as Marc pointed out that you're trying to give providers the benefit of so that they don't have to maintain it.

Two, this audit trail, the date and time is of the prompt of something meaningful to the provider like this is a reportable condition would you like, you know, to click this form to report it that kind of thing.

The third element is that it was again what – I think it was Marc asking about standardized are submitted, so what we're trying to do in this column are the functionality objectives needed to achieve the goals in the right column and what Art is following through with on the second bullet is that as we head towards this functional objective which is a behavior right now this step is certification only.

We sort of – we have sort of an implicit step we've been working with one get the functionality in EHRs and people can use it at their discretion, two have a menu option and three have a core requirement. So, I'm trying to explain some of the questions as we go and sort of summarize. Have I got it right?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think so Paul and I think we can tweak the language here based on Marc's suggestions, I think Jim had a suggestion as well and I think, you know, Patty I hear what you're saying and I thank you Mike for the comments we do need to figure that out but I don't know whether that's intended in this stage more than to say the tools are there for someone to use this and in a future stage we might be more specific about exactly when it's used.

It sounds like in Mike's example they figured a way how to get it to happen and I can understand that a nosologist could fill out a diagnosis form and that would be the trigger but it's not the clinician who has made that diagnosis earlier in some other form and the EHR hasn't gotten the clinician at the right point to start filling in a structure data capture form. So, I hear that but we're not trying to solve that problem today is what Paul is saying. Is that right Paul?

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

So, Art, this is George, it seems to me and Michelle correct me if I'm wrong, I mean the first part is what we already – is what we put it – it's not a big leap is what I'm about to say. Because the first part is what we put into our proposal for Stage 3 certification criteria anyway and the second part is what we need to do for case reporting anyway and is probably already in there for the most part. We might, you know, do more specific standards. So, this is not – in fact, as far as I'm concerned, not any leap over what we agreed to in the August presentation really. So, this is easy to say "yes" to no?

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Yes, I agree, I think it's – the wordsmithing is important though.

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

Yeah, we can still do that.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

But I think we need to recognize that we already put this forward in effect in August, right?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yes.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And it's like – I think what Art has done is explain perhaps a lot to both us as future users of the system but also to the vendors on what's been done in the S&I Framework to – and the public health sector to describe what's necessary and what's the progress that's been made. I think that's –

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

No need to defend Art, what I am doing –

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

No, no I'm just –

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

And Art had a great presentation, I am just, you know, as people consider whether to approve this or not I just want them to recognize that this is not a huge leap over or in fact any leap perhaps over what we already said yes to. So, now we can feel more comfortable with it because Art did a great presentation but people shouldn't feel like "oh, my God, now we're adding this new thing."

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Right and I'm wondering if the full committee could benefit from some shortened version of it, because I think it was very helpful to sort of set where we're going and that people are actually working on it.

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

I'll spend a little bit on Mike Zaroukian's comment, I think, and this is sort of – and the reason is because there is a broader topic here, this whole thing, notion of certification it sounds like an easy thing, when certification turns into a test script that's where you can introduce unintended consequences about how it impacts the workflow and you've got to be careful of that, that we don't embed workflow it's sort of hard too, but that's the whole topic of certification criteria, how do we make certification more to fulfill the intent rather than inadvertently prescribe a workflow and a specific way of doing things.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, this is Neil, I have a question that follows up a little bit. The Stage 3 is still years off so are we going to be beyond this point by three years from now or whatever? I mean, with all the experimentation that's going on and all of the things that are happening I guess I'm asking Art and the things that people are doing around the country, are we going to be – is this really going to be any lift at all by the time it comes out?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Ah –

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Are we thinking too conservatively?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I don't want to promise something or ask vendors to do things that we don't have good evidence that we can achieve. Certainly, we'll be making progress in the next year that, you know, the Health eDecisions use case two we hope that will be achieved during 2014, but this is our opportunity to make a case and if we go too far I think we'll have a pushback from the vendors.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

I think that's –

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

This is Charlene on that point, I think the concern that I've heard from the vendors in the ability to be able to import the knowledge is just that much of this is in pilot and once we import the knowledge in many cases it's not actionable, right? So, it doesn't help and then there has to be more done.

So, we've got to think through – you know, I know you don't want to think through that end user step, but if we want to – I'm going to be honest here there's going to be a lot on the list for vendors to do, we've got to make sure that we – you know, if we're going to do stuff we just don't want to do it to have it sitting in the system and not be used is kind of my point. So, you know, I would kind of ask you to think that through as you're proposing this.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, are you suggesting that we push as Neil is now asking?

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

See of course I'm from the vendor side so I'm saying no on that one, but –

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, I thought I heard you saying yes.

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

No, I know, I know, I know, but we need to – I think the other point on this one is the status of the pilots but the kind of – the people that are doing the pilots are giving feedback are able to import it but not make it actionable – so, and there is a gap there.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, I think we need to show end-to-end and I think that's what's going to come out –

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

With these pilots.

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

Yes, that would be incredibly valuable.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Yeah.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department
Yeah, right.

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical
Because that would give the market the confidence then that they want to invest in it, right?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

I think what Art said is extremely important, one it's wonderful to hear that there are these pilots already in progress and the results of some, but it's important that the pilots are testing the end-to-end. So, we can take something that's a really good situation, i.e., taking the time to do pilots and turn it into a bad situation by forcing it prematurely on everybody.

So, I think Art – we have to think a lot of what Art's answer was which is we're making progress now. In response to Neil's question I think three years is a pretty short time in vendor and culture adoption terms.

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

And this is Mike, if I could just add back a few other things. So, this is a really great discussion and again my thanks to Art for such a clear and important description.

So, in my example it's actually a very underused occupational health reporting tool and it speaks exactly to Paul and Charlene's comments. And my question relates to how to make sure number one the certification standard supports a workable workflow and to Marc's point earlier the difference between cases are submitted because that's the gap between a prompt that is visible and what it takes to actually submit something and whether that blows up the workflow.

So, I think I'm just trying to make a plea, if you will, for whatever it is that goes into the standardization making that possible. If I were to imagine a world without the healthy exchange that required that I simply build in my own rules in the EMR I could imagine doing that, of course it would be great to leverage the health departments, but that makes it a bigger lift.

I think Art has convinced me that that may be possible and that's great and the vendors may be able to do that which would also great but it does create another layer of complexity that is perhaps well worth doing I just want to make sure at the end of that that the prompt that appears for the provider, which as we all know maybe a nuisance prompt or it may be a highly valid prompt depending on how this goes and how well it goes.

So, I think that kind of consideration and what standardization criteria need to be in there for the user's response to the prompt that helps inform future progress in making sure that these prompts are effective.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Let's see I think – is the group comfortable with the concept that's on the screen modulo the edits we've been suggesting that we'll do before the next time we review this?

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Yes.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, well thanks again Art that was really, really helpful and I think we need to find some way of getting some distilled version in front of people, because it's an area that not a lot of people know much about at all and knowing more about it and also seeing some of the exciting progress that's being made is very informative and I think helps us make a better decision and also know the trajectory.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, thank you for the opportunity to kind of present this and I look forward to sharing it more with others on the Policy Committee if there is another opportunity.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah, let's talk about that.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yeah.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

You'd probably have more –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle, I actually – we can have a side conversation but we are hoping to possibly do a similar presentation during the January meeting so we'll follow-up.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

And then, you know, there are a few other slides after this, the registry work, if we go to the next slide please. This is basically what I described about the data access framework, the S&I Framework data access framework speaks to the registry discussion.

I know the last time we spoke I don't think there was as much concern about the registries and more about the case reports. I don't know if you want me to run through these or whether we should move onto the next topic Paul?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, this is to –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle, I think – the registries during the last conversation I think there was some confusion about this one, I think we need to talk through this.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Okay, so let me just, okay, so in this one we're asking that the eligible provider and eligible hospital report to two registries in addition to the immunization registry and that there would be submission of standard data elements, structure and in a standardized transport mechanism in a common format to those two registries either to a health department or a professional group like the specialty societies we heard the American Cardiologists Association and then some other aggregating source it could be an ACO where the registries are of the types described here as examples and they're similar to the examples that I showed you earlier from New York City about obesity or the example from Massachusetts for influenza shots that would be in the immunization registry, but visits for influenza.

I can say that, you know, there are these efforts going on around the country right now. I mentioned Rich Platt and the PopMedNet effort out of Harvard. They are recently, just this week, they were awarded or the award from the Patient Centered Outcome Research Institute, PCORI, for clinical research data networks that would allow us to do broad studies using the same technology that the Massachusetts group is using inside its own state.

So, this technology is being applied broadly in the FDA Mini-Sentinel Study, these are techniques and technologies that are not that difficult. I mean, there's something that needs to be done certainly you need to prepare your data in a standardized format for sharing, but if we expect the learning health system to happen we need to move forward with this type of registry work.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Michelle, can you remind us what's in Stage 2?

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

I was just asking that.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, I can tell you that the cancer reporting is in Stage 2, that's to a registry and the specialized registries, and there is not a lot of definition I think to some of the specialized registry in Stage 2 as I currently understand it. Michelle, do you want to comment more?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I think you said it well, I think part of the confusion with this one is during the consolidation process we consolidated both of the two Stage 2 items the cancer registry and the specialty registry into this one registry item and there was a specific, during the RFC there was a specific healthcare associated infections objective that we also consolidated here. So, there was a lot put into this one objective which I think was a little bit confusing. So, I want to make sure that every – you know, it's clear and it makes sense.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, I guess one of the questions is, you know, with standards optionality is bad and here is this – it looks like we are somewhat boiling the ocean in the sense of not that the number two is big, but that two of anything could be really big. So, I just wonder if the vendors could comment on is this precise enough, is this implementable? Either Marc or Charlene?

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

This is Marc, I guess, you know, the things that the vendors can do is, potentially do, is to generate an outbound result that has a set of data in a structured format in it.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Right.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

What gets I think questionable, if you will, given the goals here is number one you have to create a process to get the data in and have the providers follow that process and that has obviously workflow and time commitment implications for the providers and gets sort of beyond what the vendors can do, but does create, you know, creating that part of the process is where one of the challenges is I think in doing this.

And then from an implementation stand-point there is the usual, you know, okay, well what's the registry ready to do and those sorts of things. So, I think creating the outbound data structure is, you know, easier if it's a less challenging thing creating the data capture workflows that would meet the needs of many of these registries and it will be different for every registry, right?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

So, the challenge for vendors is going to be, okay one customer wants to submit to Registry A the next one to Registry B, the next one to Registry X so the vendors have to support workflows for all these different registries that's where I think the implementability challenge would come in.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

I think that's the question I'm raising.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

But we –

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And let me maybe state the question a little bit more clearly sort of two choices for us to pursue, one is given what Marc's saying it's really an end-to-end and how in an EHR, in some clinical system, can we make it easy in the workflow to report appropriate things?

Should we in that case pick on certain high priority, you know, things consistent with either the – well the National Quality Strategy or even some of the CMS Programs such as HAI, HAC and cancer registry so that the vendors and the providers can work on that whole workflow or do we do something that's closer to what's shown here say, hey, can you report standardized data elements out, can you have a system that can configure standardized data elements out to your registry of choice or to your, you know, receiver of choice. It seems like that's one of the questions in front of us.

Neil S. Calman, MD, ABFP, FFAFP – President & Cofounder –The Institute for Family Health

Paul, Paul this is Neil, I mean, the – I don't know whether this is what you meant by your second option, but the other option is to be able to create a flexible reporting format so that the end user could pick data elements and create a registry report that would then be transmittable rather than having to say to the vendor you need 12 different reporting formats, you know, if the data is in the system, which I agree with Marc that's an issue all unto itself, but if the data is in the system, you know, being able to flexibly report on data elements electronically would be the functionality that I think would be most useful in enabling somebody to participate in different registries rather than having the vendors kind of have to program to every one of the specification lists.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Exactly.

James Daniel – Public Health Coordinator – Office of the National Coordinator

Art, this is Jim, can I comment on what we tried to – how we tried to bring that into that data access framework?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Go ahead.

James Daniel – Public Health Coordinator – Office of the National Coordinator

So, one of the things that I think we've tried to think about – different requirements for different registries is exactly the realization that you guys are talking about that the different registries have different requirements and they're very difficult for the vendors to support multiple different registries and one of the concepts here I think was to really through the concept of the data access framework which would allow for public health to query EHR vendor's products for different levels of aggregate data in a way that is useful to public health to meet the needs of many registries.

And I think part of the intent of how we framed the S&I Framework Initiatives to meet the goals of public health was to really address the concerns that you're talking about and to say that as public health we could define our needs within the data access framework to make sure that any certification process around the data access framework could meet the needs for the registries that public health is looking.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Yeah, this is Marc, I think – and I'd love to hear anybody else who has a thought on this, I think that is a very large vendor lift for a whole variety of reasons to talk about implementing that versus more along the model that folks have been using today to – I'm not going to say it's a bad thing to do I'm just saying that is a much – that is an order of magnitude bigger project.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Do you want to talk – can you expand on that Marc?

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Sure, just because you open up a whole set of performance issues and prioritization cueing and things like that that you have to deal with if you're allowing some other application, if you will, to query your database you've just created a whole set of dominos about how do you ensure the performance, how do you – not of that query necessarily but of the things that you're doing for end users and it's just a – there's a hundred things you're going to have to line up, maybe not a hundred, but dozens of things you're going to have to line up to make that a reality versus the model that, you know, has been piloted – you know, gather some data and ship it out in some structured format as an asynchronous process.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, let me just –

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Plus it doesn't –

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

This is Art, you know, in this example in Massachusetts they do what you say Marc, they ship a record to some place but that place is another database within that environment and a federated query goes out to retrieve that information.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Exactly.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, but – so that's what the data access framework relies on is that there is a standardized model where you've taken it from the native EHR and put it into a place where a federated query can happen.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Yeah, so that's a very big lift all of a sudden.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, but I think that, you know, the whole way that we approach getting to the learning healthcare system requires that there be enough trust to share data and we can't be shipping all records to one central site that's not going to work.

So, the only way you can ask these questions on a population level is to ask them in a federated environment.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

And that's a fine model. I'm just saying from a technology stand-point you've just created an extremely large lift.

James Daniel – Public Health Coordinator – Office of the National Coordinator

I that's totally fair, this is Jim and I very much hear what you're saying. I think one of the things that we were thinking as public health though was looking at the three use cases that were part of the data access framework anyway and if those – that is very much one of the use cases that's being built in the data access framework and if EHRs were going to be doing that sort of lift anyway that public health should take care of it.

And I think your point is very well taken if it's just for public health then I think we need to have a different thought process perhaps of how we get at this, but one of the reasons we went that way in public health was looking at the three use cases that are part of the data access framework and if that lift was happening anyway that public health should be taking advantage of it.

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

The other thing, this is Neil, the other thing I would just say, I know you said that this is anonymous or aggregated data, but at least in New York some of the experiments that went on here required the passage of data with all kinds of demographic and identifying information because public health was taking responsibility for going and doing some interventions with the information. So, I guess that's a different use case, but still I don't think we should create a system that doesn't allow for that.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think you could use the same infrastructure to do both de-identified and identified it's just who has permission for what and which use case you're trying to accomplish. I agree with you Neil.

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

Yes.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

There will be a point –

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

I mean, the public – the health department thinks that it doesn't need permission for certain kinds of, you know, for interventions with public health measures which in New York City has been liberally made to include the management of chronic diseases.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Right in Denver we're doing this and right now we're taking the easiest path which is to do it in a de-identified way, but we recognize there will be public health interventions at an individual level for people who are in this dataset and that we'll need to know that, but initial steps will be just to do this without sharing protected health information or personally identifiable information.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, can I try to summarize three options that I heard and see if we want to have an opinion this? So one is to – and it was part of how we approached it in the past, which is a very focused or targeted kind of public health reporting on specific things like cancer, HAI, HAC that's end-to-end.

Option two, is what Neil described which is essentially a structured – a configurable structured – a configurable way of producing a structured reporting that can be consumed by registries as an example.

And three, is this query response way of, in an ad hoc fashion, querying EHRs for things that can be used by registries and other public health systems. Have I captured those three options correctly?

Neil S. Calman, MD, ABFP, FAFP – President & Cofounder –The Institute for Family Health

I think so.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think so.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, then what are people's feelings about – so let me just say, let's just go ahead and like a voice vote or a voice indication. So, option one end-to-end target specific high priority conditions in an end-to-end fashion that includes functionality to make it easier to capture the data as well as to report it to specific registries? Okay, option two –

Paul Egerman – Businessman/Software Entrepreneur

This is Paul Egerman.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Go ahead?

Paul Egerman – Businessman/Software Entrepreneur

I like option one I don't know if you were trying to vote?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

Paul Egerman – Businessman/Software Entrepreneur

But I like option one.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

No, I'm just getting an indication of interest okay.

Paul Egerman – Businessman/Software Entrepreneur

Yeah.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, Paul is –

Paul Egerman – Businessman/Software Entrepreneur

Especially from a privacy and security stand-point that is the strongest.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

And this is Mike I would endorse that one too.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

This is Patty I would endorse that one as well.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

Charlene I endorse that too.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

All right, so pretty strong indication there. Option two, having configurable way of producing structured data reporting to recipients that, you know, like public health, like registries, like etcetera. It's focused less on the data input and it's giving the flexibility of producing these structured reports.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

I mean, this is Neil, I would vote for that because I think it's a functionality that would be useful for many things.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Paul Eggerman – Businessman/Software Entrepreneur

And this is Paul Eggerman, I would just say it sounds good but I'm skeptical about whether or not we could implement it in a way that really works.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

And this is Marc, I might add to that I share some skepticism too also because we're then putting the burden on healthcare providers who may or may not be terribly sophisticated about data to choose the correct data elements and so on, I just think that's a pretty high bar for healthcare providers to meet.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, other comments on option two? Option three is having the vendors be able to execute the model that was presented in the S&I data access framework.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

That's the query response model.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well that's the – this is Art and that's the one I would vote for because that's the model that we now have in this surveillance going on around post marketing surveillance for drugs using this model on over 100 million Americans.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Say that again Art?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah, can you explain that one?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Yeah, so the Mini-Sentinel Study, the FDA has a study, public health surveillance study, to look for adverse events from drugs.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

All claims Art, all claims.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

But what do we –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

That's clinical data.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Well, they use clinical data to evaluate whether something has happened.

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

Yeah but that's a separate process.

Paul Egerman – Businessman/Software Entrepreneur

Yeah, no this is Paul Egerman; I like the Mini-Sentinel approach and if that's what the S&I Framework is doing that's a very good direction in my opinion. You have to be careful about it because it does require – the way the Mini-Sentinel is implemented it sort of requires a separate data model and so it's only being implemented right now by large organizations, but the concept is the right concept in my view for a lot of things.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

And that is what the recent announcement about clinical research data networks that PCORI just awarded, I think it was 11 awards; they all have to be able to share their data, clinical data across this large network. It's a network of networks.

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

But they're big institutions and they're getting 7 million dollars.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I know but these are the models that I think are where we need to be thinking.

Paul Egerman – Businessman/Software Entrepreneur

Yeah and the Mini-Sentinel, this is Paul Egerman, the Mini-Sentinel model I like it again from a privacy and security stand-point because all the data remains under the control of the provider and so, I mean, my view is that's a good model the concern is going to be, you know, sort of a cost and implementation issue, but to me that's a very good model.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

But –

J. Marc Overhage, MD, PhD – Chief Medical Informatics Officer – Siemens Healthcare

And I do love the model but I think the other thing is other thing is the small organization's ability to do it, you know, those kind of in the HIE world that's what we kept running into was the ability of smaller organizations to sustain that kind of data access over long periods of time.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

So, Paul when you were presenting these three options do you consider them mutually exclusive?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

No that's why I was going to try to see if we can't incorporate some of the features of multiple. So, one let me see if I did hear and people agree, I did hear more support for option one, probably because it fit into the whole data capture and workflow consideration addressed high priority so we get something, that's my interpretation of that response. So, first is that a fair statement that that theme had the most votes or endorsement? And then see if we can't bring in some elements from the other two. Okay, so let me go –

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

Well this is –

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Go ahead?

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

I'm sorry, yeah, so this is Mike, from my perspective I think you summarized that well. I think one is the one certainly that I supported in that regard, but I am also mindful of three and the likelihood an importance of that going forward. So, my only question is whether the natural forces would allow anything like that for Stage 3 anyway.

So, it would be nice to see things moving in that direction, but, again to expect even from some larger organizations that are otherwise not being funded to do what's being described and is part of those currently funded grants seems like a big stretch for three years from now.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, can we – can we start the ball rolling with one because actually it would produce real results, there is obviously some payment incentives in being able to easily capture and report on HAI and HAC.

The second piece is can we start, and maybe this is a new thing that we're doing, we've already invoked it before let's say with the deeming is, can we write about the direction that Art talked about in terms of using the Mini-Sentinel as an example but the direction of fruitful pursuit in the public health arena with this S&I data access Framework, can we write about it and talk about the direction and that be our signal that's the direction we'd like to go for a much more extensible and generalizable approach even though we recognize – I mean, that seems to be the sentiment here, even though we recognize that it may not be ready yet for Stage 3. Is that a –

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Paul, it's John Halamka I have joined the call.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Thank you very much. How do people feel about that?

Michael H. Zaroukian, MD, PhD, FACP, FHIMSS – Vice President & Chief Medical Officer – Sparrow Health System

So, this is Mike, I would support that Paul.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Art how does that feel to you?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think I need to see what that actually means. I think we need to – I need to go over this and see what the language would be for that.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Do you think you could actually produce the first draft or the draft of that language?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

I think I would make an attempt at that, yes.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

We want to go where you all in public health think it's going to be a good direction and yet we want to capture as much as we can in a program – in a requirement three years away.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health
Right, right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

That's sort of where we're trying to start getting the whole process – I mean, I think any step that's concrete and produces real results will be a step that helps this whole culture of how does every provider every time participate in public health.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health
Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And then as we build towards a better framework but as Marc says a bigger lift, give people warning about that.

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

So, this is Patty, I just want to make one more point about the options and I think that, you know, even though the third option is I think where we want to go and where we need to go I think that the option one, and you guys have already probably talked about this, is that providing a focus in certain areas gives us a better chance of making a real difference in those key problem areas, whereas, you know, just saying, you know, pick two then we have no idea what people are going to pick the data will be kind of all over and be difficult to really ascertain whether or not we've made a difference. So, I think targeting specific areas is I think is a good way to go.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

This is Neil, I would just put in a case against that because what we've found out is when you highlight specific areas they turn out to be irrelevant to large groups of providers in certain specialties or people treating certain age groups or whatever. So, you know, I would be – you know, they're not always relevant to people and that creates, you know, a loss of options for folks.

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

So then do you – good point, yeah, yeah it's difficult.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Yes.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, the reason for using HAI, HAC as an example is because there are sort of payment implications.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And that also makes it relevant to a lot of people.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Right.

Patricia P. Sengstack, DNP, RN-BC, CPHIMS – Chief Nursing Informatics Officer – Bon Secours Health System

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, anyway we can deal with the details but I think we have some guiding points for how to put a draft together for the next review.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Sure.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, how many more do we have Art in category four, I want to make sure we take advantage of John Halamka being on?

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

No, I think we're almost done Paul.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

If we go to the next slide please, this is just that the EHR, the vendor, the eligible provider and hospital are able to receive and present immunization data. I don't think there was a lot of concern about this in our last discussion.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

And the next two I believe are just continuations, if you go to the next slide please, no change from Stage 2 for electronic lab reporting as I mentioned sticking with the same standard and the next one is syndromic surveillance no change and I believe the next slide is just a summary of just the former objectives. So, I don't believe there is much more to discuss.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay. Well, thanks again, Art, I think that was very, very helpful and you, I and Michelle can work on how to get a brief version in front of the committee.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Sure.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

It's so helpful, so thanks again for taking that time and for so clearly explaining it to us, it was much more productive.

Arthur Davidson, MD, MSPH – Director, Public Health Informatics – Denver Public Health

Thank you, Paul for the excellent comments and discussion today, thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, I want to welcome John Halamka who is Co-Chair of the HIT Standards Committee and we had given them a few things to ponder and to advise us and thanking John for taking the time to help go over those with us. The two that I can remember right off the top of my head is one is on imaging and the other is on patient generated health data. So, why don't we advance to those slides, I don't know what – I think it's number 39.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thirty, yeah, thirty-nine is a good place.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And Michelle, let's see, do I have a copy of those slides?

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

It will be in front of you pretty soon.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

I apologize.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Altatum if you can go to slide 39, oh, do you have the link John?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

I don't, but I actually have a PowerPoint that Michelle sent me late last evening, so I am going to open it up here.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, yeah –

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And of course I can do all the standards for imaging and for the patient generated healthcare data from memory so no problem.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Sorry. So, why don't we go ahead and advance to slide 40 then and just hear from the Standards Committee your discussion of the imaging and how – and your advice in terms of the readiness for what kind of policy in terms of access to images, is it access to image, is it importing images, the kinds of questions you talked about.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well, absolutely, well thanks so much. What we were charged with as the Standards Committee is looking an image exchange for radiology and non-radiology images but also the reports that accompany them. We also were given the challenge of looking at consumer and professional requirements. We were very careful not to use the terms diagnostic and non-diagnostic because in fact a photograph of your mole taken with your iPhone 5S could be a diagnostic image.

And so what we've done for imaging is come up with a matrix of the content vocabulary and transport standards that would be appropriate in both consumer and professional environments in both what I'll call tightly coupled environments where you might have a modality like a CT scan or an MRI scan are producing an image and sending it to a PAC system or other repository, or more loosely coupled environments where you might have a web-based cloud-hosted community-wide image exchange that enables folks to download or view, or transmit to such a decoupled and web-based central cloud-hosted entity.

So, in fact what we've done and this is going to be a challenge for us writing the certification language is given enough standards for multiple use cases with multiple architectures and so my advice to you Paul would be this, is that we have to be a little bit careful on the policy side and not to say, all image exchange will require downloads, it may not. It may actually be viewing from a community image repository or a healthcare information exchange.

So, we want to, as I think we talked about the other day, make sure the language is something like you should be able to access images from an outside institution and whether those are viewed or downloaded; I mean, multiple architectures and possibilities exist.

I think it's fair to say the level of maturity of the standards that we selected for radiology is high and that means DICOM itself is well understood, the various kinds of transports that we described is well understood and well deployed and the vocabulary typically LOINC codes for the nature of the radiology procedure are well deployed and understood.

It may very well be that there are some novel architectures that are continuing to evolve like these cloud-hosted image exchanges but they are using mature standards that are well described. So, I don't think there is a risk in saying the standard is so novel and not tried that image exchange, image access, image download is impossible we just need to allow latitude to those users out there who might have used these technologies and standards differently. So, I hope that's helpful.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, we're looking at your matrix of a number of elements content, encoding, vocabulary, push, pull, view across what you described as Tiers.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And you might want to expand a little bit on these Tiers, is it in front of you or –

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

It is, yes I see it.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

It's slide 42.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And to make sure that we get the full, you know, understanding of your –

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well, sure, and so again, as we look at Tier 1 imagine that there is a study done it could be radiology, cardiology or other modality involving an image and the report is written and today although there is general exchange of laboratory data across communities there is not so much electronic radiology result reporting across communities though the standards to do it are well described the HL7 2.x standards, there are also C-CDA standards.

So, what we say is you could represent a radiology report in a multitude of ways and some are easy to ingest in EHRs, some might be more consumer friendly so we would accept PDF, HL7 V2 or the C-CDA for that. And so that's all text-based reports.

The second Tier recognized that there are images that are not necessarily radiology or cardiology DICOM type images, imagine some people think of an EKG as an image, now it's a waveform, it's a timed series it's not an image, but people sometimes represent them in PDF type formats or as I've described a dermatologist takes a photograph of a mole, well that would probably be recorded in a JPEG, PNG type format.

Sometimes you might have to support streaming type media or video that's captured showing a patient's gait or showing a neurological exam. So, what you see under these non-radiology/cardiology images are those standards which I think we're all familiar with because we probably use them in day-to-day media exchange today for non-healthcare purposes, but there are also some elements of DICOM that are used for non-radiology and cardiology image exchange, sometimes wrappers are put around JPEGs or other static type images.

Tier three is more the full study of radiology/cardiology images, the full MRI suite, the full echo and again those standards are mature, there are a couple of options in the way you exchange those objects push, pull and view, but sometimes you might have say 40 MRI slices in a full study but the diagnostic image is number 13 and you want to just simply exchange that single diagnostic image to record it permanently in your record.

An example I would give you, as an emergency physician it's often that I get referrals of trauma cases and downloading every single image taken in a trauma evaluation could be time consuming and space consumptive when in fact key images showing the nature of certain injuries are available and marked I might want to selectively download and persist those. So, there is, in effect, a different kind of Tier three that is just the selective key images from a whole cardiology or radiology study.

So, as I've said, every time we talk about standards we talk about content and vocabulary, and transport, we've done that here, but we've also broken it into the sort of three classifications recognizing there are consumer and professional needs.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, would this be – if we define sort of the classes and I'm saying classes instead of specific use cases, do you think with the available standards you could provide guidance for ONC as far as certification criteria or do you need us to go to very specific use cases? Is there too much optionality here?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And of course as we talked about at the Standards Committee yesterday we are going to do everything we can to reduce optionality in the certification process. So, what you would hope is that as you come up with what are the policy imperatives that a physician should be able to access an image from an outside facility we can constrain this whole matrix for that particular use case.

So, you know, again, I haven't been privy to your policy discussions exactly but it's not as if you have to enumerate 11 different very specific use cases, but if you could provide categories of what you believe are the policy goals then we can constrain this so that the vendors have to implement just a small subset of the matrix.

Paul Egerman – Businessman/Software Entrepreneur

Yes and this is Paul Egerman, John, that's very helpful. The use case that I'm under the impression that people are talking about most is they have the images available to the patient as part of the view, download, transfer, you know, transport functionality the – basically what some people call the patient portal and so based on that use case which of your Tiers does that match? Is that the Tier three?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well, so what we would do is say in effect these Tiering elements are not specifically categories of professional versus consumer. If you look inside a Tier let's say that I as a patient want to be able to get an image on my desktop, well the way that we would do that is we could offer it via a JPEG or sort of web-friendly view, again we don't use the term exactly diagnostic and non-diagnostic we use the term consumer and professional.

But we conceivably also could make it possible for a patient to download the DICOM itself, there is some challenge, as you may know, with DICOM that you may require a proprietary reader to view that but you could be the owner of your study and bring that study or transmit that study to clinicians who are caring for you.

So, I think, you know, Paul what we would do is given that use case we would take this matrix and we will pull the optionality out of the encoding, the push, the pull and very specifically say for the patient here are the things that make sense.

Paul Egerman – Businessman/Software Entrepreneur

And with – to follow-up, with that use case why do you need the LOINC coding of the procedure?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well you would at least need a text description of what the procedure is.

Paul Egerman – Businessman/Software Entrepreneur

Right.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And LOINC provides a friendly text description.

Paul Egerman – Businessman/Software Entrepreneur

Okay.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

So, you know, the challenge is when I say ankle film there actually are about 14 different views one could take of the ankle so having a standardized English description would be helpful for everybody.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, this is Neil, Neil Calman, are you suggesting that there might be – well, let me just say it in a positive way, I guess I would like to recommend that whatever images are captured are viewable by the patients themselves and I don't know what constraint that would put on using, you know, some image formats that might be proprietary, but I think we're in a process of trying to move that information out to people and to have people sort of carry an encoded image that they can't see I don't think accomplishes that in the same way.

So, I don't know if there is a way of maybe translating that image or viewing that image and having it converted to something else, but I think that would only get us half the way there.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And absolutely, so there are such things as what are called vendor neutral DICOM readers that show you, you know, for most vendors of DICOM, so whether its Siemens or AGFA, or GE, or Philips to at least be able to view the image and the basic metadata around that image.

So, such software does exist, but there are also, and I've certainly seen this in the marketplace, DICOM to JPEG translators on the web that will enable you to view your images in a lower resolution format that may not have the features of grayscale adjustment and windowing and those sorts of things that DICOM has.

So, sure, both approaches are possible, we'll call it the vendor neutral reader or the reduction of DICOM to more what I'll call web-friendly format.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Thanks.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So, John, your request of us in terms of what attributes of our policy recommendations would be useful for you to advise ONC about certification requirements, what are the attributes that you'd like to see us meet?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Sure and so just as the discussion we've already had enabled me to say, oh, well what your requirements are, you want a patient-friendly format that can be delivered directly from the provider or to the proxy for the provider it could be, you know, a health image exchange or whatever, to the patient that would enable us to then say, oh the certification criteria are not everything in this grid it's just three standards on this grid.

So, anything you can do to make a statement of the, it's not every use case, the categories of use cases would enable us to then provide precise certification language.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay. So, that's the to do for us instead of just saying, oh, let's exchange images.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

So give you more guidance on at least the classes of use.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

And the user.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay. You had something else about the legal medical record?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well, so, one interesting question, again as an emergency physician suppose that I am treating a patient and I've viewed a record from the cloud and I've made a clinical decision based on a record I've viewed from the cloud and then two years later a plaintiff attorney calls me and says "a bad outcome occurred" and I go back to view the data in the cloud and it doesn't exist any longer and I say "but two years ago it was there I promise."

There is some concern that when clinical decision making occurs key images should actually be incorporated into the local record so that they're persistent as part of the permanent record reflecting the decision making process. And there is no simple answer to this Paul.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Right, right.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

I mean, I think different attorneys will tell you different things and as technology evolves, hey we have iCloud do you keep all your music on your iPad or iPod, no I trust the iCloud, you know, trust in culture may evolve.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Yeah.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

But for now what is the legal medical record some would say includes you must download key images for clinical decision making and incorporate them in a local store.

Paul Egerman – Businessman/Software Entrepreneur

And this is Paul Egerman, another observation about that though is, I mean, you look at these images, you look at MRIs and CAT scan you're talking about literally thousands of images.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Correct.

Paul Egerman – Businessman/Software Entrepreneur

That's a lot of material to keep in the local record.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Egerman – Businessman/Software Entrepreneur

It may be adequate simply that this would be available, in other words, you know, that if somebody wants to know two years later what you as an emergency room physician looked at it might be an adequate response is if you could get that information to that person in 24 hours or 48 hours as opposed to necessarily having it immediately because the importance of that image for, you know, the sort of like a temporal value of that image probably is declined.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right.

Paul Egerman – Businessman/Software Entrepreneur

You know over time. It may not be needed to be kept on line real time available at every instant.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Well there are standards for the maintenance of those kinds of images but I would just also point out that we have the same problem now, right? I mean, there's nothing to say that if you're subpoenaed that you can go back and find the x-ray that you looked at from the file room or in the image library. So, I think that while this is important I don't think it should stop us from moving forward.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right, no, and just to Paul give you a fun example from Massachusetts, there is a great image sharing company in Newton and I practice in Brookline and the company in Newton has said "we agree to persist the images for eternity with a fixed URI" and yet legal council is saying "well, we're not sure we trust a cloud-hosted URI in Newton will be available in Brookline, therefore you should persist key images in the local store." And so, I mean, this is a debate, there is no national policy guidance on this.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Right.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

It's just this is sort of the culture at the moment.

Paul Egerman – Businessman/Software Entrepreneur

Yeah, it's interesting I'm actually aware of that company but I was not aware of that debate and, you know –

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Well, so how about this, I trust the cloud and I trust persistent URIs and if we could get every policy maker in the country to agree with me then we wouldn't have to have the redundancy, but we're not quite there yet.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Just another question, are we capturing – I mean, in that kind of a situation, at a minimum we ought to capture where we went to get that information right? I mean, what repository was viewed or where did we go to – I mean, is that captured in the electronic health record now when something is just viewed?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Not necessarily.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

So, I think at a minimum one would want to know – be able to say, I got the image from such and such a place.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Right, so that the moment imagine this, I'm in an EHR, the EHR shows me a URL at some external site where I can view an image –

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health
Right.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Audit trails would record that I went into the patient's record, in fact would record I probably went into a radiology report or some such thing, but if I click on a URI to some external site there is no audit trail of the URL that I clicked on typically.

Paul Eggerman – Businessman/Software Entrepreneur

Yeah, although, as you said, the audit trail would also record whether or not you looked at the radiologist's interpretation.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

That would be true.

Paul Eggerman – Businessman/Software Entrepreneur

Which would be probably a very important aspect. I'm just trying to do like an agenda check, is this the direction we should be going continuing with this discussion or do we need to talk a little bit more about –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle; actually I was going to ask since we only have 4 minutes left if we can quickly discuss patient generated health data while we have John.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Or John, would you by any chance be able to spend time because that's another big topic actually at our next call which is Michelle?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I think it's the 6th.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

January 6th.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

January 6th, I am just looking at my calendar now, what time Michelle?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Nine-thirty to 11:30 Eastern.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Nine-thirty to 11:30 on the 6th, yes, I should be able to join at, okay hang on, okay, I should be able to join at 9:30.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, why don't we start off with that topic and I think that's a good carry over before we start reviewing the entire set. So, thank you John for being willing to both join us today and join us next time because I think this is a discussion we need to have to be much more informed in terms of our policy recommendations.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And in 10 seconds I would just tell you there is a preview of what I'll say on the 6th is that the standards recommended, by Leslie Kelly Hall, are all good and mature standards but the question that we will reflect on is there applicability and maturity for different use cases which may stretch them out of where they have been traditionally used in the past.

W

Okay.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

That's good. So, like with images it may be useful for us to narrow the scope, the use cases to have a little bit more precise definition of how we intend it to be used and then maybe they can make more refined recommendations.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Exactly and I'll give you the details of where there are conceivably some gaps.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

If – so if the Consumer Workgroup has the chance to narrow the topic then it might be a little bit more productive the next time we talk.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

And I did – we did give them some homework.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Of looking at some use cases and looking at templates that exist in C-CDA and enumerating this with some more detail.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Very good, any last minute questions of John as far as imaging? And I think what we'll do is we'll start out with John's report on the patient generated health data next time and then we'll circle back and try to refine both of these recommendations both on imaging and patient generated health data next time as we begin our call next time. Any final questions for John?

Charlene Underwood, MBA – Senior Director, Government & Industry Affairs – Siemens Medical

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, well thank you so much John and we're going to open it up for public comment?

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Great and Happy Holidays to everybody.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Thank you John.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Sure.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you John.

John Halamka, MD, MS – Chief Information Officer – Harvard Medical School/Beth Israel Deaconess Medical Center

Okay, bye.

Public Comment

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Operator can you please open the lines?

Ashley Griffin – Management Assistant – 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 have no public comment at this time.

Paul Tang, MD, MS – Vice President, Chief Innovation & Technology Officer – Palo Alto Medical Foundation

Okay, well, I want to thank you again for taking the time out of this busy holiday season to participate on the call, you can see how productive it is with all the comments and questions and it really informs our decisions. And I want to wish everyone Happy Holidays and see you next year.

Neil S. Calman, MD, ABFP, FAAFP – President & Cofounder –The Institute for Family Health

Same to you Paul.

George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University NYC

Thanks, Paul.

Public Comment Received During the Meeting

1. Is the slide on Healthcare Associated Infections reporting and HeD a signal that this will be in Stage 3? HeD has not been adopted by most vendors and needs more pilots and acceptance.

2. Are the HeD APIs mature enough to be used by vendors in time to incorporate by summer or fall of 2015. Vendor's need enough time to design, develop, QA test, certify and then implement in all client sites before Oct. 1, 2016 for EH/CAHs. Please consider the timeline and the maturity of the decision support tools before requiring its use in the field. Thank you.

3. Please consider the cost of the external database to hold all the data in a Data Access Framework to work in a federated model. I agree with the discussion that this would be a very large project for vendors and possible high cost for providers. Vendors would probably not take the cost entirely by themselves but pass on some of the cost.