

**HIT Standards Committee
Clinical Operations Workgroup
Transcript
July 26, 2013**

Presentation

Michelle Consolazio – Office of the National Coordinator

Thank you. Good morning, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Standards Clinical Operations Workgroup. This is a public call and there will be time for public comment at the end of the call. Please remember that the meetings being transcribed, so please announce yourself when speaking. I'll now take role. Jamie Ferguson?

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Present.

Michelle Consolazio – Office of the National Coordinator

John Halamka?

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

Here.

Michelle Consolazio – Office of the National Coordinator

Martin Harris?

C. Martin Harris, MD, MBA – Chief Information Officer – Cleveland Clinic Foundation

Present.

Michelle Consolazio – Office of the National Coordinator

Chris Chute? Donald Bechtel?

Donald Bechtel – Patient Privacy Officer – Siemens Health Systems

Present.

Michelle Consolazio – Office of the National Coordinator

Liz Johnson? John Klimek? Joyce Sensmeier? Kevin Hutchinson? Cris Ross? Becky Kush? Wes Rishel? Dan Vreeman?

Daniel J. Vreeman, PT, DPT, MSc – Research Scientist – Regenstrief Institute

Here.

Michelle Consolazio – Office of the National Coordinator

Stanley Huff? Marjorie Rallins? Floyd Eisenberg? Jeremy Delinsky? Kim Nolen? Jay Crowley? Karen Trudel? Nancy Orvis? Terrie Reed? Clem McDonald? Marjorie Greenberg? Kevin Brady? Are there any ONC staff members on the line?

Farrah Darbouze, MPH – Program Analyst - Office of the National Coordinator

Hi, this is Farrah Darbouze from the Office of Science and Technology.

Michelle Consolazio – Office of the National Coordinator

Thanks Farrah. With that, I'll turn it over to you Jamie.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay great. And thank you everybody for attending this call. Actually, even before we go through the agenda, I just want to let everyone know, I'm going to have to leave this call about five to ten minutes before the top of the hour, so I'm hoping we can get our discussion completed in that time. But if not, I'll ask John to close out the call. So for our agenda today, we wanted to really just focus on two things. One is a reflection and discussion on the framing for standards, or interoperability standards for sharing of diagnostic images and we wanted to reflect on the testimony that we've received, some of the feedback that has come in in the last couple of mee – or since the last couple of meetings that we've held. A little bit of – discuss our approach to framing recommendations and then also next steps and what additional work needs to be done for image sharing.

And then the other item I really wanted to have us discuss on this call is to confirm the scope of our next piece of work, after image sharing recommendations. And as you might recall from our previous discussions, we wanted to talk about patient care preferences and advance directives with the specific use case around end of life care, but probably more general standards for preferences in advance directives. And so we wanted to also today confirm that and talk about the next steps on that track. Is there anything else for the agenda today that we need to put on the call?

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

Sounds good to me.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. Well then, I'd like to just start with my own thoughts on the image sharing work item that we've had some testimony on. And the approach, my current thinking on the approach that we should take as a workgroup to making those recommendations and it's this. We have I think some substantial disagreement by different stakeholders about what the appropriate methods and standards are for image sharing. We heard from the RSNA Image Share Pilot that XDS has been extended, that it's good for both local, long distance and patient controlled use cases, and that it really meets the full variety of needs. We also heard from lifelIMAGE about alternative mechanisms that use a RESTful approach and non-DICOM image sharing that really, they feel, is a much better fit for the current connected age of the Internet and web services and using the existing Internet infrastructure.

And my own thinking is that it's not the right approach to settle religious disputes by regulation. But rather that if there is a reasonable assurance that both of these alternative methods can really meet the needs of a patients, providers and others for appropriate image sharing, then why not recommend that both approaches be appropriately specified as standards. And be allowed to essentially compete in the marketplace for the use cases where they will find the best fit. And so to the extent that there are pros and cons of that sort of a big tent approach if you will, I'd like to get everyone's thoughts on that. So, my own thinking is that that's the way we ought to frame this up and I'd love to hear from others whether you think that's an appropriate approach.

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

So Jaime, as we chatted about, I have some very interesting responses to my blog that summarized our last workgroup meeting. And so let me just read the folks on the phone just a very quick couple of sentences. So Dave Clunie, very smart guy, responded basically what the gist is, there's a huge variety of choice out there and many standard alternatives. The market has yet to decide which is going to prevail, the cost and the risk we incur by picking and choosing at this relatively early stage in evolution is high. So this is basically Jamie what you just said, it's like saying I know Betamax will be right, but wait, the market hasn't decided whether Betamax or VHS is actually better, because maybe one is simpler, not as good, but simpler and cheaper, who knows.

And so, Dave Clunie goes on to say, it's just like other debates we're having in standards of push versus pull, central versus distributed, SOAP versus REST, XML versus JSON, OAuth versus SAML, which will dominate in any of these domains actually remains a little unclear. And so I think Jamie your notion that we avoid architectural constraint and proscriptive regulation, but maybe can at least offer somewhat reduced numbers of alternatives based on detailed use cases, will let the market then create solutions and may the best man win.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah, I – so, so the only thing that I would say about this is that my preference would be for two alternatives and not more. That if we figure out sets of standards that work together, that are acceptable to these different stakeholder communities, I don't think it should be wide open, I think we ought to be able to specify no more than two sets of standards for different fundamental approaches.

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

Right. And obviously we all know that the less optionality the better. And I feel like you've said, and Dave Clunie said, we can't get to one canonical approach, so two, okay, that sounds good. And other comments from my blog identify that there are standards that probably everybody on the phone doesn't really know about like WADO-RS, which is RESTful transport services for DICOM to deal with the sort of long distance problem that Hamid told us about. So yeah, we probably should hear a little bit more from IHE and DICOM people about MINT and WADO and such stuff, and then maybe can conclude there's a set of DICOM solutions over here, and XDSI, etcetera, and there's a set of what I'll call Web 2.0 stuff over here. And either approach in the short term is worth exploring.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

So I thin – John, I really think that you and I are in violent agreement on this, but how do others feel. Martin or Don, do you want to –

Donald Bechtel – Patient Privacy Officer – Siemens Health Systems

This is Don. I kind of agree with what I'm hearing that having more than one choice makes sense, not having a wide field of options is better. I don't think we can narrow it down to one that makes sense to me.

C. Martin Harris, MD, MBA – Chief Information Officer - Cleveland Clinic Foundation

Yeah, I think that's right.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. So if we, and I don't know if any – I can't recall what other workgroup members we have, but if anybody else wants to chime in, I would appreciate it. And my thinking is also that our next steps, if this is indeed going to be our approach, our next steps really are to get back to use case specification. And to identify a small number, two, three or perhaps four use cases that are again constrained, sort of tightly constrained or well-defined use cases for image sharing where these two alternative bundles of standards could potentially be applied. And then that would lend itself to potential adoption of different standards for different specified purposes in Meaningful Use 3, potentially. And so, that's my thinking about the best next steps for us. What do you all think about that?

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

Sounds very reasonable.

C. Martin Harris, MD, MBA – Chief Information Officer - Cleveland Clinic Foundation

Yup, again I would concur.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay, and then – but also, as John said, I know I don't know enough about these new standards to really think through for myself if there are reasons, real, technical, operational kinds of reasons not to allow one of the standards alternatives for a particular use case. And so I do think that we're probably going to have to have, in my mind, two or three more meetings of the workgroup on – specifically on image sharing, in order to define the use cases for which we wanted to make recommendations. And then to hear more about the newer standards and to sort of test ourselves and make sure we've evaluated appropriately whether there's a – what we feel is a good reason not to recommend both alternatives for any one of the use cases.

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

Yup, sounds exactly right.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Umm –

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

And folks on my blog did say that RSNA, IHE, folks at DICOM very happy to provide us testimony for the details of the standards that we haven't yet learned about.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Right. Right. Okay. Other thoughts from the workgroup members on the call regarding image sharing or shall we just go ahead and plan three more sessions on image sharing?

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

I mean I can tell you from the field, working day to day with image sharing in my community that what you see is a hodgepodge of proprietary solutions. No one has said, oh the state healthcare information exchange should be the one place with one set of standards that all images are exchanged. You truly still have a marketplace which is filled with multiple proprietary alternatives, which tells us, I think, that all the comments that we've made on this call are right. The market is still trying to decide on the best approach among many. And they're technologies that work, no question, and so let's learn more and then maybe directionally offer enough constraints so that we don't run into the challenge of impedance mismatch as you pointed out, in Meaningful Use Stage 3, which is going to create products that actually can't interoperate.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah.

Joyce Sensmeier, MS, RN-BC, CPHIMS, FHIMSS, FAAN - Vice President, Informatics - Healthcare Information Management Systems Society

Jamie, this is Joyce Sensmeier, can you hear me now?

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yes. Hi, Joyce.

Joyce Sensmeier, MS, RN-BC, CPHIMS, FHIMSS, FAAN – Vice President, Informatics – Healthcare Information Management Systems Society

Hi, I was on before but I guess I was – my line wasn't live. I really – I heard the approach; I really like the approach very much. And the one comment I wanted to add was that I think this will give direction back to the standards development arena to help them focus on the needs and provide some clarity. And I think that's really important. None of us wants a million standards for one purpose, but I think this is a way to get at what is the right thing, and I think it gives good feedback to the standards groups as well, to get to that nirvana that we all want. So, I just wanted to add that comment.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

So Joyce, let me ask you. Also, from your perspective, what is it that we need to do to specify the requirements back to the standards development community? So, I think that sometimes, and I've been in some of the standards development committee meetings, and each stakeholder comes in with their own idea of what the requirements are really, and then argues for those to be the right requirements. But I wonder if there's a role for us here on this workgroup to use our use case methodology to better define scoping and requirements, and if we were to do that, I mean, is that the right approach, and how should we do it?

Joyce Sensmeier, MS, RN-BC, CPHIMS, FHIMSS, FAAN – Vice President, Informatics – Healthcare Information Management Systems Society

I think that's a great question. I think opening up the dialogue is the first step, it sounds like that's what's happening and you're inviting input from the community, the standards development community to this conversation. Specifically in the one case I'm familiar with is, of course, IHE and RSNA team who have been very deeply involved with this. So inviting those – that input is great, and I know you've already done that one time. And then in return, I think if there are individuals that would be willing to be a part of the technical discussion and bringing to the group at the workgroup meetings or the committee meetings, the use case or the focus or the constraints that you would like to see addressed, I think there would be an openness to that. We are starting that with the S&I Framework team with specific IHE profiles and I think this would be another great example where we could begin that open dialogue. I think that's been somewhat missing in the past and I'm sure the IHE folks would welcome it.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay.

Joyce Sensmeier, MS, RN-BC, CPHIMS, FHIMSS, FAAN – Vice President, Informatics – Healthcare Information Management Systems Society

And Jamie, I'm happy to work with whomever you would like to help facilitate that.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. So I – so then Joyce, I may draft you to help us organize our use case definition discussions on these calls that are to be scheduled and we can take that as a planning exercise offline.

Joyce Sensmeier, MS, RN-BC, CPHIMS, FHIMSS, FAAN – Vice President, Informatics – Healthcare Information Management Systems Society

Sure, happy to.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Very good. Other thoughts on the approach and next steps for image sharing?

Farrah Darbouze, MPH – Program Analyst – Office of the National Coordinator

Hi, this is Farrah Darbouze from ONC. I just wanted to also mention that Doug had requested me to ask the workgroup to discuss EKG image sharing in either August or September timeframe.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

And so I think then that certainly will have to be part of our use case discussion and our considerations going forward, absolutely.

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

(Indiscernible)

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

I think we heard that loud and clear last time and so I think that's in-scope.

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

Right. And just so everybody on the phone knows, of course an EKG isn't an image, an EKG is a time series, it's a waveform, and it has absolutely nothing to do with a picture. And so I think, Jamie, this is the interesting challenge that we have, which is, it is a – conceivably it could be represented as text; it may not even be binary. So, how do we even approach this one, do we try to generalize and say, oh, how do we deal with things that are other than human-readable text, oh, images are a kind, EKG, EEGs, on and on and on. Or do we focus specifically on trying to get some testimony on how EKG exchange has been done in the past. There is a European Standard called SCP, there's been experimentation with some elements of DICOM, even though it's not really an image, and just focus on EKG exclusively.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah, well I don't think Clem McDonald is on this call, but I'll try to channel his previous comments, which are that because we need to consider the broad range of other kinds of clinical reports that are used and commonplace, that really the more generalized approach is the one that we ought to take. Something that could be applied beyond EKGs.

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

And reports are of course one issue, but I actually think, from what I heard Doug and Farzad say is, they want to be able to – I mean ensure that a patient could retrieve their waveform. And of course it could be as simple as a PDF, I mean, it's not exactly measureable or interpretable, but it's viewable.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah.

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

So if the context of what you describe is ensuring the reports that accompany non-text objects are available and binary representations of whatever, whether it's an image, whether it's a waveform, is something that is also worth generally speaking about. But there are some proprietary standards for EKGs specifically that I am aware of.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Right. But it could be that as part of this, and part of my thinking saying that we can consider that in scope, was more the PDF approach where one of the standards bundles might really lend itself to that kind of a consumer download facility.

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

Yup. Agreed.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay, other thoughts on the image sharing approach and next steps. And thank you Farrah for reminding us of that scope.

Farrah Darbouze, MPH – Program Analyst – Office of the National Coordinator

Sure, no problem.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

So, if there isn't anything else that we want to discuss on the image sharing approach, then we wanted to spend a few minutes today talking about our next highest priority. So we're in the process of producing the final transmittal letter for our recommendations on formulary benefits that we've discussed both here and with the committee over the last few months. We're starting to frame up the approach to recommendations for image sharing, and that will be the subject of upcoming calls. But we also wanted to start our planning for the next item after image sharing, which if we just go down the sort of priority checklist, it's patient care preferences and advanced directives, with a particular focus on end-of-life care, but also as perhaps a broader use case. And so, I guess first I'll ask are there any objections to that being our next priority or does anyone want to go back and revisit our priority list?

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

Yes, certainly if we hear input from our consumer workgroups, as I personally have had the death of my father recently, the idea of documenting care plans and care preferences, with particular attention to end-of-life care. Recognizing there's a lot of variation among state laws as to how you need to document that and whether we should do it structured or unstructured, there's a lot of interesting discussion and debate. So I think we certainly could move those issues forward if we took it on as our next priority.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah. And there also are, I think now, an increasing number of mobile applications and sort of newer technologies for individuals to be able to share their care plans with their family members, their emergency contact list and so forth. And so I think that it's going to be very interesting to look at both the structure and content of the advanced directive and preferences of documentation, but also I think the ecosystem for how those things are used and shared, I think is evolving and changing.

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

Agreed.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

And so, getting back to our general approach, there are basically a couple of different places we can start. One place we could start would be by better defining use cases, before we consider alternatives, standards – groups of standards or packages of standards. The other is to first receive testimony about what's out there and what's in use today. Now does anyone have a strong preference for either of those two approaches?

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

I mean, to be honest, I am not aware of any standards widely deployed in this context, so probably best to define some use cases that offer a few specifics and then drill down on alternatives. Because we may be in completely novel territory.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah, okay, and I'm absolutely fine with that approach as well. So, I think then, Michelle and Farrah, what we ought to do is to plan for our next four calls we'll have three of them on the subject of image sharing use cases and newer standards. And then we'll have one on the use case development for patient preference – patient care preferences and advanced directives, so that the bigger list of workgroup and committee members can know to attend what they're interested in.

Farrah Darbouze, MPH – Program Analyst – Office of the National Coordinator

I've got it, thank you Jamie.

Michelle Consolazio – Office of the National Coordinator

Jamie, this is Michelle. So I just also wanted to mention, there's been talk of an advanced directive listening session that's kind of gotten passed across the different workgroups, between Policy and Standards Committee. It's now fallen into the Certification and Adoption Workgroup on the policy side –

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay.

Michelle Consolazio – Office of the National Coordinator

– and they are actually having their first planning call next week. It's going to be a virtual hearing, so probably four hours on the phone, but, I would suggest that possibly this group get invited or at least see the testimony from that. So we can work together – or a summary or something –

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah, I mean, so thank you, I was not aware of that. So I'm of course very interested in that because I think that – it sounds like that could generate the bones of our use cases, which we may then have to just further define technically a little bit.

Michelle Consolazio – Office of the National Coordinator

Okay. So when you – my suggestion to you is to obviously the advanced directive call should follow the listening session.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Oh yes, absolutely. Absolutely.

Michelle Consolazio – Office of the National Coordinator

Yes. Okay. Thank you.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

And I think it would be good to invite this workgroup to that session if we can do that.

Michelle Consolazio – Office of the National Coordinator

Okay. Will do. Thank you.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. Great. So we have direction there. Other thoughts on the patient care preferences and advanced directives. Is there any different focus or different approach that folks want to recommend? Okay. Then we may have exhausted the agenda for this call, which I like because I can get a little bit of time back for today.

Michelle Consolazio – Office of the National Coordinator

Are you ready to open for public comment then Jamie?

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Yeah, let me just double check with the workgroup members. Is there any other workgroup discussion for today?

Donald Bechtel – Patient Privacy Officer – Siemens Health Systems

This is Don, I don't have any. Thank you.

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

John, no. There is nothing from me.

C. Martin Harris, MD, MBA – Chief Information Officer - Cleveland Clinic Foundation

Not from me.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. All right, very good. Well then I think we're ready for any public comments.

Public Comment

Michelle Consolazio – 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 one comment.

Carol Bickford – American Nurses Association

This is Carol Bickford at the American Nurses Association. I came into the call a bit late so I may be posing a question that you already discussed. As you're looking at the imaging spectrum, don't discount the opportunity of the healthcare consumer in wanting to incorporate some sort of images themselves, it might be a hand-drawn picture that they take a photo of and wish to have incorporated. It might be a description of where their pain might be located. And so, think about what new technologies might need to be addressed as we're thinking about our healthcare consumer incorporating photos, for example, of perhaps their wound management, in the spectrum.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. Great Carol, thank you very much. I appreciate that input.

Ashley Griffin – Management Assistant – Altarum Institute

There are no further comments.

Jamie Ferguson – Vice President, Health Information Technology Strategy and Planning – Kaiser Permanente, Institute for Health Policy

Okay. Well then, that's it for today, you get about 25 minutes back and we're adjourned. Thank you very much everybody.

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

Thank you.

Michelle Consolazio – Office of the National Coordinator

Thank you.