

Certification/Adoption Workgroup
Draft Transcript
April 9, 2012

Mary Jo Deering – Office of the National Coordinator

Good morning. This is Mary Jo Deering in the Office of the National Coordinator for Health IT. And this is a call of the HIT Policy Committee Certification/Adoption Workgroup. It is a public call and there will be an opportunity for the public to make comments at the end. I'll ask the members to identify themselves when they're speaking since a transcript will be made. Let me start by taking the roll. Marc Probst?

Marc Probst – CIO – Intermountain Healthcare

Here.

Mary Jo Deering – Office of the National Coordinator

Larry Wolf?

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Here.

Mary Jo Deering – Office of the National Coordinator

Joan Ash?

Joan Ash – Associate Professor – Oregon Health & Science University

Here.

Mary Jo Deering – Office of the National Coordinator

Steve Downs? Carl Dvorak? Paul Eggerman? Joe Heyman?

Joe Heyman – Whittier IPA

Here.

Mary Jo Deering – Office of the National Coordinator

George Hripcsak?

George Hripcsak – Chair – Dept. of Biomedical Informatics Columbia University

Here.

Mary Jo Deering – Office of the National Coordinator

Liz Johnson?

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Here.

Mary Jo Deering – Office of the National Coordinator

Charles Kennedy? John Wecker? Don Rucker?

Don Rucker – CMO – Siemens Medical Solutions

Here.

Mary Jo Deering – Office of the National Coordinator

Latanya Sweeney? Micky Tripathi?

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Here.

Mary Jo Deering – Office of the National Coordinator

Scott White?

Scott White – Assistant Director & Technology Project Director – 1199 SEIU

Here.

Mary Jo Deering – Office of the National Coordinator

Paul Tang?

Paul Tang – Internist, VP & CMIO – Palo Alto Medical Foundation

Here.

Mary Jo Deering – Office of the National Coordinator

And would staff who are on the line also identify yourselves?

Steve Posnack – Office of the National Coordinator

Steve Posnack, ONC.

Mike Lipinski – Office of the National Coordinator

Mike Lipinski, ONC.

MacKenzie Robertson - Office of the National Coordinator

MacKenzie Robertson, ONC.

Mary Jo Deering – Office of the National Coordinator

Okay. And have I missed anyone? Alright, back to you Marc and Larry.

Marc Probst – CIO – Intermountain Healthcare

Okay. Well, I'd just like to welcome everybody to this meeting of the Workgroup. We'll be looking at two of eventually eight areas. These particular areas were in the NPRM on Standards and Certification criteria. So, we're going to begin by looking at the new definition of certified electronic health records and then we'll have a second discussion around safety enhanced design.

So, we've got about half an hour for the first one. Micky, why don't you take it away?

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Okay, great, thanks. Can we put up the presentation that was sent? It was a PDF that was sent this morning. So, what I did is I'm going to be covering the definition of the EHR as proposed in the NPRM and did a little bit of upfront, a couple of slides upfront that just try to help sort of define and frame some of the key terms because I don't know if everyone else had this same experience that I did, but as you're reading through it seems to be completely straightforward and make sense and then you start thinking hard about it and then all of a sudden the different definitions start to cross over each other and it took me a little bit of time just to sort of sort out what that hierarchy of relationships is.

And then talk about just some issues that occurred to me as being sort of significant areas that might just warrant some policy discussion, not issues in the sense of being necessarily problems per se, but just issues that seem to present themselves as meaningful policy questions and then pose a couple of other possible questions for discussion at the end, but wherever Larry and Marc and the entire Workgroup want the discussion to flow, happy to take it that way.

So, if we could go to the first slide? On the first slide I just tried to as short and crisp as I could give some key definitions and I know Steve is on the phone and, Steve, feel free to correct me if I've really

butchered, in my attempted brevity have butchered some of the subtly and nuance that I know is there because the NPRM certainly spends a lot of time trying to carefully define some of these terms and I think, at least from my perspective, like the Meaningful Use NPRM I found it to be just incredibly well written and very, very clearly written and so I did sort of have a little bit of pause in trying to shorten it, but I also wanted to see if could try to do something with some brevity that at least would give people some bumper stickers of what are the concepts here and how do they fit together?

So, there is this idea of a qualifying EHR, and I spend a little more time on the next slide talking a little bit more about this, but there is the idea of a qualifying or a base EHR. I think what the term is trying to capture is what are the minimum functions that need our must perform? When we think of an EHR what are the things that it's supposed to do?

And then there is the concept of certified EHR technology and that is essentially saying what needs to be certified of those functions in order to be used by providers seeking meaningful use incentives. So, it's really the technical capabilities and the standards and implementation specifications that the EHR technology must meet in order to be certified for use by providers.

So, one way of flipping that would be what does a provider need to be able to represent to CMS as a technology platform that they're using to fulfill the meaningful use requirements?

Then there's the concept of a modular EHR, which is an EHR technology that's met one or multiple EHR certification requirements. And then finally there's the idea of a complete EHR, which is an EHR technology that's met all of the modular EHR certification requirements. All of those have some origin and some roots back in the statute and in the 2011 edition, but just wanted to give at least some short descriptions here.

So, if we turn to the next slide, please. Here I've tried to give a little bit more of a graphic description that hopefully will help sort of illuminate some of the differences between the 2011 edition of the Standards and Certification criteria and the 2014 edition, which is really the subject of the NPRM. So, since we're talking about the definition of the EHR I thought it was helpful just to go back to the statute as the NPRM does just so we're all clear on what these terms are.

So, there is this idea that is in the high tech statute specifically that talks about a qualifying EHR and it has a high level description about that it should include the ability to capture demographics and clinical health information and it ought to be able to perform a certain set of functions, namely decision support, order entry, quality measurements and interoperability and I've paraphrased on the exact language that's there and, hopefully, haven't taken away the meaning of that, but just, again, wanted for the sake of brevity just give something short and snappy.

So, that was the idea that came from the statute of what a qualifying EHR should be. The 2011 edition or the certification criteria that were created for the Stage 1 meaningful use took as the basis the qualifying EHR, but then added privacy and security considerations, in particular, which you'll notice are not a part of the original definition from the statute and then created a certification EHR technology definition that has sort of two fundamental characteristics I think as we think about the change from then to now.

One is it basically said we're going to take the qualifying ERH and we're going to add some other things and we're going to call all of that the CEHRT and all of that together is going to be the definition of that. And then the second fundamental dimension is that it was essentially a static definition in that it basically said that the same requirements are going to apply for all providers within the same care setting category. So, if you're an eligible professional regardless of which meaningful use objectives you try to achieve, given that there are some you may not have to do because you meet the exclusion criteria or there may be some menu set options that you don't choose, regardless of that you are going to have to have technology that is certified for all of those capabilities.

So, in a way that meant that the definition of qualifying EHR didn't really matter because the binding constraint, as it were, what people were going to have to do was beyond the definition of the qualifying EHR because it included these other things and it said they had to do all of them.

So, that's why as you read the NPRM there is a lot of discussion, I think, about this definition of qualifying EHR, why it didn't really pose a problem as a definition as we think about the practical implications for the certification process in the 2011 edition. But now they found that it was a problem as they were thinking about it and it led to the need to create this idea of a base EHR.

So, as we move to the 2014 edition there are a couple of changes that are part of this.

Joe Heyman – Whittier IPA

Hey, Micky, when you go to the 2014 can you explain why it created the problem?

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Yes, I'll do that. So, the NPRM the first thing it does is as depicted here the NPRM first off adds more requirements, so just in general I think that in Steve's presentation that we sent around earlier from the Standards Committee presentation, there were 40 plus one or 41 requirements in the 2011 edition. There are 51 now. So, overall we've got more requirements, but it also defines this idea of the base EHR and it's essentially the same definition as the qualifying EHR, but it adds a couple of other dimensions, name the privacy and security and there are I think a couple of other sort of specific specifications that one could add to the qualifying EHR definition.

In a way the qualifying EHR definition is high level and conceptual and now it's getting more detailed so depending on how you interpret it you could say it was or it wasn't included. But they came up with this idea of the base EHR, which is one change and I'll get to your point in a second, Joe.

And then the second big change is that this idea of the CEHRT is now a dynamic definition rather than the static definition from before and what that means is that rather than saying that every provider has to have the full suite of capabilities in the technology that they use to meet meaningful use, now we will allow the providers to have only that suite of capabilities that they are going to need for the fulfillment of whatever meaningful use objectives they are trying to achieve.

So, the idea is that as depicted there with the sort of columns that are of varying degrees that the certified EHR technology for provider may be different than the certified EHR technology for another provider because they will have the same base EHR, so everyone has to meet the same requirements on that, but for their core objectives they may or may not have to meet all the core because they may meet exclusion criteria for some, so that would subtract from the capabilities that they would necessarily have to have in their EHR.

And then on the menu set they will choose, obviously, by definition the menu set or things that they can choose so they won't have to have the capabilities for menu set options that they don't choose.

Joe Heyman – Whittier IPA

So, Micky, I think your next slide speaks to that.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Yes. And, Steve, please correct me if I'm wrong in answering Joe's question here, but my understanding of the reason that the qualifying EHR sort of presented a little bit of a dilemma here was that in moving to this variable definition there was the need to have some kind of base or core that would say that there are certain things that are universal and we want to make universal and some of those things were beyond the definition, the technical definition of the qualifying EHR, so there was a need to say well, there's going to be this other things that is the foundation, but it's not going to be the qualifying EHR because that definition, not only was it originally created in statute, but CMS also uses that term in other places and it was the need to be able to clearly and explicitly specify what that foundation is going to be.

I think also the term qualifying EHR when you think about sort of this world of dynamic definition of the certified technology it could suggest to someone that, oh, qualifying EHR is all I need to do because once I do that it clearly must mean that I've qualified for everything rather than it really meaning or wanting to get to the definition that says no there's a base that you have to do, but there's a variable part on top that you also have to do and I think the idea of having the definition be a base EHR conveyed that much more clearly. Steve, is that fair?

Steve Posnack – Office of the National Coordinator

Yeah, if you're ever looking for employment, Micky, you're welcome to join the team. It's been great watching. And, Joe, I think Micky really touched on an important point of the clarity by which we could communicate these concepts and that's one of the reasons why we moved to, as we explained in the rule, this concept of a base EHR and it being the one piece that's a universal as possible to all providers that would be their starting point before they seek to determine their path through meaningful use.

Joe Heyman – Whittier IPA

So, from here on in there won't be a qualifying EHR, there will be a base EHR?

Steve Posnack – Office of the National Coordinator

Correct.

Joe Heyman – Whittier IPA

Okay, got it.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Okay, next slide please.

Speaker

So, I'm going to add a footnote to what Joe said. So, the legislation still describes qualifying EHR and what's in the base includes what's in the qualifying so we're covered in terms of legislation. Steve, I assume that's the logic there, is that right?

Steve Posnack – Office of the National Coordinator

Yes, that's correct and we always have to stick with the statute, but we've used our regulatory process to encompass that and move slightly beyond it.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

So, in this slide I just had to drill down one level deeper. So, we've got these concepts of the certified EHR technology and the base EHR and how that relates and really goes beyond now that original definition of the qualifying EHR.

So, now I want to dig down into each of those and say, all right, well now what do I need to do? What set of technologies or what is the technology approach that I, as a provider, would need to be thinking about in order to get the right technologies in place to fulfill this requirement.

So, in the 2011 edition, as I said, that was a static definition. It meant that whatever you had it had to meet all of the requirements and there was the idea of the complete EHR, which is depicted in very stylized form on the left, which is basically from a single company, essentially, on a single platform they are providing all of the modules. So, it might have the benefits of full integration and deep integration, which would be a benefit and, in that case, because everyone had to purchase everything there might have been an advantage there, but that was one way of being able to pursue it would be a complete EHR.

There was also the opportunity in the 2011 edition to do it in a modular way, so you could assemble modules to your preference, all of which had to add up to the complete set of criteria, as we mentioned, even those that you weren't going to pursue you had to have an EHR that had those capabilities, but however you wanted to do it, you could do it and those were individual modules that you could put

together. And I should add that you can also have a complete EHR and add modules. There was nothing that prevented you from doing that as well.

But I think the key point there was that it was modular and had the modular approach, but you did have to have technical capability that could achieve all of the core and menu requirements.

In the 2014 edition now there is this idea of the base EHR that's depicted here as that core that you have to have on the bottom and then you only have to meet those certification requirements that you are trying to achieve, so from the core in the menu as depicted there you can pick and choose.

So, there is still this idea of a complete EHR. So, as depicted on the left, you could choose a complete EHR from a single vendor, let's say, that has all of those and in some sense you're overbuying because you may not necessarily be pursuing all of those meaningful use criteria, but you're buying capabilities that go beyond that. It doesn't mean you're not using them, so you could very well be using them for your own purposes, but it wouldn't technically be required in order for you to meet the meaningful use requirements.

Or, depicted on the right you could take a modular approach, but in this case the only ones that would be required would be those modules that are required for the base EHR, which I count 20 required criteria that takes all of the privacy and security one separately and that would suggest that you could have 20 modules. I don't know if that's really how that plays out or whether privacy and security are seen as one. We can certainly get into that if that's a question.

And then on the core, in the menu together I counted 18 possible criteria across those two suggesting that you could have sort of a mix and match of up to 18 criteria, but you only have to choose from those 18 the ones that align with or are associated with the meaningful use objectives you're going to pursue.

So, overall more requirements, but more flexibility and depicted here. And I think, and maybe this is just a clarifying question I can for Steve or anyone now, because I think it's a point that we'll come to later is that my understanding is that the certification for a complete EHR; let me back up. There's no part of the certification testing that tests the ability of these modules to integrate with each other.

And the one implication of that, the one corollary to that would be that a complete EHR is basically a certification of every module that basically says we certify each of those modules independently. There's no separate testing that says do they all work well together. Is that a fair representation of that?

Steve Posnack – Office of the National Coordinator

So, the first point about the separate integration testing, is that fair to call it between different EHR modules, that's not something that's part of certification today. From a complete EHR perspective I think it really depends on how the EHR technology developer has developed their suite of software. In this case I'll have to introduce concepts of lower case m module versus capital M module. In capital M the proper noun EHR module is what meets the regulatory definition of something that's been certified to one or more certification criteria, whereas a lower case m module may be a little software component within a complete EHR.

But the complete EHR could, in theory, be tested all together as one suite of software.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

But, Steve, it is not required. I think Micky is correct. The interoperability between the modules and that being tested is not being tested today nor was it proposed. Is that not correct?

Steve Posnack – Office of the National Coordinator

That's correct between modules. I was also trying to make a distinction with a complete EHR that it may be a completely integrated solution, which is why there

Speaker

But technically it could just be a vendor has wrapped all this under one product ID and is certifying it together.

Steve Posnack – Office of the National Coordinator

That is another option as well I think.

Carol Bean – Director, Certification and Testing – Office of the National Coordinator

This is Carol. To the point it is the integration itself is not being tested in 2011.

Speaker

Or proposed for 14.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Yeah, that's what I was going to say, Carol. It's not proposed in future state either, for Stage 2.

Don Rucker – CMO – Siemens Medical Solutions

But it's sort of implicit; it's implicit in sort of all the CCD. I mean there are a whole bunch of sharing requirements that are throughout, so there's a large amount of connectivity that's implicit in the reg.

Joe Heyman – Whittier IPA

Just let me say I did the attestation process for my own EMR and I actually have a complete EHR, but I decided to use a different e-Prescribing module for the e-Prescribing part. So, even though I had an EHR I still did the modular part with what I thought was a better e-Prescribing program and it didn't integrate with my EHR. I actually did it separately. I think it's important for people to be able to have some flexibility that way.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

I think that the type of, I may be wrong, but I think that the type of interoperability that you're thinking of when we think of sort of CCDs going back and forth I think it's sort of a higher level to the extent that it's about cross-entity types of interoperability whereas with some of these modules you may think that there's something more native that would be incredibly valuable from a workflow perspective that is not being tested right now.

Don Rucker – CMO – Siemens Medical Solutions

That's a fair point. I think the other sort of thing, by the way, you did such a spectacular job on this; the other sort of top level consideration if you're in a world with service oriented architectures in the future where you really are, I mean I think that's sort of state-of-the-art in doing enterprises in general, I could imagine some ways that would map to these concepts, but it seems like somehow there should be some formal acknowledgment of that. That might e some feedback we could give.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

So let me, in the interest of time, move to the next slide. I think that can help tease out some of the comments and questions here. So, I have this slide and then I have one after that just has a couple of questions as well, somewhat related to this slide.

So, I teased out just three main issue areas. One was just about the idea of from a policy perspective of the base EHR with variable additional requirements. So, this idea of it not being static, the idea of tailoring it to what the physician was trying to accomplish with respect to meaningful use. And at a very high stylized level put "pros" and I'll put that in quotes, you know, "pros" and "cons". And certainly one, I think, advantage that I think is nicely articulated in the NPRM and sort of giving credit to ONC and the authors of NPRM of trying to be flexible to what they heard from the ground, which was that providers don't want to be forced to purchase capabilities that they don't intend to use, and certainly that is absolutely a benefit.

The other is that it could lower barriers to entry for best of breed types of solutions and the idea there would be that in a way you're kind of undercutting demand for complete EHRs because you're not saying

that every provider has to purchase the entire portfolio of module capabilities. So, in a way, that lowers barriers to entry to best of breed solutions who can come in and say, who are, in effect, are able to move into space that might be vacated by those who are providing complete EHR solutions.

On the other hand it could undercut aggregate demand for EHR modules because if you think about it providers don't have to purchase all the capabilities anymore. So, on the one hand you've undercut the demand for complete EHRs. On the other hand you've undercut the general demand for EHR capabilities because you're basically saying that no one has to purchase the complete set if the don't want to.

And, as mentioned, it could certainly undercut demand for complete EHRs, which could have the bad effect of shrinking the supply of EHR technology options. Again, not saying that this will happen, but just as you think about how the incentives could play and it's also hard to know these are cross-cut and countervailing kinds of things so the net effect, is it positive or negative? It's hard to predict, but just trying to tease out what those different vectors might be.

The second issue area relates to the definition of the base EHR and its module. Certainly identifying the base EHRs is easy to describe and define. I think it's intuitively clear what the base EHR is. I think it's adding privacy and security requirements to the base EHR could have the beneficial effect of lowering barriers to entry for best of breed solutions.

So, in the 2011 edition if you were coming in as a module, you as the module, even though you were just coming in as one module, you had to meet the privacy and security requirements. But now basically it's saying that that's going to be a part of the base so coming into the module you don't necessarily have to meet those. That could lower the barriers of entry to allow more people to come in with solutions.

On the other hand the base arguably might include right now some categories that aren't necessarily universal. For example, vitals, BMI and growth charts, arguably not universal. Now assume the folks from ONC have good read on the data from meaningful use Stage 1 and perhaps have a pretty good sense of what are the things that people actually were able to qualify for exclusion criteria and were able to base this on some of that data. And that's sort of a second point and there may be other categories that people may think don't necessarily fit in that idea of what ought to be considered universal.

And then the last point was about the continuation of the modular approach to certification and we've talked about the main issue that I would point to here, which is the question of integration of modules. On the one hand it does, in general, the modular approach, obviously, lowers barriers to entry for best of breed kinds of solutions, which is what we're talking about. But on the other hand by sort of almost continuing and placing greater emphasis on the modular approach it may perpetuate and perhaps increase the integration challenges and costs for providers, so the lack of integration testing in the certification process could increase the challenges of cost and effect arguably to the extent that you get issues of usability, safety and security related not to what's in any individual module, but has to do with the gaps between the modules and the challenges of stitching them together. There could be issues that. And, again, it also could lower the demand for complete EHRs, which could undercut the supply of fully integrated systems, which could present an integration challenge as well.

And then, finally, it may be worth thinking about whether there's a difference between the needs of ambulatory providers, EPs versus EHs and critical access hospitals. Arguably the need for tight integration and having that be real time a tight integration with respect to workflow, arguably is much, much higher for eligible hospitals and critical access hospitals and right now it's almost treated as if they have the same needs or the same lack of need, as it were, as eligible professionals.

Let me pause here.

Marc Probst – CIO – Intermountain Healthcare

This is excellent. The concept of complete EHR is where is that well defined?

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

There is a definition that I could probably point to in the NPRM. My understanding of just my recollection of it is that it basically says that it is an EHR solution that meets all of the modular certification requirements.

Steve Posnack – Office of the National Coordinator

I can put a finer point. So, the question was definition of complete EHR.

Marc Probst – CIO – Intermountain Healthcare

Yes, because it seems to be involving and it's just the way we're using it in the pros and cons of the first definition.

Steve Posnack – Office of the National Coordinator

The definition of a complete EHR is EHR technology that's been certified through all of the certification criteria adopted by the secretary of the particular setting in which the EHR technology is designed, or for which it is designed. So, I'll just say, for the sake of argument, say that there are 50 certification criteria for the ambulatory setting, in order for EHR technology to be assigned or receive a complete EHR certification it needs to be certified to all 50 of those certification criteria for the ambulatory setting in order to attain that complete EHR certification.

Marc Probst – CIO – Intermountain Healthcare

Okay, so, Steve, not to beat this into the ground, does what represents a complete EHR change under this new NPRM?

Steve Posnack – Office of the National Coordinator

The construct itself, no. But it does mirror the 2014 edition certification criteria, so it has gone along its own escalator, for lack of a better phrase.

Marc Probst – CIO – Intermountain Healthcare

Again, I'm not going to be patting that horse. One other one was under pros, for the continuation of module approach to certification. Wouldn't focus on new technologies for integration be a pro?

Joe Heyman – Whittier IPA

Yeah, I was going to bring that up, too. Innovation, we don't know what's coming in the future and want to force everybody into a certain mold.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

That's a great point. Marc, what you're pointing out is that there could be now another opportunity for a different type of vendor that's integrating.

Joe Heyman – Whittier IPA

Then, Micky, on your last point about the hospitals finding it more necessary to have a more integrated solution, it seems to be that it's ironic because it's probably more difficult for the hospitals to have a more integrated solution because so many of them have already purchased separate solutions and their investment is so much bigger than it would be if they were just an ambulatory physician.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Yeah, I think that's fair, Joe. You can see things going in both directions. I think, in general, at least from what I've heard from hospitals and critical access hospitals is they have very complex workflows, as you know, and some eligible providers, not all, don't have as complex workflows and that's all that was speaking to. But I take your point.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Let me jump in with a question here that Liz was sort of hinting at. The certification testing process today has no concept of testing integration or even building test suites around workflow. Is that something we want to comment on?

Joe Heyman – Whittier IPA

As Liz knows, I've been constantly saying that it would be great if somebody would make certain that we didn't have to add extra steps in order to attest for meaningful use. In other words, that the technology would allow us to just do our job and then the technology would do the reporting, instead of having extra places where we have to check off that we did something or adding a code to show that we prescribed electronically or checking off a box that says that we did four vital signs.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

So, the down side to the thing I'm asking about is there are many different workflow solutions to providing care and to say that there is one that we're testing against I think further warps the vendor's building things to pass the test rather than building things they believe is needed or innovative.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Right. I think there's also just a challenge with, which I appreciate the difficulty of how you would deal with all the combinations if, in theory if you go onto the Chapel Website now and almost pick any of the 33 criteria and do a search on just the modular ones, you'll easily get 200, 300 certified modules and thinking about how in a practical way you could test every combination with respect to integration could definitely be a challenge.

If we could move to the next slide there was just a question I think somewhat related to that, Larry, which is the second question. Is it worth considering that perhaps there should be for the subset that we're calling base some type of testing that would incent vendors to create fully integrated base EHR solutions? That could be one possible outcome. Or, to Marc's point maybe some integration vendors step in and say that they'd knit them together for the base EHR, but maybe you can cordon off a certain set of those requirements and those perspective modules and do some testing along those lines to at least ensure that there is some integration at the level that we think are the base requirements.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Joe, I wonder if maybe, and maybe we'll touch on some of this with the user incentive design discussion, maybe this is an area we should comment on the value of some integration testing and also the difficulty and some of the likely unintended consequences of having only one way to test things.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So, Larry, one of the things that is being looked at by the Implementation Workgroup is the potential of introducing clinical scenarios, which does not solve all these problems, but does at least begin to address some of the issues that come around clinical workflow being tested every which way and multiple separate testing scenarios versus a more workflow oriented. To me that plays in. It does not cover the problem with the multiple module or integration scenario at all. Micky, it's a great point.

Marc Probst – CIO – Intermountain Healthcare

So, we're at 12 after, a little bit over on this first segment. Are there things people want to say before we move on?

Don Rucker – CMO – Siemens Medical Solutions

I think there are also some challenges in that, or maybe just a recognition that besides these enumerated modules, certainly in the hospital environment, people have many other modules, even if they have what is typically considered a complete EHR. A lot of big hospitals will have 50, 70, 100 separate software systems connected, so I'm not sure what the implications are, but there's certainly integration out there.

The other thought is that the typical modules that are sold on the market I don't think exactly match up to the modules as defined by ONC in this requirement. You could sort of say that just maybe there will be new markets springing up to provide ONC defined modules or maybe people will just sort of say, hey, we'll just go with a "complete" or more complete version. Those, again, are some downstream issues.

Marc Probst – CIO – Intermountain Healthcare

Okay. Well, Micky, I think you've gotten lots of well deserved praise for presenting very clear and concise diagrams. Thank you so much.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Thank you. Happy to help.

Marc Probst – CIO – Intermountain Healthcare

Joan and Liz, do you want to introduce us to safety enhanced design?

Joan Ash – Associate Professor – Oregon Health & Science University

Well, this is Joan. And I'm humbled by the prior presentation and the beautiful slides. Liz and I are offering you a one page summary of pros and cons, but I think in a way the issues here are simpler. And the recommendations are I think very gentle.

Basically we were asked to look at three recommendations, two for documentation and one for reporting, all of them to increase the safety of health information technology. And it goes back to the Institute of Medicine report and some of the recommendations that were in that report. Also, I sense that it goes back to what we heard and are hearing on usability and the effective usability and usability issues and problems on HIT safety. And it wasn't mentioned overtly here, but the focus on usability that our Workgroup had last year I really see influencing these recommendations. Am I sensing that correctly?

Speaker

So, Joan, this mentioned in the regs, I think there's a whole cascade of activity so we had our hearings and some recommendations to ONC and the Policy Committee. That was followed by an Institute of Medicine activity, sort of picking up on our recommendation that this needed to be studied further. And so out of the IOM work came some additional recommendations, some of which wound their way into the regs. So, we were there at the birth, but this child has some schooling.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Yes, and I think as Joan and I looked at it we provided you also the actual six pages out of the regs where we highlighted kind of what ties into our pros and cons. So, I think we certainly want to give Steve and team acknowledgement that they did at least address this in the NPRM.

Joan Ash – Associate Professor – Oregon Health & Science University

So, basically just to start with the user-centered design documentation requirement, again, to me it's very gentle and maybe Don can comment on how much of a burden this would place on vendors, but it's a request that the vendors use some kind of user-centered design and the exact principles and design process are not dictated, so that the vendors have a lot of flexibility to select what kind of design they want, but this is a requirement for some documentation of it.

I would think that the documentation should be done anyway and regardless and this is just asking for something that should be being done. Liz, did you want to comment on that?

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

No, I think you said it right, Joan. I think if the group response to this; I mean, the requirement is clear, but it leaves us at risk. The requirement and what ONC is asking for, they've outlined it, but haven't made it required at this point and that causes risk. I think it's just like what Micky was pointing out. It gives us a good foundation, but is it enough?

Joan Ash – Associate Professor – Oregon Health & Science University

And so, should I walk through some of the pros and cons for the user-centered design documentation requirement? There are some excellent documents. NIST has produced some excellent documents that can assist a vendor in the documentation process for usability. And so these are out there and they look really very good, so that's one pro.

The eight high priority areas of risk seem to be very well selected. This all provides a focus on HIT safety, which can make everyone more aware of safety and also walks you through a process where you can educate not just the vendors, but everyone else. So, it improves awareness. It makes the process transparent because the purchasers can look at the fact that the documentation exists and it provides a good solid foundation for future requirements having to do with usability and, again, maybe someone else can comment on this, but to me it seems like it places a low burden on vendors. It's not really asking very much of them at this point.

On the other hand it does place some burden on vendors and someone else would have to comment on the extent of that. It leaves out other areas of high risk, so this is just eight out of many. There's no quality measure for either the process use for user-centered design or for the documentation itself. It just has to be there, there has to be documentation.

And so we're thinking it may not go far enough, but on the other hand it's a really good start.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So, Steve, from your perspective, did you author this portion of the certification reg? I'm sorry, I didn't mean to put you on the spot.

Steve Posnack – Office of the National Coordinator

I'm the editor-in-chief for the whole thing. So, the answer is yes, but not without input.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Okay. So, you're proposing adoption of the certification and we've pointed out to you some of the, in particular, what Joan saw in terms of pros and cons and reading back through the regulation it certainly seems to support this. Do you want to speak to that? I mean, is this a stepping stone? Because just reporting what you do, not if it's good enough, it's a level of moving the bar in the right direction. Can you speak to it?

Steve Posnack – Office of the National Coordinator

Is in this reference to the second proposal?

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

No, it's the UCD documentation requirements, not quality assurance or EHR patient events for PSOs, it's that you would require that they at least have to document what they've done to make it user-friendly, usable.

Steve Posnack – Office of the National Coordinator

Well, for the proposal that is fully implemented in a certification criterion, that one proposes that user-centered design has been applied to each of those certification criteria. And so, it sounds as if there's a little bit of a mix between that proposal and the second proposal that talks about documenting what they do in terms of quality management toward system design.

Don Rucker – CMO – Siemens Medical Solutions

I had a question. Our UI guys are telling me that their read of this, and maybe it's wrong and I'm looking at the things that Joan and Liz have highlighted here, is that there would be a requirement to do summative testing based on this common industry format from NIST and I don't know if that's, in fact, the case or if this is suggested and I haven't read the document, but their belief is it requires "summative testing" and their sort of take was that they're concerned that this testing, it's not clear what exactly will have been testing net-net and that there would be some sort of gaming potentially here and their suggestion was, which I think is also in here, just to sort of go with an explicit public statement of the process for each of these eight measures.

Part of the enforcement then, of course, is not just the ONC certification, but you also have product liability law here, right? Their additional concern was that they thought that the testing is in this common industry format, which I'm not sure how common it is per se today, is that it wouldn't get those sort of

classic sort of UI catastrophes that I think everybody is worried about here, sort of the Swiss cheese model where three poorly designed things interact.

It almost certainly wouldn't catch any of those things. So, at any rate, that was sort of their take on this. I just wanted to share that.

Joan Ash – Associate Professor – Oregon Health & Science University

Well, I think the purpose wasn't catching after the fact as much as it's being preventive and this is the very beginning of a prevention process, just asking the vendors to provide documentation really is very, like I keep saying, it's very gentle. It's saying, give us documentation of what you did. We're not telling you what to do. So, it hopefully isn't asking for any more than what's being done now.

Mike Lipinski – Office of the National Coordinator

And I just want to get back to Liz's and Joan's first question was like what we were requiring and in the preamble the way we set it up we used the terms that we believe that this is a significant first step towards improving overall usability and we go on to say using the terminology that we have in the preamble, I'm trying to find the exact phrasing we use here, but we say presently we believe it is best to enable EHR technology developers to choose their UCD approach and not prescribe one or more specific UCD processes that would be required to meet this certification criteria.

So, I think that goes to your overall question of the first step, is this a first step type of question is I think what you asked, and we tried to lay the groundwork as to why we took this approach.

Don Rucker – CMO – Siemens Medical Solutions

So the common industry format template that would not prescribe a specific kind of gameable testing process?

Steve Posnack – Office of the National Coordinator

My understanding of the common industry format template is that it's an organized way to capture the information that it performed when one does user-centered design, not necessarily prescribe an approach. And I don't have the better register version, but we say that we would anticipate that testing to the certification criterion would entail EHR technology developers documenting that they're user-centered design incorporate any form or format, the data elements that are in the common industry format.

So, it wouldn't necessarily need to follow the NIST common industry format template, but that was a good model that was in terms of the data that would need to be presented for testing, to show that user-centered design had been applied.

Joan Ash – Associate Professor – Oregon Health & Science University

And if we want to discuss the documentation of quality assurance for safety separately many of the issues and the pros and the cons are the same. It is just asking for documentation of how things were done. So, it's tracking how the software development process was conducted and making it visible to purchasers and anyone.

So, the pros are that it does make it visible, that it probably does not place a great burden on vendors. Again, hopefully that's being done already. It's just a request that it be made very obvious that it's being done, but there's no dictate here about how the quality assurance process should be done, just that it needs to be documented.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Do you want to talk about the cons, Joan, and then we can go to the discussion?

Joan Ash – Associate Professor – Oregon Health & Science University

So, could someone comment on how much of a burden this might place on vendors? Marc or Larry, do we have a vendor on the call, an EHR vendor?

Don Rucker – CMO – Siemens Medical Solutions

I'm on the call. I have to say, our general sense was, and I have to say I don't know the exact specifics of how this would do. We have an elaborate quality management process. I mean my overall that has all the ISO kind of standards, like the 9001, I think all of these things sort of, they do favor the larger vendors. That's sort of I guess a policy choice because a large vendor, we're fine with it, but from a public perspective making those things publicly available is I think a reasonable process.

I think it's more just how you sort of apply this for smaller vendors, for people who don't have dedicated employees to these tasks. If you have dedicated employees who do this all the time, it's just an expense that's passed on to customers, but if you don't have that and maybe are relying on a more direct process controlled by talking with a very limited set of customers in rapid development cycles then these things become a bit more of a challenge.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Joan, too, I can tell you we're utilizing a very large vendor and they adhere to all these ISO requirements and usability is still a challenge and I think others on the telephone from the provider side could tell you the same thing. And, Joe, I don't know what you do with your system.

Joan Ash – Associate Professor – Oregon Health & Science University

Well, again, it seems for preventive purposes this is minimal, this is something that should be done. You know, we teach our students that this is part of the software development process and I'd be really shocked and, in fact, I'd be rather upset if there were new entries into the marketplace providing EHRs where the development had not gone through a proper quality assurance process and documentation of that.

Don Rucker – CMO – Siemens Medical Solutions

Well, I think the challenge comes not so much; if you're doing a big mainline EHR I think this is all sort of part and parcel of it. But let's say you want to go into specific applications and specific specialties that are, let's say, more procedurally tied. I think that's where some of the meaningful use things become a challenge.

For example, there have been a lot of issues in radiology and pathology. So, what do those requirements mean there? And so then when you have these kind of things that were designed for, let's say, primary care doctors or maybe hospitalists, when you get into other settings like ORs and procedure suites that's I think where a lot of these challenges come in.

I think the other issue is something is just, I think as an industry and as a country and a cognitive science thing we haven't quite fully sorted out like how to do really time efficient documentation. And when you look at user complaints, I think most of them center on the things that are intrinsically hard to do and as a cognitive thing we haven't quite figure it out. That's just my sense from having been in the business for 20 plus years.

Joan Ash – Associate Professor – Oregon Health & Science University

I think on the user-centered design side of things there are good ways of doing it and the cognitive scientists have been heavily involved in those NIST documents. On the documentation on the quality assurance side the documentation guiding developers, especially for EHR developers, so there are obviously principles that are taught for documenting quality assurance, in general, and this new document that's coming out, according to this document, will help to guide the developers more specifically for EHR quality assurance and maybe the ONC can comment on where that document is, how it's being written and where it will emanate from?

Steve Posnack – Office of the National Coordinator

Still in process.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

I just want to make sure I understand this. We're talking about the quality assurance of producing an EHR, not the quality assurance that most of us physicians think about, which is recording our quality.

Joan Ash – Associate Professor – Oregon Health & Science University

Exactly. And so software developers, this is asking software developers to do things correctly and document that they've done it correctly, but it doesn't dictate how to do it correctly. It just says that you've got to document that you've done something.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Right. That's all it says, Larry. It isn't at all clear what you have to do. It just says be transparent about what you are doing. In fact, we're still waiting for; if you look at it it actually says that there is going to be a document that's supposed to come out at the same time as these regs. It said, working with other federal agencies, we intend to publish a quality management document that is customized for EHR technology development lifestyle. And I don't know where that is, Steve or Michael, and maybe Joan and I missed it, but I wasn't aware of it. I don't think Joan was either.

Joan Ash – Associate Professor – Oregon Health & Science University

So, one of the down sides, as Liz and I were evaluating this is that like with the NIST documents we could look at them and say these look great. We have full faith that these will be helpful. And with this one, I'm sure that this document that will be coming out will be helpful, but we can't see it. So, we just have to hope that it will be done and done in a timely way.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So, Carol or Michael or Steve Posnack, do you know where this other document that's referred to is?

Steve Posnack – Office of the National Coordinator

It's still in process.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Okay. So, Larry and Marc, we probably want to comment that we are predicating our response based on the fact that we're waiting for more information.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

I think that's great. I think that's right on.

Joan Ash – Associate Professor – Oregon Health & Science University

So then, maybe we should move on to the third recommendation, which was the ability to generate a file for reporting EHR patient safety events to PSO. And this is a little more forceful it feels to me, but it also seems like it's definitely a first step in the right direction. So, this would put a burden on vendors to actually put this thing together.

So, they will have to develop something new in order to make sure that users can generate a report. It's not requiring them to report anything, either users or vendors. It's just saying an ability must exist for reporting to a PSO and so just having this recommendation we think would encourage eventually users to report events. At least it'll increase their awareness so that in the future when this actually is done they'll be aware that there is such a thing as a PSO and that they should be and could be doing reporting.

Of course, the ultimate goal and I think it's a very noble one is to allow the aggregation of reports across all PSOs perhaps or even in the more near term future within PSOs they'd be getting more reports so that we would be getting more data that we could look at to see where the HIT safety risks are the greatest. Right now there is not a lot of reporting being done.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

One of the things that came up in another workgroup related to this concept was the concern on the vendors' and the providers' side on if reporting this to a PSO what was that going to do in terms of liability

and where do the vendors, how does that all work? That is not coming from me. I'm repeating to you what was raised in other settings.

Speaker

Especially my understanding and maybe I'm wrong with PSOs is that when it's reported confidentially there's no way to get the information back to the vendor because there has to be a permission from the reporter, and I assume the patient. It's very complicated.

However, I will say that without some automated reporting I think it's very unlikely that physicians are going to take time to do the reporting because the result of reporting, of course, is extra work on the part of the physician as well, even beyond just reporting. And if it's difficult to report, which it is now, it's really unlikely that there will be a lot of reporting. There's not a lot of drug safety reporting right now and as far as I know there's not a lot of public health reporting right now.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Well, the other quandary becomes in terms of allocating responsibility to the technology versus the process and all the variance and complications that that brings to mind.

Joe Heyman – Whittier IPA

I think there are a couple of things here. One is I think we ought to think about how this sort of plays into the general sort of greater patient safety initiative reporting, you know incident reporting and systems errors versus individual errors because a lot of institutions now already have electronic reporting capabilities and at least I know the places where I practice clinically it's been a little bit problematic for a variety of reasons.

The big challenge here I think will be that most of these issues actually are not just well the software doesn't work, like the lead and the pacemaker failed kind of things. The bulk of this will be something about the installation process and the site. So, the people who will have the most work here are actually going to be the sites in terms of their process.

And then it brings up the interesting question of how do you get a report that would actually be helpful, which I think Joan alluded to and I don't have an answer to that, but almost everything here I can almost guarantee you will be on the install process, you know the configuration files, what was in the templates, what was in the order sets, how is the stuff in the order sets hooked up to the downstream recipients of the order? What was the stuff that's in your hospital formulary, how is all of that entered? That's where most of this is going to end up. I don't know how it plays out in the office setting.

Joan Ash – Associate Professor – Oregon Health & Science University

So, basically what all this does is it asks that the vendors have something available in the software that will help with the reporting process.

Speaker

So, in other words populating a report with the demographics about the physician and that kind of thing, the physician will have to fill out a big form.

Joan Ash – Associate Professor – Oregon Health & Science University

Right. Hopefully this makes it easier, not just for the physician, but also for large organizations to encourage reporting.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Right. So, the formats would be we would capture the information about patient safety events. The quandary I had looking at it would be how would that then get tied to actual EHR technology versus just capturing the event? It's the right thing to do and we should be doing it, but it's puzzling how the connections occur.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Let me jump in with two thoughts that are vaguely related thinking about this as a provider and user of systems. The first is that I have this image that there would be something around the edge of the screen that if something unusual happens in the process of using EHR you could click on and it would capture the current technical state of your user session, maybe something about the configuration and then allow you to say what you were observing that was wrong and try to automate the capture and the reporting of an even that you believe is happening related to the use and performance of the system.

And probably that information needs to be clearly segregated from the patient record parts of the system in the same way that traditionally event reporting applications separate their data for performance improvement from the data information being used to provide care. So, I guess that's sort of a statement, but really begging a question. Is that sort of people's understanding of what we're talking about here or I guess this could be a free-standing reporting app that you just click into and fill in fields.

Joan Ash – Associate Professor – Oregon Health & Science University

Correct. That was just my sense of it and I believe it already exists because certainly organizations are reporting to various patient safety organizations around the country already and they probably have something not at all within the EHR. In other words, they have to really go out of their way to generate this report. This makes it easier. Right now, for some people it would hopefully make it easier to do something they're already doing and encourage others who are not doing it yet to do it.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So, I think on this one, this is really one that's being suggested by the NPRM as one that we should be specifically commenting and I would sense part of our comments would be either in support or opposition of this idea, right? Or certainly at minimum pointing out the pros and cons to it.

Joe Heyman – Whittier IPA

I still am not clear how the information gets to the vendor. I think it's more important that the information, or at least as important that the information get to the vendor as it is that it get to the PSO.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Yeah, and that's not called for. You're right, Joe. It's called for getting the information to the PSO, so we should ask that question.

Don Rucker – CMO – Siemens Medical Solutions

I think it's going to be a huge challenge to sort through what is likely to be reported here with the likely mechanisms. Just as a practical thing. I think the other issue, which I just sort of throw out, which I think is interesting is that since this would in the sort of typical, prototypical sense be either another button on the screen, with reading load and clutter issues so there is actually a bona fide cost to this if you're capturing a lot of state, it slows the system down.

So, there is a usability spend to get this measure. It's not a freebie kind of thing from a usability point of view or it sort of makes some assumptions on navigating through menus or some other sort of configuration file.

Another options here would be to think about, and this works in hospitals, I don't know whether it works in office settings, but in hospitals, most hospitals now have Websites with event reporting. I have a sneaking suspicion it's a JCAHO requirement, so we may want to think is there some way to integrate that. It's state law in Pennsylvania, I know, so we have to do it. It may be worth thinking about that. I think we also have to define what a patient safety organization is, is that the FDA?

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

No, patient safety organizations are defined in a law.

Don Rucker – CMO – Siemens Medical Solutions

They are? Okay.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

The whole point of it being that people can report near misses especially and not have to worry about confidentiality.

Speaker

Aren't a lot of these events not going to be seen as an actual user level? I mean some of these events are found, but the systems are found in a more systemic level and reported versus I'm on a certain screen and this is where I incurred this problem.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So, are you saying, for example, if there is a problem with drug-drug, that that would be a systemic problem not a single user problem? It certainly causes problems at the patient level, but it's a systemic problem, is that what you're saying?

Speaker

Yeah, the end user may never even know that that's occurring and it's probably a more likely event than it is something happening on a screen or in a current workflow.

Joan Ash – Associate Professor – Oregon Health & Science University

But this would give a hospital, for example, an opportunity if many of the individual clinical users were saying this particular drug-drug interaction is wrong, then the hospital could report it to the PSO. I'm envisioning that this would probably be just one or two people in an organization like that who would be using this.

Speaker

Or if a warning didn't show when it should have shown. Or something should have appeared on the screen, but it was if you didn't page down you wouldn't see it and it was vital enough that it should have been at the top of the screen or something like that. I mean those are the kinds of things that I would envision at least a physician reporting.

Joan Ash – Associate Professor – Oregon Health & Science University

Right, and another pro that we forget to put on here, I just realized, Liz, is that there is an ARC format already developed for this kind of reporting to PSOs. And so in a way all systems are go. The path is clear. A lot of work has already been done on this, which would help the vendors and make it easier for them.

Speaker

Well, I would agree that at least a discussion of the pros and cons should be there.

Speaker

I think certainly one of the, maybe on the con or maybe it's neutral is an assessment of the overall, how these buttons would impact usability from a screen real estate purchase price. Is this on every screen? Are we going to have it on some screens? Which screens? It's easy to sort of legislate it, but the practical things, so let's say you have a lab flow sheet that takes up most of it or let's say you have a PAX viewing screen with an image, sort of where would you put this button? Do you put it on log on? Do you put it on log off?

Is it on some screens? Is it sort of buried somewhere in a config file? It's sort of in the settings?

Speaker

How about if somebody is using a mobile phone?

Speaker

Yeah, there are just a lot of practical issues here that I think somewhat didn't; the complexity of doing this I think sort of wasn't, I don't know, I'm not sure I'm seeing that here.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

So, I think that's exactly what we're being asked to do is to surface the issues around this, that we don't have a specific proposal at this time.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

So I think Larry and Joan and all, we've got several, right, that we can now compose into the pros and cons in terms of comments back on this portion of the NPRM and take into consideration all the comments that have been made during this meeting.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

I agree with that.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

I think that's what we have on the usability and the quality assurance in the event reporting to PSO for today, Larry.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Well, Joan and Liz, thank you so much for taking the lead on this. Plenty to chew on and also pointing some of the things that haven't yet been defined.

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

Yeah, we think we want Micky on our team, though, because we like his graphs. You're a hard act to follow, Micky.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

It's just pretty slides.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Okay, so hearing the comments let's open this up for the public.

Mary Jo Deering – Senior Policy Advisor – Office of the National Coordinator

Thanks very much. It was a good call. Operator, would you open the lines for public comment?

Operator

We do not have any comment at this time.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Okay, so great job, everyone today. I think we all have lots of notes to feed into a next round of comments. Micky, Liz and Joan, do you feel you've got enough that you can actually draft an updated set of notes back to the Workgroup that we could then toss around through e-mail?

Elizabeth Johnson – VP Applied Clinical Informatics – Tenet Healthcare

I think so.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

I do.

Joan Ash – Associate Professor – Oregon Health & Science University

I think so, too.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

That would be great. And we've got another call coming up on Friday. And I don't have the times in front of me. We've got some assignments coming up. Okay, so Don, Marc and Liz are working on clinical decision support. I'm working on other healthcare settings and Marc and Micky are working on accounting of disclosures.

Marc Probst – CIO – Intermountain Healthcare

Yes, Micky, I'm looking for a good PowerPoint.

Micky Tripathi – President & CEO – Massachusetts eHealth Collaborative

Okay, let's talk offline. I may regret having done this.

Mary Jo Deering – Senior Policy Advisor – ONC

And, Larry and Marc, your next call is 3:30 to 5:00 on Friday.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

Thank you. And it's the same phone number, is that right? Great.

Speaker

Larry, thanks for the leadership.

Larry Wolf – Senior Consulting Architect – Kindred Healthcare

You guys are welcome. Have a great week. Talk to you guys on Friday.