



**HIT Policy Committee
Clinical, Technical, Organizational and Financial
Barriers to Interoperability
Virtual Hearing
Transcript
August 21, 2015**

Presentation

Operator

All lines are now bridged.

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

Thank you. Good morning everyone, or good afternoon I should say; this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Policy Committee's Interoperability Task Force. This is a public call and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I'll now take roll. Paul Tang?

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

Here.

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

Hi, Paul. Bob Robke?

Bob Robke – Vice President, Interoperability – Cerner

Here.

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

Hey, Bob. Christine Bechtel? Josh Mandel?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Sorry Michelle, I'm here; it's Christine. I couldn't get off mute fast enough.

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

Hey, Christine.

Joshua C. Mandel, MD, SB – Research Scientist – Boston Children’s Hospital

And this is Josh, hello.

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

Hi, Josh. Julia Adler-Milstein? Larry Wolf?

Larry Wolf – Health IT Strategist – Kindred Healthcare

Here.

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

Hey, Larry. Mike Zaroukian?

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

Here.

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

Hi, Mike. Micky Tripathi?

Micky Tripathi, PhD – President & Chief Executive Officer – Massachusetts eHealth Collaborative

Here.

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

Hi, Micky. Stan Crosley? And from ONC do we have Veronica Gordon?

Veronica Gordon, RN – Program Analyst – Office of the National Coordinator for Health Information Technology/Office of the Secretary of Defense

Yes, I’m on the line.

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

Thank you. And with that, I’ll turn it back to you, Paul.

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

Thanks Michelle and thank you all for participating on this really fast-paced journey we're on, but I think the information we've been gathering has been very, very helpful, certainly from last week and continuing on this week. Why don't we go to the slides, please and oh, there are some missing? Let's see, so Mich...perhaps...okay, I'll just sort of summarize from before. So we're in the midst of having two hearings that we had scheduled, virtual.

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

I think those slides should be there, sorry Micky...oh, I'm sorry Micky, sorry Paul. Altarum, can you bring up those slides?

Lonnie Moore – Virtual Meetings Specialist – Altarum Institute

Doing it now, thanks.

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

Okay, thank you.

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

Today we are going to continue our hearing from some experts regarding the financial and business barriers to interoperability. We'll then go on to summarize what we heard today and then summarize what we heard last Friday and start looking at some emerging themes. Once the slides come up we're going to review the members of this current task force and we're due to report out some draft findings and recommendations to the September meeting, which is just in a couple of weeks and then our final report is due to ONC as to be packaged with their report to Congress at the October 6 meeting.

Where we are is doing our second of the two virtual hearings. We're going to summarize, and I'm asking Michelle, there's an August 25 and an August 27 meeting, are those reversed? So August 25 we're going to spend more on the summarizing and then August 27 developing the recommendations?

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

I think it will depend on how far we get today.

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

Today?

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

So depending upon if we are able to put together some decent recommendations or summary of what we've heard in the past two hearings, then we might be able to go back to the summary on August 25 that we had started with; just kind of depends how far we get today.

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

Okay, so they're just a little bit out of order. And then our target is September 9 to present some of our draft recommendation to the Policy Committee, get their feedback and then go back and incorporate those into our recommendations for final presentation on October 6. Next slide, please.

Just to remind you of where this request came from, the 2015 Omnibus Bill talking about interoperability. They've certainly heard a lot about it and both the need for it and a lot of the perceived barriers to it. So that's what we're looking into with a special concentration in the financial area. Next slide, please.

The questions that we posed...that were posed to us are to look at the financial and business barriers, where do they exist? Who's involved? What's the impact? And particularly what we can do to quicken the pace to getting to better interoperability, which is, as we all know, is key to care coordination and really doing well by the patient in a holistic way. Next slide, please.

So today we're going to hear from additional experts continuing really on our...some of the barriers we heard about last time. Some of the perceptions of, if you do share data then that disadvantages you from a competition point of view. We're going to hear from provider groups today and the EHRVA and Charlene. Then we'll go on to looking at some of the pull...we call it the pull side; so in addition to saying hey, we've got to give some people perhaps either an additional enabling platform or a bit of a push to get over to move more data around to where more patients are going. But we'd also like to look at the pull side.

The pull side is represented by moving from volume to value as people say really how do we both measure and incentivize people to achieve higher and higher outcomes for people we're serving. And Helen Burstin is going to be talking on that side, the quality measure side and particularly looking towards what we called in the past HIE, health information exchange sensitive measures, things that would sort of prove if you're doing well according to these measures, then you're obviously sharing data amongst the various participants in an individual's care. That's where we're headed.

We had such a short timeline, we had planned to invite...we did invite other folks to participate, some exemplars of folks using this, but we gave them such short time that we just weren't able to secure folks for today's call. It's possible we'll be able to get somebody in future calls. But that's where we stand for the agenda for today. Next slide, please.

And we're going to start out with Vaishali Patel from ONC talking, really laying a bit at least on the federal non-acute-care hospital side, what's the current landscape? How much information is being shared? And where does she see the barriers...where does the data show that the barriers or impediments are? The data she presents doesn't exactly say well what's the cause, but she'll offer some hypotheses. Vaishali?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Great, thank you. So if we could move to the next slide, please. So as Paul mentioned, today I'll be describing the current landscape of interoperable exchange activity across non-federal acute-care hospitals. And these represent findings from a nationally representative survey of hospitals conducted with the American Hospital Association in 2014. And today's presentation is drawn from 3 different ONC data briefs, from the survey which detailed the methodology and have more information about the survey and the findings, and these can be found on the Health IT dashboard which is on the healthit.gov website for more...for folks who are interested in the findings and want to learn more. Next slide, please.

So as of 2014, nearly all hospitals have the infrastructure to be able to exchange. Adoption the EHRs by non-federal acute-care hospitals is nearly universal; close to 97% of hospitals have a certified EHR. Next slide, please. And most hospitals, about three quarters of hospitals as of 2014, are exchanging information, in particular laboratory results, radiology reports, clinical care summaries or medication lists with ambulatory care providers or hospitals outside their organization. And this has been significantly increasing steadily since about 2011 and overall in 2014, three quarters of hospitals are engaging in some form of exchange activity with outside providers. Next slide, please.

Although most hospitals, about three quarters are exchanging information with outside hospitals and ambulatory care providers, there is variability by the specific types of exchange activity they're engaged in. So while a majority of hospitals, about three quarters send patient care...patient summary of care records, about half report receiving those records electronically. And the ability of hospitals to use or integrate summary of care records into their EHRs without manual entry lags behind with about 4 in 10 hospitals reporting they're able to do that. And nearly half, about 48% of hospitals reported that providers engaged in electronically finding or querying their patient's health information from sources outside of their organization or hospital system. And overall, approximately one quarter of hospitals reported conducting all four types of interoperable exchange activities, so sending, receiving, finding and integrating or using. Next slide, please.

So this graphic shows the proportion of hospitals that have information from outside sources available at the point of care by the number of different types of interoperable exchange activity they're conducting. And you can see here that overall in 2014, 41% of non-federal acute-care hospitals nationwide reported having necessary clinical information available electronically from outside providers or sources when treating a patient that was seen by another provider or setting. And as hospitals increase in their interoperable exchange activity, they have significantly higher levels of information electronically available from outside settings.

So for example, nearly 9 in 10 hospitals that engaged in all four interoperable exchange activities, so sending, receiving, finding and using, report having necessary clinical information electronically available from outside sources at the point of care. And that's about 9 times more likely...and those hospitals are 9 times more likely to have necessary clinical information electronically available at the point of care compared to those that conduct neither of those four types of activities. And hospital's electronic availability of necessary clinical information from outside sources significantly increases with each additional activity that they undertake. And overall, about nearly half or 45% of hospitals engaged in three or more types of interoperable exchange activity. Next slide, please.

But we also examined a number of technical, operational and financial barriers to interoperability in the hospital setting. And what we found was that lack of exchange partners with the capability to electronically receive information, either because they lack the system or because their system lacked the capability to receive information, was considered a barrier by a majority of hospitals that related to interoperability. Other common technical barriers related to provider directory, so difficulty finding provider addresses or related to patient matching, and these are areas that are the focus of the Interoperability Roadmap.

The most common operational barriers related to usability; so about 3 in 10 hospitals reported a cumbersome workflow to send information from their EHR system and similar numbers of hospitals reported that recipients of their summary of care records didn't consider the information useful. And only about one quarter reported cost as a barrier and about 1 in 10 reported that they typically don't share patient data with outside providers. Next slide, please.

So in summary, we can see that although hospital exchange activity is increasing, the data shows that further progress is needed. Most hospitals possess certified EHR technology and are exchanging key clinical information with outside providers, but hospital's rates of conducting different types of interoperable exchange varied. While a majority of hospitals send and receive care summary records electronically, the rates of integrating that data into their EHRs lags behind, at about 4 in 10 hospitals engaging in that. And one quarter of hospitals conduct all four types of interoperable exchange activities, so sending, receiving, finding and using.

And 4 in 10 hospitals report that they have information electronically available at the point of care from outside sources and settings and that hospitals conducting more types of interoperable exchange activity has significantly higher rates of having information electronically available at the point of care. Finally, hospitals top barriers to interoperability relate to the technical issues, particularly limited capability of their exchange partners to receive information electronically, and to a lesser extent operational and financial issues. Next slide.

I'd be happy to take questions. There are also some additional appendix slides that I'd be happy to talk through if there are specific questions about those as well. Thank you.

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

Thank you and let me open the conversation to the members of the task force. Maybe I'll start out by Vaishali or Altarum, could you go back to the slide that had bar graphs going to the right, it showed some of the barriers? That one, thank you.

Vaishali, you were saying a lot of the barriers were in the technical domain; I'm trying to see how you separate. So you said there's...people have the infrastructure in place, where they're following short perhaps is actually integrating them in the record and using them. And so the integration in using, do you think this is technical or do you think it's...how do you know it's not workflow and things that are listed, I think under operational but have a lot more to do with is it convenient in the workflow to access it? Do I even know that it exists? Those kinds of things rather than "technical" electrons and wires and interfaces?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

The barriers listed here are like barriers to I would say exchanging information and interoperability pretty broadly; they're not specific to the actual integration of data into an EHR. About 4 in 10 hospitals reported that they have the capability to do that and the technical barriers that are listed here are about barriers to exchanging more broadly. So the top barriers listed here relate to the fact that their exchange partners lacked the capability to receive the information as opposed to, you know, there wasn't...we didn't ask specifically about barriers that were related to the integration issue, but maybe I'm misunderstanding your question.

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

Well, I guess you made some summary statements that were...that we'd like to understand better. So you talk more about technology rather than the way you characterize it here is operational or financial barriers. And some have suggested that it's more the latter, the operational and the financial barriers than the former, the capability of exchanging.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Um hmm.

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

And so I just wanted to make sure we understand why you would draw the emphasis more on the technical side rather than the other two?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Okay, okay, now I understand; sorry. Well we're...based on the data that's there, what we have here, I mean, we asked more questions about technical barriers, so therefore we have more information about those. And so that's probably part of the issue, but we can see from the data that technical issues that might relate to lack of exchange partner's capabilities to receive information, things that relate to patient matching, you know about...close to 50% of hospitals reported these three issues. Whereas with the operational barriers and financial barriers, a smaller proportion of hospitals reported experiencing things that relate to workflow or utility of the information or cost as, you know a particular barrier.

It's just simply based on the questions that we asked you know it's possible if we had asked more questions that relate to financial barriers and operational barriers or different sets of barriers that relate to those two categories, we may have found different results. But based on the questions that we did ask, we can see technical barriers; a larger proportion of hospitals reported those as issues.

Julia Adler-Milstein, PhD – Assistant Professor of Information, School of Information; Assistant Professor of Health Management and Policy, School of Public Health – University of Michigan

Vaishali, this is Julia; I mean I guess I'm also curious, I mean the technical barriers could manifest from upstream financial barriers, so sort of the lack of exchange partners where you only, you know, it's possible that they're reporting that, but have they really gone out to look and really assess which exchange partners are ready. We don't know that, right, so I think it's a little unclear to characterize these as sort of purely technical because they could interact with some of the financial.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Right, I mean I don't think, to your point Julia, I mean the organization of these was based on, you know categorizing these as technical, operational and financial. You know, tried to do this to help inform the broader conversation. Obviously there are a lot of...it's a complex issue and there's a lot of intertwining forces that are at play, so.

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

And I think that's, I mean, so we're just trying to probe to understand what it is that we can note from the existing data.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, no, agree, agree.

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

And so I have one more tweak, so you were saying you did a separate look at...for the folks who were doing all four types of exchange then those people obviously had more information available. I wonder if you did any other cuts to look out for the people who either could or couldn't do the exchange, what were the barriers to them, the operational risks, financial...any...I may not have been very clear but...

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, no. So Paul, I should point we're in the process of examining the data in more detail, like doing those types of cuts that you described to better understand who is experiencing bar...you know, what types of barriers? And hope to be able to report on that in the future.

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

Got it, thanks. Mike?

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

Yeah, thanks, Paul. So Vaishali, thanks for valuable data and nicely summarized, really helpful. I do have a series of questions, particularly based on the fact one of our focus areas today is perception of competitor advantage. So let me know if you want me to do them one at a time or queue them up and let you respond.

But let me start with the first one; so with the exchange largely involving labs, meds and summaries, one question I have is are we mostly meeting that through laboratory interface and that's the exchange or is there a more pervasive exchange of meds and summaries which I think many of us have found to be a harder task for exchange than the former?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

So what I primarily reported...so the three quarters of hospitals that are engaged in some type of exchange activity with outside providers; that represents like a composite measure of lab exchange, medication and patient care summaries. And then what I reported on in terms of the more specific cuts by sending, receiving, finding and the integration of data that primarily relates to one particular type, so a subset of that three quarters was specifically focused on exchange related to summary of care records. And we have data on...

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

(Indeterminate)

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

...oh sorry, go ahead.

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

No, so I apologize, I interrupted; I thought you were done. Go ahead.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

No, go ahead. I just want to make sure I'm answering your question.

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

Yeah, sure. So I am still interested in knowing whether most are doing it through lab or other; it's a little hard for me to take your subgroup and know just how much of that's happening. But the next question relates to how much we know about exchanges from EMR to the same EMR versus different EMRs, which again I think is a bigger challenge. And the other part that ties to that is the measure of exchange anybody who reports more than one or more exchange or do we have any sense of the pervasiveness or the volume of the exchanges that they're doing as we try to estimate how effective we are.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

All right, so I'll take the second question first; so in terms of volume of exchange, the survey, the American Hospital Association survey that we jointly conduct, that does not have information about volume of exchange. What we can gather about volume of exchange is through the meaningful use data, which provides the denominator is the number of transitions of care and the proportion of summary of care records, for example, that were sent electronically for each transition of care.

We do have the volume of transitions of care; so that data are available in terms of volume, but it's for transitions of care and it's based on meaningful use data, which I think has been presented on in the past in some Health IT Policy Committee meetings, but I can't comment on that based on the data that I presented today. And then the first question, if you could just remind me again?

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

Yeah, how much is vendor, intra-vendor EPIC to EPIC, Cerner to Cerner versus to others?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Right, so cross vendor exchange?

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

Yeah.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

So again, I didn't...we have a question on the survey that relates to the capability to exchange data with an EHR that...of a different vendor, but I didn't present data on that today because that relates to capability as opposed to actual activity. We don't have data that relates to reporting on actual exchange activity by cross-vendor exchange. It's just broader than that, yeah, we're focused on out...exchange with outside providers as opposed to different vendors.

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

Okay, thank you; tha...it's an important question for me because that notion of competitive advantage may speak to cross-vendor willingness, not just ability and as I think about the issue of trying to figure out the pervasiveness and maybe the focality of willingness to exchange. The comment you have on operational barriers don't typically share patient data with outside providers is, I...sounds like it describes people who don't share any data. The other concern though is they share selectively with some but not others and if that relates to a competitive barrier, that's what I think I'd like to hear more from either what you know from your data or what the panelists that are upcoming can tell us about their experience in that space.

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

Good point. Christine?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Hi Vaishali, I just have a clarifying question, I'm just...I'm confused. So it says that...you're saying all hospitals, or nearly all hospitals, have the infrastructure for exchange and 76% are exchanging with doc in an ambulatory care setting. But when I'm looking at the same way that...the same slide Paul was pointing out, it says like 60%, I guess I'm confused, the numbers seem to be like, ooh, everybody can do it, but then we have a really large percentage who can't and on that slide, I don't understand the difference between an exchange partner EHR that lacks the capability to receive, that's 68%. And lacking the capability to receive from outside sources, which is 16%. Can you help me kind of understand what I'm missing here?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, sure. Yeah, so 97% of...in terms of the infrastructure piece, 97% of nonfederal acute-care hospitals report they have a certified EHR and about three quarters of hospitals, that's 76% of those hospitals report that they are able to ex...that they are exchanging, you know medication lists, patient care summary lists...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Right.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

...and history with outside hospitals...hospitals outside their system or outside ambulatory care providers. Now the barriers piece, so the...but a large proportion of them still report that their exchange partners, so, you know other exchange partners, some of their exchange partners lack either an EHR or other system to receive the data or that their exchange partner's EHR system lacks the capability to receive the data.

Now these may be behavioral health care providers, you know other providers along the care continuum whom we know have lower rates of EHR adoption, have lower rate...you know, have lower levels of capability to exchange information. So that might help explain the gap between what we're seeing as a large majority of hospitals are exchanging data but many of them are still reporting that their exchange partners have difficulty actually receiving the information. So that's...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

...this slide is saying at least one exchange partner of mine, which could be a SNF or behavioral health provider or somebody else, lacks the capability, but it's not...it doesn't give us a sense of anything beyo...like how many other; like 85% of my partners could be...have certified EHRs and I could be exchanging with them, but if one or 15% lack capability, I might answer yes to this question?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, that's correct. That's correct; it's not like...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Ah, okay; that's really helpful.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

...majority...the question is not phrased a majority of my exchange partners lack, you know, it's not. It's like...it's not whether they experien...have experienced this particular barrier or not.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

That would be great to put the question on the slide, by the way, that would be helpful. So, okay, so then what's the difference between one or an or some exchange partners lack...

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Versus...it's about the lack...the 15% that report that they lack the capability to electronically receive data from outside sources...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Ahh.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

...or send data to outside sources...refers to themselves as opposed to their exchange partners. So very...most hospitals have the capability to receive information, to send information, it's just that their exchange partners lack, you know many of them report that their exchange partners lack the ability to receive the information.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Okay thank you, that's really helpful.

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

It is really...so just to piggyback on what Christine was saying, the way the first line is worded, exchange partner, does that mean one part...so in other words, if the hospital is commonly referred to a post-acute-care institution, you would imagine that the majority of those don't have the capability, is that...can that largely explain the 60% that the partner doesn't have the receiving system?

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

So the 16%...

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

If it can then...

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, I mean the 16% refers to...

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

No, no, the 60%, the first line.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Oh the 60%, you're talking about the 59%?

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

Right.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Sorry. So the 59% refers to...I'm just looking at the question itself; so refers to, you know, the question itself is like has your hospital experienced this particular issue or barrier? And so...

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

(Indiscernible)

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

...you know, whether they're exchange...yeah, so it doesn't have to be...like I was saying, it's not like a majority of their exchange partners, it's you know whether an exchange partner that they exchange with has, you know lacks the capability.

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

Okay, so that's very helpful because we don't want to misinterpret the data. So it's possible that a lot of the "covered entities" are exchanging data, but not all and this might be the statement made in this first line. Because we want to be care...that's what I'm saying, we're trying to reconcile some of what we hear about the operational and financial barriers with the data that's presented here and so understanding the question is...

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, you know I think what it helps explain is, which I didn't include in the shortened slide deck but it's in the appendix slide is that, you know if we look at exchange with behavioral health care providers and long-term care providers, the exchange rates of both sending and receiving data are significantly lower than with ambulatory care providers and hospitals. So, you know to the extent to which hospitals are attempting or have exchange partners who are sort of outside of providers that are say part of meaningful use, you know they might encounter some of these barriers. I think that's what this data's trying to speak to.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Paul, I have one more question.

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

Sure, well Larry is ahead of you.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Sure.

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

Unless it's a clarifying...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

It's not, well it's sort of clarifying, but it's not exactly; so that's fine.

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

All right, let me go to Larry then, please. Larry, you're on...

Larry Wolf – Health IT Strategist – Kindred Healthcare

Could maybe it works better if I turn mute off, thank you Paul. So I wanted to continue the discussion we've just been having about what this first 59% may or may not mean. And one concern I have is of timeframe, right; so this was a 2014 study, so relatively recent. But I'm very aware of how much the environment has been changing so a year ago Kindred was testing our ability to receive using Direct, we've spent, starting early in '15, we've been very active bringing people on board getting our Direct addresses out to acute-care folks who want to send to us.

And my sense is that a lot of people did their planning early in '14 and thought they'd done an environmental scan and the environment's been changing around them. And so I think that a potential barrier is perceptions that were set early in the Meaningful Use Stage 2 implementations by the hospitals and that the environment has changed since then. I know a lot of other post-acute care providers now have the ability to receive using Direct, but that they probably didn't in early '14. So part of the barrier here maybe that things are changing in the environment, and not just in the study, but also in the understandings of eligible providers who have systems to send Direct.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

The survey was conducted in the fall of 2014, so towards the latter half, you know, the later last quarter of 2014.

Larry Wolf – Health IT Strategist – Kindred Healthcare

Right.

W

It was actually later than that; it was between November 2014 and February 2015.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Right.

W

So, it was a little bit...

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

This is Michelle, I'm sorry, there are two...on the panel that needs to drop off so I think we need to switch to the panel. Maybe we could schedule some time to ask follow up questions of Vaishali.

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

Okay, that sounds...

Larry Wolf – Health IT Strategist – Kindred Healthcare

Sounds good, I'm fine.

W

Sorry.

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

And Christine, is that okay?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Yup, that's fine.

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

So as you can tell Vaishali, we're very interested in getting as much data as we can, particularly to check our work and understand the priorities.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Yeah, and I'd be happy to share a copy of the data brief which has the questions, a lot of the detail and happy to follow up offline with folks who have additional questions.

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

That would be super.

Vaishali Patel, MPH, PhD – Senior Advisor, Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

So I'll share that with Christ...with Michelle, sorry, and she can forward it to folks.

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

Thank you, thanks very much. Okay, so we're going to move on to our second panel and so just as a heads up, we may be running later in the panels than originally scheduled, but still within the time frame of the total discussion.

So next we have a panel to continue our discussion really of the perception of having a competitive disadvantage if you share, in other words, thinking about competition as potential barrier to free exchange of information following the patient. And on this panel we have Chantal Worzala who is the Director of Policy at the American Hospital Association, Steven Stack who is the is the President of the...the current President of the American Medical Association, Leigh Burchell, representing...is the Director of Government and Industry Relations at Allscripts and is representing be EHRA and Charlene Underwood, who we know very well, who now is retired and joined the benefits of being retired from long years of service both in the industry as well is on our FACA committees and workgroups. And so why don't we go ahead and start with Chantal.

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

Great, thanks so much, Paul and really appreciate the opportunity to speak. And I hope that in my comments I'll help provide some of the context perhaps around the data points that you all were discussing. Clearly an important topic and really appreciate all of you digging into it and trying to sort through the various data.

On the next slide are the hearing questions that were shared with me; it would certainly take more than 10 minutes to answer these questions. Fortunately though, the AHA did just release a report of our Interoperability Advisory Group that actually really addresses all of these questions in some depth. So I'm going to give you a little bit of an overview of those findings; I believe the report was shared with the task force members yesterday and as I go through those findings, I thought it would be most helpful to highlight some of those real-world conditions that hospitals and health systems are facing that you can't necessarily see in data.

So on the next slide, just so you know, we did form this task group so that we could understand our members priorities for information sharing, what barriers they're facing and how they think all stakeholders could work together to move forward. It was a 24 member advisory group and it spanned administrative, technical and clinical leaders. We deliberately chose geographic and hospital type diversity; so small, large, academic, community hospitals, urban hospitals, rural hospitals, public, etcetera. And they spent about six months meeting via phone call and one in-person meeting to see if we couldn't get some of this down on paper to share with others.

They're major conclusion was that the nation really needs to make rapid progress in developing secure, efficient sharing of information that's important for improving care, but also for engaging patients and supporting new models of care. If you're interested in the individual members of the task force, they are listed in the appendix to the report and I will add that we wanted the post-acute view, so Larry Wolf was a member of the advisory group.

On the next slide are the principles and priorities; I won't spend much time here but they are fully explained in the report. Interested to promote health information exchange, to improve care, make sure that we're maximizing individual's participation in their health and care. This all rests on the development of good standards for interoperability that everybody understands and uses in the same way.

The two priorities, sharing information to support care and patient engagement and gathering and using information to support new models of care in some ways looks a little bit like motherhood and apple pie. But it was actually a very robust conversation and what I would draw from those two priorities is the feeling on the ground in the field is that we really need to start by getting the data that we currently collect moving and there's a real need to focus interoperability efforts on doing that. There are so many ways that we want to share information but right now, just need to get the information that we collect to move to support care, patient engagement and some of these new models of care.

On the next slide, the group came up with three types of barriers; I don't think any of these are new to you. There are certainly technical challenges to information exchange and vis a vis the conversation you are having about the survey data, there's just such a big difference between having a certified EHR that has a capability to share data versus walking through all of the on-the-ground activity that you need to do to actually share information. And so some of these barriers speak to what happens in between okay, I signed a contract to get an EHR that allows me to send a Direct message versus I can actually share the data that I want to share with the folks that I want to share it with.

And so the types of barriers include infrastructure issues and getting back to that standard patient identifier. We still don't have the reliable, efficient exchange mechanisms that we need; I'll talk about that a little bit in a moment. There are technology issues in terms of inconsistent use of standards; we have standards but actually different products use them in different ways. The testing is not robust enough to catch the inconsistent use of standards. We have lots of medical devices deployed in hospitals that are not yet able to integrate into other information systems, creating safety issues. And I think you've heard a fair amount about usability questions with the technology.

Then on the policy side, again you've heard a lot about these things I imagine; resource issues, some of those legal questions of Stark and anti-kickback, how much can a hospital help a physician with their EHR adoption and connections; there are limits there. Lots of legal ambiguities about the medical record as we share data, who's responsible for what in terms of acting on that information; huge questions from the clinical world there. And then lots of questions about inconsistent privacy and security requirements and how do we work through those? So those barriers again are all laid out and explained in the report, that's just sort of the snapshot.

On the next slide, I've tried to encapsulate the hospital health system experience in sharing information on one slide; I will spend some time explaining this. Hospitals do have challenges connecting systems both internally and externally so if you think about within the hospital, they're looking to connect their electronic health record, their lab information system, the pharmacy system, data from the ED or from the operating room, labor and delivery; there are scores if not hundreds of different IT programs being used in a hospital. And they all need to be integrated, to some extent, which is a major challenge in and of itself. I won't focus on that, but I wanted to highlight that that circle in the middle there of the hospital information systems is extraordinarily complex in and of itself.

So if you think about external to the hospital, which I think is more what this task force is thinking about, you have many different information trading partners. I've only given you the illustrative set on this slide, you know physician offices, other hospitals, post-acute, reference labs, health information exchanges, public health, registries; you could add payers, government programs and research protocols, so lots of ways in which hospitals are looking to move data and respond to requests for data.

And where we are today, without consistent use of standards by vendors and providers, each of those connects is becoming a unique project with its own solution. And I have to say, you're probably wondering why there are squiggly lines here, I had showed this chart to a couple of CIOs to get their input and they said, you know, it just looks like it's too easy so those squiggly lines sort of symbolize the level of effort that it really takes to establish all of these sort of one-off connections. So it makes it messy but that's really reflective of the effort needed on the ground.

And I think the bottom line is that it's really wasteful to engage in so much customization to share information. And this is not a perfect analogy, but it's a little bit like saying, hey I want to call Aunt Bess so I'm going to use a cell phone that has an AT&T phone. And now you know what, I want to call Uncle Ben, well to get him I need to use a landline that's a Sprint carrier. And then well my nephew, actually to get him I need to use VOIP because he's young and hip and uses the Internet. And my niece, well if I want to reach her, I have to get a satellite phone. And that's really what it's like for hospitals right now; every connect point requires a slightly different way to connect. So it's not as if you have your phone and you can use it to call whoever it is you want and you will connect.

So what does this mean, all of this complexity? Well, it really results in financial and operational challenges and I have those listed on the right-hand of the slide. The costs are coming from the base systems themselves, which are really quite expensive and then all of those interfaces that you need to connect both internally and also externally. We don't have great data, but I'm told that the interfaces range between \$10,000 and \$30,000 per interface, and that's just for the setup fee. And then you'll have, in some cases, ongoing maintenance fees for the interface and if it's a supported a connection, you'll also have volume related fees.

So it may be a fee for each transaction, it may be a certain amount per month per volume. So there are real and significantly growing costs associated with the connections. And just to give you a sense, one of our very large systems shared that they actually maintain 37,000 interfaces within their information system, so these are very large numbers and growing costs. There are also, of course, if you're using an HIE or working through a HISP, you'll have fees to connect to those services as well, which are not small.

So all of this cost, just to give you a sense, we estimate based on our annual survey data that between 2010 and 2013, hospitals collectively spent \$47 billion each year and every year on their IT systems; so, a lot of money being spent here. And just in comparison, the Meaningful Use Program has paid \$18 billion to hospital so far to date; so just a reflection of the magnitude of the costs there.

In addition to the financial cost, you really have a lot of operational staff and in some cases hassle-factor costs in managing the varying policies across each of your information exchange platforms. So in each exchange, you have to ask what information am I sharing. What standards are we using? How exactly am I making sure that I'm identifying the right patients to share the data with you, because of course there are HIPAA requirements that you have a patient in common if you're sharing information? And when we share this data, how are we managing consent? So just a lot that needs to happen in order to make sharing real and I do think we have seen some progress being made and I think the data that Vaishali shared showed some of that. But it's very hard in a survey of that scope to think about the richness and the vastness of the exchange that people are trying to accomplish.

I want to give you just a couple of examples of where people are having challenges, common challenges. One is having multiple HIEs acting in a particular area and you'll have each HIE, let's just say there are three HIEs that are operational in your service area. Each one right now is pretty much seeking to connect to the providers directly, so you're having three connection costs, three subscription fees, ongoing costs for three HIEs rather than having the HIEs connect to each other and serve as that network of networks. So there's really a limiting factor there, how many HIEs can I participate with. We have multiple states where the HIEs can't connect and even in many cases, they're using the same vendor, but they're still not able to connect HIE-to-HIE.

Another example, fairly common you'll have an ambulatory EHR vendor that may actually provide the software free to the physician office or at a very low cost, but has been charging significant interface and maintenance fees to any hospital that wants to connect to that physician office; same kinds of fees if you're connecting to labs.

We do have pretty limited visibility into the contractual arrangements here and some of that is due to nondisclosure requirements in contracts. And I'll just point people back to the Institute of Medicine report from 2011 on health IT and patient safety where they really brought up this challenge of lack of information, in this case about safety events due to nondisclosure and confidentiality clauses that are pretty pervasive in this space.

On the next slide I have listed the summary of the actions that the Interoperability Advisory Group thought would help move us forward and make progress here. I really don't have time to delve into each of them and I think you can look at the report for yourselves. I just want to note that the consensus was that it was going to take collaborative effort across all stakeholders and it did include steps for each group and trying to put our own foot forward first in terms of hospitals and healthcare systems and other providers, there's a lot to contribute in terms of prioritizing use cases and expectations of technology. And also a standard is standard on both sides of the EHR and so recognition that providers need to commit to using standards themselves.

A real sense that progress is going to come down to ubiquitous and consistent use of fully deployed and mature standards with solid implementation guidance; I think you hear that a lot, but it does seem to be a bedrock principle there. And then a sense that true interoperability where it actually works on the ground is really only going to be proven through testing and we really need much more robust testing of products than the one-off testing that was done in certification.

And this group thought it would be helpful actually to the end user to have a testing infrastructure that they could use post-implementation so that they could verify once a system is implemented, you haven't done anything to break the use of the standards, but will support more efficient exchange, which is really what we're all after. And then finally we are going to have to address some of those thorny issues like patient identification and the varying privacy and security requirements; so I'll stop with that and not sure how you want to take it from here, Paul, but thanks for your time and attention.

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

Thanks, we'll have questions at the end. Michelle, you said somebody may need to drop of early, should I move somebody up?

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

Yeah, if you could move Leigh up.

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

Okay, Leigh, why don't you go ahead?

Leigh C. Burchell – Vice President for Health Policy and Government Affairs – Allscripts

Okay, thank you. And to clarify, I'm going to have to drop kind of in the middle of the Q&A I think, looking at how it's mapping out. So, we do all have time for our prepared comments. So thanks again for the invitation. As Paul said, I am Vice President for Health Policy and Government Affairs at Allscripts but I'm also honored to serve as Chairperson of the EHR Association this year, which is a fun role. Thanks so much for asking us to share our thoughts, I know I raised our hand last call and I appreciate the invitation.

This is a topic that we speak a lot about within the Association because we spend a lot of time discussing how can we understand what our collective clients need from us and how can we consider those perspectives in the advocacy work that we do specific to public policy? This group's obviously talked a lot about the many challenges in front of interoperability, so I will narrow in on the questions around financial and business case. And this makes sense because ultimately we think that the biggest barrier is absence of strong market drivers.

Information exchange in the many, many ways in which that phrase is used is currently a have to do for many providers to check a regulatory box rather than a want to do. And those business drivers and incentives are shifting and they're shifting at an accelerating rate and we're seeing providers and patient desire to exchange data growing, too, in parallel. And our members and other suppliers of products and services are responding to meet those market demands. And ultimately once those drivers and incentives really require providers and patients to share data to be successful, those provider organizations are naturally going to focus their resources on breaking down barriers to interoperability.

I think generally its human nature, you know the average person or organization gets past their have to dos as quickly as they can and with as little investment as possible whereas want to dos is get more attention and investment. And so until that business case is solidified, resources that are already spread really, really thin within our client organizations are going to continue to be focused on meeting government regulatory program requirements that directly impacts their payments as well as the work that they do with commercial payers, who are venturing into some of these areas as well.

We do note that although the frequently cited use case, certainly in the media for exchange is that of having an accident while you're unconscious and off away from your house. The most compelling and typical exchange use cases that we hear from our clients day in and day out are local and in fact, the EHRA recently hosted a interoperability panel last month where we invited several physician organizations and hospitals up to Capitol Hill to speak about successes that they have had with data exchange strategies and they universally agreed that a single government-run, nationwide system of comprehensive clinical information exchange probably really wasn't feasible or even desirable, and the primary reason they gave was because the value proposition is just so much stronger within a local community. So such...so neighborhood use cases, if you will, are where there's a much stronger opportunity for both quantitative and qualitative returns on investment with demonstration of cost savings, efficiencies, improved outcomes for patients.

And an important element in the conversation that Chantal alluded to is recognition that there are different barriers, depending on the type of interoperability being discussed. So you might be talking about provider-to-provider in a region with an established HIE infrastructure versus an area that doesn't have HIE services that are well mapped out, talking about information exchange with public health entities and with patients. So there are all these different scenarios that we're talking about and the barriers are often different.

Currently though, no matter what type of Interoperability is considered the burden to fund these solutions is primarily falling on providers, even where there's little return on investment for their own organization. So you can imagine that we as technology partners hear this frequently from our clients. Certainly we hear on a pretty steady basis about concerns about cost related public health connectivity. But, it also is a challenge even more broadly than that.

And it's therefore worth emphasizing that the determinants of interoperability are not primarily found in the capabilities of EHRs or other health IT, which we've seen a really impressive increase in adoption both prior to and through the HITECH Incentives, but rather interoperability and data movement require organizational policy, legal and technical infrastructure with much of that infrastructure for information exchange existing outside of EHRs. So we would suggest that this infrastructure is likely going to need to be supported by a mix of funding entities, similar to other public infrastructure in this country, electrical, highway, those types of examples and that this might include private sector and public private data sharing initiatives.

There are also different financial and business barriers that need to be addressed, depending on the care environment. So our member companies hear different questions and concerns depending on which portion of the market they're working with on a given day. So for example small physician practices tell a different story on this topic than a hospital, critical access hospitals are obviously facing different challenges than long-term care organizations or behavioral health practices. And the story is also vary pretty significantly by region, too; the mix of health systems and payers in particular plays a pretty significant role in determining information exchange activity and also the adoption of advanced payment reform projects such as ACOs.

So other factors in this process of mapping out a successful Interoperability strategy would include standards adoption and the fact that existing standards are not being used consistently by all parties beyond EHRs with customized approaches to connectivity very frequently taken by HIE organizations, public health entities, and lab companies. And they are specifically in terms of lack of a standardized compendium. Standards that are implemented inconsistently where they are implemented, a lack of a standardized vocabulary and language process in many instances and standards that are pushed out prematurely.

So ultimately what this variation leads to are costs associated with the development and ongoing support of interfaces, which is an avoidable situation but prevents a barrier which can be addressed if the industry, and by that we mean all stakeholders, this is really important, not just those affected by the ONC Certification Program. If everyone collectively commits to following standards as they mature in response to current and new use cases that come to light. Although we would note that even with more consistent use of standards, there will always be investments necessary to cover work like data mapping and associated training.

We did want to comment on ONCs recent report to Congress on Data Blocking; of course this has been something we've talked a great deal about and we do agree that assessment of information blocking needs to be fact-based and needs includes perspectives of all the stakeholders before declaring that information blocking in fact occurred.

We believe that in most instances in which data flows sub-optimally, it's due to a combination of events that result in limited data exchange and that combination could include a misalignment of objectives or priorities, a lack of funding, or limited infrastructure. And of those, the lack of incentives to overcome the various barriers is the most critical one that can remove the perception and reality of information blocking. We think the concern about data blocking will largely resolve themselves as healthcare providers are actively interested in and willing to invest in health information exchange and seek needed products, functions and services from those who provide them.

It's really important to recognize that there are many different parties with which providers must exchange data; again Chantal touched on this. Providers need or want to exchange data with, you know even outside of the hospital as she mentioned the complexity there, multiple public health organizations government and private, labs, imaging centers, ambulatory enterprise and post-acute providers. And this variation in types of potential exchange partners, the associated health IT and the inconsistent or poor adoption of key standards that I talked about, again leads to costs associated with the development and ongoing support.

And the higher that desired cost is clearly tied to the high level of variability. The lack of incentive to overcome these and other barriers results in limited infrastructure to enable and drive interoperability and adds cost for the entire healthcare system. Ultimately we suggest that broad scale health IT interoperability will be achieved through models like those seen in financial services in which interoperable and sustainable data sharing networks emerge in response to market forces, not through government intervention. Those in turn that interest and the natural market forces will drive standardization and harmonization in terms of vocabulary, transport, etcetera.

The good news that we would call out is that generally there are quite a few areas where the progress toward broad interoperability has been widely successful, and we need to not lose sight of that in the midst of this desire to push forward. Those areas would include e-Prescribing, access to images, increase in utilization of Direct protocol to exchange information between providers and longstanding in the growing use of standards-based query models using IHE profiles.

These are examples of successful interoperability initiatives where challenges related to financial sustainability, governance, privacy and security standards and the integration of different technologies have been largely resolved. And a key area where we see good progress in addressing the financial and business areas is in the recent payment reform activity from both Congress and private payers, as well as from the Department of Health and Human Services.

Clearly there has been tremendous progress in programs such as ACOs, the Comprehensive Primary Care Initiative and readmission avoidance and CMS has also taken some great steps such as the Chronic Care Management Incentive that was introduced in the 2015 Physician Fee Schedule. And, of course, we all keep talking about the implementation of MACRA, because it would seem that it will present a very unique opportunity to move virtually all eligible professionals into value-driven programs that are going to rely on a backbone in health information technology and data sharing.

So our suggestion in response to these steps already taken, and this is the message we hear repeatedly from our clients is that we need to allow some breathing room for these changes to be implemented and to see what results come from them before adding new, prescriptive policies to address Interoperability and/or data blocking. A light touch national framework, if you will...

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

Leigh?

Leigh C. Burchell – Vice President for Health Policy and Government Affairs – Allscripts

Yeah.

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

Can I just...how long...we're over time, so how long did you have left?

Leigh C. Burchell – Vice President for Health Policy and Government Affairs – Allscripts

I'm wrapping up.

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

Okay, thank you.

Leigh C. Burchell – Vice President for Health Policy and Government Affairs - Allscripts

So the light touch national framework that I mentioned, which would emerge out of both public and private sector efforts to provide guidance is key to making progress towards our shared interoperability goals and we would emphasize that any government oversight in this area should focus on areas where the private sector cannot accomplish key national goals on its own. For example, federal recognition of high priority mature standards as guidance for the industry and such oversight must be designed and implemented in ways to do not hinder innovation. So I will end it there. Thanks so much.

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

All right, thank you very much. Okay, let's go back to our...Steven Stack, from AMA.

Steven J. Stack, MD – President – American Medical Association

Hey Paul, how are you?

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

Fine, thanks.

Steven J. Stack, MD – President – American Medical Association

So I'm going to start a timer and I'll stop at 10 on the button.

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

Okay, thank you.

Steven J. Stack, MD – President – American Medical Association

So, you've got my slides there, if you go to the next one please. Given 10 minutes, I was going to highlight just three things. I think first that data exchange is being driven by meaningful use requirements not by clinical and patient care requirements and that is a challenge. Second, there are significant and ongoing costs of data exchange and these are prohibitive. I think both Chantal and to an extent Leigh mentioned some of those elements.

And third, there are concerns with protecting patient data. HIPAA is complicated and unevenly and inconsistently interpreted and understood and this creates problems both in privacy where regulatory aspirations which would be the...and clinical aspirations, the free-flowing use of information available to those who needed to care for patients and patients who needed to care for themselves is the aspiration. The regulatory requirements are in conflict with that where the penalties inure to the providers and HIPAA entities if there are any issues after the fact that that privacy was not respected or breached.

And then for security, as a separate issue, I think physicians are particularly concerned if the US government, Fortune 500 companies and large health systems are unable to secure data, as is evidenced in the nearly weekly news reports of data being breached. I think they have great concern about the risk to themselves where there's reputational risk and substantial financial penalties that come directly to them for any breaches. So if you go to the next slide, I'll go just a little bit more deeply into some of these things.

For the mandated meaningful use measures, there are a number of elements in there and some fairly complex and they're not necessarily designed in a way that helps the clinicians using them. One example might be the transition of care measures where information is sent from the referring physician to the specialist consulted, but there's not necessarily a closure of the loop with information then coming back from the consulting physician back to the referring physician.

In our Town Hall meeting, we solicited...on EHRs, we solicited feedback online and reams of feedback we received and some people had commented that the type of data that goes in C-CDAs or other documents that go out is a morass or a high-volume of information often that goes directly to the physician, but is not in a usable form for the receiving physician and which they don't particularly appreciate getting because they don't find it helpful. So, it's not that the sharing of data is undesirable, it's that the way that we design essentially to the Meaningful Use Program and then mandate it in order to fulfill Meaningful Use is not useful for the clinicians. There are other examples, but I'll move along. There are prohibitively large costs charged to physicians, and I think Chantal did a nice job showing the complexity involved. It costs a lot of time, money and then human effort to design these connections between all these different spokes and hubs and that is a barrier because physicians are strapped, who are in office practice, and there aren't resources to do that. And when you have a large entity like a hospital or a health system, you're going to look to connect your bigger satellites before you work on your smaller satellites, because there's only so much money and bandwidth to go around. So this continues to be a challenge.

I would also say in this regard physicians truly have limited, sometimes nearly no purchasing power or influence in selecting electronic health records. Large health systems on the facility side often have leadership teams in place, physician and IT executives and then perhaps engage with a smaller subset of clinicians, but the vast majority of physicians have no direct input or contributory or participatory role, so there is the complete absence for most of them to any kind of purchasing power or influence on the way these systems are purchased or deployed.

And of course when you go into the ambulatory setting to smaller physician practices of anywhere from one to a few to less than 10 physicians, in those settings they largely have to buy so called "off-the-shelf" products and there's not nearly as much opportunity to try to customize or tailor stuff because it's cost prohibitive of just not doable and quite honestly, they don't have the bandwidth themselves to do it.

I've already commented on the technical aspects of establishing multiple connections between disparate systems, which have not only economic but IT challenges. And I would say in the positive here, we're hopeful that APIs could potentially help to improve the situation, but it's not yet certain how far that will go and how helpful that will be and what the final costs for that will be. But I think we're hopeful that directionally that there could be some benefit and value if we are able to move forward with more open APIs and create a competitive marketplace for applications that overlay these other larger legacy systems where they can both provide their useful value but the differential value.

I've already commented about HIPAA and that is a serious concern. I would say that the average physician would feel that the record is more secure from their use as a clinician than it is from somebody in Korea or China because apparently they are able to get into the systems whereas we have a hard time keeping up with our passwords changing all the time and the other barriers.

If you go to the next slide, please; I'm sorry, I kind of didn't advance these, can you go to the next slide. These are all there just for the workgroup summary after the face. There's the privacy and security and if you go to the next slide please.

So here I think is a central theme that the goal really, and I think we would all agree on this, is not merely just to push digital paper so-called back and forth, but to actually exchange useful data that supports care, that enhances care coordination and facilitates consumer engagement. And in this regard, I would suggest when Chantal shows very nicely the complexity of connecting all this stuff together and it's no surprise to I think anyone on this call, either in-person or listening remotely, that we've raised concerns from the AMA about the complexity of the Meaningful Use Program that when there is such cost for each one of these use cases and transactions to bring it to life and make it effective, that it is really incumbent upon us to be very discreet and selective which ones are truly high enough priority to justify all that time, effort and expense so that we can try to get it up and running and consistently used across the nation.

And so in this regard, things like laboratory data, imaging reports for radiographic studies, medication history, those sorts of things are truly high-yield because a clinician in possession of those with a patient with whom they can communicate has really most of what they need to get stuff done. Perhaps a little bit better to focus on some of the higher use scenarios first and then as we get the system built out over time, come back and fill in some of these other gaps or let the market actually fill them in based on people's needs.

The other thing is that, and I've kind of touched on this, that the current generation of EHRs are built really to fulfill these data exchange requirements that meet the letter of the law, they have to because if they don't, they're not certified electronic health record technology. And then this again goes back to the challenges that they don't necessarily always share things the way the clinicians want or need them because they've got to make sure they're certified and there's only so much time and effort to go around.

This has the perverse consequence though of doing the last line on the this slide which is, making certification a ceiling rather than a floor for electronic health record systems, because once the certification requirements are met there may not necessarily be a compelling motivation to go beyond that or to design other use scenarios at the request of the client base. And again, I don't intend to throw anyone under the bus when I say these comments; there's also only so much bandwidth to go around to do all these things. And if you could go to the next slide, please.

So what we would suggest is in the short-term there's a need to bring really immediate relief to patients and physicians and I think in this instance it's really the physicians and to incorporate some of the key proposals that are in the proposed 2015 certification regs into the current system, such as the three bullets here, greater transparency in the products and their costs, more focus on user-centered design, better in-field surveillance to see how the tools are actually operating in the real world. And trying to move towards APIs and narrowing down some of the C-CDA requirements and the content so that it's more consistent and usable.

Over the longer-term, there's a real need to shift focus from certifying EHR functionality to more rigorous testing for actual usability and real-world interoperability and there's a need to move from systems that just count what a provider did to one that's more focused on innovation and moving to newer delivery and payment models.

I'll conclude by saying that in listening to the data that was presented at the top of the call, I found that very interesting because I can imagine how some of those questions might be answered, because it looks like we're almost there, we should be well on the way. But I'm in a city of 300,000 people with three major competitors, one academic center and two private. To my knowledge none of the three of them exchange any data electronically between themselves. They have a 150 physician private medical group that does not exchange any data across the three of these and if they do, it is perhaps such a limited use case that they can say, yes they do, but none of us who are practicing make use of that.

The one big private hospital shifting from an existing vendor to a new vendor and we use one of the large legacy vendors, they're all certified and I would say we all probably do have the capacity to exchange information but it's not happening. And while I have a lot of frustrations, one that I don't have is I don't get the sense it's because the executive teams are trying to corral data and keep it from each other as competing hospital systems. I think it's just the complexity, the difficulty of doing it and the struggle they're undergoing just to keep the systems working for their own clinicians in their own facilities.

So, I think that where I see it in the real world is quite a bit further from what the data at the top of the call reflected and I have a hard time reconciling my experience with that data. Paul, thank you very much, I've gone a little over a minute longer, but thank you for the time.

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

Thank you, Steven. And finally, Charlene Underwood which as I mentioned at the beginning has a long history both in the industry, amongst vendors and EHRA and with our FACA committees, so...and she's now retired so she can take a global perspective on the issue and help guide us to where we need to go. Charlene?

Charlene Underwood, MBA – Independent Consultant

Hey thanks, Paul and committee members. As Paul mentioned, I'm pleased to offer my testimony; I have been committed to the industry, if you will, from the vendor perspective on the dark side for my professional career. But I've also had other chapters in my history that are probably a little bit less obvious. I'm going to step back just for a minute; I think you'll see the themes that I have actually correlate fairly well with our other speakers, but I do want to, if you will, take a moment to learn from history kind of moving forward.

So about 30 years ago, we cared a lot about helping our customers get lab results into clinical repositories and standards were emerging, ASTM was out there, there was a fledgling HL7 organization and at that point in time, it made sense rather than to write a different interface to every single lab system to agree on one. And so leadership came forward and it was backed by the vendors and the vendors stepped up to the plate and worked on standards to advance the use and deployment of lab results in clinical repositories.

Now fast forward and most of you are going to remember the early days of e-Prescribing when even getting trading partners such as small pharmacies and getting vendors to the table and getting them through the certification was always a challenge. So, you know the bottom line was there was a learning curve. But the vendors came to the table, the trading partners came to the table and today Surescripts with more than 700 e-Prescribing applications with...across 300 vendors; so great success. And we've seen that in the data in terms of the increase in e-Prescribing, in fact, we can't even imagine having to use paper prescriptions anymore.

But there are some key factors that made this successful and one was that the Pharma industry came together and actually founded the concept of having a common exchange that worked on a very basic use case. And by using...to prescribe, to do refills and in doing that then established a network where they could get others in the industry on board with the ability to be able to share data. Again in that particular case there was a lot of transparency around the status of certification of the different vendor products as well as providers could track what they could exchange and what they could not exchange.

Market demand was created by physician incentives to use e-Prescribing and implementation and use followed. And I think, again as the other speakers have alluded to usage, is going to be key in terms of getting interoperability to work. However even today, after all the success note that the usage still focuses on fairly basic transactions, because getting to the more advanced stuff takes work, takes time, takes deployment.

Last week you heard from MedAllies about the progress being made with Direct over the past year, and I think this was alluded to in an earlier testimony. Last year it could take several weeks to connect to a provider and today it takes days. And the reason I talked with MedAllies was, okay, they're working across these different vendors, what's their experience? Are the vendors not coming to the table? Well they are coming to the tables and they're coming to the tables because the clients want to exchange data in support of Meaningful Use and these emerging value-based models.

And sometimes, when the vendors come to the table, they come with the wrong solution and in those cases, the customers...the clients get really upset with them and they make their voices heard. So we need to acknowledge at this point that the vendors are listening and they're scrambling in some cases because there's so much optics around data blocking and it's quite visible. So, and to be noted, Dr. Blair said, even with this progress, Direct is not the endgame and improvement in these exchange elements, and I think Steven alluded to that, needs to continue. Do we need a constrained CCD? What is it that really is going to make this work and have it deployed?

And I share these examples because context is important. In these cases you're going to see that the vendors are rational players, they're responding to their client needs and market demand. HITECH was a huge signal that the government was willing to spend \$30 billion dollars for adoption meaningful use of interoperable EHRs. So Stage 1, the requirements were fairly low, a lot of companies came into the market to participate. And Stage 2 was more stringent and the vendors continued to invest, and it's kind of that's the question that we're leading to is, how should customers...how should vendors be incented to engage in HIEs and interoperability. And there's a simple answer, make the providers, our clients care about interoperability and the vendors would care.

This doesn't discount the complexity. However given the current regulatory demands and timeline, it's a thornier question; so here are some of the business facts that we're trying to deal with as vendors move forward. First of all, the HITECH money has been paid out, you know and market is at 80 or the fact earlier we're 97...80-90% adopted. So the vendors have to really look at where future sales and revenues are coming from and they have to consider how earnings are going to be achieved. And so where are we going to funnel these investments? It's a zero sum game, where are we going to invest our resources?

Vendors are working on other regulatory requirements, we've got ICD-10, we've got controlled substances, there's a lot of content in Stage 3, introducing more certification requirements. There's pressure that the providers won't use those, you know that's not a win-win scenario in terms of getting providers in terms of investment. With the advance of these value-based models right around the corner, providers are really interested in this concept of a EHR2, you know how will they manage panels of patients? How are they going to risk stratify? So there's this disconnect between payment policies and interoperability. So while all of you on the panel get why interoperability is so critical to these new models, the focus is not yet on effectively managing those individual patient encounters.

Lastly, the interoperability process we're facing, I think that's been stated over and over, are hard and they're costly to solve for. So it's not like the Surescripts scenario where there's one network, it's visible, it's...the Pharma's industry together, they're managing it, you know, they're rolling out for very specific business purposes. So given all that variation, it makes investing in development fairly unappealing; you know if you've got a direction and you know it's going to get used and you know the providers are going to want it, then you're going to do it.

And so, you know that's the bottom line, as evidenced by 30 years plus of investment in interoperability their willing to invest as a means of responding to problems that our clients are trying to solve and willing to pay for. Market demand for real function that requires interoperability would create those right incentives.

The next question is what strategy would you recommend for achieving Interoperability across the country? Is it a single strategy? So as evidenced above, I think we can learn some lessons. Achieving interoperability and the use of standards in practice is hard, takes time and will improve incrementally over time. Getting the network in place and it's governance, and that's been alluded to; how are we going to get the plumbing in place and make sure it's secure, make sure the business agreements are in place is a prerequisite. And so a lot of work has to be done and is being done to get the plumbing and the pipes laid.

Limiting the use case, the scope, the standard, make sure it's robust having a single source of ownership, process transparency, automating desired, highly desired business processes are all elements of a successful formula to bring to scale. And lastly, vendors are rational players and they're going to respond to market demand.

So, some specific recommendations are, you know make providers care about interoperability, and that's been said I think numerous times. But also recognize that right now as we move forward to these advanced payment models, there are going to be opportunities to align those with interoperability advances. So for instance, one of the challenges is you can't just plug a computer in and expect it to connect; you've got all that other work to do. If that work can be integrated into transforming a business practice, such as okay, now you've got to be able to do e-referrals or send out care record summaries or that type of thing, then that can be put in context and it makes more sense to put it in the context of the workflow. And then potentially these transactions will be used...measured.

I think we've got some measures that were presented but it's not clear. You can't manage what you can't measure so we need that framework. In fact, the new public law directs the Secretary establish metrics for information exchange, but one of the key ones, and I think that was alluded to, is we have to measure usage. There's a lot of exchange happening but potentially no one's looking at all those continuity of care documents that are exchanged. So again, measuring it...what was used is going to be critical.

If we could, this is really hard; could we create the single source of truth? How do we bring together the information about vendor certification, compliance deployment and report that and make it available? And I think that was included in some of the recommendations Chantal had. Establish governance that is stakeholder driven; so it can't be just vendors talking about this. You now, the people who have to live it, drive it; providers, payers and patients need to be at the table. And lastly, legislatively there are going to be some bad actors so there may need to be some consideration of a lemon law.

I'm going to finish up here, so what would we recommend to facilitate vendor business models? Again, we've talked about the degree of variation all over the case, I mean, that's been presented and again, so in the context of that, what would help is to recognize, this is a zero sum game and if there's a way to focus those IT resources on the high-value elements of exchange, and this includes providers and vendors, then we should have more success. There's some low-hanging fruit. There's some potential out there ask for private-sector leadership in maybe establishing that trust network and framework different vendors are deploying. You know a legal framework for their providers to use maybe that could become a de facto standard. And then lastly certainly, if all that can happen, really leverage the drive toward these value-based models to make clients care about interoperability. Because it's going to be a heavy lift to get there and they're going to need to make...need interoperability to make care efficient.

So in closing, just let me assure you that those of us who work for vendors, we have loved ones and we're patients, too. So because it affects us differently, we care deeply about interoperable healthcare and we really want to be at the table, to be part of the solution and not the problem. So thank you for the opportunity to testify.

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

Thank you, Charlene; that was a wonderful perspective taking into account all the experiences you've had.

Charlene Underwood, MBA – Independent Consultant

Thank you.

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

Well, let me open it up and...let me ask first, Helen Burstin, are you able to go...to start beyond the 1:45 time.

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

Yup, I'm fine, no problem. Take your time.

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

Thank you, thank you. This is, as you can tell, a very interesting discussion and I think what Charlene mentioned really leads into what you're going to say, Helen. So let me open it up to comments. Mike?

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

Yeah, hi. Thanks to all the panelists, great discussion; excellent synergy between you and really clarifying. Really simple question, I didn't hear people talking much about the issue of competitor advantage and I'm not saying that as a criticism, I'm actually just wanting to clarify what I thought I heard at least a couple of you say which is that your perception at least in the hospital and vendor community is that there doesn't seem to be much substantial rationale for not exchanging data based on competitiveness between either vendors or hospital systems organizations. Would each of you say that's the case or would you like to make additional comments?

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

Yeah this is Chantal, and I'll speak to that. We actually took the concept of information blocking out to our regional policy boards, which includes almost 500 hospital executives across the country and asked them about this question. And what we got back was first, we've got to make it easier to share the information before we start accusing people of not being able to...or not being willing to share it. But they really felt like given the new models of payment that are coming down the pike, that the block is more in being able to share versus not being willing to share.

I started with the priorities and the principles which for the AHA are that information needs to be shared for care and information needs to be shared with patients. And I think from our view, nothing should stand in the way of that in terms of willingness. And right now we have some real technology questions about being able to act on that, but really information needs to flow to support care and to inform patients.

Steven J. Stack, MD – President – American Medical Association

Paul, this is Steven Stack. I would say that from the lens of a physician practicing in a large health system, they are struggling just to keep technology up and running. They can't get...they had a co-bid BID years ago before we deployed this system a little over two years ago from two different vendors. They can't even get their ambulatory setting and their inpatient setting to communicate with each other and that's within our own health system.

I just...I'm not saying there aren't bad actors out there, but I don't get any sense of active intent, I'm sorry, I should direct this to Mike, active intent to silo data from other facility competitors and I certainly don't see that from the physicians. The physicians would be happy to share it with each other overwhelmingly, if only they felt that they technologically could do so very easily and/or the data was of value the way it was sent to them and/or if they could afford it. And I think that those are the big barriers.

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

...go back a little bit on what Mike asked. So you heard from the vendors, EHRA and Charlene saying well, one recommendation is to make providers want to share. And then the vendors said that they will follow the customers if they really want to. From the provider perspective, whether it's AHA or AMA, is there either a perceived lack of needing to share or how is that not communicated to vendors? And then maybe I'll ask the vendor perspective of, how are you not hearing that providers don't need to share?

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

Yeah, so this is Chantal; I'll just reflect on the level of use of fax machines to indicate that yeah, providers want to share and are sharing. And I think the...it's a challenging problem, no question. But how do we focus in? And part of it I think is focused on the exchange that matters most so that we can make progress there and keep making progress. I thought it was great that Charlene took us back to those pretty narrow information exchange scenarios where we've made a lot of progress. And so what's the next one we can bite off and the one after that and the one after that? And how do we all swim in the same direction so that we get the network effect of the data is really flowing and everybody has what they need when they need it?

Steven J. Stack, MD – President – American Medical Association

So Paul, it's Steve again; I mean, take the Surescripts network. There is one network for all electronic prescribing across the entire nation. When you ask physicians what do you like about electronic health records and the technology, electronic prescribing comes to the top of the list consistently. It generally works, there are still things that could be improved, but it generally works. It's highly reliable, it's very consistent and it's even pretty consistent across different deployments and different EHRs. That might be like a Facebook kind of approach, you know, there's a single platform, if you log on you are completely interoperable immediately, just by creating a user name or user account on Facebook.

It's very much the opposite of what we have when you're trying to take different lab information systems across all sorts of different settings and interconnect them, when you're trying to take a number of different vendors providing different EHR products and connect them all, just because it can be done technologically does not mean that it is easy to do or effortless. And in the Facebook world, you don't have HIPAA with huge penalties. And look at all of the big health systems that are getting very big black eyes in the public when their big data sets get breached.

So I think that there is a natural and understandable caution to large entities who do this. And my last point on this would be, when we went live with the EHR, I was presented with a seven, I can't remember, it was at least seven pages, it could have been 10-12 page legal contract that I was asked to sign by a health system that at the end had me agree to indemnify a 1.6 billion dollar statewide health system if there was any breach using my account. I mean, I think that there's real concern and a need to proceed cautiously, and complexity does not help us trying navigate that comp...you know, those concerns.

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

If I could flip that to the vendors; so Chantal's example was pretty interesting, the fact that people are using all kinds of means, including FAX, shows that they want to, then doesn't that addr...so where are you getting the impression that vendors...that providers, your customers, don't want to share and how does that not incent you to do more than just check the box for regulatory compliance? And then maybe somebody can comment on Steven's point about having a single network, the example was Surescripts in the e-Rx domain; would vendors agree with that? Would that be your answer as well?

Charlene Underwood, MBA – Independent Consultant

Let me comment a little bit on that one, Paul. Again, I think as we look at just the landscape of everything that is on the regulatory front, as well as the fact that there is incentive to do minimal exchange, but not really link the exchange to use because it's not making a difference at the end of the day, they don't need it for value-based purchasing. And there are those things...I think Chantal said that that they must do versus that they have to do. You know, even the patient engagement stuff, which at the end of the day they had to do and they actually liked it at the end of the day because it made a difference and so that worked.

But again, I think we're in that scenario where they see value-based purchasing coming, they know they've got to understand their population. They've got to get their arms around it and there's a bandwidth and so that specific encounter encounter exchange, that kind of stuff isn't...doesn't come to the top in terms of how they're going to optimize and improve it because it's hard. It is really hard to do, you've got to build your plumbing and you've got to get the legal frameworks. You've got to talk to all your trading partners, you know and the more, you know, if we choose one that we want to get right and we continue to focus on it, then we can improve it and then we're going to get it rolled out. If we add a lot more, you know, a lot more things to do on the table, we're not going to get the traction that we need.

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

Leigh?

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

Paul, Leigh had to drop off, just so you know.

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

Oh Leigh did, oh, okay.

Charlene Underwood, MBA – Independent Consultant

Your other question, Paul?

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

Yup.

Charlene Underwood, MBA – Independent Consultant

Oh, single network. No, so when I reflect back to what Chantal said that said okay, or was it Chantal...care is local and, I don't know if that was you Chantal, one of our previous speakers.

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

(Indiscernible)

Charlene Underwood, MBA – Independent Consultant

...and it's regional, it makes it harder in this scenario, but there is the emergence of some national networks for instance, Direct is a national network, but again, it's just Direct. So I just think we're very early on the process. If you look at financial, there are multiple networks, but there is an overarching body, WEDI, and the standards around that that have solidified those respective networks so they can interconnect. So there are a couple of different models out there I think that will work, but the principles of having robust standards, very narrowed and specific use cases that improve practice and improve business processes; all those things really make learnings that make this stuff work in the longer term and scale.

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

Thank you. Larry?

Larry Wolf – Health IT Strategist – Kindred Healthcare

So hopefully the airport overheads won't be too obnoxious. So I hear us chewing over the same set of questions here in some ways around how do we get to scale? So we've been looking for common frameworks that are somehow both minimal but broadly enabling. We've been talking about the e-Prescribing as sort of a success story, but I talked to some pharmacists this week who are pointing out that the writing of the prescription has been remarkably successful; they don't want to minimize those successes. But things like sending the message to cancel a prescription or having a pharmacy sending a refill request...or notifying a physician that refills have been provided to a patient as a way of tracking use and compliance or that a renewal's been requested for a prescription that those transactions while they computably work within the same network and use the same endpoints, actually are highly problematic and there's been very slow forward movement on those. So it sounds like even in our area of in some ways greatest success, trying to broaden that use case is running into operational barriers.

So, and I want to pick up on this local use case piece because I sort of feel like that feels like it's sort of struggling with this as well. There are compelling local initiatives where providers, for example, are spending a lot of money on getting a local health information exchange up and running to provide a community repository. And while they're not happy spending all that money, they're willing to spend it because they see the value in creating a common clinical repository that they can use for new payment models and better...providing better care.

So it's not even clear that cost is a barrier necessarily on the providers scale but I think scale is how do providers really start to get scale out of the investments they're making. And we have the FAX is the common thing we keep looking at or some simple Internet usage as a common model to look at and those are really very simple...very low level enablers. And as soon as we start to layer in the least bit of complexity, there really is a lot of fragmentation out there across industries.

Charlene Underwood, MBA – Independent Consultant

Um hmm.

Larry Wolf – Health IT Strategist – Kindred Healthcare

So, I wonder...and one other piece I guess I want to toss into the mix which is, and I didn't hear anyone bring this up but I was offline....when I went through security. There are vender-centric exchanges and I don't want to...I think those are neither good nor bad; they're demonstrations of a way that vendors and providers can get scale. A vendor knows their technology, they have a set of customers, they're in long-term relationships with them, they can work out one legal agreement that can then span that whole vendor's customer base and that those become, I think in many ways, key enablers perhaps of cross vendor interoperability potentially. And some of those are geared at trying to create shared records if you will, some of them are local like leveraging lab interfaces so do a lab interface once with this vendor and then your lab can now send result to any of that vendor's EHR customers.

So, I know I'm tossing a lot of things out there but I guess I feel like we're sort of struggling for how can we better understand where there are core elements of a framework that are either in place or beyond a concept phase that become building blocks that we could point to...as this is a model that you should build on and use or this is a place where regulation might be helpful.

Charlene Underwood, MBA – Independent Consultant

Right and Larry, this is Charlene. Kind of to comment, too, I mean I think there's opportunity to a chal...again, the private sector clearly understands the objective to get to that national interoperability by 2015, I mean, and that's in the law. So given that, you know challenging them to say are there ways that we can use some of these legal frameworks such as you recommended as the de facto standard and not be afraid to talk about that. You know and again, I think that's where there's some competitive advantage or disadvantage, but these should be public goods, if we could get to that conversation.

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

Okay, is there any...okay, looks like Julia is next.

Julia Adler-Milstein, PhD – Assistant Professor of Information, School of Information; Assistant Professor of Health Management and Policy, School of Public Health – University of Michigan

Great so my question was, I mean, I think we've consistently heard that aligning provider incentives are going to be a really powerful driving force here and I'm curious for the panelist's comments on whether that is going to be enough to bring vendors along or whether we're going to need sort of a parallel set of incentives for vendors. And I ask because I think we've heard many times that right now, you know vendors do make money from achieving Interoperability when providers ask for it. And because we know that there is vendor lock-in right now, it's just not clear to me that provider demand will be enough to really shift the vendor business behavior and the cost and complexity that's introduced. So, I would just love comments on whether we need to sort of think about both stakeholders in parallel or whether we can really focus on providers and shifting their incentives and that will be enough. So, and I think, you know, would love anyone's comments on that.

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

Yeah, this is Chantal; I'll start. And if you look at our Interoperability Advisory Group report, I think we were trying to look at each stakeholder and put forward, you know what does each stakeholder need to do? The consensus in our group was that the policies moving toward advanced payment models will have enough sway in the provider community to get the data moving that and just ethical obligations to share data for care and inform patients. And when it came to the vendor side, I think there is a statement in the report about making sure that vendors align their business case with the needs of their customers so that information can be shared efficiently and effectively without repeated and expensive tolls for creating interfaces and completing transactions.

Now, how we get there to having aligned business cases, I think is a really good conversation for this task force to have. Some of the tools that can help that are much greater accessibility to testing and robust testing. So once we really have those standards nailed down, we have a lot of transparency into how vendor products actually support Interoperability.

Our task force recommended to ONC that they really build out transparency metrics on vendors that are parallel, they wouldn't look like but they're parallel to the provider or hospital compare or physician compare quality metrics that are out there where it's on the website, they're collected quarterly, everybody understands. You know, you can actually have groups take the data and create scorecards.

And so I think we see that transparency on the hospital side has led to behavior change and we think transparency on the vendor side could lead to some behavior change. And so I think for us, it's more rigorous testing, tighter certification and transparency that would be some really useful tools to help everybody understand the extent to which different products are really supporting interoperability.

Charlene Underwood, MBA – Independent Consultant

And this is Charlene, I want to actually just affirm kind of what Chantal said and kind of the conversations I had leading up to this. Again, there's a lot of support for needing to shine some light on what's happening. And I know there are a lot of questions about, well we want to see what's in the contracts but if we decide...and I think some of that's in the...in some of the new laws, too. If in the regulations as we define what those metrics are to compare vendors, the topics that she raised in terms of their ability...certification actually at the provider site, you know when some of this happens. I mean, I think all of those things will advance the cause and advance the quality of products that are coming out of this effort.

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

I wonder if I could piggyback on Julia's question, she...the...Steven Stack mentioned how physicians in particular as part of a larger group often don't actually have a strong influence on EHR selection. Julia mentioned how it is a huge investment and so you...to some extent, there's quite a bit of a lock in once you've signed up with a vendor. And Leigh's point about the market driving it and wanting customers to care more and yet we heard that providers do care. The question is the market would work well if it was an informed market...

Charlene Underwood, MBA – Independent Consultant

Um hmm.

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

...do...from the provider's side do you think you do have influence over the supplier or the vendors in this case? And is transparency even enough to influence vendor's decisions on where to make their development investment?

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

So I don't know if Steven wants to speak to that, but I'll share an observation that the...one of the consequences of the Meaningful Use Program has been a real change in the balance between vendors and providers because providers have to purchase the systems and they need them on an accelerated timeframe. And so there is this, where am I in the queue kind of question because if you don't get on the queue fast enough, you'll miss the Meaningful Use deadlines.

So there's a real, real sort of tilting of the tables that comes through a federal mandate to purchase a particular product. So we definitely see the effects of that and certainly the sunk cost, particularly for a large hospital system, you know, we are getting to the point where some of these installations are in the billions, well, one billion anyway, a couple of cases 2 billion across a system. And so you're right, that does limit leverage. On the other hand, transparency is a really good place to start.

Steven J. Stack, MD – President – American Medical Association

You know, I...

Charlene Underwood, MBA – Independent Consultant

And Paul, to kind of comment on that; if you even look at the Senate hearings and the optics there, I mean, you, you know as a vendor don't want to be in the crosshairs of creating data blockage at this point in time. So there, you know, as much as, I mean, there are benefits to having real-time access to information. So, there's a component of getting this whole effort to move because there is visibility of how HITECH and Meaningful Use are actually achieving its end goals and there are some optics on that and you're seeing behavior change as a result of that. So again, I think you need...I don't think there's a single strategy, this is a hard problem to solve, I think kind of what was laid out, you've got to keep all those pieces engaged to kind of move us down the road.

Steven J. Stack, MD – President – American Medical Association

Paul I'm going to...this is Steve; if I could offer two thoughts. So an executive from Surescripts in a meeting I was at in the last week or two commented how a handful of people got toge...or companies got together for retail pharmacy and decided in 2001 they were going to create an electronic network and there were no prescriptions electronically transmitted. And then 14 years later now, we have virtually every doctor in the United States is able to electronically prescribe stuff. That was one use case, one specific data stream, 14 years, all right? So and it's a great success to have gotten there.

I think we are losing sight of we're transforming a fifth of the economy and there are huge industries that are massive within a massive industry and I just think we're biting off way too much. And then when we're failing, we have only ourselves to blame for trying to do too much.

I'm going to put one other point too in context; \$30 billion is a lot of money, but it's not a lot of money relative to the healthcare spend. So CMS alone accounts for about \$880 billion dollars per year in 2014, 2015 for spend. If you take that over the four years of the Meaningful Use Program paying out incentives, 2012 through the present, and you have \$30 billion dollars out the door, that's \$30 billion over \$3.4 trillion with a "T" spent.

Charlene Underwood, MBA – Independent Consultant

Wow.

Steven J. Stack, MD – President – American Medical Association

It's only 0.9% of the total governmental spend; if you put it in the context of the entire health industry spend, it's a tenth or two of a percent of the total spend. I mean it's...so yes, it's a lot of money, but it is a relatively little bit of money relative to the size of the task we're undertaking. And now remember there are penalties in place and 52% of all eligible Medicare providers now, not hospitals but providers, are receiving a 1% penalty this year. So just to put it in the context, I think we dwell on over failing we're not getting it done. I think we need to put it in context...

Julia Adler-Milstein, PhD – Assistant Professor of Information, School of Information; Assistant Professor of Health Management and Policy, School of Public Health – University of Michigan

Um hmm.

Steven J. Stack, MD – President – American Medical Association

...the task we have undertaken is Herculean and we should have probably been a little bit more focused and adding more regulations and more requirements won't fix it.

I think that something that may help and it's a flawed program for other reasons, but think about the 30-day Readmit Program. If hospitals and physicians in a local community have to start worrying either...about not getting paid for care, it either becomes a game of dodgeball where facilities and clinicians avoid certain patients if at all possible, and I don't think any of us want to do that. Or they have to find ways to coordinate with each other and they're going to do that a lot better on their own, without the need to specifically regulate how they use the technology to share information.

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

Thanks. Christine, you have the final question.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Well it's hard to follow that point, thanks, Steve.

Steven J. Stack, MD – President – American Medical Association

Sorry.

Charlene Underwood, MBA – Independent Consultant

I had two quick, hopefully kind of quick questions; one is about standards and ones about framework. So, I think Leigh was saying interfaces are costly and they could have been avoided, we just lack standards or we lack mature standards. I feel like we've been talking about standards forever, you know, under Meaningful Use and I'm thinking particularly Meaningful Use 2.

We have some standard content method, right, so C-CDA for example. That appears to be working since 97% of hospitals can exchange data and 76% I think Vaishali said are exchanging with an ambulatory provider as well. So, they're exchanging some content, I can also download that and put it in an App on my phone as a patient. We had two transport standards in Meaningful Use 2, Direct and one other one. What's wrong in standards that are really specific to data sharing? Because I feel like, is this just a gap going from Meaningful Use 1 to certified Stage 2 systems? What is it?

Charlene Underwood, MBA – Independent Consultant

Umm, so Christine, this is Charlene. So where the variability happens is again I think tremendous progress was made by narrowing and locking down the scope of what was contained in the record. Yet there's still...and we tried to address the problem of what actually gets sent in the record. It's just that there's a lot of variation of use cases out there so when I send a document over, there's not provisions yet necessarily to import it and that data, once we import it, there's some of the data we can import but we can't import the rest of the data. So we're just on this continuum of starting to exchange and bring some of that data to scale.

So I think we're still early on in the process of putting the plumbing in, right; that's...made huge progress in that over the past years and then now kind of go countrywide. But the other problem is that as you look at what's being exchanged, and kind of what Steve was saying, how do we constrain it to be appropriate to the situation because Meaningful Use is pretty prescriptive and actually you've got to send it. Well it doesn't necessarily mean that you've got to use it.

And we're just still early on in that process in terms of, how do I best incor...I just let it sit there or how do I incorporate it into the workflow such that it can make a difference in care. And there are some gaps there yet, so those are some of the things. And the vendors are going to have to improve that if their customers are going to want to use those systems to actually improve the care delivery process and they'll have to figure out how to incorporate that stuff. But it's still early on in that process and then the standard will refine over time.

So that's just part of the process for improving the standard, constraining it, adding additional use cases to it in terms of different scenarios and that type of thing. And again, the more you move from Direct to some of the more advanced types of transport mechanisms, you can do queries and those kinds of things and it'll become more powerful. But we're just kind of at the beginning of some of that at this point time.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

And but Meaningful Use and certification have been helpful, but I think...

Charlene Underwood, MBA – Independent Consultant

Not enough.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

...what you guys are saying is, not...that there's not enough there and it needs to be better, or what Paul's saying is better, more testing...more robust testing and some transparency.

Charlene Underwood, MBA – Independent Consultant

Yeah.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Okay.

Charlene Underwood, MBA – Independent Consultant

And that's two pieces of it but also then in practice, you know the providers, and it's hard, but you know, Steve can...how do we come together and say well what's next? You know, so that's kind of like the governance needs to say, okay, well what's next is providers and patients and hospitals, kind of effort that Chantal did, this is what's next. This is where you need to focus your work as opposed to, you know, meeting this next set of, if you will, Meaningful Use requirements to really make this work in practice.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

So I think that's maybe speaking to my second question, I've heard two speakers talk about framework, I think Leigh said a light-touch national framework; Charlene you talked of a legal framework; what framework are you guys referring to that we need? Is it a legal thing, people don't understand HIPAA is not just about privacy, the "P" is actually for portability. What I...I wasn't clear on this framework idea.

Charlene Underwood, MBA – Independent Consultant

So again, I think, and I'm going to kind of touch base with kind of what Steve, I think actually what Larry was saying is there are data sharing arrangements out there right now and some of them are being adopted within...across vendor customer bases. And that's one of the obstacles, how do I get those legal frameworks in place? So potentially those could become de facto standards; again, but that may take some encouragement, so. KLAS is actually having a meeting where they're bringing the vendors together at the beginning of October and maybe there is some agree...so I think there's work the private sector could do.

I think from Leigh's perspective, what she was really talking about was, you know we don't want to put onerous requirements on, okay, the vendors need to do this, this and this to make it work. Because if we do, it might not be what the providers need, you know, you don't want the vendors talking to vendors, you want the...you want guidance from the people who are actually using the system to determine how we need to move this forward.

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

Well this has been very helpful. I want to thank the panel again and the task force members; it's been very helpful to have...hear these perspectives and hear some of the data. So appreciate your, and also the really short notice you all had. So thank you so much for taking the time to prepare and to participate with us.

Steven J. Stack, MD – President – American Medical Association

Thanks Paul, I'm going to drop off now.

Charlene Underwood, MBA – Independent Consultant

Okay thank you.

Chantal Worzala, PhD, MPA – Director of Policy – American Hospital Association

Bye, bye.

Charlene Underwood, MBA – Independent Consultant

Bye, bye.

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

And so speaking of incentives and pull, we're going to finish up this morning...or afternoon, with Helen Burstin talking from the National Quality Forum perspective and speaking also of convening organizations. How can we align people through the public transparent reporting to move people in an aligned direction that supports the advanced payment model?

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

All right. Great, thanks Paul, a pleasure to be here with so many familiar voices, I guess since there aren't any faces and happy to be, although somewhat lonely in my panel. So I'm going to focus in on the three questions that were posed to me just a couple days ago and walk through each of them. I did give you my full testimony, so I won't get into complete detail on some of these but happy to answer questions in follow up.

So the first question was really about do the current quality measures really defend...depend on an organizations ability to coordinate care and improve health status across organizational boundaries? And I just have to say, truly the answer to that is no. Most quality measures really remain very setting-specific and really do not reflect coordination across settings of care for many of the reasons you heard earlier from Dr. Stack, Chantal and others. Just as an example, medication reconciliation would be a great example of what could, in fact, reflect care across boundaries but in fact it's often not done with the actual information from the hospital of electronically in hand, instead it's actually done in terms of a measure as attestation.

Similarly there are measures...electronic measures that look at whether appropriate screening was done and then document whether a follow-up plan was documented. But they don't in fact, have any way of knowing whether the follow-up was done, which would have been far more relevant from both a measurement perspective but also back to many of the comments earlier, far more important because they would help to enhance clinical care.

There are some newer eQMs that are starting to push the boundary on some of these, but even these are somewhat limited, as we just heard from the earlier panel. For example the NCQA measure that looks at whether referring providers receive a report from the provider to whom the patient was referred, but not necessarily in the other direction yet. So certainly lots more work to be done there to really help us realize that goal.

And since I had the good fortune of chairing the Quality Measures Workgroup for the Policy Committee, we spent a lot of time talking about this specific issue. And we, looking forward, wanted to recommend a shift towards measures that would, in fact, enable a more patient-centered view of longitudinal care. And also measures that require systems to be able to communicate across settings and providers, i.e. the measures themselves would be able to demonstrate to us that the systems are helping to drive improvement. But as we did our work, in fact the absence of interoperability was the rate-limiting step to move forward. And what we're continuing to see is that there are still many measure workarounds that tend to divert time away from patient care that don't get us where we want to go.

The second question was specifically around whether there are incentives or endorsement criteria that could encourage the development of what's referred to here as HIE sensitive majors. And I thought it might be useful just to kind of do a little bit of a review back to 2010 when Paul worked with us to develop this concept of HIT-sensitivity. And really when that was initially conceived, the idea was that these HIT sensitive measures, built into EHR systems with accompanying implementation of some helpful and relevant HIT functions, like HIEs, interoperability and clinical decision support would result in improved outcomes or clinical performance. And a key feature here was really that these HIT sensitive measures would demonstrate evidence of improvement, not simply that measurement was possible in an electronic environment, which feels like much of what we have been doing in eQMs for the last several years.

And looking forward, certainly you could see how this would very much be a place I think you'd want to go, even if you look towards HIE sensitivity measures or interoperable...interoperability sensitive measures. And interestingly, when I went back to our old notes Paul, one of the measures we had highlighted as being one that might have high HIT sensitivity was in fact medication reconciliation. Because it was anticipated that interoperable systems would improve a clinician's ability to reconcile those med lists across hospitals and clinician offices. But to date we've seen, frankly, very little of either HIT or HIE sensitivity.

And at the end of the day, regardless of what we pursue in terms of measurements ability to assist here with clinical transformation, they have to be measures that matter to patients and clinicians and help drive meaningful improvement. And I think we can really focus on those key functions, I think will, in fact, be meeting the bar. In fact Dr. Stack mentioned earlier, the goal should be exchanging useful data that supports care, enhances care coordination and facilitates consumer engagement; so a fairly high bar there.

I think there are some important potential levers though in terms of measure development and endorsement. And certainly our role, as Paul mentioned, as a convener of multiple stakeholders at the table working towards consensus does provide an opportunity for an open dialogue and transparency. Interestingly, we've seen more EHR vendors join our table, I think as these issues are being discussed and it's clear that all of us have to be together at the table to consider how we move this forward.

Just briefly, NQF utilizes four criteria to evaluate performance measures and they're hierarchical quite intentionally because the first one is really about whether the measure is important to measure and report. Can it drive improvement? Is there significant variation or less than optimal performance? And if we're going to incentivize new eQm development, we should ensure that they are, in fact, going where the money is; go for measures where we can in fact demonstrate that variation or less than optimal performance in an area that's important and demonstrate the ability to improve health and health care.

And we should remember that measurement itself is just a tool, it's a means to an end but not the end in and of itself, which is why we place that at the top of the pinnacle of our requirements. And certainly as we look at new eQMs, it would be through that lens.

Secondly, if you make it through that first pass, then the second one is really about whether the measure is reliable and valid. We don't want to risk misclassification, improper interpretation for either providers or consumers and purchasers who are looking at those data to select providers. And a real concern within the EHR environment is we may still be seeing systematic missing or incorrect data in EHRs which frankly can pose a threat to the validity of eQMs.

The other criteria that we want to ensure gets looked at, practically for eMeasures is feasibility. And we worked with both ONC and CMS recently to develop eMeasure Feasibility Assessment that we now require all new eCQMs submitted to NQF to demonstrate, in fact, that the data elements they're using are available in EHRs. But even with that being said, those are often done in more idealized settings and the question is how do we in fact make sure that we incentivize adequate field testing? How are they performing in the real world? And that, I think, is increasingly becoming an important issue.

And also, what's the...how can we in fact perform these vital functions around measurement without having feedback loops from clinicians and hospitals to know whether measures are in fact having their desired effect? So I think more opportunities to engage end users in implementation and feedback should help us have measurement become more agile, adaptable and hopefully helpful.

And then lastly, we have a stated preference for outcomes and I think there's a real opportunity here to emphasize outcome over process. Over-engineering process measures into EHRs probably just limits innovation and doesn't terribly help overburdened clinicians and systems. So I think ONC and others have an opportunity to think about how we move toward measures that can, in fact, incorporate the voice of the patient, like PROs, but we need the right data platforms to help get that done.

So finally in my last moments here, what po...the last question was what policies would facilitate development of HIE sensitive measures or mitigate current barriers to development? And again, this has been one of Paul's mantras, but also one of ours, I think the focus here has to be on developing the measures that matter. The ones that we think would demonstrably lead to improvement that can be built into clinical workflow not interrupt clinical processes to enter data if systems are not interoperable.

And if these measures are built in with tools that can drive improvements, measurement will be more valued. And if you haven't seen it, just in my last moments here, there was a recent Commonwealth Fund survey released just last week that said half of primary care physicians reported that the greater use of quality metrics was having a negative effect on their ability to provide quality care to their patients; clearly an opportunity for all of us to do better. If there were meaningful measures here and perhaps more quality of measures over quantity of measures, we might, in fact, have a better opportunity.

So lastly, I think in terms of policies we should incentivize the development, testing and use of EHR measures in real-world settings. We need to...we find many developers who can't find EHRs that contain the data they need and I think there might be an opportunity there to incentivize those who attest, share and implement new and innovative CQMs. We need to take advantage of the data systems that are out there and create more hybrid measures across different clinical data sources to truly get at value. We need to also take it advantage of what we're seeing, some of the successes in some leading health systems who have built innovative measurement approaches. But we're still not prospecting from these leading health systems and we're continuing to reinvent the wheel rather than learning from the experience of those who have used modified and improve their own eCQMs.

And then finally, with an explicit focus on interoperability, these new eCQMs should demonstrate data sharing across providers in a manner that's meaningful to patient care. And I think that's a particularly important point going forward. We recently did some work funded by the Peterson and the Moore Foundations looking at systems engineering and data approaches that really again emphasize the importance of improving data and making it more useful for systems improvement, bringing together different...disparate data streams.

So in closing, the time is right. We've got to consider opportunities that can meaningfully move us toward the data we need for measurement improvement and toward the measures that won't just demonstrate that we can measure something electronically, but that are measures that in fact can be useful in terms of driving improvement. Thank you.

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

Thank you, Helen. Christine, you hand...is that an old hand or new hand?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Must be an old hand; thanks.

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

Okay, thanks. Larry?

Larry Wolf – Health IT Strategist – Kindred Healthcare

So one of the many thin...examples you used, and thank you for the rich set of examples and the breadth of your coverage, Helen. One of the examples you used is one that I tossed out earlier so, of course I'm sensitive to picking up on it. Could you speak at all to what's been learned about the issues around med reconciliation? So I know it's the process that's difficult but I'm wondering if there are any insights that you can offer about how that was seen as a potential good measure and where things became problematic?

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

Yeah, it's a great question, Larry. I think in the earlier days there was a sense if you were in fact doing medication reconciliation you would have the data streams such that you're looking at the hospital medications electronically and comparing it to what you have in hand. And in fact, at least in many of the ambulatory settings where I still see patients, what oftentimes happens is we're looking at a piece of paper, you know mimeographed pink sheet still from different settings and simply in the EHR attesting that med rec was done.

So, I think it's become a workaround essentially because the systems are not able to in fact do the measure I think as many of us hoped it would be conceived. I also know it's a pain point; we've heard about this repeatedly from many clinicians and others that it doesn't feel like it's in fact adding value.

Larry Wolf – Health IT Strategist – Kindred Healthcare

Okay, so I think that's valuable as sort of a statement to where we are, right? The data coming in isn't coming in electronic in a form that would be usable to do reconciliation with. And while theoretically it might be possible, it's not actually there in the clinician's hands.

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

Right, and certainly within health systems it might be, but again, I think what we're often trying to do is understand the ability in fact to look beyond a clinician and a hospital in the same system but recognize patients go to lots of different clinicians when they leave the hospital, as an example.

Larry Wolf – Health IT Strategist – Kindred Healthcare

Yeah, and I guess I'm also thinking that the complexity of the shared care that's happening in the ambulatory setting that there are often multiple different physician practices that are providing care; specialists, may be or may be not a primary care doc, primary care doc might actually be coordinating or might just be kind of triaging patients or maybe just providing overall support to someone who's seeing lots of docs, but may not be trying to quarterback the whole thing.

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

Right and even if they're attempting to quarterbacked it, they're pretty hampered since at least where I precept residents once a week, for example we may have a PDF scanned version of a letter from a doc, but it isn't as if there's anything truly built into the system unless they stayed within the system to see what happened. So, it's still pretty hard, we're still having patients literally sign the old release forms for ED visits and specialty visits outside the system and having them faxed to the hospital.

Larry Wolf – Health IT Strategist – Kindred Healthcare

Okay. Thank you.

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

Thank you; any other questions or comments? Well, I want to thank you again, Helen, that was so eloquently stated in terms of where we are, what's needed and the kinds of collaborations that are needed to get really at measures that matter that everybody would really want to achieve a high performance on; that's providers and patients and systems and vendors. So anyway, thank you very much.

Helen Burstin, MPH, MD, FACP – Chief Scientific Officer – National Quality Forum

Yeah, oh, my pleasure.

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

Okay, we have about half an hour to sort of recap a little bit and I think I'm going...people know I'm sort of a lumper. I'm going to try and sort of just draft out some of the things we heard from these two very rich days of virtual hearing, last week and today. And one...before I do that, I want to thank both the members of the task force who contributed both ideas and suggestions for names. It was a really fast turnaround and an extraordinary turnaround in terms of people getting invited and then agreeing to participate; all the members who talked to us both last week and today. And then finally to ONC staff led by Michelle in securing all these folks at the last minute, probably having to apologize all the way, but really it's been a very rich both presentation and discussion. So, I want to thank everybody involved. I'll try to start us off just with a recap, and this is just sort of a personal one and then have people sort of chime in. And where we're headed is to try to start sorting our thoughts; really like to sleep on things and then try to put them into better form, which we'll do at the next call which I believe is August 25. And we can move from sort of continue our summarization and the themes and what we've thought about after sleeping on it and move into recommendations.

Let me try to put together some of the thoughts that I heard in these two days. One, I think people really acknowledged from all stakeholders the directionality is correct, that is, where we're going with delivery system reform, that buy and large both understand it, believe in it and are wanting to go in that direction. But it will take time because we really are moving this 3 trillion dollar a year vector to a drastically different direction...in a drastically different direction and a different destination mainly.

That because of that, primarily driven by really we have to do a much better job in servicing ...serving the people and communities that are in our service areas, to get to a better place in their health and health outcomes. And we need to quicken the pace. The right thing to do is to move in the direction of making sure we have a coordinated care plan and that we execute against that.

There is another pull enabler, which is the aggressive timetable for direct delivery reform that the Secretary's laid out for us for the country. And that's probably a good thing because we do need to move with specific timelines in mind. And we heard certainly from the providers that really in the busy pace of healthcare and dealing with all the regulations that are added to it, people don't have a whole lot of time so they need to prioritize. They need to prioritize their time; they need to prioritize the resources. And frankly we heard both from the providers and the vendors that the priorities tend to follow incentives and penalties, so it's the carrot and stick approach.

From lessons learned both in and outside of healthcare, there are specific use cases that are common and high-priority that have specific technical specifications and implementation guides really help move the dime...get people to move in the direction and the simpler it is and the fewer numbers there are of use cases, the higher the chance that we'll all move together and quickly. It also helps with writing the quality measures or the performance measures on the other side because then you know exactly what's the problem to solve and how to get us to move in that direction.

So to do that it would be nice to automate both the...automate the detection of behaviors that are positive, people talked about behaviors, instead of checklists. So let's see if by having this...the information at your fingertips does it change the orders that you make? Does it change your responses in interpreting data? Do we have more accurate and complete med lists and problem lists? Rather than focusing on a very distant and Ann talked about this; readmissions is really...reducing readmissions is a goal, but the numbers are so small you can't tell that you're making progress on it day-to-day and it doesn't necessarily affect the day-to-day care.

So some of these things that can reflect changes, you can deduce that somebody took this information into account by looking at them stopping an order and changing it, would be not only really instrumenting what's...what are they doing with this information? That they did use the information, but also detecting that in an automated way.

People talked about the need for universal standards and reliable testing. So it's essentially taking standards really insisting on them and one of the ways to insist on them is to have robust testing to make sure people who say they're complying with the standard really is...that really means they are complying with the standards. Not complying, having minor variations introduce costs all over the system. They introduce cost for the providers, they introduce cost for the vendors and they certainly slow things up and most of all, they don't get the information to the place they need to be in a reliable and usable way.

So one of the proposals was to have transparency and surveillance; transpar...meaningful transparency to know just what is being done and who's not complying. You may get through the certification hurdle, but now you actually don't implement what you say you did. So there's really a more universal transparency and surveillance that helps inform a market because it's one thing to say, well the market will solve it; well only if everybody has the right information. And so right now, things are quite opaque both from a natural behavior point of view, but as Julia pointed out, pretty much people are locked in because of the size of the investment. So we really need to do a better job of making a lot of behavior and actual implementation visible in a meaningful and actionable way.

So a constant theme was that we need to align the incentives and we want to align the incentives for both providers, but not only providers, we really need to align the incentives for vendors as well. Vendors said that they follow their customers, but it's a little bit indirect especially once the Meaningful Use dollars have gone away.

A number of folks talked about the need for convening all of the stakeholders who are participating in this...the supply chain from delivering data to caring for patients and measuring what's happened to them. And it's interesting, I'm not aware of a forum; yes you have user group meeting for a particular vendor, but there's not really a major forum where the people who need to use this, i.e. providers and the beneficiaries including patients, and the vendors who supply the assistance for us to act on this data are in one room to even to talk to each other, let alone try to work together on solving the problem. Whether the problem is to have useful interoperability or to measure what really matters to the end person, the individual receiving care or achieving health.

So that might also be something we want to consider, could that...that's been something that we heard from almost every stakeholder. And with this...and the other thing we've heard about is this is really hard stuff, interoperability. It's not likely and we haven't achieved interoperability by operating in our silos, whether you're a provider, a vendor, a measurer or a patient, operating in silos isn't going to solve this problem. So by its very nature, we need to coordinate our efforts, not just our care.

So the notion of a national platform as Surescripts was raised as an example. It also was raised as an example of what started out with a handful or a dozen vendors in a sense. And likewise we heard from the local HIE organizations like in Michigan where you start off with a group, it's a multi-stakeholder and you need to get to a place of agreement; whether that's policy, technology, standards, but an agreement that this is what we need to do collectively. That's how it starts and I wonder if there is a national platform of standards, policies, technologies so that local exchanges can occur.

And finally Helen talked about HIE sensitive measures. It's really we're trying to measure the fact that real coordination; real coordination of care around the health of a population is accomplished. HIE is one of the tools to do that, but we really want to measure the output, not just the process. So again, even she talked about how we need to work together to create these measures that matter and not just have either the usual or the past measure developers working in silos or providers working in silos, we really need to come together, with vendors in fact, to come up with measures that are going to be meaningful but also efficient to calculate.

So that's sort of a tour, hopefully in a chronological sort of how do we start with are we going in the right direction? What's needed? What are some of the barriers that we heard about and a little bit hints from the various people who talked to us of solutions that can be done both in the private and the public sector? I'll just sort of stop there and let people chime in and offer their thoughts and some directions where we want to continue our discussion on the next call. Comments, questions, additions other thoughts? Mike.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Well Paul, it's Christine; I guess I had a couple of things. First I was wondering, we thought we were going to hear a lot of things about competitive issues and I'm not sure we did; I mean, what I heard was look people don't do it because it's really hard and it's expensive and there isn't a marketplace that would say, oh my gosh, we have to do this in order for this business case to pan out or whatever. So I don't know if we want to also include in that at least the fact that we didn't really hear competition as much as it's really hard and it's really complex and it's really expensive.

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

That's a good point and I think both Mike and Julia drilled down on that, we could not...it didn't surface from the people that were speaking, but it's a good point.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Right.

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

Umm, Mike? Oh...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

The other couple of points that I had were just I heard a couple of calls from speakers that may warrant discussion; one is desire for vendors to be more transparent, they talked about cost, contractual requirements, things like that, you know kind of better and cheaper interfaces. Connecting HIEs with each other was another one that I heard. I did hear more standards issues around either better standards or more mature standards or testing standards. One area that I think I heard more than any other was how to import the data. So, I can send it, I might be able to receive it but it's not really a seamless byproduct of care to suck it up, if you will, into my EHR and have a go into those places; it sounded like there was more work there needed.

But I did also hear that certification while there are improvements that need to be made that at least directionally the inclusion of data sharing/interoperability components in Meaningful Use have been a good thing. I mean, Charlene said that we've made a huge amount of progress and I think framing this in the beginning and being able to say look, we've made a huge amount of progress, but this is also a huge task and it's very difficult and complex and so that's the starting point and we need to understand that there may be little gran...you know, that's the big task and then we need to follow some particular pathways around care planning and things like that as well. So moving it in that kind of big picture would be another suggestion.

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

Fine. Mike?

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

So thanks. Dovetailing some on Christine's but also on another comment. So I definitely agree with that question about the ability to test the willingness of folks to exchange data while the barriers are so high. So I think maybe just a note to the fact that that is indeed a perspective of the panelists we talked to and that once barriers are removed, that may be our first real ability to test the issue of willingness and the metrics that you described earlier, which were great, I think will be part of the way that we can do that over time.

The other part that I was struck by and framed in a way by Dr. Stack that I hadn't really thought of before is that notion of are we underinvesting CMS or otherwise within the payer space, are we underinvesting in the IT requirements for change? If you use that framework of essentially 0.9% investment in health IT to improve care, one could certainly make the argument that we need to be careful to make sure there are enough incentives and not simply too many negative payment adjustments as we try to drive additional change.

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

Good point; other comments or additions? And Julia I want to ask whether you have any...I know you can't...you're in your car or something.

Larry Wolf – Health IT Strategist – Kindred Healthcare

Yes Paul, sorry, I apologize, I'm under a speaker for a minute here. Enjoy the reggae. So I'm thinking about sort of...where the pucks going to be. And so we heard a lot about new payment models, a lot of the new payment...manage care coordination. And I know in the wor...in my day job work that there's a lot of focus on getting good notification of a patient being at a provider for care whether it's a specialist or whether it's the ED or whether it's a discharge from a hospital, but you can catch them at transition and we have asked...and there's been some discussions still at a policy level about what do we do about facilitating that? And there seems to creation of tools out there in the wild that people are using without a whole lot of sense of direction.

So I wonder if there's sort of messaging in there that we can hear in terms of like e-Prescribing, maybe in fact some things are coming together. I don't know how much research we can do into that over the next couple of weeks. But, you know, wondering about that as an area to pursue of a simple use case, simple amount of data, maybe high-value, maybe it's already being solved and we should just give it credit.

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

Good point and maybe you want to put that forward next time as a potential draft recommendation. Other ideas? How about if I...let me propose a way of moving forward. As I said, I think just sort of thinking about what you heard, maybe if we work towards August 25 call as additional comments on what we've heard, but also start moving towards what are some draft recommendations or theme areas, based on what we heard and other evidence of what is going on in terms of interoperability or not.

I think it probably opened up a lot of our eyes in terms of, none of...I think we all appreciate it's complex but what are some additional insights that we've learned from...as a result of these two hearings and try to come up with thematic areas for recommendations. Now remember, this is a report to Congress, so it's not going to be way in the weeds, but along the lines that Larry just mentioned, there are some...and what Charlene talked about is, if you focus in on simple use cases, maybe that's the way to start the big ball moving through small steps and then start building up momentum.

Really start thinking about those things we'll discuss that on our next call on August 25. Does that sound like a good approach to folks?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Paul, it's Christine; I wanted to suggest one additional step which is...

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

Sure.

Christine Bechtel, MA –President – Bechtel Health Advisory Group

...I feel like we should all take another look at the Interoperability Roadmap because two hearings is interesting, but, you know to try to do a report to Congress I feel like we...we didn't have enough time to do a full, comprehensive, hear from everybody...but they did with the Interoperability roadmap. So I feel like that, you know, I'm not sure our problem is...or our scope is to solve the problem of interoperability as much as it is to say look, here are some of the challenges and barriers which might point to areas in which Congress or the federal government or private sector stakeholders might act. A lot of that is in the roadmap, but I don't think we're trying to solve the problem, right? I mean, we should probably have a good discussion of scope again but I just want to bring in that additional resource that I feel like is more thoughtfully considered and developed over a long lead time.

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

Very good point.

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

Hey Christine, this is Michelle. I just want to make sure you know that, I know you've made that comment before and it hasn't been ignored. We were working with Erica to have her do a presentation. But she then had her second baby, so we weren't able to coordinate that but we are working behind the scenes. So, just to let you know, it hasn't been forgotten.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Okay, well maybe we can send it around or there's someone else at ONC or whatever, but...

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

Yeah, and we're working...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Okay, cool.

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

So as you recall, we started out trying to summarize but not create new findings and recommendations based on the other three categories like technical and clinical. And we wanted to focus our attention on an area that we haven't spent as much time, the business and financial barriers and that's the...where we spent a lot of our time. To you point, we want to both sort of re-summarize what's already been...we've already said, tie it to the Interoperability Roadmap, as we...as proposed in the past and unify that and pull in this additional information about the financial and business barriers, does that...

Christine Bechtel, MA – President – Bechtel Health Advisory Group

And maybe sort of a brief circulate Paul the original piece with the findings as all the individuals summarized. I don't think we've put all that in one place; that would be super helpful in my opinion. And then the last request I have is leave testimony from today and Charlene, Michelle, I sent you an e-mail about this, I don't know who quickly we can get transcripts, but I'm sure that they said a lot that was useful and valuable, but as completely listen-only, so if there's a way we get that transcribed before our next meeting or something, that would be helpful.

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

This is Michelle. I just have a couple things to add. So we can work through process behind the scenes but what I believe that we are working towards is a summary document of the past work. We had talked about having an administrative meeting off-line to kind of work through that, make it a working meeting and summarize the past work.

If we don't need...because next week we have two meetings on the calendar currently, if we don't need the Thursday meeting for a public call, I was going to suggest that we use that as the administrative call to go back to that summary document. But, we can figure that out and Paul, I can coordinate with you.

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

That would be a good idea and as we went through, we did sort of make comm...is there going to be almost sort of a...do you have anyone working on the summary of the summary?

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

Yes, exactly.

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

Yeah, the summary of the summary and then we can work through that to try to distill some of the past work. And just to reestablish the context, not to create new work on that. Appreciate that, yes, thanks. Does that address your concern, Christine?

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Yeah, thanks. All of those resources will be helpful and I just thank Michelle and her team in advance. I know it's a lot and we appreciate it.

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

So things we'll be working on, we'll have a...we'll resend out the Interoperability Roadmap as we knew it; the reason I say it that way is because it's still in development. And sort of a summary of the summary as a context for coming in and working on the new areas in the financial that will be on our next call. Any other last-minute comments or questions before we open up to public comment? Okay, why don't we open up to public comment, please?

Public Comment

Lonnie Moore – Virtual Meetings Specialist – Altarum Institute

If you are listening via your computer speakers, you may dial 1-877-705-6006. And if you are on the telephone and would like to make a public comment, please press *1 at this time. Thank you.

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

I know David Tao would like to make a public comment, he's indicated he's in the public chat. I don't know if we have him on the line yet. David, do we have you?

David Tao, MS, DSc – Technical Advisor – ICSA Labs

Hello, can you hear me?

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

Hi, David; just a reminder for public comment you have three minutes, so please go ahead.

David Tao, MS, DSc – Technical Advisor – ICSA Labs

Thanks, David Tao from ICSA labs. There were many great points made during this hearing. I wanted to comment on the difficulties in usability that were mentioned by Steven Stack and Chantal Worzala. First, I believe MU2 is reasonably on target with the common MU data set but usability problems arise because there's been a lack of shared understanding and guidance on how to scope the common data. For example, no one argues the importance of lab results, but do providers want to receive 100 pages of every lab result that exists in the sending EHR, I doubt it? HL7 is working on a survey to providers to try to get specific recommendations on how to make the summary of care record not a morass, but rather a helpful, relevant and pertinent summary. So I hope enough providers will respond to that so that some guidance will be provided.

Secondly, I believe the industry hasn't given enough attention on how to import data in a usable way that was mentioned by several people. Med rec is required for MU, but most providers are probably still not even reconciling problems and allergies from external systems, even though that capability exists in their certified EHRs. And if just those three types of data are challenging today, imagine how much more effort would be needed to import and possibly reconcile other types of data like procedures, lab results, immunizations, family history, demographics and so forth. So, more attention needed there.

And finally, I agree with earlier panelists that we should learn from and fix these known issues similar to how e-Prescribing evolved to success, I believe the same can be done and make transitions of care, summary of care records successful along with lab results and public health, all of which are occurring but problematic today. So if we can take the time to improve those instead of moving on to something else, I think we'll be in a good place. So thanks for the opportunity.

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

Thank you.

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

Thanks, David and we have no more public comment.

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

Thanks, Michelle. Okay, well thank you to the task force members and we'll look forward to talking to you on August 25, where we will put together our thoughts on draft recommendations and discuss those. Thanks a lot now.

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

Thanks everyone. Have a nice weekend.

Christine Bechtel, MA – President – Bechtel Health Advisory Group

Thank you Paul.

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

Thank you, take care.

Public Comment Received During the Meeting

1. 1. (PART 1 of my comment): This is David Tao from ICSA Labs. There were many excellent points made during the hearing. Regarding the difficulties in usability mentioned by Steven Stack and Chantal Worzala. FIRST, I believe MU2 is reasonably on target with the data elements in the common MU data set, but there has been a lack of shared understanding and guidance on how to scope the data. For example, no one argues with the importance of receiving lab results. But do providers want to receive a hundred pages of every lab result that exists in the sending EHR? I doubt it. HL7 is working on a brief survey to providers, to get specific actionable recommendations on how to make Summary of Care Records not a “morass” but rather a relevant and pertinent summary, and I hope that enough providers will respond to it.

2. (PART 2) . SECOND, I believe that the industry hasn’t given enough attention to how to import data in a usable way. Medication reconciliation is required for MU, but most providers are probably not yet reconciling problems and allergies from external systems (even though the capability is required in certified EHRs). If just those three types of data are challenging to reconcile today, imagine how much more effort would be needed to import and reconcile many other types of data, such as procedures, family history, immunizations, lab results, demographics, etc. FINALLY, I agree with earlier panelists that we should learn from and fix these known issues. Similar to how e-prescribing evolved to success, I believe the same can be done with Transitions of Care, Lab Results, Public Health, etc. if we take the time to improve them instead of moving on to something else..

Meeting Attendance						
Name	08/25/15	08/21/15	08/14/15	08/07/15	07/29/15	07/23/15
Bob Robke	X	X	X	X		X
Christine Bechtel	X	X	X	X	X	X
Josh Mandel		X	X		X	X
Julia Adler-Milstein	X	X	X	X	X	X
Larry Wolf		X	X	X	X	X
Michael H Zaroukian		X	X	X	X	X
Micky Tripathi	X	X		X	X	X
Paul Tang	X	X	X	X	X	X
Stanley Crosley						X
Total Attendees	5	8	7	7	8	10