

Health IT Joint Committee Collaboration

A Joint Policy and Standards Public Advisory Body on Health Information Technology
to the National Coordinator for Health IT



Health IT Joint Committee Collaboration Certified Technology Comparison Task Force Hearing Transcript January 15, 2016

Presentation

Operator

All lines are now bridged.

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

Thank you. Good afternoon everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Joint Health IT Policy and Health IT Standards Committee's Certified Technology Comparison Task Force. This is a public call and there will be time for public comment at the end of today's meeting. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I will now take roll. Cris Ross?

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Here.

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

Hi, Cris. Anita Somplasky?

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation a Development Services – Quality Insights of Pennsylvania

Present.

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

Hi, Anita. Christine Kennedy? Chris Tashjian?

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

Good morning, Michelle.

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

Hi, Chris. David Schlossman?

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

Good morning, I am here.

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

Hi, David. Liz Johnson's not able to join. Joe Wivoda?

Joe Wivoda, MS, CHTS-IM – Chief Information Officer – National Rural Health Resource Center

I am here.

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

Hi, Joe. John Travis?

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Here.

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

Hi, John. Jorge Ferrer?

Jorge Ferrer, MD, MBA, LSA –Biomedical Informatician –Veterans Health Administration

Good morning.

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

Hi, Jorge. And Steven Stack?

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

Here.

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

Hi, Steven. And from ONC do we have Dawn Heisey-Grove?

Dawn Heisey-Grove, MPH – Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Hi, Michelle.

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

Hi, Dawn. And with that, I will turn it over to Anita and Cris to make a few intro remarks and then I will go through a few administrative items for all the folks on the phone.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

So, this is Cris, I will go first and Anita will be the anchorwoman here from introductory comments. So thanks to everyone who can join the call today, task force members, those of you testifying and people listening in to these virtual hearings. The Certified Technology Comparison Task Force has been meeting

several times. We had hearings eight days ago that included two panels that dealt with provider groups looking at broad provider groups as well specialties.

Today we are going to have an overview of materials from ONC about the CHPL program and we are going to have three really great panels today from certified health IT developers, from firms that are engaged in health IT comparison and informational tools and a panel describing quality improvement and alternative payment models. And our task here is to develop a set of recommendations which we will deliver to the Joint Policy and Standards Committees next week on the January 20.

Our charge comes to us from the legislation passed last spring, the MACRA Bill that asks us to study and report on the feasibility of establishing a mechanism to compare certified EHR technology products. And we've had terrific feedback. We have had great planning calls from task force members. We have had great engagement in filling out surveys and providing other viewpoints so, given the limited amount of time that we have had, I think we have made terrific progress.

When we are done today, this will conclude our...the hearings portion of our work and we will have an additional meeting of this workgroup to finalize the materials. I want to say in public what I have said privately, the ONC staff helping to guide this work have been absolutely first rate. Dawn Heisey-Grove has done a terrific job, and Michelle Consolazio, as always, steering the ship.

So, we are eager to get to the panels today. I think that Michelle is going, as always, keep us on course and keep us on time. And we will have some opportunity for Q&A by panel members and we will have the opportunity for public comment and comments at the end. So that is my sort of high overview of the agenda and what we are doing today. I want to turn it over to Anita for any comments that you might want to offer as well.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Thanks, Cris. I echo how great ONC has done to keep us all on task. Kind of, you know, trying to set the bar high for our panelists, but our panels one and two were phenomenal; we got great feedback and I think really has helped to shape some of the recommendations that we will have next week. So, I really expect some good discussions today from the three panels that we have and with that, I am going to be quiet and let us get started.

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

Thanks Anita.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

So Michelle, I think Anita and I are going to trade off here, so maybe I will just briefly introduce the first one and then you take it from there. Our first is we are having a presentation on the Open Data Certified Health IT Product List, or CHPL, from Karson Maller and Scott Purnell- Saunders from ONC and I'm going to turn it over to Michelle.

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

Thanks Cris and we're actually going to flip flop those, Scott's going to go first. After the first panel from ONC or the first presentations I should say from ONC, we'll go into our panelists. I just want to remind

out panelists if you could try and stay as close to the five minutes that we have allotted for your testimony that would be appreciated. I hate having to cut you all off, but I will if I have to. And so how that will work is each panelist on your panel will present within your five minutes and then we will open up to questions from the task force.

Just a reminder to task force members, if you could use the hand-raising feature and that will put you in the queue and I will call on each of you in the order that you have raised your hand. To our panelists, when we open up for questions, if you could just restate your name before speaking, because this meeting is being transcribed and we haven't really learned everyone's voice yet, so we want to make sure that we know who is speaking, that would be greatly appreciated. So with that, we will start with Scott.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Thanks Michelle. Good afternoon everyone, my name is Scott Purnell-Saunders and I will be just going over a quick overview of the ONC Open Data Certified Health IT Product List or Open Data CHPL as it will be referred to moving forward. Next slide, please.

So our agenda for the call today is really just to go over quickly the regulatory requirements relating to the Open Data CHPL, an overview of what the Open Data CHPL will be and then a quick discussion on the comparison tool functionality that we currently have planned in for the Open Data CHPL deployment, which will happen this spring. Next slide?

So the main goal of the Open Data CHPL was to pivot from the current CHPL operations to a database design and site design that would allow for more easy...more fluid and easy data access of a lot of the information that was passed through testing and certifications through the ONC Health IT Certification Program. Those include test results, optional certification processes, testing processes and other detailed pieces of information that are given or provided to the authorized testing labs in the accredited...in the ONC accredited certification bodies through our program.

Historically the CHPL has been a place where providers and hospitals are able to visit to ascertain details about the certified technology that they have in their practice or practices and then be able to generate CMS EHR Certification IDs for use in CMS programs. A lot of the information that was on the older version of the CHPL or the previous version of the CHPL were stored in PDF documents or in areas where people could not easily access it, so this change from that more closed environment to an open one will allow for data access in a number of different ways in both human and machine-readable format. Next slide?

So this is just a section of the regulatory requirements that was pulled from the ONC 2015 Edition Certification Rule, and I will just kind of read this to make sure everybody is, you know, on the same page. So we propose to require ONC-ACBs to report an expanded set of information to ONC for inclusion in the CHPL upon its conversion from its present form to an open data file represented in both XML and JSON with accompanying API functionality.

We are converting the CHPL to this new Open Data CHPL in response to feedback from stakeholders regarding the accessibility of information on the CHPL, especially the information contained in the publically available test reports for certified health IT products. Those certified test reports were only stored in PDF format and some of them were very, very long and verbose. So, we wanted to make sure

that we could take a lot of the data elements that were stored and there were sometimes 30 or 40 page documents and make them accessible so that, you know, researchers and analysts could get the access to the information in a more powerful and usable way. Next slide?

Just to provide some details on the release schedule for the Open Data CHPL this spring. We are proposing the debut and public availability of the site in late February 2016. It will contain all the 2014 Edition Certified products, as well as newly Certified 2015 Edition products, which will happen later this spring.

The asterisk on the next line just indicates that generation of the CMS EHR Certification ID, which I mentioned before, is used by providers and hospitals for participation in CMS EHR Incentive Programs will not be available at the launch of the site; that functionality is going to be added later. And in the interim, providers and hospitals can visit the CHPL 4.0 site of the legacy CHPL, as it has been called, for generation of those IDs for use in programs only related to the 2014 Edition products.

ONC-ACBs will have direct product management access; that is a significant change in that when products are tested and certified, there was a previous review process that ONC and other folks went through to verify and validate the testing processes. We are automating that process so ONC-ACBs will have direct access to, you know, upload products to the site once they passed through a quick screening process. So we are expecting products that are tested and certified to be available much faster than they were before for, you know, view and access on the ONC CHPL site.

Additionally, all data stored in ONC CHPL will be available via XML and JSON with accompanying...via accompanying APIs, and I will go into the API detail in a few more slides to kind of explain that and how it would work operationally. Next slide?

The expanded user interface will allow for a much more responsive search, so we have built in the functionality so that, you know, when you start typing a particular entry on the site, you know recognizes what you are typing and tries to autofill...auto-generate the next word or predict a format that is going to be included there that allows for a lot faster search, we understand that.

Previously we have had a few thousand products with various names and vendor names and product names and developer names, so we tried to streamline that search process to allow, you know, folks to be able to get to that information a lot faster. Previously we would offer additional filtering through checks or other ideas, or other certification criterion and that still will be available under the advanced search options that I kind of list below, but ideally this new CHPL site is going to mainly be driven by responsive and expansive search to get folks the information as soon as they would like to have it.

Additionally, we are offering in the detailed search capabilities under the advanced option, the ability to do more advanced filtering than we have before. So it is not just looking at the certification criteria, it will also be looking at some of the optional certified areas and other filters that folks have talked through, including some of the details related to safety-enhanced design and user-centered design criteria as well. Next slide?

These interfaces do include an expanded product details page; we completely redesigned that to support a lot more display of information, but in a condensed format. So it has been tiered and designed to allow for quick view or collapse; so if there is information that you are looking for related to certification criteria, those areas be expanded or reduced to kind of save screen space. We understand

that there are, for the 2015 Edition, 60 certification criterion and the details surrounding those as well the optional areas can be rather long. So, we were trying to work on a responsive format that was adaptable to both, you know, website use and mobile use. So, that is going to be one of the larger features that we are deploying the new site.

API access is something that is brand new to the CHPL, as I indicated before. It will allow researchers as well as others to propose various queries to the CHPL site, ask questions and get responsive information back. So if you are looking for a particular product by a certain vendor that was certified to say a number of certification criterion, we are going to structure API access so you can make a call or query to the CHPL site with that particular information requested and the CHPL site will return that information to you.

Additionally, those API calls can be done in an automated fashion. So if you are a researcher that has a particular interest in one or more certification criteria in optional areas, you can propose these, you know, these queries in APIs, make the call and then have them automat...automatically scheduled for your systems to get additional information back on a regularly scheduled basis, if you so desire.

Additionally, the product download file will be expanded to support the additional data element areas that we have been talking about. But it is also going to be available not only in the previous version of Excel, but also in XML format, so those that really want to be able to go through the site and analyze a lot of the data in a much more efficient format will have the ability to do so on demand so you won't have to wait for, you know, weekly file upload the product download that is available and the site will be live at that...as of that particular moment. Next slide?

In response to some requests that we received, we built in, in a real basic product functionality comparison tool on the ONC CHPL site. What it allows for is, you know, when a product search is conducted, there is a comparison button that kind of sits on the right-hand side, as it would for, you know, in any of the other websites that have comparison tools, and you would add that particular product to your comparison list grouping. Once you then display the comparison, it will show you side-by-side that one or more products that you have selected and what the differences are between them, only based on their certified status.

So for example, if product one is certified to 10 to 20 or say 15 certification criterion and product two is tested to 18, you will see at a moment's notice that product one is certified to 15, product 2 is certified to 18; you will know the particular dem...I would say demographic details about the product so the vendor that tested the product and certified the product. The, you know, particular information related to the certification body that certified it, the developer, where they are located and also additional details surrounding say your clinical quality measures or other certified capabilities.

We built this because a lot of, you know, we do often receive questions on what are major differences between products and to date it has been very difficult to look at them side-by-side to tell or determine what some of the differences are, especially when we are given such a large scope of certification criterion.

We will, you know as I said, be debuting this later in the spring and have the ability to, you know, add some additional functionality so that if needed, but the goal with this basically was to be able to display products side-by-side to show some of the certified differences between the products. So I will pause now for any questions.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Any...this is Chris; any questions from our group? Let me start with maybe one, Scott. First, thanks very much for the details on what you see as product improvements and so on. I wonder if you might be able to comment just briefly, in aggregate with the kinds of changes that ONC is planning with CHPL, can you, I know it might be hard to characterize, but can you try to summarize a little bit about how do you think this will change in aggregate the effectiveness of this tool for those who use it? Maybe you might comment just briefly a little bit about what we might know about current users of this tool.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Certainly, so, I mean, we have...so when we look at the kind of CHPL stakeholders, we understand that there are various groups of users who use it on a regular basis now. Primarily the older sites were really developed and built for use by providers and hospitals who were participating in the CMS EHR Meaningful Use programs, um via the, you know, CMS federal office or the local state agencies.

So the site was geared to try to give as much information on certified details as they could, but was driven more toward this product selection and carding process so that the generation of a CMS EHR certification ID could occur. Over the last couple of years we noticed and saw that there was a significant interest by the general public and by the research, you know, public to get access to the data that was included in testing certification. So the previous site designs did not really allow for I would say an easy level of access to that...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Yeah.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

To the point where if you were looking at a large number of products and had to sift through 30 or 40 pages of PDF documents per product, just looking for, you know, very detailed pieces of information, it could be a very arduous task. I mean, I have done it before so I know how difficult it can be and how frustrating it is at times when the data is there and you cannot, you know, really get access to it in a very efficient manner if you are looking for one particular piece of that information.

The site redesign will allow for that detail to be called out in a structured way. So for example, if you are looking for, you know, say comparison on one particular clinical quality measure, you can easily make, you know, an API call and grab it and see kind of what products are certified to it in more of an immediate fashion. Additionally, the search and download functionality will support that as well.

But the biggest draw has been the inclusion of the API functionality to make a more customized call for the data that you are looking for. That is a significant change because previously, you would have to download the download file and then kind of perform search and filter on that without having that additional level of intelligence from the site that will provide that kind of support back to you.

So we are building that kind of logic into the site that will support that so data researchers that are interested in, you know, what is happening in the market relating to these particular certification criterion, will be able to get that information at a moment's notice. And we think that this is just the beginning of allowing folks access to it, but it will also to drive folks to really a...to start asking additional questions about these products, say past certification to say we are interested in...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Sure.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Why some of these choices were made because the market seems to be trending in this particular direction and are the things that, you know, we are asking for or looking for from these products really being achieved? So you will be able to tell that better because you will know what things are certified to and then have direct access and ability to view some of the usability scores as well, on the CHPL, without having to dig through those large PDF documents.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

That is great, Scott. Thanks and it's nice to hear from you again after working with you for such a long time.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Thank you...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Another quest...yeah, another question then see if other panelists have conversation. This is focused really a lot on the usability of the data by consumers and that is great. I don't want to throw a curveball at you but, are there any things that also relate to the ability to load data or any other improvements on the data provision side that ONC has in mind? So is it easier to upload, easier to fill out the surveys, those kinds of things?

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Significantly so, I mean, where our process has been, you know the ACBs have been with us from the very beginning of the program, so the upload process was, you know, reasonably streamlined. The issue was that there were some, you know, we had at times delays in reviewing products just because of the process that we had to go through with subsequent reviews and updates. But because of the ACBs now will have direct access into the site, they will be able to make changes, not...don't want to say on the fly, but on demand. So if there is a product that is tested and certified and there is a significant need from a vendor or developer to get that up and available into CHPL as quickly as they can, the ACBs will be able to do that as fast as able to kind of complete the process. And we have automated a lot of that to make it a lot simpler and more robust so that they don't have to go through some of the same programmatic processes they did before.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thank you.

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

John Travis has a question.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Thank you. Scott, very good presentation really two questions for you. First, as you well know in the 2015 Edition rule there is a fair amount of enhancement of the surveillance requirements and the disclosure requirements and so, as I understand, vendors will be putting up publicly referenceable links or information on their websites that will go into additional information about their products. Would there be plans for having that information accessible through the Open CHPL? So that is my first question.

And the second one is not so much a question but a compliment; I do really like the idea of allowing for a faster maintenance process for all the reasons that you know and can imagine from all of the interchanges that we have had. So, I want to applaud ONC for that being, I think it will be a very beneficial improvement for the vendors that are seeking certification.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

Thanks John. So I will say thank you first and I will go back to your first question. So yeah, we definitely recognize that as something that we want to try to, you know, as a response to, you know, customer query and support to try to allow that to be a lot faster. You know, we do understand that a lot of people are, you know, under significant pressure to try to get, you know, their information up as quickly as we can so, we want to try to streamline that as best we are able to. There still will be some review; obviously we cannot just, you know, just open everything up, and obviously the ACBs will be trained on how to do this and some of the checks and balances involved. But, that is part of our development and deployment process that we are going to be going through this spring.

Going back to your first question, so the additional data reporting requirements that are being requested, I mean, I will address a couple related to some of the attestation pledges that, you know, were reported and required in the rule and other links to versions of the products that were done or listed will be stored on the CHPL in an accessible format. So far hyperlinks that are provided to ONC or provided to the certification bodies, the CHPL would display those hyperlinks so that those reports or sites can be accessed from the CHPL. So anything that is reported in that particular format will be displayed that way.

Going back to some of the surveillance activities and other reporting requirements, it is a limited set of information that will be displayed on the CHPL for that. You know, we certainly talked through and talked with, when our ATLS and ACBs as well as vendor developer community kind of about being more public about surveillance and activity surround that, so a lot of that information will be much more transparent, not necessarily to all of the, you know say the comprehensive surveillance reports and summaries that are given, but more of a succinct level of information relating back to certain portions of that which were listed in detail in the final rule.

So if a product is under surveillance plan, when it was approved and more kind of overall details about that, so you will be able to see that information immediately and then be able to search on it not only while say the product is under surveillance, but after it has been successfully completed or not, you will be able to look at that information as well. So, I will make sure that, you know, when...obviously you will see it once we deploy it, but we will also be seeking feedback once it is out if there are any other areas that folks are concerned about. So thanks for the question.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation
Sure.

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

I think we need to move on to Karson, based upon the timing; so Karson, if you are ready?

Karson Mahler, JD – Policy Analyst, Office of Policy – Office of the National Coordinator for Health Information Technology

Sorry, I was just fumbling around with the mute button. Thanks Michelle and good afternoon to everyone. So I am going to try to build on Scott's presentation about the Open Data CHPL by providing an overview of some related requirements in the 2015 Edition Certification Rule. These requirements are designed to make additional and more meaningful information available about certified health IT products and as I will discuss a bit later, we expect that much of the information will be valuable not only to individual customers and users of health IT, but also for more robust product comparison and research. So if we could move to the next slide?

Okay. So I would like to walk through four specific requirements of the 2015 Edition Certification Rule, which are listed here on the slide and each of these requirements expands the information available about certified health IT products, but they do so in different ways, which I will also talk about. Most...with the exception of some of the new elements of the Open Data CHPL, which some of the elements specific to 2015 Edition products, everything else here, all these other requirements apply to every single health IT product that is currently certified by ONC.

So we are not just talking about 2015 Edition products or products that might be presented for certification in the future; these new corrective action information, mandatory product disclosures, transparency pledge and many of the Open Data CHPL elements apply to all certified products. I should also point out actually that these requirements are already effective and being implemented by our certification bodies. Next slide, please?

So Scott touched on the first new requirement that I listed on the previous slide and that is summarized here which is that we have expanded the data elements that developers will be required to report to ACBs and then ACBs required to report to the CHPL. So I have listed a few examples here of some of the new data elements, but there are quite a few others as well.

A lot of these elements also contain additional granularity and the nice thing about this data, as we sort of discussed a little bit earlier is that it will be made available through, you know the Open Data CHPL so it will be available as discrete data by APIs so that product developers, product researchers or anyone else that wants to do so can easily consume and manipulate the data for product analysis and comparison. Of course the data elements are limited to the scope of a product certification, but they can still be quite useful for product analysis.

So for example, a product safety researcher could query the Open Data CHPL to determine what user-centered design processes developers used for their certified health IT. So for example, say medication ordering functionality, and that might include, you know, the tasks that were performed by the test participants during the design of products, the past failure rate, even information about the test participants themselves. And so you can see that there is quite a bit of data that could serve a variety of use cases. Let's move on to the next slide, please.

So the second requirement of the rule that I wanted to talk about today is related to the new in the field surveillance requirements for certified health IT and specifically the corrective action requirements. So ONC certification bodies will be required to report on a weekly basis the results of any products, certified products that fail in the field surveillance or fail surveillance of any kind and are subject to a corrective action. And that corrective action information will go to the Open Data CHPL.

So once again, you know, someone interested in say for example the reliability or usability or perhaps the usability of a product or of health IT products, could run a query and get real time information about which products have undergone corrective action and what specific issues those products had and what the resolution of that was. And so this can be a, we think a valuable tool for, you know, providing more insight into how products are performing, and that can inform again some of that product research and analysis.

As an aside, you know, we hope this information obviously would be used for other purposes such as to alert customers and users when there are problems with their certified health IT and, you know, and actual safety concerns and things of that nature. Next slide, please?

So sort of the third bucket of information that will be made available under the new certification requirements is the mandatory developer disclosures; these new rules will require developers to disclose very detailed information about the costs and limitations of their certified products. The disclosures will have to be in plain language, and they must be detailed, which means that a customer should be able to identify without any special effort, the kinds of costs that they might incur and the kinds of limitations that they might encounter to actually use the products for anything that one would reasonably expect that certified product to be able to do, given the scope of its certification.

That is sort of the test for whether the disclosure meets the requirements. And the fundamental purpose of these new disclosure requirements is to help customers avoid unfair surprise, which we have heard a lot of, we talk about it in the preamble to the 2015 Edition proposed rule and in the final rule. And we don't want that and we want to make as much information available the customers need to know what they are getting when they purchase a licensed certified health IT.

However, this is not only focused at individual customers because sort of as a corollary, the new disclosure requirements will make a lot of information available that again could be used for research and comparison purposes. The disclosures will, and I think this was sort of alluded to earlier, they will not currently be sort of presented on the CHPL as granular data, they will be on developers websites and in their marketing materials and the reason for that is that we want customers to actually see the disclosures.

And, we know providers...or not a lot of providers are really surfing the CHPL. However, you know obviously as we move forward we will, as I think Scott mentioned, look for ways to be able to make this data available in other formats as well. But there will be hyperlinks in a central place on our website and there will be hyperlinks from the CHPL, you know for each product so that you can easily go to the developers' disclosures for their products. If we could move to the next slide, thanks.

So I have included a couple of slides here that walk through an example of products and how it would meet the disclosure requirements. I think in the interest of time, because I know we are anxious to get to our presenters, we can skip the example, but, you know, the main point here is to give an indication of sort of the level of detail and what would actually need to be disclosed to meet these new

requirements and the types of information that would be made available. So if we could see the next slide, you can see kind of that level of detail I am talking about.

I should also note that just as kind of an aside, this is not a case of the government requiring the disclosure of, you know, lots of information for the sake of it; all of this information is material information that customers need to know and from our perspective are entitled to know in order to make informed decisions. And we are serious about making sure that developers disclose this information and we have directed our certification bodies through our recent guidance to them to prioritize the enforcement of these disclosure requirements. And to the final slide, please.

The last thing I wanted to do is just talk a little bit about the transparency pledge, which is the fourth requirement that I listed in the beginning. It is actually not a requirement, per se, but really a way for developers to actually differentiate themselves in the marketplace from their competitors by taking the initiative to be more transparent and assist customers and researchers to fully understand their certified health IT products and services and to go beyond what is actually required by the general mandatory disclosure requirements.

So specifically, developers who take this pledge will be pledging to provide more targeted and individualized information, in addition to the full disclosures that are required by the rule. And the information would be tailored to a customer's or other person's specific circumstances and needs. Developers would also be pledging to be more proactive; so in other words, disclosing information without having to be asked and in at a meaningful time and in a meaningful manner.

Developers would also be responding, would also pledge to respond to specific questions and inquiries that come in and to respond to those in a format or a way that is useful to the prospective customer or the person or the organization who is making the inquiry. And they would also be pledging to be open and to disclose information about their products to anyone that asks.

Now these principles are basically designed to make developer's disclosures more meaningful and complete. But in addition, and I think of particular interest to this workgroup, is that they also open the door for organizations that represent customers and purchasers of health IT to request information from developers to help evaluate and compare products and to provide comparative information and other resources to providers and customers.

So the use case that I would use to illustrate this is, you could imagine a professional association sending a structured questionnaire to say the top 20 EHR developers and...who have taken, assuming they have taken the pledge, and asking questions that are of particular interest and relevance and concern to their members about those developer's products. And what you would expect to get back would be, you know going back to sort of the principles above that are incorporated in this pledge, are answers that are specific, that respond to the questions asked, that are in the format that is requested.

So you would get back structured information and all of this would allow a professional association or some other organization to actually get some really valuable comparative data that could be used to provide customers with perhaps some new tools to compare products or additional resources and some real insight and ability to be able to compare across different certified health IT products. ONC will publish a list of all certified health IT developers who have taken the pledge and all certified health IT developers who have not taken the pledge. And I will conclude with that and be happy to take any questions that anyone has.

Christopher H. Tashjian, MD, FAAFP, FHIT –Vibrant Health Family Clinics

This is Chris...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Go ahead, Chris.

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

Yeah, this is Chris Tashjian; so do you have any idea like on these developers, are the vast majority taking the pledge or is this, you, what the area of buy-in is yet? Or do you have a feel for that?

Karson Mahler, JD – Policy Analyst, Office of Policy – Office of the National Coordinator for Health Information Technology

So it is a little bit early to tell. So the requirement went into effect on January 14, but was given the certification body some time to operationalize it. So we do not have data on that yet, you know, but we expect that, you know, or at least we would hope that most developers would take the pledge, you know, for all the reasons that I described.

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

Yeah, I would hope that my EHR developer takes the pledge and, you know, I think most practicing physicians would kind of hope and expect that.

Karson Mahler, JD – Policy Analyst, Office of Policy – Office of the National Coordinator for Health Information Technology

Yeah, and I think that is also, you know, we discussed this in the rule, you know, one of the sort of concepts behind this as well is that it really does promote more accountability in the marketplace and encourage more competition. And I think mentioned, you know, this is sort of a way for developers to differentiate themselves from their competitors, so you know, if I have one vendor that is willing to be transparent about their products and their business practices and another that isn't, you know, that is a way for that first vendor to differentiate themselves and to potentially win over more customers.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

This is Cris Ross; thanks Chris, you asked exactly the question I was going to ask. I think we have just a few more minutes for questions. Hearing none, let me ask one really quickly, Karson which is, on the other side of the house, we are about to have some panels who might be potential consumers of this data. In addition to the pledges from vendors, have you received feedback from people who you expect to consume these services and what kind of feedback are you receiving?

Karson Mahler, JD – Policy Analyst, Office of Policy – Office of the National Coordinator for Health Information Technology

No, so we have not received a lot of specific feedback on the transparency pledge itself because it is a new requirement and it hasn't been operationalized yet. So, I think, you know, this is something that once it is live and it is up and running, there will be a lot more awareness about it and we certainly will be looking for ways to make sure that organizations are aware of it so they can leverage this new resource. And of course, we will need to have developers actually taking the pledge before, you know, before organizations will be able to do that.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Great, understandable; thank you. Michelle, it looks like we might end a few minutes ahead of time.

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

Great; so it sounds like we are ready for panel three. So, Altarum, can you...do you have the list of all of the folks on Panel 3? Or I can read them. Again, I just want to make sure that we have all our panelists for Panel 3 so do we have Todd?

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

Yes, I am here.

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

Hi, Todd. Robert is here, right?

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

I am.

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

Hi, Robert. Michael, you are here?

Michael Sherling, MD, MBA – Co-Founder & Chief Medical Officer – Modernizing Medicine

I am.

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

Richard Loomis?

Richard Loomis, MD, CPC – Vice President, Chief Medical Officer – Practice Fusion

Hi, good morning or afternoon.

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

And Peter Kaufman? Peter, you are still here?

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

Yes I am. Sorry, I was on mute.

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

Oh, that is okay. Okay, so we will start with Todd. A reminder Todd, you have five minutes; if you get close to the five minutes, I will let you know and ask you to wrap up. And after everyone has presented, we will open up to the task force for questions. So, take it away Todd.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

Okay, do you guys have my slides or going to show those?

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

Yes, Altarum will bring them up and you can just let us know when to go to the next slide.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

Perfect. I am going to talk a lot before we get off the title slide, but hopefully end in five minutes. It is a pleasure and an honor to contribute to the dialogue. Athenahealth loved the idea of consumers having the ability to actually compare EHRs; we call this shopping and it something woefully nonexistent in healthcare across the United States.

That said, we are alarmed at the notion that the government would somehow want to become the Consumer Reports of healthcare IT. We wracked our brains and for the life of us couldn't think of another business to business or B-to-B industry where the government runs an Angie's List. I think this sort of may be something about EHR crash safety in here, but I will leave it at that.

In fact, tools already exist in the market, you know the KLAS, Gartner, Forrester, AmericanEHR, I have got a long list at the end. We work hard to maintain good performance in those comparisons and we actually think that is relatively adequate. You know, our most important point here I think for the day is, we don't believe it is the government's role to provide these comparisons.

Comparison shopping is one of the most basic activities of a functioning market. To the extent that there are barriers preventing a functioning market, we think, you know government attention would be more appropriately focused there. It should be very much on the table here in our thoughts to find that government-administered EHR comparison is neither valuable nor feasible. So I will have you move the slide here.

Our first concern is that a comparison tool, like IT itself in the clinical arena, will lead to unintended consequences. The value proposition or feasibility of a comparison tool has not yet been proven. With respect to the former presenters, we sort of think the CHPL is difficult to navigate and loaded with some data that is not discriminatory in terms of the ultimate performance of users. For those of you following in the industry, you know the chief complaint from doctors is that features...not that features don't exist, but that certification already ensures there is a consistent giant feature set across all of our EHRs. In fact comparison shopping on features and functions has really led to nowhere; everyone in our industry built to the government specs, yet there is enormous variability in customer success in things like the Meaningful Use Program.

The mere presence of the government certified list of vendors served as a tacit endorsement that a product would meet requirements. Instead, hundreds of those vendors were unable to get their client base across the Stage 2 Meaningful Use hurdles. The chief complaint from EHR users is that EHRs have poor usability; however, creating an objective, quantitative system for comparing this is virtually impossible as all past attempts have currently failed.

If the goal is to fuel innovation, a comparison tool is extremely unlikely to do that; innovation will best come from a properly functioning market where users can shop for an EHR that meets their needs. Again we reiterate, we do not recommend that ONC move forward with a comparison tool, but we know you must do something. So the next slide.

So with that our recommendation would be for ONC to focus attentions on area where the market alone cannot or should not provide solutions. In an ideal market, innovations leading to better usability or consumer satisfaction are driven up by conditions that promote shopping. First there have to be many competitors. Second, switching costs must be low. Third, purchase decisions can be made rapidly and fourth, the purchaser as the end user, think cell phone, not EHR.

In comparison, in health IT where the marketplace is, now there are relatively few competitors, at least in the inpatient space; you can count them on a hand, I believe, and ambulatory is hundreds I suppose. Switching costs are extremely high, like a heart lung transplant. Purchase decisions are considered and take months and sometimes years and people making the purchase decisions are not usually the end-users. So I will have you move the slide.

We don't think the government can do much to fix our broken market, however the government is uniquely positioned to address one of these issues. Much more valuable than a comparison tool, ONC would promote better usability amongst vendors by addressing the one market condition that is unlikely to resolve itself, the switching costs.

Many EHR purchasers suffer from what we in the industry call vendor-lock because of the costs and complexities of making a switch. For example, the lack of data portability standards makes it extremely expensive to transfer patient data; a medical record retention loss force practices to keep their entire record for up to 21 years in certain states. If data portability standards were more mature, switching costs would decrease and the market would move the needed...move to the, you know, move us as needed ultimately resulting in better usability. We do note that the most recent certification requirements including the requirement to import and export C-CDA is a great start. Next slide.

So again, if a comparison tool must be created, we would love you to consider these recommendations. Please don't think in terms of installed software or modular-based EHRs. As we read your stuff, we get concerned that you are sort of running at the conventional wisdom of what an EHR needs to be; things are changing fast and attempts to define what is necessary and right will actually hinder innovation. There is little point to comparing features required by certification because we already know that a certified EHR has those features and we know there is no effective way to quantitatively compare usability.

The distinction between the total cost of ownership amongst different systems, for example, between sort of legacy and Cloud-based systems is an area where more education among purchasers and end users is needed. It does not mean requiring vendors to list their prices, consumers need to be educated about the types of costs that may arise.

Interoperation can and should be measured. Healthcare is rapidly moving towards longitudinal views of patient information across care settings. A tool that focuses on information liquidity between people who don't own each other would encourage connections of care and slay fragmentation in our health system.

A comparison tool could help providers understand how open a particular EHR is by offering metrics on things like the number of interfaces, number of documents exchanged per provider per day, number of documents exchanged with other EHR platforms and the types of documents exchanged. Complaints about information blocking should be surfaced.

Finally, a reminder that all of this work is already being done by a number of private sector companies; there is no reason for ONC to re-create the wheel. Existing solutions, KLAS, AmericanEHR, Gartner, Forrester, Captera, Consumer Affairs, EHR Compare, EHR in Practice, EHR Softwareinsider, Software Advice all should be leveraged and we recommend you seek their advice and testimony. Thank you.

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

Thanks, Todd. Robert Hitchcock?

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

Great; thank you very much. As Todd said, a true pleasure to be invited to testify in front of the committee today; thank you very much. By way of some introductions to T-System for those of you who are not familiar, we provide emergency department documentation and workflow solutions, also in the freestanding emergency center space and urgent care with our products in approximately about 30% of the emergency departments. So that said, I do want to move into my first slide, if you can change slides, please.

The following comments, I don't want them to be construed as an attack on the EHR Incentive Program in any way, but as review of history that informs my testimony today to the committee. As designed, Meaningful Use was an incremental pathway for realizing connected care.

Its first step obviously was to drive the adoption of EHRs and setting the stage for future opportunities to leverage technology toward a much greater goal. However, one potentially unintended consequence was that the program significantly changed market dynamics which in part, I think, created some of the concerns we are seeing today, particularly with eligible provider participation in the program, or lack thereof.

In short, the program caused providers and organizations to have to make rapid decisions about technology solutions based largely on the immediate financial incentives and upon avoiding future penalties. End-users who had previously driven much of the product evaluation and influenced buying heavily, were increasingly marginalized.

Large organizations and hospitals adopted a single vendor mentality as the perceived easiest path to compliance and in doing so, cast away the consideration of specialty systems. In short, many clinical end-users were forced to adopt systems that were not designed to meet the demands of the health care that they deliver and in turn, impeded their workflow and the dynamics of the physician-patient interaction. I think this largely represents the sentiment of many of the eligible providers who are not participating in the program today. Next slide, please.

So more specifically, you know, in response to the committee's request for feedback on a certified healthcare information technology tool, I am going to offer several opinions, under the presumption though that the major goal of this tool would be to drive adoption of EHRs, particularly amongst eligible providers in this case.

Firstly, following on what Todd had said, comparing certification measures only provides very little value that identically certified solutions have vastly different adoption rates and impact workflow and outcomes substantially differently. However, I do believe in CHPL in particular, some incremental product information that would allow potential product users or buyers to be able to slice and dice to

get at more information would be valuable and those would be things such as the applicable clinical settings or specialties which the systems serve; best fit patient volumes or provider group size.

Additional feature or functionality that the vendor may have that could augment the use of the system outside of the Meaningful Use Program, the number of deployments that they have or a variety of other dynamics which would answer the question for a provider when looking at solutions in the CHPL. Does this or could this system be utilized by me for my practice setting in my environment?

In addition to that, as Todd alluded to, some information and education around the technology and deployment underlying some of the systems, the legacy client/server approach, hosted solutions, Cloud and web-based as these all may have a significant impact in pricing and buying decisions moving forward. Making these elements more transparent in the process of interacting with the certified healthcare product list I believe it would be of value.

However, this does not get us to a comparison tool. And much along Todd's sentiments, I believe that the private sector has several EHR comparison tools which I understand, you know, some gaps have been identified. But, I believe firmly they should be leveraged in this case. They are regularly used currently in the marketplace; nearly every sales opportunity we are involved with, we are involved and there's a reference to our position in KLAS. And so for the hospital and emergency department space, these are recognized tools that are utilized regularly. These are complex to develop and very, very difficult to maintain and I think reinventing the wheel would be an undertaking that would be frankly foolish.

Responses from public to these tools have to be vetted and maintained. Data has to be normalized. And it must evolve with the changing environments as products mature, as additional features are added or as the program just changed and particularly, you know on the back of a tweet recently from Administrator Slavitt that in 2016, the Meaningful Use Program will change dramatically. To have to maintain these tools, I think it would be an enormous burden on the government and could be better maintained by specialty vendors in the private sector that could provide those. Next slide, please.

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

Robert, if you could please wrap up .

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

Absolutely. So it is my believe that in order for healthcare IT comparison tool to provide maximal value, it must be designed to provide insight on how the system would perform in an environment for a particular user. And some of these...the high-value areas are difficult because there is a lack of standardized method for gathering, calculating, reporting and analyzing information on the subjective factor such as end user usability. Not adherence to user-centered design practices, but the actual effect of how it will impact the workflow of that clinician. Proxies could be considered, such as number of clicks or how long it takes to perform certain tasks, but there is no standardized approach to doing usability.

Pricing is a major concern as I consider this comparison tool because the elements of cost analysis are highly variable and can be influenced by the environment that an application is put in, packaging with

other solutions and I think getting to an accurate cost number is going to be extremely challenging, particularly in trying to get to a three or five-year total cost of ownership.

And lastly, a lot of discussion has been given to reporting interoperability. I believe it is a critical consideration in product selection; however, merely describing that proof points exist today does not mean that the interoperability actually works in reality. The interoperability requires two willing parties and roadblocks to implementing a particular interface in a particular environment are not unusual, so I am very concerned about the ability to be able to provide some of the subjective factors in a comparison tool and would strongly urge that the current tools on the market be considered as solutions for influencing or, sorry, educating the market on the products available. Thank you.

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

Thank you. Next up is Michael Sherling from Modernizing Medicine.

Michael Sherling, MD, MBA – Co-Founder & Chief Medical Officer – Modernizing Medicine

Hi there, thanks so much for this opportunity. My name is Michael Sherling; I am the Chief Medical Officer, Co-Founder of Modernizing Medicine. I am also a practicing dermatologist. Next slide, please.

So overview of the specific modules relevant for the ambulatory office and how we package them, submitting for the record. Obviously there is a health record module, there is practice management, there is analytics, there are compliance modules as well.

Diving into them, there is core clinical documentation, which I think is the most important one as a practicing physician that uses EHR. You really want something that is workflow friendly that is going to improve productivity. But going by feature-by-feature comparison, I think is a mistake. I think we should move away from features and more towards value, value to the end user in any comparison tool. Next slide, please.

So there is a packing change for specialty practices. Well Modernizing Medicine only serves specialists; we power eight specialties including dermatology, ophthalmology, gastroenterology, orthopedic surgery, urology, rheumatology, plastic surgery and ENT. And I can tell you, you know, as physicians we go through four years of medical school, four years of residency or more to learn our trade and these systems really need to be tailored to us and so one unifying comparison tool that lumps all physicians into one category really does not do it justice when there are 60 plus specialties.

So, what I'd like to see in a comparison tool that takes into account, you know, as physicians, our level of training and specialty and making sure that the products tailor to what our needs are. You can see here in some of the modules that they are just very different compared to what we do.

So in dermatology, a telehealth application may be critical or dermatopathology, but in ophthalmology, those don't really apply; things like PACS integration or, you know, a contact lens database is really important, but that doesn't even matter for a gastroenterologist who maybe for them would really like ambulatory surgery center integration or device integration with scope and vital sign monitoring; these are things that we do really, really well.

And finally for orthopedic surgeons who don't like to type at all, maybe they want something that does native dictation and orders management. So you can see how hard it is to standardize something across

specialties and why you would really want to take one specialty at a time when you are developing a comparison tool. Next slide, please.

So what features should be comparison? And I think what I love to say is that I don't think we should do feature-driven comparison tools, we should make it value-driven. And if we make this about the customer and not about ourselves, I think we can get it right.

So EyeNet, which is a magazine, a periodical by the American Academy of Ophthalmology, did a study for its users and asked three questions. Would I buy this EHR again today? Is it easy to use or to satisfy the regulatory requirements? And overall, is this EHR easier to use? And if you ask your customers, and maybe you can do this at the point of attestation so you will get them all, if you ask them these questions, that is what is meaningful to physicians, more so than, you know, does it have this module or that module?

And then if you expand upon that towards, you know, any software vendor, you know what we should be judged is, what do our customers really think of us? You know, does it slow physician productivity? Can it even boost physician productivity? And can it make us better, can it improve outcomes? As we switch from, you know, fee-for-service towards value-based medicine, you know, how is it that physicians are going to use this to better care? What is the implementation investment, not only in terms of money, but in terms of time? How long does it take to get a whole practice live and how intuitive is the product to learn? Next slide, please.

So does a vendor comparison tool foster competition and innovation? If you make it all about the features, everything sounds the same, right? So if I have my e-Prescribing module or my, you know, certified component that sounds the same as somebody else's software and maybe the one that has more features actually wins. But in reality, that does not even matter to our end user, what matters is if its value-driven. Does it save me time? Is it going to improve healthcare? Is it, through the analytics, going to reduce cost? That is what matters. Next slide.

So for a market focus for us to foster innovation and competition, I would say, let's make it transparent. Let's list the number of users that we have and by which specialties. Someone says that it works for a lung transplant surgeon and I they have got zero or one lung transplant surgeon on the system, I am going to call that, you know.

We want to...what is the average time to complete a note? If it takes 15 minutes to complete a note, that is a productivity time suck and you want something that saves time. How about, you know, let's foster innovation to make documentation under a minute.

What is the accuracy of billing? With all of this ICD-10 burden that is upon physician's documentation, let's actually get something that saves time so we don't have to hire extra staff. And if I have to hire extra staff in my practice to do my PQRS and...or my merit-based incentive payment system using one software, but I don't using another; I want to know about that.

How do I correlate clinical and financial data? Is my EHR system just a word processor or can it collect structured information that I can then leverage to improve my bottom line, in my practice, or improve my outcomes?

What is the integrity of the organization? Do they do everything that they say they do or not? Do they have an accessible support system so that when I call in, I am supported as a practitioner?

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

Michael, can you work on wrapping up? Thank you.

Michael Sherling, MD, MBA – Co-Founder & Chief Medical Officer – Modernizing Medicine

Sure. Does the customer have buy-in to roadmap? But the bottom line is look, we want something that is easy to use and if we ask our customers, they will tell us. Thanks so much for the opportunity.

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

Thank you. Richard Loomis from Practice Fusion?

Richard Loomis, MD, CPC – Vice President, Chief Medical Officer – Practice Fusion

Hello; on behalf of Electronic Health Record Association, known as the EHRA and our member companies, thank you for inviting me to share input on this very important topic. Established in 2004, the EHRA brings together companies that develop market and support EHRs to collaborate on issues that impact our businesses and our collective clients. In addition to being a member of the EHRA Executive Committee, I also serve as Practice Fusion's Chief Medical Officer.

In response to the first question regarding modules, the term module may not be the most relevant one for the analysis as a features may not be packaged in separate components as would be suggested by the term. I will instead address the in question terms of what features and functionality are core to the ambulatory practice of medicine?

If one uses the approach that CCHIT put forth successfully, these would be a core set that all physicians, regardless of specialty, would need, would add on functionality specific to specialties. Core functionality common to all includes medication management and e-Prescribing, lab ordering and resulting, access and/or information on radiology and other images and results, vital signs, clinical note documentation, secure messaging, generation and consumption of a C-CDA, referral management; the ability to document problems, past medical history, family history and social history, as well as the ability to run reports on the data.

Functionality specific to just certain specialties might include things like growth charts used by pediatricians or the ability to generate a prenatal record for obstetricians. With the advent of Meaningful Use and ONC certification, products have had to include functionality that might not be used or prioritized by their client base to satisfy regulatory requirements. In an ideal world, an EHR developer would be able to package functionality in a way that was logical for its mix of client specialties, sizes, and need, again keeping with the theme of focusing on the customer.

As I previously stated, the wide range of health IT products and functionalities, as well as the broad range of customer requirements in the market make it difficult to identify a specific panel of features for standardized comparison. However, a few broadly applicable areas include technical requirements such as hosted versus Cloud, client/server, DOS needed, browsers, etcetera, as well as other software requirements needed to achieve expected functionality beyond what is either included in the EHR software package itself or provided by the EHR developer.

Licensing structure, interoperability approaches and capabilities including standards and connectivity models supported, specialties and settings served, types of devices natively supported such as PC versus Mac, iPad, Android, etcetera, as well as the availability of other complementary technologies, functions and services including things like analytics, practice management and population health.

The EHR Association and our members welcome transparency. On balance, however, a government-developed comparison tool would be unlikely to foster competition or innovation above what the market already encourages today. There are several tools and services, as Todd mentioned earlier, that compare and facilitate the rating of EHRs with more likely to come as a market grows and evolves and the addition of data sources such as the Open CHPL initiative become available.

We question whether a government-developed version would add additional value to consumers and in fact, may actually create client and consumer confusion. As stated, we do not favor a government-sponsored comparison tool. In the context of market comparisons however, information on the market focus and experience associated with a product and its developer could be helpful. Making the distinction between product and developer is important in that many developers offer multiple products to meet the needs of diverse customer segments. Categories to include could...categories to consider including are things like specialties and care setting supported. We note that the sources of these data may be subjective and should certainly be validated by real-world customer data.

In closing, the EHRA supports efforts to promote transparency and informed consumers, but we don't believe that another ONC-maintained resource would be the most efficient or effective approach. Further, the ONC Certified Health IT Product List currently serves as a resource for potential clients of certified health IT products. As outlined in the 2015 certification rule, the CHPL will be enhanced with increased structured data on features and functionality provided by respective products.

The planned availability of an API to access CHPL data will also promote innovative approaches to use or to develop product evaluation solutions in the private sector. An additional ONC comparison tool would largely be duplicative. Lastly, any comparison tool should be limited to the objective presence or absence of product functionality as opposed to a subjective rating system of specific functionality. Thank you again for inviting me to testify.

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

Thanks Richard. And finally, Peter Kaufman?

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

Thanks. Can I have the next slide, please? DrFirst is an HIT vendor known for medication management, specifically e-Prescribing. We are certified for multiple modules, but we do not ourselves provide a complete EHR solution. We do, however, provide our certified modules to several hundred EHR solution providers.

When discussing which specific modules are relevant for the typical ambulatory office, we are of course most concerned with e-Prescribing and secure messaging, but also interoperability which is a module in many cases. But we, and specifically I as practicing physician, are also particularly interested in other areas of the EHR as well.

Patient engagement, including helping patients or their proxies access their records online is receiving a lot of attention lately and rightly so. Practice management, often felt separate from the EHR is, in fact, important not only to revenue cycle management, but also integration of the patient's care and analysis of costs and outcomes.

We need new methods of clinical documentation, efficient ways to enter patient history without losing the nuance of narrative language and yet still allowing data analytics. I have no idea how to objectively evaluate and compare this, however. Next slide.

Specialty practices have a further need for specialized data collection. For example, I am a gastroenterologist. Most EHRs have no way of completing endoscopy reports so tell doctors to create or buy homegrown templates for endoscopy reporting or else use a third-party system. In addition, my partners and I also have had to enter data that is at best of tangential importance to our gastroenterology practice, but required for Meaningful Use. Not all modules are useful for some specialties. An EHR is tailored to the specific needs of individual specialties are more useful to those physicians. Next slide.

Comparing EHRs is complicated. Many comparators allow the EHR vendors to report what features they have available, but checked off features are not the same as usable features. If the feature is clumsy or even unusable, the EHR may still get credit for it. Due to the depth and breadth of EHR functionality, vetting the features or at least the most important features for usability would be time-consuming and hard to quantitate.

In fact, as a provider with 25 years' experience using EMRs, evaluating a candidate EHR for even a day does not necessarily give an accurate idea of what that EHR will be like using it after a month. That irritating feature might become a real timesaver once you learn it while the intuitive and clever widget would turn frustrating when you later realize an obvious shortcut is missing.

While usability is likely the biggest complaint I personally hear from my colleagues, not about DrFirst software of course, it is the hardest to compare. Other important features for EHRs include population of a standardized patient summary. We should validate and report on the ability to share, receive, review, and incorporate that information into the record.

Implementation time and complexity and the quality of continuing support are often approached only after a sale, but are important to the ambulatory practice. Finally, adherence to modern standards including language, security, and transport is something that can be measured and compared. For example, use of the current consolidated CDA as a lightweight, but very useful set of important patient data and FHIR as an emerging, web-friendly, scalable, interoperability protocol. Next slide.

Are the comparison tools already available valuable? Do they foster competition and innovation? They might if they were used by end users to choose systems to purchase. But it is not clear the current tools do much more than narrow the field. Next slide.

Some EHR vendors clearly focus on certain specialties and that is important to provide from those...and that is important to providers from those specialties. Design for specialty-specific workflow is advantageous. My large, single specialty group practice uses a GI-focused EMR that remarkably was just merged into Michael Sherling's Modernizing Medicine. It came out of the box with most of the templates we use, follows a typical workflow for our office and allows us to document endoscopy

procedures within the EHR and actually does this much better than the stand-alone reporting system we formerly use.

An awful lot of gastroenterology groups are already on board with this same EHR. Another EHR, which will remain nameless, claims 30% of dermatologists use their system. It certainly would be helpful to know that the number of physicians from each specialty that use specific systems. Next slide.

I will stop here. Thank you for your attention.

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

Thank you, Peter and thank you to all of our panelists on Panel 3. We will now go to the questions from task force members; in the queue we have Jorge.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Hi, good morning. Thank you for the panel members for the great testimony. This question is, actually, I would like to hear a reply from all of the panel members. Many of you mentioned, you said early in your testimony, if you are responsible for describing the next generation of electronic health records what would you define to be the purpose of an EHR and what would you define the purpose of clinical documentation to be? And I want you to specifically make a distinction between the EHR and clinical documentation. Thank you.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

I guess...this is Todd Rothenhaus. That is a great question. I think that when you think about the information, I think the future of everyone's EHR is, no matter which one they use, its gathering information across the care continuum and reducing the effort that clinicians need to sift through that effort. Clinicians are not in the market for new information because they are overwhelmed by the junk that is in there right now, much of it regulated stuff.

On the documentation front, I would love to see a day where the documentation goes back to the observations and activities that actually have to do with the patient being in front of you and not a bunch of other things that are acquired for the purposes of getting a HCFA code or, you know, the old CPT code filled out.

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

And this is Bob Hitchcock. A similar response; I see the future of clinical documentation in an ideal world would be to tell the story of the patient encounter, clearly, concisely and in a useful fashion to the next provider who has understand what the medical decision making was, what treatment the patient provided; and less around getting the right codes out or providing metadata for other purposes.

Similarly, the EHR is a transformative tool. It takes data that was present prior to the patient presenting, puts it in front of a provider in a useful fashion, allows the providers to modify that data so the data grows for that particular episode of care and makes it readily available for the next one. So think of it as a pass-through if you will, that takes existing data, modifies it as appropriate and makes it readily available; it just becomes one-stop on the continuum of care.

Michael Sherling, MD, MBA – Co-Founder & Chief Medical Officer – Modernizing Medicine

This is Michael Sherling from Modernizing Medicine. I think the next generation health record would have three things; it would be Cloud, so it would be scalable, searchable, reliable. It would be mobile so

that you can interact with your patient without your back being turned against your patient. It would be...it would also have big data so that you could collect structured information at the point of care so physicians to put in the outcomes as they are documenting the note. And at the intersection of all three you have Cloud and mobile, you have got next generation applications like telehealth; between mobile and big data you have personalized predictive analytics like adaptive learning for the providers. And at the intersection of big data and Cloud, you have got this wisdom of the masses so that patients can tap into the data.

Richard Loomis, MD, CPC – Vice President, Chief Medical Officer – Practice Fusion

This is Richard Loomis from Practice Fusion and the EHRA. So the purpose of the EHR and more broadly healthcare IT software in general is to facilitate the care delivery process. I see clinical documentation is on aspect or one core function of that, but there are certainly a number of others. Over time we certainly have seen the accumulation of burdensome documentation requirements, and I similarly would like to see us get back to the core patient narrative that is essential to delivering optimal and efficient patient care.

At the same time I think the key component to this extending beyond clinical documentation but all aspects of an EHR and healthcare IT is really the ability to deliver this information at the point of care and at the time that it is needed in the care delivery process. And so interoperability is really the foundation and the driver for making that happen. So I sort of make the distinction between the EHR and healthcare IT and the care delivery process and clinical documentation as being a component of that, but interoperability being the key driver across all aspects of health IT.

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

I think the systems needs to be interoperable allowing quick review of relevant data that others have already entered and then incorporating it into the record. The “relevant” is the critical word here because we need semantic interoperability, getting the necessary data and not 500 pages of data because only the plaintiff’s lawyer has time to review all that data.

Also, review of the data should be straightforward and quick, not requiring delving into seemingly random pages to find what the provider needs. For the current visit and the current episode of care, and those should be aligned, we need as I said before to have data that can be analyzed but still maintain, you know, the data should be analyzable, but still maintain the nuance of natural language, because that is important. And I think that we need a way of putting that data in that is straightforward for the provider so that they don’t feel that this is a yoke around their neck but rather a tool that they maybe even enjoy.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Thank you.

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

We don’t have any more questions from the task force in the queue. I am going to leave it to Cris or Anita.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

This is...

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

Yes, go ahead Anita.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Okay, this is Anita. I did have a question, because I did have a question because I did, duly noted that there are existing tools that could be leveraged; however, currently it really has not been a true apples to apples, depending on certain settings, practice sizes and certainly as it related to cost. I did hear folks being a little bit reluctant about having a total cost model, but would you be opposed to your customers providing cost as part of the comparison if you are going to talk about a peer-to-peer or customer to customer comparison?

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

This is Todd from athena. I think we would welcome that.

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

Yeah, this is Bob from T-System. I think I have a more complicated answer than that. I think we would welcome it; however, in our case, there are probably hundreds of configurations that we could be selling a particular organization; some of them may relate to the certified elements, many of them do not relate to the certified elements and are additional feature functionality which is value-driven for them.

In addition, we have at least three different pricing models making that apples to apples comparison difficult so I would say in short that we would be welcome to that provided that it was useful to the person receiving that information to understand how to interpret it in light of what they are looking for. I believe that it is going to be a fairly difficult task to get to that point and it may create more expectations for management on the vendor side during a sales process.

My concern would be though for vendors that sell either complex systems, multiple modules, etcetera that what it may create is a roadblock to even moving further down a sales process because they may...a prospect may receive information about total cost that is not relevant for them; it may seem much larger than they heard from another competitor without understanding what the cost make up was under there.

I do very much like the fact...like the idea of being able to communicate from an existing client to a prospect, to answer the question something like, did your...is the pricing or the total cost of ownership of the product what you expected for what you were sold? In other words, were your expectations met? Were you misled? Were there additional costs that were involved? I think that is a much cleaner question to ask and may be more relevant for some of the vendors.

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

This is Peter. Speaking as a provider of modules, we would not have a problem doing this, but I can understand how there is certainly a tremendous amount of variability of price with it EHRs. However, going back to the opening session about CHPL, I think this transparency really is important, speaking as a consumer of healthcare IT and certainly the costs that we have heard from vendors and from our friends using different systems are astoundingly different; things like hooking up the labs and hooking up to other systems and stuff, and that really needs to be transmitted at least in some way at some level. I

understand how complex this would be, but it is easier than trying to be objective about usability, which is the more important thing we talked about in the last hour.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Thank you, I appreciate that input. One of the things that we heard and that we saw certainly Regional Extension Centers working with practices was that the cost that the small and medium practices that don't have a health care system to help defray costs or support them were very different and that was where we as a task force thought that it may help to be able to break down cost or to at least be able to share those costs, so I do appreciate that feedback.

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

We do have a few people in the queue now; Steven Stack?

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

I was just trying to be helpful to make sure we had people in the queue. But for this, I am most curious now to hear what the next panel says after hearing that the group of vendors here, quite a few of you, say that you thought that the existing comparison tools were probably fairly sufficient or adequate to the extent they can be and that this may or may not be a particularly helpful exercise.

I also found it interesting to hear, I think, from some of the modular vendors that the concern that the Meaningful Use Program may have stifled your ability to reach your intended market and the hope or the optimism that a less constrained market might liberate that competition and enable you to reach people who would be much more satisfied with your product than perhaps a general-purpose type solution.

So, I don't have a specific question unless that raised any comments from any of the vendors or if I have misunderstood you, please correct me. But it certainly piques my interest to hear what the folks on the next panel will say if they have a differing opinion about the value of some kind of new comparison tool that we are here convened to discuss. Alright Michelle, you can move on. I guess I didn't spur any comments and I didn't have a question. Thank you.

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

Thank you, Steven. David Schlossman?

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

Hi, I just want to interject maybe the viewpoint of a smaller group practice who is thinking about buying or changing an EHR and they are already looking at a process that is taking just incredible numbers of hours out of their already insanely busy schedules and they are also looking at a financial commitment that may come close to bringing their practice to its knees.

It has been said several times by the panel that a federal effort in a comparison tool would be duplicative as there are lots of other tools and in this small practice, of which there are many, you know, significant percentage of practices that are five physicians and less, they are thinking about this huge financial commitment, this huge time commitment to getting up and running with EHR and at the very

beginning, they are thinking about, well, we are going to pay KLAS' high fees and Gartner's high fees and the next company's high fees to get these reports and then spend yet more huge amounts of money and more of our valuable time trying to get these comparisons.

So I think that the duplicative argument is maybe not as compelling because I think if there was one unified, transparent source where practices like this could get an idea of the capability and the integration to workflow and impact of systems on their life in a straightforward source where they would not have to look through hundreds of pages of expensive paid for reports from current sources, I think that it would be a valuable resource and I am not sure it would be duplicative.

And also let me chime in and thank everybody who testified; very well presented and good points all around.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

This is Todd Rothenhaus from athena on that comment. I would go back to, if there was no point of legislative order and a mandated purchase, we still submit that most of the small or medium sized businesses in healthcare in America probably would not have made those investments. So you have created the market for the need for the tool. I do agree that there is probably some cost prohibitive nature to some of those reports, but maybe that is the conversation you guys should be having with those firms at some level.

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

...I mean, good comment, but the other thing is, if we cannot say that if you as the developer cannot make the case that this is going to make your life easier, it is going to make it easier to accomplish your goals and it is going to provide better care for your patients and better outcomes, and if you cannot make that case and make them want to buy the product, then it is...the health IT is not as good as it is made out to be, that case has to be makeable.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

We make that case every day in open market and people buy and sell, I mean, that is happening whether there is a comparison tool or not. So again, I am not sure how to back into the idea that there should be a federally...some sort of oversight at a federal level for this.

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

Well, I don't necessarily mean there needed...it doesn't necessarily need to be oversight but, leveraging the new model of the Open CHPL might provide a lot of what the practitioners need if it is presented in a straightforward enough way that it does not take a degree in computer science degree to get to the information.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

This is Scott, can I comment on that?

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

Sure.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

It doesn't, it is in a very streamlined fashion so the same way as we are developing it, not to quote my some other colleagues at ONC, the request was that we try to build something that was akin to, you know, the comparison tool that you might get on a Cars.com where if you are looking for a car with airbags, the comparison tool would easily describe where the airbag, you know, this car has two airbags, this car has four; something that is very, very simple based on the certification properties or product...the processes that a product went through during certification.

David Schlossman, MD, PhD, FACP, MMI, CPHIMS – Missouri Cancer Associates

Well okay, then the practitioner is going to need more than that because they are going to want to hear feedback about case-based usability testing metrics, usability heuristics and also end user feedback of how it functions in the field. And getting at that type of data easily so that they can see what will really be useful to them is a roadblock that I think many practitioners have run into, which is part of the reason we are here having the discussion.

Scott Purnell-Saunders, MSIS, CISSP – Senior Advisor, Health IT Certification Program – US Department of Health and Human Services

And I completely understand that and I think, you know, our...one of the goals in making the data that will be available publicly on the CHPL in a much more usable fashion is if, you know, someone decides that they see the need to develop, you know, some additional reporting processes on this, they will have the data to do so. We don't, you know, I am not necessarily the expert in that, you know, space because I am not a doctor, I am not a physician, I don't do the things that some of the users of our...of this certified technology would so in a lot of cases we try to...our goal with the Open Data CHPL was to present the information in such a way that if others felt so inclined to get it and analyze it, they would be able to.

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

John Travis has a question.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Yeah, kind of two questions that play off some of the discussion. So a number of you have made comments that it may be very challenging to get really at some of the information you would love to know as a buyer, which really would be defined opinions that you trust from buyers that are similar demographically, based on their medical specialty, based on their practice characteristics to yourself. So kind of playing off that, do you believe and then what would you suggest in the value of having some kind of buyers reference incorporated into a comparative tool if there were to be one?

The second is a little bit different than total cost of ownership. One of the outright disclosure requirements that many of us face, and I'm from Cerner to be transparent; I share with a number of you that were on this panel the need to respond to the disclosure requirements from ONC. But there is the magnitude of cost requirement that seems could be fairly particular. The example ONC gave earlier spoke of it in terms of a magnitude of cost of doing transaction exchange for transition of care. So I guess my question to you would be, as you consider that kind of requirement, without the divulging anything that would be proprietary, how do you approach that kind of requirement and do you think it offers value?

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

So this is Todd Rothenhaus. To the first question, if I understand the question correctly you are sort of looking for sort of a buyer's guide in association with some objective data steps to do and I think we are on the heels of about five years of 50 states of Regional Extension Center activity that was reportedly to do that type of stuff. I know here in Massachusetts there were some real attempts to kind of educate the medical community in the Commonwealth on kind of how to kind of kick the tires. So I would probably look back to that and see what is sort of left over from that, but again, I don't have a lot of faith that any of that collateral actually led to any sort of receiver/operator characteristics that anybody would be proud of.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

This is Anita. I would tell you, confirm that. What we found in trying to do that was that it was virtually impossible to get an apples to apples comparison. So we had some basic characteristics but at the end of the day, it was not like going onto a car site where you could say, I want to start with this base model and I want to add these features to it and come up with a price for vendor to vendor or to find out even, you know, at that point usability.

Because remember, we were in the early stages with most vendors; we started out working with hundreds and by the en...by now, where we are winding down, we are down to only dozens because so many have left the market. So there just isn't...hasn't been enough history to be able to provide really tangible good information to the folks who are trying to be consumers of the EHRs.

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

So we have a question...

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst
I...

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

...in the public chat and then we will go to Cris Ross. Did somebody else want to say something though, I am sorry.

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

It's Peter Kaufman; I was just going to say again, we don't want just a list of checkboxes for features. They have to be vetted and have to come up with a way of seeing whether that feature is usable; not just a checkbox.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Right.

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

Okay, so from the public chat, it seems like some specialty EHR vendors have the secret sauce, in some areas specialists using a specialty EHR seem to have more productive workflows and usability issues

seem better managed. What do the larger EHR vendors need to know, understand and implement to achieve the same type of satisfaction as seen in the specialty space?

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

This is Todd again from athena. I apologize, I think I might be one of the two that is not specialty. So I think it is sort of an interesting comment, you know, we sort of feel that what happened to the best of breed world was that the interoperability didn't emerge quickly enough to let those guys kind of compete freely. And so frankly, we spent a fair amount of time not digging into the specialties as deeply as we had to or as deeply as I think we should have. Now that the information liquidity is happening a little bit more, plus we are in a little bit of rebound from sort of reeling back from MU and finally getting back to some innovation, the specialty work is a really important focus of our R&D and clinical teams here.

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

And this is Bob Hitchcock. To expand upon the a little bit, I am not necessarily sure it's what the larger or the enterprise vendors need to know, I believe it is really what organizations are starting to recognize is that the shift away from best of breed solutions in certain care areas has had a negative impact on financial, clinical, and business outcomes and that some of the decisions that they made which were in their best interest, or perceivably so when Meaningful Use began; those decisions may not be the same.

We are clearly seeing a replacement market coming and for very good reasons. I do agree that the types and level of interoperability that would support the really robust use of best of breed systems in multiple specialty venues of care, it is not mature and they are not there. Yet I do believe that healthcare vendors can work together and work toward a common goal of connected care recognizing that you don't have to provide every module to every area inside of an organization in order for you to be successful, and certainly not for the organization to be successful, that by adding additive value, if you will, then everybody wins in these situations.

Michael Sherling, MD, MBA – Co-Founder & Chief Medical Officer – Modernizing Medicine

This is Michael Sherling speaking; I completely agree. I think, you know, not everybody has to be the best at everything, but the true goal of interoperability is if we work together so, you know in Emory Healthcare System, you know the Department of Ophthalmology uses Modernizing Medicine and that can interface with, you know, Cerner systems. And so having, you know, best of breed for certain departments within a larger infrastructure is, I think, how you solve the problem of getting, you know, best of breed modules in.

Richard Loomis, MD, CPC – Vice President, Chief Medical Officer – Practice Fusion

This is Richard Loomis. I would concur what others have said and just recognizing that the EHRA consists of, or is comprised of a number of companies that target different markets, that target different care settings and specialties and it is really up to those companies to determine where they want to focus.

At the same time, interoperability is critical to being able to facilitate the sharing of data between various platforms, some focusing perhaps on specialties or in a care setting like a post-acute care setting and really enabling vendors who choose to focus on a specific area or target market to be able to compete in, or at least to be able to work with other vendors who choose to maybe focus on the enterprise setting as an example.

Peter N. Kaufman, MD – Chief Medical Officer and Vice President, Physician IT Services – DrFirst

And this is Peter Kaufman; I also ditto to what the others have said and also point out that as EHRs are becoming more modular and people are going to more web-based systems with modularity that some of these features may be able to be achieved through modularity from other partnerships as opposed to doing everything themselves. The large EHRs can do quite a bit themselves, but there are some aspects that they may want to take modularity...modular approaches to and enhance system for specialists.

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

Thank you. Cris, did you have a question?

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

I do. So very interesting testimony I am...I note two things; one is, we had some consumer groups in our first two panels who talked about their struggles in getting the information that they needed to make the right choices. I heard some of our panelists today say that there is plenty of private-sector alternatives here and offered some skepticism about whether the government should get involved in trying to create or foster this kind of thing.

I also heard some of panelist today say that the challenge is not comparison tools, it's other attributes about the market need to be fixed in order to make purchasing better. And I respect all those of viewpoints, they all make sense, but I am trying to kind of bridge across them.

So a question that I would like to ask for vendors who opined about the worth of an ONC-designed or sponsored or fostered comparison tool, do you believe that the private sector tools, and we are going to hear from some of those vendors in a minute, are adequate? And if they are not adequate, what do you think is the potential market failures that we might address so that those exchanges could be...or those information sources could be more effective for consumers?

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

So Todd Rothenhaus from athena. I think a couple of them do a pretty good job; I think the one limitation that they have is that they are a bit more focused on the Chief Information Officer and the buyers than they might be on the end users, but it's a minor...it's a little bit...somewhat of a minor point. I think they are actually adjusting themselves now because there are a lot of CIOs with doctors that are angry.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

As a CIO, I hear your point. So your view, Todd, is that those...that the private sector things...offerings are sufficient or will be sufficient over time and that there we don't...that there isn't any need? I'm trying to be blunt.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

Yeah, well...yeah sure, I mean, look I wanted to tweak it one more other way that I think about it.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Sure. Sure.

Todd C. Rothenhaus, MD – Senior Vice President and Chief Medical Officer – athenahealth, Inc.

I mean, their buyer is usually a health system and a hospital and maybe they...maybe you guys could commission them to do something, I don't know. I, you know, you have got a really, really long tail problem in the ambulatory world, right? So there are hundreds, right? And then when you turn around, you flip it over, some of those folks just, you know, they are essentially talking about four or five systems now because they have decided to define the market as, you know the on...the three and a half vendors that have inpatient/outpatient, ambul...you know, administrative and clinical, right, in a little 2 x 2 table.

And so I think there might be a breadth issue that you guys have to address as well, but I do think some of those other ones that I mentioned, the smaller ones, have done a nice job collating some of the activities of the, in sort of the smaller market sector. So there is some polishing to do there, but again, I think there's, you know, again I think they do a pretty good job overall.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thanks, Todd, I really seriously appreciate your comments. I am curious if any other vendors want to offer an opinion about the adequacy of the information sources and any places where the market might be broken and needs some intervention.

Richard Loomis, MD, CPC – Vice President, Chief Medical Officer – Practice Fusion

Yeah, this is Richard Loomis. Noting that at least some of these sources of information surveyed the provider space, not just the executive leadership of larger enterprises but also physicians and other providers in the small practice ambulatory setting and in their published reports provi...some of which are free and freely or readily available with a Google search, they do offer response feedback, survey feedback from providers who are actually using the software. So, could there be more of that? Certainly but at least some of the sources available today provide direct feedback from users of the software.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thanks Richard and I am curious whether anybody else wants to offer an opinion about adequacy and about market issues to be addressed?

Robert Hitchcock, MD, FACEP – Chief Medical Information Officer & Chief Strategy Officer- T-System

So this is Bob Hitchcock with T-System. For...so in addressing the markets that we know very, very well, I would suggest that the vendors out there like KLAS do a very good job; adequate, yes. Is there room for improvement? I believe that there probably is and that they address those opportunities from time to time doing specialized studies and reports focused on end users, let's say.

I am not aware as of what is happening in ambulatory market, which does have a much wider breadth of solution providers out there, which may make it more difficult. I do think though, kind of going back to one thing that Todd said, and potentially in how to leverage some of these organizations and what I consider a challenge I think in coming up with a comparative tool is that just setting up the infrastructure and understanding the struggles of getting good comparative data across multiple vendors and multiple platforms is really quite difficult.

And that I wonder if, you know, leveraging other organizations that have done it well to help develop a tool that meets the specialized need perhaps of a comparison tool or something that would provide information differently wouldn't...would be a reasonable way for the committee to potentially look at recommending. In other words, there is no need to build something perhaps where you could leverage the expertise and potentially even data from others that have done this successfully over time in the

private sector. And then you could re-represent it in ways that you thought was valuable to potential purchasers of certified healthcare technology.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thank you, Robert. This is Cris again; that is exactly, I think, the point that I am trying to illuminate. I don't think that this task force believes or came from a viewpoint that the only or preferred solution is for ONC to design, build, and deploy a comparison tool. We are responding to a charge in legislation to make recommendations around that, and I think there is at least a viewpoint, I won't say whether it is leading or secondary or primary or whatever, that doing exactly what you said may be a viable alternative.

So what I am trying to illuminate is, what concrete steps could we take to foster that kind of private sector development by identifying places where there is block, you know...and information in adequacy in the market, those kinds of things. So, all of your comments have been very helpful in helping us understand that; thank you.

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

Thanks, Cris. I think that is our last question for Panel 3, so, and we are running perfectly. So thank you to all of our panelists on Panel 3; we really appreciate you taking the time out of your busy schedules to share your expertise and insights with us. We are now going to move on to Panel 4, which is the health IT comparison and informational tool vendors.

I just want to do a quick check to make sure that we have everybody on Panel 4 on the phone, and we can hear you. So Amit, are you still there?

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

Yes I am.

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

Hi, Amit. Raj, have you joined?

Raj Ratwani, PhD – Scientific Director, National Center for Human Factors in Healthcare – MedStar Health

Yes, I am here.

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

Hi, Raj. Alan Brookstone?

Alan Brookstone, MD – Chairman – Cientis Technologies; Co-Founder – AmericanEHR Partners

Present.

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

Hi, Alan. Jason Hess? Sounds like we don't have Jason, so we will work to get him on and then Steve Waldren, are you still on?

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians
Yup...

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

Okay, so we might have to move things around if we do not get Jason, but not to worry as of yet and so if you are ready Amit, we will get started with you.

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

All right. Well then, hello and good afternoon; my name is Amit Trivedi and I'm the Healthcare Program manager at ICSA Labs, an ONC authorized certification body and accredited health IT test lab as opposed to a comparison tool vendor. We work with many of the health IT developers that have been certified under the ONC Health IT Certification Program and have experience administering other complimentary industry testing and certification efforts, many of which are also focused on helping consumers make better health IT purchasing decisions. And so thank you for this opportunity to provide some feedback to this task force.

I've also provided a more detailed written testimony, so I will try to summarize those points right now. One, starting with the information in test reports that could be made available for vendor or product comparison. In my written testimony, I provided a bulleted list of the elements that could be most important to include from the comparison standpoint and as Scott from ONC had mentioned in his presentation, the latest Open CHPL offers a number of improvements that allow for greater access to the information submitted to ONC and it seems like there is some recognition that that could possibly be a good trend to take advantage of, whether it is creating a new tool or having existing tools leverage some of these capabilities to access that information.

That said, certification testing and the information in the test result summary reports should probably be a floor from which to begin a general comparison. In order for a comparison tool to provide value, the information gathered during the certification process should probably be augmented with additional information aggregated from other sources and used then to rank or rate or differentiate the technologies.

Other sources could include CMS for Meaningful Use and attestation type information; US-CERT for security and critical vulnerability information. And other industry certification testing programs like ConCert, a HIMSS or eHealth Exchange, DirectTrust, etcetera. So any comparison should probably include areas that are also not evaluated as part of the certification process.

Karson provided an excellent overview of the latest disclosure requirements, referencing question 2 in terms of what information should come out of the latest disclosure requirements for certification? Since this is the first year of a new and fairly broad requirement, our experience as a certification body is that we would expect that the attestation that we will be reviewing and seeing from software developers will probably vary significantly initially, until ONC provides further guidance to certification bodies in terms of specific templates or discrete requirements for each disclosure. As is, the information is not yet reported in a structured format conducive to side-by-side comparison. But we believe we can get there.

ONC ACBs are also required to collect and submit the following additional information to the Open CHPL as part of the post-certification surveillance process starting in 2016. And that includes surveillance results, complaints received about certified products, developer supplied corrective action plans based

on any non-compliance finding, as well as quarterly submission of product update status. So, new requirements mandate that the software developer update their ACB at minimum quarterly with any changes or updates to the product.

So this additional information should prove helpful when comparing certified products with similar capabilities, especially if the CTC tool or whatever tool is eventually developed, included some kind of a dashboard view that showed some key visual indicators like you know, number of complaints, number of corrective actions, the presence of a pledge and these types of things should help users focus their attention and essentially drill down where needed.

As to question number 3, the limitations on what can be shared; I have included more information on that in my written testimony, but basically ACBs, certification bodies are required to ensure the confidentiality of customer intellectual property and trade secrets, but at the same time, there are specific requirements in terms of what ONC has mandated that we do share as part of the testing and certification process.

And finally I have a couple additional comments. I believe that certification testing evaluates the technologies capability to meet expected results. The outcomes of the testing are either pass or fail. What is not measured or evaluated as part of certification test methods is the specific workflow or workflows and how the results are achieved. And so more often than not, this translates to usability and how well a product fits in the work environment or gains acceptance of users.

And so ultimately there are many various sources of information that could be used to compare technology, but in order to develop a tool that will provide value beyond the CHPL, it is important to consider those areas that are not focused on currently in certification testing and to look at collecting information from other trusted sources and potentially verified end-users of products who can speak to a product's performance once implemented.

And so a comparison tool would likely be difficult to manage and maintain and needs to offer value beyond what users can already do by browsing the CHPL. And hopefully this could be done by exposing those key factors that users would want to select to narrow down choices without having to read too many pages of material. The CHPL as it is today may not be the best for this purpose, but it is the authoritative repository of the detailed information from testing and certification and potentially this could be a source...

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

Amit, can you please wrap up?

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

Yes. That this would be a source that users would access after the tool has helped them create a short list of products that potentially meet their needs. A companion guide to help educate purchasers may also be helpful so purchasers know what questions they should be asking and what points they should be basing comparisons on, and where they might find that data.

And finally, the CTC tool or an augmented, already existing tool that leveraged the information that we have been discussing for comparison should ultimately link to the appropriate parts of the CHPL because

otherwise users may go to the wrong product or version. Thank you again for the opportunity to address this task force and I believe we will be doing Q&A after all the panelists go.

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

Thanks Amit.

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

Thank you.

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

Raj?

Raj Ratwani, PhD – Scientific Director, National Center for Human Factors in Healthcare – MedStar Health

Great, and if we could bring the slides up, that would be great. So good afternoon and thank you for the opportunity to speak today. My name is Raj Ratwani; I am the Scientific Director for MedStar Health's National Center for Human Factors in Healthcare. I am joined today by Dr. Zach Hettinger, the Medical Director for our Human Factors Center and very quickly, our center is focused on applying theories from human factors to improve safety and quality in health care.

For the last several years, we have worked to develop a broad, balanced and in depth understanding of usability and safety of health IT. Our perspective is really shaped by our extensive research efforts I think in three main areas when it comes to health IT. The first is understanding the impact on frontline clinicians by conducting observational studies of changes in workflow in stemming health IT errors.

The second is in understanding vendor processes and part of this effort included visiting 11 different EHR vendors to learn about their user-centered design processes and challenges that vendors have in meeting these requirements. And the third is understanding the impact of usability policy which has included the systematic analysis of tens of almost into the hundreds of different CHPL reports and interacting with multiple health IT stakeholders. Next slide, please.

To achieve advancements in health IT's ability and ultimately safety, providing comparison tools that support purchaser decision-making will be critically important. It is important to provide purchasers an opportunity to easily compare the effectiveness, efficiency, and satisfaction of using a product. When purchasers pro...when providers purchase and implement a product, the usability of the product as experienced by frontline clinicians on the first day of use in their clinical environment, should certainly not be a surprise and many people when we talked about usability actually misunderstand what usability is. It is not just about counting the clicks and choosing colors, but it's actually about understanding how clinicians think and work. It is developing products and anticipating the errors that might occur and critically designing to mitigate those errors. Next slide, please.

Within the current landscape of EHR vendors design, development, certification and then purchase, customization, implementation and use by frontline clinicians, there are several different phases for comparison. And as we have these discussions, it is important to provide comparison tools for the user centered design process employed by vendors and the actual usability of the vendor product, which pf

course includes the certified products sort of out of the box and the implemented product as used by frontline clinicians.

And currently there are several barriers to developing effective comparison tools to meet these objectives. I am going to talk about a few those here and then of course, there will be more details in our written testimony. Next slide, please.

So we've actually had pretty extensive experience reviewing numerous vendor safety-enhanced design reports from the CHPL website and we have developed a framework, which I will briefly touch upon. It has taken extensive resources to make sense of the reports and I know we just heard a lot of information about how the CHPL site is going to be modified dramatically, but it's worth pointing out that our experience to digest these reports and really interpret them has included tremendous human factors and clinical experts and a tremendous amount of time to digest all of the content in these reports.

And as we worked to develop a framework to understand the usability processes of the different vendors, it has been very challenging and I want to talk about two of those challenges here. The first is difficulties in comparing the actual user-centered design process since only attestations of using a process are documented. So vendors simply have to state the process that was used. There is no evidence of a process, so all we can actually compare is what process was used and not the rigor in which the process was actually applied to their entire design and development cycle.

And in addition, what we have witnessed is that there is poor adherence to standard reporting, making it very, very difficult to ascertain consistent information across vendors and even across a particular vendor's product line. So those are some of the barriers when it comes to actually talking about process. Next slide, please.

When it comes to comparing the usability of the actual product, there has been tremendous work done by many of the people testifying today, as well as others, and most of those efforts are based on surveys of end users, which is important. But formal evaluation by usability experts to understand the efficiency and effectiveness of products with objective measures is also important and this component is currently lacking.

We...our group has attempted to compare the formal usability assessments provided by vendors as part of their safety-enhanced design reporting. But there are several challenges there; the first is that there are no standard use cases for comparison across products, therefore there is really no way to do an apples to apples kind of comparison and draw any meaningful conclusions. The second is that adherence to reporting requirements is lacking for some vendors, so not all the required information is actually available. And the third is that standard reporting templates are often not always followed, making finding the information itself incredibly difficult.

In addition to the comparisons that rely on the CHPL website information and those summative tests that are conducted by the vendors, it is also important to compare the usability of the implemented product because that is actually what users face and we know that there is dramatic customization and dramatic changes that occur to the product during implementation, so it is critically important to really understand what frontline users are interacting with.

Comparing a subset of these products is challenging given first of all the lack of access to formally test these systems; second, standard use cases and testing methodologies and third the authority for any organization to actually conduct this kind of assessment. Next slide, please.

So our recommendations to the task force are to consider the following. One is, how do vendors provide evidence of their user centered design process in a way that it is not burdensome to the vendors so that a more meaningful comparison of usability processes of vendors can be established. When vendors are engaging in a user centered design process, one could look to see whether the byproducts of that process to be used as the evidence; so it is really not to push vendors to have do more work than they are already doing.

The second recommendation is to consider establishing standard use cases, perhaps in addition to the ones that vendors are already using because we know that vendors need to be able to develop their own cases but a standard set would help us perform a more direct comparison of the usability products. The third is to consider whether there could be methods for assessing the usability of implemented EHRs since those are the systems that are actually used by clinicians. And the fourth is to consider including safety surveillance data as part of the product comparison. Next slide, please.

I want to thank you for your time and, as I have mentioned, there are more details that will be provided in the written testimony and we look forward to further discussion and questions. Thank you.

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

Thanks, Raj. Next up is Alan Brookstone.

Alan Brookstone, MD – Chairman – Cientis Technologies; Co-Founder – AmericanEHR Partners

Thank you very much. I am Alan Brookstone; I'm a practicing addiction physician as well as the cofounder of Cientis Technologies. And Cientis Technologies worked with the American College of Physicians and in a collaboration with the American Medical Association, the American Academy of Family Physicians and a large number of other professional societies to actually develop this resource over the last number of years.

AmericanEHR was launched in 2010 and really was developed as an aggregation resource for information from a wide variety of sources including third-party sets of data; surveys that were collected, government curated data sets, etcetera. AmericanEHR has been doing EHR comparison work for six years and we have been integrating third-party data such as attestation data for a number of years already, which we incorporate with the additional data that is presented. What we have learned over this time I think is invaluable. We have learned that the data must be unbiased. It must be accurate, comprehensive and it must be completely trustworthy.

A significant challenge is collecting and presenting enough data so that you can actually achieve these goals. What has actually become clear to us is that it is not just about reporting and presenting information on certification, but it is a combination of the objective measures mixed with validated usability, quality data, as well as substantive feedback not just from the end user, but also from the vendor about what they are doing with their product actually to correct issues that might exist.

What is important to know is that time is of the premium. It needs to be fast and we truly believe in need to be free for the end user. Our job is really to reduce the noise. We believe that we need certified

data of all products, so that whatever system is available must have all the certified product data in it combined with third-party sources, such as the data that is available through obviously the Open CHPL resource, usability data that could be provided by an organizations such as MedStar and work that Raj is doing or work that NCQA is doing, for example with the NCQA eMeasure certification that are just coming out and the ability to certify data not just for an individual product, but for a specific version, and I will come back to version in just a moment.

This is not just a simple commodity market. If it were easy for a physician or a practice to simply rip and replace, then I don't think that we would be having this conversation today because those issues would be dealt with by normal market sources.

Our focus has been on engaging the healthcare professionals, the organizations that actually represent physicians building the engagement mechanism, building the trust, and building the governance of that structure so that we can work with the largest professional societies across United States. And in fact we have developed a set of specialty criteria, we have not presented the data because of the difficulty of presentation, but we have developed specialty criteria for now 10 specialty societies already.

I would like to just speak briefly about version and time. There are hundreds of products and there are literally thousands of versions; at count of the current CHPL document, it is seven and a half thousand. With Open CHPL and ability to link feedback and certification data back to an individual version, it is absolutely critical. All versions are not the same. We also must be able to apply the time factor because what was true a year ago may not be true now. So not only is the complexity of version an issue, but the complexity of time is an issue around when does that data actually refer to.

I would like to make a final word...present a final word on interoperability and just to comment on it. You know, information exchange is really the currency of interoperability and affordability the key capability to actually share information with other care providers that I know so well from my own practice of working with indigent populations.

The ability to actually take objective measures and then report and analyze those are critical and in that case, it must be semantically correct. You have to be able to take the data and then interpret in a way in the other system that is meaningful to that end user, it is not simply about moving the data.

I think it is important to understand that the knowledge gap exists because for those individuals who are unable to actually transfer from one system to another, for example, physicians or practitioners within large organizations. There is a large requirement so a significant requirement for optimization within those organizations by those individuals. So the ability to actually identify modules functionality, capability, etcetera, and build upon that and actually improve the use of the product is key.

This data can be presented back if the version of the product is known and if there are capabilities that that individual is not aware of. So with that, I will close my testimony and look forward to any further discussion.

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

Thank you. Jason , are you now available?

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

Yes. Garrett Hall and I are both on the call ready to start.

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

Okay, please go ahead and we are working on uploading your presentation, so...

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises

I can see the slides, so it looks like it is there; if you will go to the next one. And advance it one more time if you would. I want to just tell the quick KLAS story; I did not want to go into methodology too much. If you could advance it one more time, please.

This is Kent Gale, our founder, still very active in the company. Kent, 20 years ago, was working for a healthcare IT vendor and he was in a role where he was out meeting with customers, with hospitals making commitments. He came back to corporate office and there was a meeting where they discussed going to their IPO, how they were going to have to cut their numbers.

And as a result of that, Kent was made to look like a liar. He had gone out and made commitments with customers and now as a result of trying to look good, he would have to go back on his promise. And he left that meeting saying it would be cool if there was a firm out there that could measure if vendors kept their commitments; and that was 1986 when that first survey was started. If you would advance the slide.

Today our mission is to improve the world's healthcare by providing transparency to every major healthcare decision for software and services, and now medical equipment vendors as well. We are doing that predominantly in the United States, but for the last five years, we have scaled to the rest of the world, some of these geographies where EMRs are being implemented. So we are talking with thousands of providers around the world to the tune of last count, 2300 providers a month is who we are talking to today. If you go to the next slide.

This is the KLAS Advisory Board; you will recognize a lot of these folks. These are key leaders in healthcare IT. You will note that most of these are CIOs or CMOs or CMIOs and that is pretty important. It was mentioned earlier that KLAS has certainly a CIO heavy contingent of folks that we talk to, and we do. But we also recognize we have to speak with managers in the ancillaries, whether that is lab or pharmacy or radiology or the PACS administrator; or in a practice on ambulatory, the practice manager who can speak about the billing and scheduling system or the lead physician or champion in the multi-practice that can talk about clinical functionalities. So we recognize that we have to get perspective across-the-board.

The KLAS Advisory Board here, these folks are so helpful for us because they help us focus on what is really going to provide value back to them. Oftentimes we are pressured by vendors to change our story, the way we rate things and we always say, well will that hurt or help providers? If it is going to hurt the perspective we are giving to providers, we don't do it. And these guys are a great tool for us to determine what we should do. If you will go to the next slide.

Who do we speak with...if you will advance it one more time? You can kind of see a cross-section of those individuals that we are talking to. If you would advance it one more time; this is the questionnaire that we use when we speak with providers. So we are using this thing 2000 plus times a month to rate

different products or services. And you will note some of the questions, a C-level could speak to, like cost of the system or the contract process. Somebody in the trenches at the hospital or health system or clinic probably could not, but we are going to get as much perspective as we can from all of the different camps, aggregate that, keep the providers anonymous when they speak with us, so they can speak freely.

And a lot of the data, it was mentioned that KLAS has expensive reports, and they are expensive, they are hard to do. They take about six to eight months to pull off. We do about 70 of those a year so it does require some pretty good resource to fund those. But we give a lot of that information, for free, to the providers. If they will participate with us, they get free access to our database, our App, free summaries of all reports and the database access. So we want to give back to providers as much as possible. Where we do monetize a lot of this is with the vendors if they want to engage with us in a consultative way, get access to our reports, that is where they get pretty expensive, and rightly so. If you will go to the next slide.

This is a questionnaire, a sample of some optimization...EMR optimization services firms that we rated, and this is kind of what those special questionnaires look like. We go to the vendors and to a bunch of providers to build these questions because there are folks that understand these questions better than we do. Once you get all of these people together and they can vote on what the best questions are that will help the providers, not necessarily make vendors look better, because we get some of those suggestions sometimes, too. But which provider questions will help shine a light on truth; and this is an example of the questionnaire for one of those 70 reports that we will do. If you go to the next slide, I will let Garrett jump in.

Garrett R. Hall, JD – Research Director, Implementation and Go-Live Support – KLAS Enterprises, LLC

So as Jason mentioned, as part of our process we talk to over 2000 providers each month at various levels; and if you would advance it, and one more time. So we get that feedback from the providers, it goes into our database, of we do quality check and then we really have three ways of distributing that information. One, if you will advance it, is through our vendor ratings. Advance it one more time. And this is an example of one area that we measure, which is population health.

So we have providers who come to us and say, I need to look into a population health solution, who should I look to? We do not necessarily make recommendations, but we point them to our website that has all the data that they need so they can go on and if they want to look at who is playing in that space, they can see the ratings; they can see the trends.

And if you will advance it one more time, they can dig down into specific areas based on the questions that Jason was talking about, where they can say, how do they do on money's worth? Do they nickel and dime me at all? What about training implementation? And one more. They could also see comments from the providers that we have spoken to; that gives context to those numbers. So this is a major way that we really differentiate vendors to help providers understand what to expect when they engage with these vendors.

If you will go one more, or maybe a couple more just to get rid of those. Okay, and now one more. Another way that we do it is specialty reports; so we, like Jason said, we published 62 reports last year. Advance one more. One of the ones that we did that was very popular, very important to the industry is popu...or vendor...value-based care where it is a new segment, a lot of providers are out there saying, I don't know what to do; I don't know who can help me. I don't know what they can help me with.

And so we dug really deeply into this data to figure out the areas that were important to providers and who is really performing in those areas. So there is a list of vendors there to help providers understand who they should go to and who really fits into what they need. And if we advance it one more, as well; this is just...this is from our acute-care market share report. It just talks about how...who is out there doing the work and who are the wins from the previous year. And then advance, probably a couple more.

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

Garrett, if you could work on wrapping up.

Garrett R. Hall, JD – Research Director, Implementation and Go-Live Support – KLAS Enterprises, LLC

Okay. So we also, as Jason mentioned, we use this data to help vendors to improve. But really the focus of these things is really to differentiate vendors to help providers to understand who is out there doing the work and who they can rely on.

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

And if you would advance the slide a couple more times and we will wrap up. We have kind of talked about how those are available. I wanted to just show you some numbers; a lot of the...keep advancing it please. These are some of the more popular reports and you will notice these are topics that everybody is itching to understand when we speak with the folks in hospitals. If you will advance it one more.

This is, I thought would be interesting though; these are the number of times our stuff is downloaded and it is a tool that we publically share. And you can see how often ambulatory, by the sheer numbers of practices out there trying to understand whether that is one doc or large multi- specialty; they want to know who they can buy. And you can see the numbers in the last 12 months of what they are looking at. It also helps us understand which segments are hot.

So, this is an interesting tool and there has been a lot of discussion about EMR usability. We have done three studies; Jacob Reider at the ONC, when he was there, helped us build that questionnaire. So we have done that piece. We have done another one on interoperability that we are going to launching number 2 on, where we convened all of the EMR leaders together and get consensus on that.

We have an EMR specialty report and different versions of that we are going to be doing this year. So, essentially this is the mechanism that we have established and if it is helpful for the government to use this as an indicator, we are going to continue to work hard to put that perspective out there. That is it for us; that was our brief remarks.

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

Thank you. Steven Waldren?

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

Well good afternoon, it is a pleasure to talk with you guys today and give a little bit of our experience. I am a family physician informaticist; I work for the American Academy of Family Physicians; I direct our alliance for eHealth innovation. And I did provide some written testimony that I will briefly go over. The first half kind of gives some...our experience and the second half talks about some of the recommendations based on that experience.

We have been trying to do EHR selection support for our membership since I started with the Academy back in 2004. We did our first kind of foray in doing this very complicated functionality profile of practice management systems that was extremely in depth and looked at every aspect of practice management system. We partnered with Microsoft to support that work and by the time we got that out into the marketplace, it was already obsolete and within six months later, it was completely worthless because of the rapid change in the functionality. And that was our firsthand experience of the really complexity of managing scalability in this rapidly changing marketplace; and I think that is true in the EHR world.

So we tried to figure out, well, could we just get survey data from the vendors, so make them work for us and provide us with that information, knowing that it is going to be self-reported. But can we match that with some survey data in our membership. And one of the things that we really found out there was that we would have a particular vendor that some of our docs would say, this is the best product for family medicine and another group of docs who would say, this is the worst product for family medicine; and we assumed that a lot of that had to do with practice size and setting.

So that drove us to creating a different tool that was a tool we called, find a physician like me and a practice like mine to try to figure out how to match docs that are in like practices together to have those kinds of conversations. And that led us to the notion of creating a...system; and not only did we have that kind of background data from the...but we also had that profile data about the particular product or excuse me, about the practice and the physician and then we provided them the ability to provide us two things.

One, which kind of goes back to the comments earlier about value statement that Mike made; we asked them to provide us cost data, both initial and ongoing. We asked them to provide us information around how their productivity was with it and then our overall question was, do you...would you recommend this to your colleagues? And what we found was that a lot of the discussion around being able to make sure did this product really going to work for somebody predicting that moving forward that the implementation is a huge piece of that.

So we kind of continued to push on the review side of that, but what we found was that we were unable to maintain, based on business model and scalability, that process. So we actually moved our selection processes all the way over to AmericanEHR to try to manage that kind of moving forward.

So if I was going to create a comparison tool today, kind of five tenants that I think are really important, many which were alluded today and in your previous hearings. The first is, there needs to be a strong social component; so if you want to be able to manage the complexity and variability in medical practice and deal with the change in health IT design and healthcare transformation, you are going to have to have that social component. You also need that social component to be able to compare implementations, understanding that the technology is just one component of the larger system, sometimes called a sociotechnical system, and you have to understand that context of how the EHR was implemented to be able to know would this really work for a different practice.

Number two was alluded to earlier, is this notion of robust information for compatibility. I use compatibility instead of interoperability because it is really how do these two systems really work together. We have an adoption rate of over 80% in our membership, so our docs that are looking at comparison tools is more about switching are adding a component from another modular solution into their product. And I think that will be a bigger problem as we continue to move forward.

Number three, focus on the capabilities not on the functionality; it does not matter how well the EHR generates a patient list, if you can't use that patient list to drive population health management, recall patients, do risk stratification, it doesn't matter how well it does. So if you focus on those capabilities, you start dealing with more about outcomes and process, not just structural metrics.

Number four, I think the potential role for the government is a common infrastructure that other entities can actually use. So they are creating the comparators, the government is supporting a common infrastructure to have that and move that forward.

And lastly I would say that try to make sure that the testing and evaluations are granular and transparent. It was already alluded to earlier, I think Peter Kaufman talked about the fact that there are functionalities that he has to use as a gastroenterologist because of Meaningful Use and certification that are not all that valuable. Start with really small atomic evaluations and then work to create collections above that.

The last thing I would say on transparency is making sure that this comparison tool is not really about finding the bad and the good products, it is really understanding what is doing well and how do we move the whole industry forward because right now, we are really far behind in where these technologies need to be to support family medicine and specialty care, especially as we continue to move to more value-based payments. I appreciate your time.

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

Thank you. So that concludes the panelists for panel 4. If there is anyone from the task force that has any questions if you could please raise your hand. Otherwise, I am going to call on you Cris to ask our first question because there is no one in the queue. Oh, Chris Tashjian has a question.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thank goodness someone spoke up; thank you Chris, that is good.

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

Yeah, you bet. So, I have a question; you know, one of the things that hit me in one of the earlier parts of this section of this panel was, are there standardized cases that docs could use for comparison? I mean, I never thought of it from that standpoint, but if we went to the specialty societies or whoever and created a set of standardized cases for each specialty that the vendors would have to respond to. Is there such a thing like that out there or what do people think about that? That occurred to me or sounded like I heard something like that, but I never heard if it was actually in use.

Alan Brookstone, MD – Chairman – Cientis Technologies; Co-Founder – AmericanEHR Partners

Its Alan Brookstone here, I will...if you don't mind, I will respond to this one first. I believe that there are specialty criteria; our experience in working with the specialty organizations is we can generally come up with a set of about 10 questions that are highly specific to that specialty that actually speak to the large majority of specific or subspecialty needs of that particular group. And in doing that by appending that to an existing set of questions or by being able to filter down on that plus a subset of core questions that you can actually come up with a pretty good set of data for that particular specialty.

Use cases are quite difficult in that the way that individuals use EHRs can vary quite significantly and based on implementation and which tools they have used and how they have optimized; so actually

taking use cases and doing a comparison still, in my opinion, does not lead us to a true apple to apple comparisons.

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

This is Steven Waldren; I would agree with Alan. When we talk with our docs, we usually try to tell them think of six cases based on their practice because everybody's practice is a little bit different. And in those, you have three that deal with issues around acute visit that is going to be quick, fast; a chronic disease visit and then another one if there is a procedure or they have some type of special population that they deal with. And then create another three-set that is very similar to those.

And usually what we do is say, give the first three to the vendor to be able to provide them, what would the vendor do if you were able to actually do the customization, again going to Peter's point earlier about having the right template. And then at the last minute, spring on the other three saying, okay well what if there was not that time to, and we had not spent the time to do the customization and creating the templating, how would it work then? And that's usually what we walk with our docs, but we found it very difficult to find kind of a common set of use cases, just even...our specialty.

Aaron Zachary Hettinger, MD, MS – Medical Director, National Center for Human Factors in Healthcare – MedStar Health

Hi, this is Zach Hettinger with MedStar Health and I think that is a great question. I think that having those sort of standard cases to compare across both for specialties as well as for looking at the different products is critical. And the framework that Raj talked about in his presentation, we reviewed many, many use cases that were on the CHPL website and there was a wide variety of use cases, standard cases that would have basically minimal detail with not that much information about the particular case and how it should be implemented.

And then we saw other cases that had tremendous detail and built up a story and you could see that physicians or nurses that were using these cases both for testing the certified cases or potentially implemented EHRs could really get a feel for how the system would work. And as a practicing emergency physician, I have gone through several rounds of EHR training that the training and use cases that really aren't detailed; you don't really understand how the system works, you don't really use it. It is almost like going through a recipe and doing some baking where you just do step one, step two, step three instead of actually testing the system and looking for those errors and coming across the true usability issues that can then be documented and tracked over time.

So as I said, there is not a lot out there right now. There are a couple of organizations, including NIST, that are starting to get some standardized use cases, but across the continuum and specialties, it is just not out there yet, but an important thing to develop.

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

And this is Jason Hess from KLAS; it is an interesting question. I think one of things that we have found in our years of doing research, say for example you are trying to something on usability, you know, it's...we think it is important to have that interviews with lots and lots of customers because there are so many things that factor into whether something is usable. It could be, how much of a Cracker Jack vendor team or product or the quality of code. There are lots of factors there that are coming from the vendor.

It could be the range of sophistication that we see in the provider themselves; if it is a single doc practice where the wife or...is running the practice and the key person there versus a large multi-

specialty where they have a very robust staff, lots of experience. You are going to get a very different experience. If you use a third party implementation solution to kind of get your solution live, there is just a lot there.

And so I think it is one thing to get the right questions and to get numeric responses, but I think that anecdotal color is critical to be able to once you have done a representative sampling, draw out the true meaning of the data. And so I think those two elements go hand in hand to really get anything of meaning.

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

And this is Amit Trivedi from ICSA Labs. Just to build on the previous comments and what I mentioned before, you know, going above and beyond what is in a testing or certification report. If you look at five EHRs that were certified on, you know, med reconciliation, for example. All five vendors on the CHPL would meet the requirement, let's say, on paper. If you actually had a vendor, somebody demonstrate how they did the medication reconciliation, I bet you would see a good deal of variety.

There may be a difference in what was demonstrated during the test by the vendor, you know, a streamlined, simple demonstration of how to meet the functionality versus the workflow that an end user would be expected to use in their daily practice versus potential additional alternative workflows. So those are the things that are kind of missing when you are just looking at the certification process, but come out in the actual demonstration or applying use cases in those demonstrations.

The other thing is, you know, when we talk about usability and usability reports, sometimes, you know, if there is an absence of specific requirements, templates, things like that, it becomes an exercise in terms of who can provide the best looking attestation as opposed to having concrete evidence, like Raj had mentioned in his presentation. So, there can be a pitfall if you rely too much on either attestation of just the reports.

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

Thanks.

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

Jorge?

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Can you hear me, Michelle?

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

We can hear you.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Okay, this is a question for Jason of KLAS. Jason, you mentioned that you had done some work with Jacob Reider when he was at the Office of the National Coordinator. I was wondering if you could, the first question is, are KLAS reports free or do they require somebody to actually have to pay for the information that you are gathering? And, when you did work on the usability metrics with the Office of the National Coordinator with Jacob Reider, did you go deeply into usability such as capturing the data

entry burden or the navigational effort for clinical context that usually becomes very irritating for end user/clinicians? Is that the kind of stuff you were capturing?

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

Yeah, that is a great question. So to answer your question, ONC has a license all of our reports and data and that is something that we started when Farzad was back at the helm and we have continued with Karen. So for providers that use....that speak with us anonymously, we give them free access; it is kind of an exchange.

If they will take their time to give us a time to talk about our products and give us a 30 to 40 minutes call to talk about their products and gave us a numeric rating and anecdotal comments, we will keep them anonymous, will validate, will take their data, will put it right in front of the vendors as best we are able in a consultative way or by way of getting reports and so forth in front of these vendors. But then we will give them free access. So providers, we have got thousands, tens of thousands of providers that get our stuff for free, and we love that.

The vendors themselves do need to purchase those and it is based on gross annual revenue, it is a pricing tier we are very transparent on. In the case of some of the vendors on the phone today, many of them have memberships with us, many of them engage with us in a consultative way where we have sessions at their offices or ours in Utah and we will go through the data and we will say, here is what it means. Here is what customers don't like, here is what they do like. And they pay for that in a consultative manner and most of our revenue comes that stream, frankly, from the vendor side of it. So hopefully that kind of gives you a perspective.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Um hmm.

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

When we engaged with Jacob Reider on usability, it was essentially what I just talked about. We think it is important to be able to go out and assess several different areas when you are looking at usability. And it is not just the vendor products that is something we rate, we rate the quality of those products over time.

But even great products can be implemented poorly and that is going to factor into the usability. And so if we were to ding the vendor on that or, in a report, is that fair? There is context that has to be there and I think that is why it is really, really hard just to put robots out there asking questionnaires and then just bring that data in and analyze it. I think you really have to have the color and the human element, and this takes smart people to be able to truly vet a discussion and understand and dig into what the issue really was; was it an issue of the implementer, the sophistication of the provider themselves, was it crappy code from the vendor?

Was...sometimes vendors have Cracker Jack A-teams and then they have the B-teams and the C-teams and as they grow, sometimes they cannot keep up and you get people that have never been in hospitals, we have been told from some vendors, they are so young. And sometimes providers say, we are teaching them how to use their product. And so all of that has to factor in and I don't know any other way that you can get to truth unless you have got lots of smart humans that are speaking with other providers humans to get that perspective and that is an exercise that we obviously go through.

I talked about how many are doing, but when we are done, man we spend lots and lots of time looking at the data, not giving opinion necessarily, but trying to bring it together so that it makes sense and it is a fair rendering or assessment of that vendor's usability score. And we have been through three of those, they are out there; I would be more than happy to share the questions we asked. And we are always open to as well, what other questions should we be including.

The cool thing we have is a massive network of significant providers who will take the time to speak with us and we have worked really, really hard to value and build that. But we know that there is a lot of this stuff we don't understand as well as the provider community or the vendor community, so we want to bring the best perspectives together so we can measure effectively what is going on.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

So let me make sure I understand what you kind of went through. So basically the end user clinicians, if they are not providing you content or information, then they would not have access to, for example let us say you are interested in finding out whether an electronic health record can reduce a level of effort for data entry. And that is all I am interested in right now, how would I be able, and you know John Smith user, be able to get that information?

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

If you are a healthcare provider and you will pledge your willingness to speak with us at some point, I mean, we are going to pin you down on the time, if you go to our website and say, I am a provider, I want access to KLAS data and I am willing to share my voice if someone from KLAS calls, we will let you in and have access to all of that stuff, whether we talk to you or not.

There are often times though, large health systems that are making decisions weekly; I can think of a very large one, I am friends with the C-Suite there, with three or four of the members of the C-Suite and they will often call and say, Jason, we have got a cardiology coming, can your expert get on the phone for an hour and walk our team quickly through all the vendors, share with us the data so that we can get up to speed quickly and eliminate and save time on kind of getting us down that decision tree. For that kind of expertise, providers will pay a membership, if they want consultative services from our analysts; but that is not a big part of our business. It is actually quite small because we really don't push it. We just want to help keep that conduit open; if they will talk with us, we will avail data back to them for free.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Okay; thank you.

Alan Brookstone, MD – Chairman – Cientis Technologies; Co-Founder – AmericanEHR Partners

It is Alan Brookstone here, I wonder if I could just add to that which is that, you know, I think that there are multiple mechanisms to actually collect data. And in this world of, you know, social interaction and the capability of access to data through the Internet, having tools available were you can actually have subsets of validated providers where you know which version of the particular EHR they are using so that if there is a question that needs to be asked, you can actually, and if you cannot answer that question, you can quickly identify, survey that particular group of individuals, collect the data plus narrow it to feedback and present it out to other consumers of that information. That capability is certainly there with structured databases and the ability to integrate data from many sources.

So, you know, in addition I think to a very strong model of, you know, going out to individuals and actually doing telephone interviews with them and surveying them, the ability to actually encourage users to participate through an open interactive tool is something that we believe strongly is an additional and very strong ability to support users in making those decisions.

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

I think that...this is Jason at KLAS and I think there are some great points in that. The version of software that a particular provider is running, how long they have been live; there are a lot of those indicators that we are going to ask because that is quite telling to the experience. A lot of times you are better off the longer you have been live, you can work out the kinks, get through the paper cuts. If you are on a different version, certainly that has a big kind of contributor to your experience because sometimes versions come out that are buggy and have challenges and so if you can cross-reference the data and put that out in reports or as you work with the market, that is something that we absolutely look at as well, so great point.

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

Cris Ross?

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Thanks, Michelle. Thanks to everyone that testified; these are really great remarks. I want to ask a question to you, Steve Waldren. Thanks for participating . AAFP's contributions in this area, as you know, I have been a big fan and supporter of for a really long time. I want to ask a question to you but I bet other panelists might want to answer.

Your point number 4 in your written comments, create a common infrastructure to be used by multiple medical societies and others; I am intrigued by that. Do you think that the medical societies would participate in creating comparison tools for their members? We have had a lot of comments about the special needs of different kinds of consumers; we have had conversations about the need to create use cases that may not be one-size-fits-all. Can you just talk a little bit more about that?

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

Well sure, and maybe this is more aspirational than, you know, I have all my colleagues, you know, standing right behind me, ready to go.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Sure.

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

Although several have, you know, signed up with Alan with AmericanEHR to, you know, pull things together; so, I think there is. My point here is, I think, going back to some earlier comments from some of the vendors of concerns around the federal government creating the comparators or the criteria which things would be compared that having medical specialty societies and others to create those, I think, is much more valuable.

I also think that if you really wanted to get into all the nooks and crannies of the vendors or, excuse me, of the specialties, you are going to need those entities to one, give you support and trust and

recruitment of the needed experts to do the heavy lifting of creating all those case studies and so that you have that list of good comparators.

There have been several other physicians that are part of medical specialty society leadership that have been telling us that the, like I, that the provider community need to step up to the plate and take back control of our destiny relative to the products and services that we need to take care of patients. So, I think there are others that are interested, but I do think that there are some business model issues so creating that common infrastructure is important.

And then I think there is also this notion of how do we work with and collaborate with the others like KLAS and others that are creating these types of resources so that we are not duplicating what is going on, but what are the real gaps that are needed. So, kind of a rambling answer, but...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Nope, good answer, thanks. Curious what others think? If not, I have got a follow-up question, Steven, on your point number 3, focus on the capability providers need to offer not only individual functions of the EHR. And I just want to see, this may be identical to the conversation that Chris Tashjian's question pulled out around development of use cases. Are you talking about use cases here or are you talking about some other form of scenario? Can you just give us a little bit more color on that?

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

Sure, so I tried to stay away from the use case because when people talk about use case, sometimes they get this mental model that it is, you know, a very specific example and, you know, one way that you kind of get that accomplished. When I have been doing some research and work on, you know, what is needed for the patient-centered medical home? We kind of took that whole piece and said, okay, the how you would do that is going to continue to change and evolve as we get new technology and better understanding of how things work. So can you layer this into a model where you start at principles, kind of what are the goals that you are trying to get accomplished?

So, good access to care, for example. And then you have this notion of what are the capabilities a practice need to have, such as having, you know, virtual care. Then you can talk about what are the functionalities that need to be, you know, in place? So, I need to be able to do...have a patient portal that has the ability to do secure messaging back and forth so we can do store and forward type of E-Visits. And then I need a videoconferencing infrastructure to be able to do face-to-face E-Visit, virtual visit.

Then you can now start talking about, okay, well what kind of functionality and infrastructure from a product do I need to be able to support that? And then what is the data that I need to support that? So when I think about capabilities, I try to think about what is a thing that the practice would do? So for example, you know, doing the improved access by providing virtual care or being able to do chronic disease management.

Because what I find is when we talk about these products and services, there is always a gap. So, you know, it creates this great list and I have this great ability to communicate and do secure messaging, but what I cannot do is combine those together to create a comprehensive solution that helps our practices change the behavior of patients so that we can manage chronic disease better with diabetes and hypertension and, you know, obesity. So, I just don't want us to think about individual functions, more of what are we trying to do with this technology and that be the focus.

And I understand that you are not able to say, okay, we are going to have this great set of tests or can you do this capability, but rather that that is the focus and we are thinking about, oh, if we are going to test functionality, we have to understand that it is to do this particular large thing, so, what are the things that come before it and after it that could be gaps in a product or service.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Yeah, that makes sense. And again, do you see the medical societies having a role in helping to define that? Do you see the vendors like KLAS and others doing that? How would you see that work getting done?

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

Yeah, and I mean I think everybody would have to participate in doing that work just because of the scale of that, but I think the medical specialty societies need to start stepping up to the plate and providing those definitions of what capabilities our practices need to have. And...but I think KLAS, for example, is talking to 2000 providers a month is going to have a good understanding of how do you put the meat on the bones relative to that.

So if you are asking about the chronic disease management, well, what does the frontline really look like relative to putting that together and what are all the different types of implementations, the different how's that have been put together to achieve that capability. So I do think it is kind of a larger than a specialty society or another entity, it is really a community-wide effort.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Sure. Okay. Thank you.

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

Steven Stack?

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

Thank you. I will put out two questions for two different audiences and then let you answer them. The first one I guess I would be curious for Steve Waldren and Raj, and you have sort of touched on this, but just more explicitly. Do you feel that currently available tools are adequate or sufficient or with minimal modification will be sufficient?

So I am thinking about ambulatory care physicians in smaller practices who need to go and research the marketplace and buy a product; that should be a very low-cost thing, they shouldn't have to pay \$1500 bucks for a report to get it, you know, and it needs to be sufficiently detailed and reliable. So do you think the currently available tools are sufficient, and if not, you know, you have sort of already touched on these things, how so and what would we need to focus on on this task force?

The second question is to anyone in the group, which is, do you see, think about what we use in the rest of the consumer space, like Amazon.com, Yelp or Open Table, Fandango, things where we have crowdsourced feedback, if you will, where there is an easy-to-use interface with relatively simple questions to answer and an opportunity for subjective feedback and people will go and look at what the star ratings are for things and it gives you a rough idea for a self-identified population for what their level of general satisfaction is either overall or for specific aspects of the movie or the restaurant or the hotel or whatever is that they consumed.

Do you see in this space for electronic health records, and I would broaden that and say other health information technology if we go with more modular things going forward, do you see a role for that? And if so, do you think it is practical or pragmatic to expect that anything we could do in this task force would help to foster that or make that more likely to occur, sooner rather than later?

Raj Ratwani, PhD – Scientific Director, National Center for Human Factors in Healthcare – MedStar Health

This is Raj; I'll take a stab first. Steve, thanks for the question. So you, I think the first question you had there were, are the current tools that are available adequate and sufficient? And my belief is no, the current tools are not adequate and sufficient to provide a rigorous comparison capability of different EHR products and health IT in general.

And in the testimony we provided, we talked about these different phases, about understanding user centered design process, about understanding the certified health technology itself and then understanding the product once it has been implemented. And I think there are breakdowns at each one of those phases, and I would hope as the task force does their work that they look to ensure that we are able to make data more available. I think ultimately from my perspective that is the biggest challenge.

We have heard lots of different expert opinions here and I think the key steps are, if we look at the reports that are provided for meeting safety-enhanced design, a lot of the data that we would need to make meaningful comparisons are not available. So I would like to see that data become available so that we can perform these more meaningful comparisons. And importantly I think it is very important to state that we want to do that in a way that it is not burdensome to the vendors, because we fully understand that the vendors currently do get bogged down by a lot of the certification requirements and I do believe there are ways of doing that.

If we look at comparing the summative testing reports that are part of safety-enhanced design, again, not all the information that we would ideally like is available there and certainly when it comes to implementation, there are a lot of missing pieces. And several of the folks that are testifying, many of their comparison tools do rely on surveys and more subjective assessment, which I think is an important piece of this, but I think what is missing is more of the objective evaluation of the products and putting experts in front of that and so I would like to see...be important to see some opening up that area as well.

And finally I want to make a point that I don't know that we are going to have the exact right tool ever developed; but the more information that we can get subjective, objective, surveys, quantitative, and everything else will start to shed more light on this picture and I that is where we need to approach this problem. Not to say that we are looking for that exact perfect tool, but to look to see if we can have a multi-pronged approach to getting greater information around the usability of the products.

Steven E. Waldren, MD, MS – Director, eHealth Innovation – American Academy of Family Physicians

And this is Steve Waldren, I am glad I went second. I completely agree. As I think about these products and services though, I think they are extremely helpful in the stage that they are at. I would add that the context of how you implement these, so what are the other pieces of the system, not just the EHR or health IT component, you know, that they were implemented in, that led them to be successfully be able to be used by, you know, hospitals and physicians is a critically important piece and having that story, I think is important.

And then I do want to go back to Todd's point very, very early in the conversation today about switching costs and substitutability. If we decrease the risk of picking the wrong product as well, it is another way to help the market move forward, too. So I think there are some opportunities there and therefore focusing on that compatibility and operability of comparison would be really important.

Aaron Zachary Hettinger, MD, MS – Medical Director, National Center for Human Factors in Healthcare – MedStar Health

This is Zach Hettinger, just wanted to follow-up with what Raj said that one of the things that we mentioned in our written testimony in the slides was that by providing this usability information that everyone can access, that it also gives vendors the chance to compete on the usability in the marketplace. Right now that it is so buried in the products and implementations that there is really not that much of an incentive.

And I would love to have a day where...reports or cases are posted online and people can...and the vendors can compete and say, hey, we already solved that wrong patient error problem by physicians clicking on the wrong patient. Or, I was recently working a shift and one of the nurses I worked with was new, ended up making an error and overdosing...writing an order under my name that would have resulted in an overdose of a medication on a patient, just because he was trying to document the patient's medical history and the wrong drop down box wasn't selected. And so if we could compete on, hey, we already solved this problem, I think that would market further by sharing that information.

Alan Brookstone, MD – Chairman – Cientis Technologies; Co-Founder – AmericanEHR Partners

This is Alan Brookstone here; I just want to speak to the question about the concept of, you know, crowdsourcing and I actually think that it is a combination of multiple sets of data as I think was just mentioned right now by Raj and Steven and others that it is really not about one data source, I don't think there is one organization that would have enough capability to do this all alone.

By being able to integrate, you know, certification data, usability data, CHPL data, you know NCQA quality data, but combined that with feedback from validated users, and I think that is the key, is that you need to ensure that the individuals who are actually providing the feedback are actually end-users and they are end users of that product. So that validation piece is absolutely key; that you can actually take that and then build on and integrate on a solid base so that you can provide a broader picture of the product that is going to be useful to that particular user at that particular time.

Amit V. Trivedi – Program Manager, Healthcare – ICSA Labs

This is Amit Trivedi from ICSA Labs; I would like to also reinforce some points that were brought up and I strongly agree of the idea of having validated users. One potential way we may be able to tap into that is, when there are attestations that are provided or submissions to like incentive programs that rely on the specific certified product and version, if there is an opportunity to then contact, follow-up or make as part of the process of submitting the information, you know, a way to tap those users of that certified product and get additional information from them, I think that would be helpful. Because, you know, like the others are saying, we are going to need multiple sets of data as a purchaser, you know, your best decision is made looking at objective things like test results, other facts from, you know, various other websites and award accreditation, vendor information, vendor site information, as well as opinions from people who actually use the product. I think that would be very valuable.

And, you know, you mentioned Amazon.com, you know, if you look at product reviews, that whole market has continued to evolve and there are models you can look at, there are ways you can present

reviews that are most helpful, least helpful, most critical, least critical that once you start to pull in that information that, I think, would help purchasers make a better decision.

Jason Hess, MBA – Executive Vice President, Sales & Strategy – KLAS Enterprises, LLC

I mean I...this is Jason from KLAS and I have talked a lot but I...one thing that we are very passionate about is, if there are challenges in the market that are misunderstood or big gaps in healthcare, we want to be able to put a vehicle, a research vehicle together to be able to find out what is going on. And we think the best way to do that is convene groups of people that can vote on a questionnaire, both from the provider and vendor side of things.

And then once you have agreement to put that out there and get a huge sample, again with that human element, which I have stressed and now I will shut up about that, but that is important because there is so much color you have got to subjectively look at. But we, as an example, we did this four or five months ago out of Utah and we had the president of EPIC, president of Cerner, the present CEO of MEDITECH, Jonathan Bush from athena, Girish from eClinicalWorks, Rusty Frantz from NextGen; we had many, many of these executive, CEOs in the same room, which was weird because they all compete against each other.

But we had 30 providers in the room, many of our Advisory Board and the whole goal was to say, you guys can continue to compete with each other, but can't we come together on how to become more interoperable? And let's get a measurement and a definition of what interoperability is and then we will, as a third party, impartially go out and just measure it. But what are the questions that we ought to ask?

So that is something we recently did on interoperability. We are just kicking it off, it will publish this summer. And this is kind of some discussion that I had with Karen DeSalvo and some of the team at ONC a few months ago where we said look, we will do this. If you want to pay attention to it great, if don't, that's fine, too. But we think that is the best way to measure something is to get enough perspective, whether that is from physician associations or vendors or other elements of the provider community.

If you have relationships of trust where you can pull those people together to ask the right questions or built that, and then go out and test it, not with robots but with humans asking the right questions, we think that is the best way to shine a light on what is happening and that has kind of been our methodology historically and something we want to continue to do on usability, on interoperability, on some of these other more challenging topics that were taken on as an industry.

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

Well thank you everyone, I really appreciate the thoughts you have offered.

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

Okay, I think that is the end of panel 4; so thank you to all of our presenters. We greatly appreciate you participating today. We are now ready to move on to panel 5, which is the quality improvement and alternative payment model panel. On this panel Kathy Blake, Jesse James, and Simone Karp; I know Kathy was going to call in close to the start her presentation, I'm not sure if she is on yet so let me first check and...

Kathleen Blake, MD, MPH – Vice President – AMA-Convened Physician Consortium for Performance Improvement – American Medical Association

And actually yes, I am, thank you so much.

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

Okay, perfect. So Kathy, if you are ready, you can get started and just a reminder, you have five minutes and please proceed whenever you are ready.

Kathleen Blake, MD, MPH – Vice President – AMA-Convened Physician Consortium for Performance Improvement – American Medical Association

Thank you and I assume that someone who is there will be able to advance the slides for me? So thank you for inviting me to present to this group. My name is Kathleen Blake and I am a physician, a cardiologist, and also serve as the Vice President of Performance Improvement at the American Medical Association. In addition, I am the Executive Director of the PCPI, which is now an independent, 501c3 Foundation that is focused on performance measurement, quality improvement and also supports the National Quality Registry Network.

I should mention that I serve on the Health IT Policy Committee, to which I believe this task force will be providing its report and I look forward to the report of this task force. In my role on the Health IT Policy Committee, I occupy the quality improvement seat appointed by the Comptroller General, but my remarks today will focus on the physician perspective through my role at the AMA. Next slide, please.

So I started, and this is part of getting to be the wrap up panel for this group, with some key assumptions looking at the information that was provided to me. And an assumption, but I would really say it is an assertion is that the tool is for providers, it is for the clinicians and organizations caring for patients and I would urge this panel to take that perspective.

Secondly, that it is a tool that will enable those providers to make comparisons amongst products prior to purchase, because I think we have all heard the concerns of many that the products that they have purchased have not performed necessarily in the way that they most need.

Thirdly, that there will be updates to keep pace with changes in medical practice, health information technology advances, alternative payment models, and the MIPS Program and that technical specifications will be compared across multiple vendors so that it would not just be one system to another or one product to another, but really looking at a much broader environment.

It is also, I think, important that user experience comparisons be made by clinicians and health systems; those that are accountable for delivering and ensuring quality. So what I might call, “the real users,” and that the comparisons will focus on the features that directly impact the quality of care and the experience of providers giving care. And I would assert that better matching of user needs and the products in the health IT area will, in the long run, impact and we hope improve patient health and the patient’s experience of care because they will be working with and collaborating with much enabled providers. Next slide.

So, specific recommendations in terms of what I would ask the task force to consider comparing. It would be the user experience because I think that does directly impact the professional satisfaction of the physician caring for patients and there is good data to show us that physicians who are not burned

out, physicians who are more professionally satisfied also have patients who are more likely to adhere to the recommendations that are made by those physicians. So user experience could be the number of clicks it takes to get the average task done, the amount of time to complete a record, and their overall satisfaction with how information is displayed and how easy it is or not easy to find it.

I was asked to talk specifically about quality and so of course these systems are going to be used as tools for quality measurement. It is important that one know what measures are implemented in a given product. It may be that a product only has some but not all of the measures that are relevant to my practice. The ease of measurement; is it done within the normal workflow or does it require any separate steps to be taken? The timeliness of performance feedback, and I would argue that this has to do with the opportunity that a physician or any clinician has to fix a misstep before it occurs at the patient level, so the closer to real time that it can be, the better.

I would want to see a comparison of dashboards; how does my performance compare with others? There should be integration of benchmarks and, it goes I think without saying that those benchmarks should reflect my practice and be relevant to it. And then increasingly as we see more use of registries for multiple purposes, I would want to know and have a comparison across systems of which registries I would be able to directly access or be able to directly submit my data to.

The second question that this panel was asked about had to do with participation in alternative payment models, and I think it has to be acknowledged up front that those models are still in flux. They are being developed, they are being tested; but I think there are a few things that we can be certain will be included. One of those is that appropriate use criteria will be more important than ever so comparisons should enable me to tell which clinical domains will the appropriate use criteria be available for. Or, if they are not housed within the product, how will I reach them? And will that be through the Cloud? How hard or how easy is it?

Clinical decision support, this goes back to my comment about having that opportunity to fix a misstep and to reverse it. I would want to know the breadth and the quality of those tools; so some of the user experience comes in here with using those tools. And then how often are formulary and plan updates made available, because we all know that those change in fairly rapid fire. Next slide.

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

Hey Kathy, can you please work on wrapping up? I'm sorry.

Kathleen Blake, MD, MPH – Vice President – AMA-Convended Physician Consortium for Performance Improvement – American Medical Association

Yes, will do. So my last recommendation has to do with closing the referral loop and being able to have as a test case for products, but also to be able to have referral management tools and for the reasons that are listed, in terms of the current state, the reliance on work arounds and the fact that referrals are a perfect opportunity to test the interoperability between two different health IT products that might be used by the primary physician and the consultant. So I thank you for your attention.

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

Thanks, Kathy. Jesse James?

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

Thanks. For background, my name is Jesse James; I am Chief Medical Informatics Officer from Evolent Health. Thank you for the opportunity to make testimony and address the Technology Comparison Task Force. Next slide.

Just a brief introduction for those who may not be familiar with Evolent; the company was founded in 2011 and we partner with provider organizations to bring them to market with value-based businesses, to make relationships between payer organizations and providers really for the goal of increased and improved quality and decreased costs. We are active in some 20 markets across the country; we have on our way to 1000 employees and currently have 2 million lives on our model. Next slide.

Our mission really is part of that three-part aim and I won't go much deeper into the organization, but I really want to give an idea that we are an organization with a unique view of both APMs and value-based care and that we are leveraging that view on patient care really from coast-to-coast.

So, on to the questions at hand; as a corporation that partners with providers, we have both a point of view of providers, but also the point of view of data aggregators and the point of view of payers. And we really bring this to bear every day for some 20 markets and in the neighborhood of 2 million lives. We have more than a million CCDs collected on our platform, just within the last year. And we match claims data, financial data, EMR data from multiple sources, patient reported outcomes data and push that data into the front end for care managers, physicians, nurses, pharmacists.

As we step back from what we learned and think how tools might be created, to create a comparison tool that would be useful both to providers, but also to the other actors in the space, we would encourage the task force to start with the models that already exist in the federal space, that there is a toolkit that can be a template to meet the requirements as previously described.

Ideally we would see this as a user-friendly, web-based, clinically and population health relevant tool that should be frequently updated and should have searchable content. We would hope that the tool would be built and architected really to future users, and for future use cases, expecting that physicians might be early users or physicians...clinicians might be early users, but a longer-term user will be those quality managers, clinical executives, even patients and families.

The initial use cases would be around summaries of elements, dashboards, registries for analysis and even intervention planning, and those would be the component subsystems that users would go to the comparison tool to get more information about it. We would also like to encourage the task force to allow APMs to themselves determine which specific modules serve them best, since APMs have both a financial interest in reducing cost and a financial interest in improving quality for their lives at risk; we already see a marketplace and a variety of strategies and technologies coming to bear in this space.

As there are a variety of implementers and implementations, we have seen consistent themes across APMs needs. And these themes might help the task force make decisions on what type of content would be available in the tool. We have no single model that we apply across our partners, but we do see consistent either lines of business or approaches to value-based care. There are a few themes.

There is a consistent need for multisource data warehousing for claims, clinical data, patient responses, care management data, care coordination operational data, clinical operational data can be stored, aggregated, normalized and analyzed to inform clinical and financial decisions.

Next there is a consistent need for modules that adhere to standards for data export and that are flexible around standards for data import. That flexibility around standards for data import, in an ideal world, all certified electronic health technology would adhere to standards perfectly post-certification and post-implementation, but that has not been the case in our experience.

And it may be enough for quality measure calculation to use only the data that conform to international standards, but it is unsatisfying for the physicians, nurses, quality managers and executives to only have a view of the data as the data should look according to standard. The data in the wild are not the same as the data in vitro, so to speak, so there is a need for systems that can adjust to the reality of data.

There is also a need for consistent data elements, codes, logic, attributes and metadata for compliance to measure specification, but also for the sake of creating measures that better meet the needs of the providers, provider systems and executives.

A few more words; there is also a consistent need for analytics that are at a minimum able to risk stratify populations at the patient level and the provider level, for the sake of meaningful comparisons across strata to identify disparities either by demographics, but also by clinical risk and also financial risk.

When possible, non-clinical health factors such as lifestyle behaviors and social determinants should also be used to identify important issues that influence health, and influence patient satisfaction, provider satisfaction, and clinical outcomes. There is a very strong need for natural language processing to enhance predictive power of clinical metrics, risk stratification and financial forecasts.

In summation, we appreciate this opportunity to contribute to a very important conversation. We also appreciate that the FACAs in this space have kept in mind that there is more to HIT than just EMRs. The EMRs have a very important role to play, but there are a number of non-EMR actors that are contributing to both the health and well-being of a nation and our providers.

We look forward to the federal infrastructure in this space and light but firm touch and we hope that the light touch encourages innovation while the firm touch moves products to be increasingly interoperable and useful to patients and their physicians and all providers. Thank you much.

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

Thank you, Jesse. Simone?

Simone Karp, RPh – Vice President, Premier; Co-Founder & Chief Business Officer – CECity.com, Inc.

Hi, good afternoon everyone. My name is Simone Karp and I serve as a Vice President of Premier and the Chief Business Officer for the Premier subsidiary, CECity where we have been engaged in quality improvement technology solutions for the last 19 years, CMS qualified value-based reporting since 2008 and most recently alternative payment models.

Premier is a leading healthcare improvement company uniting an alliance of approximately 3600 US hospitals, 120,000 other providers including some of the nation's largest physician practices and

together we help deliver measurable improvements in care through quality measure reporting, Cloud-based professional education, large scale provider collaboratives, including with CMS and other quality improvement technology solutions. We appreciate the opportunity to address the Certified Technology Comparison Task Force today. I have also provided written testimony.

As you know, EHR innovation is no longer solely driven by technology progress as much more is riding on the successful exchange meaningful data as a result of federal policy. EHR data will need to seamlessly flow to external quality focused, IT systems such as CMS Qualified Clinical Data Registries known as QCDRs, which have demonstrated the ability to successfully drive improvement in both quality and cost. However, the QCDRs will need to increasingly rely on standardized, accurate, and timely data across multiple EHRs for providers to be successful under value-based and alternative payment models.

It is only by measuring and benchmarking beyond the four walls of any single organization can we begin to help providers identify comparative gaps in performance and prioritize quality improvement efforts and opportunities. So the question becomes, how do providers know which EHR system is going to put them in the best position too easily, cost-effectively, and accurately deliver the timely data that they need to improve the quality of care they deliver to their patients and at the same time, enable them to succeed under these high-stakes initiatives?

At Premier, we've identified the following three pillars that we believe EHRs must support as an effective comparison tool must clearly convey, for providers to successfully engage in the emerging quality enterprise. These include one, high fidelity data; two, bidirectional data and information exchange, and three, timely data. Let's look at each of these in more detail.

High fidelity data, the first and perhaps the most important capability that we refer to; in other words how accurate, valid, and organized is the data that is being aggregated from the EHRs database, packaged into a standard file exchange format and exported for use in various quality programs? In our experience, data fidelity is highly variable across EHRs and even across different installations of the same EHR and currently there is no way to tell the good from the bad in advance of receiving and validating the data.

There are a number of root causes for this, but regardless of how and why it happened, at the end of the day when a measure under the PQRS or alternative payment model program requires a specific data element, we need to make sure that what is in that standard file is the right data, in the right place, in the right format at the right level of attribution every time. Without this assurance of data fidelity, measurement may be unreliable.

Most often to the detriment of the provider, aggregating benchmarking becomes difficult to the detriment of the profession and our ability to identify the true gaps in performance fall short, limiting our ability to target quality improvement activities where they are most needed, ultimately to the detriment of our patients. An EHRs ability to validate data fidelity across these dimensions prior to export, to quantify this capability for presentation in the EHR comparison tool would be our top recommendation.

Our second recommendation is that EHRs support bidirectional data and information exchange. We often hear about interoperability related to the exchange of data between EHRs. However, in order to drive quality improvement and power alternative payment models, we also need to seamlessly send data from the EHR to external quality focused IT systems such as public health registries. And we need

the ability to easily return information generated from the use of that data by these quality IT systems back into the EHR for presentation to the provider in the workflow where they can become actionable and serve as a foundation for building a continuous learning health system, as recommended by the National Academy of Medicine.

We believe that this is quite possible through the use of standard application programming interfaces, or APIs, designed for moving data at scale for use by quality-based systems and registries such as those in public health, quality improvement, and alternative payment model reporting. The ability for an EHR to bidirectionally exchange data and to do so using standard API technology is our second recommendation.

Timely data; our third and final recommendation relates to the EHRs ability to generate and readily exchange the required high fidelity data in a timely fashion. As we shift from annual quality-based reporting programs to alternative payment models, clinical data registries and other continuous quality improvement initiatives, the need for near real-time data becomes imperative. Therefore our third recommendation is that EHRs be capable of supporting data aggregation exchange at a cadence that meets the needs of the emerging quality program. By presenting these capabilities through the EHR comparison tool, providers will be able to better understand which programs they are prepared to participate in in advance.

Again, on behalf of Premier and myself, I would like to thank the task force for the opportunity to participate in this discussion. We look forward to working together to improve the infrastructure of our nation's quality enterprise and to help communicate these key differentiators to our national provider network. Thank you.

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

Thank you. So we do not have anyone in the queue as of yet, hopefully task force members are diligently thinking of the questions they want to ask. Anita, do you have a question?

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Well first of all, I'm glad I was on mute because then you would not have heard me screaming and say yes, yes, yes during each one of the presentations. I want to thank you all; you really hit on several of the pain points that we heard from task force members and that as a Regional Extension Center, we certainly saw as we tried to move practices beyond just reporting, a check in the box for Meaningful Use to having them look at numerators and denominators; and imagine our surprise when numerators were higher than denominators. How does that happen for electronic clinical quality measures?

So I guess one of my questions is, is there a way or a comparison, or I will ask since you are all very smart people, how do we get to a point of comparison for these electronic clinical quality measures? Is it having workflow mapped out and presented as part of the...or being available as part of a comparison? Is there some objective way to make sure that before somebody purchases an EHR system that they feel that these measures that their specialty would be reporting, can be reliably extracted or reported?

You know, quality improvement in these alternative payment models is just so important and it is just not there right now. It is a very, very manual process still for practices unless they have a registry that is doing that piece of the work for them, or unless they are really, really being diligent. And we have some

folks who have gone back to Excel spreadsheets to try and do the quality improvement, which is just not acceptable at this stage of health information technology.

So I wonder if you have any thoughts about how it is that we could compare to make sure that what is available is accurate, valid data, especially as we get to the point where clinicians will be paid based on what is reported.

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

This is Simone. Anita thanks for the question and I'm happy to take the first attempt at the response and thank you for your comments. I think it is going to be necessary to actually test the data to make sure that it is accurate, valid, and has the ability to accurately calculate those measures to your point, and that is really what we feel is absolutely needed in order to support these alternative payment models, to make sure the data is accurate, that we are able to use it in a standard file format for standard data exchange and that that happens consistently. As I said earlier, we need to make sure that those specific data elements that we need for those critical measures are always in the right place, in the right format at the right level attribution and all the time, not just some of the time. Thank you for your comment.

Kathleen Blake, MD, MPH – Vice President – AMA-Convended Physician Consortium for Performance Improvement – American Medical Association

This is Kathy...

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

This is Jesse; I will make my comment brief in response to the question. I think that there are probably two things needed, and there is a different need from the very large organizations that we tend to work with and then the smaller PCMHs, independent practices that can fall into the APM category. I think it is fairly safe that the large actors in the space, the large provider organizations and multiple provider organizations who have partnered together have the resources to create their own metrics and do their own data validation.

And whether they would prefer to or not, they have to because the consistency from implementation to implementation remains poor enough that they are forced to. But also the inconsistency of documentation on the provider end. So we have been able to calculate measures and calculate metrics to the standard...the technical standard or the national technical standard, but that data, those results can often be meaningless given the limitations and the inconsistency in data. So the large APMs I would trust them that they are going to figure out how to calculate things with the data they have and will change the specs and they will add codes. They will use old codes, they will use codes that are proprietary and they add them to the code set and the measures work and they will measure it.

But for the smaller practices, have a need...have a greater need for the vendor systems to be held to a higher standard of consistency of implementation, and that, I think, is similar to what...I agree to what Simone is saying and I might go a step further and say, in an ideal state for some period of time until NLP progresses enough, the small provider needs to know that his or her CQM is going to calculate based on standard that is given...a standard set of data put into their system will come out with results that are expected, and that would require spot checks really on individual systems.

I think the regulatory burden and the financial burden of that makes it probably nationally unfeasible, but it would be an optimal state. I can't imagine how you can get closer to the software doing what it

says to do without a heavier hand on the regulatory end. But that heavy hand, I think, is politically unpalatable and probably unpalatable on the provider end. There likely needs to be something in between the two.

The large organizations I think are fairly safe because they have the resources. The very small organizations are stuck, are often stuck with products that do not quite get to a satisfying quality improvement view. And to do quality well, you have to both believe the data, you have to believe the system and you have to believe the output and those three are not done consistently, from what I've seen from my experience.

Kathleen Blake, MD, MPH – Vice President – AMA-Convended Physician Consortium for Performance Improvement – American Medical Association

So this is Kathy and I think that part of what people are referring to, so I am thinking back to when we purchased an electronic health record in my practice, it's now probably eight, almost nine years ago and there were people who wanted a very detailed level of knowledge in terms of their various systems. And then there were others who said, I just want to know that it works and I actually don't want to look under the hood and I just need a few things that will tell me whether this will help me do my job or whether it will stand in the way of doing my job.

So I think we have got to go back to saying for whom is this tool intended? And it is intended, I would think, for at a minimum for that individual practice that wants to just not look under the hood, but to know; here are the measures that are implemented, that has been tested, and we know that our systems can report out on those measures. And that is the end of that.

I think that there will be others who will want to what we might call tinker around with things or we've said, to add codes or to measure things a little bit differently, and who may have the resources to be able to do that. But I would remind the group that it is estimated from surveys done by the AMA that 60% of physicians in America are in small practices, meaning just one to two physicians and it is something where if we are holding all of those professionals accountable, that the tool that is developed has to meet their needs.

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

Thank you and that small to medium practice are the ones that, you know, we have noted previously are really going to need some help and need to have things be presented in such a way that they can understand it.

I guess a follow-up question I have is, based on what we think is coming with these alternative payment models and trying to get, you know, for those who are in ACOs, that type of reporting, is the reporting going to have to come from a piece of certified technology that is not necessarily the EHR? By that I mean, you know, a registry or some other module that is going to be able to do that quality improvement?

Kathleen Blake, MD, MPH – Vice President – AMA-Convended Physician Consortium for Performance Improvement – American Medical Association

This is Kathy again and I will have others respond, but that is why one of my strong recommendations is the ease of being able to connect up with, submit data to a registry that is then submitted to meet some of those demands, I think is extremely important because there will be times when it does go through a

registry, there will other times when it does not. But it is not so much what avenue is used, but can you get the arms around the data and can you tell, especially if you are taking on financial risk, that you are on a trajectory to success? And in my mind, that requires timely provision of information.

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

Yeah, and Anita, its Simone; if I can even add-on to what Dr. Blake was saying; we can use one example. We just helped one organization to meet one value-based reporting program and within that one organization, we had to integrate data from seven EHRs and practice management systems. So to your point about the need that the accountable care organizations are going to have, it is, again it is not just interoperability from an EHR to an EHR, it is from multiple EHRs to registry-based solutions to really enable them to participate in these value-based payment programs.

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

Yeah and one point I...

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

I think we lost you.

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

We lost you, Jesse. Well hopefully Jesse will come back and we will be able to hear his comment. Any other comments on that? Okay, Cris Ross.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Great, thank you Michelle and thanks again to the panelists who presented. So, one of the issues that we have confronted in Meaningful Use and looking ahead to other regulatory evolution that might be ahead of us, is the degree to which some of the requirements in Meaningful Use of vendors and of eligible hospitals and eligible providers have been overly prescriptive and different people have different opinions on it, but it is a theme that recurs that the regulations in some ways were really challenging to meet because they were very, very precise around specific elements.

Quality is one of those areas that has been tough; there are lots of quality measures, they don't necessarily all overlap, reporting is a challenge, all those kinds of things. And alternative payment models is a little bit of a new frontier. So, I am not really trying to ask you a question about, you know, what should the Meaningful Use 3 regulations be or that sort of thing, but would like to get your perspective on how we could best take into account concerns about the either the regulation or the particular tools that are produced for this space are overly prescriptive or restrictive on practices in a way that practically gets in the way of their ability to do quality and to deal with evolving payment models. I know that that is an extremely broad question, it is probably an unfair one, but you guys are close to this and are experts and I would love to hear your opinions.

Kathleen Blake, MD, MPH – Vice President – AMA-Convended Physician Consortium for Performance Improvement – American Medical Association

So this is Kathy and I will tackle it first and I would say that yes, this is a very broad question but I think that some of the specific items that I listed that would help us get to quality, clinical decision support,

appropriate use criteria, participation in registries, I think we can assume that those will be part of any alternative payment model.

I think that what the clinician in their office will want is they will want information about that user experience, how easily did this really get incorporated into my normal workflow? Because it think sometimes there is a view that clinicians do not like EHRs or do not like Meaningful Use. From an AMA survey that was done through the RAND Corporation, it was much more than that nuanced, it was actually, we want to have our EHRs be effective; we can't imagine going back in time to paper records so there is a commitment to making this work. So there is a commitment to making this work, it just has to be easier. And to me, easier means I can find what I want, I have what I want for in there for my practice and thirdly, it does not take me out of my normal workflow.

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

Yeah, if I can just add on to what Dr. Blake said; this is Simone. I think the last point of not taking it out of the workflow really ties in to what we had included as well, and that is that ability to have that reliable data, be able to get that data get into a system to be able to see where those gaps in care are and then have that bidirectional data flow back into the EHR so it becomes part of that workflow.

So once we show which patients are falling outside a numerator on a critical measure that we are able to get that information back into that point of care system in a timely manner. So if we are missing a flu vaccine, we can get a list of patients using that registry, who need that flu vaccine and during flu season, be able to get that into that point of care system so that we can really make those quality actions happen in a timely manner.

So I think it is a very broad question, but I think we can really narrow it down and focus on clinical outcome measures that really matter, focus on those measures, the ease of the ability to be able to get the data in in a valid way, to look at how we're doing on those measures, get that data back into the workflow and do it continuously. I think that we can really no longer just have that in an episodic type of way.

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

This is Jesse. My apologies, I think my call dropped during the previous response, but my response to this would be, this is a place where we see a light touch from the fed. I think the advanced payment models exists for a reason and they had been separated legislatively for a reason and that they are delivering, in reality delivering on the goal for reducing costs and improving quality and they are structured around those two goals.

I think they are doing the actual health technology infrastructure they set up varies from ACO to APM to PCMH, but because their financial interests are aligned with those of the payer and the patient, their interest in health IT and their goals for their health IT tend to be aligned as well. And those goals tend to be, they are going to have a central data warehouse with multiple types of data. They are going to push reports to their providers and to patients and to that provider team that may be very different than the metrics that are collected at the federal level, but they mean something to their providers and their primary care docs and their subspecialists and their patients and their provider team.

So I would like to encourage a lighter touch when it comes to the APMs and really give them the space to deliver those...that three-legged, but to really deliver on what we are all looking forward to which is reducing costs or at least bending that curve and improving quality, satisfaction and safety of patients.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

So let me a...this is Cris Ross; let me ask a follow-up question. Jesse, I will pick on you. I think your answer was really nuanced and I understand the motivation of it. The word light touch makes good sense when you think about it in Meaningful Use context, but also one of these new payment model providers is going to be Medicare and Medicaid. And the government in that instance can hardly act with a light touch, you know, they are the payer.

So I wonder if you have any viewpoints about that either from an APM or a quality perspective where the government acting not as ONC, you know as a regulator, but as CMS as a payer creates, you know, any sort of particular challenges here and things we ought to take into account when we think about HHS acting as ONC, helping to guide the health IT market?

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

Right...

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

So my question specifically is, what about the payment regime? Yeah, thanks.

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

Right. I think the NextGen ACO model is a model that gets closer to the fed being less prescriptive on the providers for data submission inside of quality measures or a broader set of quality measures. I think what I have seen from the fed has been a willingness to ask for less when the provider systems are willing to, or have shown a capability, proven capability in reducing cost and improving quality.

The challenges around measuring quality have not entirely left us. I think that provider systems...there is less controversy around it; its quality at this point is similar to what usability was on this call, where there is some controversy around whether you can consistently or objectively measure usability. Actually there is an area of science dedicated to measuring usability of software, but the same for clinical quality. At one point it was controversial to measure clinical quality.

There are still challenges with it, but even for the federal payers in the space, I think there does seem to be a trend within the fed that says, for those perhaps now outliers, but for those special APMs who have shown they can reduce their costs and have shown that they are moving in the right direction on quality. We...I think it is appropriate to stand back and to reward those systems with a less of a...at least a less prescriptive reporting burden but it does involve trust between the fed, the payer, and the provider systems.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

That is great, thanks very much.

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

John Travis?

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Thank you. I am going to go back a little bit to something that was talked about with respect to some of the challenges around alternative payment models, and specifically on the variety of needs for registry reporting. I am trying to find a good way to put this but, if you were to look at a comparative tool for especially the small physician practice to consider and looking at the capabilities on the point of being able to support alternative payment models and the needs to support external submission requirements and registry requirements.

What are the kinds of factors that you are not seeing in comparative information that may be available today, whether out of the Meaningful Use Certification Program or other sources maintained by anybody that really would get at helping those small practices have an easier experience of submission? And give thought especially to things like the breadth of the measures or the breadth of the types of submissions they enable, the methods, the effort that goes into making the data available, the timeliness of those submissions; things like that. What would make for a valuable resource and what would be the most important factors that would help inform a small physician practice know the capabilities of the EHR they have or find out about capabilities of EHRs or other technologies that could be certified HIT that they would want to invest in.

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

This is Simone; I would be happy to address the question first and thank you for the question. I think it goes back to the three key points that I mentioned earlier. So first, the...and we work with a lot of small and mid-sized practices across the country and the first is that the fidelity of that data, that they know when they are going to send the data from the EHR to have quality measures calculated that they can trust that that data is going to be in the right place at the right time. And that they will be able to appropriately see both those numerators and denominators of those measures and get the appropriate level of attribution of those measures.

I think the second key thing is to really be able to show them the measures that matter for them, whether they be the ACO measures or other measures for other quality-based reporting programs that are specific to them and their specialty, that they are able to see that they can calculate those measures from an export of the data in a standardized file format that is easy for them. And that it is effective both from a usability as well as a cost perspective, and that they can rely on it.

And the third, that is becoming really more important than ever is the timeliness of the data and that they can see that they can, on a continuous basis, get that data out to calculate those measures to identify where they really need to focus their quality improvement actions and efforts. And then do that on a continuous basis versus a once a year or once every six months reporting cycle. Thank you.

Jesse C. James, MD, MBA – Vice President, Clinical Informatics – Evolent Health

This is Jesse. Very briefly I would say measure less and have data elements that are consistently populated and valid across vendor systems, especially for the small docs. The larger provider organizations will find their way to invest in improving the data, and they can throw people at it but for the small doc, let's use measures that we know work and measures that work across multiple systems and data inputs that are frequently documented consistently across implementation.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

I do have a follow-up. One of the other points that a number of you were making, especially I think again with regard to the smaller physician practices, and you just reiterated in answer to my first question, the importance of trustworthiness and validity of the data. Is there something missing in what should be made of transparent to those types of buyers and all buyers as to the audit methods or means of validation that the vendors should be going through?

So certification, I mean, has its criteria that requires us to demonstrate in a testbed sort of manner against a predefined data set, the ability to capture, calculate, and report those measures. However, measure specifications, as you well know, get updated much more frequently than certification. CMS has an RFI out trying to really consider whether or not that process should be changed relative to their program interest. You know, if you were responding to that, you may well be, or if you were to consider the interests of those you serve, what is missing from the process right now to provide a transparency to the means of validation and is there an independent model of that needs to emerge?

And the example I will give you, if you recall it from a number of years ago with HIPAA EDI 5010 adoption, there was the EHNAC model that involved levels of validation that basically it was still self-directed by either trading partners or by vendors, but there were different levels of validation that held meaning as to what extent you were representing your ability to enable compliance with those specifications.

Kathleen Blake, MD, MPH – Vice President – AMA-Convened Physician Consortium for Performance Improvement – American Medical Association

Hi this is Kathy, I was on mute. And I would say that you would want that kind of information in terms of being able to demonstrate and being able to compare levels of compliance and being able to meet various criteria. But I think that is almost assumed by the physician purchasing an EHR from their practice. What...so the way that they may want to see the information is, for example, what is the success rate in terms of submissions that are accepted on the first time through? What is the rework rate in terms of needing to modify submissions?

Obviously understanding there is a learning curve that takes place and then in fact vendors can use those learning curves, on occasion, to tell when a new implementer, a new purchaser of their system might need additional training and additional help. And I think the professional community is more than willing to go through that learning curve, so long as they know that they will eventually have a fairly smooth ride through their clinical day with submission of data into the electronic record and being able to get the kind of feedback that Simone has talked about.

And so I would urge us to think about that learning curve. How long does it take for success? And it also helps to know, how many other practices like mine, perhaps size, specialty, are using a system and what is the information that they can provide to me in terms of the performance of the product?

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Thank you.

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

Well...

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

This is Simone...oh go ahead, I am sorry.

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

No, go ahead Simone.

Simone Karp, RPh – Vice President – Premier, Inc.; Co-Founder & Chief Business Officer – CECity.com, Inc.

This is Simone. The only thing I was going to add to Dr. Blake's comment is, as you mentioned in the question, we don't have harmonization of measures across payers and across value-based payment programs. So I think if there was a way via this tool to be able to show samples of those different measures that might have different specifications so that we could show providers the various value-based payment programs and measures related to those that they may be wanting to participate in or what to elect to participate in and if they could show that the data would be validated across the different measures, even with those different measure specifications.

One of the key things we have seen, especially from the small and mid-sized practices is the ability for us to show them their data across the different measures and what their outcomes and performance would be and where their gaps are, so that they can really focus on those to drive improvement.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Thank you.

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

Okay, so I...

Christopher H. Tashjian, MD, FAAFP, FHIT – Vibrant Health Family Clinics

This is just a...this is Chris Tashjian, I just wanted to make a comment. I am in a small to small practice and our expectation is that the data is accurate and that it is accurate right out of the gate and that is our expectation from our vendor and it has to be.

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

Thanks Chris. So I don't think there are any more questions from the task force. So let me thank all of the panelists on Panel 5, and I am now going to turn it over to Cris and Anita to make some closing, wrap-up remarks.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Anita, do you want to go first or last?

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

I will go first, Cris. I just again echo...thank you very much, this was just a wealth of information from all three panels. You have given us a lot to think about and a lot to work on this weekend in preparation for next week. We have heard so many thoughtful...such thoughtful input about what needs to happen, we

just need to kind of collate all of that and get it together, but we really appreciate you taking the time and providing such detailed presentations today.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

This is Cris. It is great working with Anita because you can usually say ditto. I would add maybe just a couple of things; top of mind thoughts that we want to...that I am offering only if for any other reason, just to prime the pump for our committee members to provide commentary back to Anita and me and Dawn so we can put some materials together.

If I think about all five panels plus the comments on CHPL from the ONC team, you know, some big themes, and this is by no means all-inclusive is clearly stepping away from whether a tool is needed or not or what is the right way to do it, clearly across the board we as a nation can do better at supporting our healthcare providers in advancing their use of automation and digitization tools as they treat patients. And we heard lots and lots of reasons for that.

The second is, this is clearly a very complicated purchasing and evaluation process. This is not like buying a toaster, does anybody buy toasters anymore? It is not like that, it is not even like buying something sophisticated like a car or a house, this is a really complicated purchase, so, how do we get our arms around that?

The third is the engagement of the stakeholders across the board is really impressive and what is the role for the vendors, for the providers, for the medical societies, for thoughtful groups that provide insight and recommendation all the time? You know, how do we best leverage each of those moving pieces and make recommendations to HHS so that they can respond to the congressional charter around creation, you know, a specific task of creation of a comparison tool?

Michelle, if you do not object, because we are a little bit ahead of time, I wonder if we might just take a few moments for any of the committee members who may want to offer any of their thoughts as well. I think we have got a little bit of time here; is it okay if we break away from our published order and do so?

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

Let's do it.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

That would be great so, you know, a lot of great questions today and I would love to hear from task force members.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Cris, this is John, I guess I will kick it off. I think we definitely did hear, and I know it gets kind of to the form and manner of the tool, there is no barrier to consider that ONC has to develop anything, this could be a tool that comes from the market. I think that is something we need to take to heart.

I do think that there are elements that are not covered by certification that may be covered by other processes that contribute to the information being provided. The line of my last questioning was getting at information that may be additional things that could be required for vendors to be transparent about or they could come from third-party sources that are recognized and trustworthy by the industry. So we

should not reject any such thing as a potential source that does not necessarily drive directly out of the certification process per se, or as a disclosure that is strictly made because the vendor has to report it for certification.

I think the last thing I would say specifically towards some of the things that I was trying to get at with those questions are, scope of coverage kinds of attributes. You know, I will say for our experience with some of the new requirements that are part of modified Stage 2 and Stage 3 that I think of are great interest to the market are where there really is no specific certification requirement, but it is a program requirement and that may become more true in other things and particularly around, for example, the coverage of the registries that a vendor has a proven ability to submit to. What are they? What is the volume?

I like the ideas we heard in response to my questions about success rates of submissions and some quality kind of meta-statistics about the vendor's experience of submission that again, if they can come from an empirical source and not the vendor themselves, it may work all the better. And then more on methods and modes of submission and timeliness of submissions; these are practical details that I know we run into from an adoption perspective with our own certified capabilities by our clients that are of high interest to them to understand.

And then last, and I will shut up, we heard a fair repeat of a theme that this kind of a capability needs to enable peer-to-peer conversation that can be mediated maybe through the tool or the tool is a clearinghouse for potential context or if it is anonymous, it at least still is a Trip...you know, there is an element that is a Trip Advisor or a more familiar example at CMS, a five-star rating system for whatever is being evaluated.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Great comments, John. And the last thing we want you to do is shut up; as always, great contribution.

John Travis, FHFMA, CPA – Vice President & Regulatory Solution Strategist – Cerner Corporation

Thank you.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Who else would like to speak up?

Joe Wivoda, MS, CHTS-IM – Chief Information Officer – National Rural Health Resource Center

This is Joe Wivoda.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Hey Joe.

Joe Wivoda, MS, CHTS-IM – Chief Information Officer – National Rural Health Resource Center

You know, today was totally like drinking from a fire hose, I mean, my brain is still absorbing and some of it was, you know, admittedly contradictory. So we have some pushback on the concept of doing a government focused comparison tool, which I can totally understand. But then on the other hand, I definitely heard a lot of really, really strong argument for doing an effective analysis of usability, which I think is something that is a common theme across all of the discussions.

So that was, I am still reading those slides over because I think that was the one that hit me the hardest. And, you know, the comparison of specialties by using value as opposed to modules is something that for me, I think, is a really valuable take away. But those are my initial thoughts right now and I think as I ruminate on this a little bit more, I am going to have quite a few more.

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

So Cris, this is Steve Stack.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Those are...hey Steve.

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

And I am going to echo what was just said; it is kind of like drinking from a fire hose and there are a number of conflicting, though very constructive points of view. And so I think some assimilating time will be helpful and I will look forward to seeing how we as a collective group try to come up with something reasonable and rational from all this wonderful input, but...so I don't have much more to say just as I kind of process what I have heard today.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Anybody else? If not, I think Michelle and Dawn, it would be useful if we would just walk through, for purpose of the task force members, what are our upcoming meetings leading up to our recommendations to the joint Policy and Standards Committee on January 20? Michelle, can you just walk us through the upcoming meetings?

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

Sure, I was waiting for Dawn. So you have a meeting next Tuesday, so I think Dawn is going to work to aggregate as much information and summarize after today's meeting. I know she already has a draft deck working that she will just work to update and revise for our Tuesday meeting.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Right.

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

Keep in mind that Monday is a federal holiday, but Altarum will be working so we will try to get materials as soon as possible before that Tuesday meeting, but I can guarantee they will be pretty last-minute.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Yeah.

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

And then following Tuesday, we will have to work really rapidly to aggregate feedback from this group to summarize the recommendations that we will share during the Tuesday meeting so that we can then send them out for Wednesday's in-person, Health IT Standards and Policy Committee meeting, where we will present the recommendations, or Cris and Anita will present the recommendations for approval

by the committee. There may be a few minor tweaks, and we may need to have a follow-up meeting, but for the most part we are hoping that our recommendations will get approved at that meeting.

Dawn Heisey-Grove, MPH – Office of Planning, Evaluation and Analysis – Office of the National Coordinator for Health Information Technology

Thanks Michelle, and this is Dawn; I was on mute before. I just want to add that over the course of the weekend, if you folks, I know you had a lot to hear today, but if you have any thoughts you want to see in that deck for Tuesday that you are going to review, send them to Michelle and me and Cris and Anita and I will do my best to make sure that that is all Incorporated.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Dawn, I was hoping you would say that.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Dawn, could I ask a question?

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Yeah, go ahead.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

I am sorry. Yes, I saw that there were some meetings in February, are we going to continue to have meetings for the task force in February or do we...

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

We put those meetings on the calendar just in case the recommendations were not approved at the meeting in January...

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Oh, okay.

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

...or if there is any additional work that needed to happen after the meeting on Wednesday. So they likely will get canceled, but we wanted to make sure we had them, just in case.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration

Okay, very good. Thank you. And I am sure Cris will tighten everything up so we will not need all those extra meetings. I will be happy to look over that stuff on the weekend as well.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Well that is what I was going to say maybe as my concluding comment, and Anita may want to summarize, too, before we go to public comment which is, everyone who said that we had some conflicting and lively testimony was, in my view, right on the money and we are going to have to sort this out. So if we can try to do whatever we can over the weekend and the next couple of days to at least get the sort of facts straight and the bones of our recommendations right, then we can spend our meeting time focused in on the, do we want to go to the left or the right? Do we want to take path A, B or C? And less on just trying to assemble what we heard and generate options.

But, in any case, we will do our best under, you know, a pretty tight time schedule. Anita, I am talking too much, what...do you have any other insights before we go to public comment?

Anita Somplasky, RN, CHTS-CP, CHTS-PW – Director, Transformation and Development Services – Quality Insights of Pennsylvania

The only thing I was going to add is, yes, we have a short timeline but we just have...we are here to try and really do the best we can for those physicians and other providers out there. And I think, you know, Dr. Blake really reminded me, 60% are in these small practices so, helping to figure out a way to help them with a comparison tool really is something that is very much needed to stay relevant in the coming years.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

All right. Michelle, should we go to public comment?

Public Comment

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

Let's do it. Jaclyn or Lonnie, can you please open the lines?

Lonnie Moore – Virtual Meetings Specialist – Altarum Institute

If you are listening via your computer speakers, you may dial 1-877-705-6006 and press *1 to be placed in the comment queue. 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

While we wait to see if there is any public comment, David Tao from ICSA Labs did have a few comments that we will share with the group via e-mail as a follow-up to this meeting.

And it looks like we have no public comment so, thank you very much to everyone who helped make this happen; all of our panelists, Dawn, Kim Wilson, Cris and Anita, thank you everyone and of course Altarum for helping behind the scenes. We greatly appreciate everyone's help to make sure that we had this great hearing today. And with that, have a wonderful weekend.

Cris Ross, MBA – Chief Information Officer – Mayo Clinic

Sounds good. Thanks, everyone.

Meeting Attendance					
Name	01/15/16	01/08/16	01/07/16	12/01/15	11/17/15
Anita Somplasky	X	X	X	X	X
Christine Kennedy		X	X		X
Christopher Tashjian	X	X	X	X	X
Christopher Ross	X	X	X	X	X
David Schlossman	X	X	X	X	
Dawn Heisey-Grove	X	X	X	X	X
Elizabeth Johnson		X	X	X	X
Joe Wivoda	X	X	X	X	X
John Travis	X	X	X	X	X
Jorge Ferrer	X	X	X		
Steven J. Stack	X	X	X	X	X