

# HIT Policy Committee Transcript July 9, 2013

## Attendace

The following members were in attendance:

- David Bates
- Christine Bechtel
- Arthur Davidson
- Connie White Delaney
- Paul Egerman
- Judith Faulkner
- Scott Gottlieb
- Gayle Harrell
- David Lansky
- Deven McGraw
- Farzad Mostashari
- Marc Probst
- Joshua Sharfstein

The following members were absent::

- Madhulika Agarwal
- Neil Calman
- Patrick Conway
- Thomas Greig
- Charles Kennedy
- Frank Nemec
- Alicia Staley
- Latanya Sweeney
- Robert Tagalicod
- Paul Tang

## Presentation

### **MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thank you, good morning everybody, this is MacKenzie Robertson in the Office of the National Coordinator for Health IT. Welcome to the 50<sup>th</sup> meeting of the HIT Policy Committee, it's hard to believe there have been 50 meetings already. This is a virtual public meeting there is one public comment session listed in the agenda. The public comments will be limited to three minutes and the meeting is also being recorded and transcribed and especially since it's virtual please make sure you do identify yourself when speaking. For those on Twitter the hash-tag is "#HITpolicy" and I'll now take the roll call. Farzad Mostashari?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Farzad. Paul Tang? David Bates?

**David W. Bates, MD, MSc – Senior Vice President for Quality and Safety – Brigham & Women's Hospital & Partners**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, David. Christine Bechtel?

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

Good morning.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Good morning, Christine. Neil Calman? Art Davidson?

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

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Art. And I'll just remind everyone to please mute your phones if you're not currently speaking to avoid any echoes or noise. Connie Delaney?

**Connie White-Delaney, PhD, RN, FAAN, FACMI – Professor & Dean – University of Minnesota/School of Nursing**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Connie. Paul Egerman?

**Paul Egerman – Businessman/Software Entrepreneur**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Paul. Judy Faulkner?

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Oh, great, thanks, Judy. Scott Gottlieb?

**Scott Gottlieb, MD – Resident Fellow & Practicing Physician – American Enterprise Institute**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Scott. Gayle Harrell?

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Gayle. Charles Kennedy? David Lansky?

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, David. Deven McGraw?

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Deven. Frank Nemecek? Marc Probst?

**Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Marc. Josh Sharfstein?

**Joshua M. Sharfstein, MD – Secretary - Department of Health & Mental Hygiene, Maryland**

Here.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thanks, Josh. Alicia Staley? Latanya Sweeney? Madhulika Agarwal? Patrick Conway? Tom Greig? Rob Tagalicod? Okay with that I will turn the agenda over to our National Coordinator, Farzad Mostashari for some opening remarks.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Hi, thank you so much and today I have the honor of not only being the – doing my remarks as the National Coordinator but also chairing this meeting. I think it's the first meeting that Paul Tang has missed ever. So, I'll try not to screw it up in terms of the running of the show today. Well, it's the 50<sup>th</sup>, wow, 50<sup>th</sup> meeting of the Policy Committee and I look back and my first day in the federal government was July 8, 2009.

So, it's my fourth anniversary at ONC and it's just remarkable to look back at where we were four years ago and to take stock through the – measured through these meetings, how far we have come and how with the complexity of the policy issues that we've had to consider as we reached toward our goals and to hold those goals for better health and better care, and lower cost firmly in mind and to react and respond to the world as it is while striving to make the world as it should be.

And I think today's agenda will provide us with plenty of opportunity to do both, reflect on where we are going, whether it's around the care coordination and the role for data intermediaries and quality measurement across organizations, whether it's pushing the boundaries of interoperability in exchange and feeling the urgency for enabling the coordinated care that is increasingly going to be financially rewarded, whether it's – both in terms of its privacy and security as well as its technical requirements and in terms of reflecting on our milestones and making sure that we look at the data and learn from the data to see what's working, where are their pockets, what are the emerging issues and trends, and what do we need to do to adapt and adjust our policies and our implementation, our actions as we get there.

But what is sometimes lost I think in our – in the day-to-day and week-to-week struggle, both on the part of policymaking, but also on the part of the implementers in particular is that broad sweep. When we think back to just four years ago and in healthcare in med speed, that's just a blink of the eye, usually pretty much nothing happens in healthcare within any four-year term.

But, just four years ago 90% of hospitals were on paper, 80% of doctor's offices were on paper, 93% of prescriptions were on paper. Even those who had electronic health records, those electronic health records couldn't do things like make a list of patients who have diabetes or measure the quality. They couldn't share information even in those practices.

The fax machine ruled and if patients wanted to get access to their records, well its 75 cents a page and 30 days. Well we haven't slain all those dragons just yet, but we sure have made a dent both in terms of the adoption, the digitization bringing that data to life within healthcare, some of the critical needs around population health management that we now increasingly see the healthcare system focusing on and prioritizing.

How do we reach the people who didn't come in? How do we know who they are? How do we manage information and manage cost, and manage care for entire populations? Those simply cannot be done on paper-based systems. And around safety with an increased focus on re-admissions and hospital acquired conditions, the increase for example in computerized provider order entry from 27 to over 70% in just a few short years is remarkable.

And in papers we'll hear about and published in Health Affairs today we hear some of those remarkable trends and statistics in terms not only of the adoption of the technology but their use and we'll hear about whether or not they once used is it – are they routinely used. And what is happening within different subgroups and populations?

It is in our purview to make sure that the benefits of information technology accrue to all, not just those who can best afford it. So, rural populations, small hospitals, critical access hospitals, rural health clinics, poor urban, small practices, primary care providers and specialists, what's happening? And we'll hear some of that data today and all in all I'd say it's encouraging though it also provides us with continued incentive to emphasize the need to support those groups that have historically had the lowest rates of adoption of this technology and make sure they don't fall further behind.

As we turn now to the needs of the situation it's going to be more around coordination of care and around patient engagement and those are going to be I think the next set of challenges that Stage 2, meeting Stage 2 is going to require but more importantly the meeting Stage 2 healthcare of the future is going to require. This ability to engage patients, to work with them as partners, to get their help in achieving those outcomes that providers are increasingly going to be held accountable for and in coordinating care across settings, the readmission adjustments, the value-based purchasing are just the first steps there.

The Accountable Care Organizations are the next step; bundled payments and so forth are increasingly I think seen as inevitable. Something that seemed unimaginable just a few years ago, the demise of fee for service now seems in some cases inevitable. So, it's a wonderful time. We've made a lot of progress as a country. I think it's a testament to how much really creativity, hard work and diligence, grit and partnership can accomplish.

And as we look to the daunting tasks to come I'm sure it will be no easier to accomplish them than what we've come so far to change workflows, to grapple with the interoperability issues, the trust issues, the standards issues, governance issues, the culture change and letting patients help, those are daunting challenges but look we've come a long way. And if we continue to work together and apply grit, perseverance and creativity, and to listen to the field, and to listen and adapt based on data I think we're going to be just fine.

I look forward to the next 50 Policy Committee hearings and I think with that, I can turn it over to the first task as the chair of the meeting, which is the approval of the meeting minutes. Do I hear anyone move to approve?

**Paul Egerman – Businessman/Software Entrepreneur**

Yes, so moved.

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

Second.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Any corrections, edits that folks would like to suggest before we vote on approval? Hearing none let's vote on approval of the minutes by voice consent.

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

Aye.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Aye.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Aye.

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

Aye.

**Male**

Aye.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay the minutes are approved. I did my first job as Paul Tang. Okay.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Good job Paul.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, let's move onto our first session for today, which is the data update and it's good, we'll have plenty of time for discussion. Hand it over to Robert Anthony from CMS and Jen King from ONC.

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

Thank you, this is Robert Anthony from CMS, we're going to walk through a few interesting points today. We've got some additional data on both Medicaid providers and also some on non-returning providers I'm just waiting for slides to come up here on the screen. Okay, if we go to the next slide?

So, we'll go quickly through the registration and payment data. Next slide. At this point in time we have just about 500 shy of 400,000 providers registered for the program. This is out of a total amount of 527,000 providers. So, we have a large majority of eligible professionals and hospitals actively registered for the program as of the end of May. Next slide.

This is the breakdown in Medicaid incentive payments as of the end of May and I wanted to point out we talk a lot about the adopt, implement, upgrade but we've all been closely looking at the number of providers who are actually converting from adopt, implement, upgrade payments to Meaningful Use on the Medicaid side and we are starting to see a definite uptick in that.

Traditionally, May, June and July tend to be slower months for providers, especially in their first year, because they are – they tend to gravitate towards later reporting periods in the year. However, we've already got some people we had about 2000 providers came in during May for Meaningful Use that puts us at, with hospitals and eligible professionals about 17,500 Medicaid providers who are actual Meaningful Users and that puts us at pretty close to 15% of the total of Medicaid providers are actual Meaningful Users as of the end of May. Next slide.

This is a breakdown of the Medicare eligible professionals by specialty. We have about 61% of all of the Medicare EPs who are Meaningful Users are non-primary care and this gives you an illustration of where the breakdown is. The two on the right, the two pieces of the pie on the right, the sort of dark blue and dark red, the 20% and 18% are primary care family practice and internal medicine but you can see that the remainders are a variety of specialties.

That other large part of the pie is another slice and that's either specialties that aren't represented in this mix or eligible professionals who did not have a specialty designation within the Medicare system, but we've seen that 61% figure hold steady so we have a large number of Meaningful Users who are not primary care at this point in time, but you can see at the bottom part of this pie chart that we have a variable spectrum of specialties that have been successful with Meaningful Use as of the end of May. Next slide.

So, altogether as of the end of May we are at a little over \$15 billion as the total number of incentive payments that have been paid. We did, you can see, pay a large number of the Medicare advantage organizations for 2012 this month so we have seen a fair amount of return in that area as well, in fact, we've seen a slight increase in that area. Next slide.

And we are – I had hoped we were going to be, as of the end of May, over the 300,000 mark for the number of providers who have been paid under the program but we are just shy, we are about 2500 shy and of course as we move into June we may continue to be shy because a lot of the folks who are coming in at this point are more on the Medicaid side where we're seeing a fairly small number as you can see in this column for Medicare EPs, only 724 this year. Again, May, June, and July tend to be slower months if the trend holds true from previous years, but we are about 2500 shy of 300,000 providers who have been paid under the program to date. Next slide.

So, this is an indication of where we are with registration and payment overall by category. We have a little over 88% of all eligible hospitals that have actually registered for the program. Next slide. Almost 80% of hospitals have been paid an incentive payment either under Medicare/Medicaid or both. Next slide.

We have about 75% of all eligible professionals registered for the program at this point in time with the largest obviously on the Medicare side. Next slide. And we have surpassed obviously the 50% of eligible professionals paid. You can see the slight increase last month.

We had about 11,000, I think it was 11,100 Medicare Advantage Organization EPs we did get some more participation in the second year, an extra 1500 Medicare Advantage Organization EPs came in to participate, which upped the percentage a little bit on that side, but we're at about 56% of eligible professionals paid either under Medicare or Medicaid and as we've showed the number of Medicaid Meaningful Use is on the rise. Next slide.

So, at this point in time we've got about eight out of ten eligible hospitals made that financial commitment. We've got one out of every two, actually a little more than one out of every two Medicare EPs who are Meaningful Users. About 63% of all eligible Medicaid professionals have received an EHR incentive payment.

The percentage of EPs who are Meaningful Users under Medicaid is about 11%, but that has been rising over the last two or three months and we expect that to continue to rise.

We do have one out of every two Medicare and Medicaid EPs who have made a financial commitment and as I said, we're just shy of that 300,000 eligible professionals having received an EHR incentive payment. Next slide.

And this is what June is shaping up to be. As I said, we tend to get a smaller number of folks the 6250 Medicare EPs could very much consist of providers whose attestation has not been processed up until this point so it's no guarantee that we're going to get enough numbers here at this point to put us over the 300,000 mark for the end of June. We'll find out exactly in about a week and a half, two weeks. But we do have about 10,000 providers who were paid in June and we will be watching that closely to see if we surpass 300,000 which would put us at about three out of every five providers in the country paid for in EHR incentive payments. Next slide.

I want to talk about some of the attestation data that we have here. We're not going to go through the full attestation data and in fact that full attestation data is not included in this slide deck. There will be a slide deck on the CMS EHR incentive program's website and we'll show that link at the last slide here that will include that full information. So, people who are interested in the full attestation information can continue to find it on our website. Next slide.

As we've done this analysis and the additional analysis that is included on our website we've got about 195,000 Medicare EPs who have attested the vast majority of them successful. Over 3000 hospitals who had attested to Meaningful Use, all of them successful and new this month we've got over 5700 Medicaid EPs who had attested now these are attestations in 2012 only, they're all 90 day attestations and we'll be taking a look at some of that information shortly. Next slide.

I want to highlight that these areas that were least popular menu objectives for EPs is transition of care summary and patient reminders and that's held true overall, but we're going to come and revisit that because we'll see this is holding true across the board and not just under Medicare but under Medicaid. Next slide.

So, I want to take a look just very briefly at some of the 90 day performance data and then we're going to look at some of this 90 day performance data versus Medicaid as well. Next slide. So, this is a representation of the core objectives and EPs who were in their 90 days that is their first year in 2011, 2012, 2013 and we've been looking at this pretty closely and talking about it for a little bit.

And as you can see, performance in general has been very comparable if not in some cases increasing year-over-year. You can see slight increases in ePrescribing and recording demographics of these recording objectives and providing an electronic copy of health information. Keep in mind that all of these are above 75% on their threshold performance, which again is well above what the requirement, required thresholds are on all of these, but just so you can see that we've got core objective performance that is not only holding steady but increasing in many areas. Next slide.

The same is true on the menu side, obviously we have some areas like syndromic surveillance data submission, immunization registries, data submission where we're seeing less participation that is primarily based on what is available in those areas and of course there is some fluctuation in those areas based on what registries come in and what go out, what level, what type of standard they're using for submission. But, overall very comparable from 11, 12, and 13 across those 90 days experience. Next slide.

The same is true of hospitals although we do see a slight drop there on the left of the CPOE year after year. This is a repetitive year so it's not a hospital that did 2011, 2012 and 2013; it's all new hospitals in separate years, however, well above the required 30% threshold for computerized provider order entry. Overall though you can see that all of the other core objectives are hovering above 90%, some of them above 95% and holding steady across the board. Next slide.

The same is true of menu objectives and again you have immunization registries, reportable lab results and syndromic surveillance where we see some fluctuation based on availability, but you can see that in the first 5 of these menu objectives, and of course these are menu objectives with thresholds, they're continuing to be levels that are holding very steady regardless of when a hospital has entered into Meaningful Use. Next slide.

I do want to discuss a little bit about non-returning Medicare providers. There are a number of articles that have come out lately that have talked about non-returning providers and they've based that data on a combination of what we have in publicly available data and analyzing the payment files. I think some of them are operating on some incomplete information, but we did want to talk about some of what we know about some Medicare providers who are non-returning.

Obviously, we haven't done this kind of analysis on the Medicaid side, because there's a lot more flexibility for Medicaid EPs about when they come in. They could come in and receive an AIU payment and just because they don't come in the next year doesn't mean that they are not participating. They could take a couple of years until they actually come in and attest to Meaningful Use and of course the Medicaid Incentive Program was designed in that way.

Medicare, however, requires continuous attestation to receive that full incentive payment and we did have Medicare providers who did not return who started in 2011, but did not return in 2012. If we go to the next slide.

Overall we had about 10,000 Medicare eligible professionals who had attested in 2011 that did not return for the 2012 program year. After we had gone through and processed a full amount of 2012 attestations CMS began taking a look at the non-returning providers and since of course we know who the non-returning providers are, we reached out to a substantial number of them and began to ask some questions about what type of behaviors may have driven the providers to not return in 2012 and what other factors might have impacted their inability or decision not to return.

So, this is an overview that sort of sketches out roughly the large categories that we had about non-returning providers, again these are all eligible professionals. About five percent of those who did not return were actually eligible professionals who had retired or were retiring. Another 17% were eligible professionals who had either moved on from a particular practice or who had moved to another practice that did not have an EHR and so they were not able to continue on the Meaningful Use track.

Another 28% had intended to meet – had intended to attest but did not meet the deadline and there were a variety of reasons. When we looked behind that for some of them it was a lack of awareness by those who were submitting about that deadline. For some of them it was an inability to pull together the data that they needed in time. There were a lot of factors that went into that.

What I want to focus on in our next slide is the area 50% of multiple factors, because this is largest number of non-returning providers and these were all providers who had stayed in the same practice so they did not move somewhere else where there wasn't certified EHR. They presumably had the same type of access to that EHR and when we began talking to them we discovered that there were multiple factors for each of these, it wasn't a single particular instance.

So, you will notice if you look at this, this is not done in a pie chart type of way we did it in a bar graph because a number of factors can, you know, these can overlap. So, by far the largest numbers of people were in that – that they intended to attest but they missed the deadline and we separated these out from the others who had intended to attest but missed the deadline because there were additional factors that had influenced their missing that deadline.

You can see that a large number, 36%, cited that the Meaningful Use was either too time-consuming or another 32%, that it was too complicated. There were a large number of people who were waiting for Stage 2 information and this fell into a number of different camps, either folks who were waiting to see what the continuing requirements of the program would be to see if they were going to participate again or people who were waiting to see whether the Stage 2 information changed what they needed to do in 2012 and by that time they were unable to attest and missed that deadline.

A significant number of non-returning providers, 25%, were providers who were not able to meet one or more of the thresholds for an entire year though they had met them for a 90 day period in 2011. Once they were extended to a full year in 2012 they were not able to meet one or more of the objectives. Most of those were folks who could not meet the core objectives. A number of them cited clinical summaries, providing clinical summaries as a particular issue. Some of them cited the privacy and security objective and then still others cited either a combination of CPOE or ePrescribing.

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

Hey, Rob, I'm sorry to interrupt, it's Christine, when you say clinical summary do you mean the provider to provider?

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

Providing a clinical – yes, providing a clinical summary to patients not the provider to provider, but providing it to patients.

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

After visit summary, thank you.

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

The rest of these were a smaller proportion but still significant. A large number of people, 15% had an issue with their EHR vendor. They were dissatisfied with their EHR vendor. Another six percent had changed to a different EHR system entirely and because of the changeover were not able to meet that deadline or meet those thresholds.

There were definitely, as we talked to some of these providers, folks who had made a conscious decision not to participate, it was deemed too expensive to invest in an EHR or maintain an EHR. Still others felt that the Meaningful Use requirements did not fit their particular medical specialty and so they had made that decision. Next slide.

So, if there is a silver lining in all of this I think the silver lining is that when we talked to providers who did not return the vast majority of providers, I think over 83% if I am remembering the figure correctly, had intended to become Meaningful Users, again in the future and over half of them, over half of the EPs who switched practices had planned to attest specifically in 2013 and a large number of the folks that we had talked to, a majority of the folks that we had talked to who were not able to attest in 2012 intended to be Meaningful Users in 2013. So, those 2011 to 2012 EPs are truly non-returners for 2012, they are not folks who have dropped out. We have a strong indication that they intend to become part of Meaningful Use again.

What we did learn from looking at this is that there is confusion about the objectives. There is some confusion about some of the deadlines. We had some definite, I've lost connectivity here so I'm just going to wing it, we had some definite issues with folks who were – I'm sorry, bear with me, I'm pulling this upon my own desk so I can follow along.

We had some definite issues with folks who were in small or rural practices who felt that they needed tools that were tailored more specifically to their practice situation and so we put together a number of plans for issuing more basic resources through our website over the coming six months. We'll have a number of both print resources and video resources that will walk people through some of the basics of the program.

We have started to do sort of ask the expert webinars on different subjects. We had formerly done these about four or five times a year but we've started doing them twice a month now and we are also talking to a number of different provider associations about ways that we can partner to do similar ask the expert type of webinars with them and also disseminate more of that information out to their members to make sure that – especially as we talk with organizations like Paycom that reach smaller practices, make sure that they know how to provide resources or links to resources for their providers. So, that is really our sort of next step is making sure that the information is out there and available for people to take part. Next slide.

So, we do have some Medicaid performance data and I'm going to go through all of these relatively quickly. This obviously is on 90 day performance and if we go to the next slide this is an indication of the core performance, core objective performance over 90 days and what we've done here is we have compared Medicaid, 90 day core performance in 2012, with Medicare core objective performance in 2012.

And as you can see across the board while Medicaid tends to score a little bit, the Medicaid EPs on average tend to score a little bit less than Medicare in most of these objectives except in areas where it's recording clinical information like maintaining a problem list or an active medication list or a medication allergy list where Medicaid EPs exceed, they tend to lag a little bit behind.

However, where you can see these yellow bars across the graph, those are actually the required threshold in order to meet Meaningful Use and you can see that Medicaid and Medicare both greatly exceed where those thresholds are. So, we are seeing the same type of performance for Meaningful Use for Medicaid eligible professionals in the first year as we saw for Medicare. Next slide.

This may be a little confusing at first glance. These are the core objectives for which Medicaid EPs claimed exclusions in 2012. If you want a fuller background of what each of these match up to, the menu measures or I'm sorry the core measures, we do have an appendix area in the full deck on our website to take a look at. But I just wanted to run through a couple of these quickly to indicate where we're really seeing the same type of pattern that we've seen on the Medicare side.

Obviously, the largest here is the core measure 12 which is providing an electronic copy of health information. Again, the exclusion for this is when nobody requests that health information and I think we're in the same boat here that we had seen on the Medicare side in early days where there was simply a large number of patients who did not know about the ability to get a copy or an electronic copy of that information and so were not asking and so a lot of people weren't able to claim that exclusion.

However, we see a lot less, a lot further down the scale as we look at other core measures. Number one and four are pretty close because they are both related to medication. Number one is for a computerized provider order entry of medication orders and number four is for ePrescribing and both of those are for exclusion for providers who order fewer than 100 medications during that reporting period.

Even lower down the scale we see things like recording of vital signs where you have all three of those vital signs not applicable to a scope of practice, providing clinical summaries when you don't have office visits, traditional office visits as part of your practice.

And then finally, core seven and nine are on recording demographic or recording smoking status, which are also based on age limit. So, this tracks pretty well to what we have seen of the Medicare side. So, we're seeing Meaningful Use as a behavior holding true from Medicare to Medicaid. We go to the next slide.

So, this is an indication of menu objective performance and again we've compared Medicaid to Medicare EPs. Again, Medicaid EPs lag for the most part slightly behind Medicare EPs on performance but again these gold bars are an indication of where the threshold for these actually are and you can see that both Medicaid and Medicare are scoring well above what the required performance threshold is. Next slide.

And this is the one that I really wanted to highlight because this gives an indication of what menu objectives were being deferred. So, in other words, what menu objectives are not being chosen by Medicaid EPs? And again the behavior tends to hold true of what we saw in the Medicare side. On the Medicare side transition of care summary and patient reminders which is the menu measure eight and menu measure four are the menu measures least selected.

On the Medicaid side patient electronic access which is number five also scores very highly for deferrals and of course we're watching this as we move into Stage 2 since transition of care summary and on-line access is sort of the centerpiece of what is happening with Stage 2.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Hi, Rob, this is MacKenzie, can you just confirm what slide number you're on? I just want to make sure we're matching on the screen.

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

You're on slide 30 its Medicaid EP 2012 menu measure deferrals.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Okay, can we just advance the slide on screen please? We're on 29 on the screen. Thanks. We're good, thanks, Rob.

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

Sure. And of course menu measure ten there is a high amount of deferral, right, because it's for syndromic surveillance data and there's just not a whole lot of syndromic surveillance databases for EPs, that's fairly normal.

Slide 31, if we go to the next one, is an indication for each of these menu measures of where we see very high pass exclusion or deferral rates. Again, if you want a fuller explanation of what each of these menu measures are, you can check the full deck on our website. But, again, this is fairly typical of what we've been seeing on the Medicare side although there is a very high deferral rate on patient electronic access at this point that was high but not as high on the Medicare side.

So, if we go to the final slide, again if you visit this, this is our data and reports section of the CMS EHR website. We do have a fuller slide deck that has more of the data and numbers on it that is available for download and if anybody has any questions please do not hesitate to e-mail me.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

This is MacKenzie, are there any questions for Rob?

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

Rob, it's Christine, I guess I'm thrown by the inability of some providers to meet the core objectives of providing an after visit summary. Do you have any insight into what the problem was there?

**Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid**

So, we've had a number of folks who I think have not always had clarity in the past about providing that clinical summary. I think there were a number of folks who were under the impression that if they offered a clinical summary and it was not accepted that that could not be counted in the numerator when in fact it can. But most often when we talk to practices what we've discovered is that many of them have just not adopted a workflow in which they are consistently delivering that clinical summary to patients and that's the biggest barrier for them.

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

Thanks.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Any other questions? Okay, Jennifer King from ONC I'll turn it over to you.

**Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Okay, great, good morning everybody. I am going to present an overview for the second half of the data update here. An overview of some papers that are hot off the presses. They were published this morning in Health Affairs. I'm waiting for the slides to load up here and then I'll launch into the presentation.

**Caitlin Collins – Project Coordinator – Altarum Institute**

We don't have slides.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Caitlin, they were sent this morning. I forwarded them over this morning. I'll make sure they get to your other e-mail address I think because the e-mail is down there. So, it will just take a minute Jennifer, let me resend them.

**Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Okay, well in the meantime I can sort of get started on the background here. So, what these two papers show are recent results from two national surveys of physicians and hospitals on the latest trends in adoption of electronic health records in general and Meaningful Use functionality specifically. So, we take a look at sort of what are the latest trends in adoption overall nationwide and then among certain subgroups of providers to see whether or not patterns in adoption increases have varied across key provider subgroups.

And then on the physician side, as Farzad previewed in his opening remarks, we were able to take a look at whether or not physicians are actually routinely using functionalities after they've adopted them. So, not just the percent of physicians who have the capabilities but also the percent who say they're routinely using them in their practice.

And then on the hospital side we're also able to take a look in addition to trends in overall EHR adoption, take a look at some of the Stage 2 criteria to see, get a picture of whether or not hospitals as of 2012, so sort of take an early look at whether or not hospitals had adopted the functionalities that will be required for Stage 2 Meaningful Use core criteria.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

While we're waiting for the slides Jennifer maybe I'll vamp a little bit. The other paper that was discussed that I thought was very interesting that was not discussed in today's briefing but is in the Health Affairs Journal issue was some analysis from Surescripts, that our staff also participated in, that looked at the number of new ePrescribers by month prior to and following the implementation of the various incentives, the ePrescribing and HITECH incentives and they found that it increased from something like 1400 a month in terms of new ePrescribers up to an average of 6400, I think it was, new ePrescribers a month as a result of those policy incentives.

And the vast majority of those new ePrescribers are using electronic health records rather than standalone ePrescribing to accomplish that. So, remarkable acceleration and I think explains in large part the switching from, you know, 93% on prescriptions on paper to now I think we're about to cross the halfway mark in terms of all prescriptions.

**Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Okay, great, so it looks like I'm seeing the slides up now so we can launch back in here. So, this slide just sort of gives the overview that I gave just a minute ago on sort of the main results that we're going to highlight in this overview.

And then the next slide has the citations for the articles that were published so we'll present just sort of an overview of the highlights here but encourage people to check out the full articles for all of the details on the analysis and the detailed results.

And then going forward to the next slide just before we launch into the results wanted to highlight that a lot of the analysis here focuses on basic EHR adoption and I just wanted to touch a bit on what exactly that exactly means since it doesn't correspond exactly to Meaningful Use.

So, the definition of a basic EHR was defined by an expert panel prior to Meaningful Use being defined. So, it does not correspond exactly to the Meaningful Use criteria. Having a basic EHR does not mean that you'll necessarily qualify for Stage 1 Meaningful Use because there are Meaningful Use criteria that are not included in the definition of a basic EHR and the opposite is also true, just because you qualify for Stage 1 Meaningful Use doesn't necessarily mean that you would have a basic EHR because there are some capabilities that are required for a basic EHR that are not part of Meaningful Use Stage 1.

So, despite that discrepancy we still look at trends in basic EHR adoption over time because we have good historical data on this type of EHR adoption and it is a useful measure for examining trends over time.

So, the next slide just gives you the details on the definition of basic EHR for both physicians and hospitals and how that matches up to the Meaningful Use Stage 1 core measures. This is just there for your reference.

So we can dig in here to the physician side. Moving onto the next slide; these data are based on a national survey of physicians, the National Electronic Health Record Survey, which is conducted by the National Center for Health Statistics in partnership with ONC and really represents a gold standard for looking at nationally representative information on electronic health record adoption across the country, has a response rate of over 60% of office-based physicians in the US.

So, moving to the next slide, here we take a look at just the latest trends in overall EHR adoption so you can see that as of 2012, 72% of physicians had any EHR system in their office, so not taking into account any specific functionalities but just having any medical record, electronic medical record system in the office and 40% had a system that met the criteria for a basic EHR. This is up from 25% in 2010. So, then we took a look on the next slide of...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Sorry, I just want to check, if anyone does not see the slides and kind of sees the gray screen you can download now the PDF of the presentation and view it on your computer.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Another option too, this is MacKenzie, I had the same problem, is just closing out the webinar platform and just clicking back in and then it will come back up.

**Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Okay, great, thank you. So, taking a look at what these trends and adoption look like by different physician and practice characteristics, you can see here that we see the similar broad increases in adoption between 2010 and 2012 across all type of physicians.

We also see that as of 2012 there are some gaps that remain. So, if we look at practice size for example you can see that physicians who are in solo practices have lower rates of basic EHR adoption in 2012 then physicians in larger practices, however, between 2010 and 2012 we saw the greatest relative increase in adoption among those providers who had lower rates of adoption in 2012.

So, adoption rates among solo practitioners more than doubled over the past two years which is a faster relative increase than the rate increases that we saw among some of the larger practices. And you can see sort of similar trends across these characteristics with the physicians who had lower rates of adoption in 2010 experiencing some of the greatest relative increases but still some gaps remain as of 2012.

On the next slide we took a same look or a similar look to see whether or not there are gaps in progress by important area characteristics. So, we looked at adoption patterns by metropolitan status and the level of poverty in the county that the physician was located in. And you can see here that again we see increases across all of these types of areas between 2010 and 2012 and really a lack of disparity by these characteristics. In fact on the metropolitan status criteria we actually see that physicians in small metro or non-metro areas have slightly higher rates of adoption in 2012 then physicians in large central metropolitan areas and other metropolitan areas.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And this is after adjustment for physician characteristics like office size?

**Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Yes, that's right, so these are all adjusted for all of the characteristics that might be confounders in these relationships. So, moving onto the next slide, we also wanted to take a look at changes in adoption not just overall EHR adoption but looking at the specific functionalities and whether or not there were any different patterns in terms of increases in adoption by specific functionality. So, this here shows adoption rates in 2010 and 2012 for the individual functionalities that are part of Meaningful Use Stage 1 core and basic EHR for the subset of functionalities that we had data in both time periods.

You can see across the board pretty strong increases with the largest increases really accruing on those functionalities that are part of Meaningful Use Stage 1 core and those increases tended to be larger than the increases among functionalities that were only part of a basic EHR and not part of Meaningful Use Stage 1 core, so really supporting the role of Meaningful Use and supporting adoption over the past couple of years.

And then finally, the last thing that we looked at among the physicians on the next slide is getting at that question of whether or not physicians are routinely using the technologies that they have adopted. So, this gives you a snapshot of both the level of adoption and the level of routine use among physicians.

So, on the vertical axis there, it shows the percent of physicians who have each of those individual computerized capabilities and you can see that for almost all of the functionalities here with the one exception being viewing quality data, over half of physicians had adopted each of those functionalities.

And then across the horizontal axis that shows the percent of physicians who have functionality who reported that they are routinely using it. And again, you see on all of the functionalities well over half of physicians who have the functionality report routinely using it with especially high rates of routine use up there in that upper right-hand quadrant, upper right-hand area.

Some of the functionalities that were a little bit less likely to be routinely used were providing patients an electronic copy of the health information and providing the after visit summaries, so, some of those patient engagement functionalities were less likely to be routinely used but still all of the functionalities are concentrated in the upper right-hand quadrant with relatively high levels of adoption and use.

So, just to sum up on the physician side we saw sustained increases in EHR adoption over the past two years, really across all type of physician characteristics. We did see that some gaps still remain in 2012 especially by practice size, practice ownership as some of the key characteristics. But we saw that the largest relative increases in adoption were among those providers who have historically had lower adoption rates.

### **Male**

This was all self-reported correct? You haven't been able to audit these results yet right?

### **Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology**

Correct this is self-reported survey data but some of the – we do see similar patterns here in terms of the routine use information that we also see, you know, maps well to some of the data that Rob just presented on the extent to which providers are exceeding the thresholds that were in place for Meaningful Use as well when they attest.

So, moving onto the next set of slides here we'll move onto the hospital results. And these results are from again a national survey of hospitals conducted by the American Hospital Association, the Health IT supplement, again has a response rate of over 60% so represents a good picture of EHR adoption nationally among nonfederal acute-care hospitals in the US.

And here we see again strong increases in basic EHR adoption over the past several years. So, between 2010 and 2012, basic EHR adoption among hospitals nearly tripled going from 15% to 44%. It's also notable that the rate of increase prior to 2010 was much slower and has really picked up after HITECH has been fully implemented.

So, next, taking a look at how these trends vary by key hospital characteristics. We see similar patterns as we saw with the physicians where across the board in terms of all of these different hospital types' strong increases between 2010 and 2012 and the percent of hospitals with a basic EHR, but some gaps still remaining in 2012. So small hospitals, rural hospitals, for-profit hospitals and hospitals that are not teaching hospitals tended to have lower basic EHR adoption rates in 2012 than their counterparts. But, again, we saw the largest relative increases among those hospitals that have historically had lower adoption rates.

So, for example among small hospitals adoption more than tripled between 2010 and 2012 going from 11% to 38% similarly among rural hospitals adoption more than tripled going from 10% to 34%. So seeing especially large relative increases in adoption among those hospitals that have been lower historically.

And then moving forward we, in this paper, also took a look at – were able to collect information on the extent to which hospitals as of 2012 had adopted the functionalities associated with Stage core Meaningful Use or Stage 2 core objectives for Meaningful Use. So, as of 2012 we saw that just five percent of hospitals had all 16 Stage 2 core objectives in place but that 63% of hospitals had between 11 and 15 objectives in place. So that left about 30% of hospitals that had ten or fewer objectives in place as of 2012.

And then on the next slide took a look at what are the specific functionalities associated with Stage 2 core objectives that hospitals are having more and less success implementing as of 2012. So, we can see high levels of adoption here at the top in the range of 80% to 90% for many of the functionalities but down at the bottom some of the functionalities that are lagging behind as of 2012 are some of the patient engagement and care coordination functionalities, so the patient view on-line, download and transmit have the lowest rate of adoption as of 2012. And that the summary of care records for transitions was the second lowest at just over 40%. And then some of the public health measures were also lagging behind as of 2012.

So, summing up on the hospital side, again similar to physicians, strong increases in basic EHR adoption over the past two years across all types of hospitals, some gaps still remaining among small rural hospitals but we saw those hospitals make especially large strides in relative terms in basic EHR adoption over the past two years.

Also saw that hospitals as of 2012, few hospitals had all 16 Stage 2 core objectives in place but a majority of hospitals had most of the objectives in place and we see that there are certain objectives on the patient engagement, public health and care transitions that are particularly low in the early stages of getting ready for Stage 2. So, that's the high level overview and happy to take any questions at this point.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Are there any questions for Jennifer? Okay, well this is MacKenzie, thank you very much both Jennifer and Rob for presenting. I think we will now move onto the non-targeted query virtual hearing report out from Deven and Paul.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Thank you very much MacKenzie. We'll just wait for a minute for the slides to come up. Our report today is just that it's a report to the Policy Committee on a hearing, a virtual hearing that we had a couple of weeks ago on non-targeted query. So, we're basically just going to take a little bit of time to talk to you about what we did at this hearing and the particular issues that we were exploring.

The Tiger Team will begin deliberating on what we heard and what, if any, recommendations will come out of that on our call tomorrow and then we have two more calls in the month of July and so we hope to be able to report recommendations to you in August ideally.

So, here are the Tiger Team members and I thank them for their hard work as always as well as the hard work of my Co-Chair on these issues.

Just to sort of set the stage and remind everybody about what we're doing with this exercise is we had the hearing in order to understand what kind of policies are being deployed in order to ensure that a non-targeted query for a patient record is appropriate, legal and authorized.

And what I'm going to do is just remind everyone what a non-targeted query is and so that means I'm actually going to actually skip ahead to slide five and these two slides sort of say what a non-targeted query is.

So, recall that we have, as a Tiger Team, been doing work on the issue of queries for patient records and the Policy Committee had already considered a set of recommendations from the Tiger Team on what we called targeted query which is a circumstance where you know one or more of the patients previous providers and you send a query to those providers to ask for records.

A non-targeted query is a circumstance where you don't know who the other providers are and so a non-targeted query really involves looking for a patient's record using information about the patient. We also again are considering non-targeted queries in the context of entity to entity exchange not queries within an entity or within an integrated delivery network or an organized healthcare arrangement.

So, because you're looking for information about a patient based on the patient's information non-targeted queries involve the use of an aggregator which might be called a record locator service or in the case of PCAST a data element access service or even this is a function provided by a Health Information Exchange for example.

And as we approached the issue of query, you'll recall that in our previous discussions we limited the use case to direct treatment relationships where you're doing a query to a provider in the context of treating a patient. But because we're having this virtual hearing on non-targeted query we actually had an opportunity to ask folks about the extent to which non-targeted queries are being permitted for purposes other than direct treatment.

So, now I'm going to go back to slide three in order to talk a bit more about what we tried to uncover in the hearing and what its purpose was.

So, again we're looking for – we're looking at non-targeted query models and trying to understand what sort of policies that they put in place and really the focus of the hearing were on policy and not on particular security methodologies or identity management issues because we had really covered those issues previously.

And the kind of policies that we were thinking of would include limitations on who could conduct the query for example limitations on the purposes for which a query can be conducted, whether there were geographic or other limits and parameters, some of them could be inherent for example in an HIE that operates within a particular region or a state, or some could be imposed as a matter of policy but we're looking for basically the mechanisms that non-targeted query models use in order to assure proper access to a patient's record and to help demonstrate that in fact the requester of those records is in fact authorized to access them.

So, again we really did encourage testimony on limits as I mentioned but we also wanted to hear from the entities who testified about whether there were limits that they considered but ultimately decided not to adopt them. And of course we really also wanted to understand not just the policies that were adopted or the policies that were considered and not adopted but the why behind all of that. So, I went through this already.

So, here are the panelists that we heard from. They were terrific, they gave us a huge amount of information even though we limited them to five minutes of verbal remarks, they still managed to convey an enormous amount of information and then we got even more information through the Q&A process that occurred after each panel.

We had two panels but they weren't divided based on type of query, non-targeted query model it was more a mechanism for sort of dividing the time. We heard from the Nebraska Health Information Initiative and many of these folks as you'll notice had sort of one person who was responsible for providing most of the testimony but there were others on the phone who could help answer questions given their areas of expertise. So you will see all the people who were listed under each entity.

Again in addition to Nebraska we had Healthway, the Rochester New York Regional Health Information Organization, the Indiana Health Information Exchange, the Rhode Island Quality Institute's CurrentCare, Surescripts, ClinicalConnect, and SMRTNet. And each of these models is currently deploying non-targeted query. So, we were able to learn a tremendous amount from them.

And then the last two slides that we have here are just the questions that we provided to the participants in advance. We asked them to focus on the questions that were most relevant to their model and we were again able to in the Q&A process get additional information. We wanted to sort of understand again how long they were operational, how many patients are involved, are there any sort of inherent scope limitations such as geography, what other limits are placed on non-targeted queries like who can query and for what purpose.

What roles do patients have in limiting queries and are there any circumstances where those preferences might be overridden and if that occurs how does that process work and have there been any problems with it. How do patients exercise meaningful choice regarding whether their records are included in the service that helps locate patient records otherwise we've been referring to those as an aggregator service. And does this extend to the release of the data or does that then require an additional consent.

How do they address the exchange of sensitive information? What type of information gets returned to a requester as a result of a non-targeted query and if there is sensitive information involved is there a difference in what gets returned. In what environment and for what providers have these queries proven to be most effective?

We asked folks for metrics if they had them. What challenges and problems have they experienced and if they plan to make any adjustments in response to that what are they? And generally if they had any recommendations for us about widely applicable policies that would have – had we may be adapted them before they put all the hard work of putting their models together would have made it easier for them or that would facilitate greater interoperability going forward and we got some feedback on that as well. So, I think – yes, I think that's it for those. Paul Egerman, did I leave anything out? Is there anything you want to re-emphasize or add?

**Paul Egerman – Businessman/Software Entrepreneur**

I'd say, first I ought to take myself off mute, I'd say Deven as usual you did a terrific job and you thanked a lot of people and I want to take a minute and thank you for your leadership and your efforts on this topic.

We put together this hearing with very short notice and it was really terrific to get the eight different organizations who presented. We did have a – we did get some notice in – press which surprised some of the participants they did not expect that their comments would be reported in the media but I think it shows that there's a lot of interest in this area.

I mean, Deven and I are reluctant to give you any like observations about the content of the hearing because we haven't had a chance yet to meet with the members of the Tiger Team and that actual meeting occurs tomorrow and we want to give the Tiger Team members an opportunity first to discuss, you know, their views of what happened and then we'll be coming back I guess at our next meeting to give you our feedback as a result of the hearing.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Thank you. So, you know, with that we'll turn it back over to the Policy Committee – we're still – for any questions, although again I reiterate what Paul said, you know, he and I may have our own impressions of the hearing but really the Tiger Team has not had a chance to really digest this yet, but we wanted to give this report today to let you know that we had not forgotten at all about the questions that you raised when we initially proposed a set of potential recommendations to govern non-targeted query and so we'll have much more to say on this issue at the August meeting.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

All right, well this is MacKenzie, thank you very much Deven and Paul. We'll look forward to your next presentation in August. And I think we will move to the Quality Measures Workgroup recommendations with Helen Burstin and Terry Cullen. Helen and Terry are you both on the line?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And let me just, in general for today with the – we can't see, you know, your name tent, if you have – Policy Committee members if you have any – would like to tee up some questions whether to ask yourself or to have me ask them just send me and MacKenzie, MacKenzie and I an e-mail.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Hi MacKenzie it's Helen.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Great.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

I believe Terry is on and I know Marc was trying to dial in. Marc are you on as well?

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

I am, hopefully you can hear me.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

We can.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

We can, excellent. Okay, so hi, everybody I'm just going to tee this up this is Helen Burstin. So, this is a really exciting presentation last week that Marc did for the Quality Measures Workgroup. We had a very spirited discussion and the slides have been updated to reflect that discussion. Marc is going to walk through the slides with you and as you'll see they are pretty significant implications here for Stage 3 Meaningful Use measures as well as what potential criteria might be used if an innovation pathway is contemplated for Meaningful Use. So with that I will turn it over to Marc and look forward to our discussion after his presentation.

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

Thank you Helen and thank you everyone. If we can go to the next slide, please, just as a reminder to the Workgroup or excuse me the Policy Committee the charge to the Data Intermediary Tiger Team or DITT that we received was as listed here to specify the role and functions of the intermediaries in e-Measure reporting and feedback including their roles in measurement calculation, submission, data transformation, data governance and bidirectional communications with provider and end-users. And as usual the guidance was good and you'll see that come back a bit in that list of items in the form of the framework that we used to try to think about and to discuss these topics.

So, let's go ahead to the next slide. So in response to the Quality Measure Working Group portion of the Request for Comment for Stage 3 Meaningful Use there were a variety of questions that we're just going to briefly go through the responses just to give you a sense of where that group came from before we talk about the Tiger Team deliberations. So, if we can go to the next slide, slide number three.

The first question that we pulled out was please comment on the desirability and feasibility of such an innovation track, meaning the data intermediary pathway for reporting as a voluntary optional component of the Meaningful Use CQM requirement and as you can see the vast majority, 85%, come with reservations, 72% without reservation supported the notion of having this option or alternative track available. Next slide.

The second question that we looked at was should we pursue a conservative approach that limits development to professional societies and IDNs or an alternative that opens the process to any EP/EH with certain constraints and not quite as strongly but generally supportive of 60% suggesting alternative options would be reasonable.

On the next slide, should we constrain development in the innovation track with standards for e-Measures that are already in place? And I think this is an important one as you'll see coming back where 80% supported constraining the track with standards for e-Measures that are already in place. Next slide.

So, the – and again most of you will be familiar with these things but there were so many activities going on related to this just wanted to mention some of the other things that we looked at and knew were going on and that is CMS issued an RFI for data registries and asked the following questions, what types of registries should be eligible and also what qualification requirements should be applicable to those entities.

So, there are other tasks going on looking at this question and an issue here in particular this is asking about PQRS in addition to the EHR Incentive Program and so it's important to note that the Tiger Team really constrained its considerations largely to the impact relevant to the EHR Incentive Program.

So, next slide, please. So the specific areas that the Data Intermediary Tiger Team was asked to contribute recommendations on included privacy and security, data quality, standards alignment, organization type and characteristics and measure innovation. Next slide.

And guiding principles that we received from the Quality Measures Workgroup included trying to encourage participation to maximize interoperability and standards and ensure data quality and support innovation in e-Measurement.

So what we are going to walk through next is a series of slides that represent a full framework that the Tiger Team developed which really was organized in a fairly typical fashion I guess around a set of focus areas if you want to think of them as rows in a stable and those corresponded to a collection of things like data quality and so on, privacy and security that reflects some of the elements that were in the charge and the guiding principles and so on.

And then for each of those we developed a variety of thoughts and comments but what we're going to share here are two main things that came out of that, one is a short-term recommendation which is the sort of less than three year timeframe in general and a longer term recommendation, obviously longer than a three-year time frame for each of these topical areas.

And many of these are motherhood and apple pie if you will but several of them I think as Helen indicated generated a lot of discussion both at the Tiger Team level as with our broader discussion than with the Quality Measure Workgroup. So, with that I'm going to launch into the series of topics where we'll generally talk about a short-term and a long-term recommendation. If we can go to the next slide, please.

So, the first is focused around accepting EHR data for clinical quality calculation, in other words, this is just the issue as how should intermediaries receive data. And then the short-term the recommendation is that the data intermediary would be certified to the 2014 standards and functions as a certified EHR module but it would accept quality reporting document architecture category one data consistent with the standards and certification criteria.

And in the long-term, as it says here, for the sake of encouraging consistent implementation and calculation, the data intermediary would accept quality data that conformed to future standards but that we should allow multisource data meaning data that might include for example claims data or patient reported data, things of that nature that might be in proprietary reporting formats that that data intermediary alone worked with so that this multisource data, if you will, could support the innovation path measured, those things that we were hoping that they will do, but that those formats would not be required for EHR certification.

And Helen I'm assuming we want to go to all of these and then allow for committee discussion at the end?

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

I think so Marc unless Farzad or if MacKenzie disagree.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Keep going.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

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

All right, so the second topic in the framework of the next slide is just around the quality of data transferred and stored and in the short-term the notion was to require import and export testing of certification essentially in parallel to what's being done for Meaningful Use Stage 2 and in the long-term intermediaries would attest that the data that they report truthfully describes clinical care and are faithful to the data received from providers and obviously the intermediaries will have to work with providers to ensure that that is – that they can make those attestations and also that the attestations in addition to federal, excuse me, that the attestations as above in addition to federal regulators or representatives will be responsible for random and periodic audits as that's very parallel to the existing pathway. Next slide, please.

The third area in our framework was the notion of patient and provider attribution logic. Today with the submission models it really is whatever patients the provider chooses become part of the – or attributed to that provider, if you will, in the intermediary arrangements it may be the same or there may be other types of attribution logic needed.

So, in the short-term, because we are really adhering closely to the 2014 EHR Incentive Program Specifications, it would essentially be the same here. And in the longer term that there could be proprietary attribution logic but it was important that the attribution logic be disclosed to federal and transparent to the public, federal stakeholders and the provider so that everyone understood that attribution process. Next slide.

The foresight in the framework was really around calculation and in the short-term that the recommendation is that the providers would receive credit for measures that are part of the EHR Incentive Program and in the longer term that there would be a minimal set, and obviously it would have to be determined who would establish that minimal set, of standardized quality measures that approximate the core measures of the EHR Incentive Program that all data intermediaries would be required to import data elements or calculate and report.

In other words everybody does the core but that intermediaries would be encouraged to develop proprietary measures and providers will receive credit for reporting on intermediary developed measures via standard reporting documents, example the QRDA Category 3 documents and that they would be required some review of the proprietary innovation measures. In other words it is not the Wild West but that, and obviously CMS would have to determine what this process would be, but that there did need to be a minimal level that these proprietary or innovation measures met. Next slide, please.

And here we get a little more into what that might look like. So some suggested criteria that the Tiger Team had for that minimal set of criteria that measures would have to meet including that the specifications had to be expressed in unambiguous logic that conforms to the quality data model or future standards for electronic CQM and the standardized value sets and logic consistent with other measures in other words it needed to be something that would be fit into the infrastructure that was going on.

Measures need to be outcome-based or if a process measure is developed and tested it must be submitted as a part of suite of measures which include process measures that have close proximity to a desired outcome measure.

Third, that they needed to address these measures, innovation measures, if you will, need to address one or more NQS domains that are high-priority or have gaps in the EHR Incentive Program and there are examples there.

Fourth that the innovation measures should use multisource data if necessary and appropriate and fifth that providers that participate in the Meaningful Use core and innovation measures would receive credit for quality reporting across multiple programs as appropriate. So, aligned really with where CMS is headed in terms of trying to simplify and consolidate reporting programs so that providers can more hopefully participate. Next slide, please.

And then this is a little bit in the motherhood and apple pie category but reporting to the public, reporting to HHS and reporting to providers. So, for the public aligned with our current Meaningful Use Program, no reporting of Meaningful Use, eCQM scores to the public but that the public reporting requirements in the future in the long-term would mimic the reporting required by HHS for Meaningful Use and the general intention that innovative measure data would eventually be visible to the public as well as the core measures.

HHS in the short-term that intermediaries that are certified HIT modules would report on Meaningful Use 2 measures via a QRDA Category 3 aggregate reporting to HHS and in the longer term the requirement for reporting for innovation measures would mimic those of legacy, Meaningful Use measures, in other words, the same machinery for reporting for innovation in the core measures.

And lastly, reporting data to providers that in the short-term intermediaries would be expected to create reports on performance scores to providers so that they knew what they were doing and in the longer term that they would be expected to provide reports on performance scores, benchmarking and data quality to providers so they can better understand and use the data that they're receiving about their own performance.

We don't need to go to the last two slides, there are really there for reference for the group if they want to look later at just some diagrams that tried to represent the sort of traditional and the alternative framework that these approaches are built on. So, thanks very much for your time and I will hand it back to Helen.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Great, thanks, Marc. The one thing I'll add before discussion is last night the proposed rule for the physician rule came out and did include some criteria for the registry-based measures. I don't know if Patrick has joined the group yet or Kate, but it does specifically align with some of the criteria listed here including covering, you know, some of the NQS domains in particular. So, with that I'll turn it back over to you Farzad for discussion.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Actually, Helen one thing that might be helpful for the Policy Committee but also in particular for the members of the public who may be following would be just a placement of the intermediaries. Why we're talking about intermediaries, what role could they serve, why they are important and how we're thinking they might coexist with EHR generated quality measures.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Great, I'll let Marc take that first.

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

Thank you Helen and Farzad, a good question Farzad...

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Sorry, I'm not sure who is speaking but I think you're on a cell phone, we really can't hear you at all is that you Marc?

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

Yes, it is, I'm sorry, is that better?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Much better, yes.

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

I may have just positioned poorly, sorry.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Yes, thanks.

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

All right, thank you. All right, so two important things I think that are driving this, one is that as hard as everybody is working and as fast as we're trying to go with the evolution of quality measures we need to go faster, further and deeper. And I think one of the reasons for asking this question is to explore alternative approaches to accelerate the implementation development and importantly use of these quality measures to improve care.

The second thing I think is that the – that's really the primary thing. The secondary thing is that the instrument of individual providers in a variety of organizations where they are deeply invested in helping make change may turn out to be a more effective vehicle or a complementary vehicle to the way that we're doing it now. So, really providers are just trying to explore ways to achieve our ultimate gains of quality, efficiency, and safety faster by having multiple appropriate vehicles and pathways.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

And this is Helen; the only thing I would also add is I think there has also been a long-standing goal to think about ways to align across federal programs. So, I think in particular as you look towards what has been happening in the registry space as one example of data that might flow from data intermediaries, I think it's important keep an eye on how many of these sort of alternative innovative pathways are coming together and how we might look towards that as sort of a testing ground to figure out which of those measures could move for example from reporting to looking at performance over time.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Thanks, the other issues that have been discussed is that having a data intermediary may assist with benchmarking across practices and quality improvement in a way that's a little bit more proximal than what the health plan or the ultimate, you know, consumer for accountability might do with the data while maintaining, you know, the kind of rigorous measurement and auditing potential that the payer would require. So, I think that's also an important concept.

And finally, what I've gathered is that there may be some quality measures that would benefit from information not only contained within a single practice but across a community and those data intermediaries, whether it's claims data, you know, ADT fed information, lab or aggregation of EHR data but that those data intermediaries could serve to provide community level, you know, longitudinal patient de-duplicated quality measures in a way that any individual practice could not. So, I think those are good reasons to be pursuing this and to create kind of an enabling policy framework for it.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Agreed.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Discussion for the group about the data intermediaries, obviously there are interesting resonances between when we're talking about the data intermediaries and the exchange governance and the kinds of questions around – which Deven just discussed in terms of Health Information Exchanges that might hold patient de-duplication and linkers and so forth.

So, interesting parallels around governance and in some communities and we've seen this with our beacon communities, those two technologies may actually have a different business practice, different business cases, different governance possibly but common technology underpinning.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yes.

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

Farzad, this is Christine, I just had a couple of questions to make sure that I understand the recommendations. Really good work, first by the way, thanks you. So, I guess the most basic question I have is like who can be a data intermediary?

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

And I think the – this is Marc, speaking for the Tiger Team's discussion there was no presumption about what kind of organization it could or should be but rather that any organization that met the criteria that we talked about just now.

One of these things that we had some discussion about but didn't reach any strong consensus about was around the notion of sort of scale, if you will, in other words having a large enough proportion of the providers to which the measures that they're evolving are relevant and engaged so that it was meaningful to HHS and other payers. So that was talked about a lot and recognized of how big did you need to be to be helpful here, but that didn't survive into the final recommendations.

So, obviously there were a lot of things that we spent a lot of time talking about that didn't quite survive to the final recommendation.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Can you talk about privacy and security part of this? I didn't see recommendations on that. It was in your slide seven but not on the follow-up.

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

In the – I'm looking back here, because we have them in the previous sets of these and it disappeared in the transition from last week to this week I think. But, essentially it was mirroring the same requirements that the current reporting processes require and then leaving the privacy and security issues between the providers and the intermediaries to them if you will.

So, obviously the providers have to meet their obligations in that role and then including whether that's acting as a data partner and so on and representing that. You'd expect that there would be issues that you'd have to explicitly address regarding alternative uses of the data and so on in that as well.

**Paul Egerman – Businessman/Software Entrepreneur**

This is Paul; I'm trying to understand can a payer be one of these intermediaries?

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

Again, I don't think we at any time had a suggestion that there should be an explicit constraint on whom or what kind of organization could be as long as they could fulfill all the criteria.

**Paul Egerman – Businessman/Software Entrepreneur**

It does seem like it does raise a number of privacy and security issues, if a payer is an intermediary and if you have a patient who is a self-pay they may object to the idea that their information is being sent to an insurance company.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Well, but this is Deven, we already – there already are a set of policies around that. It just would have to be implemented I think through the way, through the agreements, through the business associate agreements.

So, if you have for example a payer who was serving as an intermediary, first of all the data that any self-pay patient would ask to be restricted could not be used by the payer for the sort of payment purposes but might be able to be used solely in their business associate role of providing reporting functions and that would have to be walled off.

So, we have policy on it already, they would have to be extremely careful in the implementation of that and they would be held accountable for it.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

This is Farzad, let me suggest that since we don't have the privacy and security related recommendations and I do think we need to get them relating to data intermediaries, it might make sense to have those at next month's meeting, have the Privacy and Security Tiger Team also maybe just take a quick look over or contribute what is already in place. I don't know who from the Privacy and Security Tiger Team has been involved with the Intermediaries Workgroup but I think it would be important to have that reflected in recommendations as well is that okay, Helen and Marc?

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Sure, that sounds fine.

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

Of course.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And then the other part here that has been discussed and again similar – again, if we think back to governance conditions of trusted exchange, this is conditions of trusted quality measure calculation there is the technical stuff that you talk about. There are the privacy and security requirements and then there are business practices.

Did your group discuss any guidance recommendations regarding business practices and in particular I recall the concern has been raised about intermediaries or registries that impose limitations on provider's ability to share the information with other groups. So, was there any discussion of having some good business practice guidance?

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

We did not have any discussion of that. That sounds like a good topic to add to our agenda.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Helen am I remembering this issue, is this something that you folks could discuss?

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

It certainly is something we could discuss, I don't believe it was part of it and some of it also just may go full circle back to the question of who are the data intermediaries that may be highly related to what the business practices might be.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, so I think those two in addition to these recommendations which do focus and seem to make a lot of sense in terms of the details of how to create innovation in the quality measure space, how to balance that with the reliability and so forth quality of the data. Many of the real kind of technical quality measure goals here.

I do think there are these two other domains around privacy and security and business practices that would be good to get discussed there as well. So, MacKenzie, we were going to have the Policy Committee vote on these recommendations today?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

So, I think there's two options, we can either vote on the recommendations as they're presented here or if you want, let the Privacy and Security Tiger Team to review them or do a weigh in first we can make this a preliminary presentation and then bring them back at a future committee meeting. If you're fine with how they read now and you just want some of further work then we can approve them as is, send them forward and then just have an addendum at a future meeting.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

You know, at times when we've split up the recommendations in the next meeting we end up coming back to them. So, if it's okay with Helen and Marc I would suggest that we go back, we add discussion of those two other items, come back with a consolidated set of recommendations for August.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Is that doable Marc?

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

Farzad, it's Christine, I just want to make sure we still can have a few minutes of discussion to make sure we understand these ones before we...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Of course.

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

Okay, thanks, go ahead.

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

Yes, we can do that.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Great.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, great. We do have actually plenty of time. We've been very efficient with the agenda. So, Christine, proceed.

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

Thank you. So, I'm trying to reconcile, well basically the two halves of my brain here, you know, historically the piece that we – the idea that we came up with that we put in the Request for Comment feels a little bit different but very related to the recommendations presented and I want to try to understand the relationship.

What we originally discussed was this idea that because the quality measure part of Meaningful Use is not a performance-based requirement that there might be a way to open up innovation and development to either an entity like a data intermediary or an individual provider who, you know, as long as they met certain criteria which are similar to what you outlined I think on slide 13 that they could try the development of new measures and then report, here's the logic I used, here's, you know, what worked and didn't and dah, dah, dah, dah and then we would start to build up a potential sort of learning database of, you know, interesting ideas. They would be mapped to the quality data model etcetera, which is not the same as the QRDA. I'm referring to the one with NQF.

And that that would be an option for them, you know, either in Stage 3 or 4 to say, well instead of reporting under the way the options that are currently presented in Meaningful Use and quality reporting I'm going to try to develop a new, you know, reporting alternative.

The difference I think in that idea and what you're presenting is the role of aggregating. So, and more the data intermediaries are submitting measures on behalf of providers for example. So, I'm trying to figure out if you guys considered the idea that I described as we kind of originally conceived it and it evolved to this or how they relate. Does that make sense?

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

That does make sense Christine. This is Helen. I think the initial charge to the Tiger Team was to really think about in the context of the data in intermediaries. I guess one question would be if you look at what they've laid out in terms of their preliminary recommendations, certainly the things listed on slide 13 seem like they could be fairly open to any kind of developer including a provider. I guess the question would be the ability to meet the other criteria listed out in here...

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

Correct.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

And whether that's something that somebody on the ground, a provider, could do without the help of a data intermediary and I'd be curious to get Marc or Terry's input on that.

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

Well and before you guys weight in, I mean, I don't think that was our intention. I think they are like I said two separate but related ideas because if by virtue of meeting the other criteria an individual provider would become a data intermediary and your recommendations are silent onto – as to the entities that would be eligible as long as they meet the criteria. So, sure, you know, an EP or an EH could technically become a data intermediary.

But I think I'm really asking the question, well, what if you aren't aggregating data? What if you are really just focused on innovation and measure development? And, you know, sort of what happened to that notion and maybe it just wasn't part of this because it's a different context as you said.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

This is Jesse from ONC. The role for individuals to report measures was out of scope for the discussion of the Data Intermediary Tiger Team. So, the Data Intermediary Tiger Team grew out of the Data Quality Hearing in December of last year and received its charge after the RFC was put out in January. And we looked at data intermediaries – roles for management of data and delivering on measure innovation but we focused in particular on the entities, the role of the entities and the relationship that that entity would have at the physician and with a group of physicians and its ability to amass data. So, the group itself did not work deep on the description that occurred last year on any provider being able to create measures themselves.

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

So can you help me understand then the relationship to how the data intermediary is supporting more immediate term development of innovative measures? I mean, it seems to me that that's almost ruled out and I don't know how you guys, by the way, defined short-term and long-term, I would be interested in that.

But, it seems that in order to get to the innovation and measure development, you know, there's a lot of other work around accepting EHR data for other, you know, quality measure calculations and things like that that would have to be in place before you could really even get to the measure innovation. So, I'm just trying to understand how would the data intermediary really facilitate innovation and measure development that then a provider could take advantage of?

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Absolutely, so what we heard from the actors in this space which include private companies who do quality measurement analytics, registries for specialties and subspecialties is that they're already creating measures that match multiple types of data and marry data from claims and finance to EHR-type data, and sometimes EHR data that moves via CCRs or CDAs and sometimes via human abstraction but we heard from them that they've been working in this space, they've been creating measures, they've benchmarked measures that are useful to their providers and that they have learned from QI in this space not only the QI around the data collection and improvement but also improvement on clinical care and that they're providing value to their customers which are providers and that they are interested in these measures having more transparency but also being useful to a larger group and interested in providers themselves getting credit for these measures.

So, we thought there is both an opportunity for the data intermediaries, who are already working in the space, to move along the standards that are in place for EHR data capture and CQM calculation. And there's an opportunity for the providers who are using measures with their registries or with analytics companies to use those measures within their EHR-based measures for the Meaningful Use Program.

What might be a more radical step, what is a more radical step, but what the Quality Measure Workgroup had talked about before as being a flexible platform for quality measures, that the technology required for that was outside of scope and I think that's what you're speaking to is how we deliver that flexible platform for quality measurement and credit for creating quality measures via that flexible platform, how we deliver that to providers that was out of the scope of the Data Intermediary Tiger Team but I believe that discussion, I'm confident will be taken up by the ACO Quality Measure Workgroup.

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

Okay, that's really helpful and I'll just add one piece of context which is I think from a consumer and often a purchaser perspective often times the types of topics that measures are designed to get at under today's fee-for-service payment system are not maybe the most progressive or patient centered or stretch goals or aspirational as they could be because those who are funding the measure development, right, are doing so in a current a business context that's driven by fee-for-service.

So, our assumption was or our hope was that potentially by getting the motivation closer to patients, right, through providers that some innovation could occur in topic areas where there frankly aren't that many measures developers or funders really who are going to buy those kinds of measures. So, I think the ACO Workgroup that would be a terrific place, because obviously there's a different assumption on the payment model.

So, I'll just ask one last question which is in short-term and long term there are lots of references to short-term, long-term...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Christine?

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

Yes?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Christine, sorry, just before you move off of this one...

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

Yes?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I just want to make sure I understand, you know, slide 3 shows that the majority agreed regarding the desirability and feasibility of an innovation track and my reading of slide 12 is that intermediaries would be encouraged to develop, I'm not sure if proprietary is the right word, but maybe it's novel measures, Marc and Helen? Right, we don't – this is not a value placed on proprietary but the idea here...

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Correct.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Here is e-Measures, right?

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

Yes.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yes, the Quality Measure Workgroup had the same discussion. Yes.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, so intermediaries will be encouraged to developed, maybe we could change that to novel measures and providers will receive credit for reporting these new measures in intermediary developed measures via standard reporting.

So, I think the recommendations here are supportive and in the next slide it talks about what those qualities, those innovative measures what they should be, they should address the gaps, they should address NQS domains, they should use multiple data sources including patient reported outcomes, right? So, I think this is very much in line with, as I'm seeing, the idea of using intermediaries to be the point of the spear in the development of novel measures.

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

Right, so and I don't disagree with that. I'm delighted to see it in there. I think for me there's a little bit of back-and-forth because in the long-term, you know, the recommendations do talk about a minimum set of existing quality measures that approximate the core measures for the EHR Incentive Program, you know, only doing credit for measures that are part of the EHR Incentive Program, there's also an innovation piece and I think between the duties of, you know, aggregating, right it's much easier to provide a service for aggregation and extraction and reporting of existing measures, and so I think the question of how much they will be incentivized to really develop some innovative measures is a question.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

I'm sorry and just to add to that, Christine, this is Helen, I think if you also look at the broad set of principles that the Quality Measure Workgroup has been working on for a bit, there was a lot of discussion as well about what resources would need to be out there. I think we ultimately described it as sort of an integrated open source e-Measure development toolkit that could allow anyone to do it. It just isn't clear a lot of that's out there yet for, you know, providers who want to go down that path because I think the other really interesting thing about the slides is as well the contrast between the great support shown for the innovation track on slide three and yet slide five indicating it should constrain development to standards. So, there is kind of a tension there as well.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I actually didn't understand entirely what that meant, can you say a little bit about what that means?

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

Or read the original question to us if you have the full text, because I thought the question was a little bit different.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Jesse, I don't have the full question in front of me, Jesse or Marc do you have that?

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

Or perhaps they can look it up?

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Okay.

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

But, Helen can I just say while, you know, in response your comment about the kind of open source toolkit, I'd love to see that spelled out more clearly in these recommendations because I think that's a brilliant idea that would start to decentralize, you know, development, which is really essential to innovation.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Okay, great.

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

And this is Terry, I really want to emphasize (Christine) what you're saying. I think that Farzad while the nidus for what we want to do is in here, we actually may be constraining the edges which I think Christine is what you're talking about that really – I don't want to use the word radical but that innovation where there really may not be a data set, somebody comes up with their own data set, I always think of non-traditional determinates of health, starts evaluating that in a patient population.

So, I do think it should be and ask that comes back to somebody and perhaps it is the Quality Measurement/ACO Subgroup that can look at that as we go forward.

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

Okay.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Farzad, this is David, can I get in too.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I had Paul's card was up, Paul Egerman and then you David.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Thanks.

**Paul Egerman – Businessman/Software Entrepreneur**

Yeah, this is Paul Egerman, first look at your slide five where you said 80% said to constrain, the way I interpreted that slide was that people were saying no more new quality reports, just what we currently have. Am I interpreting that correctly? So, 80% are saying no more?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Well, that's not how I interpreted it. So, yeah, it would be interesting to hear what the question was.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Okay.

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

This is Marc, can I...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I'm sorry.

*(Multiple voices)*

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Whether it's constrained – in the QDM and...

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Sorry, Jesse, we're having trouble hearing you.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Oh, I'm sorry, I don't ...

**Paul Eggerman – Businessman/Software Entrepreneur**

I'm only hearing like one word out of three so I assume you were just agreeing with what I just said. So, this is an observation, it's important to understand what that feedback is, but that's the way I – and perhaps I'm interpreting it the way I want to interpret it, but that's the way I interpreted it.

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

This is Marc and my understanding, and obviously we don't know what was in the minds of the respondents, but this says that we should constrain development to the standards not to the measures that are in place.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Right.

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

So, in other words I think this was about how do we limit this to the ways of moving data, the ways of representing measures and things like that not in any way commenting on what measures.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

So, let's hear from Jesse what the question actually was if he can get it out.

**Paul Eggerman – Businessman/Software Entrepreneur**

Okay.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Let's go on mute.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Marc is correct.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Say it again Jesse.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Marc was correct.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

I think you're saying Marc is correct?

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

I am, yes.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Thank you.

*(Multiple voices)*

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

The quality data model, the health quality measure format that the logic from HQMF and the value sets, the contents of the value sets for measures that are in place, it's not about constraining to the current measure set but constraining to the standards for collecting data, describing the logic of measures and reporting them.

**Paul Egerman – Businessman/Software Entrepreneur**

Okay, so does that mean then that when people are saying, use the data that exists in electronic health records, don't create new...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And the terminologies and...

**Paul Egerman – Businessman/Software Entrepreneur**

Yeah, data – don't use new data and new terminology. Base the e-Measure, the electronic measures on the data that we're currently collecting.

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

I don't believe that's the case. This is Marc, I believe that – and again we don't know what's in the mind of the respondents, but I think what they're getting at there is the message standards that we have for transmitting things, so for example QRDA you can move a whole variety of data and you are not constrained. And then one of the recommendations that the Workgroup made was to allow additional measure formats – or excuse me additional data formats as needed to accommodate these innovation measures.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Yes and that gets at the tension between innovation and constraining to standards.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Right.

**Paul Egerman – Businessman/Software Entrepreneur**

Yes, this is Paul, I'm still confused, because I also get the sense that people are saying, well the standards to transmit information is an obstacle. So, if 80% are saying continue to constrain to the standards I'm not sure what standards were.

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

Can I get clarification from Jesse on the – I'm looking at the RFC and their constraints are mentioned in two different questions, one is number 15 that says the Workgroup considered two approaches to institution initiated eCQMs. A conservative approach might allow certified CQM development organizations, which is I think data intermediaries, like professional societies and IDNs to design, develop, release and report proprietary CQMs for MU. An alternative approach might open the process to any EP or EH but constrain allowable eCQMs within certain design standards, which are like the – release the criteria on slide, I think, 13. So, that's one question. Is that the question that that pie chart is reporting on, because there is 17 as well which is different?

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Can you hear me?

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

Yes.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yes.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Okay. There was a question about – I don't have the RFC in front of me right now. I'm on vacation today and calling in. The first question, the question that you described was about what types of organizations should be responsible for creating new measures.

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

Right.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

There was a later question and I can't remember the number, the later question asked, once the innovation measures are created should the innovation measures be constrained to the logic using the health quality measure format using the quality data models, for instance the standards that are in place, such as the quality reporting document architecture to move data on the quality measures, that would – those are the constraints we described in the question.

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

Okay.

**Jesse C. James, MD, MBA – Senior Medical Officer for Clinical Quality Office of the Chief Medical Officer – Office of the National Coordinator for Health Information Technology**

Which is having a more – a less constrained approach where any provider could move any type of data in any type of way, any entity that was creating new measures and it was surprising to some extent that there was a strong push against removing the constraints that are in place that even both the vendors and the large organizations that responded to the question said, we have – in so many words we have the railroad tracks laid, we should work with the constraints we have in place.

There was strong support for using the constraints, the standards around quality measures and quality measurement in place. But of course that is going to be in tension with the policy goal of allowing and creating more innovative measures that move data not only data that's traditionally captured in EHRs, but financial data, claims data, the patient reported data and to quality measures.

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

Okay, so I do think we shouldn't put too much stock into that slide, because I think, you know, the organizations that we worked with and there are probably 27 of them or so in the RFC process, we interpreted it to mean should there be some design standards which are akin to the ones listed on 13, where it's, you know, longitudinal or multisource, or its outcome focus. And so I think people might have answered in different ways.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Well, I think the other interpretation that many I think had, and Helen I look to you on this, is the feeling that many quality measures that we're struggling to retool have been difficult to express within electronic health records, because they were created for chart review.

**Paul Egerman – Businessman/Software Entrepreneur**

That's right.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Construct and...

**Paul Egerman – Businessman/Software Entrepreneur**

Yes.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And I think there are among the people, the implementers on these quality measures there is a feeling of let's constrain the de novo quality measures for electronic health records to data that is likely to be captured as a routine part of delivering care rather than abstract it through retrospective chart review.

**Paul Egerman – Businessman/Software Entrepreneur**

Which is saying that, Farzad is exactly right, to me there are like two different things that I see, one is that a lot of the quality measures don't use the existing electronic – the data existing in electronic health records and that creates all kinds of downstream problems that the quality report then has to, in effect, change your data entry flow or, you know, it creates a problem.

There is also an issue of I think we have a very high quantity of quality reports, you know, and that there are lots of different quality reports being generated for lots of different organizations and at times that's frustrating.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

But...

**Paul Egerman – Businessman/Software Entrepreneur**

The one that...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Sorry, Paul, the other part of this though is this is not necessarily constrained innovation. There are many gaps having lots of quality measures. There are many gaps that could be filled with de novo EHR measures that rely on data that's already there and some of the examples that we've had already of, you know, INR control for patients on Coumadin, right? That's great, right, for, you know, closing the referral loop, great, it's an innovative new de novo measure and it uses data that's in electronic health records. Longitudinal exchange in blood pressure control, lipid control, cardiac – there are tons of innovation that you can do around measures that really matter that are outcomes-based and longitudinal, patient centered using the data that is already in an electronic health record.

So, I think there is a little bit of a false dichotomy between saying that there is a direct line between constraining the data to what's likely to be found in the electronic health records and collected as a routine delivery of care versus innovation.

**Paul Egerman – Businessman/Software Entrepreneur**

That's very helpful.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yeah, Farzad, this is Helen.

**Paul Egerman – Businessman/Software Entrepreneur**

That's an important point. I did have one other question about...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Sorry, Paul, can you let Helen – Helen was I think about to add onto that.

**Paul Egerman – Businessman/Software Entrepreneur**

Oh, I'm sorry, go ahead Helen.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Sorry, I was just going to say I actually did find, since I know Jesse is off camping somewhere, I did find the old slides with the further detail. So, keep in mind, this is based on 25 comments but fully 20 of them did support the idea of having some constraints to allow consistency of measures across providers, standardization and again I don't think it constrains innovation, Farzad, but I do think there was an idea of saying there had to be some consistency and that standards leads to consistency.

**Paul Egerman – Businessman/Software Entrepreneur**

That's a helpful comment too, because in my opinion, one of the places where an intermediary could add value would be comparative data. To sort of say, well, here is how – here's your data from your hospital and here's the data from every hospital in the state and here's how you compare in all these different metrics and that would be very – that possibly could be very useful.

But, as I look at the recommendations, one question I have is, it seems like these are recommendations that are centered at the intermediary, in other words these are recommendations to give an incentive to providers to give data to an intermediary. Am I looking at that correctly?

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

They are recommendations about – I think, first this is Marc, the perspective that the Tiger Team took was these are recommendations that we would make to CMS and ONC and other parts of HHS to help them design the criteria for data intermediaries that would be allowed to participate in the various programs and to participate meaningfully.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

But the goals I think are on slide 8, Paul, to encourage participation yes but also to maximize interoperability, ensure data quality and support innovation.

**Paul Egerman – Businessman/Software Entrepreneur**

Thank you.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

This is Doug Fridsma, Marc I just have one question. When it comes to the various standards that we are taking a look at, there is a lot of focus on the data necessary or the standards for reporting and that would make sense if we're thinking about intermediaries, but as we think about creating novel quality measures then we have to start thinking about standards that are used to represent those quality measures both for their calculation and the variety of metadata that might be required. Did you look at those things as well?

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

And we did. Doug, we did look at that and I don't think – let me see I have to try to find the slide here, but that was the intent of the recommendation saying that they should be represented using the same methods as we use to represent other e-Measures.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

So...

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

So, in other words be consistent was the message.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

So, just a comment on that, I think that certainly given our current state of the standards and the analysis that has gone on both within ONC and CMS is that there are some limitations to the current standards that are used to represent quality measures that make it hard for novel kinds of quality measures that maybe have may be have temporal relationships or have causal relationships, or have some sort of more complex statistical models.

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

Yes.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

And, I think part of it is that, you know, when we had paper-based or when we had paper-based quality measures you couldn't go in there and do, you know, the area under the curve for example of a particular quality measure, whereas now in electronics you have the ability to do much more sophisticated statistical analysis of the data.

And I think some of the quality measure standards that we have currently lag behind in our ability to have that kind of sophistication. So, I think there is a potential that novel quality measures will drive improvement in the standards particularly in their ability to represent the logical expressions for calculation.

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

And I think that was the Tiger Team's assumption was that the requirements and demands of the measures would drive the evolution of those standards and it's not just the novel measures but all of them that can benefit from those.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

David Lansky?

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Yeah, thanks, Farzad, this is a very good conversation and good work by the Tiger Team. It raises for me, going back to our 50<sup>th</sup> meeting starting point today, it seems like it's time for us to re-articulate what the policy framework is within which all these issues are now being flushed out. Because I think we're now conflating a couple of goals in our program as a whole, and maybe PowerPoint is a contributor, we try to collapse too much complexity into a few bullet points.

And maybe I would ask Helen to think about, on behalf of the Quality Measure Workgroup if it's worth separating out the issues around creating an IT capability to capture and process quality information, both for the purposes of quality improvement and process improvement, which is a special interest to the providers, and, secondly, for the purposes of policy use, such as payment and recognition programs, that Christine spoke to in terms of consumer and purchaser value, those two purposes are pretty different and the criteria are different and I think the governance requirements are different, but we've tended to blend them in most of these recent conversations as if there is some group of e-Measures which have the same set of criteria requirements, standards...

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yes.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Public exposure, timeframe and I think they are becoming different. That is we may want to enable the intermediaries and the data and quality measure production innovation and production process for provider use.

So, providers may say, I want to generate these measures for quality improvement, I want to get benchmarking data and all the ophthalmologists or orthopedic surgeons have an interest in something, and we want to get an intermediary in the process and to give us feedback on that.

And we would all say, you know, that's great, we want to make sure the EHRs and the intermediaries are capable of supporting that interest, which is separate from whether CMS wants to recognize those measures for payment or value modifier or other public purposes.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Right.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

And we may not need the same weight of infrastructure for those two different goals and we may want to leverage the same data standards for example and the same infrastructure for those goals, but not impose the same governance requirements on both systems.

So, and maybe that's not the right answer, but I think we should treat them separately as Christine started to saying.

So, I think what that raise for us is whether the standards need to be the same in both tracks, whether the governance and I'm particularly concerned about the governance question of who makes the approvals.

We've got a rough set of criteria in front of us today, but the actual set of criteria, as we've all learned, will be much more rigorous and complex and controversial and they will have, as you said Farzad, business implications that will create some controversy. So, I think having these tracks separated –

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yes.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

And then thinking about the governance requirements separately would be valuable.

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

This is Marc, just a clarification that the guidance that the Tiger Team had was we were very much focused on the latter rather than the former of those David. In other words we were very much focused on the requirements around intermediaries for Meaningful Use measures or the Meaningful Use Program.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Right, well I think what Christine was hinting that the Meaningful Use Program itself is a little ambiguous.

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

Right.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Because it's not a performance program, it's really a sort of check the box program that you are capable and one of the things that Paul alluded to is that we've got so many measures and creating some perceived burden is again the conflation of having 700 or whatever measures that are process measures or 129 measures in Meaningful Use that are largely process measures, but that are not of high public value and are not reported to the public.

As a separate – we want to enable that, that's great, I'm happy if somebody gets value from those measures, but for public purposes ultimately and for payment the ACO track and the value modifier track and so on will have a very much more stringent and unified set of requirements.

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

Right.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yeah, David, this is Helen, I actually raised the same issue on the Quality Measure Workgroup, because it specifically say credit for quality reporting and I raised the same question about whether it was intentionally reporting rather than performance and I think that's a really important distinction that we probably do need to tease out further.

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

Yeah, it's Christine, I think it would almost would be helpful to articulate the problems we're trying to solve in the recommendations, because, you know, I think we're – or the problems, you know, that would be solved either way, but I think we're looking a lot at, well some EHRs have real trouble reporting quality measures and, you know, we're trying to solve some other problems around aggregation dah, dah, dah, dah.

I think the innovation challenge is a different one that I'm not sure this particular vehicle as structured is going to be completely effective at but I also am concerned about the shorter term idea, etcetera. So, it may just be helpful to think through that length the group is coming back with consolidated recommendations.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Okay.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I think that as Marc suggests to focus on the more stringent requirements as David put it required for accountability, payment and transparency, outcome measures, makes a lot of sense particularly as with the RFI and the development of new – of the response to the – as part of the budget act, the role for registries in quality reporting programs.

It's important for CMS to have rules out regarding what counts and what might be the criteria for those. So, focusing on that, while mentioning that there could be other, as David put it, lower bars potentially around the auditing or whatever if you're using an organization to help you with benchmarking and quality improvement and process improvement and those are good and great and they may be the same institutions, but the criteria may be different.

And innovation, frankly, in new quality measure development might be more likely to come out of the – closer to the ground, closer to the process, more nimble potentially group as opposed to the more stringent requirements for the accountability intermediaries. But, great point, David, as always.

**Helen Burstin, MD, MPH, FACP – Senior Vice President for Performance Measures – National Quality Forum**

Yeah, and just one more comment, Farzad, this is Helen. I think the other approach is also to think about staging it and looking to the way that, you know, some folks in the standards world look towards draft standards for trial use. Are there ways to take the ones that might ultimately be used for accountability and at least have Meaningful Use push that innovation out there, get them tested, see if they're reliable and then pass them through to a more stringent accountability track and I think there are lots of different models that people could look toward.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Judy Faulkner, are you trying to get in?

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

I was.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Go ahead.

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

But I didn't know am I supposed to hit the raised hand thing?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

No you're live you can just talk; we just can't hear you that well.

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

I'm sorry, can you repeat that?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Your line is live so just go ahead and ask your question. You're all set.

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

Oh, no, I'm passed that, but in the future should I – I can't hit the raised hand, are we supposed to hit the raised hand or are we supposed to interrupt?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

What we said at the top was to send an e-mail to me and MacKenzie in lieu of the raised hand.

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

Oh, okay, thank you very much, okay, missed that.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

The only other thing that I was wondering if folks could discuss is when it came to patient reported, patient experience, patient reported outcomes and so forth, there had been previous discussions about how electronic medical records may not, within an individual practice, may not be the ideal way to collect those observations and a third-party that collects that information with potentially a little bit of a wall between them and the provider for kind of patient's sake, that they can say something that potentially about the practice without fear while maintaining their anonymity in a sense.

Was there any discussion with the data intermediaries group about them serving that purpose of receiving for example, you know, CG-CAHPS survey information directly from patients?

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

And there was certainly discussion of that, Farzad and that's why we left the notion that data other than the kind of standardized things, so things that might be part of innovation measures or novel measures for example could certainly go directly to the data intermediary and not necessarily even have to conform to standards that are used for other data transmission.

That's exactly why we left that open so that we could conceivably capture that data through a web-based survey of a patient; they could capture that through, as you suggest, an organization that is already surveying the patient. Those were all possibilities that I think we left open in the recommendations.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

And Christine and David is that an important role in your view of the data intermediary?

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

It's Christine, yes, I think that's absolutely right, because that could be the case for patient experience and other patient reported information and I think I would be interested though in thinking about, you know, it doesn't make sense necessarily for the experience data for example to live within the EHR. But to think about a portal facilitating the collection and it just goes to a different location, I think is good.

I think you have to keep in mind though the purpose and the use of the experienced data, because sometimes when it is for quality improvement at the practice level it's less important who has the data and more important that the data is anonymized. But if it's for public reporting or payment, then – and you need attribution then that's different.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

I just have a caveat that we've so far seen that the patient reported outcome data, which is individual and case specific and often linked to the clinical data EHR or otherwise, is more sensitive and fits more logically with the intermediary role.

The CAHPS kind of data, which tends to be on a population sample and is not attributed to individual patients or to linked data per patient, although actually it could be, but because it's usually a relatively small sample of a population it's less critical to have that linkage function at the intermediary level.

So, it maybe that for – along the lines of what Christine said, for accountability purposes there may be a reason to do it at the intermediary level, but especially when you're getting to case a specific outcome, that kind of makes more sense.

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

That's exactly what I was trying to say, David, thank you.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, great, terrific discussion of the issue and the Quality Measure Group will go back and will add some of the recommendations regarding privacy and security and business practices in consultation with those groups and maybe tighten up a few of these recommendations based on the conversation today and come back to us in August with a consolidated set of recommendations. Thank you. The IE Workgroup updates, Micky are you on the line?

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

Yes, I am. Good afternoon.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Go ahead.

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

Can you hear me?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Yes, we can hear you Micky and your slides are up.

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

Oh okay great. Okay, terrific. Hello, everyone. Thanks for the opportunity to present some, it says preliminary recommendations and I think that where we are in the process, at least for the ones that we'll discuss for query and provider directory we may be ready for recommendations subject to obviously the Policy Committee discussion. So, we can leave it for the end I guess and up to you Farzad and the Policy Committee on whether you want to do that based on the discussion. Next slide, please.

So, what I wanted to do is present to you our Workgroup plan for the summer and then dive down specifically into two recommendation areas that we have had a lot of deliberations over and have formulated a set of recommendations with regard to.

So, first I want to thank all the members of the IE Workgroup, as you can see it's a terrific group of people and we've had really good participation across the board. So, I want to thank all of them and delighted to have the opportunity to really present all of their good work and just be able to put it together and present it to you. Next slide, please.

So, I'll talk first about the work plan itself and then talk about the two sets of recommendations one related to query exchange and the other related to provider directories and then we can take it from there. Next slide.

So, in terms of the work plan itself, we first looked at the issues that were in the Policy Committee Stage 3 Request for Comment that was issued last year and we had three that had originated from our Workgroup and you can see there were a variety of comments, a large number of comments on all of them and so one question that we asked is whether there are any market developments or lessons learned that would cause us to amend this list, namely this list of query for patient record, provided directory and data portability as three areas that we want to develop recommendations on for Stage 3.

And so just a couple of things that we noted as we were thinking about, you know, where the market is and what lessons have we learned. First, off the market is very dynamic, I think as all of you know, and the landscape looks different than it did even six months ago when the RFC was released. And some of the things that we thought were, you know, particularly meaningful, sorry I should stop using that word, salient with regard to the deliberations and the recommendation areas that we're going to focus on is, one that demand for cross vendor query exchange appears to have grown certainly with the rapid growth of ACOs and though it seems to be happening in some very specific channels, those capabilities have, you know, really generally not kept pace with demand and certainly there are no, you know, sort of standardized approaches that are getting a lot of widespread traction so that's, you know, still a huge gap area.

In terms of Directed exchange one of the questions that we had is of things that were recommended for Stage 1, Stage 2 what's the state of those and are there any of those areas that we might want to go back and look at and see if there are any recommendations in that regard as well? Also, with an eye towards leveraging that, because that's one of the fundamental principles that we had going forward is to leverage the infrastructure and the recommendations and the standards that have already been approved and are now being implemented in the market.

And as we looked at Directed exchange it's certainly starting to take shape as required and specified for Stage 2. I think the role and the function of HISPs as the trusted intermediaries for Directed exchange is still quite murky, although it is, you know, moving forward. And certainly, one thing that we did note is that the lack of standards for provider directories and security certificates appears to be somewhat of an obstacle to more rapid progress.

Our understanding is that in the security certificate area that Dixie Baker's team over on the Standards Committee side is already looking at that as well as digital signatures. So, it may be that there is no additional policy work that's needed there, but provider directories still seemed like an area that was important both with respect to its fundamental role for Directed exchange, but as we'll discuss it's an important component of query exchange as well or it can be an important facilitative component.

As we thought about data portability, we did note that industry projections are suggesting that something like 25% to 30% of physicians may change EHR systems in the near future. So, data portability is a very important issue and it seems like it's going to continue to be an important issue at least for the next few years. So, that struck us as being an area that we do want to develop a set of recommendations on.

And then finally, we were trying to understand the patient engagement area and whether there was anything that the IE Workgroup needed to think about there, it's certainly a growing area and there's a lot of entrepreneurial activity in the area.

There was a meeting across several of the Workgroups and I think that, you know, at least at the first pass the IE Workgroup may not have anything specific that's needed though we're certainly happy to assist with the Consumer Workgroup and the Meaningful Use Workgroup to the extent there are technical or IE policy issues that would be a part of their recommendations. Next slide, please.

So, our work plan is to focus on three areas primary, query for patient records, provider directory to support query as well as Directed exchange required for Stage 2 and then data portability.

Today, as I said, we're going to focus on the recommendations for query for a patient record and provider directories, and then in August come back with the recommendations on data portability and as I said before, we can decide whether there is any further work needed on the query and provider directories with regard to whether a recommendation would be sought at the end of my time today.

So, unless there are any questions on the background on the work plan I will dive into the recommendations related to query?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Go.

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

Okay, next slide please, next slide. So, background, the Standards Committee in the public comments related to the query, I hesitate to call it recommendations, but what was included in the Request for Comment related to query exchange, the Standards Committee weighed in on that as well as from the public comments and there was a common theme that suggested that what was in there should be simplified and generalized.

There was a concern that what was represented was really a complex set of back-and-forth transactions that would, you know, sort of not be very easy to implement and that the transactions themselves implied very specific user workflows that again would, you know, be very difficult to implement and would not be generalizable.

So, as we, you know, looked at this we also noted that, you know, certainly that query exchange is occurring in parts of the market where there is third-party governance to address policy, legal, and technical complexities. There are certainly examples including Healthway and selected state, regional and private HIE activities. And then single vendor query exchange solutions are growing rapidly as well due to the ability to eliminate technical barriers and facilitate trust frameworks among separate legal entities and I described some of that in the presentation that I did in January on the state of HIE.

So, with that as background our new recommendations focus on enabling query exchanges through existing HITECH authority, so, first and foremost we're, you know, focused very much on the existing HITECH authority and without separate authority, assuming that there is no separate authority to regulate HISPs, HIE organizations or other third-party actors, so it's really about the authority related to EHR certification through HITECH. Next slide, please.

So, what I've done is divide this and I've done this with the provider directory as well, is into a specific set of recommendations that are as quickly and succinctly stated as possible and then have a set of underlying principles that are also a part of the recommendations, but are really sort of the context for the specific recommendations here.

So, the recommendations are one that for a search for patient information that EHR systems have the ability to electronically query external EHR systems for patient medical records and in terms of responding to such searches, EHR systems have the ability to electronically respond to electronic queries for patient medical records from external EHR systems.

So, really from a policy perspective just laying the stake that those ought to be two functionalities that are enabled as part of the 2016 certification requirements. In the next set of slides I go through some of the context and the principles underlying this. So, next slide.

So, the first set of principles that we thought about in flushing these out is one wanting to suggest that any certification standards related to this ought to be focused on a couple of core principles, one is continuity, building on the Stage 1 and Stage 2 approaches and infrastructure for Directed exchange where possible and allowing the use of organized HIE infrastructures where applicable and available and I think that that's a principle that was, you know, sort of invoked in Stage 1 and Stage 2 and we would recommend that it be invoked here as well.

Simplification, going back to the comments that we got on the Request for Comment, setting a goal of having a query and a response happen in a single or at least minimal set of transactions, so, a query and a response back and, you know, trying – setting that as a goal for a set of standards related to certification for this capability.

And then, finally, generalization and the idea here is to not try too over specifying it so much as– over specify a standard and certification requirement so much that it doesn't recognize the flexibility in use cases, workflows, installing base capabilities and legal policy considerations that are realities of the market.

So, for example, allowing the flexibility to have the clinical sources be able to respond in manners that they feel are, you know, in alignment with their local and state policies with their privacy policies with a degree of assurance that they need to have about the consent provisions authorization, authentication and a wide variety of considerations there.

And then having a set of standards and certification requirements that remain flexible to legal and policy variations across legal entities and states, in essence, we don't want – we're recommending that something not be created that's so brittle that it could break with any of the variation that's already out there in the market. Next slide, please.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Next slide.

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

Next slide, ah, there we go, so digging down deeper into the principles; one we broke this out into two sets. So, one is for the querying systems themselves, what are the – and then the responding systems, what are the key elements, the necessary and possibly sufficient types of functions that would need to be encapsulated in the transaction?

So, querying systems must minimally have the ability to discover the address and security credentials of the clinical source and that's where the provider directory would come into play, present authenticating credentials of the requesting entity, present patient identifying information, asserting the authorization for specific patient level requests.

We noted as optional indicating the type of information being requested, because until we get further along down the road in terms of data segmentation, the ability of systems to respond to granular request for information is pretty limited and so it may not necessarily make sense to include that as a requirement, but we did leave it there as something that the Standards Committee could consider optionally.

Be able to securely transmit the query message and then be able to log the requesting transaction and then post query, you know, this is sort of just following, I'm the sending, I'm the querying system and then post request query after they're getting a response they should be able to receive the responding information from the data holding entity and then be able to log the transaction and the disclosure.

And I should have noted what we have also done, with the great help of Deven McGraw who is on the IE Workgroup, is also identify those areas that are in really complete alignment with previous Privacy and Tiger Team, Privacy and Security Tiger Team recommendations that the Policy Committee has also looked at and essentially blessed. So, I've noted those with an asterisk and we're happy to dive down into any of those details as well.

In terms of the responding systems, you know, they need to have the ability to validate, authenticate and credential of the requesting entity, they need to be able to match the patient, assess the robustness of authorization, automate responses to requests based on the robustness of authorization information presented by the requestor. What we mean by that is that the system needs to have some type of ability to decide, according to a certain set of parameters, whether they are able to automate a transaction or not, recognizing that there is, you know, a variety of considerations there, but there is a concern that unless we specify that something in the way of parameterizing the ability to enable automation that all of this will end up becoming person in the loop types of transactions. So, that's really what's behind item 4 there.

And then, obviously, based on a request being able to check for and respond with patient information or with an indication that no patient record information will be sent in response to the query and that follows, you may recall, from previous discussions around the Privacy and Security Tiger Team and I think it was conveyed then as silence is not an option.

So, the idea being that you should confirm that you are not fulfilling the request without revealing any other information, but that the requesting entity should know that you received it and that you're not responding with any more information and then finally being able to log the transaction and disclosure.

So, these are basic elements that we would recommend be a part of a query and response transaction and then on the next slide I dive down a little bit more to provide a little bit more context for some of those. So, let me pause here and see if there are any questions. Okay, next slide, please.

So, in terms of some of the details, what – in terms of addressing access to security credentials and authentication and so now I'm just taking each of those elements and just diving down a little bit more providing some of the underlying principles that we had discussed related to each of those elements of the transaction.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Micky, it's Farzad.

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

Yes?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

In terms of what, you know, you have recommendations and then principles, and then principle details, transaction details. When you were discussing whether the Policy Committee endorses these IE Workgroup recommendations do you want it to go down to the level of the transaction details or to the level of the principles?

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

I would suggest down to the transaction details, because I think that these are providing guiding principles to the Standards Committee for a set of standards that would be used for the certification requirements.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay.

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

So, the consideration for, you know, for A would that standards should leverage but not be restricted to the considerable HISP policies and infrastructure that's being deployed already in the market to enable discoverability of addresses and security credentials for Directed exchange.

In terms of authorization, recognizing that there is a lot of variation in state and organizational level policies, need to be able to leave the standards open to a wide range of locally determine authorization policies, which is consistent with the Policy and Security Tiger Team approach to this as well, which is essentially saying that the endpoints need to be able to determine the acceptable authorization levels which I think we had talked about in that context as reliance, reasonable reliance.

EHR systems should capture a structured consent indicator and include such indicator in the query message when querying and consuming such indicator when being queried. So, the idea there is that at minimum EHR systems should be able to capture at least a bit of information, a bit in technical terms, you know, a structured consent indicator, even just a binary flag and the flexibility in the market would attribute different meaning to that flag, but, you know, it was our sense that we didn't want to go too far into recommending a, you know, complex set of consent capabilities, because it would be very brittle to the variation that's out there in the market, but also recognizing that you needed to have some kind of way to attest for the querying organization to make some kind of attestation that they have authorization, appropriate from the patient for requesting this information.

And then in terms of the authorization, also that EHR systems should have the ability to send and receive consent documents in query and responding messages to the extent that that is a part of the trust fabric and the trust relationship between the transacting parties and the MEGAHIT Project with the Social Security Administration for example has that type of work flow in certain circumstance, like with Beth Israel Deaconess and the Social Security Administration.

In terms of patient matching, again completely aligned with the Privacy and Security Tiger Team that essentially that the matching functions, the information that's presented with regard to the patient and what would be required to provide disambiguation of the patient should be based on standardized demographic fields. Those are not developed now so that would be something for the Standards Committee to dig in on.

But it also would be, and again this is aligned with the Privacy and Security Tiger Team recommendations that the data holding entity would be the one at the end of the day that needs to determine the threshold of assurance needed to establish a match. So, they would be presented with a certain set of patient demographics and it would be up to them decide whether that gives them enough information to make an affirmative match that they are comfortable with and then deciding on the authorization and the response to it. Next slide, please.

And then in terms of the response to a request, so all of that was about the responding entity, in terms of the response, really again, in keeping with the idea of there being a lot of variation in the market and ultimately it being the data holders responsibility to make the decisions regarding the authentication, appropriate – let's go back to the Privacy and Security Tiger Team word which is reasonable reliance, that it would be up to the data holders to decide the content and format of response according to their processes, policies, and technology capabilities, because there is a wide variety of capabilities and policies out there in the market right now.

Data holders, assuring that the information in response is covered by the authorization presented by the requesting entity. So, if it covers sensitive information for example or would cover sensitive information it would be the responsibility of the data holder to determine that they have whatever appropriate additional authorization required for a particular statutory protected set of information and then finally –

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Micky, sorry...

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

Yes, go ahead?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

What do you mean by the format of the response? Is that getting into the Standards Committee territory there?

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

Yeah, so the idea is that different systems would have different abilities to respond. So some could respond with a very structured C-CDA lifetime medical summary and decide that that is the response that they are going to make to any and all inquiries, whereas others may decide that they are going to respond with something different. And our recommendation is that, for the purposes of standards, that that be left as an end point decision right now to acknowledge that there's a lot of variability in the market.

The final point is with the data holders and the idea being – and I think we talked about this before, is that there at minimum should be an acknowledgment of non-fulfillment of the request. This is the silence is not an option requirement. So, I think there is one more slide on this and then I'll pause. Next slide, please. No there is not, that's it. Sorry, if you can go back one slide.

So, I know there is a lot of detail, here. As I said, a lot of it is very much aligned with recommendations that the Privacy and Security Tiger Team had made and have already – that the Policy Committee has gone through and substantially approved. I think that the formal approval is happening in the August meeting, but sort of an interim approval process has already happened there which is why I included them and went through them pretty quickly. Let me pause here.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Very clear, very clear presentation, Micky, thank you, of a complex issue and just to maybe state what maybe obvious to some what you're doing here is you are stripping away and simplifying certain transactions around a master patient index or record locator service that may be value-added services that are integrated within the query capability or could not be required if, for example, the patient tells you where to go and ask for the information. Am I correct on that?

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

Yes, absolutely.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

All right, open for questions. Terry?

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

Yeah, hey, Micky, this is Terry Cullen, this is great. Do you – I don't know how to put this question, do you think this is doable?

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

Yes.

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

So, I totally agree with it but we're not talking a lot of years from now and there is a lot of work and a lot of coding and a lot of evaluation, analysis and resolution of things like different states, which you talk about that has not been done yet.

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

Yeah, I think it is doable, and the reason is, you know, a couple of things. One is we've gotten input and we have some members on the IE Workgroup who are members of the Standards Committee as well, as well as members on the Workgroup who are vendors and if you have been following what's been going on in the Standards Committee side with respect to tracking the work of RESTful implementation approaches, and the, you know, advances that have been made there with, you know, with the S&I Framework and the RHEX Project and FHIR, which is an HL7 driven project, I think that there is a lot of, you know, hope and confidence that something that would be a much simpler way of implementing a query and response capability than exists today in the market is definitely achievable.

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

So, my only – to follow-up on that than and actually Doug is aware of this, because with our DoD VA sharing we're going to do a pilot on FHIR, so from the VA perspective we're cognizant of all that work. We engage in as much data sharing as we can and yet we continue to have huge issues ourselves having made a fairly substantial investment in this area.

So, I guess I just, you know, FHIR isn't really implemented anywhere else, so I totally agree with where you want to go. I guess my concern is timing and it's one thing to accelerate the market by putting a standard out there, it's another thing to have done a lot of the pre-work so that the market can embrace it and not have to do it themselves.

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

Right.

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

So, I'd just caution here.

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

Yes.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Just to clarify the – you're saying these are the requirements, you're not saying whether there should be a single standard that the Standards Committee would recommend or multiple standards, or any specific standard promulgated as part of Stage 3, you're silent on that Micky at this point.

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

Yes, exactly and the idea here was, you know, in terms of the conversation of the Workgroup, was, you know, first core principle, do we want to put a stake in the ground that stays that Stage 3 in the associated 2016 certification requirements should have query and response capability embedded? And the answer was a resounding yes and then it was to say, well then how do we set up the policy guardrails and the policies and principles to at least guide that conversation that we are in effect recommending that the Standards Committee have.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Other questions?

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Yeah, this is Deven, it's not a question, but just to reinforce Micky's comments, you know, when we considered a number of these similar issues on the Tiger Team, which also has some technical folks on board, the amount of agreement between the two Workgroups in terms of how to move forward both from a policy and technical stand-point, even though we actually did not have a whole lot of overlap at that time, because I was not able to participate in many of the sort of early phone calls on this, it was pretty amazing how in sync the two groups were in terms of the thinking. So, that was helpful.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Micky, I have one concern that I already raised. I think it's a little funny for the Policy Committee to be stating that there should not be a standard for how that response takes place. I think that my recommendation and what we usually do in the Policy Committee is we leave it up to the Standards Committee to say whether the systems could coalesce around a given format for a response.

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

Right, okay, yeah, I mean, I can certainly understand that. I think we did discuss it a little bit in the Workgroup and there seemed to be a strong sense in the Workgroup that there was way too much variation out in the market, but that is a different consideration from what we consider as sort of the appropriate jurisdiction of the Policy Committee vis-à-vis Standards Committee.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Exactly.

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

Right.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

And Farzad, this is Deven, just to add on the issue of response the one thing that we considered as a Tiger Team that the IE Workgroup also considered and that we had discussed previously with the Policy Committee is that the issue of sort of a response – that there is essentially policy. There's a bit of policy in the response, because if you sort of dictate a format that confirms that a patient even has a record in a particular institution in many respects that communicates or infers certain information about the patient even if the actual underlying records are not sent, which is why I think both Workgroups came to the conclusion that while silence as a response is not an option, you have to provide something in return that in fact – what ideally from a policy stand-point gets returned if in fact there are privacy issues at stake is record not available or something along those lines.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I don't have a problem with that it's this seems to say that the standards – this seems to bind the Standards Committee if we accept the recommendation to not recommend that everyone use consolidated CDA versus PDF or whatever, right, if you are going to give a response and I think that's jurisdictionally a little bit of the strange thing to do.

**Claudia Williams – Director - Office of the National Coordinator for Health Information Technology**

So, this is Claudia, maybe just a follow-up question just to be sure I understand Micky what you guys are saying. Are you saying that you found in your discussion that there was – because there could be variation actually not just in the technology but also in the policy assumptions and workflow, which then makes it potentially hard to come up with a standard, because you don't have a uniform "it" to standardize around.

So, just want to follow-up and ask was it a concern that just on the technical end things were not uniform or also that more from sort of the guts of the problem that was being defined that there is not a single way to look at it?

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

Yes, no, I think that's exactly right Claudia, that there are underlying workflows as well that would be considered and you could imagine that some institutions would just decide as a matter of course that they are going to respond with exactly the same thing to every single request and that's it's going to be this shape and form and that's it whereas others may entertain different types of responses based on the query or whatever and so there seemed to be both technical aspects related to where they would be in their install base and underlying workflows associated with that and I think both of those were a part of that.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

The other question I had, Micky, was you mentioned up top that you want to allow use of organized Health Information Exchanges in the continuity section and we found that the devil is very much in the details for Stage 2 in terms of encouraging EHR mediated exchange but also encouraging and not putting up barriers in terms of a provider to be able to choose the Health Information Exchange service of their choice, whether it's their EHR vendor or whether it's an organized Health Information Exchange.

Do you feel that these requirements if made, you know, part of kind of certified electronic health record technology that there is a risk that they would kind of bind providers to their EHR vendor for information exchange and limit their ability to act as outside services or maybe to put it another way, in the positive, do you think these would be enablers of health information, using Health Information Exchanges or should the policy say either you use an EHR to do it or you use an accredited HIE the way we've done in Stage 2?

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

Yeah, that's a great question. I think, you know, from a certification perspective, I mean, having the confidence that your EHR system has this ability to generate a query natively and the system being able to respond to a query seems like it's an enabler ultimately and provides greater choices to the market.

And, you know, just like with a lot of the of the requirements where it says you use certified technology, but that doesn't mean that you have to necessarily use that particular – that you actually have to use that for the transaction every time as long as you're accomplishing the function seems like it's, you know, allows the flexibility to the end users, but also provides that base or floor of capability that they know that they can rely on at the end should they need to.

I mean, we weren't trying to break any new policy ground in that statement about being able to leverage HIEs. What we were just noting is that in Stage 2 there was some accommodation made for the use of organized HIEs as a substitute or a compliment in some cases and we just wanted to – we were just recommending that we continue with that.

But, I can certainly say that in Massachusetts as a specific example, as we're – and I'm actually sitting in the offices of our Statewide HIE vendor, because we had a big requirement session this morning and we're very much focused on using the fact, the fact – we're making extrapolations that EHR systems will have the type of capability that we're anticipating through this, you know, set of recommendations like this and then seeing that as an enabler of the Statewide HIE functions and it's essentially reliance on this kind of capability at the EHR level to be able to have the Statewide HIE provide value-added services so a clinician would use those but would see RLS types of capabilities for example and the Statewide PKI to be things that make those transactions easier to accomplish even though it's natively through their system through their certified system and using certified technology.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Are there other questions from the Policy Committee members?

Okay, well, let us vote then. I really didn't see very many substantial issues raised with your very clear presentation. Why don't we – MacKenzie, why don't we poll the Policy Committee members?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

So, usually we vote as a consensus. So, is there anyone who is – for those members who are in favor if you could just say Aye.

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

Aye.

**Male**

Aye.

**Male**

Aye.

**Woman**

Aye.

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

Aye.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

And are there any committee members who are not in favor of approving the recommendations today? I don't think I heard anyone I think that was just noise so I'll mark that as no in disapproving the recommendations. So, I will work with...

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Are there any abstentions? Paul does that too. Okay.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

So, I'll work with Micky and Kory on doing a transmittal letter to formally transmit them to the National Coordinator.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay and Micky you'll take back to the group the question about jurisdictionally in terms of the format if that's truly a policy recommendation or if that's more on the standards side?

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

Yes.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Thank you.

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

Great, well, thank you. So, if we can turn to the next slide, we'll dive into provider directories. I think there are just three slides here one with – or there maybe four, but it's one with the recommendations and then a set of principles underlying, but it's a little bit more condensed than the previous. Next slide, please and one more.

So, in terms of the background, I'll run through this quickly. Provider directories are certainly a critical component of both Directed and query exchange. I think as everyone in the Policy Committee is familiar they are not necessary but they are incredibly helpful for, you know, I think both Directed and query exchange and we're starting to see that as the HISP infrastructure starts to get built.

The current lack of standards in provider directors appears to be an obstacle to faster progress in Stage 2 Directed exchange and unless remedied there is a concern by the Workgroup that that could impede Stage 3 query exchange as well. The new recommendations that we have here reflect feedback from the previous Policy Committee recommendations on provider directories.

So, you may recall that – I think it was actually probably, it might have been a year and half ago anyway and I forget exactly when, there were – the IE Workgroup dive into the question of provider directories and this was before the applicability statement had been formalized and so, you know, it was, you know, prior to that and also was outside the context of HITECH authority per se. And there was a set of recommendations that got passed by the Policy Committee but then got a little bit stalled over on the Standards Committee side.

So, now we've, you know, sort of refined that set of recommendations to, you know, take into account what we, you know, got from that process as well as IE Workgroup observations on current and expected market trends. So, you know, one of the things to note, as I said, the previous recommendations were not focused specifically on HITECH statutory and programmatic authority and was prior to applicability statement. So, actually, you know, taking that into account and now want to focus it on HITECH, statutory and programmatic authority.

The current recommendation focuses solely on enabling provider directory functions within the HITECH context as I said. It does not assume the separate authority to regulate HISPs or HIE organizations, or other third-party market actors. And we also note that our comments on the CMS/ONC RFI on HIE presented, I think a couple of meetings ago, did highlight the opportunity to use existing CMS databases and infrastructure like NPPES, Meaningful Use, others to catalyze market provider directory capabilities. We don't address any of that here, but we just wanted to note that we did make that comment previously and certainly still stand behind that as perhaps an opportunity to use CMS infrastructure to catalyze provider directory capabilities in the market. Next slide, please.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Was that a recommendation to us?

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

I don't think – I think those were just – those were our comments on the RFI and then those – I don't know exactly what the process was then. I think – were those approved by the Policy Committee as recommendations that would be submitted to CMS and ONC?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

No, they were just comments.

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

Right, so I think that's all they were, were comments.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay. So, if – all I'm saying is if you feel strongly about those you should consider reiterating them as recommendations rather than just comments.

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

Okay. So, you know, on this slide we followed the – in terms of the recommendation structure here it's the same thing, we've got a core set of, you know, succinctly stated recommendations that essentially lay the stake in the ground for the Standards Committee to consider a set of standards related to provider directories within the certification authority of HITECH and then we walked through a set of the principles in greater detail to provide some of the context.

So, in terms of being able to search for a provider EHR systems should have the ability to query external provider directories to discover and consume addressing and security credential information to support Directed and query exchange.

And then in terms of responding EHR systems should have the ability to expose a provider directory containing eligible provider and eligible hospital addressing and security credential information to queries from external systems to support Directed and query exchange. So, that got a little bit into what does external mean, things like that? But the basic idea is that you should be able to search for a directory – to be able to search an external directory and be able to respond to a search from an external system. Next slide, please.

So, in terms of scope, you know, first we thought that the standards should address provider directory transactions, query and response, as well as the minimum acceptable content to enable Directed and query exchange. So, there was a fair amount of discussion in the Workgroup, because I think as all of you may know out in the market there are a variety of different initiatives underway to think about the ways to leverage provider directors for a variety of purposes.

Our recommendation was to focus specifically on Directed exchange transactions and query response transactions and that as a minimal set and then if people want to take those and expand them for other purposes that's up to them, but as a certification requirement focusing on that still.

In terms of continuity, same principle, build on the approaches and the infrastructure that's already being deployed with related to Stage 2 in the applicability statement. And, you know, certainly allowing the use of organized HIE or cross entity PD infrastructures were applicable and available, essentially remaining agnostic to that which I think – and would follow the same comments that I had before that Farzad was asking about on this topic with query exchange.

Simplification, same principle, having that down to as minimal a set of transactions as possible, ideally a single set of transactions with a query to a directory and a response. And then the definition of an external EHR system, we're recommending that be an EHR system of another distinct legal entity regardless of vendor. So, it's a legal entity concept I think is consistent with prior Stage 1 and Stage 2 definitions related to Direct for example. Next slide, please.

And I think this is the – if I'm not mistaken this is the last slide. So, in terms of the transactions themselves, the querying systems, and the same structure here, querying systems have the ability to present authenticating credentials of the requesting entity so that the provider directory holding system knows who they are, present the provider identifying information whatever that is and then finally securely transmitting that query, to be able to securely transmit the query message.

And then the responding provider directory have the ability to validate, match the provider and then respond with unambiguous information necessary for message addressing and encryption or acknowledgment of non-fulfillment, again the same principle.

And then there was a third set of transactions that the Workgroup felt were fairly important, which was sort of more in the area of administrative capabilities but to have the ability to submit provider directory information to external provider directories and then be able to receive and process provider directory updates from external provider directories. They may or may not do that, chose to do that in the market, the owner that system may or may not choose to participate in that, but the Workgroup felt that it was important to be able to enable the technology to be able to do that in order to be able to participate in broader initiatives HISP-like activities for example that are, you know, assuming a certain federation or consolidation of provider directories that's difficult to accomplish in the market today.

Then in terms of transaction details, we talked, you know, a fair amount as I described before about what should the content requirements be? And at the end of the day I think the idea was that a sufficient amount necessary on eligible providers and eligible hospitals to address and encrypt Directed exchange and/or query.

So, you know, there was conversation about, well, who should you include? What level of granularity? Is it organization only? Is it, you know, individual provider? Is it clinician? Is it user? We came back to again looking at HITECH, looking at Meaningful Use and saying at a minimum we have eligible providers, we have eligible hospitals, and then allow variation beyond that.

And then I think as I've described before, on the earlier slide, having the minimum amount of information on those EPs and EHS to disambiguate multiple matches. So, you know, you have a variety of situations there that could arise, you have the same provider at different entities for example, providers with the same name, same kinds of things that happen with patient matching, but you need to be able to produce enough information to be able to provide that kind of disambiguation. And I believe that's the last slide if I'm not mistaken. Let me do a quick check. Yes.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Great.

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

So, let me pause here then.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Again, very clearly presented, questions for Micky?

**Paul Egerman – Businessman/Software Entrepreneur**

Micky, this is Paul Egerman, these external entities that are maintaining these provider directories, who are these external entities?

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

Yeah, so it could literally be another EHR system in the way that we think about EHRs today, an ambulatory EHR system in another provider organization let's say or it could be an organized HIE activity, which could be, you know, sort of a repository style HIE like a statewide HIE or a HISP as we think of HISPs supporting Directed exchange, all of those I think that constitute external provider directories and the idea here was to say if you can enable the EHR technology to do that then it's up to the market to decide in the same way we think about allowing the flexibility in the market and the modular approach to certification of EHR technologies to decide what pieces of that would a particular attesting provider or hospital want to put together as their complete EHR system.

**Paul Egerman – Businessman/Software Entrepreneur**

And do you think that there are any security and privacy issues here for the providers?

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

I mean, no more than I think would exist in any other, you know, sort – in any other consideration that we would have about a certification process that allows certified EHR technology to have components. So, I think that we want to have the same privacy and security provisions that we have in general for those apply in this case as well.

**Paul Egerman – Businessman/Software Entrepreneur**

Well, except usually we're dealing with patient information, but to repeat these issues for say physicians, I mean can these provider directories be used by say, to use as an example a physical therapist trying to find, you know, ortho-pods who the physical therapist might want to establish a referral relationship with and say basically use it for marketing purposes from one provider to another.

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

Yeah, sure, so I guess my immediate reaction is to say that would be a determination that the organization that has the provider directory information and is being asked to participate with, you know, an external provider directory either respond to a request or participate in some type of consolidation or federation approach that that would be up to them to determine whether the appropriate trust parameters or trust fabric structures exists for them to feel comfortable. But it would be their choice whether to participate or not based on that.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Paul, how is it different from, I don't the NPPES directory that's already available and has addresses and phone numbers and specialties?

**Paul Egerman – Businessman/Software Entrepreneur**

Are you asking me or are you asking Micky?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Paul, you.

**Paul Egerman – Businessman/Software Entrepreneur**

I don't know the answer. I'm just trying to understand the recommendation. I guess the difference here is that we have some sort of electronic means to query. I'm not sure that that existing system has that. But it's a good question.

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

This is Gayle; I have a question if I may.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

And this is Doug; I have a question after Gayle.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Go, go, go.

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

Okay, my question deals with authenticating the providers. Would the provider directory be responsible for authenticating them, making sure they're duly licensed and that they have the appropriate credentials? If they're listed as an orthopedist, are they board certified, are they board eligible? If they're listed as a family doctor would they check medical licenses? Would they list DEA numbers those kinds of things?

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

Yeah, no we're not recommending that there be any of those kinds of requirements related to what a provider directory is, you know, the frame that we took was that this is a part of the EHR certification requirements that you could think of each EHR for example if you think about just a traditional EHR, a complete EHR system in an ambulatory setting that has a provider directory.

So, it would be up to each holder or each provider directory owner themselves to determine what are the, you know, requirements for being listed in the provider directory and then up to each of those parties to decide whether that, you know, level of assurance of what is in the provider directory meets the needs that they have from a business perspective.

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

And then as a follow-up to that, what about accuracy, are there going to be any requirements on the provider directory to make sure their information is accurate? And the EHR when...provider directory...

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

Yeah, we didn't consider any specific policy recommendations with respect to having a threshold or requirements related to the accuracy of what's in your own provider directory. The only area where we did deal with this idea of accuracy was in that requirement for administrative transactions, because some Workgroup members expressed that to the extent that you have a HISP let's say that is thinking of a federated approach to a provider directory, that provider directory which is deriving its information from other provider directories would only be as good as the updates that they're able to get.

So, it was only in that context that we thought about that. Otherwise, you know, I think that our implicit, you know, recommendation there is to say that that's really, you know, sort of up to the market to decide, you know, how much validity any individual party wants to, you know, place on a provider directory that they are relying on from another system.

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

Okay, thank you.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

So, Micky, this is Doug, Fridsma, just a couple of questions. The HIT Standards Committee actually looked at provider directories last year and I'm sure that there were people that provided some input into that.

One of the things that they talked about was, you know, the reason that you have a directory is so that you can figure out how to communicate or how to contact the person on the other end. And so often times if you were talking about Direct it might have your Direct address. If you're talking about other protocols web services or other kinds of ways to do it, it might give you the endpoint or the way that your computer can connect to the other computer for exchanging that information. And so most of the information doesn't require a lot of authentication or an authorization it's going to just have a few different kinds of endpoints.

One of the things that looked at with that is they tried to look across the rest of the industry to see or look across different industries to see how many other industries have been successful with sort of industry wide directories to find information or to find people that you want to exchange information with and there aren't that many good examples out there.

Most people, if you're looking for a provider or if you're looking for somebody's address we tend to go and we tend to use search as a method to get back that information. And so the HIT Standards Committee did actually explore search methods using things called micro data and other things like that as a way of getting that particular information.

When I think about the recommendations, certainly when it comes to the transactions, the one about being able to provide authenticating credentials and validating those things and matching that provider and the like, that imposes a particular burden particularly if we're moving towards an environment in which search or the ability to find the endpoint and when you get that endpoint, you know, Direct has ways of authenticating you've got web services that have other ways to provide security and authentication, and encryption.

I'm just curious as to whether those kinds of use cases were considered in the recommendations or if what we do is require every provider directory to have an authentication it presumes a certain kind of data that would be in there and it presumes a certain kind of architecture that may or may not be what we see in a few years.

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

Yeah, that's a great question, Doug and we may have or I may have miscommunicated it in the way that it was framed. What we were – we weren't suggesting that that should be specific to provider directories and indeed if you go back to the principle that says you should build on the infrastructures and approaches that are already being developed, I think authentication would be one that I would personally would say is probably in most cases already going to be taking care of in other ways. So, that wouldn't necessarily be something that has to be provider, you know, specific to a provider directory transaction. You may already be a part of a trust fabric for example for Directed exchange that already, you know, has some kind of use certificate that you're already tied to for example and that could deal with authentication for a wide variety of transactions including the provider directory.

So, it wasn't specifying there should be specific authentication for provider directory transactions. What it was saying though is that it's a reasonable expectation for an organization, let's say Beth Israel Deaconess Medical Center that has a provider directory that it is exposing to the outside world, it's reasonable for them to expect that there are some authenticating credentials that are passed to them as a part of a query to their provider directory so that they know who is asking.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

So, even within the direct transactions the way it works right now is it uses something called DNS to try to find the endpoint and then if it doesn't find that endpoint, you know, there was the option, although I think there are some concerns about compatibility, to fall back to something called LDAP which is sort of those general directories that you see when people need to query them.

I could be mistaken, but I don't believe that those, and at least the way it's framed requires authentication credentials to be able to kind of do that search to find those Direct address endpoints. So, I think I understand that if there was data or information that was inherent in the directory that could potentially be sensitive, you know, addresses and DEAs and other things like that, then I think there is this need to have authentication. But, I think we also have to be careful that we don't impose authentication if the data is simply here is how you contact someone and have another way of kind of providing that information.

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

Yeah, yes fair enough. I think the counter argument to that would be related to – and I forget who asked the question, I think it was Paul, who was asking the question about protection of provider information. So, let's go back to the case of Beth Israel Deaconess Medical Center exposing its provider directory without some ability to authenticate who is asking, they might be legitimately concerned about what that information be used for, even if it's simply for marketing. I mean, yes, you can get NPI numbers, but being able to go to one place to know all of the physicians at Beth Israel is different than being able to just generally look up NPI numbers, for example.

**Paul Egerman – Businessman/Software Entrepreneur**

But, why does – this is Paul, but why does somebody who asks that at Beth Israel need to have access to all of Beth Israel's provider directory, aren't you pre-supposing an architecture by making that statement?

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

Well, I'm suggesting that that could be one possible architecture; and in that case you would want to have some type of authentication. If you didn't then perhaps they could expose it in different ways that wouldn't make available, you know, all of the providers in their directory. So that's fair enough.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

But, Paul, in answer to your question, I think when Micky started off at the top he made the assertion that the lack of openly available directories to be able to identify Dr. Halamka at Beth Israel Deaconess is hindering information exchange that people basically having to maintain their own private e-mail lists is a hindrance. So, I think that's the assumption behind the availability of the directories.

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

Right.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, should we – let's vote on these recommendations. Do you think they're ready Micky?

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

I do.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, let's hear from those who vote aye, give your name.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Aye, it's Deven.

**Judy Faulkner, MS – Founder & Chief Executive Officer – EPIC Systems Corporation**

Aye, it's Judy.

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

Aye, this is Art.

**Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare**

Aye, it's Marc Probst.

**David Lansky, PhD – President & Chief Executive Officer – Pacific Business Group on Health**

Aye, David Lansky.

**Gayle B. Harrell, MA – Florida State Representative – Florida State Legislature**

Aye, Gayle Harrell.

**Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration**

Aye, Terry Cullen.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

All right any nays?

**Paul Egerman – Businessman/Software Entrepreneur**

No, it's Paul.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Any abstentions?

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

It's Christine; you can put me in the "yes category" I just didn't get to it fast enough.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay. All right, recommendations approved. Micky, maybe you want to follow-up with Paul.

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

Yes, absolutely. I'll reach out to you Paul. Great, thank you very much.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Thank you. Well, guys we're almost – no breaks, but we're getting to the end here. Sorry, guys Doug and Jodi you'll have to compress the ONC updates. So, let's see what you can do.

**Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology**

Okay, so this is Jodi. If you can bring the slides up, great, thank you. I'm going to spend the bulk of my time giving an overview of our Health IT Patient Safety Action and Surveillance Plan which just recently came out so I thought folks would be interested in that because we've had some discussions about that and then I'll just give some very quick updates on some other things. So, please go to the next slide and the next and move right along. So, next slide, please.

Okay, so we released our final Health IT Patient Safety Action and Surveillance Plan on July 2<sup>nd</sup>. So, just a reminder to folks to give a background this was developed in response to the IOM report on Health IT and patient safety which ONC commissioned. In that they recommended that we put forward a Patient Safety Action and Surveillance Plan which is what we did. We put out a draft plan in December of 2012. We got comments and we took those comments and turned them into the final plan. And I have a link here for folks so that you can access it if you have not already done so. We did develop this in collaboration with other agencies in HHS most notably AHRQ but also CMS. We also worked with FDA and others. So, this is an HHS Health IT Safety Plan not just an ONC plan. Next slide, please.

Our goal is really to advance patient safety in an increasing Health IT enabled healthcare system. We are looking at Health IT implications for patient safety both the potential benefits which are substantial as well as the potential risks and particularly when we talk about benefits, how we can use Health IT to have new opportunities to make care safer, preventing medical errors, enhancing clinical decision-making with better information and enabling a learning healthcare system. This obviously remains a top priority for ONC and HHS and is a core of our regulatory programmatic efforts.

In addition though, we also want to consider any potential risk that Health IT can have. We know with any new technology there are new risks that can come about and the IOM identified that there is little published evidence quantifying risk associated with Health IT and that more research is needed and so that's an area of focus for us.

Our role is really guiding nationwide efforts toward fully achieving the benefits of Health IT while minimizing the unintended consequences or new risks that may come about. So, we are – this plan represents a coordinated effort and coordinated action by both the government as well as the private sector. Next slide.

Okay, so this is just a very high-level overview of the plan aligned with what I just said. We have two objectives. The first and in many ways the most important is using Health IT to make care safer so not only to reducing human error but also increasing data availability to improve clinical decision-making and second is to continuously improve the safety of the Health IT itself.

The plan contemplates a joint effort across HHS and it builds on existing patient safety programs in the public and private sector so things like the patient safety organizations and reporting to patient safety organizations as well as the Joint Commission Sentinel Events Program.

There are three strategies that go under these objectives. At a high level it's to learn, improve and lead. So, as I mentioned the Institute of Medicine had stated that there was not good data about Health IT and patient safety and whether or not there are the connection between Health IT and any safety events. So, first and foremost we wanted to increase the quantity and quality of data and knowledge about Health IT safety in order to better understand the magnitude of the issues that we may be facing.

Second is to improve, to target resources and corrective actions to improve Health IT safety and patient safety based on the information we gather about any potential risks or hazards that might be out there and what we may be doing, what we may do broadly to make some improvements using technology.

And third is to lead by promoting a culture of safety and shared responsibility related to Health IT among all providers. We know that there is never one component, one factor that contributes to a safety event and that there really needs to be shared responsibility among those that are developing products, those that are using products and as well as the government who is overseeing a lot of these efforts. So, that is sort of the nutshell of our plan, I'll go into a little bit more detail if you can go to the next slide. Next slide, please. Thanks.

So, under learn, so I mentioned that the goal here is to increase the quantity and quantity of data and knowledge about Health IT safety. So, there are three basic focuses here. First is to encourage and make reporting easier. So, things like the AHRQ common formats and AHRQ is going to be working on expanding common formats for the ambulatory settings as well and then considering how we can use certified EHR technology functionality to streamline reporting from providers to patient safety organizations or other appropriate oversight bodies.

Second is to support and strengthen patient safety organizations. So AHRQ will be helping to de-identify and aggregate data that the patient safety organizations are receiving. And third is to analyze data from multiple sources, so things like patient safety organizations, AHRQ's QSRS. We also announced two new programs or two new efforts. One is we put out guidance on surveillance under our certification program which I will talk a little bit more about as well as the Joint Commission Sentinel Events Program which I will talk a little bit more about. So, next slide, please.

So, once we have better data and information the goal is to target resources and corrective actions based on the data we have to improve Health IT safety and patient safety more broadly. In this category there are a few particular things of note. First is to establish and advance Health IT patient safety priorities and ONC intends to lead a public-private process to help set those priorities and develop areas for improvement. Of course we will continue to work with CMS and with recommendations from you all to continue to use the Meaningful Use Program and the Standards and Certification Rules to advance those priorities.

We're also looking at developing and disseminating tools and interventions that can help folks to better understand where they may have areas that can – safety risks that they can address and then best practices for addressing those potential risks.

And then third is to investigate serious events and take corrective action and this is where our joint effort with the Joint Commission will fit in. CMS is also committed to training surveyors on Health IT safety as another component of this.

Last, next slide, please. We're talking about promoting a culture of safety related to Health IT. So, we will be working closely to encourage private sector leadership and shared responsibility. Things like the EHRA code of conduct that came out as an example of the industry taking some leadership and seeking our input on that program that they've set up.

We will be establishing an ONC Health IT Safety Program, this will be under the Office of the Chief Medical Officer and Jacob Reider is sitting right next to me, although nobody can see that on the phone, but he will be leading the ONC Health IT Safety Program.

And then finally, which you all know about is we are thinking more comprehensively through the FDASIA Workgroup under you all and working collaboratively with FDA and FCC to think about recommendations, draft recommendations for a risk-based regulatory framework that promotes safety, promotes innovation and reduces regulatory duplication and this will complement the actions of the safety plan. Okay, next slide, please.

So, I promised I'd go into detail on two different things, one was our guidance on surveillance for certified EHR technology and the second is the Joint Commission and those will be my last two focuses on the safety plan. I'll give a couple more updates and then I'll take comments.

So, we released guidance on surveillance for certified EHR technology that guidance was also issued on July 2<sup>nd</sup>. In the guidance, we have stated that the ONC ACBs will be expected to conduct live surveillance on certified EHR technology. We particularly identified four categories that we would like them to focus on. First is exchange capabilities, second is safety-related capabilities, the third are security requirements, and the fourth is population management.

Obviously, you can see the connection with safety. We particularly put those in there because we wanted to make sure that when they're doing the surveillance they are focusing on those things that have safety related capabilities like CPOE and drug-drug, and drug-allergy interaction checking, and medication reconciliation.

We have also asked the ONC ACBs to examine and develop risk processes for receiving and responding to user complaints particularly those related to safety of developer's Health IT products. So, this will all be, you know, will be surveillance, as I mentioned again in the live environment and we hope to gain some good information from the efforts of the ACBs.

ONC is strongly encouraging the ACBs to make the results of their surveillance publicly available in order to promote transparency and provide users and customers with better comparative information when selecting Health IT products and services. Next slide, please.

We also announced that we would be contracting with the Joint Commission to do a few things. First is to provide much needed near-term data analysis. So, we are asking the Joint Commission to investigate Health IT related sentinel events both in hospitals and ambulatory practices to conduct research on the large national database to look for Health IT related sentinel events and then to provide ONC with the de-identified reports on the actual investigations including findings and recommendations, and finally to deliver some preliminary research on the identification, classification, types, frequency and any severity of Health IT related events to help us in understanding in that learning component of our plan.

The second output is to support early detection and mitigation of serious events and hazards. We expect that the Joint Commission will issue some public alerts and guidance as well as develop resources and training for providers in order to support early detection and mitigation.

And finally, we expect that they will examine and provide recommendations on the role of external oversight bodies in ensuring Health IT patient safety. So, we've just kicked off this contract. The work has not even really kicked off underway but we're really excited about working collaboratively with the Joint Commission particularly with respect to their ability to investigate any serious Health IT related sentinel events as well as to provide us really good data based on the large – building on their existing programs and information that they have.

Okay, I'm going to mention a couple more very quick things, just three quick things in about two minutes. Next slide, please. So, I think I mentioned this at the Standards Committee. So, this isn't brand new news but I hadn't mentioned it here. ONC and ASPE are working in leading an HHS cross departmental effort to identify strategic opportunities for building a comprehensive interoperable and sustain a data infrastructure for patient centered outcomes research.

We have been thinking about this in conversations – we have had conversations and are working closely with PCORI and I know that PCORI had spoken with you all, I think it was last month. We note the contract was awarded for the strategic opportunities was awarded to NORC they have assembled a multiple advisory group to explore different standards, policies and service required to establish this infrastructure and help us think about priorities. We will be posting documents for public input so stay tuned. Again, this work is just kicking off so we'll have more to report in the future. Next slide, please and I just lost my slides, so hold on a second.

I'm going to hope that we're on the right slide because I can't see mine just now, but I wanted to mention that ONC posted new technical resources for MU Stage 2 implementers and developers. These are a part of a growing toolkit with more than ten resources to help technical aspects VDT, TOC and C-CDA. I wanted to note that there were three more recently added resources which I have highlighted on the slides and the link where you can find this information and resources.

And then finally, I just want to let folks know that there was recently a report to congress that provided updates on the adoption of Health IT from January 1, 2012 through April 30, 2013. It described CMS and ONC's efforts to facilitate nationwide adoption, exchange electronic health information, identifies and discusses some of the barriers to adoption and exchange and how HHS's programs are helping to address those barriers. If you're interested I've provided a link and you can take a look and read it at your leisure.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

This is terrific.

**Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology**

With that I will turn it over to Doug.

**Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology**

Thank you. We'll try to catch up here, next slide. So, just to give you some of the operational metrics that we've been following, we currently have about 2400 people that are currently registered with the S&I Framework, of those we've gone over 700 in terms of committed members representing about 556 different organizations. We've passed 1500 in terms of the working sessions that have been held and we've been maintaining this current pace for the past 28 months.

So, there's a lot of work that's been done. We're nearly done with resolving many of the ballot comments that we received from the various initiatives and so we're within about 100 in terms of the outstanding ballots that still remain. Next slide.

This is our standards and initiatives portfolio snapshot. What I'd like to do is just highlight a couple of things based on the conversations that we've had today. The first is around the Query Health Initiative. We anticipate on July 16<sup>th</sup> sort of re-launching some of the activities around Query Health. We're really thinking about query as a mechanism to get access to data not so much the goal in and of itself and so we have a data access framework activity that we'll be launching on the 16<sup>th</sup> that we hope will address at least some of the concerns of that were raised on today's call and hopefully we can begin to get both access to information within an organization, access between organizations and then really broadly speaking what might need for queries that need to be at the public health level.

We've also been working on a project called structure data capture which is moving along quite well. That is a project to really start developing more granular ways of describing data and provide some extensibility, if you will, into our ability to gather different kinds of data and do it in a structured way. And so those two the data access as well as the structured data capture allows us to extend the capabilities of electronic health records and health information technology to both get data in a structured way as well as to release or to provide data in structured ways so that we can get this ecosystem that we hope will drive improvements in quality and an innovation ecosystem.

In addition we have also launched our first international initiative based on the Memorandum of Understanding signed between the EU and the US. And so that activity just kicked off a couple of weeks ago. We anticipate that that will continue to grow as we sort of understand how to manage across these different time zones and the various folks that are there but it tracks very, very nicely to the roadmap activities and the collaborative work that's going on between the US and the EU to establish some common set of standards that we hope will drive market innovation and improve the ability of having systems that have similar requirements and the similar capabilities internationally.

The last slide really just is to remind everybody that we've got a number of different pilots that are ongoing. We have pilots that are currently finalizing around the data segmentation for privacy. We've got work that's going on in clinical decision support with Health eDecisions.

It's going to be very important certainly as we think about quality to make sure that we've got the appropriate ways of representing quality measures and realizing that there is a synergy between the way we represent quality measures and the way in which clinical decision support systems can function and so these pilots and the various use cases I think will hopefully get us to a better place with some of those standards.

With that I'm going to close and we can go to the last slide. Obviously, all of the work that we're doing is available for public consumption and so if people want to find out about specifics of some of the various initiatives they can go to the wiki that contains the standards and interoperability framework activities. So, with that I will close.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Thank you Doug. MacKenzie public comments?

**Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology**

Farzad, before we do that did you like to talk about transitions?

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

I was going to do that after.

**Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology**

Okay. MacKenzie?

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Sorry.

**Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology**

Is there any public comment?

## **Public Comment**

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Sure, operator can you please open the lines for public comment?

**Caitlin Collins – Project Coordinator – Altarum Institute**

If you are on the phone and would like to make a public comment please press \*1 at this time. If you are listening via your computer speakers you may dial 1-877-705-6006 and press \*1 to be placed in the comment queue. We do not have any comment at this time.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Okay, I just wanted to at the end thank MacKenzie Robertson for her service to ONC and to the Policy Committee. She's been really terrific, stepped in the breach there after – when she came in and she is moving on.

So, we're going to have Michelle who folks from the Meaningful Use Workgroup have worked with and know take on the coordination activities for the Policy Committee while we search for a replacement. I just want to thank MacKenzie and ask the Policy Committee to acknowledge all the great work she's done in keeping us moving ahead.

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

Thank you, MacKenzie.

**Deven McGraw, JD, MPH – Director – Center for Democracy & Technology**

Thank you MacKenzie.

*Clapping*

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

Well, thank you very much everybody and I'm sure it will be – we'll work to make it a smooth transition from myself to Michele Nelson. I'm sure you all have worked with her in some form or another since she's already so involved in the committee activities. So, it's been an honor to support you and your work and you guys honestly are the hardest working committee members I have encountered in my FACA world. So, thank you so much.

**Farzad Mostashari, MD, ScM – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Very good, well MacKenzie, I think we can adjourn this 50<sup>th</sup> meeting of the Health IT Policy Committee.

**MacKenzie Robertson – Federal Advisory Committee Act Program Lead – Office of the National Coordinator**

We are technically over the hill, going down the other side at this point. All right, thank you everybody, the meeting is adjourned.