



## HIT Policy Committee Final Transcript December 9, 2014

### Presentation

#### Operator

Thank you, the lines are now bridged.

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

Thank you. Good afternoon everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is the meeting of the Health IT Policy Committee. This is a public call and there will be time for public comment at the end of the meeting. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I will now take roll. Karen DeSalvo?

#### Karen B. DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services

Present.

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

Hi, Karen. Paul Tang?

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

Here.

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

Hi, Paul. Alicia Staley?

#### Alicia C. Staley, MBA, MSIS – Patient Advocate, Co-Chair of Tufts Medical Center Patient & Family Advisory Council

Here.

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

Hi, Alicia. Anjum Khurshid?

#### Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute

Yes, I'm here.

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

Hi, Anjum. Aury Nagy? Charles Kennedy? Chesley Richards? Christine Bechtel?

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

Hi, Michelle.

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

Hi, Christine. Chris Lehmann? David Kotz? David Lansky?

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

Here.

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

Hi, David. David Bates? Deven McGraw?

**Deven McGraw, JD, MPH, LLM – Partner – Manatt, Phelps & Phillips, LLP**

Here.

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

Hi, Deven. Devin Mann?

**Devin M. Mann, MD, MS – Assistant Professor – Boston University School of Medicine; Attending Physician – Boston Medical Center**

Here.

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

Hi, Devin. Gayle Harrell?

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

Gayle Harrell is here.

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

Hi, Gayle.

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

Hey.

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

Kim Schofield? Terry Cullen for Madhu Agarwal?

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

I'm here.

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

Hi, Terry. Marc Probst?

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

Here.

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

Hi, Marc. Neal Patterson?

**Neal Patterson, MBA – Chairman of the Board and Chief Executive Officer – Cerner Corporation**

Here.

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

Hi, Neal. Patrick Conway? Paul Egerman? Scott Gottlieb? Thomas Greig? And Troy Seagondollar?

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Here.

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

Hi, Troy.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Hello.

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

Just a reminder to folks, please mute your line if you are not speaking; we are getting some background, I know we're doing roll, so that's a little bit different. But with that, I'm going to turn it over to Karen for a few opening remarks.

**Karen B. DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

Thank you Michelle and good afternoon to some folks, good morning to others. Thank you all for making time today. Looking forward to hearing your feedback and early thoughts about the Federal IT Strategic Plan that we put out yesterday. Beth is going to walk through it, I just wanted to...wearing my hat as the National Coordinator, make just a general statement of thanks to the staff and the team in his office and across ONC, I want to thank the rest of our partners in the federal government who have spent a lot of time working on getting ourselves to align around thinking through what success looks like and how we could get there together and have that success, put the patient through the person, right at the center.

We are looking forward to hearing from the FACAs about this work, as well as from others who may want to weigh in separately. And I want to just remind everyone that this is the where we want to go, the how to go there piece. Which is, in many ways, what's going to show up in the Interoperability Roadmap in a few weeks is going to be yet another conversation and get increasingly focused on the interoperability piece of this. But the notion that we want to start sharing data is of course at top of everyone's mind is how do we get to meaningful interoperability? But there still parts of the care continuum and the health continuum beyond that where we need to address issues around collection and then there are so many important opportunities for use case, even today. But you'll see some of this reflected in what Beth's going to raise up.

So just to wear my hat as National Coordinator, I wanted to make those general comments and make sure that everybody was understanding some context and then maybe just take a minute to wish everybody Happy Holidays, in case I don't get to you a little bit later. So with that, I'll turn it over to you, Paul, to sort of walk through what we're doing today.

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

Thanks, Karen. So, just go through the agenda very briefly and I'll introduce each section with what our expeditions are for the group as we go into each section. So we'll start out with the data updates from CMS and ONC, move on to the Federal Health IT Strategic Plan that Karen introduced that was published yesterday.

And continue on into hearing a briefing about the IOM report on social determinants and what should be included, according to their recommendations, in EHRs so we have a better understanding of the populations that we all serve. And conclude with the Interoperability Roadmap draft recommendations that are going to be submitted as ONC prepares their final recommendations throughout the month of January, and that will require a vote.

And then as we always do, we conclude with public comment where members of the public either now or in the future can submit their comments. I'll turn to the minutes that you had distributed earlier and entertain a motion to approve those minutes.

**Deven McGraw, JD, MPH, LLM – Partner – Manatt, Phelps & Phillips, LLP**

So moved. It's Deven.

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

Thank you, Deven. Second?

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Second. This is Troy Seagondollar.

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

Thank you. And any further comments or additions or edits? If not, all in favor?

## **Multiple speakers**

Aye.

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

And any opposed or abstain? Thank you, so we get those details out-of-the-way and move right into data updates. And Beth Myers and Dawn Heisey-Grove are going to be talking, giving us an update on the information as it keeps flowing in every month. Beth?

### **Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

Thank you, Paul. If we can go to the next slide, please. We have updates for you on the registration and payment data. We'll also do a quick update on the total numbers for 2014, I'm sure that's what everyone wants to see. So we'll go through this pretty quickly because I know it's a packed agenda with covering the Health IT Strategy. Next slide, please.

So just a quick update on overall active registrations. When we say...again, just a reminder, when we say through October, it is through the end of the month of October. Total registrations in the system, we have 505,641; that does include 335,000 eligible professionals for Medicare, 165,000 Medicaid and just under 5000 eligible hospitals. Next slide, please.

So total payments that have been made in the Medicare Incentive Program were hovering just under 17 billion dollars for the program to date. I did want to point out the numbers on the October payments for 2014 do include totals for the year, so you'll see those numbers there that are showing that that is the number of providers who have been paid so far for their 2014 attestations, and that is through the mid-October payment date. Next slide, please.

The Medicare payments through October 2014 by stage; we did this breakout last time, I wanted to be sure to give it to...the breakout here again to show that providers are, in fact, attesting to Stage 2 and being paid for their attestations. So far, we're at 3819 payments that have been made based on Stage 2 performance. Next slide, please.

Medicaid program totals; again, the thing that I like to highlight on this one that shows our progress towards our ultimate goal is under that, I do apologize for the size of this text, it's coming up smaller than I anticipated. The MU Program to date, if you look at the blue bar going across the middle, you'll see that we're just about at 65,000 Medicaid eligible professionals who have attested successfully to Meaningful Use. Next slide, please. Can we go to the next slide? Thank you.

This is the total number of unique providers who have been paid in EHR incentive program payments, either for Medicare or Medicaid. We are at just under 420,000 unique providers paid throughout the program. You'll see the numbers include the 2014 payment year, as mentioned. These numbers are higher than the others because this goes through for those who are locked for payments, so some of those payments have not yet been issued, but are in progress. Next slide, please.

And this is the total amount of, oops, sorry, back one. Thank you. Total amount of payments that have been made through the October payment date and we are hovering at just under \$26 billion for the program in total. Next slide. And we can go on to the next one as well.

So I left the November numbers in here to show the difference between the two, I thought that might be a little bit easier for everyone for reference. As you can see through November 1, we had just under 44,000 eligible professionals who have attested for 2014 and we were at just under 2000 eligible hospitals who had successfully attested for 2014. As you all know, we've been tracking these numbers very closely, given all of the progress this year and the delays in the availability of 2014 edition CEHRTs, so we've been keeping a close eye on them. As you all are probably also aware, we did extend the eligible hospital deadline for attestations through the end of December. If we can go to the next slide.

So we've seen a significant increase in attestations that have come in over the course of the month. For EPs, you can see we've had 60,000 eligible professionals who successfully attested for 2014. Again, EPs have until the end of February to put in their attestations for their 2014 EHR reporting period. And you can see that we've had nearly 37,000 eligible hospitals who have successfully attested for 2014 to date. We are expecting more to come in by the end of the year, given that extended attestation period and we are encouraging those hospitals to come and attest and reaching out to them and providing them guidance on how to come in and use the system.

I also want to highlight that we are up to 1700 eligible hospitals who have attested to Stage 2. A reminder that eligible hospitals do not...who may have been scheduled to participate in Stage 2 this year may not have chosen to do so based on their availability of their 2014 edition CEHRT functions that are required to support Stage 2. But we are encouraged to see those numbers, we're beginning to get some good data on Stage 2 and look forward to presenting that at one of the next HIT Policy Committee meetings. Next slide.

And that is all I have so I will pass it off to Dawn at ONC and then we can do questions.

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

Hey, Dawn, you in the...go ahead.

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

This is Michelle. Dawn was just on the agenda to provide context need be, so I don't think we need to turn it over to Dawn, we can just open up to questions.

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

Okay.

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

Okay. Any...thank you, Beth and any questions for best?

**Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care**

I'm here to...for individual physicians to submit data directly to Medicare for the EMR registration as well as billing information?

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

So let me just ask if people would do a couple of things; announce their name before they speak and also if you wouldn't mind using the hands up that should be somewhere, yeah, in the upper left, then I can see people with their hands and call on people. Thanks go ahead.

**Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care**

Ah, sure, this is Dr. Aury Nagy. I was asking a question about Medicare submission of claims and I wanted to know if there was a way to obtain software that allows us to directly submit our claims to Medicare rather than going through a clearinghouse?

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

So that is an interesting question and it does not relate to the EHR Incentive Program, so I'm not certain that I am the right person to answer it. I believe that some of those concepts are under development; I can suggest talking to someone at CM and pass that information on to them. Also I know that ONC is looking at all sorts of different long-term concepts for how we can integrate different versions of health IT. So, they may have a comment, but it's unrelated to the EHR Incentive Program, so I don't have an answer.

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

Troy next, please.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Thank you, Paul. I'm always perplexed with the eligible provider definition and what I'm wondering is, how are you using that term in context of the overall aspect of this? And what I mean by that is, of providers that accept Medicare or Medicaid patients, what is that total in relation to those who have actually registered and received reimbursement in a percentage? I don't know if you have that data available.

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

So, I...we have some of that data, but the short answer is that the definition of an eligible professional in terms of an individual professional, not talking about hospitals at this point,...

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Um hmm.

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Center for Medicare & Medicaid Services**

...is defined by the HITECH Act actually. So there are certain types of physicians and chiropractors and others and I there are actually...it ends up being 22 subcategories but it's five broad categories, which of course I can't remember off the top of my head but I can absolutely follow up and distribute that information. They're defined in the HITECH Act and at that point we take that information and we query our system to identify the providers that are eligible...potentially eligible for the program. There are some nuances to how that query is done and we'll be probably expanding more on that as we go forward to talk about where we get, because beginning in 2017 we actually have to look at the overall percentage of participation versus that universe to help determine payment adjustments.

So we do look at the total number of claims submitted, because if you're not submitting claims, you're not eligible and a number of other factors need determining. So when a provider actually registers in the registration and attestation system, it identifies automatically by pinging these other systems on the backend, whether they are in fact meeting the definition of eligible professional. And we can get more of that data going forward, I can probably expect to see more of that overall concept of the percentage in the overall universe over the next few months.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Okay and I appreciate that and I suppose I should have prefaced this with what I'm curious about is, do we have any data on those eligible professionals who potentially have opted out, that's what I'm curious about. Because it sounds like the data is showing eligible professionals who have registered and have received payments or have not received payments. But I'm wondering about the ones that have opted out.

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

Sure. So, there isn't actually a formal method of opting out of the program. The way that EHR Incentive Program works is that the HITECH Act determines that we were to require all providers to participate in the program and meaningfully use EHRs by certain dates with certain milestones. And by all providers, again they gave us this sort of definition of what they refer to as these certain specialty types and that they have to have certain number of claims and for example for Medicaid, they have to meet a certain patient volume threshold of Medicaid patients.

So, providers don't opt out so much as they elect to participate. And there may be providers who do not elect to participate. As we work through the payment adjustment process, which we're currently in, those providers will be more clearly identified because if a provider does not choose to participate, they may be subject to a payment adjustment to their Medicare claims.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

That's exactly what I was, the terms are a little different, but that's exactly what I was hoping to hear. So we'll have that data later, is that correct?

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

So we recently are still actually working through the hardship exceptions for payment adjustments. There are certain categories that were also defined in the HITECH Act that allow providers to apply for a hardship exception for a number of different things like unforeseen circumstances such as a natural disaster, we have a category that covers the industrywide gap in the availability of certified EHR Technology for this year, for the upgrade. We have...if you don't have broadband access as defined by the FTC for your service area; so there are certain reasons for which a provider can apply for a hardship exception from the payment adjustment that are identified by the HITECH Act and then further defined by our regulations as legitimate reasons for not participating in the program based on these ideas. I mean, there are actually a couple additional ones like brand-new providers who have only just started practicing and specialties that do not have face-to-face interactions with their patients.

So we're still...we reopened that hardship exception period to the end of November. So it's just been a little over a week. So we're processing all of those now and at the end of that process and once we've notified providers of their status, we'll have more data on that for everyone.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Okay. And just one last question, I don't want to take up the whole time here, Paul, but for those, do we have any data on those that participated in Stage 1 and for some reason or another, are not participating or have not registered for Stage 2?

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

So, it doesn't quite work that way. Once you register, you're registered, you don't have to come in and reregister every year. So you come back in and attest to your meaningful use, the data generated from your EHR to demonstrate Meaningful Use each year. Based on your performance and based on your timing, you could be in Stage 1 or Stage 2. This year, because of the flexibility that we put in place for 2014, there is a little bit of flexibility around that, so there are providers who may have previously been scheduled to do Stage 2 this year, but because of their software availability or certain functionalities that weren't working properly, they have been allowed to, for this year, attest to Stage 1.

So, until the end of February, we won't actually have when those EPs finish their attestations and finish submitting their data, we won't know who has done what because that's the point at which they tell us what they've done. So they don't have to come in each year and reregister but we do track that progress as it's going along.

**Troy Seagondollar, RN-BC, MSN, UNAC/UHCP – Regional Technology Nursing Liaison – Informatics Nurse – Kaiser Permanente**

Thank you.

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

All right, thank you. I don't think there are any other questions. All right, well thanks very much, Beth.

**Elisabeth Myers, MBA – Office of E-Health Standards and Services – Centers for Medicare & Medicaid Services**

Thank you.

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

All right, so we'll move onto the Federal HIT Strategic Plan that was published yesterday. The ask of the committee, and we are going to have a formal response to it, the Strategy and Innovation Work group is gear...and Consumer Workgroup is gearing up to provide comments that will be reviewed by this full committee. Some of the key questions are one; does the plan address the broad vision for improving health, remembering that we're neither limited by EHRs nor by healthcare itself, but really how do we improve the health of individuals in the country? So does that plan get us from here to there or show the vision for that? What gaps might you have, might you see, in executing that plan, that federal action could help us along with? And what's better addressed, well that sort of uniform action could address, what's better addressed by the federal government versus the private sector?

So these are the kinds of things to keep in mind as you hear this high level presentation. And as I say, the full plan is on the web, easy to find. Two additional members from the HIT Standards Committee will be asked to join the Strategy and Innovation Workgroup as they prepare their response to this plan. So we have Seth Pazinski and Gretchen Wyatt from ONC that are going to present the overview. Seth?

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis - Office of the National Coordinator for Health Information Technology**

Thanks, Paul. So just jumping into the slides, the first thing I wanted to do is just acknowledge and thank the federal partners who contributed, as Karen said in the beginning. There are over 35 federal entities that contributed to developing this draft plan and I will say if we accomplish nothing else, it's 51 pages shorter than our previous plan; so hopefully a little bit easier to get through than our past plans. We want to go onto the next slide?

So, why does ONC publish the Federal Health IT Strategic Plan? It was one of the requirements under the duties of the National Coordinator in the HITECH Act that ONC periodically update and refresh and publish a Federal Health IT Strategic Plan. Our last plan was put out in 2011 and covered the timeframe of 2011 to 2015. And certainly a lot has happened since then, over 90% of eligible hospitals and over 75% of EPs participating in the first round of the Meaningful Use Incentive Program.

As far as the process goes and what's stipulated in the statute, the plan has to be updated in a collaborative fashion both with the federal partners as well as with the private sector. So the draft that was shared with you all yesterday really is about...represents that federal engagement process, so has not had the benefit of your feedback through this council or this committee as well as through the benefit of public comment. So now we're kind of transitioning from a federal conversation to broadening it with you all.

So your recommended feedback will help. Paul alluded to some of the key questions and I think it will really help us shift strategic direction if needed, certainly refine clarity around priorities as well as help frame what's important for the federal government to do versus what is best left to the private sector and identify any gaps that currently exist in this draft.

I just want to touch on scope for a minute. So this is a federal plan, so two key points there, not just to ONC but broadly, the federal government's role with regards to health IT. And also while the plan acknowledges that these goals...we can't accomplish these goals without efforts from states and the private sector, it is a federal focus, so it's really focused on what the federal government plans to do related to these goals. We can go to the next slide.

So, three key sources of input that will happen throughout the process of updating the plan. The first was accomplished through a Federal Health IT Advisory Council. This is a Council that ONC established in May of 2014. That was internal federal body for coordinating federal health IT policy and a forum for discussion of program alignment. And the first charge to that group was to update and develop this draft plan. And the second phase, which we're transitioning into now, is to work with our Federal Advisory Committees to get feedback and further develop the plan. And then finally, to also open it up for public comment, which is available through February 6. And preceding the development of the plan, we also looked at many other plans and roadmaps and reports that have been put out to reflect all of the thinking that has already happened in this space. Things like National Quality Strategy, the Interoperability Vision Paper that ONC released and other reports. We can go to the next slide?

So this slide is just a snapshot of all of the federal entities that participated in developing the Strategic Plan and were members of the Federal Health IT Advisory Council. So this, I think the point to highlight here is that the plan has a broad perspective and the different roles of all the federal entities there includes purchasers, regulators, users of health IT, also agencies that set health IT policy as well as ensure and pay for care and provide direct patient care. Also federal agencies that focus on protecting and promoting community health, funding Health and Human Services, investing in infrastructure and advancing and supporting research. And while many of the federal partners listed on that slide have been longstanding partners of ONC, there are some newer entities that have been engaged in a broader process as well. We can go to the next slide?

So at a very high level, just to reflect the kind of key direction that the plan is aiming to convey. So, one is a move and a focus on health in addition to healthcare. Also, focus on a broader set of health technologies beyond EHRs. And then finally, how do we broadly use the federal levers available including, but expanding on the Meaningful Use levers? Next slide.

So this represents the general structure of the plan. So the plan is about collecting, sharing and using electronic health information. And I would say that the plan represents many priorities that were reflected by federal agencies, but there was a coming together around interoperability as the top focus and priority as we move forward with the implementation of the Federal Health IT Strategic plan.

So collect part is about expanding adoption of health IT and that goal, just to...I'll highlight a couple of specific points with each of the goals, is really about continuing the progress related to meaningful use but also broadening the focus of providers so including ineligible providers from the incentive payments such as behavioral health and long-term care. And then also a broader technology focus, so not just looking at EHRs, but also focusing on telehealth and other mobile devices, which is a priority for a number of federal partners .

The share component is about advancing secure and interoperable health information. The structure of this is very similar to what ONC reflected in the Interoperability Vision Paper, so it incorporates those key building blocks related to standards, certification, governance, what are the different business and regulatory drivers as well as privacy and security?

And then the...so that's kind of the foundation. And the last three goals are really about the four what's. So what's the use of that information and what's the purpose? So goal three is about strengthening the health care system so that incorporates components of delivery system reform and improving access and quality of care. It also starts to take a broader look at population health, so how are we incorporating home and community-based services and support and having that integrated more with the healthcare system? And I look forward to the agenda topic after this around the IOM and their report on social determinants of healthcare I'm sure we will inform that particular goal as well.

So the fourth goal is about individual and community health. So this is about providing access to health information for individuals, also as well as giving them the capability of generating data and sharing that with their electronic health records, as well as advancing assistive technologies like sensors and things like that through federal programs. And then finally, it includes public health as well.

So the final goal is about research and the focus here being on a couple key components of providing usable, open federal data sets while ensuring privacy of the information, patient-centered outcome research as well as advancing technology and distributed analytics. And finally, studying how best health IT can be used to impact health outcomes. We can go to the next slide.

So this slide just shares the vision and mission that's incorporated in the Federal Health IT Strategic Plan. So again, a broad vision about Health IT being available and accessible when and where it's needed with a mission consistent with the three part aim of improving health, healthcare and reducing healthcare costs. Next slide.

So these are some overarching principles that are reflected in the plan. The intent of these is to really guide the federal government as it makes decisions and set policies in implementation of the strategic plan. We can go to the next slide.

So folks get an opportunity to take a closer look at the plan, you'll...sorry about the feedback here, but you'll notice that there are outcomes, both 3-year and 6-year outcomes specified under each of the objectives in the plan. And the intent there was really one, to identify what the key priorities were to achieve around the different objectives, but also to begin the conversation of identifying what the particular federal agencies roles were related to improving those outcomes. So this will be, as folks take a look at those outcomes, this is what we would anticipate being the foundation of our next step as we start to look at, what are the specific contributions that the different federal agencies are going to make related to the health IT plan? Can we go to the next slide?

So in addition to engaging and continuing to develop a plan through the public comment phase and also discussion with the committee, we'll also start, as I just indicated, to start looking at the implementation of the plan and trying to get a better understanding of specific agency contributions in each of the areas of the plan. Next slide.

This slide just reiterates the questions that Paul highlighted at the beginning of the presentation. So, what are some particular things that we'd like the Policy Committee to focus on as it deliberates and discusses draft plans? And then finally, if we go to the last slide.

So this is just some next steps. The plan was released yesterday; it's open for a 60-day public comment period ending on February 5, actually February 6. And then the HIT Policy Committee Strategy and Innovation Workgroup will be holding a series of workgroup calls and then circling back to provide recommendations around feedback at the February HIT Policy Committee meeting.

And then finally, I'd like to at this point open it up for any discussion, if folks have perspectives they'd like to share, questions. I'd also ask for the committee members to think about if there are any suggestions for areas where the work group should dive deep; obviously there are a broad range of topics in the plan, we'd love to get that feedback as well.

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

Okay, thanks very much, Seth.

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis – Office of the National Coordinator for Health Information Technology**

And Paul, just, I guess, before we go into the questions, just a reminder again on the scope of the plan, just so that was clear that it is a federal plan, so it's focused on the federal activities.

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

That's a good reminder, right. It's a federal plan that...for which they're soliciting public input, both through the FACAs and the public. So let's see, we have a number of folks with their hands raised. Anjum?

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

Yes, thank you. Thank you for the presentation, it's good to see the plan coming together and appreciate the fact that communities have been highlighted as one of the three players besides providers and individuals. So my question was related to patient reported data and patient generated data from devices. Does that come under the collection piece of this or is it included more in the interoperability issues or would that be considered as an important piece that federal organizations will be helping with?

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis – Office of the National Coordinator for Health Information Technology**

So as far as the ability for person generated health information, the primary area of focus on that is under objective 4 A, which is under the kind of individual and community health goals. But it does have implications for interoperability as well.

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

Good, thanks. Terry, please?

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

Well, my comment is just an accolade. I am a federal member so it's on...plate for me. It's really for the work that Seth did and ONC did, bringing us all together and I just want to publicly acknowledge the amount of time and effort that a vast majority of federal agencies contributed to this under the leadership of ONC, which did an amazing job. I was involved in the first strategic plan and it was just a great opportunity to do that again.

I would also like to encourage the public to comment on this plan. So while it is a federal plan and since I work for VA now, VA's name is throughout the plan with lots of responsibility, I think having the public help us refine and ensure that we're on the right track would be very helpful. So this is really just thanks.

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

And I'll contribute a thanks from the private sector. I thought this was an excellent plan, covers all the high level goals and has very rational and pretty defined strategies that underpin each goal. So thank you, from the private sector. David Lansky is next, please.

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

Thanks, Paul. I'll echo Terry's appreciation for the work that you and the team did and the other agencies did working with you. And as you know, our committee is eager to dive into this. I just, excuse me, had two questions.

One, at the very end Seth, you mentioned the development of outcome metrics as another task. I was hoping you'd just clarify a little bit the way the outcome goals are stated in the draft plan, which are not quantified for the most part and how you see the transition going, what the process is of how you would like us to be helpful in the process of going from the general outcome objectives that are stated in the plan to a set of more measurable metrics that would be used? That's one question.

The second is whether there was any explicit callout in the group as you developed it that I didn't see in the plan, for defining what is the discrete federal role versus what you believe is the discrete role private role or state role or others? Thanks.

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis – Office of the National Coordinator for Health Information Technology**

Thanks, David. So to the first question, the next step as far as the engaging the federal partners will be to develop specific milestones and metrics related to the outcomes. So, I think that, and what would be helpful to hear from the committee as far as feedback is, one to get a sense of there are a number of outcomes here, but what are the priorities amongst those? So to help us understand what you all see as a top priorities for us to focus on and I think that will also impact the committees too as we look at what the work plan for the committees will be over the coming year. So how to take this plan and transition into a set of priorities and focus work over the next year.

And then at a high level, I think that within each outcome there's a mixture of milestones and metrics so there will be steps to try to achieve those. But I think what would be more helpful from the committee is also at a higher level, as we look at the goals overall, what would be some considerations as far as areas to focus on as we look to track performance against the plan?

**Karen B. DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services**

David, I wanted to just add...this is Karen DeSalvo...I wanted to add that to your point about what is the national agenda? It would be helpful if the committee were thinking about where...this is the federal government set of priorities and work, which relates sometimes internally but also to how we want to work with the marketplace. But there are things in particular that come up for the committee that look like there might be shared opportunities or places where the private sector would be helpful to lead, it would be useful to see that.

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

Thank you.

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

Thank you. Any other comments? I don't see any other hands raised. I think we're all just in awe of the beautiful job that was done here.

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis – Office of the National Coordinator for Health Information Technology**

Or it just came out yesterday so no one has had chance to look at it yet.

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

Well, yeah, that's true, but really it was very comprehensive and really pretty precise in terms of some of these strategies. It will be good meat for the Strategy and Innovation Workgroup to take a look at in more detail and get back with you some specific comments and feedback. But really it was very comprehensive and very forward-looking, I think, talking from the health versus healthcare and looking at all of the federal levers and the way the federal government can work with the private sector together to just change the way we look at health and healthcare in this country. So really, it was very, very forward-looking. Give one more ask for any other comments or questions. If not, we will be hearing from the group, from the workgroup in feedback and give you formal feedback soon. Thanks a lot, Seth.

**Seth Pazinski, MS – Director, Office of Planning, Evaluation, and Analysis – Office of the National Coordinator for Health Information Technology**

Thank you.

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

Okay, so we are ahead of schedule, which is totally fine. Next are Bill and George available?

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**  
George here.

**William W. Stead, MD, FACP – Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Bill here.

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

Wonderful, thank you. Glad you're here because we're so far ahead of schedule. So the Institute of Medicine was asked to look at, we're again back on the topic of not only healthcare but health and the health of communities and populations. It's said that healthcare represents maybe only a 10% influence on overall important outcomes, another chunk, potentially even more than what we have for healthcare is affected by social determinants.

So The Institute of Medicine was asked to look at that and even make recommendations feeding into Stage 3 Meaningful Use about what things should we be looking at in terms of social determinants that particularly that are represented in standard form so they can be incorporated to electronic health record systems and HIT so that we can use them in co-managing with...their health and also with communities. So Bill was the Chair of that committee and George Hripcsak, a member of the HIT policy community workgroups was a member of that committee and they are going to present the results and recommendations of that. Go-ahead, Bill?

**William W. Stead, MD, FACP – Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Thank you, Paul. And I'm going to take the point on the presentation with George chiming in to add color commentary along the way and help with questions towards the end if that's okay with the committee.

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

Sounds wonderful, thanks.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Okay, well if you'll advance the slide. Paul described at high level our charge and we had an outstanding committee of 13 members and one fellow. The members spanned public health, informatics, social and behavioral science and clinical practice and had expertise ranging from pediatrics to gerontology. Our charge at high level was stated on this slide is to identify the domains for consideration for Stage 3 Meaningful Use, to determine the criteria that should be used to select or prioritize the domains. Based on that, to identify domains and measures that should be included in all EHRs and that was a key piece of the deliberation. And to then consider the implications for incorporating the measures in all and to identify the issues related to linking to other systems. Next slide.

Because of the timing, we released the re...did the work and released the report in two phases. The first came out in April, to provide early guidance and then the second was released last month. We folded the two together in a single report, so if you're looking at it for the first time, you only need to look at the second report; it is comprehensive. Next slide.

We started by using published conceptual frameworks and in the end focused on three, one by Ansari, et al., one by Kaplan et al. and the other by the MacArthur Research Network on socioeconomic factors. And we used that to really scan for the range of determinants and how they linked to either disease onset or progression. We identified five levels listed on this slide, socio-demographic, psychological, behavioral, social relationships and living conditions and social and physical environment. And then within those five levels, we identified 31 domains for consideration. Next slide.

We used two criteria to identify candidate domains, one was the strength of the evidence of the association of the domain with health and the second was usefulness of the domain...next slide, as measured for three areas. The first being improving health of the individual patient, including decision-making between clinician and patient for disease management and treatment. Second, describing and monitoring population health to inform policy and intervention. And third is the value of conducting clinical and population health research in order to accelerate discoveries regarding causes of health and outcomes of treatment and intervention at multiple levels. Next slide.

Based on these criteria and within the five levels, we then narrowed from the original 31 domains to 17 candidate domains which we identified as being the best suited for possible inclusion in all EHRs. So that and the criteria was the information that we released back in April. Next slide.

As we began to identify the measures and to focus on domains that should be included in all EHRs, we applied the four additional criteria, because the domains and therefore their measures had already passed the test of association with health and usefulness. The four additional criteria were first, the standard representation of a reliable and valid measure that was freely available; in other words did not have any intellectual property issues. Second, the feasibility considering the burden placed on the patient, the clinical team or the health system. Third, the sensitivity or patient discomfort regarding revealing personal information or increased legal or privacy risks. And finally, was the accessibility of the data from another source because information that was accessible from other sources would be a lower priority for inclusion in electronic health records. Next slide.

This slide summarizes the methods, steps and results of the committee process. And so from the 31 validated to domains, we got the 17 candidate domains and then finally we compared the available measures for those candidate domains according to the four criteria to construct a concise complementary panel with 12 measures of 11 domains. Next slide.

This slide shows how the committee compared measures along two dimensions to select the parsimonious panel. On the Y axis, you have readiness, by which we meant the minimum of the committee's rating on availability of a freely available standard measure, feasibility and lack of discomfort. We used minimum rather than average, because a low rating on any of the three increased the obstacles to implementation. The X axis is usefulness and the committee rating of usefulness of including the information resulting from the measure in all EHRs focused our attention at this point in the process on utility in the clinical setting.

The symbols that are in front of each measure represent the committee's overall judgment of the priority of including the measure in the EHR; so the blue triangles meant that it had the highest priority in our overall judgment. The green pentagons, medium, and the gray diamonds were our lowest overall priority judgment. The parentheses that have a number and a "Q" after the measure is the number of questions that are in the measure and Chapter 4 of the report lists all of the recommended questions for all of these measures that we recommend; the actual questions.

The bolded items are currently routinely collected in the EHR. After considerable deliberation, the committee decided to include all of the measures in the right column in the recommended panel. What this means is that we weighted usefulness over readiness. It did not mean that the other measures that were not selected are not important; however, development is needed for those measures to be incorporated in the EHRs and research is needed in terms of the appropriate clinical interventions. Next slide.

This table summarizes the domains, the number of questions in each measure and the frequency of screening that the committee suggests for each measure because some of these can be...only need to be done at entry if we've got interoperability. Others need to be done as a periodic screen with appropriate follow-up. The shaded domains, alcohol use, race and ethnicity, residential address and tobacco use are ones that are already routinely collected. We sought the briefest possible validated measure for all of the domains, most are two questions. Many of them will not need to be assessed repeatedly, which addresses some of the concern about burden. And taken together, the measures provide a concise and coherent overview; if you will a psychosocial vital sign for the patient. Next slide. So our first finding was that four of the social and behavioral domains of health that are already frequently collected in clinical settings, the value of the information would be increased if standard measures or specific questions are used in capturing the data. Next slide. Therefore, the committee recommends that ONC and CMS should include in the certification and meaningful use regulations the standard measures recommended by the committee for these four social and behavioral domains that are already regularly collected; race/ethnicity, tobacco use, alcohol use and residential address. Next slide.

Our second finding, the addition of selected social and behavioral domains together with the four that are already routinely collected constitute a coherent panel that will provide valuable information on which to base problem identification, clinical diagnosis, treatment outcomes assessment and population health management. Next slide.

So our second recommendation follows from this finding that ONC and CMS should include in the certification and meaningful use regulations, the addition of standard measures recommended by the committee for eight social and behavioral domains; educational attainment, financial resource strain, stress, depression, physical activity, social isolation, intimate partner violence for women of reproductive age, and neighborhood median household income. Next slide.

So in sum, the committee believes that including the recommended measures in EHRs will enable...click, next slide...more effective treatment for individual patients, for example, identifying depression and inadequate physical activity can improve treatment for patients with diabetes. Next, more effective population management for healthcare systems and public health agencies for example, a health system which finds high rates of socially isolated patients could provide group visits or patient supports.

Next. And enhanced opportunities for research that can inform new treatments and interventions to improve individual and population health, such as adding social and behavioral data to the clinical and genetic data that are currently available for research. Next slide.

The implementation issues include modifications to the technologies; however, the more challenging issues relate to the expanded view of the determinants of health and adaptation in the way clinical teams work and how patients participate in their own care and wellness. Next.

Most of the recommended measures rely on self-reported data which can be collected directly from the patient on paper or via computer. Practices or health systems though will need to consider workflow design, when to capture the data, how to review it with the patient and how to intervene. Next.

The data can be shared to reduce data capture burdens, but transparency about information sharing, who it's being shared with and why, will be critical. Next. Linking to community agencies and public health can ensure concerted intervention for individual patients but may require a two-way consent process. Next.

While additional time is needed to collect such data and act on it, the committee concluded that the health benefits of addressing these determinants outweighed the added burden to providers, patients and health systems. Next.

This led to our third finding, which is standardized data collection and measurement are critical to facilitate use and exchange of information on social and behavioral determinants of health. Most of these data elements are experienced by an individual and are thus best collected by self-report. Currently EHR vendors and product developers lack harmonized standards to capture such domains and measures. Next slide.

Accordingly, we recommend that ONC's electronic health record certification process should be expanded to include appraisal of a vendor or products ability to acquire, store, transmit and download self-reported data germane to the social and behavioral determinants of health. Next slide.

Our fourth finding, the addition of social and behavioral data to EHRs will enable novel research. The impact of this research is likely to be greater if guided by federal prioritization activities. Next slide. Thus the committee recommends that the Office of the Director of the NIH should develop a plan for advancing research using social and behavioral determinants of health collected in electronic health records. The Office of Behavioral and Social Science Research should coordinate this plan ensuring input from across the many NIH institutes and centers. Next slide.

Our last finding is that advances in research in the coming years will likely provide new evidence of the usefulness and feasibility of collecting social and behavioral data beyond that which is now collected or which is recommended for addition by this committee. In addition, discoveries of intervention and treatments that address the social and behavioral determinants and their impact on health, may point to the need for adding new domains and measures. There is no current process for making such judgment. Next slide.

So our fifth and final recommendation is that the Secretary of HHS should convene a task force within the next three years and as needed thereafter, to review advances in the measurement of social and behavioral determinants of health and to make recommendations for new standards and data elements for inclusion in electronic health records. Task force members should include representatives from ONC, CMS, AHRQ, PCORI, NIH and research experts in the social and behavioral sciences. Next slide.

This study was unusual in that nine sponsors came together to fund it including agencies across the federal government and private foundations. And we think that unique partnership shows the interest or readiness for including these types of measures in electronic health records. Next slide.

The full report is freely available as a PDF on the IOM website at the domain on this slide. And so George and I will be glad to take any questions.

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

Thank you, Bill. As people on this committee recognize, social determinants is extraordinarily important in the health of individuals and communities, so this is really an important report and important recommendations. I do have an opening question and it has to do with changes in...so, there's a clear rationale for selecting validated measures when choosing a measure and its definition of the data element. What happens as either the society or culture or science changes over time? A couple things come to mind.

So the smoking...the public health smoking definition actually is 100 cigarettes in your lifetime and that may probably surprise a lot of clinicians in terms of whether to characterize someone as a smoker or not using that criteria and I would guess it challenges, how do we assess the risk to this individual when you look at the definition of a smoker being 100 cigarettes in a lifetime versus what we're more used to thinking in terms of sort of the dose response, in terms of causing harmful effects on respiratory function or cancer?

And the other question that comes to mind has to do with social isolation and they're four questions selected, understandably because they're validated, but one of the questions is, how many times you talk on the telephone? And so the point here is, as society changes and our mode of communication, I mean, people don't even own land lines anymore and texting or messaging etcetera, an e-mail becomes a way of interacting and socially interacting, how do you propose adjusting these new vital signs to account for changes that happen in society? And I don't know that...you don't have the answer but was that a discussion point and how did the committee reconcile those?

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Well, let me take a swing at that and then George will probably want to add on. Two answers; first, you'll find in the report that the committee discussed and used the concept of a common metric, which is something that is part of, for example the PROMIS measures. And the idea is that certain of these domains and physical activity is one where it's true, do in fact have a common metric. So that metabolic equivalent task minutes or mets is the common metric for physical activity. The validated questions can in fact be converted into a score on that scale. And other measures that are emerging, such as accelerometers or Fitbits, etcetera, can be matched against the scale. So where a common metric has been developed, it provides a way for, if you will, interoperability as the measures themselves change over time.

In the case of smoking, it's probably actually...see if the person handling the slides could advance the slide, I believe it's 29 in this deck that has the...okay, yes, thank you...that has the recommended two questions, one of which is the less than 100 cigarettes mentioned by Paul and the other is...and to the first one, you answer it yes, no, refused or don't know. The other is, do you now smoke every day and the answers are every day, some days or not at all.

Those standard questions can be easily converted to the SNOMED codes that is the code set used in Stage 2. If somebody is yes, they've been over 100 and now are every day, and then it maps to a current every day smoker. If somebody is yes to greater than 100, but refused or do not know to now, then it's smoker, current status unknown and so forth. So that's again a way that's an example of how you can adapt. But let me ask George to clarify it or expand on that.

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

I would...thank you, Bill; I would just...and thank you for the presentation, Bill. I would just say that there's a balance between going to quickly and not quickly enough. If we change too quickly, then we can't gather an evidence base and we won't know where we're headed. And if we don't gather quickly enough, we become irrelevant. But our last recommendation is to reconvene the task force within the next three years, it could be sooner, to review advances in measurement so that is why we have our final recommendation.

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

Thank you. David Lansky?

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

Thank you, Paul and thank you Bill and George for doing this work. I had three pretty short questions. One is very short which is, the definition of readiness in the grid you showed earlier, Bill...speak to how readiness was construed.

My second question is...draws on that last one. I notice in the right-hand column you had the PAM, the Patient Activation Measure, pretty low both for usefulness and...reminded me that we have a project where that's a very important measure and we wish we had it clinically available in the IT infrastructure. So for a particular project pick the population, one of the things on your grid may be more important than for the general national use community that makes me think that...I wonder if you guys discussed the value of having uniform national definitions for everything on that grid, recognizing that not all of them would be encouraged for general adoption in certified EHRs.

And the third question which draws on that is architecturally it seems like this goes back to the old clipboard discussion and it would be nice rather than saying that every EHR, in every setting of care, for every type of specialist and care environment needs to collect and use all these items. It would be nice if we knew that those items existed somewhere in the cloud and a particular EHR application could draw upon them when that application meets and is appropriate for that use. So something like the PAM is one example, it may only be 5% or 10% of situations or providers who...that a highly valuable piece of data and rather than certifying every EHR for every type of practitioner to have to capture and utilize that item, knowing that an EHR could access that from a cloud clipboard, would be helpful. And the application could know that and do it if it uses that data field for something somewhere. So did you guys talk about some architecture rather than assuming that every EHR should capture every one of the recommended measures?

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

I'll take a cut at it. We did discuss whether certain of these measures for example should not be collected in current settings if they're not already available. So our assumption is I guess first that if it is available then you would obtain it that way, you would not reenter it unless you had reached a frequency at which repeat questioning would be appropriate.

The second thing that we discussed at quite a lot of length was if this information was not already available, it should be collected no matter what the type of practice. It would be best collected at one of the pra...if the practice dealing with patient that had a longitudinal relationship with the patient, so ideally you would work out a way to do that and then access it. But if not, after considerable discussion, we felt that it should in fact be captured and available and used, paid attention to.

The other thing is we really thought about the measures in the recommended panel as working together to provide a concise but balanced picture of the determinants that relate to a patient. So we didn't think the panel...the concise panel should be cherry-picked. At the same time, as you say, we did think that there would be situations in which measures that were not picked should in fact...were not picked for every record, should in fact be incorporated either based on the focus of the practice or based on the patient's problems or based on a positive screen on one of the other measures. George, do you want to expand on that?

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

Sure. So you asked to formally what's readiness? So formally readiness was the minimum of three dimensions...that's there's a freely available standard, that it's feasible by the committee judgment and lack of patient discomfort, in other words, sensitivity/privacy issues. That was on a one to three scale and it was people's opinions after we've reviewed all the evidence. So that was how the readiness was decided.

There is, as Bill said, the PAL is complementary and a coherent, concise, vital sign, but there's a section in the report that pretty much says David, what you just said, which is, but the other measures are valuable and in subsets, sometimes large subsets, these other measures are important. And our report contains what we considered. So those could be considered other measures worthwhile of consider...so the public can read the report and see what the things we considered for each of those other measures.

We've considered the poss...we're looking into, Bill, what can we say about looking into whether to create a toolkit, kind of? We're looking into whether it's possible to create a toolkit first for the standard measures and then it could be expanded to other ones...to the first 12 and then it could be expanded to the other ones. So we are looking into that part.

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

And David Lansky, since you did mention PAM, I did hear the IOM committee, one of the criteria was whether it was freely available, meaning without cost. PAM, as you probably know, is proprietary and has a...

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

I believe the report says which one gave it a one. Only one of those had to give it a one, it may have been freely available or it may have been one of the other ones, I'd have to look.

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

Next is Christine please.

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

Hi, good morning or I guess good afternoon and thank you guys so much for your presentation. This was really helpful. I haven't had a chance to read through the report yet so I just wanted to ask you about something you mentioned and if you could expand on it a little bit. You talked about two things; one was the gap in connecting patients and families to community agencies and community resources, you said that may require two-way consent. Can you talk a little bit more about your findings in that space and what the gap might be? I'm thinking...I have the privilege of co-chairing the Consumer Empowerment Workgroup for the Policy Committee and there may be some interest in the workgroup in that particular area so I'm wondering if you can talk a little more about the gap and what you guys found.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Do you want to take a cut at that, George or do you want me to?

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

Yeah, I seem to remember; the discussion, I think, was that people shouldn't be surprised by what we do. So we didn't want a situation where a family gets a call from an agency saying, we're going to help you with such and such an issue or disease and them to be surprised, how did that get to you? And if it goes to the wrong person in the family, where there may be a confidentiality issue. So what you did is you went to the doctor, you filled out a form, something got checked off on that form and then there's an intervention on your family; that shouldn't be a surprise to you. I think that was the kind of understanding that was a worry that we didn't want to create a problem there.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

And I think we did have, over this course of the study, four public sessions where we obtained input. Paul testified at one and thank you Paul for that. And we heard several examples of where people had effectively intervened by identifying the problem in the practice, talking to the patient about the community resources that were available, that's part of the transparency that George just mentioned. In that process they also got their permission to transmit the information, to in essence make that referral and then included in that, the permission for the agency to send back the results of the referrals to in essence, close the loop.

So done properly, consent steps match naturally in the transparency and engaging the individual that this is the...intervention and that they want to do it. So it's less a gap than something that needs to be addressed. And so I think if the workgroup can identify sort of best practices for doing this, that would reduce barriers to people the uptake of the recommendations, that would be very helpful.

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

I think my question also is that I think there is a gap in the ability to easily connect people to community resources and the role of EHRs connected to other information systems in flagging what community resources are available to them so that you can then have a conversation about which ones they would want to be connected to before you do the connecting, which I think is where the sort of consenting process might come in. That's where I think also the interest lies with this workgroup as well. But I understand your answer and I'll look forward to reading more in the report.

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

Right Christine, I mean, we're trying to enable that, how you do that linking is beyond the scope of our committee, but we're providing what we can to enable the closing of that gap. I was talking about the other gap which is what unintended consequences you may have. But the initial gap is that we want to deliver services better and our goal is to enable that by at least collecting the data on the way in.

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

Great, yes. Thank you, George.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

The report includes as boxes in the text, case examples that are examples of where that's been done effectively.

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

Great. Thank you.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Yeah, could be a guide.

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

Next question is from Anjum, please.

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

Thank you and thank you for the presentation. It's great to see that the things that public health has been pushing or advocating for a long time, we are really coming into more effective applications of how we integrate that with healthcare. I had two quick questions; one related to a measure which if you can just elaborate, the census tract median income being included as a measure and why we couldn't just calculate it from the residential address?

And then the second question was related to the recommendation...there is one recommendation about CMS requiring this as part of the certification for EMRs or EHRs and you also probably in your presentation mentioned that that is obviously not enough, it requires training of staff in practices, it also requires workflow changes and how to adopt that and those are all resource intensive steps. So was there any discussion about recommending reimbursement for providers that they adopt some of these things into their workflow?

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

I guess the short answer to that is no. The incentives that are built into the health plan changes around accountable care organizations are beginning to move in the direction of compensating people for things that affect population management that are not reimbursed in the traditional fee-for-service system, but we did not discuss recommendations of additional reimbursement. I think that would have been judged as actually outside of the scope of the committee's work. So what we did identify is that the current business models do not fully support this kind of work and that that's something that has to be addressed, but we did not make specific recommendations about it.

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

And the question about the median income measure?

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

What we recommended is that the address be geocoded. There's then a series of domains that are either neighborhood contextual or neighborhood compositional. We had had a long discussion about whether we could include standard questions around individual income or wealth. And as we got into that discussion, it became clear that with what you're really looking at is the wealth of the support unit and that that's different in different family structures, etcetera. There wasn't a simple way to get at that and so we in the end decided that bringing in a geocoded median neighborhood income would force people to go through the work of learning how to bring in geocoded data and after had brought in one, they could bring in others based on their own priorities. And it is a proxy for the individual income that we did not know how to assess.

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

Right. So we're doing exactly what you said.

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

Thank you. Any other questions or comments? Again I want to thank Bill and George again for really a wonderful report and I think this will go a long way to helping us understand more holistically about people and populations. So thank you very much.

**William W. Stead, MD, FACP – McKesson Foundation Professor, Departments of Biomedical Informatics & Medicine; Associate Vice Chancellor for Health Affairs and Chief Strategy & Information Officer – Vanderbilt University Medical Center**

Thank you.

**George Hripcsak, MD, MS, FACMI – Department of Biomedical Informatics – Columbia University**

Thank you for the opportunity.

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

Okay, and our final presentation and this is for a vote. So this is the final recommendations from the Interoperability Workgroup chaired by Micky and Chris, Micky Tripathi and Chris Lehmann. We've heard draft before and they've been taking the recommendations from the task force, the JASON Task Force and the Governance subgroup and melding them together for recommendations to be presented here. And this group would vote on whether to approve these to send forward to ONC as they prepare their draft for their Interoperability Roadmap, which we'll discuss in February. Micky and Chris?

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

Great. Hi, this is Micky Tripathi, I'm on. I don't believe that Chris is going to be able to join; I think he's in service this week out Vanderbilt Hospital. So thanks for the opportunity to present our recommendations here; why don't I jump right into it and I'll keep you at the same brisk pace you've been going in this Policy Committee meeting. Next slide, please.

So we're going to review our recommendations today. Next slide, please. I just want to thank the members of the Interoperability Workgroup; we've got a big group and we get tremendous engagement, we actually have a lot of participation on every call, so I want to thank everyone and this really represents the joint contributions of everyone here. Next slide, please.

So as Paul said the task before us today and what we're going to be recommending on is first looking at, we reconciled the JASON Task Force and the Governance Subgroup recommendations that were presented on October 15 at the joint Standards and Policy Committee meeting. I presented those at the last Policy Committee meeting and in terms of that reconciliation so now we just want to focus a little bit more on the recommendations of the synthesis and also any red flag kinds of issues in the draft materials that get flagged with the understanding that we'll be presenting these obviously to the Policy Committee for recommendation, but then the Interoperability Workgroup will also be looking again at the next version of the roadmap, after it's released to the public in January. So as we were thinking about this, we did recognize that we're presenting some recommendations here on very draft materials and with the recognition that we'd be looking at these again as they're able to synthesize whatever we're able to offer and all the other inputs they're going to be getting and crystallizing those a little bit more for the public release in January. Next slide, please.

We've been through a number of meetings where we've covered a bunch of different aspects of it, I'll describe that in a little bit more detail in a second. And then in terms of the workgroup itself, just stepping outside of the specific recommendations here for a second, we are anticipating on December 16 and perhaps with another meeting or two in January and this may get merged into our consideration of the public release version of the Interoperability Roadmap. We'll start to look a little bit more at this question of interoperability measurements which as you'll see in the recommendations has popped up at the JASON Task Force, popped up in the Governance Subgroup and in our conversations in the Interoperability Workgroup as being something that's pretty important that as we think about the roadmap and how then how to think about appropriate measurement of interoperability so we have some sense of where we are and where we want to get to. Next slide, please.

So the way we've tackled this is to look at the vision; so the schematic here, I think you're familiar with which is the schematic out of the roadmap which breaks the vision down into three blocks of time, the 3-year, 6-year and 10-year and then it looks at those time sort of milestones through the lens of five building blocks. So what we did is we looked at the vision overall and then we went down into some of the building blocks. We didn't look at all the building blocks but just the ones we thought were within the purview of the Interoperability Workgroup. So we looked at the rules of engagement and governance, core technical standards and functions, just looking at the policy side of that which is always a challenge when you have a lot of technical people and we have a lot of overlap with Standards Committee as well. We tried to keep focused on the policy side of the technical standards conversation and then we also did engage a little bit on the support of business, cultural and regulatory environment building block.

And I should say I just want to thank Kory, Erica Galvez, Michelle and the entire ONC staff who have been terrific at making themselves available for our workgroup conversations and helping to provide some of the richness behind the materials we are looking at. It's always a challenge because they delivered a set of materials on October 15, they kept moving obviously to further refine the roadmap because that didn't stop with October 15, but we were working with the materials that were presented to the public on October 15. So, there was a little bit of a challenge to keep us up-to-date on their thinking and Erica and the team were terrific at doing that. I want to thank them for that, so I just want to thank them for that. Next slide, please.

So just high-level bullet points on our recommendations; they should be numbered sequentially, not all as number one, we thought that all of them were really important. I'll just go through them one by one, I have a little bit more explanation in the slide on each one, but at a high level the recommendations are in six categories.

The first two are really related to the JASON Task Force report itself, I mean, our first recommendation is that the roadmap...given that the JASON Task Force report had sort of an overall framework and some fairly specific recommendations and those were approved unanimously by the Standards Committee and the Policy Committee on October 15, we thought it was appropriate to recommend here that the roadmap at least sort of refer to that if not try to structure some of the pieces of the roadmap within that framework and with some of those specific recommendations in mind. So that's the first recommendation here.

The second relates to the question of, what's the appropriate role of government in the market as we think about interoperability going forward. And again, pulling out from the JASON Task Force, there was sort of a specific set of recommendations that were presented in a framework of kind of escalating levels of engagement by the federal government in the market. And our recommendation would be that the roadmap sort of consider a framework like that in thinking about what the federal role should be in the 10-year roadmap through these time periods.

The third recommendation is a recommendation to define measures of interoperability status and progress. The fourth is related to what purpose is the roadmap serving? I think as we are going through it, there was a question of is this descriptive or prescriptive? And we have a little bit of thought there. Five is related to mapping actions to actors, which we thought was missing. And then six, there were a few sort of specific things that came up in our conversations that we didn't really have another place to put them, but we thought that they were important enough as individual items to bring them forth here. So next slide, please, and I'll dive down into each of these.

So the first one is about explicitly endorsing and mapping to the JASON Task Force report recommendations; as you may recall from the October 15 presentation, the JASON Task Force report had a recommendation about thinking about nationwide interoperability within the context of this thought of a coordinated architecture that sort of coordinates data sharing arrangements, which are formed organically in the market and the public API or the notion of a public API being sort of a conduit, the basic conduit of exchange, at a point in the future. Not that this happens overnight, but that that ought to be something that we're headed toward.

And some of the key elements of that, and whether this language is used in the roadmap I think is really a separate, is a wholly separate issue. And we're not saying that the roadmap ought to adopt this specific language but it seems that the concepts again had a lot of resonance with both the Standards and the Policy Committee and namely some of the key concepts being the loosely coupled architecture idea.

The idea of disparate data sharing arrangements being things that form organically in the market and that have certain policy and technical dimensions that enable this concept of a public API, which itself has a technical component related to document level access and the policy component which is about terms for accessing these APIs across entities and that FHIR being the best current candidate for the public API. All of those things, I think, were key concepts from the JASON Task Force report and we would recommend those be somehow incorporated and recognized in the roadmap, because we thought those were pretty important concepts. So let me move to recommendation two then, next slide, please.

Recommendation two is related to this question of addressing the question of the role, the appropriate role of federal government in interoperability both now and in the future. Given this is a 10-year roadmap with three significant time blocks, 3, 6 and 10 years, there were various things in the roadmap that we noted that related obviously to sort of implicit assumptions about the appropriate role of the federal government in interoperability going forward. But what we noted is that it never really sort of addressed head-on that key question of, what is the appropriate role of the federal government? And what is the claim that's being made or the explicit assumption or actually the statement that ONC is trying to make in the interoperability roadmap about the role that the federal government should play both now, in the near future and perhaps in the longer term? And recognizing that 10 years from now is a long time as we think about what's happened in the last 10 years, so we recognize that 10 years is a very gauzy kind of vision and we don't have a lot of granularity of what that's going to look like.

But that said, it seems that there could be some framework that certainly in the near term addresses this key question, because as we move to Meaningful Use Stage 3 and we think about where interoperability is and a lot of traction now being had from the market side in interoperability, that doesn't mean it's solving all the problems but certainly there's a lot of demand and greater supply of interoperability capabilities in the market that it seems like that's an important point of discussion that perhaps is an important Policy Committee discussion at some time in the near future about what the appropriate role or what's the balance of federal versus private expectation in the market.

And we just put down here that again just calling back on the JASON Task Force report in the recommendation set number seven, I think, from the task force report, we did put together a framework, but again, there are other frameworks. We're not saying this is the only framework, but given that there was no framework that we could see in the Interoperability Roadmap, we just offer this as a framework that had an escalating series of types of activities that the federal government could embark on as it relates to interoperability from simple sort of simple cheerleading or the bully pulpit kinds of activities to its role as a market participant, to very active market participant, to a driver of collaboration as a market participant, to something that's even perhaps more engaged to taking specific activities to try to build significant infrastructure, let's say, to help the forward interoperability at a nationwide level, all the way to direct regulation in some form.

So we have sort of this escalating series of steps that we had recommended and that's one way that we would offer that the roadmap could perhaps think about a framework for thinking about that and perhaps take a position on it. And that's something that we come to I think in one or two recommendations down, about the question of whether the roadmap is descriptive or prescriptive. And there were questions that came up in our minds about what it's supposed to be and what it's trying to be.

So next slide, please, which I think is just the next set of bullets that were directly from the JASON Task Force report, so I won't spend any time here unless anyone has questions later. Next slide, please. So in recommendation number three, as I mentioned earlier, the importance of measurement has come up over and over again since the October 15 meeting, in every sort of workgroup meeting we've had, came up in the JASON Task Force report, came up in the Governance Subgroup work as well. The importance of once we laid down a roadmap that has milestones, the obvious question comes up, how are we going to know that we've achieved any of these milestones?

And so the recommendation here is to tie has many, and it can each milestone to a measure, that would be the ideal outcome, a measurement focused to the greatest and possible on outcomes with a decreased emphasis on transactional process measures, which is very analogous to what we try to do in clinical quality side and other areas where we try to measure things. We do note that this is highly complex with much thought to be given about the balance and feasibility of outcomes versus transactional or process measures. So we recognize that it would be very difficult to have real clinical outcome measures that one would tie to interoperability functions in the market, but I think we all want to be leaning as much in that direction as possible as we go forward, to think less about process and transaction type measures and more about outcomes over time.

And one of the things as I'd mentioned that we are going to be addressing in the Interoperability Workgroup is to try to provide some recommendations on principles for interoperability measurements in our recommendations on the next version of the roadmap. So we wouldn't envision that as a workgroup we're going get down into the details of, here are the 53 measures that you should have and providing specifications for those. But what we would like to do is at least provide some principles for how ONC might think about those kinds of measures for interoperability as it relates to the roadmap. Next slide, please.

And sorry, my computer just...okay; so recommendation four is related to really at a fundamental level, the purpose of the roadmap. It was the sense of the Interoperability Workgroup that the roadmap ought to be prescriptive at the end of the day. Now, that I think is a choice, it seems to me, and I would in a way sort of liken it to the difference between Google earth and Google maps. This isn't something we discussed in the workgroup, by the way, I'm just...this is a personal reflection.

But that when someone uses Google Earth, it's much more descriptive, it's much more about, oh, I see where Algeria is related to Egypt and gee, I didn't know that but I wanted to know that at a high-level and it's much more descriptive about saying, here is what the world looks like and we're going to describe everything in the world, in all of its variation, all of its heterogeneity. But that's really the purpose that most users have for Google earth versus a Google maps which is, I want to get from place A to place B and tell me the five different ways that I could get there and tell me the trade-offs; this way is going to take 10 minutes longer, and oh by the way, it also has tolls. Or this one doesn't have tolls and will take 10 minutes longer. This place has tolls but it'll get you there five minutes sooner. Oh by the way, there's traffic on this one so don't go that way.

And in a sense, we sort of have a sense, I think, that the roadmap read a little bit like Google earth; let's describe everything that's going on out there and not spend a whole lot of time on thinking about perhaps a little bit more of a normative consideration of, what are the things that probably are more likely pathways to a future and there may be three or four or five different ways of getting there but laying out what those sort of future milestone ought to be let's say, and then what are the various pathways for getting there. Rather than just describing in a more sort of highly descriptive tone, all of the things that are going out there with essentially equal weight being given to all of them.

So the first sub-bullet of that recommendations is really just sort of deciding whether the level of detail is directional or specific. So is this just saying that the market ought to head in this direction? Or here are some specific things we really think ought to happen over this time period? And if it's going to be specific, the idea is that it would really need to propose some narrow approaches and highlight some of the trade-offs. Are there tolls on that road, but it gets their shorter? Or is it, you can go this way and there are no tolls but it's going to take you an hour longer?

And obviously the road to interoperability is going require some hard decisions where uniformity or reduced optionality is required and the ecosystem has taken multiple differing approaches. Obviously the outcome of these decisions are going to necessitate rework by some stakeholders. So there are implications for any choices that are made here, but we have the sense that this ought to probably be spec...ought to be prescriptive and that the roadmap ought to take a position on whether it's going to be directional or specific.

The other dimension I think that came up in our conversations was whether the roadmap is aspirational, meaning it's an indication of where the federal government would like the industry to go. Or a little bit more directive, meaning that the federal government is going to promote and enforce through very specific government actions, perhaps on that spectrum, some of them about being a very active market participant or a very strong sort of bully pulpit, all the way to perhaps direct regulation or intervention in the market in certain ways, but those would be a set of choices. But that the roadmap it wasn't clear whether it was aspirational saying, gee we wish these things would happen or we want these things to happen and here are the steps that we are going to take to try to drive those things to happen.

So again, we were a little bit...we did stand back a little bit and say we think it ought to be a little more prescriptive, but that would be a choice of the authors of the roadmap to decide whether it should be descriptive or prescriptive, but they ought to be clear about that and if it's going to be prescriptive, they ought to be a little bit more specific about what are the endpoints that we want in something that's prescriptive and what are the particular pathways and what are the trade-offs that would be involved with any of those pathways? Next slide, please.

The next two, I think, are relatively short. One, this is just specifically...a specific point about, you may recall in looking at the roadmap that it has a set of milestones, it breaks it out into some time periods and then it has a set of specific activities or actions. One of the things that it doesn't specifically do, I mean, it does it but it does it not uniformly or consistently, is call out who the actors are that would be expected to implement the various actions and milestones outlined in the roadmap. And I think that goes back to one of the things...our first or second recommendation and is related to what's the appropriate role of federal government versus private market?

And I think sorting that out would, I think, probably naturally then help with this recommendation as well because once we have a better sorting out of what are the appropriate roles of private versus public, that would lend itself then to being able to say, here are the things that we think are appropriate for the private market to take on or we'll assume that the private market is going to do based on the current trajectory. Or, it's not going to do and the federal government would either take those actions on itself or perhaps provide incentives or directives to the market to do those things.

But a little bit more delineation there, I think, would be something that would make the roadmap feel real, whereas right now it feels like there is a set of actions that are unattached to actors so it's unclear exactly how any of those things would happen. I shouldn't say any, how many of those things would happen. Some of them did have actions attached to actors.

And finally, next slide please. As I noted, there were a couple of very specific things, so these are very, very specific things that came up in the course of conversation. They didn't sort of present themselves in sort of an overall framework, but they were important enough as deemed by a number of workgroup members to add them here as very specific things we think ought to be included.

One is orders, lab orders, being a big gap in vocabularies and something that needs to be addressed. The roadmap should specifically name that. There are a number of things that the roadmap does name at that level of granularity and as I looked through it, that was one that just popped out as saying, wow, there's current work going on to refining a whole set of things, but orders sort of stands out as one thing in the near term, in the 3-year sort of time span, that ought to be addressed.

Also, we did note that the roadmap ought to make clear that existing approaches are going to continue to be refined and serve ongoing needs over time. So, as we reflect back on recommendation one and the JASON Task Force report and one of the things that we tried to do in the JASON Task Force report was point out that this notion of the coordinated architecture and public API is something that evolves over time, it's not an overnight thing, it's not a silver bullet that solves all interoperability problems, it's the next evolutionary step in interoperability.

And to that extent, there are many things that are going on today that will continue over time and will continue to be refined to serve the broader and broader set of interoperability needs. Two things that we noted; one is registries that aren't really mentioned that much but are starting to play a very, very important role as we start moving more and more toward value based purchasing, coordinated care, all of that that there was a sense of those ought to be more appropriately represented in the roadmap and perhaps a thought to what registries might look like in the future as we think about different kinds of approaches for interoperability.

And then the second is that existing approaches, and we thought the roadmap probably didn't give enough attention to this, but there are many existing approaches for different things, NCPDP for medications, XCA/XDS for query and retrieve, a number of other kinds of standards and approaches for things that are going to be continued...they're going to continue to serve specific purposes for some time and are going to be refined but users accordingly and it's probably worth noting that. But also that would put it in the context of where do those fit in sort of this evolutionary path we are taking? Those are legacy approaches that will sort of continue to be refined over time and perhaps will be taken over by public API or API kinds of notions going forward. But being able to draw that picture a little bit would be an important foundational element, we think, of the roadmap.

So that's the end of our formal recommendations. I mean, I will, just in conclusion like to say that we did overwhelmingly feel that the roadmap was a really terrific piece of work and a really important piece of work and we commend Dr. DeSalvo and the entire...and Erica Galvez and the entire ONC team for putting a lot of thought to it and putting that first version out for our engagement and for our comment and we hope that these recommendations are helpful to ONC. Thank you.

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

Thanks, Micky. Well, quite a number of recommendations. I want to invite the committee members to comment may be specifically on...throughout I think he emphasized sort of the spectrum between directional to prescriptive and encouragement incentive to regulatory. Be interested in the committee's viewpoint on that. Comments or questions? Just to put our roadmap on...to remind you our roadmap is...this is the vote, the action recommendations for today. The ONC will release their draft Interoperability Roadmap for our discussion in our February meeting and we'll still get a chance to react to that. Anjum?

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

Thank you and thank you for the presentation. So my question is about as you were discussing these recommendations, when you talk about interoperability, was there and would there be a difference if interoperability is considered more from the point of view of providers and vendors versus those who are eventual beneficiaries of interoperability like small practices, patients and their families? In terms of what goals we want to achieve through the roadmap?

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

Yeah, I mean, I think that those goals...those goals are certainly there, if you...they're in the roadmap itself, there were 3 and 6 and 10-year goals there, both, I think at the provider side and in the patient side, I'm just trying to recall and not get it confused with Health IT Strategy Plan which was just released as well. But I think those goals are there broken out in those different categories in the 3 and 6 and 10-year timeline. I'm not sure if that was your question.

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

Yeah so I like your, especially like your example between Google earth and Google maps, that just makes it a little more understandable, I think. Because I would think that if you are thinking of just somebody who is looking at more macro-level, you know, a state department of the federal government may be more interested in Google earth, but individuals living in communities are probably using Google maps more often.

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

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

So in terms of interoperability also, I think you could almost think of there is a macro-level interoperability concern that we are discussing and we discussed a lot in those terms, but then there are also, for eventual users or beneficiaries who don't really care about what the data is, they want to just get a final recommendation in terms of going from point A to point B. How much does this roadmap help those eventual beneficiaries to get from point A to point B versus having, as you described with Google earth, more an understanding of where we are relative to other kinds of things that are going on in the industry?

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

Right, right, I think it's fair to say that just extrapolating from the conversation we had at the workgroup and trying to address your question and going back to the last Policy Committee meeting where we made some recommendations as well, but one of the things that we noted at the time was there were certain specific elements that probably could be accelerated because the market is going faster in some of these things then...perhaps like with genomic information, for example than things that are in the 10-year timeline.

I think that extrapolating from our workgroup conversations again, to make it relevant to your question, I think it's fair to say that one thing that probably could be improved upon in the roadmap is a little bit more of structure pointing out what are the different levels of interoperability to serve specific uses and who are the actual users for each of those, which I think it sounds like that's what your question is getting at. I think that there are, if you look at the roadmap, if you look at the 3, and the 6 and the 10-year, there are very specific things that relate to the different types of users, but as I recall they're not directly linked to specific actions broken out in that way. So I think that's a fair point.

**Anjum Khurshid, PhD, MPAff, MBBS – Director, Health Systems Division – Louisiana Public Health Institute**

Thank you.

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

Thank you, any other questions or comments or Micky, are there questions that you'd like us to consider?

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

No, I don't think so. I think, as I said, I think one of the things here that we've entered the process very early when things are in draft mode. We're very...we thank ONC for being receptive to comments for things that are in draft mode, but I think we all did recognize that we're going to be looking at this again in a more refined state in January. So, we tried to kind of calibrate our recommendations to provide kind of course direction and save ourselves for more detailed perhaps recommendations once we look at it again in January.

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

Fair enough. Okay, well then, I'll entertain...this is something we need to vote so we can formally submit this. I'll entertain a motion to approve.

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

(Indiscernible)

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

This is David, so moved.

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

Okay thank you, David. And second, was that Gayle?

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

Gayle Harrell.

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

Okay, thank you. Any further discussions? Okay, all in favor please?

**Multiple speakers**

Aye.

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

Any opposed or abstain? Okay. Well thank you so much for all your hard work, Micky and the group that I know participated actively.

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

Right.

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

So thank you and we will see you in September, not really, see you in February.

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

Great, thank you very much.

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

Thanks, Micky. Okay, I think we're going to be open for public comment then. And while we're waiting, are there any other agenda items since we did conclude pretty early. Okay, go ahead and open for public comment please.

**Public Comment**

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

Operator, can you please open the lines?

**Lonnie Moore – Meetings Coordinator – Altarum Institute**

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

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

We have no public comment.

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

All righty, well thank you very much for everybody's participation; next meeting will be January 13. By the end of this week, we'll let you know whether it will be virtual or face-to-face. And everyone have happy holidays, please.

**Deven McGraw, JD, MPH, LLM – Partner – Manatt, Phelps & Phillips, LLP**

Thank you, same to you, Paul.

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

Happy holidays.

**Christine Bechtel, MA – President – Bechtel Health Advisory Group**

Thank you.

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

Thank you, happy holidays, everyone.

**Public Comment Received During the Meeting**

1. How many EH participated in the electronic submission of the electronic clinical quality measures to fulfill the inpatient quality reporting?

Meeting Attendance									
Name	12/09/ 14	11/04/ 14	10/17/ 14	09/03/ 14	08/06/ 14	07/08/ 14	06/10/ 14	05/08/ 14	05/07/ 14
Alicia Staley	X	X			X	X			
Anjum Khurshid	X	X							
Aury Nagy	X			X					
Charles Kennedy		X	X	X	X	X			
Chesley Richards				X	X				
Christine Bechtel	X	X	X	X	X	X	X		
Christoph U. Lehmann		X	X		X		X		
David Kotz		X	X	X	X		X		
David Lansky	X	X	X	X	X	X	X		
David W Bates						X	X		
Deven McGraw	X	X	X	X	X		X		
Devin Mann	X					X			
Gayle B. Harrell	X	X	X	X	X	X	X		
Joshua M. Sharfstein					X				
Karen Desalvo	X	X	X	X	X	X	X		
Kim Schofield	X	X		X	X	X	X		
Madhulika Agarwal		X			X				
Marc Probst	X	X	X	X	X	X	X		X
Neal Patterson	X		X	X	X	X	X		
Patrick Conway									
Paul Egerman		X	X	X	X	X	X	X	X

<b>Paul Tang</b>	X	X	X	X	X	X	X	X	X
<b>Scott Gottlieb</b>		X				X	X		
<b>Thomas W. Greig</b>				X	X	X	X		
<b>Troy Seagondollar</b>	X	X	X	X	X	X			
<b>Total Attendees</b>	<b>14</b>	<b>17</b>	<b>13</b>	<b>16</b>	<b>19</b>	<b>16</b>	<b>15</b>	<b>2</b>	<b>3</b>