



## HIT Standards Committee Transcript May 21, 2014

### Presentation

#### Operator

All lines are bridged with the public.

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

Thank you. Good morning everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the HIT Standards Committee. This is a public call and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. Also as a reminder, if you are tweeting, please use the hashtag #HITSC and with that, I will take roll. Jacob Reider?

#### **Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Here.

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

Andy Wiesenthal?

#### **Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

I'm here.

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

Anne Castro?

#### **Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

I'm here; I just couldn't get off mute.

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

Okay, hi, Andy. Anne Castro?

**Anne Castro – Vice President, Chief Design Architect – BlueCross BlueShield of South Carolina**

I'm here.

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

Hi, Anne. Anne LeMaistre?

**Anne LeMaistre, MD – Senior Director Clinical Information Systems and CMIO – Ascension Health**

Present.

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

Hi, Anne. Arien Malec?

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

Good morning.

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

Hi, Arien. Marty Harris? Charles Romine? Cris Ross? David McCallie? Dixie Baker?

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

I'm here.

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

Hi, Dixie. Liz Johnson?

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

I'm here.

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

Hi, Liz. Eric Rose?

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Here.

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

Hi, Eric. Floyd Eisenberg?

**Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC**

Here.

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

Hi, Floyd. Jamie Ferguson?

**Jamie Ferguson – Vice President; Fellow – Health Information Technology Strategy and Planning; Institute for Health Policy**

Here.

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

Hi, Jamie. Jeremy Delinsky? John Halamka? He'll be joining us later on. John Derr?

**John F. Derr, RPh – Health Information Technology Strategy Consultant – Golden Living, LLC**

Here.

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

Jon Perlin?

**Jonathan B. Perlin, MD, PhD, MSHA, FACP, FACMI – President & Chief Medical Officer – Hospital Corporation of America**

Good morning.

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

Good morning, Jon. Keith Figlioli?

**Keith Figlioi, MBA – Senior Vice President, Healthcare Informatics – Premier, Inc.**

Here.

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

Kim Nolen?

**Kim Nolen, PharmD – Medical Outcomes Specialist – Pfizer, Inc.**

Hey Michelle, I'm here.

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

Hi, Kim. Leslie Kelly Hall?

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Here.

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

Hi, Leslie. Lisa Gallagher? Lorraine Doo? Nancy Orvis? Becky Kush?

**Rebecca D. Kush, PhD – Founder, Chief Executive Officer, President & Director – Clinical Data Interchange Standards Consortium (CDISC)**

Here.

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

Sharon Terry? Hi, Becky.

**Sharon Terry, MA – President and Chief Executive Officer – Genetic Alliance**

I'm here.

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

Yup. Stan Huff? Steve Brown?

**Steven H. Brown, MD, MS – Director, Compensation and Pension Exam Program (CPEP) – Veterans Health Administration**

Yes.

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

Hi, Steve. Wes Rishel?

**Wes Rishel – Independent Consultant**

Here.

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

Okay, and with that I'm going to turn it over to Jacob for his first meeting. We don't have John today, so we'll have to work together Jacob to approve minutes and go over the agenda and cover for John, in his absence.

**M**

– just joining.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, Michelle. And thanks to the committee members for joining today. And so Michelle, I'm going to follow your lead. Are there – have we shared minutes with the group from the last meeting?

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

Yes.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

And are there any suggested amendments or corrections that folks have to last weeks' meeting – last meeting's minutes? Hearing none, is it moved – can it be moved that the minutes be approved from the last meeting?

**M**

Moved –

**John F. Derr, RPH – Health Information Technology Strategy Consultant – Golden Living, LLC**

John Derr, seconds.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

John? John, did you have a comment or was that a second.

**John F. Derr, RPH – Health Information Technology Strategy Consultant – Golden Living, LLC**

It's a second.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, sounds like the minutes have been approved, Michelle.

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

Thank you –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Let's move on to the agenda for today. So we have two important content topics to talk about. And I also understand from some discussion with some of the committee members and also reading of the trade press that there's another topic that folks would like to discuss briefly today. So I think what we'd like to do is open the discussion today with some perhaps I would say clarification and summary of the announcement that CMS made yesterday in the publication of a proposed rule for some changes to Stage 2 of the Meaningful Use Incentive Program.

So, I think just to give some summary – a summary overview of that, I'd like to ask Elise Sweeney Anthony, who's an ONC staffer, to give us a bit of an overview of the intent of the proposed rule that was released yesterday and perhaps answer a question or two, if committee members have it. I understand from some committee members that there's a bit of confusion and so we are, and I want to be careful about this, we are not interpreting this for the public here; we're really just summarizing it and explaining it in the context of some confusion. So Elise, do have some comments to offer?

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Good morning, everyone. Yes, so I thought it would be helpful for us to provide a summary of what the proposed rule would do. As Jacob said, we can't comment on specific pieces or provide any interpretation, but a summary might be helpful. So there are two main things that the NPRM would accomplish, one is something that we stated and stated our intent to do as a department in the winter of 2013, and that's the Stage 2 extension. And the goal of that would be to provide an additional year for providers to stay at Stage 2, which would mean that those providers that would normally move to Stage 3 in the upcoming year, would have until October 20 – would on October 2016 move to Stage 3 for eligible hospitals and critical access hospitals. And for eligible professionals, it would be January 2017. So that's a stated intent and this rule begins a formalized process of moving towards that and receiving public comment on that proposed position.

The second piece is probably where there has been a lot of comment in the trade passed about and that's the extension of the 2011 cert – use of 2011 cert, which for 2014, 2014 certified technology was

required. We did hear a lot from stakeholders that there were enough of parts availability issues that have impacted the ability to fully implement the newest edition of certified EHR technology, which is the 2014 version. And that that has impacted the ability to report for 2014. Recognizing this, CMS in conjunction with ONC, have provided for an extension to the 2011 – for the use of 2011 cert. This position would apply only for 2014 and would not be applicable for the 2015 year.

So what this allows is for a provider who has not been able to fully implement the 2014 certified technology, to be able to use 2011 cert or to use a combination of 2011 and 2014 certs or to use 2014 cert in order to report for the 2014 reporting period that is applicable to them. This position, depending upon where you are, it could mean that if you did 2011 cert, for example and you're at Stage 1, you would be able to use a 2013 version of the objectives and measures and in some cases, it would be the 2014 objectives and measures. And for that, I would refer those to the chart in the rule that provides a pretty – what we hope is clear way of identifying what options you have in terms of cert usage and in terms of stage application.

As I said, this would apply only for 2014 and I think that's an important note, so that in the 2015 year – reporting year, which would begin on October 2016 – I'm sorry, October 2014 for EHs and CAHs, it would be required to use a 2014 cert. And for eligible professionals, the same would apply as of January 2015. So this is really recognition that the 2014 cert, this is the kind of inaugural year, in terms of implementation of that, and recognizing that many have said that they've problems in terms of implementing some of the functionality. This would give providers additional time to get to the point of having 2014 fully implemented in time for the 2015 year. So with that, Jacob said we'll be happy to answer a couple of questions, just note that we cannot provide interpretation on the rule, since it is public at this – but, I think that provides a general summary of the intention of the rule.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, Elise. So do folks have – questions?

**Wes Rishel – Independent Consultant**

Wes Rishel.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Go ahead, Wes.

**Wes Rishel – Independent Consultant**

Could you review the timing under which this goes through its process? When would an eligible provider or a hospital be sure this was a final rule?

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Great question. So this is a notice of proposed rulemaking, which means that as per the text of the rule, there would be a 60-day comment period. After that time, CMS would receive, and I don't want to speak on behalf of CMS, but as per the – CMS would receive the public comment, bring that together and they would make a determination on what the final rule, if any, would be. I can't give specifics in terms of the timeline that CMS would implement this post, the 60-day comment period, but the hope would be to have this in place before the end of the 2014 year.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Micelle, are we using the hand raising or are we just speaking up for questions?

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

Yes, sorry, I should have said that earlier. Thank you, Jacob. We will use the hand-raising feature today and so Eric Rose has a question.

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Hi, thank you for the clarifications and just to make sure I understand the EPs and EHs will be allowed to use 2011 certified CEHRT for 2014, and that's fiscal year 2014 for eligible hospitals and calendar year 2014 for eligible providers? Did I get that right?

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

You have that correct.

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Okay, thank you very much.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Sure.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

And Michelle, this is Liz, I don't have a way to raise my hand online, I'm not online yet.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Liz, you are hereby recognized.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

Thank you, Jacob. So I – can you repeat the part about if you were currently on a track that you would be attesting for Stage 2 in the current year of federal fiscal year 2014, can you repeat what you said about what measures you have – you may attest against? I understand that you can do 2011, you could do a hybrid or you could do 2014 edition, but I don't understand which measures you need to attest for.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Sure. So there's a chart in the proposed rule that –

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

Right.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

– kind of explains it.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

Okay.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

But, just to give a quick summary, because it is a little bit complicated. But if you are scheduled to move to Stage 2 in 2014, and you are using 2011 edition cert, then you would be able to attest to the 2013 Stage 1 objectives and measures. So those are what some have called the 2013 cla – the classic objectives and measures for Stage 1. If you are using 2011 – a combination of 2011 and 2014 edition cert, then you would have three options on how to attest. You could do 2013 Stage 1 objectives and measures, 2014 Stage 1 objectives and measures or you can move to Stage 2 objectives and measures. And then the last variation of that would be, if you are supposed to move to Stage 2 in 2014 and you are using just 2014 edition cert, then you would have two options, you could do 2014 Stage 1 objectives and measures or you could do, as planned, Stage 2 objectives and measures.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

Okay, so I'm clearly hearing, at least as in the chart, that even given that you should be attesting for Stage 2, given the appropriate edition, you could attest for Stage – pardon me, you should be attesting for Stage 2, you could attest for Stage 1 measures, given the appropriate edition?

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Correct. Yes.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

All right, thank you.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

No problem, my pleasure.

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

Andy Wiesenthal had his hand –

**Wes Rishel – Independent Consultant**

Just to clarify that –

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

Sorry.

**Wes Rishel – Independent Consultant**

– you could, the 2013 Stage 1 or 2014 Stage 1 or Stage 2?

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

I think I missed the first part of that question, can you repeat it for me?

**Wes Rishel – Independent Consultant**

I was just trying to read the answer to tran –

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Oh the chart, yeah.

**Wes Rishel – Independent Consultant**

This is Wes Rishel, I was just trying to read the answer from the table to her question. If she's supposed to be asserting Stage – attesting to Stage 2 and she's using 2014 edition software, she can use 2014 Stage 1 or Stage 2. If she's using a mixture, she can use 2013 Stage 1, 2014 Stage 1 or Stage 2. And I just – I'm not putting that in the form of a question, I was just telling what the table says.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Kay.

**Wes Rishel – Independent Consultant**

Yeah.

**Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics –Tenet Healthcare Corporation**

Okay, thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Any other questions, Michelle?

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

Andy Wiesenthal had his hand up, but I don't know if he changed his mind.

**Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

I changed my mind.

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

So we have no more questions.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, thanks.

**Elise Sweeney Anthony, Esq – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology**

Well thank you everyone, I'm glad to answer the questions. We do, of course, encourage public comment, so feel free to take a look at the rule and respond within this 60-day timeframe if you have public comment on the rule...thank you very much, guys.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you so much, Elise, for this impromptu briefing. And we're not too far behind on our agenda. So let's move on to the next item on the agenda, which is a discussion of the Jason report and a presentation from John White from AHRQ.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Well hello everybody. I'm John White and I direct the health IT portfolio at the Agency for Healthcare Research and Quality. I know many of you and have worked with you in various capacities and in several ways, I've been at AHRQ for – this is my 10<sup>th</sup> year at this time. It has been a great pleasure to work with colleagues at ONC and other places in various capacities, so it's nice to be able to be here and talking with such a distinguished group today. In particular, I am here today to talk to you about a report that was sponsored by AHRQ and I am wondering if slides are going to come up – there, like magic, thank you, so the title of the report is a Robust Health Data Infrastructure and this report was released both on health IT.gov and HealthIT.ahrq.gov in mid-April. I imagine that many of you have taken a look at it prior to this time. Let's talk a little bit about the report, if I can go to the next slide, please.

So that's the coversheet, a Robust Health Data Infrastructure. This report was sponsored by AHRQ and it was conducted in collaboration with colleagues from ONC and the Robert Wood Johnson Foundation. You can see from the agenda that my colleague Michael Painter, who is a Program Official at the Robert Wood Johnson Foundation may or may not be able to be here with us today, jury duty has intervened for him. But if he's able to make it on, I'll ask him at the end of the presentation if he has any additional comments.

JASON is a group that has not entered into the health IT infrastru – discussion frequently, if at all, so a brief introduction, I thought, was probably in order. JASON is an independent scientific group that provides consulting services to the US government on matters of science and technology, first established in 1959, and we can talk more about them if you want. But, they are – they have done over 700 reports like this for the federal government. Several of them are available online, many of the reports are classified, so, several of them are not. I think it's important probably to mention to you at this point that this report is not AHRQ's official position, nor is it ONC's official position on how to build and develop a robust health data infrastructure.

The entire report was released because we think it's important to be complete in the discussion about it and there are a lot of different recommendations that are in there. I am not going to talk about all of them or all of the analysis, it's a 65-page paper, so it would take a long time. But I do think that among the various things that are contained in the study, there is some interesting analysis that I think is going to be a good springboard for discussion for us. I know that several of you have actually read through the report and there have been a lot of different reactions to it and that has ranged from Keith Figlioli's

group releasing a press release that supported the findings and recommendations, ranging to Arien Malec's tweet that said "grrrr." So, I'm really looking forward to some good discussion about the findings that are in here and the recommendations. Next slide, please.

So, I listed out the study charges here and normally I'm not a big fan of reading slides, but I think that in the interest of not going through all 65 pages of the report, but trying to hit some of the salient points, I did want to list them out here. The bold emphasis on these words are mine, they are not from the report. I thought they were phrases worth calling out as we talk through what the findings and recommendations are. First, how can complex data handling techniques and Internet-based technologies be applied to health care to promote the development of real-time, integrated data sets at a scale seen in other industries?

The second, how can the various users of health data in the clinical research and public health communities be presented with tailored and highly specific data views in near real-time based on routinely collected health data? The third as health data grows from megabits to gigabits and beyond, per individual, what fine-grained analytics should be made available to patients and health care providers to guide health care decisions. The fourth, what fundamental data management capabilities are needed to support potential future requirements in an open-ended manner? And the fifth and final what the national security consequences of not addressing comprehensive health data opportunities in clinical research and public health? So, that's where the study began. Next slide, please.

So the way JASON conducts these studies, the charge is given to them, they take a look at the charge. They recognize that not all expertise is contained within JASON, so a number of organizations and individuals come to brief JASON over the summer, when the study is conducted. The briefing organizations are listed here, there are more details in the actual report, but you can see it's a fairly broad range of folks it's not comprehensive. There's not unlimited time to gather information about the topic that they're being asked to study. I would probably point out that the findings and the recommendations of the report do not represent the positions of the briefers, okay, but they do reflect their input. So, I think that's also important to consider as you go – as we go through some of these recommendations. Next slide, please.

So, in their assessment of kind of the state of field, in terms of a robust health infrastructure, JASON identified several challenges to development and maintenance of robust health data infrastructure. There are 15 of them that are listed here. The report states that the group did not have the expertise to address all of these, so I put an animation in here, it may or may not work. If you hit the next button, does that – oh, there we go. Okay, and hit that six more times. So the ones that are being underlined here are the ones that JASON did comment on, they felt like they had the expertise to be able to try to address and provide some technical recommendations related to that. Hit one more time. There you go there's the last underline. So the ones that they particularly addressed are scalability, user interface, exchange concept, data security, data integrity, access and duration and consent. The report also identifies that all of these challenges are important, but they didn't want to kind of go outside of their wheelhouse and try to talk about things that they didn't feel qualified to comment on.

Next slide. So here are the key findings, there were several findings, but these are the key ones and I think this generates a reasonable amount of discussion by folks that have read through this. So the first, the current lack of interoperability among data resources for EHRs is a major impediment to the unencumbered exchange of health information and the development of a robust health data infrastructure. The second finding, interoperability issues can resolved only by establishing a comprehensive, transparent and overarching software architecture for health information. Architecture again is my bold that is highlighted because we're going to talk about that in a little more detail. Third, the twin goals of improved health care and lowered health care costs we realize only if health related

data be used in the public interest for both clinical practice and biomedical research. And the fourth, that will require implementing technical solutions that both protect patient privacy and enable data integration across patients.

So, I'm going to pause for a second and say, these are findings that are probably not necessarily terribly surprising to you all, who have been steeped in this for a long time, many of you decades, and you recognize that these are problems. And that – I think that some of the approaches that they propose are different than approaches that have been taken previously. And I think that's where the interesting discussion lies, where we can start to talk about what's been done. Where the concepts and principles that underlie some of these findings and recommendations may differ with what the community currently holds or, in fact, in places where perhaps they're not directly aligned with things like regulations that currently exist or other things like that. So, okay, on to the next slide.

Architecture, so this is a term that is used variably in different places by different people to mean different things. So important to at least briefly define when we talk about software architecture for robust health data infrastructure, what does that mean? For the purposes of this report, a software architecture defines a set of interfaces and interactions among the major components of a software system that ensures specified functionality. And that's reasonably well-written, fairly concise and – but I think things do wind up cascading down from that. Next slide.

So, JASON enumerated several principles that underpin the example architecture that they have offered and I think that it is worth enumerating them here for a couple of different reasons. Again, I think that – I would be very surprised if those of you on the Standards Committee did not have things to say about what those principles are and therefore what the implications are for the architecture, but this is what they put forth. The patient owns his or her own data. Be agnostic as to the type, scale, platform and storage location of the data. Use published APIs and open standards, interfaces and protocols. Encrypt data at rest and in transit. Separate key management from data management. Include metadata, context and provenance of the data. Represent the data as atomic data with associated metadata. Follow the robustness principle: "Be liberal in what you accept and conservative in what you send." And finally, provide a migration path from legacy EHR systems.

There are two of these that I just want to briefly comment on and it's the first one and the last one. The first is that the patient owns his or her data. Again, I think that you are well versed in issues of data ownership and data stewardship and things like that. I just want you to recognize that this is the principle that JASON felt was important to start with in order to get to the architecture and the technical recommendations that they went to, and it may or may not reflect positions that others currently hold. The last point provides a migration path from legacy EHR systems. I don't want you to necessarily mistake that the report suggests that we ought to not use legacy EHR systems as they currently exist anymore. I think that everybody involved recognizes that they're pretty critical building blocks to our health data infrastructure. I think that the point of that is to enable interoperability to meet the charges put to them in the study, okay, to say we need to figure out how to evolve our current systems in order to meet the charges that have been laid before us. So, the way that that's phrased may lead you to think otherwise, but at least that's how I've been thinking about it. Okay, next page or, next slide.

So, buried down in the report is a diagram that describes JASON's example architecture. And again, just to turn back the few slides, we're talking about, when we talk about architecture, we're talking about a defined set of interfaces interactions among the major components of a software system that ensured specified functionality. Okay, so we start with the left, what they call stovepipe legacy systems are systems that currently exist that cover a lot of these different functions that you see in the middle, user interface, semantics and language translation, search and index functionality, and they're contained within systems, which is why they're calling them stovepipes, okay. And that is where the data currently

live in these systems. The architecture that they suggest, I would start from the bottom when I describe it, and these are the data. Okay, and there are two components to the architecture.

One is where the data are stored, and that involves both the physical storage of the data, as well as the logic involved with storing that data. And then the transport of that data – those and that involves both the physical and logical aspects of it. JASON has recommended that those data be encrypted, both at rest and in transit. Current regulations require that the data are encrypted in transit, but they're recommending that they are encrypted at – in storage as well. So then, you get to the middle stack of this architecture. Closest to the user are the interface applications.

There are some middleware components that go between the various other aspects of this. Another layer is semantics and language translation, search and index functionality. And then they split apart chart/record data versus "atomic" data with metadata, knowing the folks that are on the Standards Committee, I don't think I need to describe to you what each of those necessarily means. But the key thing for you to get here is that these dots between current systems and these layers in the stack. And these are the APIs that they're talking about. They're saying that in order for the data to flow, to achieve the charges that were put before them, the data must be accessible where they current live, to these layers of the stack. And those require application programming interfaces or APIs. And that's what the dots are on this diagram.

A concept that we're going to get to in the next slide, but that I just want to talk about briefly now are the vertical stacks here over in the upper right hand corner, and these are related to privacy and access and how that's done. And this spans the layers of the stack in the architecture. And the first one is identity, authentication and authorization. The second one is patient privacy bundle management, which we'll talk about in the next slide. And then the third part, which again, in the principles they separated out is key and certificate management to get at data that are encrypted. The report itself discusses this in great more bit more of detail. I am not going to go into it in the interest of time, but again, I'm assuming that at least several of you have taken a good hard look at this.

The one comment that I would add is that as I look at various efforts that are extant currently today, I see a lot of similarity to this architecture and how it's being described. And so I think that probably some of you who are working on these efforts probably look at this and say, we're not getting credit for what we do. Well I'm going to give you credit right now for what you're doing. I think that a lot of us are in there, and I would love for the discussion that ensues to talk about how we think we're achieving some of these things or if we're not, in addition to whether or not we think this kind of thing is a good idea. Okay, on to the next slide.

So, patient privacy and risk management, this is a slightly different approach that has been proposed here and again, I think it's worthy of discussion. I think this is a good spring – I'll say it again, it's a good springboard for discussion. So in order for the data to enable the kinds of things that we talked about in the charges, getting at better health across populations and things like that, JASON recognized that permissions for access and use of that data ought to be fine-grained. Again, I don't need to tell you all about this, different data are handled in different ways in health care. So, in order to – so in recognition of the complexity of that, okay, first JASON recommended that those privacy settings and permission settings ought to be at the atomic data level. That's a pretty complex undertaking and it's a very ambitious undertaking; I'm sure some of you may comment on that.

So, the recommendation for handling that is to bundle these fine-grained settings, and they call them patient privacy bundles. And although it's not here on the slide, the report talks about that those bundles could be, rather than my grandmother trying to figure out what each one of those bundles meant. That organizations that are trusted organizations might recommend different types of bundles

for different types of people and that people might then choose to accept bundle A or bundle B or what have you. A benefits of this is that the fine-grained system is flexible, can accommodate a lot of different types of security policies, and you're talking about a lot of different kinds of organizations that deal with these policies. That does entail assumption of different levels of risk by the patient who owns his or her data, going back to the principles. And that hopefully the promotion of privacy bundles by different trusted organizations, will also entail a discussion of the benefits for patients and for society at large based on those different levels of risk.

Okay, next slide. Recommendations. There were not just two recommendations in this report, there were a number of them, and I'm not going to get into each of them. There were two that I thought it was worth calling out for discussion by this group, which I am particularly interested in and I think others are particularly interested in hearing your advice on that. So the first is that within 12 months, ONC should define an overarching software architecture for the health data infrastructure, and this is along the lines of what JASON has proposed. Second recommendation that is selected out is that EHR vendors should be required to develop and publish APIs that support the architecture of the health data infrastructure. I don't think this is too far-fetched, other folks including PCAST have talked about this sort of approach and in fact, I think we see it in much of the industry today being done in different ways, perhaps not characterized exactly like it's been laid out in the proposed architecture.

So on to the final slide, topics for discussion. I've laid out three of them here, obviously those of you who have gone deeper into the report are free to pull out whatever else you want. But the three that I thought were probably most worthy of discussion are the first, that ONC should define architecture this year. Second, patient privacy and related risk management should be addressed by the use of patient privacy bundles. And the third is that the architecture should be supported by openly developed, published and tested APIs. So I thank you very, very much for your attention. It has been a very interesting journey, bringing this report forward for your consideration. And I am really looking forward to hearing your thoughts on it. Thank you so much.

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

Thank you, John.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, John.

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

Sorry.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Go ahead, Michelle.

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

We already have a number of people in the queue, I'm sorry. So right now, we have Arien Malec, Wes Rishel, Eric Rose and Stan Huff; so we'll start with Arien.

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

Yeah, I think it's going to be a long queue. So first of all, I wanted to gloss my GRRR, which was really related to a number of what I would consider statements of misfacts related to Stage 1 and especially Stage 2 Meaningful Use. And I'm not going to go into the details there. I am – but I'm actually generally supportive of the direction that the JASON report is pointing out. I think it's actually quite consistent with work in HL7 on FHIR with work at Boston Children's under ONCs grant funding for smart apps. And as you noted, it's – this direction's actually consistent with some of the PCAST recommendations.

A couple of questions that I have, and this really came out of actually your – this very helpful presentation. I was reading initially the JASON report as really under the scale of an ultra-large scale system architecture as opposed to an architecture for reconfiguring the EHR. And now that I understand your definition of architecture and the presentation that you did, it seems to me like you're looking at a reconfiguration of the EHR. And I'm wondering whether – I challenge you as to ask you whether that's the right frame and that instead we should be looking at some of the ultra-large scale system dynamics or considerations for architecture. So that would be question one for you.

And then question two for you is, you made some recommendations relating to Stage 3 of Meaningful Use, and you had the good timing of doing so just after Stage 2 was – which was fairly modest in scope, but ended up being, I think, quite hard for providers to adopt and use. And for HIT vendors to develop and deploy. So given the contact for how long it takes to do meaningful change in a Meaningful Use associated program, do you have recommendations or considerations for an incremental rollout? And if so, what components you suggest would want to go earlier rather than later in the rollout? Because it's, just as a gloss on that, it's easy from the position of a white paper author's perspective to reconfigure the EHR. It's significantly harder to think about the real world dynamics of what happens when you ask 700-800 EHR developers to all implement something all in the same way, all against a particular timeframe and in those kinds of situations, I believe incrementalism wins out over wholesale purist architecture remodeling. So, if you could answer those two questions, I would be greatly appreciative. Thank you.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks Arien. Jacob, is it alright for me to go ahead and answer?

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Green light, go Jon.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Sweet. First of all, Arien, thanks for the tweet. Your tweet made me laugh, which is part of why I mentioned it, in a good way. I'm like – that's – I love that kind of back and forth. I will also add that there are a lot of things in here that I look at and I've – I'm still kind of pondering them, like, hmmm, wonder about that. So, let me restate, okay, that I am presenting to you the recommendations of a report, a study that we sponsored. This is not necessarily Jon White's official position, this is not necessarily, or not even AHRQ's official position. I think these are interesting recommendations from what appeared to be a pretty savvy group of folks that have – I think, as we well recognize a lot of people are looking at that and after they read it through twice go, oh, okay, there are some good ideas there. So, just to be clear, not my recommendations, they're the report's recommendations, but I think they're good to discuss, okay.

Your comment about ultra-large scale systems versus just reconfiguring EHRs I think is a great one. I'm actually – I whipped out my software engineering institute ultra-large scale systems book, as a UVA graduate, I'm a Kevin Sullivan fan. So, I don't – I think that I would not characterize the architecture thing as just reconfiguring EHRs, I think that the report pretty clearly recognizes that data are coming from a lot of different places, now. I think we actually see that within the industry, I think that – I think we've seen a lot of movements towards making available APIs to bring in information to EHRs from a lot of other places. So, I actually like the ultra-large scale system interpretation myself as well. I think that there is good discussion to be had about how EHRs, as we currently conceptualize them, might be reconfigured though, in that kind of architecture, but I think that's a subset of the discussion.

I think that over time we're going to find that, right now we're looking at large amounts of genomic data, and one of my favorite articles from JAMIA was Exposomics was discussed recently, talking about environmental exposures. I think that we're going to recognize that a lot of things that help us understand how to be healthy and help us get there, come from places that are not currently there. So, it really is on that concept of an ultra-large scale system. So, that's a great distinction, I appreciate you calling that out.

The second point that I would – in terms of a timeline, I don't have a timetable in my back pocket. I think that there are some good ideas in here. I think that what we ought to do first is say, do we think that these are all good ideas? Okay, I think some discussion of achievability is within there, but then once we decide that this is a good direction to go, and by we, I don't mean me, then we collectively as a community ought to say, okay, over what timeframe do we think we can get that implemented? In some ways AHRQ is a – we fund – we're a research funding program, okay, we fund that development of evidence. So, I tend to think in 5, 7, 10 year time scales. So, the folks who are on the phone are probably a lot more qualified than me to talk about specific timeframes, though.

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

Well, thank you so much.

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

Okay, so should we go on to our next question from Wes?

**Wes Rishel – Independent Consultant**

Thank you, Michelle. I want to start out by making a statement. I don't expect it will be very controversial, but I think the patient owns his or her data is a canard that everybody agrees with, but nobody means the same thing. And particularly if the statement were read literally and is being literally read by some people, it means the patient has the right to deny access to that data to the people who collected it. And as long as we are not clear that the patient is for any given datum, there may be a co-owner, we are not calling out the issues that an architecture must solve. It's not clear from the statement, but – I'm sorry from the presentation and I am sorry to admit I have not read the document completely, this seems to be an architecture that's primarily associated with gathering data across a confederated set of users or data sources as opposed to exchanging data for transactional purposes.

I would say there's nothing wrong with that, it's certainly a logical next step, would be even more logical a next step once we've demonstrated we've completed the step of exchanging data for treatment, which we have not yet demonstrated. The – probably the heart of this is the section in the diagram where you talk about chart data versus atomic data. And we have a situation in the country where – in the world, where that data which is atomic in the sense of being discrete, usable data elements, is never a complete picture of the patient. And often a – represented in different structures in different

organizations according to what problem was on the table when the engine, the internal engine of the electronic health record was being designed. The report could take two approaches, one sort of laissez-faire and say, well, structured data is whatever the EHR has in structured form. Atomic data is data that's structured down to the lowest level.

We have no standards at this time that canonically define how to structure that data. And it's more than a years' worth of work to do that. There are efforts underway that could take us in that direction. But it is my opinion as a former technologist and recovering vendor, that the reengineering necessary to take just to look at the 10 or 20 most prominent EHRs in the country, the re-engineering necessary to achieve any uniform level and representation of atomic data in the database is an effort of the scale of the Meaningful Use Program. So, it would be best if this report turns out to be somewhat laissez-faire with a corresponding diminution of expectations over time, allowing that in a laissez-faire kind of approach, new systems and major rewrites of systems come into conformance over time.

And then I wanted to build on the comment that Arien started on ultra-large systems. What I think the Mellon work and other work on ultra-large systems has done is to define systems that can't be managed. That is, specifically that's the definition, it's a system that can't be managed in a top-down way. That it kind of is a way that the functionality of the systems grow is more like the way the Internet grew in the sense of pieces of architecture pop up and survive or don't survive, according to the aggregation of thousands of different purposes by which those things might be used. If the report says no more than, if we do this interface an ultra-large system will arise, I would suggest some direct discussions with the people that have studied these systems to talk about that. So, those are the comments that I had, thank you.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Wes. Just briefly, the discussion of the architecture in the full report starts on page 35. There is some discussion of atomic data versus chart data in there. I'm not going to conduct it myself, but I think that if you want to dig a little more deeply into it, that's where you'd find it.

**Wes Rishel – Independent Consultant**

Thank you.

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

Thank you, Wes. So, we have a lot more people in the queue. Eric Rose is next.

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Hi, I'll try to be brief, thank you. So thank you for coming to our meeting and presenting this information. I have a meta-comment and then a question. The meta-comment is, it concerns me a bit that this report, whose contents AHRQ doesn't – you said, necessarily stand behind nor the named study briefers, is an anonymous report, by a nameless, faceless group that looked low and high and can't find a list of who is JASON. And I don't have any reason to suspect the qualifications or motives of those who I'm sure worked very hard on writing it, and I don't mean in any way to cast aspersions. But I don't think it's in keeping with the level of transparency that is inherent in the HITECH statute or in the way that ONC has conducted itself up to now, to have a major recommendation come from an anonymous group.

So my respectful suggestion is for ONC and AHRQ, going forward, to seek advice from expert panels who are not anonymous.

My question has to do with this idea of atomic data with metadata and that's something I am not understanding fully and I would ask if you could clarify it a bit. I think it might just mean don't lump healthcare information into one big fat text blob that includes problem list, meds and allergies, past surgical history, treatment plan and procedures done this encounter in one amorphous mass, to separate it into discrete chunks. But it might be taken to mean really going hog wild and representing things like no surgical history as a negation plus the – plus some term or a code meaning surgical history or things like hypertension as elevated plus the concept of blood pressure. And I just want to make sure that that isn't the idea here and I do think that if there are follow ups to this report, it would be good to clarify that, because it's kind of a big deal which of those is meant.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Eric. So let me hit the second one first. I interpret it the first way that don't represent it as just one big text blob, but try to break it apart into the components inside it. I think that your advice and the advice of the folks on the Standards Committee is important in terms of trying to get better granularity about that. But, I take it the first way, so that's a great point appreciate you asking it.

Let me briefly address the meta-point. Your point is – it's extremely well taken, okay, this is not the usual kind of report that we do. There is a Nature article from 2011 that I'm happy to share around with you all that describes JASON and who they are and what they do. There are reasons why they are constituted the way they are, having to do with some of the defense and intelligence work that they do. That is precisely the reason why this is being brought to you, you are an advisory committee and these recommendations are not something that we're ready to take and implement. We need your candid thoughts on it, this is a great idea because – this is not a great idea because. And the hope is that this will get folded into the work that you do and the recommendations that you make. And that's also the reason why the face of Jon White is here presenting this to you, so there's – you can see a real person with it. So, it's a great point, thank you. And that is a critical part of the work of the advisory committees.

**Eric Rose, MD, FFAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Thank you.

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

Thank you. Stan Huff?

**Stanley M. Huff, MD, FACMI – Chief Medical Informatics Officer – Intermountain Healthcare**

Hello, this is Stan, can you hear me okay?

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

We can hear you.

**Stanley M. Huff, MD, FACMI – Chief Medical Informatics Officer – Intermountain Healthcare**

So, first off, again thank you for coming and presenting and there were a lot of things that I liked in the report. The one thing that I wanted to mention is that I think the timeframe of 12 months is a completely unreasonable timeframe. And I say that because to reach the level of interoperable services that are implied by the report, implies the existence of things that we don't have now, things that have not been standardized. And in particular, I'm referring to information models that are coupled to standard terminologies. This is probably the one area where I spend most of my time and in order to get

the kind of interoperable data exchange that's discussed, you have to have a shared corpus of information models, thousands of them that are bound to standard terminology. And that and other parts of the standards that are needed don't exist.

And so if we are going to follow our own rules that we only adopt standards that have been – that exist and have been successfully implemented at scale in production systems, we're a lot more than 12 months away from having the evidence to do that. And so I worry terribly that based on this report there would be a mandate that the standards be specified in 12 months and that would just lead to mandating standards that in fact have not been proven in the way that they should be before they're required by everyone to implement.

So, that's the – I like a lot of the other parts, that part seems completely unreasonable by saying one year when it probably should say three to five years or some much more conservative timeframe for this kind of a selection of standards and especially standards that have been proven in products at scale. So, I'll stop there. Thank you.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Stan, its Jon. That's a fantastic comment borne out of blood, sweat and tears, which I know. And I agree with a lot of what you said. I don't – my interpret – again, my interpretation is not that the standards be set within 12 months to make this all happen. But, that, I think what is worth discussing is this definition of architecture being that defined interfaces and specifications, that do we agree that this is the direction that the country ought to move in? And again, this is something for you all to ponder and kind of consider back out to make your recommendations to ONC, which is the job of the Standards Committee. So thanks for your comments.

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

Thanks, Jon. Dixie Baker.

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

Thank you, Michelle and thank you Jon, too. This is – it's certainly an interesting concept and I do agree with the basic ideas of really focusing on interfaces and sharing of data and less so on the internal architectures of individual systems. I had two comments and questions, if you don't mind. The first one is related to the privacy bundles. I certainly agreed with the concept that the patient's controlling their own permissions for privacy bundles, which you use here. And the question is, does the report portray these bundles, and I'm sorry I haven't read the report, I've seen it, but I haven't read it to this degree. Does the report portray the bundles as something that accompanies the data or are the bundles consulted before you send the data and then maybe perhaps limitations on the use would accompany the data themselves?

And then my second comment is that I do agree with Wes that this architecture seems much more aligned with treatment purposes than for other types of sharing. For example, I don't see how this architecture could – it doesn't seem to include any APIs or any components to support research purposes. The PCAST did seem to address research purposes to a larger degree than this one and it might be worthwhile to incorporate some of the PCAST concepts into this. So, those are my one question and my comments.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Oh, all right. Great Dixie, thank you so much, those were great comments. The first addressing the privacy. My understanding of what's in here is the suggestion is that the permissions, the fine-grained

permissions, associated with a particular privacy bundle that a patient selected, be associated with the atomic data and the metadata associated with that atomic data. So that would go right down the level of the individual piece of data, the datum, as Wes would say, as proposed here. Again, I think that you all have a very good appreciation of some of the challenges and the promises associated with that, okay, but I think that's the suggestion in the report.

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

But you're saying they would be – the permissions would be associated with the datum that are exchanged, not with the data within the system?

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Yeah, although looking at the – as I look at the architecture, the privacy bundle management, okay, in the diagram is associated with the upper levels of the stack, not with the datum – data that are below the crypto layer. So, I think – I don't want to speak authoritatively about that, that's a great question. I will definitely consider it a little more carefully, but I think it's where that lives and my understanding was that they were associated with the metadata, the privacy management. Dixie, ask me the second question again?

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

It was really that it didn't seem to me that the – it was the same part of what Wes said, it didn't seem to me that the architecture really could support research, it didn't seem to have APIs or components that would be supportive of using – of accessing data for research purposes.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Okay, good question, thank you for asking. Research is very – within the full report, research is very clearly called out as one of the reasons why you would want to move towards this sort of architecture and this sort of infrastructure, page 47 if you want, of the report is where they start talking about that. I think it's not necessarily contained in the architecture because, as you all have observed, treatment is one use case for that, research is another use case, population health is probably another use case. So, it's not called out in that diagram in particular, but it is something that is very carefully considered in the report.

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

The reason I say that is it looks like the APIs, I don't see any way where that you could – that would be privacy protected APIs there at all. So, maybe it's just the diagram itself, but research obviously would need both that and would need the ability to both search for cohorts as well as to federated access and I don't see anything in there that would support research – thank you.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Yeah, you bet. Just briefly, so the – again, looking at the diagram here and this is an example architecture, right, so the upper right-hand corner are the privacy – is the patient privacy bundle management aspect, along with the key and certificate management, identity, authentication, authorization, stuff like that. That spans the different APIs, okay, that are associated. And the other thing I'll say is that the APIs that are shown on the diagram here are only from current systems, two different layers of the architectural stack. To me it looks like that actually spans those, so the permissions that an individual chooses for their data would then be applied to any of those levels of the stack, which would in – I think is probably going to include research. But worthy of further definition, I agree. Thanks.

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

Okay, thank you.

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

Thanks Dixie and John. Leslie Kelly Hall? Leslie, if you're speaking, you're on mute.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thanks, I had to enter my password. So thank you very much for this, I appreciate the review and also very supportive, especially of the recommendations around the APIs and the consistency that seems to demonstrate with the work going on in FHIR. I do have like concerns of Wes, around the wording and descriptions of the ownership of data being the patient. The property rights are inherent to the person who creates or records the data. The patient has the ability to view the data and the right to download and transmit. But inherently not the property right, as I understand it. And these recommendations seem to pivot on the ownership of the data being the patient. If this is for transactions or movement of data, there seems to be – could be an argument for that, but I do – I am concerned about predetermining use of data can actually restrict care and potentially cause harm.

If this structure is then defined and the consents associated with that are implied for actually – care and – the same applies. There could be significant safety issues if there are restrictions. If, of course, there's override for care, then there's a considerable amount of work to be done without some material gain because in fact, care would always override any sort of consents around those privacy bundles. So again, why go into that level of detail in the internal structure of the EHR. So I would be concerned about clarification around the ownership and the actual property rights associated and the expectations around consent given for distribution of the data, outside of care. And very concerned about the restrictions and safety implications and if this is done within an EHR and would like to hear comments more about that. And then in the report, there was nothing regarding patient-generated care data or anything around the architecture for inclusion of the patient and their proxies in more of a collaborative care model and wondered if you had any comments on that. Thank you.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

As I had – in my hopes and dreams, this is a very rich discussion, thank you, thank you, thank you. This is exactly the kind of discussion I was hoping for. So, on the first issue of the patient owns their data. Again, I think that was a under – a foundational principle that JASON thought was important to try to recognize and I think that we have all struggled with this issue across various places, various ways. This is not a comprehensive analysis of all the laws and regulations that apply to, who owns the data? For me, this goes back through 2006 when I put out a request for information about the concept of data stewardship through AHRQ. I don't know that you all know that this is a discussion that's kind of gone on back and forth.

What I think probably nobody is going to argue with is the fact that patients have rights to their data, I think everybody can probably agree on that. And then I think layer – this concept that the patient owns his or her data needs to be evolved in the context of, what are the laws? What does the law say and what do the regulations say? And what are the rights of the organizations that create that data? So yeah, all of that I agree with, I think that that is a discussion that needs to happen. I think the architecture certainly – that's been proposed here, I think definitely has that principle as an underlying – as I said, it underpins part of this. I think if you add in these conce – the other concepts of the ownership of the data by the organizations that create it, I don't think that has to bring the whole thing tumbling down, I think that it does evolve it though. So I think that that's a great point for further discussion. All

right, I'm sorry, ask me the second question again? I was thinking so hard about the first that I lost the second one.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

The second one was really the lack of reference to patient-generated health data or patients and their proxies included in the collaborative care architecture. There was no – this is still a very provider-centric approach and I wondered if that would be further discussed later.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Yeah, thank you. Absolutely, I think when the report does recognize that data are going to come from a lot of different places that absolutely includes patient-generated data. I think that there's room for that within there. I do agree that right now, when they talk about where the data are right now, it is provider-centric, because that's where a lot of the data are. But I think that as we move ahead that concept of patient-generated data is – can be fit in here, I don't think they meant to leave it out, I think they were just trying to think about the system as it currently exists.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thank you.

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

Thanks Leslie. Keith Figlioli?

**Keith Figlioi, MBA – Senior Vice President, Healthcare Informatics – Premier, Inc.**

Sure, thanks. Jon, first of all, thanks, I think it's a really good summary of the report and very pointed. A couple of comments and then maybe a recommendation. Obviously we've been a little bit vocal to Jon's point about our position on the report and maybe to clarify a bit. Our position is that directionally we support sort of the overall approach here and the key points that are in here. But we don't disagree with a lot of points that are being brought up, which is, it's definitely an incremental and iterative path to get there.

From our perspective, I think the key issues that we get a lot from our membership base and again, Premier touches about 56% of the healthcare space in both the acute and the non-acute side, is really cost first, right. So we're talking a lot about the patient throughput and things like that, but underlying sort of what a lot of our systems are going through from a cost standpoint, and they're sort of tailing out the infrastructure cost to support an ongoing push. That's a big thing here we need to take into consideration, which is how hard is it to sort of support these systems, let alone integrate with these systems on an ongoing basis. And then secondly, the speed to innovation. If we have to continue to go point-to-point on everything we want to do and – vendor-to-vendor, it's not only a costly proposition but it's a very slow proposition.

And then complimenting that is when you start thinking about the trends of consumerism, m-Health, telehealth, transparency, some of the work that the open data access at CMS has done and then you just saw the three payers come together over the last week or so, trying to sort of open up some of their data as well. And you think about how the traditional systems are set up, there's also a natural tendency here that we're dealing with technology, as we all know, there's going to be an evolution to that technology.

So to me it seems that, and here's the, I guess I'll keep it shorter, well here's more the recommendation, this all seems very logical I think, to all of us, at least I think it does, where yeah, this makes a whole lot

of sense, can we drive the cost down to support these systems? Can we make interoperability a lot easier? Can we make it secure? We all know the various architectural structures that sit out today if we're just talking about EHRs. We think of it a bit more expansive, but for the sake of this committee it's very EHR-focused. We've got a ton of client server out there architectures, we've got some evolving players coming out with cloud-based variants. You've got – outside of healthcare, 75% of all IT purchases are cloud-based right now, and you can just see that looking at the earning reports of Oracle and IBM and what's happening to their software divisions right now and what they're trying to change.

So I think the recommendation, at least from my perspective, or Premier's perspective is, and maybe it's the third part of the topic today in our group meeting today is. When we think about sub-committees and the direction of the Standards Committee, I firmly believe that we should set up a group almost 100% dedicated to this topic as an evolutionary path to a sub-committee of the Standards group. And what I mean by that is, it's much more of the system thinking group along the many intersections of the other subgroups that may be vertical in their nature.

So you might have a quality measure reporting group, like we have and things like that, but when we think about APIs, it's more of a unilateral kind of horizontal group to think through the intersections of all these different points and figure out, to Arien's point, how we incrementally get there on this. This topic is not going away and I really do think we need to embrace it. We need to think about how it evolves into the structures of the ongoing evolution of the architectures of EHR systems, let alone the new players that are coming in. And we need a group that's very dedicated on how we steward this example.

And the last example I'd give on that is if we have a new player come into the market, a highly capitalized player that's not the big installed bases today in EHRs, and they come at it from a very specially angle. They get a ton of capital, they build a cloud-based EHR, how are we going to shepherd them into the MU structure over a period of time that is evolutionary in nature based on the architecture that they're setting up, not sort of say some of the historic architectures we've set up a number of decades ago. So, I'll leave it at that.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Keith, those are, like I said, good comments. The report does talk about the need to create an entrepreneurial space. I think we all feel a lot of energy in this market and I think there are a lot of folks who are kind of chomping at the bit to get in there. And I think a lot of the current players in the market have a lot of energy about what to do with the data and how you can make that data sing and dance and improve the health of people across the country, so, I do think that's one of the things that are trying to be addressed by this. The other comment that I'll add is that in discussing this – the report with one of your Standards Committee colleagues by email, they said that the report was a bit naïve and lacked some of the specifics about implementation. And I agreed that it was idealistic. I also said that after five years of slugging away at Meaningful Use that it feels like a good time for a little bit of idealism and reframing, so, I hope you all are taking it in that spirit.

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

Thanks, Jon. I – Jacob, I don't know if you want to say anything or –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I'm happy to, so, are we at the end of our queue, Michelle?

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

Actually, we just got two more hands.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, so why don't we go to the two more hands and then I'll try and close us out and move us to the next wave.

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

Okay, thanks. Kim Nolen, did you change your mind?

**Kim Nolen, PharmD – Medical Outcomes Specialist – Pfizer, Inc.**

Umm, no, I had raised my hand and somehow it disappeared, so I hit it again. Can you hear me?

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

Yes.

**Kim Nolen, PharmD – Medical Outcomes Specialist – Pfizer, Inc.**

Okay, thanks. Thanks for the presentation. And just to start off, once the permission levels for what is allowed in the data sets and what's not allowed in the data sets on the patient level is ironed out, I'd like to make a few comments past that point, and just build off a few of the remarks that have been made previously. We had mentioned that a uniform level of structured data is a great feat, and I agree with that. And I think what that also leads us into is data integrity and what you can actually do with the data. And myself, having a background, a degree in statistics and doing what I call probably low level analytics and I work with extracted data from the EHR today and what I see is that it's very messy today.

And that leads to a lot of issues around data integrity and what you can pull out of that data and what you can use with it.

And then when – there are even businesses out there today who take large amounts of EHR data and normalize it and sell it for people to use, and even when you take that information that's been normalized, and try to be improved upon, you still have data integrity issues with that information. And when you compare that information to information that's been done in rigorous research, you can still see disparities in between those two pieces of information and analytics. So I'm saying that and the point that I think it's really important as you move forward with this, that you have a huge component on data integrity. And make sure that the data that we – that people receive and the data sets that people use are robust enough to be used in ways, especially as you look at how people will use this information.

I think there's a spectrum of how this information could be used and you look at something at a practice site level with just making decision based off your practice site. Then, I do – that's great and you can use that information, and we use that information today. But you can walk around to people in the office and say, where are you putting the diagnosis of hypertension, are you putting it in a structured field or are you putting it in the chief complaint. And you can figure some of those things out and you and standardize your processes to collect the information and have better data integrity. But on a large scale, you can't do that, so data integrity, I think, is really important.

And with that being said, as people start to get this information and they're making decisions off of it, it needs to be transparent with how they got to that end point and that conclusion and what methodologies were used. Because we know as people do research, different methodologies can lead to different results and that needs to be transparent so people can comment and – have comments around that. And also, access to the data sets as they become available should not be constrained. They should be made available to everybody to use so that we can lead to more quality health care and improvements based off decisions and thoughts from the whole continuum in the healthcare environment. So I guess my – I had a couple of points in there, but I guess, how do you all plan to address the data integrity issue with this project?

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Kim. It's John, again. So, great, great comments. For a second I'm going to flip off my JASON project officer hat and I'm going to put on my AHRQ health IT portfolio director hat and say that I'm a research data loving nerd geek and we think it's really important way of the future. AHRQ has funded a reasonable amount of work in this area, you all may be aware of the Electronic Data Methods Forum, work that was done under the Recovery Act. And I'm sure you all are probably aware of work that stood up since this report, by the way, this was done, which is PCORnet and work that PCORI is supporting. I've been reasonably deeply involved in both of those and watching them kind of transpire. They are grappling with a lot of those issues right now. I think we're entering a different world in terms of the evidence that is available to us when we make – it's great to do studies, but at one – at some point, it's Dr. Reider sitting down with Jon White in the office and making a decision about what to do. And Jon White turns out as fairly sophisticated in terms of what he thinks about evidence and is going to want to know information about why – how do we know that and what's the evidence that underlies that. So, I don't have a plan, this isn't a project at this point, interesting topics for discussion. But I think that if the Standards Committee thinks that this is the kind of thing that ought to be addressed, both of those are really incredible topics.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Michelle, are we at the end of our queue?

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

I think Wes Rishel has another comment.

**Wes Rishel – Independent Consultant**

Thanks, Michelle. I just want to say, I sort of resonated or my bell rang with the comments a little earlier about the FACA looking at longer-term projects rather than the next stage of Meaningful Use. I – Farzad Mostashari used to say, eyes on the stars, feet on the ground and to a certain extent, I think we are grounded down by the feet on the ground part of the job, even though that is the job that actually creates results – well, we hope creates results in a relatively short time. I would be careful in looking at a longer-term view not to tie it to a specific architecture or architectural flavor such as the cloud. But I think it should be cognizant of those flavors that are having big impact on what we're doing. Thanks.

**P. Jonathan White, MD – Director, Health IT – Agency for Healthcare Research & Quality (AHRQ)**

Thanks, Wes. I love ringing your bell.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Seventies top ten radio hits going through all of our heads now, thank you Jon.

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

Jacob, I think that is now everyone.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, thank you, Michelle. This is Jacob Reider again for the transcriptionist. This has been a great conversation and I think it's exactly what we had in mind was, weaving the feet on the ground to the eyes on the stars. And knowing that the two are rather distant from each other, but if we don't have our – the relative parts of our anatomy, perhaps our eyes and our feet connected by something, and perhaps this report is the something, we may not actually get there from here. So this was a great discussion and I think the first of many.

And I will segue that into a thought that we've had at ONC is that taking a subgroup of the Standards Committee and perhaps also a subgroup of the Policy Committee and having a team of folks work together to look at this report in some detail and make some recommendations to ONC. And I think that's dovetailing with the summary of what John said, I think about halfway through our conversation, in response to Eric Rose's comment. We want the byproduct of this to be consumed and discussed and then there be a very public and open set of recommendations that come to ONC in the context of this. Because I think as we've discussed, the Standards Committee is the Health IT Standards Committee and not, as I think we may have been pigeonholed in the last year or three, the Meaningful Use Standards Committee.

So this group has a scope that's broader than Meaningful Use and has a scope that really is – it's responsible for making the recommendations to ONC regarding the standards that we need to support, implement, define, refine and iterate for health IT as a whole in this country. And so it's a much broader scope than one program from one payer, albeit the largest payer in the country. And we need to really recognize the interests of all of the important stakeholders as we move forward. And so, if you are interested in serving on this, I guess we're calling it a Tiger Team, Michelle? Although I don't know the origin of that term –

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

I'm calling it a Task Force –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Task Force, okay. If you are interested in serving on the, they call it the JASON Task Force, Michelle?

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

Yup.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

If you're interested in serving on the JASON Task Force, please send your name to Michelle and she will also send out a formal invitation to be Standards Committee folks. And of course we'll have a similar conversation with Policy Committee, because we want the input of both the technical experts and the implementation experts and also the policy thought leaders to come together. Any questions or – ?

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

Jacob, this is Arien and I have a friendly counterproposal –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Um hmm.

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

– for your consideration which is that we talked last time about an API and architecture working group. And I'm wondering whether that would be maybe – or a subset of that group in conjunction with the Policy Committee would be the right group to take this on, rather than having yet another group that isn't necessarily acting in conjunction with the API and Architecture Workgroup.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

So, and this of course is connected to the next part of our conversation, so we are reframing the working groups. Is your suggestion, Arien, to take the sort of the new working group that will be a working group that would have this in their purview and then interacting with a similar sort of mirror image group of folks from the Policy Committee, rather than creating a new thing?

**Arien Malec – Vice President Strategy & Product Marketing – RelayHealth Corporation**

Yes.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I think that's a good suggestion. Other thoughts about that?

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

Jacob, this is Michelle. My thought is that it would be great to keep this group smaller and so maybe it's a small group of what eventually forms into the API Workgroup. So there could be five members representative that then become that API Workgroup, but not all of them, if that makes sense.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Um hmm. Yeah, so I think, let's take this back and massage it a little bit more, because I agree with both of the ambitions. So Arien's ambition, which aligns with our ambition for why we're reframing the workgroups is to not create a new spawned activity, right? Our goal with the workgroup was to say, hey, let's have these – this set of workgroups, and these are the workgroups so that we don't distract the team into multiple activities that are potentially divergent. So I like that guiding principle. I also like the

guiding principle of keeping this activity small, because it's going to be combined with a set of folks from the Policy Committee.

So this is potentially a subset – subgroup of the API Workgroup, or the API Architecture – Architecture Services and Application Program Interfaces Workgroup as it's currently framed. So, any other thoughts pro or con about that proposal? Okay, I'll take that as consensus that it's probably the right thing to do. And so as you frame that request Michelle, we can frame it, as these folks would likely be members of that workgroup. I think the other issue here, just logistically is about timing. This new workgroup may not be fully formed and staffed by the time that we launch that Task Force, so we'll just have to work out the timing of which comes first.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

Hi Jacob, this is John Halamka.

**Wes Rishel – Independent Consultant**

Wes Rishel –

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

Can you hear me?

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Yes, welcome, John.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

So I am 100 miles from North Korea, it's midnight and I am anxious to talk about workgroup reassignments. I have just left Shanghai where Mr. Putin was trying to figure out gas prices in China. So you know, it's been a great day.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Well welcome to the call, John. You joined us at the right time and in the interest of getting you into bed soon, we'll try and be efficient and we won't belabor this. Were you able to attend any – hear any of our discussion of the JASON report?

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

I just joined 30 seconds ago.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, well welcome to the call. We are at a transition point, so we're just moving in to the proposed workgroup evolution section of our agenda. Any final comments or questions about what our next steps are with the JASON report?

Okay, hearing none, can we move to the next slide and we'll step through our proposals for the draft Standards Committee Workgroup evolution. And you now see, if you're following on the Internet, you

now see the first slide and I'm going to – we talked about this at some length at the last meeting and Doug Fridsma gave what I think was a very good overview of the wh. So I'm not going to repeat the why, because Doug did it much more eloquently than I would and I'm going to dig in a little bit to some of the what. And this has evolved some based on your input at the last meeting.

What we'd – our goal here today is to finalize this so that ONC can start to build the staffing plan for how we staff each of these workgroups. And we're working hard to find dedicated staff so that there's both consistency and a little bit of logistical project management, subject matter expertise skill that will support each of these workgroups and then work toward implementing them in the next month or so. So, looking at this first slide, our first proposal would be that there would be a Steering Committee. The Steering Committee, and this was based on your feedback at the last meeting, would be the conduit. Let's go to the next slide, please.

So the Steering Committee would be the conduit to the Policy Committee, would receive requests from the Policy Committee. But I also want to make it clear that there may be things that this group thinks are important that are not always a reaction to the Policy Committee. So the Standards Committee can and in some cases should be proactive and saying from a standards perspective, this is what ought to happen and need not wait patiently sitting on its hands for the Policy Committee to ask it to do something. So, going forward, the location for that, either the reactive assignment of certain questions to answer, or assignment of certain initiatives to define would rest in the Steering Committee and obviously work on coordinating activities. Next slide, please.

So again, fitting into Dr. Fridsma's rubric of the five things that we need to standardize, the first is meaning. And so there would be this Semantic Standards Workgroup. The Semantic Standards Workgroup would really focus on two primary things, right, so vocabularies, the way we express things and information models. And I think it's important that both be recognized as an important component to the semantics foundations of closing my eyes and looking back at the chart that Jon put up, architecture of the health IT infrastructure for our care delivery systems, thinking of this in the large scale systems model that we talked about. So those two components are really the core of what the Semantic Standards Workgroup would be in charge of. Next slide.

The next component of what we would want to standardize is content. And this isn't necessarily the content of a document so much as the content the data set or the components of care delivery that need to be communicated from one place to another place, even if those two places are the same set of neurons, just separated by time. Right, so we document things for ourselves and for others and store them in a certain way and we want to standardize those things. Obviously we've all been witness to the evolution of FHIR and it's likely importance in the next year or 10. And also the importance of the common data elements so that we can make sure that the same things that we are describing in a reasonably granular way can be captured consistently, transmitted consistently, received and interpreted consistently.

Genomics is obviously important and I understand that Dr. McCallie couldn't join us today because he went back to medical school for three days to catch up on genomics. I was jealous that I wasn't able to do that myself. And then, of course, what's happening in the consumer space and how we understand that information, capture it consistently in a way that aligns with the way that information is captured by the traditional care delivery system. Next slide.

So if we catch it and it's semantically consistent, we need to send it and it needs to be sent in a consistent way so that we know we can get it. And it needs to be done in a way that aligns with the expectations of our secur – privacy and security, both legally and ethically. And so this workgroup would make sure that we are aligned with other federal initiatives, make sure that we are aligned with other

essential requirements for how these things are done and how and whether we would segment which information and how we would authenticate who it is that's doing what through digital signature methodologies and other things. And I think this one, as I look at the slide, reminds me that the slides are the tip of the iceberg for the activities of each of these workgroups. But, I think they're a way for us to align. So, this isn't an exhaustive listing. And next would obviously be the architecture – sorry, next slide.

The Architecture Services and Application Program Interfaces Workgroup, this is the one that Arien just suggested would have a task, so this one might have a task already. And obviously this is a very hot topic. There are a number of organizations that are calling on ONC to “require APIs.” I was at a conference last week in New York City and I asked the herd of about 500 software developers in the room if ONC should require APIs because they were all calling for it. And I said, gosh, do you think we should just require this to happen. And there were four vendor representatives on the stage and as the tweetsphere reflected, they all said yes, but. And it was a good interaction because the answer really is yes, but it's a lot more complicated than I think many in the consumer space and even some of the policy folks understand about how this would need to be done and I think this group will be a great place for some of those conversations to happen.

And finally – next slide, the Implementation Certification and Testing Workgroup, which would be the connection to the implementation experiences, help us understand what's really working in terms of the standard processes, standards that we could both recommend. And perhaps even require for how both vendors and implementers would successfully implement these systems, while still allowing for innovative methods, so that we can learn from each other. And also obviously focus on certification and certification program and incorporate the byproducts of the hearing that we had and give ONC advice on how to maintain a certification program that is both agile and responsive to the needs of developers of health IT. And yet also protects the public in a way that gives them confidence that their systems can do what they need them to do, as a basis for doing what they need to do to provide better care to our patients.

So that's my, I hope, short summary, sorry it took as long as it did. Open to discussion and I'm sure that there's a queue. So I'm going to pass it over to Michelle to manage our queue and get your feedback on where we are with the reminder that we really want to close out on this today, or very soon hereafter. So that we can start to staff these teams, get folks assigned – workgroup members assigned to these teams and start to kick off the work. Michelle?

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

And Jacob, if I could just add a quick comment on that.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Oh, John. Please.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

Some words of support which is, to all the members on the Standards Committee, I've reviewed the progress of these slides in evolution and watched how ONC has taken your recommendations, changed titles of workgroups, but then importantly, changed the scope and terms of reference. So I think they've done actually in this slide deck, a very good job of creating good differentiation across the groups, which seemed to naturally leverage the expertise we have within the committee. And to me, as we go forward

it's so important, as Jacob has outlined, to get our semantic standards build foundationally and then to ensure that we evolve whatever C-CDA will be into FHIR or the next great thing. And that we can think of various kinds of models beyond just pushing data, the kind of pull and query response. And whether you call the API the query response and pull model, all to be determined. But this seemed like a very good structure, a construct for us to have those debates. So, just want to thank Jacob and ONC for putting this together.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you John.

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

Thank you John and Jacob. Eric Rose?

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Hi, thanks for doing this, I think this is a really – this new structure makes a huge amount of sense. I had a quick question about Semantic Standards Working Group versus the Content Standards Working Group, in particular around the phrase information models, which was mentioned as being in scope for the Semantic Standards Working Group. And I wasn't quite clear on what that means and how it differs from the document standards that I think is meant to fall under the Content Standards. It would seem that information models are about how bits of information are arranged with respect to each other and so can you help understand an example of that that wouldn't fall into the Content Standards Workgroup or does that particular phrasing maybe needs to be rethought?

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

A, I'm going to phone a friend here and see if Dr. Fridsma's on the line – Doug, are you on and can you respond to Dr. Rose?

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

Sure. So this is Doug. I think the best analogy, and if you're familiar with some of the HL7 standards, the document standards that we have right now, things like the consolidated CDA have underlying them, an information model that's call the reference information model or the RIM. And those are a way – and so I think of information models as telling us the structure of semantics, rather than just sort of the structure itself. And I think we – there's some debate because I think there is certainly overlap between the way we represent the semantics and the way that those things are instantiated and structures that we use to exchange that information .

But I think one of the things that's going to be important is that consistency in the semantics is going to require us to understand how the different bits, the different kinds of concepts relate to one another. And I think there's ongoing work that's happening within HL7, for example, that's looking at work that Stan Huff and others are doing on creating small information models that can then sit behind things like these FHIR resources and FHIR profiles, so that there's a consistency with how the concepts are related to one another.

And so there is always going to be a certain degree of overlap between the semantics and the content and information models sort of fall in between those. But I think it was probably thought that it would

be better for us to think about how those things fit in relationship to the vocabularies and other ways that we represent semantics. And still try to make sure that there's a relationship with how those vocabularies and value sets and information models then can be in some sense put into these structures so that there are ways computers can parse them and understand them.

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Okay, so it's anticipating continued decoupling of information models from document standards.

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

Precisely and I think –

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Okay.

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

– that's one of the challenges that we often have is that when the information model becomes too tightly wedded to the structures we use to transport them, that just creates, I think, additional challenges. And so that's why putting that – thinking of information models as helping us understand better the context of the concepts that we have, understanding the relationships between them, it just seemed to make sense to have those discussions in those groups. And I think there will be always a certain degree of interplay between those two groups, but having those conversations there I think will be helpful.

**Eric Rose, MD, FAAFP – Director of Clinical Terminology – Intelligent Medical Objects**

Cool that might be worth just articulating in the sort of the charters for these workgroups, in case there are other knuckleheads like me that don't get it. Thanks.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I don't think that was a knucklehead question at all, Eric. Thank you. And I think as Doug described, there's overlap. Other questions, Michelle?

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

Andy Wiesenthal?

**Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

Good morning everybody, I was actually feeling a little sorry for myself having to – with the West Coast contingent get up rather early – participant until I heard that John was about to be taken hostage by the North Koreans. So, having said that, I like this structure, my litmus test for it is to try to think of work that could come before the committee that wouldn't fit under the terms of reference of at least one of these structures and I really couldn't. I think it allows us to approach our work in a comprehensive way, but organize it a little bit better. So I congratulate Doug and the folks from ONC on developing it.

And it seems to me that we can sort of debate this around the edges for as long as we like, but my personal preference would be to try it. So I vote for doing that and then what we can do is revisit it at a

set interval, whatever you choose, six months, 12 months or something that makes sense., that would say, all right this is working? Are the terms of reference correct? What would we change? What would we keep the same? Rather than trying to fine tune it now.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Great suggestion and I like the 80% of use cases probably fit. We can all challenge ourselves to find the edge case and veto the model. But I like the way that you framed it Andy, thank you.

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

Wes Rishel?

**Wes Rishel – Independent Consultant**

Thanks. I wanted to just make a couple of comments about the Semantic Standards Workgroup versus Content Standards. Along the lines of what Eric said, the way I understand it, and this has been something I've been in favor of since I wrote some blogs about molecules a few years ago. But the – in one approach to modeling is top down, let's get it right at the top and then somehow fractally all of the representations of complexes. They're not just simple numbers, but represent data and blood pressure is the one that's always given, that can have five to more data elements within it, according to whether it's neonatal blood pressure or adult blood pressure. But they will somehow – rules for fractally combining the top-down information model will create a canonical representation of those. And that really has been a very difficult challenge and hasn't worked out.

The other model is to go bottom up, to enumerate some number of thousands of modules – of models of individual clinical data elements, so composites of data items that have meaning, such as a blood pressure. And then use the higher-level standards to talk about ways to combine those into meaningful larger structures. And I'm very delighted to see that ONC has taken – put that approach into this model.

I think it – because of overlapped – overlapping timing issues, it creates a lot of attention to the interface between the Semantic Standards and the Content Standards Workgroups. In that the Content Standards Workgroups will be under pressure to get things done that will rely on work that's ongoing and may be out of synchronization in the Semantic Standards Workgroup, managing that relationship will create what I think is the best possible outcome for getting the most semantic specificity into standards.

I just want to comment that somewhere between these two workgroups we have to deal with an issue that has – really is going to come out in Stage 2 implementation, which is how to deal with negation and relative levels of certainty. Something that is not inconsistent with is not the same as something that is something. And that represents an area that as we deal with problem lists now, we have punted, in the sense that we've said, well, the physician will look at the problem list and decide what to keep. But one of the reasons, not the only reason, but one of the reasons we've punted that is because we don't have good ways of expressing certainty, relative certainty. So that's going to be an issue that's going to come up as well. Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you Wes, and I think we're now starting to build the task list for that workgroup, so it's wonderful and I agree those are really important topics that have essentially been sidestepped for a couple of decades. Michelle?

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

Jamie Ferguson?

**Jamie Ferguson – Vice President; Fellow – Health Information Technology Strategy and Planning; Institute for Health Policy**

Yes, hi. I'd like to reprise I guess the same comment that I made in the last meeting, which is that there needs to be explicit recognition of tasks related to usability and workflow issues in the workgroups and I think the resolution from the last meeting was that that's a responsibility of the Implementation, Certification and Testing Workgroup. So I just want to ensure that usability and workflow are explicit parts of the charge of that workgroup.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Agree, and we will – so let's – Michelle, let's make mental note to make that more explicit. As you know, it's of increasing priority to ONC, we've been interested and have participated in a lot of work in that space and will continue to do so. So let's be very explicit about that being a part of that workgroup's task. I mean, it's one of the bullets now. Jamie, what's your recommendation for enhancing the – .should we make it bold or all caps?

**Jamie Ferguson – Vice President; Fellow – Health Information Technology Strategy and Planning; Institute for Health Policy**

Sorry, I wasn't looking at that slide, so I think it's fine, just that it's there. Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Oh, okay. Yes, it says, establish recommendations for how to test workflow and usability. Maybe we should broaden that bullet and it's more than just testing, but improve, how to improve workflow and user experience in health IT products? Is that getting closer to what you're thinking?

**Jamie Ferguson – Vice President; Fellow – Health Information Technology Strategy and Planning; Institute for Health Policy**

It could be, I'm not sure the right formulation. I think that standards for usability need to be better developed perhaps as well.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay, so we'll take that back and so we'll hear that as a friendly amendment, but not an objection to the definition of this workgroup. And I think as Andy described, I think we will – as we move from PowerPoint to narrative in the charge definition, so just to think about our logical process here, it is get the agreement of this group to move forward with this model, that's step one. Step 2 will be to staff and identify Chairs for each of these workgroups. At that point, we will then write narrative charges, so we take the bullet charge from the PowerPoint and we put them into ideally a one-page narrative document that is a little bit more expressive and then assign workgroup members and start the work of the workgroups. So I think as we flesh that one out, Jamie, we'll certainly add some chutzpah to that bullet point. Thank you.

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

Steve Brown?

**Steven H. Brown, MD, MS – Director, Compensation and Pension Exam Program (CPEP) – Veterans Health Administration**

Thank you. At the Department of Veterans Affairs, we're spending an awful lot of time now thinking, amongst other things, semantics and I would like to commend you for proposing that in your forward-looking structure. And surely the intersection of terminology and information models is something that we are concerned about. We, I think, agree with what Stan said in terms of the time to get everything ready. One of the things we're facing really is at that intersection, the simplification of models, but also scalability and reproducibility at that intersection, and that is clearly a challenge that we're looking at and would have thoughts on and would obviously love to participate. We think this is super important.

One of the ideas that we're trying to bring forward is the id – and as everyone knows, we have our issues with interoperability and sometimes that even makes the news. The problem that we see is that we have yet to achieve semantic operability, not just – not interoperability. And to me, semantic operability, knowing what we're doing within a single system across various domains and subsystems is a primary challenge that will surely aid our pursuit of interoperability. It's a seemingly smaller task to know what you're doing within a single system, but again, that's an area of focus for us in our upcoming VistA modification, evolutions or whatever those names happen to be. But it's a useful way to think about some of the problems and we'd hoped to bring that to the table, the issue of operability versus interoperability and semantics.

One of the challenges that we face and might be another good topic for the group is, where there are standards have emerged and are now some of them are very good, and I've thrown as many rocks at them as anyone in content studies and the like. We do face challenges in areas where there is overlap between sta – even some of the best of standards and that's another, I think an important area to focus on is resolving sort of competing standards and overlap. The early steps taken by Regenstrief and LOINC and SNOMED, I think are in the right direction and they are to be commended for that and the Library for helping with that. We'll need more of that on this path, and that may be another topic for the group to look at. And finally the issues of tooling to support reproducibility and scalability and simplification is another area that we're actively looking at and would love to collaborate on.

I'm not sure if folks have been following as closely as perhaps DoD and VA, the House Funding Bill for Military Construction and the VA. It is – Congress is into this space as well. They have called out data reference terminology models in this massive spending bill. So, it is receiving attention and will hopefully get some funding as well. So with that let me say thanks for, I think the breakout looks good. It addresses areas that we think are important to address and can make some contributions and learn some from it as well. Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, Steve. I was –

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

So –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I was expecting Steve to talk about something that he didn't talk about, so I'm going to prompt you Steve to maybe share your thoughts on where you think decision support would be managed and maybe picking up on Andy's challenge to think about a use case. So if we think about decision support and maybe the various slices of decision support, would you have concern that decision support, perhaps being sliced into part of it would be the Semantics and part of it might be the Content. Might there be a risk of dividing something that in some sense is a subject, a topic and yet the parts of it might be separated into two groups?

**Steven H. Brown, MD, MS – Director, Compensation and Pension Exam Program (CPEP) – Veterans Health Administration**

Yeah. So, I mean our current view of how to do at least the more obvious forms of decision-support is that they should be built from the smaller building blocks of terminology and sort of observable units of things. And much, I think, credit goes to Keith Campbell for sort of working on the ideas of starting at the very bottom, as Wes notes, with these reusable chunks of really the pieces concepts within a terminology. And building more complex things out of them, whether they be decision-support rules, whether they be statements about non-patient specific knowledge and the like. So are we at risk for separating? I think we are and that always requires coordination.

At some level, though, there have to be decisions made about chunking work and I think that will need to be relatively, be carefully managed so that we don't run off and do – create the 2015 version of the curly braces problem. So, yeah, I don't know, I mean, that there's a better way to do it necessarily. But surely there has to be – when you take things that go from white to light gray to darker gray to black, there's – you have to make decisions somewhere. So I think – all I can say is collaboration and communication and if looks like there – it's becoming a problem, then rethink it.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay. Thank you. Michelle back to you.

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

Sorry about that, Floyd?

**Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC**

Thank you. Actually, it's the perfect time to come in here because I think Steve's comment and Jacob's question about that it was leading to basically what I wanted to discuss. I appreciate Doug and Jacob's comment about why the data and the structure are separated here and I think that makes sense. I do think the intraoperability within a system is really something that has not been addressed, just to echo Steve's comments, and I really think that's a key element of part of the challenge we've been having with clinical decision support and also measuring retrospectively the care that's provided. And the more we can encourage that there is better data representation within EHRs, the less trouble we'll have with, I believe, usability and the easier we'll be able to manage decision support.

I recently looked over a NIST report on usability for pediatric function and it was very interesting to read through. It was not about testing usability per se, it was making sure data were properly managed and connected, at least on a screen, hopefully behind the screen, to make sure that the information was available to the clinician at the right time. So I think there are ways of combining some of the usability

with data in dealing with intraoperability that supports also interoperability. So, there was a lot of – that went into that statement, but I think this structure can do it, the Steering Committee will have to be very strong to make sure things align.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thanks, Floyd. Good points.

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

I think Leslie Kelly Hall has another comment.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thanks for this, I did have a question about, in follow on to the decision support, the shared decision making kinds of things with the collaborative care that we might see in the future. And I just want to verify that you feel that the Steering Committee is the place that might be putting forward kinds of – the recommendations that might actually inform policy, to Jacobs point earlier. Because as we bring the patient and their families more into a collaborative care model, we're not looking as much at individual transactions but more of multiple and many to many relationships of data. And I think that requires not necessarily a building iteratively alone, it requires some sort of visionary statement or design principles that we could then inform both policy and future efforts in our individual sub-teams. So that would – the questions really around that are is that where the Steering Committee fits in? And then also, is that thing – is that where the collaboration and shared decision making design and things like that might take place?

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I think – this is Jacob and I'll encourage others, especially Dr. Halamka, to chime in here. My sense is that it's exactly what you just described Leslie. There's a piece of what the Standards Committee can do that is making the Policy Committee aware of what things might be possible. So there are tools available and we need to be careful not to have solutions looking for problems. Right, hey, the technique – the technology folks say there's this cool new technology and you policy folks ought to use it. So we need to be careful not to do that and have the technology drive policy. But at the same time, make that policy's aware of opportunities and I think that that's what you're saying. And that, I think the Steering Committee as the conduit to the Policy Committee would certainly be well placed to do that. Other thoughts from – ?

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thank you –

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

And so Jacob did ask me to comment, please go ahead.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Go ahead, John. Sorry.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

So Leslie, you'll be proud of me because as I was flying to China, I was writing a book chapter on patient and family engagement and reflecting on how standards could empower new and novel workflows. And so exactly as Jacob said, what I imagine is that we can't even anticipate some of the new ways that patients and providers will collaborate in the future. But I suspect that as we have talked together about leveraging some of the standards we use for content or vocabulary representation, to actually empower some of these new workflows. And I think the workgroups, as divided, can say, oh well, actually want to have joint care plan development. Now the workflow for that and the policy for that, that's maybe external to us, but we can actually ensure whether it's a provider-provider, provider-payer, provider-patient, patient-provider, all these workflows can be supported by a common set of standards construct. So, I don't worry that given your passion, that these issues will ever go silent.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise** 20819

Thanks. I have one other tactical question and that is, we have so many wonderful volunteers that come into subcommittees all the time, who want to continue to contribute in the future. And I would hope that we would provide clear guidance for that, just as we have in the past with our ability for people to self-nominate online and provide their areas of interest that we would continue to encourage that level of involvement from additional players.

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

Yes, you'll see a blog post coming soon, Leslie.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Great feedback, Leslie. Thank you, as always. Michelle?

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

Dixie Baker?

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

Yeah, thank you, Michelle. Actually Floyd's comment regarding intraoperability prompted me to think further about that. I do agree with him that this is really important and I think particularly if ONCs – if the certification shifts to the certification of EHR modules. I'd think that in the best interest of providers who are purchasing this certified EHR technology, we do owe them some assurance that the certified EHR certified modules that they purchase can be integrated so that they interoperate and exchange data easily and can be supported by the same decision support engine, decision support rules. And in looking – his comment made me look back at the slide about the API Working Group or Architecture and APIs Working Group and it's not clear to me, it looks like the second bullet on that slide suggests to me that we're talking about that that workgroup would be looking at intraoperability. But I was wondering if I'm reading that correctly or is there sort of a shift toward more attention to integration and interoperability among certified EHR modules.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

This is Jacob. Doug, can you concoct a response to that? I think I know the answer, but I'd defer to yours.

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

I am listening, but I need the question repeated.

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

It had to do with intraoperability – interoperability among certified EHR modules and whether, there seems to be looking at the slide about the Architecture at API Working Group. One of the bullets suggested that maybe there is – you do see some attention being paid for assuring that certified EHR modules can be integrated to interoperate within an enterprise. And I was wondering whether that was the intent or whether that was just somebody typing a bullet.

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

I think there are probably two things that I can say to that. The first is this notion of operability versus interoperability. Being explicit and understanding the context of the information, both within a system and across systems is sort of the first step. You can't get interoperability unless you're explicit about kind of what the information is, both within an organization and between them. I think the same is going to be true of modules that would be to communicate and talk with one another. I think ultimately the goal is that you would have these building blocks that would have some degree of explicit ways in which you can say access the scheduling system and make sure that that updated your lab system or that the different modules were able to communicate. Whether that's something that we can do in the first you know couple of years, I'm not sure. But I think part of what we want to do is to kind of build the path that would allow that to occur.

One can imagine that the complexity of testing for how all those pieces might fit together is going to be pretty daunting. And I think what we want to do is I think we first have to make sure that we've got some explicit semantics, some explicit boundaries. That we have some notion of how to get information from one place and send to another and then probably very slowly try to figure out while these two will work together very easily and we can assure that they can do that. I think ultimately what that ends up happening is that you almost develop a set of standards and APIs that work almost like a platform and you'd plug those modules in and you'd know that they'd be able to sort of communicate with one another. That may be something that is coming down the road, I certainly think our standards work and the work of this committee should not preclude getting to that kind of future. But I think we have to be able to walk before we can run. And I think one would hope that as we kind of flesh out the work of these various activities, we can keep that always in the back of our mind that that would really be a nice goal to get to, that would have that assurance that different modules could function together.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

This is John, I'll answer from the experience of our self-built record which is, we needed and APIs that takes an object of an arbitrary nature, it could be an image, it could be a text file and there's metadata that specifies who's the patient, what is this thing, what are its dates, what are some of its provenance characteristics. And we have modules that are written by our own internal developers that use this API

as a means of getting data into a common viewer in the electronic health record. Well we also have external partners and through the health information exchange, we receive objects from those external partners and they end up using the same API. So I think to your point, I think the way the API Workgroup might be envisioned is whether it's internal, whether it's external, whether it's interoperability or simply having modules hang together, the API would be a kind of universal construct.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay. Great thoughts. Thank you Dixie, John and Doug. Michelle, do we have – ?

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

John Derr?

**John F. Derr, RPh – Health Information Technology Strategy Consultant – Golden Living, LLC**

Yes, this is John Derr. I think all of this is really great and I just wanted to say one thing and that is, please don't forget those people who are in the non-incentive groups, that we are included. Because you guys have done such a good job of including us, especially the S&I framework and all that, that as we continue down this road, especially implementing Stage 2 and all that, we are a very important part of all of this and that's long-term post-acute care, behavioral health and some of the other – incentives. Just – I did talk to Doug and Michelle about this, but as we've discussed the slides, I wanted to make sure that we were included in this reorganization of the workgroups. Thanks.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thanks, John, those are good points and I think it aligns with what I said at the very outset of our conversation, which is that we really want to make sure that we emphasize that this is the Health IT Standards Committee and not the Meaningful Use Standards Committee. And so, although it may be implicit, I think your comment is a good reminder to us that we be explicit about that scope for the work of this group. And that we remind ourselves and perhaps our audience of the importance of that scope definition early and often, as they say. So thank you, John.

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

Thanks, John. Was we were you agreeing with John and do you have a question?

**Wes Rishel – Independent Consultant**

Well, I always agree with John, but I actually hit the wrong button, I was trying to raise my hand, except when I don't –

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Usability, we'll have to talk to the experts about that, or user error, whichever it really was.

**Wes Rishel – Independent Consultant**

Usability for the shaky hand, yes. So, I – we're having just a wonderful time all agreeing and looking forward and I hate to be even slightly diminutive of that, but that won't keep me from doing it. When we talk about operability versus interoperability I think we have to be careful in shaping that discussion,

that we do not begin to see ourselves as regulating the structure or architecture or technology choices made by vendors in this space or other developers, too. So I can agree with John Halamka there.

It's a tough challenge creating interoperability for a highly heterogeneous space of systems but it is our challenge. And we cannot risk crossing the line between saying here is your interoperability challenge or your performance challenge and some other way functionality challenge, do it however you want and do it our way so that it's easier for us to create standards. I mean that's very – on the other hand it's probably ineffective, on the other hand it's expensive to implement and it probably ends up restricting rather than aiding progress. So, I just wanted to make sure we balance our wording carefully to avoid crossing that boundary. Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, Wes. Got it.

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

Thank you, Wes. Floyd?

**Floyd Eisenberg, MD, MPH, FACP – President – iParsimony, LLC**

This is Floyd and it sounds like I agree with everybody. So I wanted to say, I understand and agree with Wes' comments, I just think we need to be cautious. That we don't want to prescribe what an EHR needs to do internally, but when we don't deal with the data model issues, we end up with a lot of the hardwiring concepts that have occurred to date.

And it's going to be really tough to know where that boundary is, so I agree, we have to look and be careful about it. But I do think we need to address that when information is shared, that it's clearly understood so there aren't hardwired methods to try to get data for decision support especially, like we've seen to date. So, we just need to be very cautious.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Good points and I am reminded of some of the community that has been reminding us to be thoughtful about the distinction between primary and secondary use and the need for primary use to be very careful about retaining the intent of the original recorder of various information. I think that's sort of connected to what you just said Floyd. Michelle, you need to keep me quiet here Michelle, I'm commenting a little too frequently.

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

No, we want you to comment. We only have one more in the queue. Andy Wiesenthal?

**Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

So, I guess if I'm the last in the queue, my comment may be almost unnecessary but I want to remind the group that what we're talking about is not what work we're going to be doing, but the structure we're going to use to approach the work. So I'm trying to help Jacob here and corral the conversation and say, do we or do we not – I'm going to move, do – I move we approve the recommended structure with the friendly amendment that we revisit it in one year's time to evaluate it.

**Wes Rishel – Independent Consultant**

Second, Wes Rishel.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Andy, thank you, I owe you a dollar.

**Andrew M. Wiesenthal, MD, SM – Director, Deloitte Consulting, LLP – International Health Terminology Standards Development (SNOMED)**

You owe me more than that.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Michelle, I think – go ahead

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

Jacob, no, we have a comment from Leslie.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

I'm sorry guys, I just wanted to make sure I remember the comment earlier about let's not make all the committees a Dixie Baker club, because you'd have to sit on everyone for comment. And I was just thinking of that, with regard to the consumer space as well, but making sure that we consider agenda specific items where we need to call in people that have that large swath when deliberation is taking place and not just when report outs come to the Steering Committee. So, some process check that allows to do agenda specific inclusion of others. Thank you.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

And I think we could add that to the Chairs responsibilities, they need to be on the lookout for those – the need for those engagements at the workgroup level, and I think that's what you're saying. Is that right?

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Correct .

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Okay.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

And the very nature of the design of sort of Steering Committee was to make sure this was a matrixed organization that we would not have Dixie sitting on every single committee, but bring in her expertise on particular issue when necessary. So that is absolutely, Leslie, the charge of the Steering Committee.

**Leslie Kelly Hall – Senior Vice President of Policy – Healthwise**

Thank you.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

So Dixie, don't you just love it that you've actually become a verb?

**Dixie Baker, MS, PhD – Senior Partner – Martin, Blanck and Associates**

That's an adjective, the Dixie Baker Club.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

Whatever.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

I think we could call it both, I've been Dixie Bakered or that is a Dixie Baker problem. So Michelle, how are we doing?

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

I think we're good.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Are we ready for public comment?

**Public Comment**

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

I think we are. Operator can you please open the line?

**Rebecca Armendariz – Altarum Institute**

If you would like to make a public comment and you are listening via your computer speakers, please dial 1-877-705-6006 and press \*1. If you are listening via your telephone, you may press \*1 at this time to be entered into the queue. We have no comment at this time.

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

Okay, well thank you everyone. And thank you Jacob for your first meeting as Chair.

**Jacob Reider, MD – Acting Principal Deputy – Office of the National Coordinator for Health Information Technology**

Thank you, Michelle. Let the record show that we finished 45 minutes early. Thank you John for calling in from China and thank you all the committee members for your great comments today and I look forward to seeing you all in June.

**John F. Derr, RPh – Health Information Technology Strategy Consultant – Golden Living, LLC**

Thank you.

**John Halamka, MD, MS – Chief Informatics Officer – Harvard Medical School/Beth Israel Deaconess Medical Center**

Thanks.

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

Thanks, everyone.

**Public Comment Received**

1. To Stan: So who is going to construct a plan to meet accepted recommendations Who has the funding?
2. SOMETIMES WE NEED A NEW SET OF EYES WHEN A PROBLEM HAS NOT BEEN SOLVED!!
3. It's time to stop using part-timers and move to a full time funded staff. Otherwise things take so much time.

Meeting Attendance								
Name	05/21/14	04/24/14	03/26/14	02/18/14	12/18/13	11/13/13	09/18/13	08/22/13
Andrew Wiesenthal	X			X	X	X	X	
Anne Castro	X			X	X		X	X
Anne LeMaistre	X					X	X	
Arien Malec	X			X	X	X	X	X
C. Martin Harris							X	X
Charles H. Romine				X				X
Christopher Ross				X		X		
David McCallie, Jr.				X	X	X	X	X
Dixie B. Baker	X			X	X	X	X	X
Elizabeth Johnson	X			X	X	X	X	X
Eric Rose	X			X	X	X	X	X
Floyd Eisenberg	X			X	X	X	X	X
Jacob Reider	X							
James Ferguson	X				X	X	X	X
Jeremy Delinsky				X		X		
John Halamka	X			X	X	X	X	X
John F. Derr	X			X	X	X	X	X
Jonathan B. Perlin	X			X	X	X	X	X
Keith J. Figlioli	X					X	X	
Kim Nolen	X			X	X	X	X	X
Leslie Kelly Hall	X			X	X	X	X	X
Lisa Gallagher				X	X	X	X	X
Lorraine Doo				X	X	X		X
Nancy J. Orvis							X	
Rebecca D. Kush	X			X	X	X	X	
Sharon F. Terry	X			X	X		X	

<b>Stanley M. Huff</b>	X			X	X	X	X	X
<b>Steve Brown</b>	X			X	X	X	X	X
<b>Wes Rishel</b>	X			X	X	X	X	X
<b>Total Attendees</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>21</b>	<b>23</b>	<b>24</b>	<b>20</b>