



Health Information Technology Advisory Committee

Transcript
February 21, 2018
Virtual Meeting

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Thank you and good morning, everyone, and welcome to our first virtual meeting of the Health Information and Technology Advisory Committee. I want to thank everyone for your time here today. This is Lauren Richie, and I will open the call – open the meeting to order starting with rollcall of our members. Michael Adcock? Are you on the line? Christina Caraballo?

Christina Caraballo - Get Real Health

Good morning. This is Christina.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Good morning. Tina Esposito?

Tina Esposito

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Cynthia Fisher?

Cynthia Fisher – WaterRev, LLC – HITAC Committee Member

Yes. Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Rick Geschieder?

Rick Geschieder

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Good morning. Valerie Grey? I believe she will be absent. Anil Jain?

Anil Jain – IBM Watson – HITAC Committee Member

Yes, Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Good morning. John Kansky?

John Kansky – Indiana Health Information Exchange – HITAC Committee Member

Yes, I'm here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Ken [Kawamoto](#)?

Ken Kawamoto - University of Utah - HITAC Committee Member

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Steven Lane?

Steven Lane - Sutter Health - HITAC Committee Member

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Leslie [Lenert](#)? Leslie? Arien Malec?

Arien Malec – Change Healthcare – Co-Chair

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

[Cindy McComb](#)?

Cindy McComb

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Fred [McDonald](#)? No? Aaron Miri?

Aaron Miri – Imprivata – HITAC Committee Member

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Brett Oliver?

Brett Oliver - Baptist Health - HITAC Committee Member

Yes. Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Terry O'Malley?

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Carolyn Petersen?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Raj Ratwani?

Raj Ratwani

Good morning. Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Steve Ready? Steve? No? Patrick [Soon Siong](#)?

Patrick Soon-Shiong - NantHealth - HITAC Committee Member Chung

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Good morning. Sasha TerMaat?

Sasha TerMaat – Epic – HITAC Committee Member

Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Andrew [Truscott](#)? Andrew? Sheryl Turney?

Sheryl Turney – Anthem Blue Cross Blue Shield – HITAC Committee Member

Sheryl is here. Good morning.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Robert Wah? I believe he will be absent. And Denise Webb?

Denise Webb – Marshfield Clinic Health System – Co-Chair

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Thank you. And for our federal representatives, do we have Chesley Richards on the phone?

Chesley Richards

Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Kate Goodrich?

Kate Goodrich

Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Lauren Thompson?

Lauren Thompson

Yes, I'm here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

And [Ram Sriram](#)? Okay. We may have to circle back later to confirm if other members have joined a little bit later. But with that, I would like to introduce and turn it over to Dr. Jon White, our deputy National Coordinator, for opening remarks.

Dr. Jon White – Deputy National Coordinator

Thank you so much, Lauren. Welcome, everybody, on behalf of the good Dr. [Rucker](#) and all of my colleagues at ONC. I want to welcome you back. I'm glad you came back, and I want to thank you again for your service, once again, running through the list of folks that are members of this Advisory Committee. I am astounded and humbled. You are extremely talented and important people. And I'm incredibly grateful for the time and service you are giving to this. It is challenging work, but it is important work on behalf of the American people. We're incredibly grateful for your service here. Thank you very much. It also struck me that, at the last meeting, I did not have an opportunity to introduce myself. So,

just very briefly, I'm the Deputy National Coordinator at ONC. I'm a family physician by training and with the U.S. government since 2004, I guess, first working at AHRQ and then ONC. I worked with several of you over many years.

And I'm looking forward to working with those of you that I haven't had an opportunity to work with before. Thank you so much, again, for all of the time and effort that you've put into this. You are coming to us at a critical time. The first year or two of a new administration is always very exciting. People are figuring out who is who and what's going on. But you have joined us to give us your advice at a really important time. For the past year, we've been working hard on starting to implement the provisions of the 21st Century Cures Act, which, of course, authorizes this committee. Things are starting to fire on all cylinders. I will say that, across the administration, the level of collaboration and coordination is very high from the executive office of the president to Health and Human Services to the Department of Defense to Veterans Administration. There is broad and deep recognition that the work we are about here is really important and vital for the healthcare delivery system to work well.

Honestly, we need to be coordinated with the private sector. I have great colleagues here in the administration. I'm incredibly grateful for Kate and Chelsey and Lauren and Ram and their colleagues. We can't do this stuff without them, but we also can't do this without you. We are all in this to serve the public. We are going to be -- I don't know about you guys, but the Olympics has been on every night in my house. And I was trying to think of a good analogy. It's about the foot race. We have all been pushing. I think we're your brakemen, right? And we have been charging as hard as we can. And we have jumped in the sled. And you guys are going to kind of pilot us down through these kinds of sharp turns. And we're looking for record time here. Thank you very much, again, for what you are doing for us. I want to thank Dr. [Stead](#) for joining us today. Carolyn is going to run through the agenda, so I don't want to do that too much in advance.

For those of you that have not met Bill Stead before, he is a wonderful colleague of long standing. He's the chair of the National Committee for Vital Health Statistics. And, honestly, he's quite brilliant. So, I'm looking forward to having him join us today. Also, the last thing I want to do is to take an opportunity to introduce you to and thank some members of the committee that are committing themselves to even more time and effort by serving you as your co-chairs both for the broad committee as well as some of our task forces. We appreciate everybody's interest and willingness who was interested in doing this and being willing to serve. I want to introduce Dr. Robert [Wah](#) and Carolyn Petersen as your co-chairs for the HITAC. And I also want to introduce we're going to have two task forces, which I think were described to you at our last meeting. Our Trusted Exchange Framework task force, which will be co-chaired by Denise Webb and Arien Malec, as well as our US Core Data Interoperability task force, which will be co-chaired by Christina Caraballo and Terry O'Malley.

Thank you all very much. I know everyone knows how much effort goes into this. But, again, with such great people, I'm really looking forward to seeing the output to this. With that, I'm going to stop. Thank you very much for your time. And I'm looking forward to hearing the discussion today. I think I'm going to turn it over, at this point, to Carolyn, since, as Robert put it, the air gods were not smiling upon him today. And he may be listening in there somewhere, but he's not going to be able to talk. So, Carolyn, the floor is yours.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, John. Thank you for the warm welcome. And let me add my welcome, everyone. It's great to see us all here on this early, cold, winter morning. We have a good agenda today and good reports. I will let

you know, Robert is listening in on the call, and we welcome him over the Atlantic, and look forward to his [peership](#) at the next meeting. I will go through the agenda very briefly to get us started. We are first going to go through an approval of the minutes, a quick vote from our January meeting. And then, Bill Stead and [Rashida Dorsey](#) will give us a presentation on the National Committee on Vital Health Statistics Committee and Work Plan overview. A little later, I'll do a review of the HITAC policy framework and a scheduled review for us. And we will vote on the policy framework. Lauren will call a break for us.

And then, we will have task force reports from Denise and Arien on the trusted exchange framework, and Christina and Terry on the U.S. core data interoperability task force. We will have time for public comments. And then, we will wrap up the meeting. So, with that, I think we will welcome Bill Stead and Rashida to the floor to take over the presentation on the NCVHS workplan overview.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Good morning. I am Bill Stead, and I'm from Vanderbilt University Medical Center, and I'm chair of the national committee. I'm joined by my colleagues on this call, Alex [Goss](#) from [Imprado](#) who is co-chair of the standards subcommittee, and Rashida Dorsey who is executive staff director of the committee, and Rebecca [Hines](#) is executive secretary of the committee. We are grateful for the chance to meet with you virtually and to briefly overview the committee's mission and focus. We will describe our areas of standards, privacy, confidentiality, security in [POP](#) health, and provide a very brief overview of our work plan in the areas that we think will most closely touch on your work to set the stage for a discussion of how we can collaborate. With that, Rashida, do you want to describe the committee?

Rashida Dorsey - NCVHS Executive Staff Director Dorsey

Absolutely. Good morning everyone. NCVHS is HHS's statutory public advisory body on health data, statistics and national health information policy. The primary audience of the committee is the HHS secretary to whom recommendations are submitted. As a [FACA](#), the NCVHS works in partnership with the private sector, other advisory bodies, and HHS providing a collaborative forum for stakeholders to contribute observations and recommendations to the policy making process. The committee's 18 members have diverse backgrounds, public health, vitals, statistics, social sciences, privacy, ethics, law, healthcare, information technology, administrative, and clinical standards. We hold in-person meetings of the full committee three times a year, generally, at the Humphrey building. And, in addition, we convene public hearings, workshops, and roundtables to support development of recommendations. Our findings and recommendations to the secretary reflect interdisciplinary consensus. Generally, the committee's recommendations fall into two buckets.

The first address timely issues for which policy changes are needed. And the second identifies opportunities from longer-term perspectives offering a vision that takes into account significant trends and anticipated shifts in the health arena. The members have staggered terms, as you can see here. We have quite a diverse membership from backgrounds and also location and fields. We are currently in the process of filling four vacancies. The NCVHS website has background information on the committee, meeting information, as well as letters to the secretary, reports and tools developed by the committee. Remote access to the meetings and meeting materials is also available via the website. I now turn the presentation back to Bill.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Thank you, Rashida. This is a list of some of our recent reports and recommendations. And I will draw your attention to three, working up from the bottom of the slide. We commented on the ONC draft 2017 interoperability standards advisory, specifically commenting on standards for birth, death, and fetal

reporting. And then, the section 1104 of the Affordable Care Act stipulated that the secretary establish a review committee to evaluate existing healthcare administrative transactions for which standards, code sets, identifiers, or operating rules have already been adopted to determine if they are meeting industry need, and to ensure coordination as appropriate in developing recommendations with standards of support to certify electronic health record technology approved by ONC. This is one of our interconnection points. The secretary designated NCVHS as the review committee, and we issued our first report and set of recommendations in 2016.

And then, Public Law 104 191 stipulated that NCVHS report to Congress on the implementation of the administrative simplification provisions of HIPAA. And we submitted our 12th report to Congress last spring. The committee organizes its work through three standing subcommittees on standards, population health, and privacy, confidentiality, and security. With 18 members and a real breadth of potential issues to focus, it's the most efficient way to divide up our work. Although each of the subcommittees does the heavy lifting, it brings the results of its efforts back to the full committee for discussion. And the actual products are voted on and approved by the full committee, not the subcommittees. So, it lets us tackle cross cutting challenges as a committee as a whole. We have eight active projects in flight across the three subcommittees with another nine currently in the parking lot waiting for bandwidth to free up.

I will provide more detail on the first five of these, the predictability roadmap, chief information officer forum, our health terminology and vocabulary work, and our looking at information, privacy, and security beyond HIPAA and the next generation vital statistics project. I think those are the ones that intersect most with the things HITAC is going to be considering. We also have active work underway trying to look at the broad health data ecosystem and the intersection of that with the commission on evidence-based policy making. We are watching and providing advice to CMS on the Medicare card replacement that takes place April 1, and the collaboration that is the subject of this call. The predictability roadmap, and Alex might want to provide color commentary as I go through this, over several years as, we have worked with the industry, we've had a steady drumbeat of testimony that is not a predictable way to plan for changes in the standards and operating rules.

So, we are in the process of trying to figure out how we might provide more predictable planning, so that the industry could really plan for where resources are going to be needed and to coordinate that planning across what are currently relatively independent regulatory requirements. It's a challenge, as the people on this call will know, because on one hand we need more flexibility. We need to be more predictable. And we need more rapid update to meet the business needs of the industry. Those dimensions conflict a bit. So, we are in the process of trying to identify actionable, short-term improvements that can be made and then, longer-term opportunities. In spring 2017, we developed a comprehensive grid of the methods by which each of the standard development organizations and operating role authoring entity conduct their updates. We held a design workshop in August where we brought together those organizations plus industry stakeholders to discuss and identify challenges and opportunities.

We're in the process of developing recommendations and getting input from the industry on those recommendations. Do you want to add additional color commentary, Alex? Or is that okay from your perch?

Alexandra Goss, Imprado / Dynavet Solutions

Fabulous job. Thank you, Bill.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

The CIO forum is a one-day forum that I believe is now going to be on May 17. Where we are going to solicit input from a diverse group of chief information officers who are the end-users, if you will, of the standards and operating rules. We want to harness their vision for what predictable updates to the technology and to the related standards and operating rules might look like. That, from that implementation perspective, would be the ideal schedule for updates, and what improvements would they propose into the way the standards are adopted and updated to deal with the changing business climate. We're in the process of identifying and inviting the **positions** to join us for the May 17 meeting. And we hope to use this as a way to get that input incorporated into the predictability roadmap. The third project I will mention is around health terminologies and vocabulary. The NCVHS charter calls for the committee to study the issues related to adoption of uniform data standards for patient medical record information.

Further, the committee is to advise the department on health data collection needs and strategies, and review and monitor the department's data and information systems to identify needs, opportunities, and problems. NCVHS last really looked broadly at health terminology and vocabulary back in 2003. Now that we are through the transition to ICD-10 and ICD-10 PCS, we decided it was time to step back and take a fresh look. The National Library of Medicine is staffing this work. Potential recommendations might include criteria for adoption of named code sets, more agile approaches to governance, coordination, maintenance, and dissemination of code set standards, and strategies for adoption that align with the standards predictability roadmap, and with ONC's health IT strategic plan. We think this may be another point of intersection.

The next project I will mention is the health information, privacy, and security beyond HIPAA. We are, basically, assuming that the HIPAA framework itself is unlikely to change. And that given the nature of the changing environment, in terms of both health and the breadth of health, and in terms of technology, we need to identify other potential levers that might work in conjunction with HIPAA to better preserve privacy, confidentiality, and security while addressing the opportunity to use data to advance health. We are hoping that we can come up with recommendations that will be helpful not just to the secretary, but also to health data stewards. This is, obviously, a huge space. And we have decided that the place to start is looking at a couple of areas where data that are protected health information, when in the hands of a covered entity, but are not maintained by covered entities or business associates. So, as data moves back and forth, if you will, across that regulated/unregulated boundary.

And so, we are going to work two use cases. And the first one we are working are clinical data registries where those registries receive data from covered entities that is protected in the covered entity's hands. But those registries are maintained by entities that are not covered entities, use that as one of our boundary conditions. The second use case will be consumer devices. We're hoping to work our way through them and issue recommendations related to what we hear by the end of the calendar year. The final project I will mention is the next generation vital statistics project. The current vital statistics system is a federated and vulnerable network of jurisdictional data capture components. And the question is how we might make that much more robust while still maintaining its essential federated nature. And we will get into that birth, death, and various population and public health data. We held a two-day hearing in September.

The report of that hearing will soon be released. And we are now in the process of developing initial recommendations that will be included in a letter to the secretary. With that background, what we would like to do with the rest of our time is to explore approaches to collaborating and understand how we can

best support the Office of the National Coordinator and HITAC. What role can we play that would be useful in the short term as you are moving through this very aggressive schedule? Geneva Morris is going to brief NCVHS on HITAC at our May 15 face-to-face, full committee meeting, if you will, in exchange from this briefing to you. And we have also initiated direct communication between the standards subcommittee in the ONC technical team. The committee plans to provide comments on the U.S. CDI and the proposed expansion process in the next few weeks. With that, Rebecca or Alex, any additional commentary, or should we go into question and answer or discussion mode?

Alexandra Goss, Imprado / Dynavet Solutions

I think it would be great to hear from the members. I noticed in the chat box that there are some thoughts already percolating around how we might share NCVHS approaches over the last year, and how that might help HITAC get going on some of your very fast turnaround time projects.

Rebecca

Sounds good to me, Bill.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

This is Lauren from ONC. In essence of our [inaudible] [00:30:22] through our in-person meeting, we will ask the members to use the hand raising function in the upper left panel of the AdobeConnect system, and Carolyn will call you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

I see Leslie with a hand up. Why don't we start there, and I'll start the list? Go ahead, Leslie Lenert, ask your question.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Maybe we can come back to Leslie.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. How about Steven Lane?

Steven Lane - Sutter Health - HITAC Committee Member

Good morning. Thank you. That was a very nice presentation. Thank you very much for that. I was particularly struck by the work that you are doing on the predictability roadmap. I have had the opportunity to serve on the USCDI workgroup that is going to be starting its work soon. And I think some of what we are going to be tackling is this notion of how to create predictability for the industry, for developers, for clinicians, etc. So, I'm interested in learning more from your group about how you approach that, and what you find working well. And it would see that, if our groups could have similar methodologies that would make it even more predictable for the industry.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Alex, would you like to field that?

Alexandra Goss, Imprado / Dynavet Solutions

Sure. Thank you, Bill. The predictability roadmap, for me, is something that is long overdue. We need to enable business to innovate and move at the speed that they need to to accomplish their business models while providing the interoperable infrastructure for information exchange whether it is clinical, administrative, or financial. And I do think, to Steven's point, there is a privacy aspect related to that. And so, beyond HIPAA and ongoing work of our privacy, confidentiality, and security committee, which one of your fellow members, Jackie Munson, is a member of, is really integral work. And so, we do tie those aspects together as a full committee. The predictability roadmap effort is focused, currently, around the administrative simplification provisions, as well as the ACA related provisions. So, it covers X12, NCPDP, **NACHA** for the electronic funds transfer exchange, as well CAWH **Cores** operating rules. And what we're finding is the different perspectives of end-users and developers need to be balanced in the overall set of themes that we evolve into recommendations.

So, the CIO forum is really about elevating that day-to-day end-user's perspective. We've already garnered the input from the various players from the standards development organizations and operating role offering entities to the federal rulemaking process. And some we're hoping that the work that we are going to complete this spring will enable us to actually produce detailed recommendations for more public vetting before they are brought to the full committee for finalization. The data harmonization aspect is really at the crux of a lot of the issues that our two federal advisory committees will tackle. And our health terminologies and vocabularies are another big piece of this. So, I think it will be interesting as our full committee evolves, our feedback on USCDI, and then, how are standards subcommittee and HITAC can work maybe at a more detailed level to address the administrative, financial, and clinical data content needs as we move forward because that is really the underpinning of interoperability. Steven, did you have any more questions in your comment that you would like me to address?

Steven Lane - Sutter Health - HITAC Committee Member

No, that was very helpful. And I look forward to the chance to work together. And Jackie Munson and I are joined at the hip, and we will definitely collaborate on our thoughts around the privacy issues.

Alexandra Goss, Imprado / Dynavet Solutions

Great. Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Let's go back to a question from Leslie Lenert.

Leslie Lenert - Medical University of South Carolina - HITAC Committee Member

Hi, folks. Thank you. I apologize for the difficulty getting on. And I just want to thank Bill for a fabulous presentation on what NCVHS has been doing and the long history of this committee and its support of health data needs for the country. I just want to emphasize what a critical role the committee plays in linking what the nation does to do health and trying to create an integrated system that looks at public health data surveys such as **Inhane's** BFFRS, public health data sets like **MIPS**, public health data systems such as we discussed for death mortality. And then, our new clinical data sources and trying to work that into an integrated system is an enormous challenge and one that I believe should have the highest priority. In addition, it looks like NCDHS is hitting on some of the key issues for the 21st Century Cures Act with the links between HIPAA and non-covered entity organizations, and the notion of citizen science and how, when something is downloaded to your cell phone, it really moves outside of HIPAA.

I think the idea of updating HIPAA for the 21st Century Cures and for data science driven precision medicine is also incredibly important in an area where we should definitely overlap. Last, I would like to

say that the issues of how we create useful data sets for both public health and healthcare organizations that include data on the environment that patients are in, both social and the exposed zone, as far as environmental resources, is an incredibly important area where geo-linkage is really the tool by which environmental and social determinants data are linked with EHR data. And there needs to be discussions on how to do that in better and more precise ways, and where data sets need to be expanded, in terms of scope and quality. That is to say that the sides of the geo region that they address. For example, where do we need more environmental health sensors to really be able to drive improvements in health based on improving air quality?

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Thank you, Les. Very helpful comments. And one aspect of the health terminology and vocabulary work is really looking at how the scope of the existing terminologies and vocabularies needs to be expanded to deal with health as we really now understand it in terms of the many dimensions you mentioned. So, thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Let's take a comment from Clem McDonald.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Are you on the line?

Clem McDonald

I think I am.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

We can hear you.

Clem McDonald

So, I wanted to ask is the issue of timeliness because, at many discussions, I've heard two directions of the timeliness, in terms of intervals of dispensing code systems. And specifically, some of the hospitals and institutions don't want more frequent because they have enough trouble digesting the six monthly one. I was wondering which direction you are hearing, Bill, about what they want? Does someone want fast or some want slower? Or does everyone want faster?

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

No, I think you are right, Clem. What they really want is predictability and predictability across the things that are changing for them. That needs to be faster than the changes that take decades to take place, but it's probably more in the once or twice a year range, some might even still be more like two-year range. This is one of the pieces we hope to really shed light on through the CIO forum.

Clem McDonald

Okay. And then, what other dimension is it? People talk about terminology and vocabulary, but looking at the coding systems that I know about across the spectrum, they usually are not just simply word lists. And I don't know whether that is a misconception because they often have attributes attached to them of some importance. I want to make sure people are realizing these are often pointing to a database with other attributes in them.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Very good point. And the way UMLS makes many of those connections has emerged as a very important piece of the thinking moving forward. And how do we coordinate the development of the individual terminology sets? And I think you are right. They are more knowledge bases or databases than they are lists. And how does that integrate to dissemination approaches such as UMLS?

Clem McDonald

Thank you.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

You're welcome.

Rebecca

And Bill, we might want to let them know that NLM has actually reached out to NCVHS to help them think about how to expand it to include some of these population health domains that are not well represented in UMLS.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Good point, Rebecca.

Rebecca

It's really just a concept right now, but that's a project that the committee will be working with NLM on in the coming year.

Alexandra Goss, Imprado / Dynavet Solutions

This is Alex. I would like to add to the first part of the question that Clem asked about the frequency aspect. One of the things that has been very clear to me is needing to find a predictable approach that enables the install base to garner the efficiencies but not preclude innovators from wanting to try new versions or new methodologies for the information exchange. So, it's going to be an interesting evolution over the next six months or so to figure out what that sweet spot is because we know that people can do yearly updates to fee schedules and code sets. We know that we want to establish an effective floor. But we have to take into account the diversity of the businesses that actually use the standards and operating roles and find a way to get that right balance between garnering administrative simplification cost savings but still letting the market advance, so we can get to the point of focusing more on how we are using the data to improve health as opposed to just trying to get the data across the wires when we really need it.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Good point, Alex. And I'll just build that out a little bit. The discussion has been along the lines of could we have a floor, which was advanced in a predictable way that, in essence, required everybody to come to a common point in a predictable fashion, and yet use modern versioning techniques to allow willing partners to be several versions, if you will, ahead of that floor where it is in their interest to do so. So, in a way that both could work together, which we think would be necessary to get predictability and add agility.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thank, Clem. Let's move on to a question from Terry O'Malley.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Hi, thanks. And Bill, this is a great presentation. There is no question that there is huge overlap between NCVHS and USCDI. I don't know what the acronym is going to be for that collaboration. The question I have I guess it's for you and also, for the committee and our ONC helpers, is are there limits on how the two committees can interact within the [FACA](#)? And as public comment a sufficient venue for the collaboration that I see ahead?

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

I will provide a non-expert answer and let Rashida or Rebecca or their ONC counterparts give more expert answers. I think what we're hoping to do, for example, with the advice we are going to give on USCDI, we will actually provide those comments as a committee. And it's my understanding that that can be brought into your process, and that that's not quite the same as public comment. But I will let the experts flush that out.

Rashida Dorsey - NCVHS Executive Staff Director Dorsey

Hi, yes. This is Rashida. And I would say, yes, there will be opportunities for the NCVHS to provide substantive feedback on issues that this FACA is working on and ways for more formal collaboration. We would certainly do this through the public process. So, anything that NCVHS would submit would certainly go through due process. So, as we identify areas of further collaboration, I think we would scope out what those different contributions would look like and the best approach to do it.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Thank you both.

Rebecca

And this is Rebecca. To let you know, we have, meaning NCDHSS, have started to develop a table that outlines these areas that Bill started with, and then, understanding what you and ONC are doing to actually identify what the areas are. And Then, as Rashida laid out, we can then come up with a how. But first, we have to figure out the what. So, once we figure out what the specific areas of collaboration are, we can define the process.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thank you, Rashida. Denise, you have your hand up? Go ahead.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Good morning. Can you hear me?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Yes, we can.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Great. I participate in the Caring Alliance, which is a multi-stakeholder alliance focused on advancing consumer directed exchange and individual's right of access to their information under HIPAA. And the alliance members are concerned about and have discussed consumer protection outside of HIPAA. I have a question. Can you elaborate on how the beyond HIPAA use case related to consumer devices is within the jurisdiction of your committee to address versus the [FCC](#)? I'm just wondering about that.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

I will take a crack at that, and then, I'll let others. So, NCVHS does not regulate. NCVHS convenes and develops recommendations, which are for the secretary on one hand, but many of them are also applicable to other stakeholders in the industry. As we have done the environmental scan for beyond HIPAA, and that has now been released, so it is on our website, we commissioned a rather thorough environmental scan that is the background for this work. And you might find that interesting. We are responsible for, in essence, recognizing trends and making recommendations related to those trends. We are aware of what FCC has done, and they are one of the existing sets of levers. So, our roles are very different. Does that address your question?

Denise Webb – Marshfield Clinic Health System – Co-Chair

Yes, that is helpful. I know that probably the work of our committee does absolutely inform other agencies that can then take what we've learned and done to possibly affect some regulations. Thank you.

Alexandra Goss, Imprado / Dynavet Solutions

If I may chime in, hi, Denise. It's Alex. It's been a long time that we've seen each other, since our HIE days. I think it sounds to me like the Caring Alliance would be a great asset to add to our list of testifiers and informers as we continue to look at the broad issue around beyond HIPAA. We will certainly add them to the list.

Denise Webb – Marshfield Clinic Health System – Co-Chair

That would be great. Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thank you. We have one last question from Raj.

Raj Ratwani – NCR Health

Good morning, everybody. This is Raj Ratwani from NCR Health. I have a general question for you. As we look at the data that we are able to glean from various IT and EHR's, the quality of the data is often driven by how it's being input into the system. And that naturally brings a lot of questions around the usability and user interface that our clinicians and others are interacting with. I was wondering if you could comment on whether you see that as a concern? So, one of the things that we see, for example, is that, if you have a confusing display, information that could be in structured data fields or discrete data gets inputted elsewhere and becomes more difficult to analyze and extract information from because it goes in an unstructured place. Is that a concern? And is that an area you are currently looking at or in contact with other groups about?

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

It is very much a concern. It is not an area that NCVHS has delved into recently. The place that it has surfaced in our work is in the next generation vitals project because the quality of the data there is very problematic, partly because of the diverse group of people that capture data, particularly death data, and no real certification or common training. So, it is more than just a user interface issue, but that is where we have seen this. There is no question that usability and contextual awareness will be very critical in the work that you are getting ready to do.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Bill and Rashida and Alex. I'm seeing that we have no more questions. I want to express our thanks for your excellent presentation and share that we look forward to working with you in the future.

Bill Stead – Vanderbilt University Medical Center – Chair of National Committee

Thank you all.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thank you. We are now going to loop back to approve the minutes from our January meeting. ONC sent that out to us in batch three just a few minutes ago over email. Those minutes are also in our committee portal for our review. Since we have all had them, I'm wondering if I can have a motion to approve those minutes?

Unnamed

Motion.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

And is there a second?

Unnamed

Second.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

And can we now have a voice vote please on minutes? All in favor of approving please say aye.

All

Aye.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Anyone opposed please say nay. Okay, Lauren. It sounds like we're good shape with the minutes approved.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Great. Thank you, Carolyn.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

We will now head into our presentation on the HITAC policy framework and schedule. I want to remind everyone also that this is a public meeting, and it is being recorded. The chat may also be public, so please take that into consideration as you share your comments. We will start into the policy framework now. I will handle the presentation, since Robert is still in flight. This is the language that lays out the framework and underpinning of what we will be doing with this committee. We've seen this before, and I won't read through it again for you. But it is in the slides for our future reference. HITAC is here to recommend on policies, standards, implementation specifications, and certification criteria to achieve progress on the things that are laid out for us in the 21st Century Cures Act.

That would be achieving a health IT infrastructure that allows for the electronic access exchange and use of health information. For the promotion and protection of privacy and security of health information and health IT. For the facilitation of secure access by an individual to the individual's protected health information. And any other target areas that we identify as being appropriate for consideration. The HITAC policy framework expects us to include recommendations to the national coordinator that can adapt as they relate to these target areas which, can include the trusted exchange framework. We will be hearing

more from that task force today. The United States core data for interoperability, we will also hear a report from that task force. Standard use cases and health IT interoperability and certification enhancement proposed rule.

And, again, this is more of the specific language that lays out the schedule available for our reference. We have four parts here. First, to identify the best mechanism to organize itself, to respond to the national coordinator with recommendations within 90 days. We need to cover, at a minimum, an assessment of policies, standards, implementation specifications, and certification criteria that are currently available. We need to consider where the gaps exist and identify potential organizations that have the capability to address the gaps. We need to create a timeline, which may also account for the National Institute of Standards and Technology testing. When we will be expecting to submit these to the national coordinator. And we want to be sure we include an opportunity for public comment along the way. We respond to the national coordinator. We need to approve a timeline for delivering our recommendations. And we need to establish a task force to conduct analysis with an input and so forth.

In collaboration with NIST, annually, and with public input, we will review and publish priorities for the use of health IT standards and implementation specifications to support the priorities. Finally, we will recommend to the national coordinator, for the purposes of adoption, standards, implementation specifications, and certification criteria, in order of priority for development, harmonization, and recognition of standards, specifications, and certification criteria. This can include things like recommended standards, architecture, software schemes for access to electronics, individually identifiable health information across various systems that include user vetting, authentication, privilege management, and access control.

We also have the work of an annual progress report to congress. We submit that to the HHS secretary and congress discussing the work that we've done as the HITAC, with an assessment of the infrastructure, including the extent to which electronic health information is appropriately and readily available to enhance access, exchange, and use of information, the extent to which advancements have been achieved. We will give an analysis of existing gaps and policies and resources. For furthering interoperability, we will make recommendations for addressing the gaps we've identified. And we will also address anything else that HITAC and ONC deem appropriate. Our draft timeline is fairly aggressive, at least initially. For the first quarter of the year, we have the policy schedule and framework. We have also gotten a start on the trusted exchange framework task force and the USCDI task force.

As we move into spring, we will get to ONC's proposed rules covering the cures implementation. And through the summer, we will work on standard use cases. And then, in the fall, we will move to preparing the annual report. This is kind of a visual representation of how that work proceeds showing that we are early on with these trusted exchange frameworks and the USCDI **[inaudible] [01:01:16]**, and then, moving into the proposed rule, use cases, and the report later in the year. We're not quite at the break yet. At this point, having presented the schedule, with now our time to talk about the policy framework and have discussion about that before we head into the break. So, I think, if you could all put up your hands with questions or comments, we can move to that phase.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

This is Lauren from ONC. Are there any points of clarity that we need to address amongst the committee?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

I did a pretty fast run through because I wanted to leave as much time as possible for discussion, but please don't feel that was an effort just to run it past you. This is our opportunity to really work through that and be sure we are all on the same page.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Yes. We went back to the broader policy framework language from the [inaudible] [01:02:58]. So, we can come back to a particular slide if need be.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Go ahead, Steve.

Steve

I guess, I'm curious. What precisely is the deliverable of our committee on this policy framework? What exactly are we expected to provide here?

Unnamed

So, this is Elise [inaudible] [01:03:36]. I can jump in, Carolyn, if it's helpful.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Go for it.

Elise

So, in Cures Act, there's a requirement that the policy framework be developed by – sorry, sent to the national coordinator by the committee. And the chairs, I think you guys have the hardcopy of it. Not hard copy, but the Word document version of it as well. Once the committee has reviewed what Carolyn walked through, then, it would be the opportunity for you to vote on that policy framework. That then comes to ONC as a recommendation, and that is part of what we consider in our ongoing work. The draft that Carolyn and Robert put together very much aligns with the priority target areas that are identified by Cures and also allows for some growth in that area as we proceed throughout the year. Carolyn, did I capture that well?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

No, I think that was great. Thank you.

Elise

Sure.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Go ahead, Sheryl.

Sheryl Turney – Anthem Blue Cross Blue Shield – HITAC Committee Member

Yes, I have one question. As I review the trusted framework, one of the things that comes to mind is the fact that there may need to be some sort of strongly worded or policy related to mandated participation for some players in the landscape. Is that within the realm of policies that we could recommend?

Elise

So, I think that is referencing the trust exchange framework, which is under consideration by the task force. Yes, absolutely, the committee can recommend whatever they think is appropriate for ONC to consider as part of that process. It would be the same for any charge that we present to the committee, whether it is on USCDI or the trust exchange framework. Once we present the charge, the committee can recommend back to us whatever they think would be most helpful in that space.

Sheryl Turney – Anthem Blue Cross Blue Shield – HITAC Committee Member

Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

This is Carolyn. I don't see any other hands. Are there other questions or comments related to the framework or schedule?

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Carolyn, this is Lauren. Just a reminder to the committee that in the second batch of materials that you received, it is the full Word version that Elise mentioned of both the policy framework and schedule.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Yes, that is right. It looks like we don't have further discussion or questions at this point. Lauren, do you want to advance the break? Or should we do another task force discussion first? What do you think?

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Well, I think we just have to get the committee's consent for the policy framework first.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. So, we have just looked at the policy framework and schedule. And I'm wondering if we're ready to move for a vote. Is there a motion to approve it?

Unnamed

Motion.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

And is there a second?

Unnamed

Second.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. Let's do a voice vote to approve the policy framework and schedule, please say aye.

All

Aye.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

And for those who don't wish to approve the policy framework and schedule, please say nay. Okay. It sounds like we are set with an approval on that, Lauren.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Great, thank you, Carolyn. We are about 15 minutes ahead of schedule, so we can give folks a little bit longer break time and resume at 11:45 AM, or we could come back earlier at 11:30. Any preference?

Unnamed

Can we come back earlier?

All

Earlier.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

All right. So, we will break now to 11:14 Eastern Time. Well come back in exactly 15 minutes.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Okay, operator, do we have the lines open again? Okay. It looks like we are back. Welcome, everyone. I will turn it over to Carolyn, at this time, to move to our next section of the agenda.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Great. Thank you, Lauren. We are now going to move into the part of the meeting where we have our task force discussions. Denise Webb and Arien Malec will be starting first with the exchange framework. Go ahead.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Good morning. This is Denise Webb. If we could have the next slide, please. I am going to go over our charge, and then, Arien is going to go over our work plan. Just to remind all of you what our charge is from the ONC, we are going to, as a task force, develop an advanced recommendation on Part A and Part B of the draft tasks, so that we can inform the final tasks and common agreement that ONC will be publishing. For our detailed charge, we need to make specific recommendations around the language that is included in Part B, which specifies the minimum required terms and conditions for trusted exchange. Our work is broken up into four areas. The first area is around the recognized coordinating entity and making recommendations on eligibility requirements. The ONC is in the process right now of developing the cooperative agreement and would like recommendations to inform that development.

The second area is around recommendations of qualified **HIMS**. We are being asked to make recommendations to further clarify eligibility requirements for the qualify HIMS as outlined in Part B of the task. The third area is around permitted uses and the disclosures. ONC is seeking feedback on how they might enhance or clarify the six permitted purposes and three use cases that are identified in Part B of the task. And finally, the task force is going to make specific recommendations around privacy and security, and any particular standards and technical requirements that the ONC should specify for identity proofing and authentication, particularly for individuals. So, that is our charge. And Arien will now go over our very aggressive work plans.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Carolyn, I don't know, or Denise, if we want to just pause to review the task force membership?

Denise Webb – Marshfield Clinic Health System – Co-Chair

Oh, yes. I forgot that slide was in there. Okay. So, this is our team. Our task force members, with Arien and I co-chairing. I won't read this to all of you, but we do have a representative group, which includes committee members and public members across the spectrum of stakeholders. And, I thank all of the folks who volunteered to help with this. Now, I think Arien is up, if he's on.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

All right. We are just confirming that his audio is still connected.

Denise Webb – Marshfield Clinic Health System – Co-Chair

If, for some reason, we lost him, I can go over this.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Okay, why don't we do that, Denise?

Denise Webb – Marshfield Clinic Health System – Co-Chair

Okay. As I mentioned, we have a very aggressive schedule. Between now and March 21, when this committee convenes again, we are meeting just about twice a week. We had our first meeting yesterday, and really, that was an introductory meeting. And Zoe who is assisting us, reviewed the trusted exchange framework and our project plan. And our project plan is broken up around the four specific areas that we are charged with providing recommendations as to our committee, and then onto the national coordinator. So, on Friday this week, we will be working on the eligibility requirements for the recognized coordinating entity. And next Monday, we will be looking at **QHEN** definition and eligibility requirements, followed by a Friday meeting on permitted uses and disclosures. And then, the week of the fifth, that is when we are actually going to begin drafting recommendations. And I know it is not noted here, but on the fifth, we will be covering the privacy and security area.

So, we will spend that week of the fifth working through that drafting and a review of the draft recommendations. And we expect to finalize those recommendations the next week and be able to advance our final recommendations to the full committee for review on the 19th, and then, deliberate on the 21st. Any questions?

Clem McDonald

This is Clem McDonald. Do you guys have a chance for questions?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Yes, we are. This is Carolyn. It looks like Steven Lane is at the top of the queue.

Clem McDonald

Okay. I don't know if my hand is up or down.

Steven Lane - Sutter Health - HITAC Committee Member

That's fine. Clem can't go ahead.

Clem McDonald

I just wondered whether this was -- I am assuming this is starting from whole cloth. This is a response to the proposed approach to all of this for the network, or no? Is a starting out kind of doing its own thing? There was a published proposed for the big network security privacy stuff, I thought.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

No, actually, we are taking what is spelled out in the trusted exchange framework, in the draft, and we are starting from that and addressing specific questions that need further clarification.

Clem McDonald

Perfect.

Denise Webb – Marshfield Clinic Health System – Co-Chair

We are open to recommendations. We are also asking our task force members to go back and look at the actual legislation because that can really inform the discussion as well. Often times, when we look at documents that come out, there is the question of why are we doing this or that, And, sometimes, it is the law that dictates what needs to be done. So, we are also having our task force members look at the original language that is in the 21st Century Cures Act.

Clem McDonald

Thank you. That is helpful because it seems more doable then.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Absolutely. There is no way we could start this from a white board, an empty white board.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. Steven, why don't you go ahead now?

Steven Lane - Sutter Health - HITAC Committee Member

Great. Thanks. I have had the opportunity to participate with a number of groups that have reviewed the draft trusted exchange framework and prepared and submitted comments. I have had a chance to read a number of those comments. And inn more than one of those instances, there was a request for another round of public comments. There are people who felt that sufficient changes and modifications were warranted, that it would be appropriate to see a second draft and another review. I am just curious whether that is something that might yet occur? Has that been considered or discussed? Or, does the legislation preclude that opportunity?

Genevieve Morris

This is Genevieve. I will just jump in and answer that, Steven. Apologies, again, my voice is still not so great. We are planning to do comment, once we get to the common agreement. There won't be another round of comments as we are drafting the final draft exchange framework. But towards the end of the year, once we've work with **ERC** to develop the full agreement, which would be gone with on ongoing stakeholder input, we would do another round of comments later on. So, that is the plan, as it stands right now.

Steven Lane - Sutter Health - HITAC Committee Member

Thanks.

Arien Malec – Change Healthcare – Co-Chair

By the way, Arien is here. And apologies for missing the start of the session.

Denise Webb – Marshfield Clinic Health System – Co-Chair

We got you covered.

Arien Malec – Change Healthcare – Co-Chair

Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

I don't see other hands up in the query list. If anyone has a question, please use the functionality to raise your hand, so we will know you have an interest.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Arien, I don't know if you want to add anything, in terms of our task force work.

Arien Malec – Change Healthcare – Co-Chair

Just the recognition that this is going to be incredibly fast-paced. Huge appreciation for the task force members. And maybe just an acknowledgment that we started, basically, because of the timing of HITAC, and the timing of the task. We started this work probably a month later than we ordinarily would have, in a more coordinated task force approach. So, we're just going to have to work really, really hard to get high-quality recommendations to this committee. And, ultimately, to the national coordinator.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. Last opportunity for other questions or discussions by the committee members? Denise and Arien, it sounds like everyone is on board with the task force work plan. And we all wish you well as we sail forward with this.

Arien Malec – Change Healthcare – Co-Chair

Thank you, indeed.

Denise Webb – Marshfield Clinic Health System – Co-Chair

Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

So, it looks like, since there is no more discussion on the trusted exchange framework task force, we will move to the report from the U.S. core data interoperability task force. We bring forward Christina Caraballo and Terry, O'Malley, our task force co-chairs.

Christina Caraballo - Get Real Health

Thanks, Carolyn. This is Christina. Terry and I are really, really excited to get started on this work and create a foundation and framework looking at how we can make data more exciting for a larger group of stakeholders. So, looking at what our charge is with the U.S. core data for interoperability, or USCDI, our overarching goal is to review and provide feedback on the USCDI structure and process. We have four

specific charges that we will need to provide recommendations on. The first is mechanisms and approaches to receive stakeholder feedback regarding data cross priorities. The second is the proposed categories to which data classes would be promoted and objective characteristics for promotion. Third is how the USCDI would be expanded and by how much. And fourth, any factors associated with the frequency with which it would be published. Our task is really to lay this foundation and framework for the future.

As we shift interoperability from the dialogue occurring around our traditional use cases, which has historically focused on hospitals, providers, and EH ours, our goal is to create this framework where we get support from the broader ecosystem of stakeholders. That brings us to our next slide. We thought it was really important to define, first of all, who this broader ecosystem is. If you look at the USCDI, ONC has put in some variety of use cases and target populations that they have kind of identified. These include, behavioral health, long-term and post-acute care, individual access, public health, emergency medical services, pediatrics, social determinants of health, transitions of care, provider directory services, and clinical quality measures. This is kind of a starting point that we hope to build a foundation to generate even more excitement about the work being done, in the USCDI, and get even more stakeholders to identify more use cases, so we can start creating more data steps to support that broader ecosystem.

The scope of our charge is really, again, to focus on this process and framework. The draft USCDI Version 1 started by reflecting the data classes referenced in the 2015 edition, common clinical data sets, adding clinical notes and provenance. We are looking, again, to continue to lay the foundation to build on how we prioritize the next group for the next version. So, moving on to our next slide. Terry is going to go ahead and go over our membership and our work plan.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Great. Thanks, Christina. Sort of consistent with the vision of adding different stakeholders to the list, we have tried form this committee using two criteria. 1) Is any willing HITAC member we were delighted to have join. So, thank you all for stepping forward. This is really important. And then, we tried to add public members who represent either previously underrepresented sectors with tremendous interest in interoperability, or particular perspectives from groups such as nursing, which, as opposed to medical. We have a lot of MDs on our committee and not too many nurses. And then, down the list. So, our intent was to make this as broadly inclusive as we could, so that we would come up with a method that prioritizes data classes to represent the broadest stakeholder population that we can. So, fortunately, we can just meander, whereas the tough guy has to sprint.

So, we are going to, in the course of the next eight weeks, only meet once weekly. And on March 21 highlighted, we will present some draft recommendations to HITAC on our next call. And then, over the four weeks that follow that, we will prepare a draft set of final recommendations for consideration. And I think that is it, so we will open it to questions.

Ken Kawamoto - University of Utah - HITAC Committee Member

Hi. This is Ken Kawamoto. Can you hear me?

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Yes, indeed.

Ken Kawamoto - University of Utah - HITAC Committee Member

Excellent. I just wanted to get a sense of whether the specifics within a data class can be a part of our charge and consideration. For example, medications might already be in the core data set, but, for example, in our implementation, using our EHR systems and other EHR systems and looking at, there are still some issues with not being able to really achieve all the interoperability that we want. An example might be that the route of a medication is left up to whatever the vendor decides they want to use because it is not otherwise specified in the specifications and the standards. Could you comment on how we want to approach that at all? Or do we, basically, say that, if we identify, then, medications are already part of the spec of what is the core data, then, we just move on and not worry about whether it is, in fact, already interoperable?

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Sure. I know Christina and I both have thoughts about that. So, Christina, would you like to lead off, or shall I?

Christina Caraballo - Get Real Health

Go ahead.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Okay. That is a critical issue. And, on the one hand, data is going to have to be granular enough and specified sufficiently, so that it can actually be interoperably exchanged. On the other hand, I think our committee charge, instead of being down in the weeds about the particular data elements that we are going to be looking at, under these particular data classes, we are sort of operating, initially, at the much higher level to see if we can't develop a process that is transparent, and inclusive, and reliable, and understandable that allows data classes to be proposed. And then, have a similar reliable, clear, public, transparent process to advance them. I think that is the charge of our committee, rather than getting down to the specific data elements, which is a critical piece. But I think our committee is not going to do that. Christina, is that your understanding?

Christina Caraballo - Get Real Health

Yes. We would discuss that, actually, quite a bit. And we want to make sure that we are creating a framework, as Terry was saying. We will look at some of the proposed data elements more as examples to apply them to the framework but not diving into the weeds of the actual data sets.

Ken Kawamoto - University of Utah - HITAC Committee Member

Yeah, I think that's reasonable. Certainly, in like eight weeks, we are not going to solve interoperability, of course. But maybe it is not during this sprint and whatnot, but maybe it is outside of the scope of what we do these next eight weeks, etc. But I do think having a strategy, at least maybe on ONC side, of how we are going to get interoperability in these items would be good because talking to some major vendors, for example, Masters Healthcare Services Platform Consortium Implementers forum, I think there was general consensus that we are probably, for the things that have been defined, maybe around 85% interoperable, which is great. Certainly, better than we have had before. It would just be good to have a strategy for how we are going to get closer to 100.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

And, if I can come out on that because this really is a critical point. It also bears on how we prioritize data classes, going forward. So, is it that 85% that have mature standards and have granularity sufficient to support interoperability? And do we push them to the front of the queue because they are ready to

launch? Or do we need to make room in this process for data classes that are relatively underrepresented across the continuum of care? That is one of the conundrums we are facing.

Ken Kawamoto - University of Utah - HITAC Committee Member

Agreed. I agree with the general direction. And I think we are all saying that, yes, we need to deal with both. It's just a matter of prioritization. I agree with all that. Maybe that is part of the discussion we will have, after we meet the initial charge of what are the new data classes. How do we deal with the data classes we have already said are priorities?

Christina Caraballo - Get Real Health

Yeah. And to that one, we are trying to get to that 100% you were talking about, part of this is so that we can clearly see where the gaps are as well. For example, looking at we've discussed the different use cases. And we have possibly, as a changeable example, putting on the side of the chart that exists maybe we add something like the use cases, so we can see what is being supported and what is not being supported. So, that has been part of our discussion is to come out of this with a much more clear understanding of what is needed, so it will be easy to have kind of a next steps as well.

Ken Kawamoto - University of Utah - HITAC Committee Member

Maybe along those lines, it would be nice if we could do something voluntary? For example, maybe Sasha could facilitate through the EHR Association, if we have a standard, etc. I'm imagining like a grid that is voluntarily reported of how each vendor supports the standards or whether they, in fact, do support the U.S. [core profiles](#), etc. Because, right now, I think a lot of that is not available for consumption to say what do actually the vendors support, with regard to the standards that are specified beyond things like how far do they go beyond it and that kind of thing. I think that would be quite useful.

Cynthia Fisher – WaterRev, LLC – HITAC Committee Member

This is Cynthia Fisher. If you look from a patient and physician perspective on economic impact and time impact in care, adding films and labs and pharmacy results, which are already in storage networks, shared interstate would make a huge financial impact across the board both in half to --hard dollars and soft dollars. So, I just encourage that, as we look at this opportunity, even setting guidelines for interstate ease of sharing with market impact.

Steven Lane - Sutter Health - HITAC Committee Member

This is Steven Lane. Cynthia, I agree that I think looking at the value proposition related to each of the data types is going to be important dimension for the work group to consider. The other thing that I would add, and echoing what Kenneth said, is the idea of a grid and looking at the various vendors, which standards they embrace, but digging down deeper into really how they are constraining the standards, how they are implementing it, and really thinking about how this is going to be tested because what we find in the wild is that vendors might say they are embracing the same standards. But then, when we actually try to do the exchange, it does not work as well as we would like. I think there are opportunities to dig deep. The question, I think, for us is what is the role of this work group or task force, compared to other groups? I think that is going to be one of our biggest challenges here is assuring that we are fully aware of the other work that is going on within HL-7, work that is being done by the Sequoia Project, by other groups in this space, so that we can align with and support that effort and not duplicate it.

Clem McDonald

This is Clem. I don't know with the list of hands up, I don't want to jump in, but I can't see who is on the list.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

This is Carolyn. I was just about to hop in and ask the committee, respectfully, that we go with the hands raised process. We are running quite a bit ahead on our schedule, so I think we have plenty of time for all of the discussion we want to have. But it is helpful to keep it a little more orderly. Clem, why don't you go ahead because you're at the top of the list, and –

Clem McDonald

A couple of points I would like to make. First, there is this issue of we think we are done with some of it. It sounds like providers are getting all their data, but no one else is. I don't think that the providers are either, except that they're inside of one system. I don't hear it from practitioners that it's easy to connect up and get labs or x-rays or anything from outside. So, I don't think we should think of them as privileged, unless others disagree. They have a long way to go, too. Second thing is, if we could send it anywhere, we can send it everywhere. So, that is we shouldn't have to worry about if we are sending it to an office practice or home healthcare or wherever. Right now, we just don't have good ways to send it and get it out of the sources.

So, I'd like to keep an emphasis on getting it out. And, thirdly, I really support – I think we have got to talk about specifics. I have been on too many committees that talk about processes and stuff, and it never changes anything. Like these people don't know whether they like it or don't like it, until they see specifics. So, I hope the committee can talk about specific data elements or data content.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Clem. Leslie Lenert, please bring your comments forward?

Leslie Lenert - Medical University of South Carolina - HITAC Committee Member

Yes. I just wanted to ask what the plan was for inclusion of the public health perspective in these data elements. And rapid exchange of data for public health purposes is really critical for response to public health emergencies and pandemics and such.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

This is Terry. Another high-priority stakeholder, and I think what is apparent from the last several comments is that there is a wide spectrum of views and priorities on what data and data classes would significantly advance the work in each of these sorts of sectors. I think that is part of the challenge of the committee is to, first of all, get the input of the stakeholders that we think are critical. And perhaps the committee could comment on sort of nominations of stakeholders who haven't traditionally been thought of under the umbrella of interoperability to help guide us. But having located and identified the stakeholders, then, I think we are in a position to begin to understand how they prioritize their data needs. And then, sort of figure out a priority mechanism to advance those data classes using whatever criteria we come up with to push them forward.

And then, I think is the time we dive into the data class and look at the specifics. But, again, that won't happen in this eight weeks. But I can't remember whose point it was, but it really needs to happen over time.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. Let's take the next question from Arien.

Arien Malec – Change Healthcare – Co-Chair

Hey, thank you for the presentation and for the thoughtful work plan. I would encourage the group, Steven might have already mentioned a number of these coordinating organizations. I'd also add the [inaudible] [01:40:20] project to the list. They have been very successful at gaining adoption for API based app workflows. And so, these kinds of coordinating organizations that include providers, as well as HIT developers, are useful ways to make sure that the USCDI roadmap has a place to go. I think, as a number of people have mentioned, the history of healthcare and interoperability in healthcare is that there is a gap between standards creation and testing, adoption, and deployment, rate of testing, deployment, and adoption.

And finally, I would urge the committee to go back and look at a report that Stan Huff and I wrote from a task force looking at standards and interoperability and making recommendations to ONC about how to improve standards of interoperability that really called for that level of testing in the wild and careful coordinated adoption of standards to make sure that not only are the standards developed, but, again, that they are tested and adopted in the wild. Again, just a call out to look at the organizations that are helping to convene that process, and make sure that we have a thoughtful roadmap that contemplates not just the data classes, but also standards development testing, rollout, and adoption. Thank you.

Christina Caraballo - Get Real Health

This is Christina. Just to chime in answering some of the original questions involving the standards bodies. One of the things that Terry and I have discussed is using the USCDI to kind of generate conversation and get some of these different needs and gaps in data classes on the radar of the standards body. So, I think working in tandem with the different groups that are leading the charge in development of standards will be a really important part of building this foundation that we are working on with the USCDI.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Christina. Let's go to Sasha TerMaat.

Sasha TerMaat – Epic – HITAC Committee Member

Hello. This is Sasha. I just wanted to thank Ken and Steven for their earlier comment about the possibility of the EHR Association providing some additional data about data class adoption, which is a great idea, and I will take that back to them. The EHRA has also recently been working on the first edition of our interoperability survey of our membership where, for the first time, we are collecting statistics from all of our members on actual use of standards, transaction counts, and so forth, for different standards that are available for cases. And we plan to collect that every six months, so we will be able to use that as an ongoing metric to see which standards have been seeing an increase in adoption, decrease in adoption, where folks are seeing the most value there. And I hope that that data source would prove useful to some of these endeavors as well.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. And, let's go back to Ken.

Ken Kawamoto - University of Utah - HITAC Committee Member

Great. Thanks. As we discussed this, I think, a lot of times, we talk about what we expect EHR systems to do or health IT systems to do. And as I think about this, I think we also need to set some expectations about what healthcare stakeholders need to do. As a specific example, I think it is completely appropriate to say, for example, asking HR vendors, when they are making laboratories to be available, to have a mechanism for that to be mapped to [link codes](#) to identify what lab you're talking about. But I wouldn't

expect the EHR vendor to be the one who actually does all the mapping to make sure that internal lab coats, etc., get mapped to the right labs. Same thing for other observations or procedures. Again, I think the EHR systems need to make, and I think they are, making available tools to make that happen. But the actual mapping, I think, needs to happen at the healthcare system level because you need to actually be looking at the examples, know your local ordering patterns, etc.

In that regard, I think it is important for probably this committee, maybe others, to define and prioritize, for example, for labs, instead of saying, just map all of your 4,000 labs to link codes to say these are the ones that we thin, as a common expectation, should be mapped. So, that, for example, under **Testa**, if you search out for someone's hemoglobin, A1c level, or someone's glucose level, or liver enzyme levels, you are, in fact, getting those right labs back rather than getting something that is missed mapped or not mapped, which, I think, as a practical matter, is what happens. So, I want to bring into this forum the notion that we can't just put all the expectation on EHR vendors. We have to have some expectations of what healthcare organizations will be doing to make the mappings correct for the things that we, as a community, feel should be mapped and should be interoperable.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Ken. Let's go to Steven Lane.

Steven Lane - Sutter Health - HITAC Committee Member

Yeah. I just wanted to echo, Ken, what you said. The idea that not only is there an opportunity for us to prioritize data classes or types, as we have called them, but also, within those classes, prioritizing the data elements. And you call that labs, which is an effort that our organization is in the midst right now. And I think that we, like most people, find that the lab that floats to the top of the list is the A1c because it's so critical in terms of providing coordinated care to patients with diabetes. But, as you say, the industry is not necessarily ready to just map all of the 4,000 lab elements. There are probably many more that when you get down to it. So, if we can think about providing some prioritization, or at least developing a mechanism to provide prioritization, within the data classes, I think that may be really valuable.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Steve. Let's go back to Clem.

Clem McDonald

So, I support everything that everybody said, especially what Ken said. But I would like to come back to one other party we have to think about, when people say they want more data, I think we should distinguish data that they then would expect labor to be invested in by care providers to enter it because it doesn't exist versus data that's sitting in some computer electronically but just isn't well standardized. There is an infinite desire for more data. But we have to realize that providers, nurses, and physicians don't have an infinite amount of time anymore. They have very little time. Just keep that distinction in mind when we think about it. Another thing about the lab data, there is an evolution coming that the instrument vendors are providing mapping from their internal test codes to link codes.

At least a couple of them have them on their websites already, which should make it a lot easier for labs and institutions to get the right code mapped to the lab test. The instrument vendors are the ones who know best what the things really are. Thank you.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Clem. Let's head to Tina Esposito, please.

Tina Esposito

Thank you very much. I think the comments are all good. And, I think it is very easy to get and want to go into the weeds in terms of what data elements. But I appreciate the comments and ensuring that the framework and the process is correct. And so, the one comment I would have is, if we think about the use cases that would be defined, I think it is really important to ensure that it is a broad spectrum of use cases. I know we said two or three. But, within those handful, ensuring that we are considering all stakeholders. I was happy to hear providers beyond just physicians. I think physicians, obviously, are key, but other clinicians are incredibly important, patients, healthcare systems, vendors. And also, to just think about use cases, sort of another element to that is certainly point-to-point care, of course, in a clinician's or physician's office, but echoing or following up on the comments earlier around uses like the CDC, analytics, and things like that.

So, I would say I think the detail will come, and it will be the right detail, if we identify the right use cases to think through that.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Tina. It looks like the queue is empty. Does anyone on the committee have any additional comments or questions? Please raise your hand. Okay, recognizing Terry O'Malley.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

So, thank you very much for all of these comments. They are incredibly helpful. And we will do our best to reconcile the comments. I guess, I have a question for the committee, as a whole. And that is could we give some thought to either use cases or stakeholders or broad domains of data that appear to fall outside of the current domains and stakeholders listed in the draft USCDI? I know, we have sort of done that a little bit this morning, but I am asking if we could get sort of an explicit response to places where this process should go, or, conversely, where this process should not go. It's really a scoping issue. Thanks.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Just to clarify, is that comment for Lauren and Elise, the question?

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

That is a question for the entire committee.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Whoever wants to jump in.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Going down the list – I'm sorry, did I cut someone off?

Unnamed

No, go ahead.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Okay. It looks like Clem is up again for the next comment.

Clem McDonald

Well, it's kind of along the same lines about what we can talk about. I would like to know where it is written that we can only talk about certain things? That is, does this come out of the law, or is this – because I had the impression that we didn't have to take the whole six weeks just to think about high-level thoughts, but if we could make bigger progress, we could do it. Is it forbidden? So, back to the question of what we should talk about, I think we can sense that the committee is pulling at their harnesses trying to talk about specifics. But it is maybe forbidden by some higher authority. I would like to know the authority here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

This is Lauren from ONC. I can speak to the 21st Century Cures Act lays out what the HITAC absolutely must do. I think that everything else that the committee brings forward that they want to consider discussing or raising as an issue, we will discuss that with the committee chair. Relative to the two task forces, we also want to take that up with Genevieve Morris and Steve [Posnak](#) who is the internal leadership regarding the two task forces and see if there is anything else that is within scope or outside that we should consider, as well as the task force chairs.

Clem McDonald

I mean, specifically, at the first meeting it was discussed that this is what the existing set of classes are, and here's two additional possible suggestions. And then, from this discussion today, it sounds like we shouldn't talk about that, about getting to which items should they – and priority. I could certainly abide getting a process. But some of the things are – we are chomping at the bit on. It seems like we should be able to discuss them, too.

Genevieve Morris

This is Genevieve. I will just jump in there. I think the goal, Clem, is that the process comes first. And once that is in place, then, the process itself could be used for the committee to discuss the actual data classes themselves. I think the concern that we have, obviously, as ONC is that the USCDI Version 1 is our best guess of what is currently in the **[inaudible] [01:54:26]**. Our best guess is based on what we have heard from stakeholders over the last two to three years. But I think, without a process to actually prioritize, we are just going to end up in sort of a cycle where we are talking about needing more data but don't actually ever add more data because we can never figure out what to work on next. I think we're totally open to talking about the specific data classes, once that process is actually in place. And then, we want you guys to test the process and actually figure out how we are going to use it to prioritize.

Clem McDonald

So, we should get the process done quickly, so we can do other stuff?

Genevieve Morris

It is a motivation, I guess.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Thanks, Clem and Genevieve. We appreciate that clarification for the committee. Let's go to Ken now for another comment

Ken Kawamoto - University of Utah - HITAC Committee Member

So, my recommendation on where to go next, I think, as much as I like structured data, I think the first part is just making sure that anything is **human readable** that folks want are there. I think limiting to things like notes is amazing and great. I think, once we do that, and we start focusing on the structure data, my recommendation would be to focus on the core, and avoid getting too much into scope **creep**. I think before we really go down – so, once we have the human readable content, we are getting into the structured data, I think it is better to harden up what we have already and to make sure that is truly interoperable before we say let's look for additional things to add into the structured data we want to share because we all have limited bandwidth. And if we do too much scope, my guess is we will get left on.

That just would be a recommendation that we don't really need to keep adding a lot more structured data before we have the existing structured data in good shape.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

And we have one last comment from Clem. Are you on mute, Clem? We can't hear you.

Clem McDonald

Yes. I am on mute. As part of non-structured or narrative text, I hope these include radiology reports because they cost twice as much as lab tests do for the nation. And they are really, really important for clinical care and for patients to have, from what they say. I pitch that a lot. And I am not a radiologist.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Go ahead, Terry.

Terry O'Malley - Massachusetts General Hospital - HITAC Co-chair

Thanks for the last two comments, Ken and Clem. It is a reminder that machine readable data is only readable by people with machines. And meaningful use and HITAC only got so far across the healthcare spectrum. And so, the emphasis on text is probably a really good one, if we are trying to engage a much broader group of clinical actors. So, thank you for those two comments.

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

Seeing that we have no more comments and raised hands in the queue, I will thank you, Christina and Terry, for giving us this presentation and engaging in the discussion. Lauren? Are we ready to go to public comments?

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Yes. I believe so. Okay. We are now at the public comment portion of the agenda. Operator, can you please open the line for public comments?

Operator

Certainly. Ladies and gentlemen, if you would like to ask a question, please press *1 on your telephone keypad. The confirmation tone will indicate your line is in the question queue. You may press *2 if you would like to remove your question from the queue. For participants using speaker equipment, it may be to pick up your handset before pressing the star keys. Again, that is *1 to ask a question, at this time. We'll hold for one moment to see if there are any questions. Again, that is *1. It seems we have no questions on the phone, at this time.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Okay. I'm sorry, you said there are no comments, at this time?

Operator

Correct. There are no questions over the phone, at this time.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Maybe we will give it just one more minute to see if we have any more comments. Then, we will move to adjourn. Carolyn, did you have any other closing remarks, while we wait for additional comments?

Carolyn Petersen – Mayo Clinic Global Business Solutions – HITAC Committee Member

It has been great to see the energetic participation and discussion today. We had some really excellent presentations that will orient us for the workload we will be undertaking over the next few months. And I am looking forward to seeing what we have to discuss in March.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Great. Thank you, Carolyn. And, operator, any other public comments?

Operator

Not at this time.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Okay. Thank you. So, before we adjourn, just a couple of reminders. The schedule for all of the task force meetings can be found at our website, healthit.gov. For those committee members who are just interested in maybe checking in to see what the other taskforce is doing, you are welcome to listen in on those, as well. And then, as a reminder for the full HITAC, our next meeting is March 21. That will be virtual as well. In the meantime, we will send out the minutes from this meeting in the next several days to the committee. And with that, we will adjourn. Thank you all for your time today.

[End of Audio]

Duration: 121 minutes