

Transcript

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) MEETING

August 17, 2022, 10:00 a.m. – 12:00 p.m. ET VIRTUAL



Speakers

Name	Organization	Role
Aaron Miri	Baptist Health	Co-Chair
Denise Webb	Individual	Co-Chair
Medell Briggs-Malonson	UCLA Health	Member
Hans Buitendijk	Oracle Cerner	Member
Steven Eichner	Texas Department of State Health Services	Member
Cynthia A. Fisher	PatientRightsAdvocate.org	Member
Lisa Frey	St. Elizabeth Healthcare	Member
Rajesh Godavarthi	MCG Health, part of the Hearst Health network	Member
Valerie Grey	New York eHealth Collaborative	Member
Steven Hester	Norton Healthcare	Member
Jim Jirjis	HCA Healthcare	Member
John Kansky	Indiana Health Information Exchange	Member
Kensaku Kawamoto	University of Utah Health	Member
Steven Lane	Sutter Health	Member
Leslie Lenert	Medical University of South Carolina	Member
Hung S. Luu	Children's Health	Member
Arien Malec	Change Healthcare	Member
Clem McDonald	National Library of Medicine	Member
Aaron Neinstein	UCSF Health	Member
Eliel Oliveira	Dell Medical School, University of Texas at Austin	Member
Brett Oliver	Baptist Health	Member
James Pantelas	Individual	Member
Raj Ratwani	MedStar Health	Member
Abby Sears	OCHIN	Member
Alexis Snyder	Individual	Member
Fillipe Southerland	Yardi Systems, Inc.	Member
Sheryl Turney	Carelon Digital Platforms (an Elevance Health company)	Member
Thomas Cantilina	Department of Defense	Federal Representative
Adi V. Gundlapalli	Centers for Disease Control and Prevention	Federal Representative

Name	Organization	Role
Ram lyer	Food and Drug Administration	Federal Representative
Jonathan Nebeker	Department of Veterans Health Affairs	Federal Representative
Michelle Schreiber	Centers for Medicare and Medicaid Services	Federal Representative
Ram Sriram	National Institute of Standards and Technology	Federal Representative
Micky Tripathi	Office of the National Coordinator for Health Information Technology	National Coordinator
Steve Posnack	Office of the National Coordinator for Health Information Technology	Deputy National Coordinator
Elise Sweeney Anthony	Office of the National Coordinator for Health Information Technology	Executive Director, Office of Policy
Elisabeth Myers	Office of the National Coordinator for Health Information Technology	Deputy Director, Office of Policy
Avinash Shanbhag	Office of the National Coordinator for Health Information Technology	Executive Director, Office of Technology
Seth Pazinski	Office of the National Coordinator for Health Information Technology	Director, Strategic Planning and Coordination Division
Michael Berry	Office of the National Coordinator for Health Information Technology	Designated Federal Officer
Carmela Couderc	Office of the National Coordinator for Health Information Technology	Presenter

Call to Order/Roll Call (00:00:00)

Michael Berry

And good morning, everyone. I am Mike Berry with ONC, and I would like to welcome you to the August 2022 HITAC meeting. We really appreciate you joining us today. As a reminder, your feedback is always welcomed, which can be typed in the chat feature throughout the meeting or can be made verbally during the public comment period that is scheduled at about 11:50 Eastern Time this morning. So, let's get started with our meeting. First, I would like to welcome ONC's executive leadership team to the meeting, and with us today is our National Coordinator Micky Tripathi, Steve Posnack, our Deputy National Coordinator, Elise Sweeney Anthony, the Executive Director of the Office of Policy, and Avinash Shanbhag, the Executive Director of the Office of Technology. I will now call the meeting to order and begin roll call of the HITAC members, along with the federal agency representatives of the HITAC, so when I call your name, please indicate that you are with us. I will start with our cochairs. Aaron Miri?

Aaron Miri

Good morning.

Michael Berry

Denise Webb?

Denise Webb

Good morning.

Michael Berry

Medell Briggs-Malonson?

Medell Briggs-Malonson

Good morning.

Michael Berry

Hans Buitendijk?

Hans Buitendijk

Good morning.

Michael Berry

Thomas Cantilina? Steven Eichner?

Steven Eichner

Good morning.

Michael Berry

Cynthia Fisher? Lisa Frey?

Lisa Frey

Good morning.

Michael Berry

Raj Godavarthi? Valerie Grey?

Valerie Grey

Good morning.

Michael Berry

Adi Gundlapalli?

Adi Gundlapalli

Good morning.

Michael Berry

Steven Hester? Ram lyer? Jim Jirjis? [Inaudible - background noise] [00:01:50] John Kansky? Ken Kawamoto?

Kensaku Kawamoto

Morning.

Michael Berry

Steven Lane?

Steven Lane

Good morning.

Michael Berry

Leslie Lenert?

Leslie Lenert

Present.

Michael Berry

Hung Luu?

Hung S. Luu

Good morning.

Michael Berry

Arien Malec?

Arien Malec

Good morning.

Michael Berry

Clem McDonald?

Clem McDonald

Good morning.

Michael Berry

Jonathan Nebeker? Aaron Neinstein?

Aaron Neinstein

Good morning.

Michael Berry

Eliel Oliveira? Brett Oliver? James Pantelas?

James Pantelas

Good morning.

Michael Berry

Raj Ratwani? Michelle Schreiber?

Michelle Schreiber

Good morning.

Michael Berry

Abby Sears? Alexis Snyder?

Alexis Snyder

Good morning.

Michael Berry

Fil Southerland?

Fillipe Southerland

Good morning.

Michael Berry

Ram Sriram?

Ram Sriram

Good morning.

Michael Berry

And Sheryl Turney?

Sheryl Turney

This is Sheryl. Good morning.

Michael Berry

All right, thank you, everyone, and now, please join me in welcoming Micky Tripathi for his opening remarks. Micky?

Welcome Remarks (00:03:11)

Micky Tripathi

Great, thanks, Mike. Hi, everyone, and thank you for joining this month's HITAC meeting. I certainly hope you are having a great summer and enjoy the lighter HITAC workload, but now we are off and running again. We are really gearing up for a busier fall, and that is going to start with the launch of the Public Health Data Systems Task Force, which I will discuss a little later in the agenda. So, let me just cover some ONC updates, and I have a lot of them. Hopefully I will not overstay my welcome, but we have a lot of things going on and really wanted to make everyone aware of them and get your feedback and guidance on them as well.

The first thing I wanted to talk about is the new policy that the department has put into place related to alignment of health IT activities. Many of you may have seen the blog that Steve Posnack, Deputy National Coordinator, and I wrote and published on August 5th, I think, about this new policy, and it is a department-wide policy for coordination of health IT activities that was put into place by Secretary Becerra and Deputy Secretary Palm, and we are really excited overall about this policy because the department, just like the market, is accelerating the use of health IT and starting to really see the opportunities of all the hard work that has been done through HITAC and investing a ton in the implementation and adoption of electronic health records, and now we want to and we are starting to be able to say what the fruits of our labor are, and we are starting to see the fruits of that labor, and federal agencies are no different than the private sector in that sense, and multiple federal agencies now doing a whole bunch of things related to electronic health records, which is the problem we wanted to have, right? It is exciting overall, but it does call for more proactive alignment and coordination of health IT activities across the federal government, and certainly across HHS, to ensure that we are operating as efficiently and cohesively as possible as a department.

So, to that end, the department now has a department-wide management policy that directs ONC to engage with all of our federal partners in the Department of Health and Human Services, all our sister agencies, to align and coordinate health IT-related activities in support of common HHS, health IT, and interoperability goals. Specifically, the secretary has directed ONC to establish and oversee a consistent approach for two things. One is incorporating standard health IT requirements language in all applicable HHS funding programs, contracts, and policies, really with an eye toward saying we have a set of HHS-approved standards, many of which come from ONC, but also from other agencies, that we want to make sure that in all of our engagements out in the market as the federal government, that those standards and requirements are built into the funding contracts and the funding mechanisms in the policies that we implement across the agencies so that we have greater consistency.

And second, it directs ONC to provide direct assistance to HHS agencies to help maximize the use of HHS-approved standards and authorities in their agency programs, so it directs us to work with the agencies, as they have larger activities that may not be just covered by contract language, or contract language may not

suffice to meet the complexity of their needs, but for us to help those agencies in figuring out if there are standards-based approaches to doing the things that they want to do, recognizing that in many cases, there might not be. Many of the agencies have programs that are out on the leading edge, for which standards may not be approved or may not be mature enough yet, and that is fair enough, but what we want to be able to do is say we should be leveraging all the things that we have put into place as a department across all the agencies, and certainly in terms of ONC requirements that we require of the market, to say that we should be doing the same thing within the department itself.

We certainly know that this will not happen overnight. The Department of Health and Human Services is a very complex organization, as I think all of you know, but over time, what we expect to see is greater consistency in health IT-based activities across the department, and we think that that is going to result in lower-cost and higher-effectiveness agency programs, more sharing of data and health IT infrastructure across programs and agencies, and a lower burden overall on healthcare providers, technology developers, and other stakeholders who engage with multiple agencies, and I think as all of you know, we have the phenomenon now of different agencies taking different approaches to things, which is a burden on the industry and makes it more difficult for the industry to be able to meet the different program requirements that they might face, and the different opportunities that they may have across different agencies. It also presents a barrier within the government for the agencies to be able to do more together, and for us to be able to leverage programs from one agency in other programs.

The last thing I would add is that in terms of what we are trying to do with the market, which is trying to do everything we can to motivate the market toward an open-industry ecosystem that allows sharing based on open-industry standards, and certainly ,CMS has carried a lot of that weight from a federal government perspective with everything they have done in incorporating all of this in their payment programs, leveraging ONC standards, and CDC public health requirements are a part of that, but a lot of that weight has been borne by a relatively small number of agencies.

What we want to be able to do here is say all HHS agencies should be doing the same thing in their programs as well so that we are able to multiply the purchasing power of the federal government toward the HHS ultimate goals of alignment of open-industry standard-based approaches for interoperability to give us the kind of seamless interoperability and seamless ecosystem that all of us are working so hard toward. So, that includes things like maximizing use of open-industry, nonproprietary standards like the USCDI, like FHIR APIs, and as I said, we very much hope and anticipate that that is going to multiply the impact of our regulations and purchasing power to reinforce all of our health IT and interoperability goals.

And finally, I will just add that this is really important to the furthering of Biden-Harris administration priorities in a number of key areas as well. When you think about health equity and having greater consistency in our approach for how we think about health equity data across HHS agencies, federal customer experience and service delivery, specific executive orders related to that, and finally, our executive order on promoting competition. I think all of those are things that will be bolstered by this management policy. So, we are really excited about it, more to come, but I just wanted to make everyone aware of that.

Second thing. Let me just talk about that we have recently released USCDI Version 3, and Dr. Al Taylor, who I think all of you are aware of, from the ONC team is with us today, and he is going to provide an overview and highlight what has changed since Version 2. We recently opened the submission period for

new data classes and elements for USCDI Version 4 and are also very interested in receiving your comments on existing data elements.

One thing I would add with regard to the call for new data classes and elements for USCDI Version 4 is the President and the department have a specific focus on behavioral health, and so, we have added that as one of the priority criteria for all of your consideration as you think about new data classes, so we welcome your input and feedback on all of the priorities that we have listed there, but I just wanted to point specifically to that one that we have added because behavioral health is a hugely important objective that we all want to be able to say how we fill the gap that exists today in the adoption of health IT and the more effective use of health IT for mental health and substance use disorder treatment facilities, and the USCDI is one important lever for us to be able to do that.

So, for those who want to do that, please search "USCDI" on HealthIT.gov, and I think you all know the submission period, but let me just remind you that it ends on September 30th of 2022, so there are about six weeks. We very much look forward to all of your comments, and we plan to publish the draft USCDI Version 4 in January 2023, at which point we will reconvene the Interoperability Standards Workgroup to develop recommendations on those draft recommendations. On a related note, the annual comment period for the ISA, Interoperability Standards Advisory, opened at the end of July, so your feedback is really important in ensuring the most accurate health IT standards included in the ISA. Please submit your comments and suggestions and propose additions by the same deadline, September 30th, 2022.

Another announcement: I am really excited to announce the 2022 ONC Tech Forum. It is going to be held next month, and we just recently opened registration and posted the agenda. This year's forum is going to be held on Fridays in September starting at 11:00 a.m., and the dates are September 9th, 16th, and 23rd, so we spread it across three days. The forum is going to give us all the opportunity to learn how we can advance health technology to improve patient care, health equity, data exchange, and interoperability. You can register for that on our website if you go search for the tech forum on HealthIT.gov, and that will take you right to the registration page.

Lastly, and this is where I definitely hope I am not overstaying my welcome, but the last announcement is I want to thank everyone who joined the EHI Sharing Workshop that ONC held on August 4th. We got tremendous participation and we learned a ton, so we really appreciate everyone's participation. The session was designed as a listening session and guided discussion for implementers to engage with each other on the opportunities and challenges related to sharing electronic health information. As you know, the deadline is coming up from the information blocking rule for the actors named in the information blocking rule of the 21st Century CURES Act to open up the definition of electronic health information to expand beyond the USCDI to the full definition of electronic health information. So, we are very much looking forward to hearing where people are and how people are thinking about meeting that date.

Participants shared approaches the organizations are exploring, lessons learned, and questions that arise related to sharing whatever EHI is needed, and we certainly had a diverse range of attendees, including clinicians, informaticists, and compliance professionals, data analysts, attorneys, consultants, health IT developers, really a cross-section of all the stakeholders who are involved in this, and there were over 200 participants, so we are really grateful for everyone's participation.

We will have more to come in terms of synthesizing what we heard, but there are three overarching topics that I can just flag now. One was the data exchange technology implementation utilization perspective, second was a focus on patient-facing technologies and patient engagement, and third, the upcoming the transition to that full scope of EHI and how the industry is preparing for that, so we have a survey of a layered set of conversations about those in those three domains, and thinking about both the technical side of that as well as establishing new policies.

So, we plan to present the HITAC at an upcoming meeting the key themes and highlights of the approaches and challenges, and we certainly want to highlight some of the most poignant themes that came across throughout the day. One was that several participants shared how the effort to better define EHI catalyzed an organization-wide approach to update their HIPAA policies as well. As many of you, specifically most on the HITAC, know, the definition of EHI is essentially the electronic portion of the HIPAA-designated record set, and so, in working with organizations, I think that was the opportunity for them because as we know, that may not be as formalized a process and routinely done.

There is certainly the operational perspective that every organization has on how they think about the designated record set, but anything that has people going back and saying all right, let's think in a very structured way about what that designated record set is and how we think about the electronic portion of that that commenters and participants did say that that was helpful to them to be able to have them revisit what is the designated record set and how they think about how the EHI definition matches with that.

Second is participants flagged that success relies on an intradisciplinary approach, requiring input from across the whole spectrum of the industry, from clinical, to tech, to informatics, to patient engagement, to administrative and compliance teams in order to ensure that all of the technologies, policies, workforce training, and clinical and administrative workflows are aligned to facilitate information sharing.

And then, finally, all of the participants universally agreed that this is really hard work, and I think we have hopefully been communicating that as much as we can throughout this process to say that this is a big change in terms of culture, and the approach to information sharing, and the scope of information that we are now stepping up to in terms of the 21st Century CURES Act requirements to make all electronically accessible information available, so that is a big step up. We know that this is a lot of hard work, and that speaks to the need to get it started as soon as possible.

So, when individuals from different perspectives noted the challenges with technology, with training, with figuring out different legal parameters, the conversation kept circling back to the idea that overcoming those challenges is not just about compliance, it is about doing the right thing for patients. I think all of us agree that at the end of the day, that is the right thing to do for patients. We also recognize the complexity of it and everyone's commitment, and appreciate everyone's commitment to moving forward.

So, that is the culture shift we have been talking about. We know that better data is going to help support better care and better outcomes. It is really hard work to do, but I think all of us know that it is the right work to do as well. So, we look forward to continuing to support these discussions, and as noted, we will provide more detail in a future HITAC presentation on what we found from that session, and we will be announcing new office hours on our website in the coming weeks to support implementers in the field as that October 6th date is fast approaching. So, let me close now and thank you all for your engagement. I know I took a

little bit more time today, but hopefully you found these updates useful. I really want to thank everyone for joining us today and thank the HITAC members for all of your ongoing support and for the work ahead. Let me now turn it back over to Aaron and Denise for their opening remarks.

Opening Remarks, Review of Agenda and Approval of June 16, 2022, Meeting Minutes (00:18:10)

Aaron Miri

Thank you very much, Micky. That was very, very impactful, and again, thank you to you and your team. I know that you all have been on a listening tour, listening to all of us in the field, what we are seeing, what is going on, and I appreciate you, Elise, Steve, and the whole team for how accessible they have been, and so, I would encourage the public to reach out to the ONC. Any questions, any comments, they are listening, they are responding. I cannot say that everyone across the entire federal government does that, but the ONC definitely does that, and so, we really appreciate that due diligence, Micky, that you and your team are doing.

Also, to that point, I do want to remind everybody about that October date. It is so critical. We just went through with a brand-new electronic medical record installation at my facility. Having worked with all of the vendors, I can tell you the vendor community still is a little discombobulated around that October date, and so, please make sure you are looking at your full definition of EHI. But regardless, enough of my monologue. Welcome to the HITAC for August. We have a full, packed agenda, and I will turn it over to my co-presenter Denise to launch into it.

Denise Webb

Good morning, everyone. Welcome to our August meeting, and I have to say I am quite excited about the new policy, Micky, because I think that has been a long time coming, and I am glad to see that that is finally happening, and I think that is going to really improve things in the industry for all the healthcare providers and patients.

So, we have some great presentations today, and let me just go over the agenda, and then we will approve our minutes. We are going to hear from Micky on the Public Health Data Systems Task Force that is being kicked off, and then we are going to hear from Steven Eichner and Hans Buitendijk with a little bit of an update on the Adopted Standards Task Force and what they have been up to, and then, Medell Briggs-Malonson and Aaron Miri will present on the HITAC Annual Report Workgroup and the status of that work, and then, finally, we will have an overview of the United States Core Data for Interoperability, or the USCDI, Version 3 from Carmela Couderc, and she is from ONC, and then we will turn it over to Mike for public comment, and that will conclude our meeting. So, first, before we launch off into Micky's presentation, I would like to get approval for the June meeting minutes, so if I could have a motion for approval?

Hans Buitendijk

This is Hans. So moved.

Denise Webb

All right, thank you, Hans. A second?

Michelle Schreiber

Second. This is Michelle.

Denise Webb

Thank you, Michelle. All those in favor say aye.

Several Speakers

Aye.

Denise Webb

Anyone who is not in favor, no. Any abstentions? All right, so that matter of business is taken care of. Micky, I am going to turn it over to you to provide your presentation on the Public Health Data Systems Task Force.

Micky Tripathi

My God, it's me again. Okay.

Denise Webb

Yes, it is you again.

Public Health Data Systems Task Force 2022 (00:21:30)

Micky Tripathi

All right. Hi, everyone, I am back. Thanks, Aaron and Denise. I wanted to talk about the charge for the Public Health Data Systems Task Force, and I am going to go quickly through this so that we leave a little bit of time for the HITAC to weigh in, and then, of course, that launches the process of the Task Force being able to dive in for the important work ahead. Next slide, please.

I just talked about this, the HHS policy, and this certainly fits into the broad construct of this HHS policy, but I will say the ONC and CDC have been working very, very deeply on a number of priority areas to help support the public health mission, and so, certainly, this policy is sort of an umbrella that covers all of these different activities, but even in advance of this policy, which had tremendous collaboration from the CDC on helping us move forward, using all the levers that we have available from an ONC perspective to help the CDC fulfill its mission to improve the public health system overall and to improve our abilities for pandemic response in particular. And so, that is what I wanted to talk about today with respect to the charge to the Public Health Data Task Force. Next slide, please.

So, we all know that there have been a number of studies now, both internal and external, that have pointed to the need for a new approach, and certainly, the HITAC recommendations from last year also pointed to the lessons that we have learned from the pandemic experience, and it has affirmed what is an already growing consensus that we need a new approach to the way we think about nationwide public health surveillance and data systems, and I think all of you are aware from the HITAC recommendations and others what some of those key elements are, everything from an enterprise approach, to more modern interoperability approaches, to common data pillars and aligned policy and governance. Next slide, please.

And, we have worked collectively on a vision that is helping to drive the CDC Data Modernization Initiative , which is a cornerstone of the way that we are thinking about pandemic response going forward and the

general modernization of the public health infrastructure, and recognizing that we do have a federated public health ecosystem that relies on the states for significant public health activities, we certainly want to be able to have a system that has more system-ness, that is able to act as one public health community when the need arises. Next slide, please.

So, one of the things that we have been in deep discussion with the CDC on and that is part of the specific charge to the Task Force comes out of recommendations that were made from the HITAC last year, which is to take a look at the potential for certification of public health agency health IT systems in the same way that we do certification of EHR systems or health IT systems today. And again, that was a recommendation from the Public Health Task Force and approved by the HITAC that suggested that as something that we ought to take a look at, and so, with the CDC, we have been diving deeper into that question, and that is essentially what we are coming back to the Task Force to say, that we would actually like to have you explore that a little bit further.

We certainly know that the ONC certification program now covers 800-plus health IT products used by the vast majority of hospitals and physician offices and required by numerous federal programs, and, as we pointed out, even more programs are going to be incorporating the requirements that are instantiated in the certification program, and I think all of you are aware of the different kinds of things that establishes in the market. Next slide, please.

And it has certainly had positive effects. It is not perfect by any means, and we at ONC are the first to say it is not perfect by any means, but we do believe that it has provided a lot of value to the industry, has created a solid foundation on which all of us are able to build in ways that we would not have been able to build if we did not have the certification process in place. A number of programs are leveraging it, and it has certainly increased health IT adoption across the healthcare continuum as well. We have seen spillovers into other areas for recipients who did not actually receive HITAC dollars, but who have seen value in saying it is worth pursuing a certified system to be able to connect with this.

One of the questions that has come up in our discussions with the CDC and the Data Modernization Initiative is the question of the public health agency systems, and certainly, one of the things that we have heard in lots of feedback from the industry, provider organizations, health IT vendors, other vendors, and the public health community at large, is that one of the challenges that we have with interoperability across the public health ecosystem is you have 64 different jurisdictions out there, and in effect, what we have done is through the EHR certification program, we have certified the pitchers, but we did not certify the catchers, and so, the experience that we hear from provider organizations who have nationwide scope as well as vendors who have nationwide scope is that they are certified from the ONC system to transmit data according to a set of specifications, but what they confront in the market is that different jurisdictions have slightly different changes, sometimes major changes, in what they require from a jurisdictional perspective, and what that means is that the vendors and the providers end up having to do things multiple different ways out in the market.

And so, the question is if there is a way to get greater standardization on that receiving side, on the public health agency side, and certification is one point on the spectrum. You can imagine guidelines, you can imagine requirements, and then you can imagine certification where you are actually testing the conformance or making some representation about having verified the conformance according to a set of

requirements, so there is a spectrum there. And so, the question before us is how do we think about certification as an opportunity for the public health system to be able to have greater standardization of those public health agency systems out in the field to allow better interoperability with the CDC as well as with each other, and greater functionality over time as you start to think about what the opportunities might be? Next slide, please.

So, some initial ideas as we have had those discussions, and we are doing multiple feedback forums on this, so we have forms for discussion with the public health community itself through CSTE, APHL, the DMI Consortium that Dr. Dan Jernigan from the CDC and I co-chair, which has various participants from STLTS and public health agencies. The Advisory Committee to the Director, which is a CDC federal advisory committee, is looking at this from a policy perspective, and they have had a set of hearings for the last couple of weeks where they are looking at this question from a policy perspective, and the charge to the HITAC and to the Task Force is to look at it from more of a programmatic, technical perspective so that we get all these types of input, from the policy side, the STLTS, and from the HITAC, which has expertise in ONC programs and in certification programs, and indeed, so much of it originated from recommendations from the HITAC and the predecessors, the HIT Policy Committee and the Standards Committee.

So, the idea of the certification and initial ideas for discussion is focusing on the provider systems' capacity to generate a report according to specific HL7 standards and transmit, I think as all of you know, and what I want to do is say how do we build off the prior Task Force recommendations to start that exploration process in a deeper way? As I said, ONC and CDC are building on Task Force recommendations in what we are doing, but we now really want the market input and the input and advice of the HITAC on these key considerations.

So, we certainly recognize and want to make clear that certification applies to technology modules, as all of you know, but just for everyone's general awareness, it does not apply to public health agencies or users. So, this is not about saying there is a certification program of a state public health department. That is not what this is, any more than that is for EHR systems. It is about the technologies that are used by public health agencies, not the agencies themselves or the users. I also want to point out that as all of you know, but just to remind everyone, not all capabilities need to be certified, and not all capabilities need to have conformance testing, so there is a spectrum here, and it is very nuanced, and all of you here on the HITAC are very familiar with this and have a great degree of experience and expertise in this, so that is why we value your opinion on it.

And also, a process where we might say that we want to incorporate some type of certification can be gradual and collaborative. This is not a magic wand, "Next year, everyone has to have all of their systems certified." This is a process that is a little bit more nuanced to say what are the kinds of functions that lend themselves to perhaps tighter requirements, that also lend themselves to certification, that also lends itself to conformance testing, and how do you do that in a glide path that allows us to do that over time and allows the entire ecosystem to move into that in a forward-moving, but feasible way? Next slide, please.

So, the charge. The Public Health Data Systems Task Force will build upon the recommendations from the previous HITAC Public Health Task Force to look at the idea of certification to inform ONC's continued collaborative work with the CDC on improving public health data systems and in support of the CDC's DMI. The Task Force shall examine existing public health certification criteria that are used today in the ONC

certification, known as the F criteria, that certify the transmission of data to public health agencies. So, the idea is to look at those certification standards on the transmission side, not first, but as one part of this, to identify if we could improve on those. As we know, it is always good to revisit those. Can we improve on those in terms of the functionalities and standards included in the existing criteria, including gaps in functionality, gaps in implementation by developers, and provide recommendations on how we might advance those criteria for the transmission and testing guidance and/or standards to address gaps?

The second piece of this would be assessing the specific functions on the other side, which would be the reciprocal side, which is to say how about the receipt of that data? If we are thinking about it from the public health agency perspective and the technologies that they use, what might be recommendations that the Task Force could consider in terms of the receipt of that data, ingestion of data, analysis of data, supported by public health data systems that would benefit from further standardization and potential certification?

And then, finally, recommendations that we would love the Task Force to come up with on which data flows align with the existing F criteria should be prioritized for standardized receipt of data. So, what that gets at is if you look at the F criteria now, I think there are seven or eight public health reporting requirements, like ELR and immunizations, and there are a number of them there, seven or eight. So, No. 1 says to take a good look at those and see if there are any improvements we could make on those, on the transmission side. No. 2 says how about the reciprocal side of that, the receiving side of each of those things that EHR renders and providers using those EHR systems are required to send? What might lend itself to standardization and certification requirements on that receiving side, and then, how do we think about prioritizing those? Maybe all of those are not mature enough or all of those do not need that kind of certification approach, and so, we welcome the Task Force's thoughts on that as well.

And, we would love to have the recommendations by November 10th. I think that says November 10th, right? It just got covered by the chat window. But, by November 10th in order to help inform our collaborative decision-making process with the CDC, and as I said, this is part of multiple channels of feedback we are getting, but this is a critical source of feedback that we really very much look forward to getting from the HITAC. So, why don't we see if that is the last slide? Is that the last slide? It must be. Okay, great. Let me turn it back to Aaron and Denise.

Aaron Miri

All right, I will moderate some discussion and take some questions, Micky. Let's see. Folks, please raise your hand using the hand-raise function. First up, Dr. Jirjis. The floor is yours.

Jim Jirjis

Can you guys hear me?

Aaron Miri

Yes, sir.

Jim Jirjis

Micky, thank you for that. It is so exciting, as Steven Lane indicated in the chat, to have such a coordinating approach where you are partnering with CDC to utilize this committee and other resources to land in a better place. One question for you is we have talked in the past about the many-to-many problem. It seems

like the providers need not to have to babysit interfaces between, in our case, 22 different states. The public health departments have needs, and then, the federal and state governments have needs to be able to use the data for analytics. I see all that in there. Is the notion that this would be standards so that point-to-point, many-to-many would still happen, or Micky, is there discussion about architectures that would move away from the many-to-many to utilize, for example, a special public health QHIN that was devoted so that providers could interact with an intermediary who has expertise and the public health departments could? Is that on the table, or is this more of an assumption that we would not have such an architecture of intermediacy?

Micky Tripathi

Thank you, Jim, for that. I would say that is definitely on the table, all of the above. So, let me just unpack that a little bit. The Data Modernization Initiative and the North Star architecture that some of you may have heard about, which is one part of the Data Modernization Initiative, is very much aligned with what you were just describing, which is to say how do we create a centralized infrastructure and enterprise type of approach to host public health functions and capabilities that allows us, with collaboration of the STLT partners, should they choose to use more and more of that shared infrastructure, to allow us to have more consolidation of data feeds, for example, into a single place where it can then be distributed to those agencies, whether they end up being hosted, let's say, in the Data Modernization Initiative, or if they choose to maintain their own infrastructure, but that would allow the opportunity for data sources to just send to one place and then have that onward distribution be managed in that intermediary, the Data Modernization Initiative infrastructure, and then, certainly, intermediaries are already doing that, like APHL. They have very much been a part of that concept.

So, that is one part of it, is to say how do we have the DMI be something that encourages people toward this and that the certification process helps to support? Because the other part of that DMI approach would be to say how do we make available to STLTS, essentially, capabilities, tools, applications, and shared artifacts that are certified out of the box, so that a STLT, for example, when they are facing a question of "Oh, okay, now if I need to have a certified system," maybe I can just get it, use it as a software-as-a-service or as a hosted application from the DMI because it is already provided to me as a certified application that the CDC and ONC have already worked on, or they can choose their own certified system, as they would do in the market. The other piece is that we are very much in discussion with the CDC and STLT partners on TEFCA and what the ways might be for us to be able to leverage TEFCA to be able to have more interoperability horizontally, STLT to STLT, as well as from STLT to CDC.

Jim Jiriis

The reason I ask is because in the recent announcement, I know not necessarily case study reporting, but the pivot from Teletracking ending that contract and now moving back to NHSN, there were limitations to the NHSN system, and can you provide a little context about moving to the NHSN while we are trying to figure out what the future looks like? It seems like abandoning one system for another while we are trying to figure out a third. Am I interpreting that wrong?

Micky Tripathi

First off, I definitely do not want to speak specifically regarding the NHSN. I would definitely refer to the CDC, who are really in the middle of that implementation. They are the ones to manage to that, and I certainly do not want to comment on that. But I think it is fair to say that with the CDC, as a way of, over

time, taking those center-specific type of data flows that are happening today and having a migration to a DMI kind of approach, which does consolidation of that and has a more centrally managed infrastructure for all of that. So it is not about having a different way of doing it, I think it is about having a glide path to say how do we, in an organized fashion, take these things that are now siloed for lots of historical reasons, but we move that up into a more enterprise type of environment?

Aaron Miri

All right, thank you very much, Micky. Denise?

Denise Webb

Yes, thank you. Building on some of the comments that Jim and Micky just made, when I served as the state health IT coordinator here in Wisconsin, I actually was, at one point, in our public health division of our Department of Health Services, and one of the things that I think is really going to have to be addressed is the categorical funding because one of the challenges I saw moving away from the many-to-many and the burden that put on the providers to deliver data to public health is that there were several grant programs that funded a lot of the systems that the state agency used, and most of their funding came from the federal government, not from the state, to build and operate these systems or to implement these systems, and each program was like a silo, and we cannot use our funding to...

Building on Micky's comments about a toolset, we looked at having a data broker like a QHIN that would then send the data in a standardized fashion to the various systems in public health rather than having each public health program require the provider organizations to have an individual interface, the many-to-many. But, what drove some of that really was the categorical funding and the restrictions around that funding, so I just think that is an area that has to be addressed.

Micky Tripathi

Yeah, I agree, Denise, and when I had mentioned that a lot of the siloing or stovepiping that we see today has historical origins, I think it even goes upstream one step further, which is the way that the Congress gives the CDC budgets. That is in categorical funding that then has to flow down to the STLTS categorical funding. So, I certainly do not want to speak for the CDC, but I know they are doing a lot of work to see how they can have more flexible approaches to be able to use that budget powers in ways that would be more cost-effective for the public health enterprise at large.

Aaron Miri

Thank you, Micky. I appreciate that. Les Lenert, you are next.

Leslie Lenert

Great, thank you very much. My question was about the relationship with ASPR, the Assistant Secretary for Preparedness and Response, and their increasing role in data capture for national health decision making and other uses. Particularly with regard to the search capacity and overall hospital capacity in a region or an area, as we have seen with different threats, sometimes it is not the disease, it is the lack of capacity that is really lethal in particular situations, and being able to moderate that by a broader national view is incredibly important, and that there is a move for some of the data functions to move to ASPR and ASPR to be promoted to another full agency-level position. Do you want to comment a little bit on that, Micky, and how what we are planning here would fit in with what ASPR is doing?

Micky Tripathi

So, I cannot comment on all of the details on what ASPR is doing, so I definitely do not want to get out ahead of that, in part because that is a lot of work that is going on that we are not directly involved in, so I certainly cannot speak for them, but I can say overall, there is a cross-agency governance approach to assets that are important to pandemic response and emergency preparedness overall across the federal government. So, HHS Protect, for example, has cross-agency governance over it, and everything that we are talking about is to say how do we have better ways of having the data available to just protect and those other kinds of assets, both at the STLT level, CDC level, and at the federal government agency level? According to the data governance rules that are appropriate for each of those levels, how can we use the certification process as well as the DMI infrastructure and approach and process to better serve that information getting to the right end users at the right level?

Aaron Miri

Wonderful. Thank you, Micky. I want to do a time check. I know that we have two more hands raised. I just want to ask Clem and Ike to please keep your time short just because we want to make sure we give proper time to the rest of the presentations today, but let's keep going with the questions. Ike, you are next.

Steven Eichner

Thank you so much. Really quickly, I think looking at lab data and looking at public health reporting or public health data exchange, it is critically important that there be appropriate resources and inclusion of lab data and lab information systems in the environment, as well as looking at other sectors which have not been eligible to receive some of the incentive payment funding that has been available through the Medicare or the Medicaid programs, and thinking about how we engage in that through the public health recommendations and Task Force components to become critically important.

Secondly, looking at states and their role and looking at lab data being reported to states, not directly to the CDC, is another part of that infrastructure consideration that we need to look at, and maybe it is looking at certification or approaches of standardizations for interfaces. I do not know; we will explore that a little bit later. Last point, reflecting back on agencywide promotion and utilization of ONC requirements, that is absolutely wonderful, but I think there also needs to be consideration about the operating environments that potential recipients of funding may have, and what environment they are working in, and looking at the exchange of data using standards. It is great to have an institution that has adopted standards for their purpose, but if their creating partners have not yet fully engaged, it may become a bit challenging to comply with certain standards. Thank you much.

Aaron Miri

Well said, Ike, well said. All right, Clem, you are next.

Clem McDonald

Through all this discussion, I had a... There is a or message standard that is up and working. I am not sure I got the name of the organization right, but is the public health service organization, AHPL, and no one has mentioned that. So, we are going to be on a treadmill if we always start over instead of building on what is there, so I think that should be highlighted. It is doing some communication now, today, in association with public health.

Micky Tripathi

Yeah, I think APHL and AIMS are what you are referring to, Clem, and I agree, they are providing a tremendous intermediary service, and just like in the EHR world, this does not try to rip or replace that, it actually tries to build on that. So, to the extent that they are playing an important intermediary function with the standards that are available today would make improvement of those standards that will only make that APHL service better as well.

Clem McDonald

Okay, I just want to make sure it is not forgotten.

Aaron Miri

Good points. Lots of good work going on. All right, last question. Fil, you are up.

Fillipe Southerland

Thanks, Aaron. Fil Southerland. I just wanted to point out, and I am curious on have we considered the LTPAC industry as part of this public health equation and looking at some of the certification standards and extending those to include an industry like LTPAC where, right now, the standards are more tailored toward ambulatory or acute and looking at the skilled nursing population as one of the most significantly impacted by the recent pandemic? So, how are we addressing that population overall?

Aaron Miri

Good deal. Micky, do you have anything you want to say to that?

Micky Tripathi

No, I think it is a great point. Obviously, we do not have certifications specifically of LTPAC solutions right now, except when there is overlap, but I think it is a great topic for the Task Force to look at as well.

Aaron Miri

Wonderful, wonderful. All right. Clem, I appreciate it. I am so sorry, my friend. We are a little bit out of time here, so we have to move on sections, but I am sure if you want to send a note to Micky, he can answer any questions you have there, or put it in the public chat, but we do have to move on to the next section here for time purposes. So, real quick, the Public Health Data Task Force's roster and the page will be up later today. I was asked to let you all know that the cochairs will be Arien and Gillian Haney, and the Task Force will kick off next Wednesday, 8/24, at 10:30 a.m. Eastern Time. Anybody can register to listen in by visiting the HITAC calendar on that. Again, that page will be up with all the information appropriately later today or so so that the public can see that and work through it.

So, Micky, thank you very much for the presentation and for the discussion facilitation. This is exciting. I know it harkens back to the early days of the pandemic, when we were all hopping on calls asking how we could partner together. It is so wonderful to see this Task Force kick off so we can take some of those suggestions and really take it to the next level, so kudos to you and the agency for moving the ball forward, so thank you for that.

Micky Tripathi

Thank you.

Aaron Miri

All right. So, next up, we have the Adopted Standards Task Force update from Steven and Hans. I will leave it to you guys.

Adopted Standards Task Force 2022 Update (00:49:05)

Hans Buitendijk

All right. Thank you, Aaron. I appreciate that. Between Steve and myself, we are going to give a brief update on where we are at and what the next steps are in preparations for an update at the next HITAC meeting, where we aim to have the final Task Force recommendations to then be considered by the full HITAC committee. Before jumping in, Steve, anything you want to add before we start to run through it?

Steven Eichner

I just want to recognize the great work the Task Force has done and the excellent support that has been provided through ONC. It has been a pleasure to work on it.

Hans Buitendijk

And I would like to echo that. It has been a great set of discussion, great support. We have made a lot of progress, so let's have a look at the topics we want to discuss on the next slide, please. So, first, we are going to start with a very brief context on the 21st Century CURES Act that calls for this, what the charge was of the Task Force membership, and how we went through it, as we had to shape it and this is the first time that this task is being pursued, how we went about identifying what could be maintained or should be considered for replacement in some fashion, or totally removed, where we are at, and then, the timeline.

So, let's start with a backdrop. Basically, on the next slide, this is where we go back to the 21st Century CURES Act that very explicitly stated that starting five years after enactment and then every three years thereafter, the National Coordinator shall convene the stakeholders to look at the standards that are referenced and whether those standards should be maintained as such or whether they should be phased out, and the phasing out, where we had further discussion, could be just as a better version out there, a newer version, or there may be an alternative there, or the area is deemed not to be that relevant anymore to be referenced at all. So, that is basically the intent of it. So, on the next slide, the Task Force was created under HITAC to look at that and look at that existing set of standards, and then go through in a methodical fashion to create recommendations on what to do according to either maintaining it or phasing it out.

If you go to the next slide, we have a great team of members on the Task Force, where you see a variety of those parts of various agencies, providers, National Laboratory of Medicine, consumer apps, EHRs, other apps, to really look at this because many of these standards are touching a variety of contexts, whether that is in the public health space, where there are a number, and the ones that we just talked about as well, or whether we are looking at general access with FHIR, whether we are looking at care coordination, etc. There is quite a variety of standards there. So, this was the team that was pulled together, and again, I want to thank everybody for their contributions, the discussions, the insights that have been provided, to help do this the first time around and take it from there, so a big thank you to the team.

And, if you go to the next slide, the way we went about it, there were 55 standards that we needed to look at. We organized those groups. The ONC team helped to pull that all together and helped create a spreadsheet that enabled us to look at all 55 reasonably grouped together that we could then spread across our meetings, and we also sought input from the Task Force members to give an initial perspective of what we should do with each standard. Should we maintain it or phase it out? And then, we used that combined input to have a good idea of how to orchestrate and discuss the standards and whether we needed some additional insight.

So, we not only discussed it among the Task Force members during the meetings, we also reached out and invited a number of community experts to help identify and clarify how these standards were used, whether there was something more current in place, whether there was something alternative in place to have that full context to then drive to a recommendation. Based on that information, we then drafted disposition statuses in the main categories, maintaining or phasing out, and then a rationale for each of those recommendations.

If you go to the next slide, the key statuses that we are looking at, the 21st Century CURES Act called out two specific ones, "maintain" and "phase out," effectively, but as we were looking at phasing out, we discussed that further and identified that the rationale why something would be phased out is not just phasing out, but is there something else that is better, more current, or alternative, and what can be done there? So, we separated out the phase-out with a replacement versus the phrase-out entirely. There are a couple places where we made that recommendation. Most of the recommendations were probably in the "phase out with replacement" bucket, and there were also a number that we identified as maintaining, and that is all work and draft in progress. So, those were effectively the three dispositions that we worked with, but all within the "maintain" and "phase out."

If you go to the next slide, current status, we have reviewed all the 55 standards, we are working through a couple of them to make sure that we have the draft in the right spot and have started to translate and clean up the draft dispositions and rationale into a final set of recommendations that we are currently working through. So, next week is where we are going to be reviewing in detail whether the proposed final dispositions and recommendations for the day are indeed in accordance with our discussions. So, that is the next step that we are running through to get done that we can finalize by August the 30th so that we can review the draft report with the HITAC starting the 6th, and then review the presentation slides so that we can come to a final transmittal proposal for the HITAC and sign off on that based on their feedback on the content of that. So, that is where we are at and what we have been doing. Steve, any additional thoughts and comments before we open it up for questions?

Steven Eichner

Just on the technical end of it, the report is going to lay out standards in groupings that make sense, like code standard definitions and public health exchange purposes. We will lay it out in groups. We will also put together an alphabetical table and some summary information so folks can see at a glance what the status of standards are, but also be able to dig into a little bit more detail as needed. So, we are excited by that and, again, are very much appreciative of the great work that ONC and the support team has been provided. I think that is about it. We would love to entertain questions.

Denise Webb

Thank you, Hans and Steven. If anyone has questions, please raise your hand. I am not seeing any hands at this point, so you all are going to get off pretty easily here.

Hans Buitendijk

All right, we will take that. Again, as Steve indicated, thank you very much to everybody, the Task Force members, those that came in to help us with understanding the standards better, and the ONC's team. So, thank you very much, and we will be going into the final stretch.

Denise Webb

All right. Well, good luck with all of that work. You have a lot ahead of you. All right, I am now going to turn it over to Medell and Aaron to talk to you all about the HITAC Annual Report Workgroup.

HITAC Annual Report Workgroup Update (00:58:35)

Aaron Miri

Thank you, Denise. I appreciate that, and I am pleased to be joined by my illustrious co-chair here, Medell, who is just phenomenal, jumped right into the co-captain's chair, and is just doing a great, great job. So, I am happy to talk about our work thus far. I will be honest, it feels like we just submitted our last report to Congress literally yesterday, but it has been several months, so we are definitely down the road now on getting this one ready to go and to talk to you all about some of the themes and issues we have tackled. Next slide.

All right, so, we will talk about the membership. We had some turnover in the HITAC, so obviously, we had to recruit new members to jump right into the pen with us to help us articulate and synthesize some of the ideas. We will talk about meeting schedules, next steps, and of course, discussion of potential topics for the HITAC annual report for FY '22. Next slide.

These are all the folks who have joined us. Great group, great cast. Again, we are always soliciting information as sort of a policy and sort of a what we have been doing since the beginning of the HITAC. Every idea a HITAC member has, even if it is adopted for that report or not, is put into a parking lot, and so, we always revisit those ideas, so please, for all the folks that are new to the HITAC, please contribute your ideas. They are referenced and looked at by everybody, considered and investigated, especially where there is merit, and then grouped together, and a lot of the themes that we have been tackling over the past several years have been really synthesized very well in the report workgroup. So, again, our illustrious team here. I want to call special attention to Michelle Murray and her team, who are just heroes and always behind the scenes. The amount of work they do and the amount of research they do is phenomenal, so this report would not come together without the ONC staff. Next slide.

All right, our meeting schedule. July 28th was our meeting the week before last. Medell helped me to run it, and did a great job with that. We have one coming up at the end of the month here on the 30th, then of course, all the way through until we present to you all in the February timeframe or so for approval, but we will be coming back multiple times over the course of the year, as we have done in the previous years, to get your feedback, solicit feedback. What is important, though, is please do not hold your feedback until the very last approval because oftentimes, by that point, we have to put it in the parking lot, so if you have concepts, comments, or whatever else, please provide them early and often. That is very important. Next slide.

All right, again, we will be coming back to this group. So, today, we are talking about this right now, the topics, and in the September 14th meeting, we will come back to you, and again, throughout the course of the year, as I was mentioning, to really get your feedback. Next slide. All right. Again, our goal here is really, we have been working on developing that draft crosswalk of topics, gaps, opportunities, and similar in meetings over the summertime. We will present that to you on the 14th of September, but we do want to talk about some topics today for consideration just to get you marinating and thinking about this as we move forward. Next slide, and Medell, I will turn it over to you.

Medell Briggs-Malonson

Thank you so much, Aaron, and I want to completely reiterate what you mentioned about the amazing workgroup that we have, and thank you so much to the ONC team, especially Michelle Murray, for all of the assistance. And so, as Aaron mentioned, what we are going to do today is just to go through some of the potential topics for the annual report, and you will notice that some of these potential topics were mentioned in our fiscal year '21 report, but there are several other new ideas that we really do want to receive your feedback on. Next slide.

And so, to start up with some of the topics that are a carryover from our HITAC annual report for fiscal year '21, we want to start up with, of course, thinking about those technologies that support public health. We have had a very robust discussion already this morning about the importance of interoperability to really address our public health conditions, and two of those primary areas, thinking about electronic lab reporting, making sure that we have standardized standards and principles for all of our various different forms of labs that are going through, but then, also thinking about electronic case reporting, and both of these items were really amplified during the COVID pandemic, and as we are transitioning into our endemic, and also now with the new emergency of monkeypox, these are critical items for us to continue to work on.

In addition, when thinking about interoperability, some of the different topics that came up around here were really combining our closed-loop referrals and our e-prior authorization and making sure that we are still looking at that and doing crosswalks of how we can continue to streamline these processes for more efficient transferal of information, but also patient care. And then, in addition to the interoperability, one factor that did come up out of the CARES Act, as we know, is that health IT support for opioid response, but how do we do that in a streamlined way that still continues to protect all the various different forms of privacy? So, these are, again, additional carryover items from last year's report that we are recommending or proposing to continue on into fiscal year 2022.

And then, last but not least, privacy and security. We all know the additional threats for cybersecurity events throughout many of our different healthcare systems, as well as overall organizations, and so, ensuring that we are going a little bit deeper into that, thinking about the policies and practices that we can actually think of for recommendations in order to secure more of our systems. Next slide.

Now, this slide actually highlights some of the newer topics that were recommended from the HITAC membership, and so, some of these topics were actually touched upon in fiscal year '21, but others are also completely new. And so, going back to public health, one thing that, again, we have been discussing today is the importance of interoperability, not only between our public health organizations, but between our public health organizations as well as our provider organizations, and really making sure that we are

enhancing the narrative and the story of why that is so incredibly important to have very solid linkages between all of those entities.

And then, when thinking about interoperability as well, some of the different comments that came up during our last discussion was thinking of directory standards and management, so, how we ensure that we have those appropriate digital identifiers for all of our different provider organizations to once again continue to enhance all of our interoperability of our electronic health records, but then, also record completeness. Record completeness is across various different entities so that yes, as our patients are actually transitioning from maybe an acute care setting to a rehabilitation setting and beyond, making sure that we are bringing in all of those records appropriately, and then, still continuing to think about the standards for patient matching. And so, some of the different recommendations from the HITAC committee was thinking of do we do digital identification cards? But, what we also want to do is think about this even more broadly and more generally to ensure that we are also addressing the needs as well as some of the barriers for our more vulnerable populations.

And then, moving on into privacy and security, now that we have so many different APIs and we have FHIR and there is just this new spark of innovation, how do we match innovation with all of our regulatory guidelines and making sure that they are aligned and actually not causing barriers to one another? And then also, thinking about even in that same realm of innovation and, again, interoperability seamlessly, the appropriate exchange and use of data as well. And so, what that really means is how much data really needs to be transferred for it to be actionable and relevant for the care processes that are needed. And then, last but not least, patient access to information. So, we know that there is a huge movement going on right now to ensure that our patients are clearly aware of the costs of their care. And so, how do we continue to facilitate that transparency for patient information? Next slide.

And so, the last slide that we wanted to speak about, which is another very exciting piece, is a rollover from fiscal year '21, but it was also discussed for really incorporating this into fiscal '22, to make sure now that since health equity is the core of all that we do and need to focus on, and we also have to make sure that health equity is truly integrated into all of our various different policies, practices, and technologies, really now carving this out to make sure that health equity is a new target area, so therefore, it would be at the same level of when we are thinking about the target areas, like public health and interoperability or privacy and security.

And so, the CURES Act definitely allows us to do so, and therefore, we can actually carve out health equity and ensure that it is still cross-cutting and still integrated with all the other target areas. And so, one thing that we discussed during our workgroup is as some of the additional subtopics underneath this new health equity target area would, of course, be centering health equity by design. Once again, health equity by design is really saying all that we do, we have to place an equity lens on it, we have to ensure that it is inclusive and not unintentionally excluding others, but also, making sure that as we are thinking about our design, we are taking into account all of the various different operational demographic as well as social driver information.

And then, also in terms of inequities in data collection. So, we all know the old performance improvement mantra of "You cannot improve what you do not measure," so therefore, making sure that our data collection

has the integrity that it needs to have as well that it is accurate when we are reporting and collecting all of the demographic as well as social data from patients, and really setting up those standards.

And then, the electronic exchange, not only various different forms of health equity data, but also social drivers of health information, and that exchange between not only provider organizations, but provider to public health systems and any other types of entities that we need to have. But then, also, as we know, when we are getting more into predictive analytics, as we are getting more into many of our various different algorithms, really ensuring and thinking about those standards that are needed in order to prevent unintentional perpetuation of racism and other forms of bias within our algorithms.

And so, those are some of the recommended subtopics that we could actually put directly underneath the new target area of health equity. Next slide. And so, that is a highlight of all the various different topics, and before I go through all of these various different questions, Aaron, were there any other topics or any other additions that I may have missed there?

Aaron Miri

No, I think you hit the nail on the head. I appreciate that. It was a great overview, and I think now, it is really back to the membership base, and again, you do not have to answer these on the spot, but we definitely would like to get your feedback, thoughts, questions, and concerns, and as we think about these three questions, are there any questions or comments about the draft topics list that was spoken about, are there topics that should be added to the draft topics list, and are there any topics to be removed? Maybe just like the standards that we are looking at that need to go, are there any topics here that just are not relevant anymore? The beauty is we have been doing this report now for several years, since the HITAC was formed, so we have a lot of history, but sometimes that history is not relevant anymore. So, be thinking about that. Please get back to us. Email, call, text, carrier pigeon, however your comments. That is important because we really want to take them into account. Medell, back to you.

Medell Briggs-Malonson

Thanks, Aaron. I think we can turn it back to you and Denise, Aaron, to see if there are any comments for any of the topics that we proposed.

Aaron Miri

Sounds good, all right. Please raise your hand in the queue if you have any comments. There we go, Denise, you are first.

Denise Webb

Just a sec. Okay. We have several new members on the committee, so I think it would be helpful, Aaron and Medell, to just remind the entire committee about what this report is supposed to communicate each year. So, for instance, are we communicating work we have accomplished and work in the queue, the areas that we as a committee are going to be focusing on? So, maybe you can reiterate some of that.

Aaron Miri

Sure. So, as established in 21st Century CURES with the HITAC, we are due an annual report to Congress to basically state what it is that we are working on, what are our accomplishments, what are the things that we are pondering as related under our charges as a HITAC, and then, what are areas of opportunity. And,

if you will recall, in history, when the COVID pandemic occurred, we really started focusing on public health data reporting, which was a subset, but then we pulled it out and said obviously, there is a need here to focus on this, and thus, now, years later, you see synthesized a Task Force that has kicked off now. So, it is an opportunity for us to mention back our progress, it is a great way to catalogue and to memorialize the work that has been done, and also to state our intention of moving the ball forward and working with our policymakers in D.C. so that they can see distinctly what are the challenges, where the rubber meets the road.

In the report workgroup itself over the past couple of years, we have incorporated what I call the normalized English version of what is going on. Sometimes these standards are so complicated, we like to talk about stories. What does this mean if we get this right? What does it mean if we get interoperability right, or privacy and security right, or accessibility right? And in this case, we are proposing health equity. So, the report is a phenomenal way to archive that. I have personally used the report in communicating with our board of directors, and similarly, I have heard stories of other people using it in their personal lives as well as a way to say, "This is what is going on across health IT." It is a critical component of what makes us a successful HITAC and showing a phenomenal collaborative relationship with the ONC and HHS at large. So, that is what the report workgroup is all about.

Denise Webb

Thanks, Aaron, because I think that summary is great, not only for the committee, but for the public to hear that.

Aaron Miri

That is why we are so passionate about it and why so much work goes into it. I am talking about hours and hours of work, because it matters. It really does. All right. I do not see any hands raised, Denise, unless you or Medell do, but otherwise, I think we can transition to the next section. Oh, wait, we have a hand raise. My namesake, Aaron Neinstein. Go ahead.

Aaron Neinstein

Sorry, late breaking hand-raise. Thank you for laying out, Medell and Aaron, a really great coverage and overview of the priority areas. I think one area that strikes me that is not covered there, if we think about where the puck is going and a place where use of health IT really needs to drive progress for national healthcare, I think about telehealth and which areas of interoperability, of patient-generated health data, third-party application usage, that strikes me as an area that is not well covered by the topics we have there, so I would like to see us think about that as a committee as well.

Medell Briggs-Malonson

Great suggestion. Absolutely great suggestion.

Aaron Miri

Great point. I know that in history, we have, Aaron, alluded to telehealth and sort of interwoven that. I know that we also are working through the PHD, the public health declaration, from the secretary and what that afforded, what that opened up, and looking at that, but I think from a health equity perspective, it is very important, and I think it is a great point that we can definitely notate and carry as a theme, so, great points. Dr. Lenert?

Leslie Lenert

Yeah. I wanted to talk about segmentation of data, particularly women's health information and how this has got to be an increased area for attention and standards in a world where effective healthcare for women is a crime in some states, and we need to address the issue of how we protect that information and yet keep it accessible.

Aaron Miri

Great point, great. And as a girl dad of two daughters, I firmly agree with that. I totally agree in general for data privacy, but specifically for targeted subsets of folks, absolutely. Great points. Medell, anything you want to comment?

Medell Briggs-Malonson

No, you actually took the words out of my mouth, especially given so much that is going on right now. We want to make sure that yes, the data is private, but we also want to make sure that it is easily accessible for those that do need to provide all the appropriate reproductive services and other types of services, and this actually extends even beyond women's health. It can actually extend to our more gender-diverse populations as well, and so, I think that is just a really great piece that you bring up, of how we make sure that we think about that and construct that architecture in order to achieve those outcomes.

Aaron Miri

Well said, very well said. Ike, you are next.

Steven Eichner

In the same line, looking at individual predictability for complex medical issues, both from an equity perspective and from a data management perspective, as we are looking at greater usage of patient portals, we still have not really addressed how a patient consolidates their information across multiple service providers and multiple systems so that the patient has a 360-degree view of their data and is able to share that data, not just with healthcare providers, but with other folks in the supporting environment, whether it be to address housing needs, transportation needs, or other components.

Aaron Miri

Good points. Great points. Medell, anything you want to comment to that?

Medell Briggs-Malonson

No, I agree. We appreciate all of these additions that you all are providing to us.

Aaron Miri

Yeah, very important. Any other comments? Great. Well, this is a journey we are going to be on for the next several months together to get to a complete report, so you have plenty of time to marinate all those good ideas, and like I have mentioned before, historically, especially for our new members in the committee, your real-world stories matter, so please share them, things you are seeing, bugaboos you are running into in your health systems or wherever you may be in your part of the country, please bring them here. That is what we are looking for. All right.

Denise Webb

Thanks, Aaron and Medell. So, that brings us to our final presentation, from Carmela Couderc with ONC, and she is going to talk to us about the USCDI Version 3.

Overview of United States Core Data for Interoperability (USCDI) Version 3 (01:18:13)

Carmela Couderc

Hi. Thanks, Denise. Next slide, please. So, here is a quick overview of our agenda. We are just going to talk about USCDI Version 3, which was released just last month, in July, and we will go over some of the changes there, and we will briefly talk about the USCDI process in general and specifically about the next release, which is Version 4. Next slide, please. So, here is a snapshot of USCDI Version 3, which was developed with a tremendous amount of public input, and in fact, one of the HITAC workgroups, the Interoperability Standards Workgroup, did a very comprehensive review of the draft USCDI Version 3 and provided recommendations, and some of their recommendations are reflected in this chart.

And I would like to just call your attention to some of the icons we have tagging some of the elements. If you do not see an icon next to the data element or the data class, these categories up here on the top left of your screen on allergies and intolerances, that is what we consider a data class, which is a collection of data elements, and if you do not see an icon, then it did not change from USCDI Version 2 to Version 3, but for something like in the very middle top, health status and assessments, we have the double star, and that means that this data class name changed from USCDI to Version 3 and that there are some new data elements in it. That is the single star, like functional status, disability status, mental/cognitive function, which are new data elements, and pregnancy status.

And then, the arrow means that those were existing data elements in Version 2 that changed their home in USCDI Version 3, so they were in a different category/data class, and now they have moved to health status and assessments. We have already discussed it a little bit, but if I am down on the lower right here, here is a data element that changed slightly in USCDI Version 3, so it existed before, but the weight-for-length percentile in USCDI Version 2, if you were to look at that, would say birth to 36 months. We changed it to birth to 24 months to make sure there was no overlap with that and BMI percentile, which is the data element directly above it, which starts at two years, which is 24 months.

So, this is the way you can get an overall look at USCDI Version 3 and what is new from USCDI Version 2. And, I just want to mention that Matt Rahn put in the chat a couple of links where you can go see USCDI Version 3 on the webpages, and there is also a PDF version, and there is also a link to the standards bulletin describing USCDI Version 3 and the process we went through to develop it. Next slide, please.

So, here are the major changes, other than those new data elements and things like that. So, we added two new data classes. Health insurance information was completely new. Health status was new, but it incorporated some data elements that already existed. We added 20 new data elements, and in general, they support equity, reducing disparities, and public health interoperability, all topics that we have heard discussed already during this meeting.

We also removed some of the restrictions and expanded the code systems, the allowable values that you would expect in some of the elements, and that is true for sex, sexual orientation, and gender identity, and this is in part to align with the HL7 Gender Harmony Project. We had representatives from that project come

and present to us in the Interoperability Standards Workgroup, and also to support inclusivity and alignment with Gender Harmony.

So, we added four new data elements in the medications data class that were not proposed in the draft USCDI Version 3, so that is a little different than some of the other new data elements that had actually been proposed in the draft, but these were added after the publication of the draft, and there is another link to the standards bulletin when you get the slides. Next slide, please.

So, this is a differential view, so we have pulled out just the changes in USCDI Version 3, and we have tagged them so you see some different icons on this slide than we had with the stars on the other one. So, we still indicate if there is a new data class, and that is on the top left, health insurance, and to the right is health status and assessments, but what we have done is classified the data elements as well, and the double horizontal line and the up arrow that is orange would represent those data elements that support health equity. And so, we have determined some are equity based, some address underserved populations, and then, those with the green magnifying glass are those that are related to public health, and we have had a lot of discussion today about public health, and so, for example, occupation and occupation industry on the middle bottom, pregnancy status, which is related to what we just were talking about with women's health, and then, on the top right, specimen type and result status were added to the laboratory data class, and those are definitely related to public health, certainly reporting to public health. Next slide, please.

So, here is a little bit more detail about what we added to the medication data class. In USCDI Version 2, you will see there is just one data element, and it is called medication, and it did not have a definition, and one of the things we did in USCDI Version 3 is we crafted definitions for most of the data elements. We did not get them all done, but we are working on that, and so, when we added dose, dose unit of measure, indication, and fill status, that provides more clarity to this data class into what we expect to be able to be exchanged about a medication, and specifically for the identification of the medication, we had stated that we had to use RxNorm, and with USCDI Version 3, we have also added optionally that an NDC code, a National Drug Code, could be used to identify the medication. Next slide, please.

So, other change sin general, and I will just mention a couple highlights. One of them is in the middle here, for current and previous address, we had not identified an applicable standard prior to USCDI Version 3. Well, in that time, ONC released US@ specification, which is an address specification, and we got very positive feedback of that, so USCDI now includes US@, saying "A" for the "at" sign, to exchange current and previous address, so that is patient current and previous address. I already mentioned the weight-forlength percentile, and we changed the name of a couple of data classes. With patient demographics, for example, the name was changed to "patient demographic information class" because we received a lot of input that not all of the data in that data class was really considered demographics, like our new occupation and occupation industry data elements. Next slide, please.

So, some of you might be familiar with ISA, the Interoperability Standards Advisory, and we are creating more of a relationship between the data that we describe in USCDI and the Interoperability Standards Advisory. So, this is where we have a catalog or a compendium of available standards, and one thing that was created in this same time period was the HL7 Gravity group created some value sets to present examples of different health screening assessments, and now we have made that information available in the Interoperability Standards Advisory. Next slide, please.

So, this is just a little infographic to show you the evolution of USCDI. USCDI Version 1 is required by the CURES Act final rule, and that version of USCDI added four data elements over what was previously known as the common clinical data set. Next. And, I just will mention that USCDI Version 1 is required for exchange starting January 1st, 2023. So then, on a yearly cycle, USCDI Version 2 added three new data classes and 22 data elements in support of advancing health equity, and that was really focused on SOGI, which stands for sexual orientation and gender identity, and then, also SDOH, social determinants of health. Next? So, draft USCDI Version 3, which was published in January of 2022, and just the final version was released in July, as I mentioned. We were very focused on equity disparities in health and public health data interoperability, and we have already talked about the changes we made there. Next, please.

So, let's talk about what is coming up now. When we published USCDI Version 3, the final version, we also kicked off the cycle for USCDI Version 4. So, in the announcement, which was the standards bulletin, which is one of the links in the chat, we said we are accepting submissions for new data elements, and that is through what we call the ONDEC system, and that is separate from something that was in the chat back earlier in the meeting. If someone wants to make a comment on a data element that was already submitted, which could be a comment for or against that data element inclusion, there is a facility on the webpage where, for every data element, there is an option for you to enter a comment. So, the comments are separate. It is just a little bit of a different process because there is different information you would provide if you are submitting a data element that is new to USCDI.

So, the deadline for those submissions is the end of September this year, and we evaluate those. We are watching every day to see what comes in, and we are evaluating them. And then, our plan is to publish a draft Version 4 in January. Next, please. And then, these are some of the criteria that we are going to use to evaluate those comments and those submissions, and I would just like to call out that as you read through these priorities, the fourth one down is one that Micky mentioned in his talk, to address behavioral health integration with primary care and other physical care. So, that is a top priority for us, and it is in addition to priorities that we have addressed in previous versions. And, I believe that is my last slide.

Denise Webb

All right. So, we will take some questions, and the first hand up is Clem McDonald. Hello. Clem, you are muted.

Clem McDonald

Sorry. I did not see coding systems specified for a lot of these data elements. Isn't that part of the game that we do, part of the plan?

Carmela Couderc

I did not have those included in the slides, that is true, but if you go look at the USCDI webpage or the PDF version, it is listed applicable vocabulary standard.

Clem McDonald

Thank you.

Carmela Couderc

So, you will see references to LOINC, and we have updated the version reference, and SNOMED, RxNorm, and all those.

Clem McDonald

Okay, perfect, thank you.

Denise Webb

Yes, Steven Lane?

Steven Lane

Thank you. Carmela, can you say anything here about the progress that is being made with USCDI Plus? There is obviously an overlap there with a lot of the work that we were discussing earlier regarding public health data systems. I would love to learn where that is going, and when and if the HITAC is going to have the chance to contribute there.

Carmela Couderc

Well, if I may, could I call on Matt Rahn to answer that question?

Elisabeth Myers

Hi, this is Elisabeth Myers. I am not sure if Matt is on as a panelist right now. Hopefully he is.

Carmela Couderc

Oh, sorry.

Elisabeth Myers

No, that is fine, hopefully he is, but I can answer very quickly. We actually have a plan. In either September or October, we will do an update for everyone and include an update on the USCDI Plus for the **[inaudible] [01:33:40]** and do a full presentation. We are plugging away with our federal partners. We have had a wide series of listening sessions in the public health domain. We are in the process of scheduling several listening sessions on the quality domain.

We have been having conversations with some of our federal partners to explore their needs for some of the other additional spaces, including thinking about how health equity arches across the whole thing, thinking about what are some of the needs that there are for services by agencies like HRSA, AHRQ, or NIH, so we have been doing quite a bit of work on it and will be prepping a presentation for the advisory committee. I am just checking on which agenda is going to have the best space for it, given that we know we will also have updates on the adopted standards, the annual report, and the public health Task Force, so we are just keeping an eye on what the agenda will look like, but thank you for asking, and yes, we will be updating further as that goes along.

Steven Lane

Thanks, Beth. It is exciting even just to hear that. I appreciate it.

Denise Webb

All right. Back to you again, Clem McDonald.

Clem McDonald

Sort of along the same line and Steve, I worry a bit about USCDI Plus being duplicative or conflicting with the basic, and everybody always says it is going to be all right, but has anything started to see a mechanism to make sure it is going to be all right?

Elisabeth Myers

Well, first off, it helps that it is all the same people at ONC doing both projects, but yeah, we are deliberately looking across the use cases to ensure that everything is aligned. When we think about USCDI Plus, like an example for public health, for instance, when we do each of the meetings with the state, local, and tribal associations, with the different public health agencies, and with CDC, we are gathering all of the data needed, and a lot of that data already maps to the USCDI, so when we say USCDI Plus, we are basically saying there is already an assumption that that data set incorporates the USCDI itself, and then the additional data that is identified to be further specified and further clarified is, in fact, the Plus set, so when you think of the whole set, for example, for the public health domain, it includes the USCDI itself as well as the other pieces.

And then, the other thing that we are doing to ensure that the data sets are advancing standards harmonization rather than creating new silos is we are looking from data set to data set and ensuring that similar clinical concepts or aligned clinical concepts are referencing the same content and vocabulary standards for representation within those data sets. So, we have work going on where we are coordinating with CMS and with CDC where we are looking across... Specifically right now, we are working with CMS on their ECQM use cases, but we are doing this broadly as well with other parts of the use cases for each domain and ensuring that where the data sets use similar concepts, they are using the same content and vocabulary standards, so they are actually moving together and aligning across those data sets as well, and that is really the concept from the health equity construct that we are exploring right now and trying to figure out.

It would be sort of a layer that is overarching across the multiple domains to ensure that we are having the same equity data elements and standards for things like demographic, race/ethnicity information, or SDOH information across each of the data sets as well, so it is a really good question, Clem, and we are deliberately making sure that things are aligned, that we are looking when we are actually doing our analytics of the data set to see what has content vocabulary standards applicable and how the clinical concepts align that we are ensuring that we are using the same representation for those similar concepts to make sure that we are pulling these data sets closer and closer to aligning around a central whole. Hopefully that helps, but we can certainly include some of that type of information in the next presentation when we do an update.

Clem McDonald

But can you reveal any of that, some transparency so we can see that it is really coming out the way you say?

Elisabeth Myers

We intend to actually do that. I am not sure what the timing will be. We are doing a lot of data scrubbing work right now, just trying to figure out what it all looks like and do that mapping and alignment. I think that is part of our goal, is to actually have data sets that are available for everyone to view.

Clem McDonald

Okay.

Denise Webb

Yes, and I think we will hear more on that, Clem, in our upcoming meetings. That is what it appears the plan is. Well, I actually have a question. So, earlier in the year, when we put together the committee's work plan with ONC, ONC had talked about releasing a proposed rule, which I guess I would call CURES 2.0, sometime this summer, and we are nearing the end of the summer, and I bring this topic up now because I have gotten a lot of questions from healthcare CIOs about the other versions of USCDI, and are those required, and how does that work. I think there is some confusion about the SVAP process and what is required in rule, which is just USCDI Version 1, in the health IT certification program, and how those other versions are going to come into play. What about that proposed rule? So, it is just a combination of questions there, or maybe some clarification for the committee and for the public.

Elisabeth Myers

Sure. So, first things first, I know that you all are so used to hearing me, or Elise, or Mike Lipinski say this, but we will do it one more time. We cannot tell you what we are going to do in the rule, so we will just leave that at that part, but for the construct of the SVAP, the idea is that there would be voluntary advancement to future versions of the USCDI, and that that would be something that developers can do, and if they choose to do so, then they would actually be held accountable to ensuring that if they did a standards update, that standards update was conforming consistent in order to be conformant with program requirements, so it actually allows for a way that, while it is not required, we can still hold them accountable and make sure that it is consistent.

I can say this part in relation to rulemaking. When we described the USCDI in the CURES Act final rule that was released in May of 2020, we clearly stated that we intend to periodically update the base version through rulemaking, so I will go ahead and say that, that we stated that intent in the prior rule to update the baseline version on a periodic basis so that it can consistently move forward to expand the data set, and that is about what I can say on that, but we will continue to work with and engage the HITAC as that process continues.

Denise Webb

So, I was not exactly asking what is going to be in the rule. I guess I was more interested in knowing if we are going to see this proposed rule anytime soon. Do you think it will still be released this year? And then, one question on the SVAP: If a vendor does choose to voluntarily incorporate the latest version of the USCDI in their product, do they run any risk that when a rule does come out to adopt the next level of standard in USCDI, what they may have included in their product could change, or when USCDI version is finalized, that is locked in stone?

Elisabeth Myers

I think Elise is going to handle this one.

Elise Sweeney Anthony

I was on double mute. On the question regarding the timing of the rule, in the unified agenda, the rule is listed with a release date of October, so we are still working on the rule, but the rule is currently slated for an October release, and as Beth said before, we cannot talk about specifics in terms of what will be in the rule, but the unified agenda does list it as October.

Denise Webb

Well, that is helpful. I do not know how many of us were aware of that, but I was not. And then, could someone address the interplay between a vendor voluntarily adopting one of the newer standards and whether that standard could possibly change in a proposed rule?

Steve Posnack

This is Steve. I am going to jump in and take that. It is equally challenging with my double mute here. So, the purpose of the SVAP is to give industry more predictability and more visibility into future regulatory tracks, and to say that simply, as I think many of you have experienced, when we go through rulemaking, we have a very bureaucratic but important process, which is called incorporation by reference, so any of the standards, implementation guides, or profiles that we bake in as part of conformance requirements, in this case for the purposes of certification, get linked to the rule as they are specified, and so, our intent in going through the SVAP process or having created it is to give industry, again, greater transparency and predictability in terms of what future regulatory requirements could be, and as we have seen with USCDI as an early example, it builds on prior versions.

And so, our hope is that in between the regulatory cycles, which neither you nor us have always a great sense of predictability of in terms of when administrations will go through full regulatory cycles, the processes that we have established now with the SVAP give us the ability to work collaboratively with industry to continue to point to what could be included in future rules. So, our hope is that the incremental progress forward, if a developer voluntarily chooses to move forward, will be worthwhile effort on their part. I think it shortens the distance between the steep hills of a regulatory cycle for certifications.

Denise Webb

Thanks, Steve, for that clarification. All right, are there any other questions? We are coming up on the time for public comment. Well, thank you, Carmela and Elisabeth, and I am going to turn it over now to Mike.

Public Comment (01:45:44)

Michael Berry

Great, thanks, Denise, and as Denise noted, we are going to open up our meeting for public comment. If you are on Zoom and would like to make a comment, please use the hand raise function, which is located on the Zoom toolbar at the bottom of your screen. If you happen to be on the phone only, press *9 to raise your hand, and once called upon, press *6 to mute and unmute your line. Let's pause and see if anyone raises their hand. In the meantime, I just want to remind everyone that our next HITAC meeting will be held on September 14th and that all the meeting materials for today can be found on the HITAC calendar on HealthIT.gov. I am going to check for raised hands. I am not seeing raised hands at this point, so I will turn it back to Denise and Aaron. Thank you.

Denise Webb

All right. Aaron?

Final Remarks and Adjourn (01:46:40)

Aaron Miri

Yeah, sure. I just want to say thank you to all of you. Great meeting today. I also want to again call out our colleagues the ONC, who are just fantastic partners and so transparent, and again, it is not easy to go through all these processes, so I appreciate the definitions and the specificity from Steve and team and Elise, especially on that last topic there. I would also say for everybody listening to make sure that as you march towards that October 2022 date that you use the materials from the ONC website. I have seen a lot of stuff floating out there that is incorrect or using old data. If it is not on the ONC website, it is not true. I will just be honest with you. So, make sure you ask and clarify, and as you are working with your vendors and your colleagues that you take to heart the wonderful data that is out there on the ONC website. Denise, over to you.

Denise Webb

Yeah, I would like to echo that too because I personally have heard things that have come from vendors and so forth that are not exactly accurate when it comes to their interpretation of the CURES Act rule and the information blocking regulation, so ONC has some wonderful materials, and thank you, ONC, for providing those materials. I have found them to be extremely helpful in providing clarification when I hear things that do not sound accurate. So, good point, Aaron, and I want to thank everyone. Thank you for all of the volunteers for the Task Force work. It is extremely important, and thank you to ONC and our other federal partners. We have some exciting work going on, and I really am excited about the direction and opportunities. So, I wish you all a good rest of your summer, and we will see you at the September meeting, and I am going to turn it over to Mike for any final announcements and to close the meeting.

Michael Berry

No final announcements. Thank you all for joining us, and we stand adjourned.

Aaron Miri

Bye.

Denise Webb

Bye, everyone.