Transcript

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) MEETING

October 19, 2023 10:00 AM – 1:00 PM ET

VIRTUAL

Speakers

Name	Organization	Role
Medell Briggs-Malonson	**UCLA Health**	**Co-Chair**
Aaron Miri	**Baptist Health**	**Co-Chair**
Shila Blend	North Dakota Health Information Network	Member
Hans Buitendijk	Oracle Health	Member
Sarah DeSilvey	Gravity Project; Larner College of Medicine at the University of Vermont	Member
Steven Eichner	Texas Department of State Health Services	Member
Cynthia A. Fisher	Patient Rights Advocate	Member
Lisa Frey	St. Elizabeth Healthcare	Member
Hannah Galvin	Cambridge Health Alliance	Member
Rajesh Godavarthi	MCG Health, part of the Hearst Health network	Member
Valerie Grey	State University of New York	Member
Steven Hester	Norton Healthcare	Member
Bryant Thomas Karras	Washington State Department of Health	Member
Kensaku Kawamoto	University of Utah Health	Member
Steven Lane	Health Gorilla	Member
Hung S. Luu	Children's Health	Member
Arien Malec	Individual	Member
Anna McCollister	Individual	Member
Clem McDonald	National Library of Medicine	Member
Deven McGraw	Invitae Corporation	Member
Aaron Neinstein	UCSF Health	Member
Eliel Oliveira	Harvard Medical School & Harvard Pilgrim Health Care Institute	Member
Kikelomo Adedayo Oshunkentan	Pegasystems	Member
Naresh Sundar Rajan	CyncHealth	Member
Alexis Snyder	Individual	Member
Fillipe Southerland	Yardi Systems, Inc.	Member
Sheryl Turney	Elevance Health	Member

Name	Organization	Role
Jim Jirjis	Centers for Disease Control and Prevention	Federal Representative
Meg Marshall	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
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
Shelly Spiro	Pharmacy Health Information Technology Collaborative	Presenter
JaWanna Henry	Office of the National Coordinator for Health Information Technology	Presenter
Stephen Konya	Office of the National Coordinator for Health Information Technology	Presenter
Kyle Cobb	Office of the National Coordinator for Health Information Technology	Presenter

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

Michael Berry
Good morning, everyone, and welcome to the October 2023 HITAC meeting. I am Mike Berry with ONC, and we are glad that you could join us today. This meeting is open to the public, and your feedback is welcomed, which can be typed in the Zoom chat feature throughout the meeting or can be made verbally during the public comment period that is scheduled at about 12:45 Eastern Time. Before we get started with our meeting, I would like to welcome ONC's executive leadership team to the meeting. With us today are Steve Posnack, the 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 would like to begin rollcall of our HITAC members, so when I call your name, please let us know if you are here. I will start with our cochairs. Aaron Miri?

Aaron Miri
Good morning.

Michael Berry
Medell Briggs-Malonson?

Medell Briggs-Malonson
Good morning.

Michael Berry
Shila Blend is not able to join us today. Hans Buitendijk?

Hans Buitendijk
Good morning.

Michael Berry
Sarah DeSilvey? Steve Eichner?

Steven Eichner
Good morning.

Michael Berry
Cynthia Fisher?

Cynthia Fisher
Yes, I am here.

Michael Berry
Lisa Frey?

Lisa Frey
I am here as well.

Michael Berry
Hannah Galvin is not able to join us. Raj Godavarthi?

Rajesh Godavarthi
Good morning.

Michael Berry
Valerie Grey? Steven Hester?

Steven Hester
Good morning.

Michael Berry
Bryant Karras is not able to join us today. Ken Kawamoto?

Kensaku Kawamoto
Good morning.

Michael Berry
Steven Lane?

Steven Lane
Good morning.

Michael Berry
Hung Luu? Arien Malec?

Arien Malec
Good morning.

Michael Berry
Anna McCollister?

Anna McCollister
Good morning.

Michael Berry
Clem McDonald? Deven McGraw?

Deven McGraw
Hello, everyone.

Michael Berry
Aaron Neinstein? Eliel Oliveira?

Eliel Oliveira
Good morning.

Michael Berry
Kikelomo Oshunkentan?

Kikelomo Adedayo Oshunkentan
Good morning.

Michael Berry
Naresh Sundar Rajan? Alexis Snyder?

Alexis Snyder
Good morning.

Michael Berry
Fil Southerland? Sheryl Turney?

Sheryl Turney
Good morning.

Michael Berry
And now, our federal representatives of the HITAC. Jim Jirjis?

Jim Jirjis
Present.

Michael Berry
Meg Marshall?

Meg Marshall
I am here as well.

Michael Berry
Alexandra Mugge? Ram Sriram?

Ram Sriram
Good morning.

Michael Berry
Good morning, everyone, and thank you so much. We have three members who would like to make a new disclosure at today's meeting, Medell Briggs-Malonson, Eliel Oliveira, and Jim Jirjis, and we will start with Medell. Medell?

Medell Briggs-Malonson
Thank you so much, Mike. I would like to disclose to HITAC that I have joined the clinical advisory committee for two different companies, both for Health Gorilla as well as Afia.

Michael Berry
Great, thank you, Medell. Eliel?

Eliel Oliveira
Thanks, Mike. I am disclosing to all that I have joined the Harvard Medical School Department of Population Medicine, and with that is the Harvard Pilgrim Healthcare Institute, specifically helping with the FDA Sentinel Project. Additionally, I am also now the CEO of Connexus, which is the health information exchange in central Texas, based in Austin.

Michael Berry
Great, thank you, Eliel. Jim Jirjis?

Jim Jirjis
I would like to disclose that I have left my chief health information role at HCA, and therefore resigned the appointment from the speaker of the house for that position, and am now the division director for data and policy and standards within the data office of the Centers for Disease Control, and will be shifting my participation in HITAC as that federal representative going forward. Thank you.

Michael Berry
Thank you, Jim, and thanks to everyone. Now, please join me in welcoming Steve Posnack for his opening remarks. Steve?

Welcome Remarks (00:04:35)

Steve Posnack
Thanks, Mike. Good morning, everyone. Micky is stuck in transit, so, like any good understudy, I am always waiting in the wings, and I did a quick spin in the hair and makeup chair, and I am here to address you this morning. So, really quickly, thank you for joining us for the October edition of HITAC. It is hard to imagine that the year is almost over here, but I have a few quick remarks for all of you. Just as a reminder, we reached a significant milestone with information-blocking updates with respect to the implementation of the 21st Century CURES Act. Effective September 1st, the HHS OIG is now enforcing the information-blocking civil monetary penalties for certain actors who interfere with the access, exchange, and use of electronic health information. Again, the actors subject to those particular civil monetary penalties include the health information exchanges/health information networks as well as the health IT developers of certified health IT and those entities offering certified health IT.

Again, on HealthIT.gov, there are a number of resources for those of you inclined to check out our information-blocking educational material, and the work goes on. In terms of ONC events, for those of you that participated in yesterday's amazing patient access event that was mostly in the afternoon for the East Coasters, we had a great set of panels, guest speakers, and overall dialogue and discussion. It was recorded, so if you missed it, I would definitely encourage you to tune in, put it on your podcast rotation, or

set it up for the exercise bike, whichever way you access your health IT-related info. That was as of yesterday.

We do have a few events coming up to round out the year, and I would like to encourage you to participate in the upcoming tech forum branded event for November 3rd. It is going to be from 1:00 to 3:30 Eastern Time. This will host an overview of the recently published USCDI Version 4, its relationship to HL7 FHIR, US CORE, and C-CDA, and the standards that enable exchange of USCDI-related data. The session will discuss the interrelated processes of updating each of these standards in a way that promotes adoption of these new versions while minimizing development and implementation burden, so you can check that out on the ONC events page.

I also did want to call to your awareness one of the last of the CURES Act final rule compliance timelines that we had set in place nearly three years ago at this point related to the electronic health information export certification criterion. We put out a blog post about getting read for that in terms of a quick guide, and again, that is a functionality that needs to be made available to developers and certified health IT customers by the end of this year, December 31st, 2023. So, again, more information can be found out in terms of the context of the Buzz Blog, as well as the educational resources that we have available. Just as a friendly reminder, the ONC annual meeting is going to be held in person in Washington, DC on December 14th and 15th.

We have posted a list of sessions and descriptions being planned for this year's annual meeting, and at this event, you will be able to hear about key policy issues, the intersection of health IT with public health, technology, and a variety of keynote and other mainstage, breakout, and education sessions that we have planned for you. It has been many months in the making now, for those of you who are familiar with putting on events like this. Again, you can get more information on our events page.

Lastly, I just wanted again to thank all of our colleagues from ONC and CMS that helped run yesterday's session. The recording will be available on HealthIT.gov very soon. As was kind of implied in the opening rollcall there, we do have a member update. This is the last committee meeting for our CDC federal representative, Adi Gundlapalli, and I would like to present this certificate on the screen to Adi and thank him for his participation and dedicated service and commitment over the past four years. In addition to serving as the federal rep since September 2019, Adi has also participated in multiple subcommittees and really shared his expertise with all of us. I know he is not going too far, but please join me in thanking Adi for his contribution. As Adi transitions, some of you are familiar with the old/new/new/old Jim Jirjis, who is now the CDC federal representative, so, welcome back to the fold, Jim, with a new hat and a new seat. We all appreciate Jim's service previously, and we are delighted to have him join us as the CDC representative.

Lastly, speaking of changes to the HITAC membership, as most of you are aware, Aaron's term on HITAC will conclude at the end of December, but do not say your goodbyes yet. We will save them for our November 9th in-person meeting, for those of you who like to attend HITAC in person. That will be in DC. In the meantime, we will be beginning our search for a new HITAC cochair to serve alongside Medell. Just as a reminder, the member selected as the HITAC cochair will serve in this role for he remainder of their appointment, not to exceed three years, and any HITAC member interested in serving as the cochair for HITAC should submit their name to Mike Berry, our DFO, by October 26th, so do not sit on it too long if you are interested in becoming the HITAC cochair. We will aim to make the selection and announcement by

the November meeting so that the role can be effective as of January 1st, 2024. With that, again, thank you very much for tuning in today, and now I will turn it over to Aaron and Medell. Take it away.

Opening Remarks, Review of the Agenda and August 17, 2023, Meeting Notes – HITAC Vote (00:10:47)

Aaron Miri
Thanks, Steve. I appreciate that every much. Yes, please get those nominations in if you are curious about being a cochair. I can certainly tell you that Medell is fabulous and that working with the ONC team is fun. So, welcome to our October HITAC meeting. It is amazing that it is October. It feels like this year has flown by. We have a very exciting agenda today, and I look forward to having this discussion and really get into the meat of a lot of the work we have been doing for this year. Medell?

Medell Briggs-Malonson
Thank you very much, Aaron. I ditto all that you said, and just to make sure everybody knows, I paid Aaron to say those kind comments about me, but everything else he said is absolutely true. The ONC staff is amazing to work with, and this is a great role, so, please, definitely step up. Aaron has big shoes to fill, but we definitely need another great partner. Today, we are going to have so many great presentations, and I will not take up too much time. Aaron, let's just go ahead and dive right on in.

Aaron Miri
Sounds good to me. Could you pull up the agenda, please? All right, obviously, we did our opening remarks. First up, we are going to have the Pharmacy Interoperability and Emerging Therapeutics Task Force. We have great updates from this Task Force about what has been going on there. There is fabulous work that that team has been doing. We will go into the Annual Report Workgroup, something near and dear to Medell and my heart, and talk about what has been going on there and go through the crosswalk of some of the topics and subject areas. Then, I will do the social determinants of health information exchange activities, SDOH. That is something HITAC has been very passionate about for many years, and there is some great work that is being done there. Then, we will go into CancerX and USCDI Plus Cancer, then we will go to public comment about 12:45 p.m., adjourning right about 1:00 p.m. As you notice, this is a very packed agenda and we did not build in an actual break, so if you need to take a quick bio break or whatever, go ahead, take yourself off camera, and do that so we can get through these agenda items and also take time for comments from you all through the day. Medell?

Medell Briggs-Malonson
Thank you, Aaron. Let's jump right on into our first order of business. The first order of business is the approval of the August meeting notes. Do I have a motion on the floor to approve the August meeting notes?

Eliel Oliveira
I will make a motion, Medell. This is Eliel.

Medell Briggs-Malonson
Thank you so much. There is a motion on the floor. Is there a second?

Sheryl Turney
This is Sheryl Turney. I second.

Hung S. Luu
This is Hung Luu. I second.

Medell Briggs-Malonson
Great. I think I heard Sheryl's second first. The motion has been properly seconded. Is there any discussion? Seeing and hearing no discussion, I will call for the vote. All in favor of approving the August 17th meeting notes as written say aye.

Several Speakers
Aye.

Medell Briggs-Malonson
All opposed? Any abstentions? Excellent, the motion carries unanimously. Aaron, I will turn it back on over to you.

Aaron Miri
All right, let's get it going with some fun topics here. First up is the Pharmacy Interoperability and Emerging Therapeutics Task Force. I will introduce to you Shelly and Hans to take it away from here.

Pharmacy Interoperability and Emerging Therapeutics Task Force Update (00:13:54)

Shelly Spiro
Thank you very much. I am Shelly Spiro, the Executive Director of the Pharmacy HIT Collaborative and one of the subject matter experts, and I am cochair of this really important Task Force. On behalf of the pharmacy profession, I want to thank the Office of the National Coordinator and HITAC, especially Tricia Lee Rolle, Mike Berry, the ONC team, and Excel, also my cochair, Hans, and the HITAC members, quite a few of whom have been participating in this activity. Go to the next slide, please. Today, we are just going to give you an update since the last time we provided one, which was in August. We will go through the Task Force charges, and then Hans will wrap up with some of the new areas of how we restructured and will complete our report for November. Go to the next slide, please.

So, our recommendations are due on November 9th, and our first charge was public health emerging use authorization and prescribing authorities. Go to the next slide. Our second is to identify opportunities and recommendations to improve interoperability between pharmacy constituents for pharmacy-based clinical services and care coordination. Our third topic is to identify standards needs to support prescribing and management of emerging technologies, such as specialty medications, digital therapeutics, and gene therapy, and our fourth topic is to identify policy and technology needs and considerations to direct-to-consumer medication services, such as those that we see on the internet or online services. Go to the next slide.

These are our Task Force members. We actually have 14 HITAC members and 10 subject matter experts who have been participating, and I just want to thank everyone for all of their hard work. They have done an absolutely fabulous job. Go to the next slide, please. This is the progress that we have made so far. Go

to the next slide. A big portion of our time was from when we started on June 21st to August 16th, when we previously provided an update, so I am not going to spend a lot of time on this, but we did get through Topic 1, both the short-term and the long-term goals, and I am not going to go over this because we already provided an update back in August. Go to the next slide.

Since our last meeting, all the way up to yesterday, we have covered Topic 2, basically about what ONC can do to address drug inventory transparency for prescribers and consumers and what standard gaps are for prescribing and management of specialty medications and digital therapeutic medications. We have had an external SME come in and talk about Topic 2. Go to the next slide, please. Also, we continued with Topic 3, but what we found was that most of our comments and recommendations were coming in on the first topic, but we found that they were overarching areas that met all four of the topics, and that is how we spent a lot of time on the first topic and got most of those general topics down, and then made our way into Topics 2 and 3. We completed Topic 4 on October 4th. We also had subject matter experts come and talk quite significantly about Topic 3, but we were not able to find anyone who was able to come and talk to us on Topic 4. Tricia Lee Rolle did a great job of at least giving us some idea of where ONC was interested in learning more about this topic of direct-to-consumer medication services. Go to the next slide, please.

So, where we are at right now is we finished up all of the recommendations, we moved information from the spreadsheet into a Word document, and as of our last meeting yesterday, we are now in our Word document, which is set up for the recommendations for our November 9th meeting, so we are right on target from a time period of where we really need to be. Go to the next slide. So, for our upcoming meetings on October 25th, we will revise and finalize the Task Force recommendations, and then, on November 1st, we are going to revise and finalize again just to make sure. Hopefully, we will be done by next week's meeting, but we gave ourselves a little extra time. I just have to really thank the Excel team, Mike, Tricia Lee, and Maggie. They have really done a great job of helping Hans and me get the information into a way that we can actually do this work.

So, we are right on target to complete our final recommendations by November 9th. We have put everything into a Word document, such as the reports that we would want to put out. Hans is going to be talking about the changes that we actually made within the report. As I said before, with Topic No. 1, we found a lot of overarching recommendations that fell across all four topics, and so, that helped, and Hans has done an absolutely great job of restructuring how we can have these topics go back to the topics that ONC is interested in knowing, but really bring forward these recommendations.

We have 38 recommendations so far. We might consolidate some as we do our final tweaks to the report, but I am going to let Hans talk more about where we are with moving forward and how we restructured the report to make a little bit more sense, especially from a pharmacy standpoint. Again, I just want to thank all of the attendees from the public, who have been very diligent in attending the HITAC meetings. We have had really good representation from NCPDP and their members. A lot of subject matter experts have continued to participate as part of the public on these calls and have put their comments in that have been reported, so it has been a labor of love, at least for me, and I just want to thank everyone. I will turn it over to Hans now.

Hans Buitendijk

All right, thank you, Shelly, and thank you, everybody, for your participation, as Shelly already mentioned. If you go to the next slide, that starts to demonstrate the breadth and depth of the discussion that we have had. One of the questions actually was very specific about what kind of use cases we should look at throughout the discussion, which started with Topic 1 and started to pop up all throughout as well, and there are a couple of key ones that jumped out about where there are opportunities to enhance interoperability interaction between pharmacists, other care providers, such as primary care, hospital, or otherwise, and pharmacies. We had a robust discussion as well about when we are talking about pharmacists and when we are talking about pharmacies.

So, through these use cases, there is very clearly a bidirectional aspect of patient data sharing with other providers, with the care team, and otherwise that the patient is involved in, and it comes back in the second one as well, incorporating the pharmacists into the care team more. They are an integral part of that team, as they not only fill prescriptions, but also participate in the provision of care through testing, treatment, and other advice. The third one, consumer engagement, should definitely not be a surprise. How can we enhance further interaction between pharmacists, patients, and caregivers? How can the individual who is seeking care directly interact with pharmacists?

There are a couple other topics and use cases that look at data-driven, medication-related, population-level interventions and what can be done there, not only with the individual, but with the population and how we can provide better insights, pharmacy quality measures of clinical pharmacy services, seen as an area where, if we get better understanding and focus on a variety of quality measures, that might further enhance the first three as well. There are the value-based care quality measures across the care team, where pharmacists are increasingly contributing and need to be aware of the overall performance and approach where there are failure-based care programs in play. In public health, there are clear examples and particular questions around how to further enhance interaction with public health and patient safety. So, those were key use cases, and no matter what we were talking about, many of them applied to two or more, if not to all, of these. Go to the next slide.

Throughout the discussions as well, there were a couple of different themes and topics that cut across these use cases and were highlighted. We clearly need to look at standards and data exchange. That is obviously one of the key components of this work. But when you look at the pharmacist with other providers and public health, the data-sharing needs that are in there that come back into some of these use cases, such as special settings, populations, and long-term care. Those are topics and themes that came back in the opportunity and ability for pharmacists to capture data in support of these various use cases. It is no surprise that we were looking at how we can improve information sharing and avoid blocking of data for different participants. There are a variety of rules or standards that may apply across jurisdictions which need to be recognized and which can be a challenge at times.

As we want to advance a number of these topics, how do we move that forward? Resources and funding were an important part of that. Lastly, with privacy and consent, as there is a need to better understand who data can be shared with from a patient perspective and from a jurisdictional perspective, it is important that that applies and is in play with pharmacists as well, which can be looked at differently. Whether it is pharmacist with provider, pharmacist with payer, or pharmacist with others, these rules come into play as well. So, not necessarily all of them have specific use cases, but they come across in the variety of use cases. Go to the next slide.

As Shelly indicated, we have about 38 recommendations. Some of them might still be combined, some of them might still be split, although probably not as lightly, so it is about that number, and when you look at the rough distribution, there are about eight recommendations that are generally overarching, and there are 14 more around specific capabilities that are of interest across one or more of the use cases and support some of the themes there. There are three recommendations around patient matching and record linkage, which is clearly a need as well to ensure that we can attain a complete patient record. We had discussions around emerging therapies.

A number of those came back in other contexts, but there is one recommendation that is very specific to one of the emerging therapies in play. There was a fair amount of discussion around how we move forward adopting, advancing the adoption of, and further expanding on the use of interoperability IT, etc., so specialized and focused certification and funding was a topic of substantial discussion as well. There are six recommendations there. Lastly, there are four recommendations around quality measures.

For each of these recommendations, while it is organized more along these lines, there is a tieback or reference you will see in the document when it comes out for review and final adoption that identifies which of the use cases and topics it relates to, whether one or more, and, with which questions in the process of the four major topics that ONC raised, where it provides insight into the question raised. So, rather than seeing a document that will go through the questions that were raised and providing an answer to that, you will see them organized more along the lines of like recommendations being put together and where they have an impact and opportunity to advance, so you will recognize that as you go through the document.

There is a parking lot topic that we felt was not quite in scope of the discussions, but is still something that HITAC perhaps may consider for future consideration. As Shelly indicated, we are tracking with everything to have it available in a timely fashion so that on November 9th, we can do a final review at the in-person meeting and hopefully adopt it and move it forward to ONC. I will pass it back to Shelly for any final comments, and then, from there, pass it back to Medell and Aaron.

Shelly Spiro
I just want to thank Hans. He thinks like a pharmacist, which is great, because he was able to restructure and help us restructure, so we have much more meaningful recommendations in a way that does not necessarily fit the topics, but fits more of what is really needed to move forward in bringing pharmacists into the fold of exchange of clinical information.

Hans Buitendijk
I think we sill send it back to Medell and Aaron for any further questions or comments the HITAC may have.

Medell Briggs-Malonson
Thank you. Shelly, Hans, and the rest of the Task Force, thank you so much for this amazing volume of work. We absolutely look forward to the 38 recommendations that you will put before us during the November meeting. Let's open it up to HITAC for any questions for Shelly and Hans. You can ask a question, of course, by raising your emoji hand. Do not be shy, everyone. This shows it is a sign of a very solid and comprehensive report. We will wait a little while longer. Any other thoughts or comments? There we go. I see your hand, Aaron.

Aaron Miri
Thank you. Good morning. Great work, Hans, Shelly, and team. This is a very comprehensive report. The intersection of laboratory and interfacing results along with pharmacy data and results came up in the Annual Report Workgroup. Do you see overlap there, and/or will some of these recommendations also have help on the lab side of things because of various discrete data elements or whatever else? Is there symmetry there? That is also an area outside of this sphere of the Task Force, but it may be helpful in that perspective. I am just curious about your thoughts.

Hans Buitendijk
I think it is very much the case, and Shelly can jump in and provide further examples, but when we talk about the use case of bidirectional exchange between pharmacists and other providers in particular, one of the key examples we use there is that as pharmacists are more in the test-to-treat process, they are obtaining test results, and that needs to be shared back with the other care team members, and vice versa. As they are getting into more of the treatment aspects, there is an interest and a need for specific lab results that might shed insight on what the pharmacist needs in order to do a more comprehensive review of what they can do within their authority. In the bidirectional topic in particular, I think you will find that aspect of lab, but it is not limited to lab, and lab is just an example of the kind of data of interest. Shelly?

Shelly Spiro
Yes. Pharmacists use laboratory data in their assessments of the patient's medication management services that we provide, and so, having access to that information is critical to what the pharmacist is doing. Interestingly, in our discussions on gene therapy, we did find some real anomalies that pharmacists use with pharmacogenomic information that we were not really receiving, or there are inconsistencies in the data that is coming across between different laboratories, so there is definitely some work that we can do together. Pharmacists on the dispensing side have quite a bit of transactional information that is exchanged because of the amount of medication that patients take. Billions of medications are being dispensed on a daily basis with our patients.

Labs are similar. They have a similar type of very structured data that needs to be exchanged, but what we find with pharmacy and with our pharmacists who are providing clinical services is very similar to our other provider counterparts who are providing clinical services, and that has really been our focus. So, what we found within this Task Force was not only the clinical services that we need to do. Our dispensing functions are there, but especially from our patient engagement Task Force members, we found that they have really brought some issues forward in relationship to inventory and other exchanges of data that can be structured and exchanged that we think we can work on on the dispensing and inventory side. We are very pleased, and we want to work more in this particular arena. As pharmacists, we have a lot to offer in terms of very codified data to be exchanged. It is just the way we think because we are used to dealing with large amounts of data, similar to what the lab has to do.

Aaron Miri
Thank you very much.

Medell Briggs-Malonson

Thank you so much for that question, Aaron. Shelly, Hans, and the rest of the Task Force, thank you for a wonderful update. All right, if there are no other questions or comments, it looks like we will proceed on to our next topic, which is the Annual Report Workgroup. Aaron and I will take the rest of HITAC through our update, and Aaron, we will let you kick it off.

Annual Report Workgroup Update (00:35:28)

Aaron Miri
Sounds good, thank you, Medell. I really want to thank the HITAC in general. We have gotten some great feedback. I just want to start off by soliciting, again, that our ears and emails are open, so, as you have ideas or comments and as we hopefully help you ideate even more so, we are listening. Of course, the window is closing because we have to finalize this year's report, but remember, your feedback and comments are important, and your edits are important as well. So, thank you to those who have already voiced their perspective to us, and we look forward to more. Let's get into it. Next page.

All right, we will talk about membership, meeting schedules, and next steps, and of course, we will start the draft crosswalk of topics. This is where the meat and substance of the report comes out of. Next slide. All right, this is our group. We have some phenomenal feedback, as we do every single year, with members who roll in and roll off. We really appreciate every single person on this page, and I would be remiss if I did not say thank you again to Elise, Michelle, Mike, the whole ONC team, and the support staff behind them. It is tremendous to work with such professional, high-caliber folks that can take our ideation and thoughts and put them into plain English so that everybody can understand, so, thanks, ONC team. Next slide.

So, we are here. We just met on the 16th, and have another meeting on the 30th of November to finalize any edits from the upcoming HITAC meeting. In December, we will push the group for review of what is going on there, with approval sometime in January or February and transmittal in the spring. Again, all things considered, there will be a couple of weeks here or there, left or right, but that is typically how the schedule has flowed out every spring with transmittal to the secretary, and thus also to Congress. Next slide.

All right, today is the October 19th meeting of the HITAC, obviously. We are giving you guys an update on the crosswalk. We are soliciting feedback, so we are looking forward to that, and of course, we will do another update about this on the 9th of where we are, again, reviewing in January and approving in the February timeframe. Next slide.

All right, we are going to go through the draft crosswalk, we will provide some periodic updates to you guys, and then present the draft report for discussion in early '24, which is what I believe it should say. Next slide. All right, let's go into the crosswalk. So, the crosswalk topics for the report for FY '23 are grouped into several target areas defined by CURES. For a lot of the new HITAC members, recall that HITAC has a charge specifically called out in CURES, so there are a lot of health IT areas we may want to go into. We have to stay close to our charge and/or ask for permission from Congress, which gets a little messy, but the good news is that these topic areas are pretty broad-based, so they cover the majority of what we may be curious about or what we have jurisdictions to ask questions about and bring up as topics

Also, know that these areas are very robust, and obviously, as things like the pandemic occurred and whatever else, we were really able to start double-clicking into issues and areas that were confounding the

country, so they are broad-based. As you have ideas, bring them up, and you will see them in the crosswalk. Those areas are 1). The design and use of technologies that advance health equity, a very important topic, 2). Technologies to support public health, as I just stated, 3). Interoperability, which obviously spans things like public health and other items, 4). An area near and dear to my heart, privacy and security, and 5). Patient access to information. As you know, the 21st Century CURES Act was very definitive on that in a great way, so we want to keep opening up those domains. Next slide.

All right, let's go into the key topic areas for the annual report. We are going to go through these items, so Medell and I will tag-team them, and then, again, we will open it up for any questions or comments that you guys may have. First off, on artificial intelligence, looking at algorithmic bias, the gap there is that AI holds promise, but there are a lot of items here related to bias and harm, and decision support interventions and predictive models lack that patient and caregiver perspective. Our proposed activities, obviously, in collaboration with HHS, are to understand what is happening across the entire public and private landscape with AI initiatives. There is a lot of work going on. Obviously, the administration is very, very focused on all this, as is Congress, so let's find out what are all the relevant and different moving parts there.

Second, how various organizations are defining the standards, with an emphasis on fairness and appropriate how to standardize measuring them for predictive DSIs, and then, in collaboration, again, support the development and guidance to assist providers, certified health IT developers, and others, with implementation of the HTI-1 final rule algorithm bias policies, including evaluation of phase and the implication with specific patient populations. It is an emerging area. Obviously, AI has a lot of hype behind it, but also a lot of promise, so it is our perspective here, and as we have heard from you all, how can we help contribute to ensuring appropriate and responsible AI development and rollout as a HITAC, and also as a coordinating entity to help rally the troops, per se, so we are all marching in the same direction? Next slide.

Health equity: The missing health IT infrastructure in health equity and SDOH data is an issue. We all know that, we have all talked about it ad nauseum, and we know that we need to do more here in this domain, and we are trying. So, the gap remains that the collection of health equity and SDOH data remains inconsistent, and there is a lack of adoption of IT tools by community-based organizations. So, what are we proposing we should do? First, we should hold a listening session to identify gaps in SDOH standards, including those that have been developed and are under development. There is a lot of great work going on around SDOH, so bringing that into the fold so that we are all up to speed is going to be important.

Second, we should explore the development of a framework to support the adoption and use of health IT by CBOs and public health organizations, and social service providers. The framework should identify strategies to support the private and secure exchange and use of SDOH data, including pilot demonstrations. All right, that is SDOH. It is important, we know it, but a lot of work is going on, and we do not want to discount that. As the group talked about, we need to know more and educate ourselves on what is remaining, and also intersect that with the great work going on with USCDI and USCDI Plus and how that can also be used as a lever to advance.

The next area is reducing the digital divide in general. We have seen this predominantly also with what happened in the public health emergency with the community. We have to level the digital divide and make sure there is equitable care for all. The gap is further requirements/initiatives to reduce the digital divide,

including encouraging health equity to be a core design feature and component in healthcare. What are our proposed activities? Encouraging ONC to work with HHS agencies and standards developers to adopt standardized SDOH data elements about a patient's internet access status, digital literacy status, and health literacy status. How do we get folks more involved in their own care plans, care planning, and communication planning with their care providers and others in their course of care?

It is very important, and we also have to acknowledge the very real issue that there is lack of broadband access in parts of this country and others, so how do we intersect all those, and how do we push forward a plan that can level the playing field and ensure that true 21st-century medicine is in the hands of everybody, regardless of where you live and what your makeup and socioeconomic status is. How do we do that? That is the plan.

Also in that same manner is the third bullet here, reducing the digital divide by increasing access and accessibility to telehealth services. We know telehealth continues to bridge access gaps, but still poses risks of majorly exasperating the disparities. So, what is our proposed activity? Exploring the benefits and challenges of encouraging the adoption of security and accessibility standards by telehealth providers. Essentially, what we are saying here is how do we make sure that everybody is playing by the same rules, that we understand exactly how telehealth can be leveraged, that we know that the landscape is changing as the public health emergency is expired, and the rules are being rolled back little by little, depending on which agency you are looking at? Also, we know that the cliff by the end of 2024 is right around the corner for a lot of remaining items that have been extended from the PHE.

So, how do we make sure that we do not inadvertently put folks in a disparate situation or disadvantaged situation simply because they may live in a rural part of northeast Florida, speaking about my personal area, or some other region of the country, and that they are able to get telehealth services? That is critical, and that patchwork quilt of laws, processes, and playbooks is really impeding care across the entire spectrum. Medell, I think you are running the next slide, correct?

Medell Briggs-Malonson
I can definitely do so, yes. We will go back and forth. Next slide. Wonderful. Now, going to public health, there are gaps in infrastructure and standards to support data sharing for public health purposes. Now, we know that this has been a major target area since the pandemic, but we still have some room to grow in this space. The gap that we have identified is the need for additional infrastructure to support data sharing that promotes the coordination and standardization across all of the various different systems that are there to support the health of our people and our public. We do not want to wait, of course, until another public health catastrophe to do this work. The time is now, and the time has to be continuous until we do build the infrastructure that is needed in order to address any emerging diseases or other public health concerns.

Some of the recommended activities from the Annual Report Group are 1). Hold a listening session to identify elements of a framework that supports the increased interoperability and standards for both epidemiologic and syndromic surveillance. You will see a trend in the Annual Report Group because we know there is so much great work going on, and as HITAC, we want to make sure we are providing recommendations that are going to be on point and relevant and that can help to move the needle, so we want to make sure we are highly informed of all the other work that is going on throughout various different agencies and areas. The second recommendation is to invite TEFCA RE to provide periodic updates to

HITAC and also seek direct input from us on the identification and adoption of public health use cases. Once again, we must stay informed and make sure our fingers are on the pulse in order to promote further recommendations for the public health infrastructure. Next slide.

Going directly into interoperability, which was actually our third area for the annual report, the first topic is looking at standards to support data linking and patient matching. Now, you will see a special asterisk on this topic, as well as several others that we will go through. This asterisk means that this is a topic that we like to say is a recurring topic. We have discussed this in prior annual reports, and most likely, we will continue to discuss them in upcoming reports because of their importance and because of their direct impact on not only interoperability, but overall patient care.

The gap that we have identified for this upcoming annual report is that, again, there still tends to be a lack of standardized data-linking processes, which has, of course, resulted in disparate interoperability systems throughout our country, and also, still, when it comes to patient-matching when sharing data, we still need to drill a little bit further down into this, and especially with a focus on our more vulnerable and/or marginalized populations, because we know we have to make targeted solutions versus general solutions that may or may not be advantageous for all our various different populations.

So, our recommended HITAC activities are holding a listening session on several different areas: 1). What are some of the best ways to standardize data linking in order to support interoperability that also increases the quality as well as the overall integrity of the data content and the ability for recipients in multiple different industries to pull that requested data as needed, and also, going back to TEFCA and our QHINs' experiences with exchanging data with each other and really learning more about how they are truly implementing cross-QHIN patient-matching and supporting our vulnerable, marginalized, and overall diverse populations.

Another activity, especially for us to gain further knowledge and really amplify and lean in, is looking at government agencies' experiences with linking clinical and claims data. We know there are a lot of great lessons learned out there from other agencies, such as CDC, FDA, and NCI, and we have even talked in terms of the areas of defense of how we can actually learn how others are linking their various different data in a very secure, but also a very effective manner.

Last but not least, there are lessons learned that can support the data-linking initiatives, such as the PPRL strategy. So, there is a lot in this area, an area that continues to stay with us, because we still have not actually hit the mark yet on how we can ensure appropriate data linking and patient matching. Next slide. And now, let's continue with interoperability. This goes back to Aaron's question for Shelly and Hans because we within the Annual Report Group had a very robust discussion about supporting interoperability standards, and really looking at both laboratory as well as pharmaceutical data.

So, the gap that has been identified is that there is a lack of consistent use of standards by laboratories and pharmacies, which directly creates a barrier and prevents us from having effective interoperability, and due to this, there is a lack of all the various different infrastructure and support of the connectivity and pharmacy data with the broader health IT ecosystem. Some of the various different activities that are being proposed are continuing to walk forward and explore what steps the Centers for Medicare and Medicaid Services may be taking to incentivize or require lab and pharmacy interoperability while also referring, of

course, back to our Task Force, and that is why we look forward to all the various different recommendations, so hopefully, we can take some of those recommendations and bring those directly into our report.

The next topic is looking at supporting interoperability standards for long-term and post-acute care providers. The gap that was identified amongst the report group is that interoperability needs to expand. We tend to do a really good job in the inpatient setting, we tend to do a really good job in the ambulatory setting, but we also need to make sure that we are bringing in and having appropriate interoperable exchange with our long-term and post-acute care providers. Now, we know that there is still some capacity and some infrastructure that needs to be built up within this domain of care, but we know that this is essential for providing high-quality equitable care across the entire continuum.

And so, some of the HITAC activities that we are proposing are, once again, exploring what actions HHS can take to advance LTPAC interoperability, including reviewing the steps that CMS may be using in order to incentivize data sharing among our long-term and post-acute care providers. And then, there is even the opportunity of exploring the certification needs for these providers in order to support that bidirectional exchange, which not only helps out with care coordination when patients are transitioning from an inpatient setting to one of these other provider settings, but also making sure that, even from the ambulatory setting, we can ensure that we are getting as much data as possible to provide the best care for our patients. Next slide.

I think that this is almost the last one. We are looking more into interoperability and streamlining of health information exchange. Again, with an asterisk for a topic that we had seen in some of the past annual reports, the gap here is that the gap in interoperability remains when health organizations rely on multiple methods of data exchange, as well as having to coordinate across health systems and other types of system throughout the various different industries. So, what we are actually recommending is to identify those priority use cases and develop those recommendations on the implementation guidance that can be used in the field in order to increase the consistency of the data being shared, and of course, this directly aligns with all that we are doing in so many other spaces, especially with USCDI, but this is still an important piece of interoperability, of streamlining these processes.

Now, information blocking is an area that is very near and dear to Aaron's heart in every single way, so we really separated information blocking into infeasibility exception and registries. And so, in terms of the infeasibility exception, the gap here is when looking in regard to information-blocking rules and an actor's ability to comply with requests for access, exchange, or other use of EHI, it is sometimes limited, and it is not as comprehensive as we need it to be. So therefore, the proposed activity is to hold a listening session to hear from affected actors and about those various different barriers in order to see what we can do to help them to be in compliance within the timeframes in the information-blocking rules and also what those potential solutions could be to enhance overall compliance to make sure that everyone is on the same page.

This also goes directly into information blocking with our registries. Often, there is some confusion in our overall health IT industry about if and when organizations that operate various different types of registries, and we know we have disease registries, we know we have other type of utilization registries, we even have professional society registries, so who is actually considered an actor underneath the current

information-blocking rules with respect to providing access to the various different forms of registry data? And so, part of our proposed activities is to support the development of guidance about if and when a specific disease or patient registry would be considered an actor subject to the information-blocking rules with respect to providing access to that data within that registry. Next slide. And so, I will turn it on over to you, Aaron to go back through the privacy and security sections.

Aaron Miri
All right, thank you, Medell. Yes, privacy and security are near and dear to my heart. The topic here is privacy of sensitive health data, gender and reproductive health. Obviously, the gap is the inconsistencies in the legal landscape governing gender and reproductive health data, combined with the difficulty in segmenting this data, creates a lot of barriers to exchange. What do we need to do here? We are proposing holding a listening section with the HHS Office of Civil Rights, the OCR, and others to explore the health IT industry's opportunities to improve the protection of sensitive health data regarding gender and reproductive health.

As we know and as we have seen publicly, there is a lot of sensitive health data, various vendors out there may have been breached, and that data may be floating out there. What is the recourse, and how do we make sure that that is dealt with, and on top of that, how do we securely exchange this data for care and treatment purposes in the right way with the right protections available and afforded to it? On that same topic, though, of privacy of sensitive health data, consent is just as critical. There is a lack of consensus on the key use cases, the definition of sensitive health data, and the path forward to support improved patient consent.

So, our recommended activities are 1). Suggest steps toward a terminology value set for sensitive health data elements that could be widely adopted, and then, 2). Explore what additional foundational infrastructure needs to be in place to support interoperable exchange of consent information. Now, consent is not a new topic. We have talked about consent since the days before this, with the Health IT Standards Committee and Policy Committee, but it is critical, especially as we are now getting into these nuanced areas of data elements, data exchange, and very sensitive data that is out there and being proliferated, that we get in front of this now and we start to understand as a HITAC how we can help shape the industry forward and do this in a responsible and equitable manner. Next slide.

Let's keep going here. Lack of accounting of disclosures: The gap is that today, patients have limited transparency in how their identified and deidentified health data is shared. This is critical, and it is amazing how much research is going on out there that is floating outside of IRB-approved research, and patients may not have the right disclosure to know where that data is going. So, the recommended HITAC activities are to 1). Explore the metadata needed to implement prioritized use cases and to allow patients in healthcare organizations to understand who is accessing that patient data, and for what purpose, putting power back in the hands of the patient, 2). Explore opportunities to encourage healthcare organizations to regularly provide increased transparency into how they use deidentified data.

This is critical. Too often out there, I see deidentified data because it is "permissible to use it for these other use cases because there is no way to identify Patient Aaron in that data set." Well, I will tell you, there is no such thing as really deidentified data. There is always that needle in the haystack getting pulled out, so we have to figure out a way to be more transparent with the general public. 3). Explore patient preferences

for disclosures about the sharing of their health data. Giving patients granular control is so important, as is making sure it is the patient the first custodian, not the organization, of their own information.

The next topic here is cybersecurity events across the healthcare infrastructure. Obviously, this is not what keeps CIOs awake at night. I am being facetious here…of course it is, so it is very critical we get in front of cybersecurity. Cybersecurity events continue to block access to health records, which can impede patient care. We need to hold listening sessions to explore best practices across healthcare and other industries to amplify existing federal and industry initiatives to improve cybersecurity. This is in no way to that the work that is being done by 405(d) or other work that has been put in place has not been germane to the industry. I can tell you firsthand that it has been. We have a phenomenal partnership with the Department of Homeland Security, the FBI, and HHS helping to rally. Whenever there are widespread events, they hold great listening sessions with the healthcare community, but more can be done. We have to get in front of this. We have to make sure that, as a HITAC, we help to coalesce those efforts going on and make sure that if there are areas of opportunity to improve this so we can respond faster and quicker, we do so. Next slide.

Next is patient access to information, another really important topic, as you can see how we are very passionate about this perspective. There is limited guidance on the safety and security of mobile health applications, and the lack of uniform public and private approach to oversee mobile health apps is very inconsistent. The quality of apps and the wide variety of privacy and security protections are just amazing across the ecosystem, and amazing in a very scary way. We need to explore the guidance that is available and certification criteria needed for health apps that have been vetted as clinically valid to support interoperability and other certified health IT modules.

I will tell you, again, in my personal experience, it is amazing how our patients are becoming more app-savvy, and they are asking the clinical providers, “What do I do with this app that can tell me better sleep cycles or whatever else?”, and the providers are being put at a major disadvantage. How do we know that that is a safe app? How do we know that is where the data should go? How do we know this is clinically effective and viable for that patient? All of these items need to be addressed in that gray space, and HITAC needs to play a key role in that.

The next topic is patient-reported electronic health record update processes, AKA the transparency and the accuracy of patient data, and easy electronic mechanisms to update incorrect are still lacking. It is very arduous for patients to be able to update their own information and say, “Guess what? This cannot be right about Patient Aaron. How do I fix this?” So we need to hold a listening session to identify current processes healthcare providers are using to receive and process patient request changes and explore best practices to improve the current state, e.g. it is being done a little bit differently everywhere. How do we get in front of that and begin to give a playbook so that providers and any care-providing organizations can start to do the same practices to allow patients a similar uniform approach to update their own information? At the end of the day, it is the patient’s information. They have a right to go through and update it as they see fit and appropriately update what is incorrect so it doesn’t follow them their whole course of care.

The next item here is patient-generated health data, PGHD, which is lacking standards of interoperability across and among platforms. This is an item that has been on multiple HITAC reports. We continue to revisit it, especially as patient-generated health data, PGHD, is becoming more proliferated in the industry.

PGHD can be challenging to transfer into EHRs and time-consuming for patients and providers to access, requiring a lot of special effort, and that is a true statement. PGHD device and software developers are not subject to health IT certification, but play a critical role in the ecosystem. That is such a major gap. There are so many apps out there that claim to solve the world's problems that could work, or may not work. How do we make sure that interplays correctly with relevant EHR data so that a provider can make appropriate care and treatment purpose decisions?

So, what are we recommending as activities? Exploring collaboration with other relevant federal agencies to define the PGHD that could be incorporated into provider clinical workflows and exploring best practices where PGHD data is stored securely, and for the metadata that is required to improve the usability of that data. Including improved data visualization in provider workflow, AKA where is that data living? Is it potentially an area that could be modified or adjusted behind the scenes? Is it in a data center that is insecure? Where is it, and more importantly, how do we know the output is relevant to providers, as I was saying before? The last bullet here is user-friendly price-cost data transparency, again, another topic that has been on previous HITAC annual report and continues to be an important element that we stand behind. Price and coverage data can be provided. It is very difficult to understand. A lot of times, it is machine-readable-only, which means nothing to a patient. How do we make this much more digestible, easy to follow, and accurate?

So, we want to invite CMS to provide an update to the HITAC on its healthcare provider and health plan price transparency initiatives. CMS is doing some excellent, excellent work in this domain. More can be done, potentially, so how can we as a HITAC help enable them and other agencies to step in front of this? The administration, as well as the previous administration, were very clear that this has to be done, and this has to be appropriate for our patient community, so what can we do as a HITAC to step forward and say there are other elements here that could really move the needle? Next slide. That was a lot of words from both Medell and me. I am sure you digested all of that in one fell swoop. Hopefully, you are reading the slides. We invite questions, comments, and any commentary here that you may have.

Medell Briggs-Malonson
While everyone is raising their emoji hand, thank you so much for all the comments that have been provided and the recommendations, and please keep those coming. The window for opportunity is closing quickly, and we want to incorporate all of your thoughts, your feedback, as well as any additions or revisions into this annual report. This is a reflection of us as a body, so we definitely value your opinions. All right, Aaron, I think we see Hung's hand up first.

Hung S. Luu
I just want to say, excellent presentation, but one comment I had is regarding the pharmacy and laboratory data interoperability. I think it is very tempting to assume that we currently have the appropriate data model and data elements to support interoperability for laboratory and pharmacy data, and that the rate-limiting step is somehow just the adoption of pharmacy and laboratory, that somehow, if we could only get those two groups to just adopt what we currently have available, then everything would be solved. I really think the last thing we want is to double down on a strategy and require adoption that may not move the needle because I think that will just make it harder to rally the troops if we find that just trying to do what we have always done does not work.

I think that part of the strategy needs to be that we make sure we have the appropriate data model, the appropriate data elements, and the infrastructure to make it easier for pharmacies and laboratories to adopt these data elements and improve interoperability. I do not think it is as simple as saying we just need laboratories and pharmacies to do what we have always wanted them to do. I think we need to see if our strategy is really what is going to improve interoperability.

Aaron Miri
Great feedback, and certification around those data elements, too. That is a really good point. Thank you for that. Any other feedback or comments from hands raised? All right. Fil?

Fillipe Southerland
Good morning. It is really great to see the consideration for LTPAC, pharmacy and labs, and specialty EHRs in this list. I just wanted to highlight the need to also include the measurements of uptake within HIT, so, to be able to cohort these specialty sectors and then get some of the great reporting that we have seen for physician and hospital uptake. I think that is so important to highlight our progress in these sectors to see some of that similar reporting coming out from ONC on uptake within those sectors, so I hope we can get that as a recommendation from HITAC as well.

Medell Briggs-Malonson
That is a wonderful suggestion because, of course, we cannot really see if we are driving transformation and change without measuring it. Thank you so much for that recommendation, not only for those areas, but that should be a recommendation that is part of all of our recommendations as we are thinking about uptake of additional data model standards, so, thank you for that.

Aaron Miri
I wholeheartedly agree. Any other comments? I see a lot of feedback here referencing prior health IT policy committee work and standards committee work, which was exceptional. I say “back in the day,” but it really was not that far back. So, we are definitely trying to build upon all those comments, and I appreciate Deven, Steven, and others who are commenting there. It is definitely the goal to build upon the great work that was started and keep that going, and update it as technology has changed, just to put that out there. Great feedback from all. Any other feedback?

Medell Briggs-Malonson
Aaron, there is one comment that just came up in our chat about ensuring appropriate linguistic alignment in all that we do. I want to completely amplify that, and that is part of our annual report, not only making sure that language access and linguistic alignment is throughout all our various different forms of technology and solutions, but also ensuring going back to the accessibility part of things such as even telehealth providers, looking at the diverse abilities of individuals and populations that are going to be using it, both cognitive abilities and physical abilities as well. We are taking a very comprehensive approach every single time we provide recommendations to the annual report to think about all the important aspects to advance health equity and justice using our technologic solutions and standards, so, thank you so much for that comment.

Aaron Miri

I totally agree. It also helps that we have a national expert with Medell on the committee to help make sure that we look at each of these through the right lenses and we are balanced and appropriate, so that is definitely a great comment there. Any other feedback or thoughts? Okeydoke, great. Great comments. Please keep them coming. As Medell said, time is ticking, though, so we do have to put a bow on this in the very near future, so please try to get your comments in as you think about it. Percolate on this, read the comments again when you get a chance, maybe as some bedtime reading, and think about whether there are other dimensions here that we can consider, like we just spoke about, and some great feedback that we need to take into consideration.

Remember, the HITAC is a phenomenal vehicle to advance this country's health IT infrastructure in an equitable manner, and it is also a great communication vehicle back to the legislative powers that be. I can tell you directly that Congress does read this. The offices do read this, and they do take your comments into consideration. They absolutely do. So, this is your time to really get your feedback out there and advance where we are going as a nation. All right, with that, let's move to the next section, then. Up next is our ONC social determinants of health information exchange activities. I introduce to you JaWanna Henry.

ONC Social Determinants of Health (SDOH) Information Exchange Activities (01:10:21)

JaWanna Henry
Great, thank you so much. Good morning. It is my pleasure to provide the HITAC with an update on the SDOH information exchange activities. Next slide, please. Today, I will start with an overview of SDOH and then speak to some of the ONC SDOH information exchange areas of alignment, and then go into some of the details of the SDOH information exchange activities, and review some of the themes shared by the information exchange community. Lastly, we can start a discussion about this work and things to consider for the future. Next slide, please. I want to say thank you to the team that worked effortlessly to make this work happen from ONC, and then, the contractor EMI advisors. Next slide, please.

I will start by talking about why social needs important. First, health is influenced by many factors, and 20% of our health is related to healthcare. The other 80% is our health behaviors, physical environment, and socioeconomic factors. A primary approach to achieving health equity is addressing social determinants of health. We define health equity as when everyone has the opportunity to attain their full health potential and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstances. We understand that there is a growing awareness that SDOH information improves whole-person care as well as lowers cost. We also understand that unmet social needs negatively impact health outcomes. Some of these examples include food security and how it correlates with higher levels of diabetes, hypertension, and heart failure. Also, housing instability factors into lower treatment adherence. And then, we also have the example of transportation barriers, which can result in missed appointments, delayed care, and lower medication compliance. Next slide, please.

Now that you have had that one slide of that overview of SDOH, I want to talk a bit more about the ONC SDOH information exchange in some of the specific areas of alignment. Go to the next slide, please. Here, you see our 2020-2025 Federal Health IT Strategic Plan. This is an example of our shared federal vision to leverage health IT to reduce burden, promote the interoperable exchange of information across the healthcare system, lower costs, and ultimately improve patient care. What you will see is this plan explains how the federal government intends to use health IT, and this is by achieving the four goals that are listed here. Specifically, when you look at Goal 1, which is to promote health and wellness, some of the strategies

include advancing standardization and interoperability of SDOH data, as well as capturing and integrating SDOH data into EHRs. Next slide, please.

In addition to the Federal Health IT Strategic Plan, there is the HHS SDOH action plan, and in this plan, the challenge is for agencies to provide steps in addressing core SDOH data challenges. The expectation is that this would be done through three different goals that you can see. Here, the first focus is on building a robust and interconnected data infrastructure to support care coordination and evidence-based policymaking, the second focus is on improving access to and affordability of equitably delivered healthcare services and support partnerships between healthcare and human service providers, and the third focus is on adopting a whole-of-government approach. This is focused on supporting public-private partnership and leveraging community engagement to address SDOH and enhanced population health and wellbeing.

Now, when you look at this graphic, what you will see is a lot of things going on, but the idea is to clearly communicate to address these challenges. We need to understand the entire SDOH ecosystem at all levels, which includes the community, to individual impact, your upstream and downstream needs, the understanding of what approaches actually work, and how data can accelerate the HHS objectives and these goals. To do all of this that is happening, you need to understand the core public health SDOH data challenges and the current state across partners. The role of ONC and our partners is to help enhance the data infrastructure and improve interoperability so data can flow, and this involves coordination across sectors to promote health equity. Specifically for ONC, this involves a focus on standards, data, implementation, policy, and infrastructure. Next slide, please.

So, I have highlighted our Federal Health IT Strategic Plan and the HHS SDOH action plan, but there are also these other examples of alignment of our work that is supported through data. Executive Order 13985 indicates that it is the policy of the administration that the federal government should pursue a comprehensive approach to advancing equity for all, and this is including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. It also states that by advancing equity across the federal government, we can create opportunities for improvement of communities that have been historically underserved, which benefits everyone, again, thinking of that whole-of-government approach.

Under the national strategy on gender and equality, there is a focus on promoting, improving, and expanding access to healthcare. Under the White House Blueprint for Addressing the Maternal Health Crisis, Goal 3 specifically focuses on advancing data collection, standardization, transparency, research, and analysis. When we look at our efforts under HHS, I have already highlighted the federal health IT strategic plan, but in the Healthy People 2030 framework, one of the five overarching goals is specifically related to SDOH, and throughout the framework, there are many objectives related to SDOH that highlight the importance of the different factors, which are usually unrelated to healthcare delivery, that focus on improving health and reducing health disparities.

And then, there are our other federal partners, such as CMS, which has their Framework for Health Equity 2022 through 2023, which, under Priority 1, expands the collection, reporting, and analysis of standardized data as their priority, and as a resource, they also have their managed care special needs plans. With that plan, there is a requirement to use instruments for screening specifically for housing stability, food security, and access to transportation. So, you can see across the administration and HHS, we are pursuing a

comprehensive approach to advancing equity, and central to addressing health inequities and social determinants of health is data, including data collection, documentation, reporting, and access, and ONC coordinates nationwide efforts in health information technology and the electronic exchange of information. Next slide, please. Thank you.

Advancing the use and interoperability of SDOH data is a priority of ONC, and is consistent with our mission to create systemic improvements in health and care through the access, exchange, and use of data. The ONC approach to support SDOH data involves, as you can see here, a focus on standards in data implementation, policy, and infrastructure. Specifically, just going through each item, you can see support for advancing SDOH data and exchange standards development. If you all remember USCDI Version 2, that is where we started including SDOH elements and have continued to include those elements, even in our newest version of USCDI, Version 4.

From a policy perspective, I have already highlighted that 2020-2025 Federal Health IT Strategic Plan, but we are also working in the policy space to ensure that adopted SDOH standards are available for HHS for use and regulation. From an infrastructure perspective, which is what I will be talking to you about today a bit, we have worked with our federal partners, our states, and the health IT community across various different SDOH interoperabilities, and we do that by developing resources and providing technical assistance with our partners, and so, again, I will talk a bit more about that later.

And then, in our implementation space, this also includes our SDOH toolkit, as well as our SDOH information exchange forum activities. Aside from the activities that I will to you about today, implementation also includes innovation, so we have such activities as our Leading Edge acceleration program, projects that you have heard a bit about, and additional activities that ONC has supported in the past and now that reflect our focus on innovation and implementation. Today, I will highlight ONC activities focused specifically on improving infrastructure and implementation. Go to the next slide.

Before I go into the things which I know you all are waiting on, I do want to give some background on our ONC SDOH information exchange activities. Go to the next slide, please. In 2023, this year, we released the SDOH information exchange toolkit. The toolkit is a practical, on-the-ground resource designed to aid the health IT community in the implementation of initiatives that recognize the importance of using SDOH information. In 2021, ONC organized a panel of experts within the health and human services ecosystem to identify considerations for interoperability and implementation of SDOH information exchange in communities. So, this toolkit was developed, again, by ONC with support from EMI advisors, and the panel of experts was used to inform our SDOH information exchange toolkit, as well as our SDOH exchange learning forum sessions. Next slide, please.

So, ONC designed the SDOH toolkit, again, as a practical guide. This guide can be used for conveners, for facilitators and implementers, as well as others in the health IT community, so you can see this intended audience listed here. The idea is to consider SDOH information where it is appropriate in their collaborative assessment, design, implementation, and governance of health IT systems. The toolkit serves as a resource for initiatives that support the collection and use of SDOH information and communities across the US, and includes considerations related to community engagement, health IT standards, infrastructure, interoperability, and governance. Next slide, please.

So, what you see here on the screen is the ONC SDOH information exchange toolkit foundation elements framework. The toolkit is structured around these foundational elements of SDOH information exchange, and includes throughout case studies and questions for consideration. These questions can aid implementers as they build or update data initiatives involving SDOH. These foundational elements that you see here actually inform each other. Governance, which is what you will see at the bottom with the arrows going all around it, actually intersects across each of these foundational elements. The idea was to design this resource as a useful starting point for use across sectors, across contexts, and across communities to support efforts to inform health equity and more informed care. There are different types of stakeholders that will use this, and they can prioritize and sequence their focus of the foundational elements as appropriate, and we want people to understand that this framework is not a one-size-fits-all approach. It is, again, just a conceptual framework to guide the planning, design, implementation, and evaluation processes of SDOH information exchange initiatives. Next slide, please.

Now, I am going to take a little time to go through each one of the foundational elements, just so you have a little understanding of what is included or is intended for each foundational element. So, for the first foundational element mission and purpose, the stated purpose of an SDOH information exchange initiative can address the various value propositions held by interested parties, as well as the vision, the scope of services, and expected benefits for collecting, sharing, and using data. The next foundational element is community readiness and stewardship. Community readiness is a reflection of the existing landscape of these, the assets, initiatives, and challenges in the geographic area and our population of focus.

Then, for community stewardship, this entails the development of stakeholders, their shared rights and responsibilities, and the process of codesign, evaluation, and decision making. Next, for the evaluations and principles foundational element, these help to establish a framework for ethical decision making and pursuit of health equity. For financing, this foundational element encompasses the startup investments and ongoing costs, and the next foundational element is implementation services. So, for implementation services, this can include technical implementation services, looking at defining requirements, standards, specifications, and integration with existing structure and services. Additionally, it includes programmatic implementation services, thinking of defining use cases, looking at the workflow, design, and redesign. This also includes adoption and utilization by individuals and community members. Next slide, please. There is just one more slide for our foundational elements.

Moving on, we have our technical infrastructure, and technical infrastructure focuses on an actual IT system. This includes the alignment of hardware, software, data, processes, and standards to enable scalable and interoperable data and IT systems. Under the legal foundational element, these are aspects and activities to establish the framework. So, this could be business operations such as procurement, contractual agreements, looking at liability, and any technical requirements. It may also include rights and obligations related to data sharing, so, data use agreements, looking at consent models, some of those privacy and security practices, and these are established in contract or under local, state, federal, or tribal law. This activity specifically includes documenting some of those internal policies to comply with legal requirements or third-party agreements and other rules that are established throughout the governance process.

Specifically for the policy foundational element, this includes the use of federal, state, and local policy levers that help to advance the ability to collect, share, and use standardized SDOH data, as well as collaboration

and alignment with other relevant efforts in the community, the region, and/or the state for collective impact and outcomes. Then, we have user support and learning network, and these may include activities such as education, communication, training peer-to-peer learning, identification of some of the best practices or some of those lessons learned, and identification of community challenges as well, and some of the needs to be able to support some of those community members and individuals. Lastly, we always like to close with that governance, which is, again, that foundational element that intersects with all the other foundational elements. When we talk about governance here, for this framework, it may consist of institutional governance, administrational governance, as well as data governance. Next slide, please.

As I mentioned before, the toolkit informed the learning forum webinar series, and so, you will see here that the topics for the webinars actually align with those foundational elements. For our learning forum series, we were able to conduct nine sessions, and after each one of those nine sessions, we actually conducted smaller groups to do some follow-up discussions with partners. Through these sessions, some of the things I liked to highlight were that we engaged an average of 300 to 500 participants per webinar, and these participants represented a wide diversity in participants and partners, as well as levels of experience.

Two thousand, four hundred and sixteen unique individuals attended at least one of these webinars. These webinars were an opportunity to showcase active engagement, collaboration, and community building among participants, and it also highlighted promising approaches and insights from the field. One other thing to highlight is that it served as a national learning community for disseminating the SDOH information exchange toolkit with engagement of the foundational elements framework. For those of you who may have missed any of those webinars and are interested in any of these specific webinar topics or foundational elements, you can visit the SDOH information exchange learning forum webpage to access the webinar, the slides, and the recordings, and I do believe that someone is putting the links in the chat so that you all have access to this, but we also have the links available on this slide, so I will share it out as well. Next slide, please.

Now, for our ONC SDOH information exchange, we have some selected learning forum takeaways. If you go to the next slide, as we go into these themes that we heard and some of the takeaways, these are all things that we heard from the community that were shared from the community, so I will highlight what I believe are just these four, the community stewardship and codesign governance, the idea of standards-based vendor-agnostic approaches, FHIR awareness and readiness, as well as the limited awareness and understanding of policies for data sharing.

So, for community stewardship, I want to highlight what, again, we heard from the community and the participants in the learning forum, this focus on SDOH information exchange initiatives, noting that it requires time and investment to build trust and align with partners. There is a specific highlighting of community-based organizations and considering their mission, their purpose, and the decision-making processes for these initiatives. One of the things for CBOs that was discussed and shared was that CBOs have limited financial, human, and technical capacity, again, not just financial, but considering that human and technical capacity, and they may need additional financial and technical support to address the different areas that come with developing such an initiative to effectively engage.

And then, for codesign governance, again, back to community stewardship and thinking about the human aspect of it, there is a critical need to engage a diverse set of representative partners, and again, to highlight

our community-based organizations in their role, but also looking at the needs of individuals with lived experiences. As we think about some of these initiatives, what they also shared is that some entities may face challenges putting these principles into action, particularly when they are looking at expanding to both health and SDOH partners and then navigating the potential power imbalances.

The next thing I would like to highlight is the vendor-agnostic approaches. One thing to highlight here is that across states, regions, and communities, initiatives have been implemented using standards-based unifying platforms to enable interoperability. The idea is to make the data more accessible, shareable, and reusable. Additionally, in other locations, initiatives are leveraging state and federal investments in HIE infrastructure to facilitate this approach, but again, there is still need for the understanding and sharing of standards-based and vendor-agnostic approaches to support interoperability.

Under FHIR awareness and readiness, we all know that the use of HL7 FHIR holds promise to support easier and more interoperable SDOH information exchange, but with the healthcare and social care ecosystems, it varies. They vary in their FHIR readiness and need increased education, as well as awareness of the value for social care data integration. Again, just for the last item, limited awareness and understanding of policies for data sharing with non-HIPAA-covered entities, the idea is that this may inhibit efforts to scale data exchange efforts across the country. Next slide, please.

Some of the other things that was shared with us through the forums and through the engagement, aside from these things, were also some areas of opportunity. Again, these were identified by the community that participated in these SDOH information exchange forums. Some of these areas of opportunity go across the states, again, the community-based organizations, looking at data service providers as well as implementers, health systems, and payers, as well as our federal partners. The thing to highlight for our states is indicating that many of them have SDOH information exchange activities, and they are considering them and looking at advancing them. They are looking at many levels or areas that are based off our foundational elements, and some of these examples include the governance, again, the vendor-agnostic approaches, and looking at opportunities to leverage federal funding.

For our community-based organizations, some of the opportunities identified, again, are building capacity from a technical, financial, and human perspective to be able to support them making technology decisions. Our data service providers are looking forward to expanding their current capabilities and services to support SDOH information exchange needs, and then, with our implementers, there is the opportunity just for the technical support and funding for standards alignment. And so, you all know that we have been doing work with the Gravity Project, and there have been a lot of partners who have been engaged in that space, as well as who work with other standards development organizations.

For our health systems and payers, there is the opportunity for additional information and incentives for engaging their partners, specifically community-based organizations and the role of bidirectional information exchange, and they want to be able to do this without increasing burden. With federal partners, again, there is that ongoing coordination that you heard about earlier, being able to continue to further disseminate and implement the SDOH toolkit is what we are working on, and there are opportunities to provide technical support. Again, these are things that we have heard from our community as areas of opportunity. Next slide, please.

So, I have provided an overview of our SDOH information exchange activities, and I talked about how they align with some of the activities within our agency under the administration. I have given you the overview of the toolkit, gone through some of the specifics of the foundational elements, and shared some of those key takeaways that we heard from the community in the learning forum. As a part of our discussion and going into the question-and-answer, some of the things that ONC is looking forward to are continuing to support interoperable SDOH standards advancement, and this is through our HHS health IT alignment, so we are looking to really push for the adoption of the HHS standards through our federal programs.

And then, we will advance our use of core data or USCDI. We are looking at opportunities to continue advancing SDOH in those spaces and opportunities to engage our federal as well as state partners to actually require that use of the USCDI. We are still continuing our efforts to accelerate the development and use of SDOH standards and technologies to support the care landscape. So, continuing on with disseminating the toolkit, one of the things that we heard you say earlier is having more listening sessions so we can figure out some of the gaps, so that is something that we will look into.

Additional efforts worth highlighting are really our engagement also with our federal partners. We have been working with ACL, which has recently launched its community care hub, and the National Learning Community, as well as CMS. Again, I think I highlighted in the presentation the Medicare managed care manual for special needs and looking at the select questions from other validated and health IT-encoded SDOH screening instruments, their work and coordination that we have done around the state health officials' letter from 2021, which states that states must ensure alignment of their mechanized claims processing and information retrieval system with an incorporation of industry standards adopted by ONC.

It also further states, where advised, to review our interoperability standards advisory standards, which, again, might not be in ONC regulation, so, between our USCDI and our ISA, what we are just trying to communicate is that there are standards available. The other thing to highlight is that although these standards may not be required for certification, they are available for use. So, with that, I will close. Again, these are just some closing thoughts that highlight some of the work that we are doing at ONC and that we expect to continue to do, and before I pass it over, I think two of the questions that we have for you all are what do you think that our next step should be and, more specifically, as you mentioned pilots earlier, what are some of the details of what you would expect some of those pilots to look like?

Medell Briggs-Malonson
JaWanna, thank you so much for that excellent presentation, as well as all of the work that both ONC and our EMI advisors have been doing. This is so incredibly critical to our next steps to advance to true health equity and justice throughout our country. And so, I want to open it up to all of HITAC to ask questions. Everyone knows that this is my bread and butter, so I do just want to bring up two points. No. 1, thank you also for that toolkit. When that toolkit was released in February, I made sure to share it with all of my teams here, but I do want to bring up some of the various different pieces from those of us on the ground that are actually implementing this work. Two days ago, my organization implemented a social driver screening for all of our inpatients as well as our ambulatory patients. It was a massive undertaking, and it requires a large amount of both personnel and their processes as well as tech processes.

One of the things that I would encourage us to continue to move forward through ONC in collaboration with the rest of the various different federal agencies is when we look at the social drivers that we should be

collecting, the overall breadth of social drivers is incredibly large, so there are certain requirements coming down from CMS, there are certain requirements that are coming down from additional accrediting bodies like the Joint Commission, there are requirements from states, there are requirements from health plans, and then there may even be local requirements based off the populations that you are serving, so we really have to make sure that we are getting a strong set of standards because even with all those requirements from these various different agencies and bodies, what is really also happening is that there are different ways to ask questions pertaining to social drivers, so we really do need very strong standards to be adopted throughout because we are in this health equity revolution, very similarly to when we were in the quality-of-care revolution, where there are different metrics and everyone is throwing out different forms of how we measure quality, but we are in the same space right now when it comes to health equity, and especially social drivers of health.

And so, this is something HITAC and myself are very committed to, but really, we are continuing to work with ONC so we get a very solid set of standards, hopefully in even more of the USCDI upcoming publications, and ensuring that we are providing additional guidance on how to collect the data, how to utilize the data, and then, of course, getting to the interoperability in using those fields. But, great work. I just wanted to bring up those two items. Eliel, I see your hand is up.

Eliel Oliveira
Thanks, Medell, and thanks, JaWanna. Great seeing you. I really wanted to highlight how wonderful it is to see ONC putting SDOH front and center with this presentation, the learning forum, the toolkit, and the annual report topics that you just saw as well. This is terrific. You know well how much this subject is dear to my heart. With all that you shared, the thing that strikes me the most as a key important topic that I wanted to share here in some of your thoughts is when you mentioned the limitations that we have in terms of our awareness and understanding of policies of data sharing from non-HIPAA-covered entities.

I feel that on the ground, as we are working here in central Texas with our health information exchange and some of the pilots we are attempting to implement, we are oftentimes faced with the challenges of what we do when we are trying to share data between our healthcare providers and our housing authorities, or from our incarceration system, our health systems, and eventually, our education systems and closing that legal understanding of what can and cannot be done. So, with that said, I wanted to ask if there are any intentions of advancing on that front because, again, every time we are trying to do something, we are faced with our providers having challenges and understanding what can and cannot be done, and there is so much to be addressed. I will leave it at that. I have another question, but I would like to hear your thoughts first. Thank you.

JaWanna Henry
Thank you for the question, Eliel. Again, because it was one of the main themes, we are definitely considering how we can support these efforts in sharing information that may be available, but also working with our other federal partners in how we can better communicate information that is currently available around privacy in this area. I guess that is not a complete answer, but it is something we are aware of and thinking about, policies for data sharing.

Medell Briggs-Malonson
Great. Thank you, Eliel, and thank you, JaWanna, for that answer. Sarah, your hand is up.

Sarah DeSilvey
Hello, everybody. This is Sarah DeSilvey here with a quick nod to JaWanna, the ONC team, and their SDOH leadership, briefly putting on my Gravity Project director of terminology hat, responding to your question, Medell, and just saying there are a lot of new resources in the Gravity confluence to assist users and implementers with documenting an alignment with Gravity and USCDI standards. I just dropped three of them into the chat. There are resources to see whether your instrument has been encoded. Gravity's now has 134 social risk instruments for alignment with face validity, and then, also resources for value sets and brand-new resources to support documentation and diagnosis aligned with the incoming IQR measure. So, first of all, thanks to ONC from my Gravity Project hat, and I also just wanted to make sure these implementer resources are on record because they are new. We have made them to support all of you all.

Medell Briggs-Malonson
Sarah, thank you so much for that. I really do appreciate you dropping all those links in there, and I thank you for all the work the Gravity Project has done to advance making sure we are getting those standards and that interoperability for SDOH, so I appreciate that. Any other questions or comments? Well, I am not seeing any others, but if there are questions or comments, of course, I know JaWanna and the amazing SDOH team are available for any additional comments or thoughts from HITAC. Again, JaWanna, the entire team, and EMI advisors, thank you for all the work you continue to do. We are incredibly grateful, and this will continue to help to improve both the overall health and social wellbeing of all people here in the US, so we appreciate you for that.

JaWanna Henry
Thank you.

Medell Briggs-Malonson
Wonderful. The next discussion we are going to have is also just as exciting. We are going to now move on to our next area of focus, CancerX and USCDI Plus Cancer, and I am going to turn it on over to Stephen and Kyle to walk us through the next set. Stephen and Kyle?

CancerX and USCDI+ Cancer (01:48:20)

Stephen Konya
Thank you so much. This is Stephen Konya, senior advisor and innovation portfolio leader at ONC, and I get to work closely with a lot of different key members at ONC and a number of different innovation-related initiatives. Today, I am going to talk a little bit about CancerX, the fifth public-private partnership that HHS has launched underneath the InnovationX model that we came up with a number of years ago. This one, of course, takes advantage of the Cancer Moonshot being reignited by President Biden in 2022. It looks like there is a little bit of an audio issue, so let me try to get a little bit closer or turn up my microphone to see if that helps. One second. Can you hear me okay now?

Medell Briggs-Malonson
Stephen, maybe a little bit more, just a tiny bit.

Stephen Konya

It looks like there might be an issue with the microphone. I apologize. It is not giving me the option to adjust the microphone volume any more. Give me two seconds. I am going to go ahead and call in on my phone, okay?

Medell Briggs-Malonson
Okay, thank you, Stephen, or you can speak loudly toward your microphone. You did improve.

Stephen Konya
I am pretty close to it.

Medell Briggs-Malonson
We can hear you, though, Stephen.

Stephen Konya
Here we go, okay. Input volume. Can you hear me better now?

Medell Briggs-Malonson
Oh, you are excellent now, excellent. Thank you.

Stephen Konya
I finally found the setting on the laptop. My apologies, everyone. Now that we have this tech issue resolved, I am going to talk to you about CancerX, a new public-private partnership launched earlier this year by the White House and the Office of Science Technology Policy from the Cancer Moonshot team. We are going to go ahead and cover what the public-private partnership is all about, how it is organized, who we are working with, and then lead that into how this aligns with some of our work on USCDI Plus for Cancer, which my colleague Kyle Cobb will cover. Next slide, please.

First off, as I mentioned, this is a public-private partnership. It is the fifth underneath the InnovationX model that OASH, the Office of the Assistant Secretary for Health, and ONC had come up with a number of years ago. First, we had KidneyX, then LymeX, and PandemicX. KidsX was one that we had worked on, but were not able to formalize as an official public-private partnership, but it did launch without the government's formal involvement. Now, we have CancerX as the latest public-private partnership. I wanted to highlight that, while on the government side, OASH and ONC serve as the leads for coordinating this across federal government, making it easy for all other federal agencies, including NCI, FDA, the White House, the VA, and many other agencies to participate in this, we do have external partners who are cohosting this with Moffitt Cancer Center and the Digital Medicine, or DiMe, Society. Next slide.

Again, this was launched as part of the reignited Cancer Moonshot, with two new goals that were established when this moonshot was launched. No. 1 is to reduce the number of deaths from cancer in the United States by 50% over the next 25 years, and No. 2 is to improve the experience of people and their families living with and surviving cancer. Next slide. There are a number of statistics on this page that are horrible and certainly help justify why we need to focus on cancer as a disease state or why we need to have greater innovation, one of them being that it is still the second leading cause of death in the US, but an interesting statistic I wanted to highlight that is specific to the work we have begun underneath CancerX is that cancer survivors are two and a half times more likely to declare bankruptcy after they have received

a diagnosis of cancer versus others who have not received that diagnosis, an interesting statistic that I am going to get into a bit more in a second here. Next slide.

So, again, this was announced by the White House in February, and I mentioned who the organizers are in here. We have been pretty aggressive since the launch of this. First, it was announced in February in a fact sheet through the White House. By March, we announced our first precompetitive evidence generation project, which I will detail more about what that means, focused on financial toxicity and health equity, what we can do through the use of digital tools to help families, patients themselves, and also caregivers who are working with those families and patients navigate the complexities around the costs associated with receiving a cancer diagnosis and going through cancer treatment and care.

Then, we announced the founding membership of over 90 organizations, which has now grown to 137, which I will highlight shortly. We formalized a steering committee all this summer as well, which I will highlight and share details on who that is, and then we had a strategic priorities definition activity and a full member summit and briefed the White House at a White House meeting also over the summer. Most recently, at the HLTH Conference, we announced the first demonstration project, which is focused on an oncology data sprint, and that directly ties in with our work on USCDI Plus for Cancer. And then, finally, we will be launching a startup accelerator as part of this collaborative next month. Next slide.

So, these are the current members of CancerX. There actually might be a few more that get added. It seems like they are adding a couple more every week. The interesting thing to note here is this is very unique in the sense of, No. 1, this public-private partnership is focused on the adoption and utilization of digital tools and technology tools, which does not necessarily have anything to do with drug development, but it is more focused on the technology side. No. 2, it is very unique in the sense of the diversity of stakeholders who are involved. So, if you look here, you will notice everything from patient-facing and community-facing organizations who are working on addressing some of the issues from the SDOH work that we just heard about, as well as large big-tech companies like Intel, Oracle, and many others. We also have biopharma companies at the table. We have standards-based organizations, we have payers, obviously, health systems, providers, and cancer centers, small tech companies, and investors, venture capitalists, and others, so it really is a diverse coalition of organizations all working together for the first time at such a large scale. Next slide.

The steering committee that was announced this summer has 12 representatives, with Edmondo Robinson from Moffitt Cancer Center serving as the chair for the first year. There is also great diversity in the types of organizations that are involved in this steering committee. These are the primary points of contact for all those organizations around the steering committee. You probably recognize some of the familiar names on here, but there are also secondary representatives who are identified from each of those organizations to participate in setting the direction for CancerX into the future. Next slide.

As I mentioned, over the summer, towards the end of it, we did have a White House briefing for the steering committee with federal agency leaders and the White House. In addition to that, at the Switzer Building, ONC hosted a full-member summit where we had 90-plus organizations from the CancerX community who showed up in DC with 10 days' notice to be part of this first-time in-person summit. In addition to that, we also had a discovery workshop around this new enhanced oncology model that CMMI is putting out and looking at what data elements it is going to require for organizations to report to participate in that, and we

talked about how we might be able to take advantage of that opportunity and focus on getting these data elements built into EHR systems and having them be made available to report to CMMI, and what else we can do to align that with our USCDI Plus work. Next slide.

The strategic priorities that came out of that summit are pretty similar: To have CancerX be a central point or neutral ground for all organizations in these diverse types of stakeholders to participate and collaborate on driving more digital innovation in oncology. No. 2 is to activate the ecosystem by fostering this dynamic community of collaborators sharing knowledge, leveraging existing resources that are available, and identifying what necessary resources we need to add to it, and No. 3 is to identify, support, grow, and implement these solutions, and I think implementation is a key thing I want to focus on because this is all about getting more digital solutions not only built and developed, but into practice and into the market in a faster timeframe. Next slide.

That is all the vision and the strategy of how we organized, but there are three active verticals in how we actually get the work done. No. 1 is the precompetitive evidence generation space. Think of this as being more of your academic or research-focused activity. There are a number of these that will get launched. Right now, the first one is on financial toxicity and health equity, which I will go into detail on, but this is where we are going to define what the true problems are that are shared across these different types of diverse organizations. They set the agenda and prioritize which ones they want to work on first, which ones have the greatest priority, where they need better digital tools in that space. No. 2 is to not only define what the problem is, but also make sure that we understand what we want the solutions to look like. So, what does “good” look like in the outcome of that if, in a perfect world, we are able to build the right solution? That process helps inform the rest of the work and is complementary, but also does not necessarily dictate the other work.

The second activity is the startup accelerator, which we will be launching next month, and this is similar to any other startup accelerator, and I will make sure to clarify that for this community, it is not an accelerator in the sense of a FHIR accelerator, which is standards-focused and implementation-type-focused, but rather, it is focused on helping entrepreneurs build their solutions, get them access to the right mentorship and resources, access to capital, and access to customer opportunities to be able to build their products in the right way to meet the market’s needs and then help them get connected to those opportunities for investment and commercialization to bring those ideas into the market faster. So, that will be launching soon, and the first cohort should be announced and start in the spring.

The third is the demonstration projects. Once we have a good idea what the problems are and we have companies building solutions to meet their needs, we will actually help them figure out a way to find the right organizations who will help them implement and put those solutions into practice and into the market. Again, this is where we find a number of organizations who want to be early adopters, who want to try to collaborate with the innovators and these new solutions to try to demonstrate that it is possible to implement and show the success of these solutions. Next slide.

On the precompetitive evidence generation projects, in the interests of time, I am not going to read through all of this, but as I mentioned, it is prioritized by this coalition and the membership themselves. Essentially, they have a long laundry list of pain points, and then, through that, they define which ones there is the greatest consensus around, and that becomes which project gets launched. Out of the 137 organizations,

or, at the time this project was launched, the 90 that were around, the ones who want to fund and support that work raised their hand, and was how the work got funded and project-managed. There is no federal funding currently going into supporting this work. It is all industry led at this point. Next slide.

This first project that I mentioned is focused on financial toxicity in cancer care research and health equity. The idea is that as families are going bankrupt and having challenges covering the cost of care, what types of digital tools and solutions can be made available to help them navigate that process and bring down the cost of care? This includes solutions that might be delivered and used by physicians and clinicians, hospital administrators, or even payers. Of course, it also includes ones that could be directly patient-facing and for their caregivers or their family. Next slide.

These are the 25 organizations who initially signed on to help lead and participate in this first project, and that has been going on. They meet regularly, every two weeks or so. They are currently in their second phase. If you go to the next slide, I think we have some details on that. So, you see here there are three workstreams. The first one is developing best practices and looking at what is already out there, the second one is around implementing those practices, and that is the workstream that is currently under way right now, and the third one will be to quantify the values of these and to evaluate their success. Most of the deliverables coming out as far as reports, toolkits, and things like that that are going to come from this community will be in July of 2024. Next slide.

Som interesting things to point out that have come out of the first workstream and into the second workstream is that they are looking at these digital health tools, or DHTs, and how they could impact finance toxicity, thinking through the relationship with EHR-related data and solutions that need to be integrated through EHRs. That is also the role that AI machine learning can play, in its impact on equity, equitable access, and potential for bias. As you know from earlier today in the HITAC presentations, we are continuing to look at how we can help support this. And then, there is patient-facing navigation: PRO data collection, coaching decision aid, psychosocial need measurements things like that. Lastly, there is telemedicine. Those are all the themes that came out of the community as far as this first project. Next slide.

The startup accelerator will be launching on 11/8, coming up here, and this is generally going to be focused again on sourcing the best and brightest startups that are out there in the market. They will both be sourcing for early-stage, less mature companies, as well as later-stage ones that are “ready for prime time” but need a bit of different assistance in getting into the market faster. Again, this is modeled off some of our previous HHS innovation accelerators, like KidneyX, LymeX, and PandemicX, but also taking best-in-breed practices from other industry-led accelerators that are in the market. Next slide.

We are currently in the process of finalizing the launch partners for that startup accelerator. There are multiple ways that organizations can get involved in that, and if anybody on this call has interest in that, by all means, let me know and I will connect you with the team who is leading the onboarding of launch partners, but the open application period for startups to apply is actually now at the beginning of November. It got pushed back a month, and then the commencement of the program itself where the final 20 or so startups get into the cohort will actually begin in February of 2024 now. Both of those got pushed back a little bit. After that is when it will lead into demonstration projects once they graduate from that accelerator program. Next slide.

As far as the demonstration projects go, it was originally planned to have, again, a similar approach where the community initiates which types of demonstration projects we want to launch, and we are targeting that for April to May of next year, but also understanding that sometimes the community needs to be responsive to things that might present themselves in the short term or near term, and they want to be able to answer the call of the community when they want to work on something, and that is where the first demonstration project actually ended up getting launched sooner than that, being focused on the Enhancing Oncology Model in USCDI Plus for Cancer. Next slide.

This was launched just last month, at the HLTH Conference. The overview here is that essentially, there is work going on by CMMI as they are coming out with the Enhancing Oncology Model, and we are developing the USCDI Plus for Cancer extension to USCDI. The idea is that there is some alignment there and some opportunity to look at what types of data elements EHR developers need to package up and be able to enable health systems to report in order to participate in that model, as well as what data is being captured by payers who are participating in that model.

CMMI has their set data elements. They are not changing that, necessarily, but the conversation was as EHR developers are building the ability to report this data, the idea is that they could build this at one time and factor in some additional data elements that might be value-added to future work by CMMI, or even our efforts to build out USCDI Plus for Cancer. So, the CancerX community responded and are working on doing a data sprint to look at evaluating which additional data elements would have clinical utility and obviously, they are looking at mCODE and having it align to that, as Kyle is highlighting in here, which is something she will get into more detail on. Let's be a little proactive here and figure out how we can do this at a more coordinated level between government and industry-led efforts like CancerX to make sure we are capturing at one time all the data that is going to have the greatest amount of value. Next slide. A report from the CancerX community will be made in mid-November, I believe.

This is a very simple three-step process they have as far as identifying those research questions that are going to be asked of standardized real-world data and evidence generated by participants in the EOM what additional data elements would have value, and then, ultimately, on the back end, though there is no time set for this yet, to figure out how this community can help support the piloting and implementation of those data elements across the board. Next slide.

So, if you have any other questions on CancerX or you would like to get involved, the website is CancerX.health. You can also email me, of course, and I can help you to connect to the right people. On the bottom right corner of the CancerX website is an interest form. If you are interested in becoming a member or contributing to it in any way, that puts you in a queue to basically get onboarded or answer some questions about the different ways to get involved. Again, I am always happy and available to answer any questions you might have.

Now, I think this is a nice segue to ending on the last part, talking about this data sprint into the presentation on USCDI Plus for Cancer, because there is overlap there. One is not dependent on the other, but there is certainly collaboration and coordination going on there, so I am going to hand it over to my colleague Kyle Cobb, who will take us through USCDI Plus for Cancer.

Kyle Cobb

Thanks, Stephen. It is a lot to catch up with, especially with all the CancerX activities. You kept us really busy in the USCDI Plus arena, but thank you for that. It is good to see everybody this morning, and hello. I think the last time I was here, we were talking about USCDI Plus Quality, and I gave you a preview of the data platform. Today, I am going to just provide you with some updates on the cancer domain, which is one of the newer domains, and the work that we are doing around it. Let's go to the next slide, please.

Similar to our other USCDI Plus domains, our goal is really to capture data needs for a variety of use cases, whether it is quality reporting, research, or patient care, but we really want to make sure that these data concepts and/or elements are represented within these domains. We are also using that as a way to harmonize data and standards across the ecosystem. There is a growing need for that, especially when we look at the cancer domain, with so many different standards and different ways of exchanging data. We have really come up with that. Finally, the next main point is that with the USCDI Plus Cancer domain, we did start work on this last spring, and got a base data element list, but since we have been partnered with NCI and the Moonshot initiative to really develop some additional use cases, that sets this domain up really well to be replicated for many other areas, and I am going to share that with you in the next few slides. Let's go to the next one.

As I mentioned, we do have a base data element list for USCDI Plus Cancer, but with the addition of Moonshot, including the CC Direct program, as well as the Data Innovation Task Force, as well as CancerX and the Enhancing Oncology Model that Stephen has just walked through, we are really looking at enlarging our domain with these use cases. We also have been talking with the mCODE team about how we can really align all of our work with them. The goal of USCDI Plus is not to create new things. We really want to codify what exists, and we want to make sure we are providing this framework for interoperability and for harmonization of standards. So, with that, here is what the basis for what we are thinking about, and it really is not the most beautiful slide, but it captures some of the scope of where we are right now. Next slide, please.

So, this is where we stand, and this does not include the use cases that are associated with Moonshot or CancerX, but it is our first cut at putting together a data element list. As an example, I think it is always interesting to look at some of the unique cancer data elements to see that they are really going in the direction we want to see, and all these data elements are aligned with mCODE. I think the other thing to really take away from this slide is that with USCDI Plus, a really important goal of our work is to make sure that these data elements are harmonized across the other domains. We also need to make sure that these data elements are harmonized and aligned with USCDI, as well as all of the different versions of USCDI and the different leveling of the USCDI proposed data elements, so it becomes quite an interesting project for us in the standards division to make sure that all of these data elements are cross-referenced, harmonized, and aligned. Next slide, please.

So, here is what we are looking at in terms of our work under Moonshot and our partnership with NCI for building out USCDI Plus Cancer. I think we are quickly walking into this concept of real-world data. This is really the goal for NCI's work, to unleash EHR data so that it can be used in research, it can be used for clinical trial matching, and it can be used in some other areas, looking at immune-related adverse events tracking. They would also like to see how we can pair our EHR data with cancer registry data, and using that to really optimize both research and care.

But I do want to point out that with the first use case of patient matching, this encapsulates two areas, patient consent and data provenance, which I think are key for all real-world data sets, and as we move forward with this work, I see this as a prime area to be replicated for other disease states, other domains, and quite frankly, other areas where we are looking at how to really harness EHR data. In our second phase, we have the CC Direct pediatric use case slotted, which will commence next spring, but we are currently actively working on Phase 1 and building out these use cases, and part of this work as well is to set up and engage a HITAC subcommittee to review our work, and so, stay tuned for that. That will be the at the beginning of next year, but we will really look forward to engaging a HITAC subcommittee on getting feedback with this work. Next slide, please.

This is a pretty weedy slide, but I thought it was a really good example of just how complicated the whole real-world data paradigm is, and thinking about clinical trial recruitment, how we do get the consent model right, how we do the matching, and how we look at where the registry may sit, and how that data then is combined and used. Let's go to the next slide, please.

So, here is a list of upcoming activities. As I mentioned, we are working closely with CancerX to get feedback on Enhancing Oncology Model data elements, as there will be some additional data elements that we get back, as well as really important information on feasibility of these data elements: Are they used for exchange, how do they work, and other things that we need to understand, as well as coordinate with our mCODE colleagues. We will also be continuing to work with mCODE on how we get these use cases working.

There are three accelerators currently working on relevant use cases to our work, so there is integrated trial matching for cancer patients, there is also cancer registry reporting that we are monitoring closely, as well as digital consent within the FAST accelerator, and finally, Vulcan is doing adverse events reporting as well as real-world data. It is a lot to get our arms wrapped around, but we are really looking forward to this work and getting somewhere with this. As I mentioned, NCI is partnered with us in doing this important work, but we are also engaged with FDA and CDC, specifically for the adverse events use case for FDA and for the registry reporting for CDC. All of our federal colleagues are really excited to be included in this work, and I really look forward to coming back and providing updates. And then, there is our page, too. There is a lot. Thanks, Stephen. I think that is it. That is my last slide. It is just a quick update, but I think we can pause if there are questions or any discussion.

Aaron Miri
Thank you very much, Stephen and Kyle. Excellent presentation. There are a lot of efforts going on there with such critical topics, and I love seeing the industry response to this, especially to CancerX. Phenomenal work across the board, so, hats off to you for a great presentation. Any questions from the HITAC? First up, I see Anna.

Anna McCollister
Hi. Thank you so much for this. It is an impressive amount of work. I know this stuff is not at all easy and remarkably complex. I have been involved in a number of cancer-related learning health initiative efforts that all feel like this, which is partly why I know it is so complex. My first year, we reported the Cancer Link prototype. I have also been involved with Share for Cures, the nonprofit which is attempting to do something like this, and it has now been taken over by Komen, who is now moving into the informatics space as well.

My question is really how are you working with and building upon many of the efforts that have already been done in this space, particularly as it relates to capturing the data, normalizing it, and exchanging it? I know Komen has really advanced some of the work around consent within the context of what they are doing with Share for Cures. There has just been so much effort over decades at this point in trying to build an informatic structure for cancer an promoting the incorporating of real-world evidence, recruitment for clinical trials, and identification for specifics, so there is just so much that has been done. How is this building on that and advancing it? Hopefully, you are doing that rather than just replicating efforts that have already been worked through.

Kyle Cobb
No, at least from a USCDI Plus standpoint, our goal is to absolutely not to invent new things. We need to codify existing things, and we also need to identify methods. Consent is a big one, as you mentioned. There have been multiple efforts. Our goal is to find an effort that, at least in USCDI Plus representation, gets as close to something there is consensus around and that people are in agreement on. We are not building a new consent model. The goal of USCDI Plus is to identify data elements that represent real standards that are being used, so there is more to come on that. We are just starting this journey of doing the research and pulling together all of these models to try to figure out how it all goes together, but I absolutely agree with you that there is no recreating or inventing new things when there has been so much existing work. I am working with Stephen, and I know that he may talk about the work that ONC has done around consent. We hosted a workshop last year. We will continue to monitor that, but I absolutely would love support from HITAC on ITS there. Over to you, Stephen.

Stephen Konya
I am glad you clarified on the data side that we are definitely leveraging work that is already in there and just looking at filling gaps or building on it. So, from the CancerX public-private partnership side of things, to be very clear, they are not looking to build anything infrastructure-related. They are more about building the technical tools that need to meet individual needs, again, focused on helping patients and their families navigate their cancer journey, being directly aligned with that Moonshot goal that was reestablished, and then other things that can fill some gaps in the marketplace currently. They are looking at identifying what those should be, how they can get them to market faster, and so on.

Now, in order to get them to market faster and as we are building these solutions, we know that we want them to be leveraging the latest standards and best practices for consent example, etc., so the nice thing about is it is one big, friendly space where we have all these different stakeholders together, and not only can we educate them all at once about these things that are going on, so, as a great tool and fertile ground for ONC to bring the work we are doing on USCDI Plus and everything else to help educate this broad community, but also, we can learn from it, and we have a lot of different members who have already done this in the life sciences/biopharma side, and those stakeholders are able to bring that to the fold, or the patient-facing and community-facing organizations, like Cancer Support Community, can say, “Here is what we worked on in bringing it to community-based settings, and those are providing care in communities and going out to the homes of these patients, and so on. Here is what we have been leveraging so far.”

And then, of course, having the providers and payers represent their interest, it is a nice place where they can all identify work that has already been done because in absolutely no way does DiMe, the Digital

Medicine Society, or Moffitt, who are helping co-lead this, or the steering committee as a whole want to recreate anything. It is all about accelerating based on where we are currently, finding gaps, finding how we move to the next phase, and iterating. They are definitely not looking to build infrastructure. They are expecting that others will do that, and whatever they can do to provide advice to others who are building infrastructure, they are certainly willing to help bounce it off the community and get feedback, similar to what they are doing on the data side. They are looking to survey the community, get feedback, and then share those insights back so we can do with it what we will, both on the government side as well as at mCODE, but by no means are they looking to develop their own standards or develop their own infrastructure in any way.

Anna McCollister
Thank you. I know DiMe and Jen, and they do incredible work. I am certainly not an expert in this, but I know people who would be helpful. I imagine you know a lot of the people that would be involved, but if there is anything I can do, let me know.

Stephen Konya
Anna, I appreciate that, and actually, I would say assume that we do not know that. It would be better to make the introduction to make sure we definitely do not miss them, and if anything, maybe we do know them, but we have not been able to get them on board yet, so there are a lot of different ways for individuals and organizations to get involved, support, and participate in the CancerX-related work, including yourself. I know with your expertise and your background in this space, having gone through the startup journey in that space, by all means, feel free to let us know if there is any interest in getting involved, and the team at DiMe can walk you through the different options for participating.

Aaron Miri
Wonderful. Thank you very much. I have a question I want to ask you guys. I do not want to get too into the weeds, but I have two questions. Obviously, there are some elements, especially with cancer specifically, that are tangential to actual direct care. I am speaking specifically about survivorship and data elements around survivorship and things like that. As Part 1 of the question, is part of the scope looking at that, or are we talking about direct care and treatment of oncology, oncology therapies, and whatever else? My second part of that is another tangential area is around social determinants of health, specifically patient-reported outcomes. There is a lot of work that has been done around PROs specific to oncology. Are those data elements also being considered from a social determinant perspective? So, that is a two-part question, but on the same topic.

Kyle Cobb
No, they are really good, and we are going through use cases right now. I would say PROs and survivorship are certainly not included in the use cases that we are looking at. I think they could be, and I think this is the type of thing that we really want to hear from HITAC, subcommittees, or other stakeholders, so it is excellent feedback, and I think this is how it works, certainly. But yes, I am adding it to the list, and I think that we will need to have PROs. It is a huge part of this.

Aaron Miri
Absolutely.

Stephen Konya
Aaron, on the CancerX side, in that first precompetitive evidence generation project on financial toxicity and health equity, SDOH data, PROs, survivorship, and all of that absolutely came up, and is a big focus of the work that they are doing. As part of this data sprint, we are not going to see the report from the CancerX community on their survey results and this sprint that we are doing until mid to late November, but when we do, I would be surprised if that is not included in there as being a priority area.

Kyle Cobb
That is true. Good point.

Stephen Konya
I expect you will probably see some of that. I have heard some organizations already start to share that info, but again, that exercise is being led by CancerX. They are going to go ahead and share the report with us, and we will be happy to bring that back and share with this committee so you can investigate. What that community is saying is important to them, and like I said, that will help us inform our processes as we move forward and plan out our phases on USCDI Plus. We will certainly take that into consideration.

Aaron Miri
Absolutely. Thank you for that.

Kyle Cobb
Thank you, Aaron.

Aaron Miri
All right. Any other questions from HITAC members? Great topics. This is truly pushing the needle forward, so it is very appreciated. Any other comments or questions from the committee?

Stephen Konya
I will just say thank you to Thompson Boyd for the comments as well. We noted those, and I will share them with the CancerX community as well.

Aaron Miri
Good deal, all right. Anybody else? All right, Stephen, Kyle, thank you very much again. Excellent presentation. We really appreciate the comments, questions, and feedback here, and we look forward to more dialogue in that report as soon as it comes out, so that is great stuff. Well, Medell, if you are in agreement, maybe we can go to public comment a little early.

Medell Briggs-Malonson
I do agree.

Aaron Miri
All right. Mike?

Public Comment (02:28:12)

Michael Berry

All right, thank you, Aaron and Medell. We are going to open up our meeting for verbal public comment. If you would like to make a comment, please use the hand raise function 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. I see Shannon Vogel has raised her hand, so, Shannon, you can come off mute, and you have three minutes.

Shannon Vogel
Thank you, Mike, and thank you to the HITAC committee. Excellent presentations today. My name is Shannon Vogel. I am Associate Vice President for Health IT at the Texas Medical Association. TMA's committee on HIT has had many discussions about data quality, and we realized that over the past years, there has been a lot of emphasis on connecting the various entities, and those efforts are wonderful and I applaud them, but we now need to really focus on data quality and presentation, summarizing the data received by physicians and other providers.

Many ambulatory practices do not have dedicated IT support, and they truly are at the mercy of their technology vendors to deliver actionable information. This can be achieved through well-designed, at-a-glance patient summaries that also have the capability to drill down for more detailed information, and I think the byproduct of this would support good patient care and health outcomes, but also health equity, public health, SDOH, and reduced physician burden, many of the things that this committee is very interested in. I would also add that the TMA HIT committee would be honored to be part of a HITAC listening session on this topic. Again, I appreciate the good work that you are doing, and I am glad to be a resource any time it is appropriate. Thank you.

Michael Berry
All right, thank you, Shannon. I am not seeing any comments so far, but I just want to remind everyone that our next HITAC meeting is scheduled for November 9th, and this will be held virtually and in person, so when you register for that meeting, you have the option of doing either. Many of our HITAC members and federal representatives will be on hand, so we encourage those who are nearby the Humphrey Building in Washington, DC to join us. I also wanted to note that all HITAC material for this meeting and every HITAC meeting can be found on HealthIT.gov. Thank you so much, and I will turn it back to Aaron and Medell to close us out.

Aaron Miri
Good deal. Medell?

Final Remarks and Adjourn (02:30:50)

Medell Briggs-Malonson
Thank you so much, Mike, and I just want to say thank you to all of our presenters today. Today was a wonderful day, full of very critical information, so thank you for your preparation and for the amazing information that you brought to us, and of course, as always, thank you to our fellow HITAC members. We could not do any of this work without you, so we appreciate your engagement, as well as your insights and all of your questions. We really look forward to seeing everybody in a few weeks in DC. I am looking forward to the HITAC getting together before the end of the year. Aaron?

Aaron Miri

I agree with you 100%, Medell, so, ditto to all of your comments. Thank you today for the wonderful, wonderful engagement from the group. Great job to our presenters and to all of you for being engaged and attentive, and for sharing your morning or afternoon with us, depending on where you are in the country. Thank you so much for that engagement. We will see you in November. Be there, or be square, and with that, have a great October, and we will see you in a few weeks. Have a good one!

Medell Briggs-Malonson
Take care, everyone.

Anna McCollister
Thank you.