The Office of the National Coordinator for
Health Information Technology

Transcript

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) MEETING

March 10, 2021, 10:30 a.m. – 12:30 p.m. ET

VIRTUAL

Speakers

Name	Organization	Role
Aaron Miri	**The University of Texas at Austin, Dell Medical School and UT Health Austin**	**Co-Chair**
Denise Webb	**Indiana Hemophilia and Thrombosis Center**	**Co-Chair**
Michael Adcock	Magnolia Health	Member
Cynthia Fisher	PatientRightsAdvocate.org	Member
Lisa Frey	St. Elizabeth Healthcare	Member
Valerie Grey	New York eHealth Collaborative	Member
Steven Hester	Norton Healthcare	Member
Jim Jirjis	HCA Healthcare	Member
John Kansky	Indiana Health Information Exchange	Member
Kensaku Kawamoto	University of Utah Health	Member
Steven Lane	Sutter Health	Member
Leslie Lenert	Medical University of South Carolina	Member
Arien Malec	Change Healthcare	Member
Clem McDonald	National Library of Medicine	Member
Brett Oliver	Baptist Health	Member
Terrence O'Malley	Individual	Member
James Pantelas	Individual	Member
Carolyn Petersen	Individual	Member
Raj Ratwani	MedStar Health	Member
Abby Sears	OCHIN	Member
Alexis Snyder	Individual	Member
Sasha TerMaat	Epic	Member
Andrew Truscott	Accenture	Member
Sheryl Turney	Anthem, Inc.	Member
Robert Wah	Individual	Member
Amy Abernethy	Food and Drug Administration	Federal Representative
James Ellzy	Defense Health Agency, Department of Defense	Federal Representative
Adi V. Gundlapalli	Centers for Disease Control and Prevention	Federal Representative

Jonathan Nebeker	Department of Veterans Health Affairs	Federal Representative
Michelle Schreiber	Centers for Medicare and Medicaid Services	Federal Representative
Ram Sriram	National Institute of Standards and Technology	Federal Representative
Micky Tripathi	Office of the National Coordinator for Health Information Technology	National Coordinator
Steve Posnack	Office of the National Coordinator for Health Information Technology	Deputy National Coordinator
Elise Sweeney Anthony	Office of the National Coordinator for Health Information Technology	Executive Director, Office of Policy
Avinash Shanbhag	Office of the National Coordinator for Health Information Technology	Acting Executive Director, Office of Technology
Michael Berry	Office of the National Coordinator for Health Information Technology	Designated Federal Officer
Michelle Murray	Office of the National Coordinator for Health Information Technology	Staff Lead
Leslie Kelly Hall	Engaging Patient Strategy	Presenter
David McCallie	Individual	Presenter
Talisha Searcy	Office of the National Coordinator for Health Information Technology	Presenter

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

Operator
All lines are now bridged.

Michael Berry
Thank you, and good morning, everyone. Thank you for joining the March HITAC meeting. I am Mike Berry with ONC, and I am very excited to kick off our meeting today. First, I would like to welcome ONC's executive leadership team to the meeting. With us today are our National Coordinator, Micky Tripathi, Steve Posnack, our Deputy National Coordinator, Elise Sweeney Anthony, the Executive Director of the Office of Policy, and Avinash Shanbhag, Acting Executive Director of the Office of Technology. I will now call the meeting to order and start with roll call. Aaron Miri?

Aaron Miri
Here, good morning.

Michael Berry
Denise Webb?

Denise Webb
Present, good morning.

Michael Berry
Amy Abernathy?

Amy Abernathy
Good morning, here.

Michael Berry
Michael Adcock?

Michael Adcock
Present.

Michael Berry
James Ellzy?

James Ellzy
Present.

Michael Berry
Cynthia Fisher?

Cynthia Fisher
Good morning, present.

Michael Berry
Lisa Frey?

Lisa Frey
I am here, good morning.

Michael Berry
Valerie Grey?

Valerie Grey
Good morning.

Michael Berry
Adi Gundlapalli?

Adi V. Gundlapalli
Good morning, yes, thank you.

Michael Berry
Steven Hester is not with us today. He has a conflict and will not be joining us. Jim Jirjis?

Jim Jirjis
Present.

Michael Berry
John Kansky? Ken Kawamoto? Steven Lane?

Steven Lane
Good morning.

Michael Berry
Les Lenert?

Leslie Lenert
Good morning.

Michael Berry
Arien Malec?

Arien Malec
Good morning.

Michael Berry
Clem McDonald?

Clem McDonald
Here, good morning.

Michael Berry
And, I believe John Scott is alternating for Jonathan Nebeker. John Scott? Brett Oliver?

Brett Oliver
Good morning.

Michael Berry
James Pantelas?

James Pantelas
Good morning.

Michael Berry
Carolyn Petersen?

Carolyn Petersen
Good morning.

Michael Berry
Raj Ratwani?

Raj Ratwani
Good morning.

Michael Berry
Michelle Schreiber? Abby Sears?

Abby Sears
Good morning.

Michael Berry
Alexis Snyder?

Alexis Snyder
Good morning.

Michael Berry
Ram Sriram?

Ram Sriram
Good morning.

Michael Berry
Sasha TerMaat?

Sasha TerMaat
Good morning.

Michael Berry
Andy Truscott?

Andrew Truscott
Good morning.

Michael Berry
Sheryl Turney?

Sheryl Turney
Good morning.

Michael Berry
Robert Wah?

Robert Wah
Present.

Michael Berry
Great. Thank you, everyone. Micky Tripathi has now joined us, so now, please join me in welcoming Micky for his opening remarks.

Welcome Remarks (00:02:55)

Micky Tripathi
Great. Good morning, everyone. Sorry for the technical difficulties. I really look forward to the meeting today. I just have a few brief remarks so we can get back on schedule. I just want to give a couple of updates on the work that we are doing here at ONC, and then I will turn it over to Aaron and Denise for the rest of the agenda. First, I just wanted to give an update on – as I described last time, we are – certainly, the highest priority for the ONC as well as all the federal agencies is the COVID response. I am really happy to report that we have had excellent ongoing relationships with other federal agencies in working on things across federal agencies related to interoperability and related to the COVID response, working very closely and collaboratively with the White House COVID response coordinator's team, as well as the single services, and of course, our HHS partner agencies, who we have a mutual relationship with and are working with in very close partnership.

One in particular is work that we are working closely with per an executive order with the CDC on public health data systems and looking at interoperability of public health data systems, both in the present as well as thinking about the future there, so I am really excited about that work, but we are getting slated, as

I said, in very close partnership with the CDC, and in particular, as it relates to the HITAC, one of the things that we are going to be working on and looking to the HITAC for is to be a key conduit of industry input into that process. We are still working on exactly how that would work – would it maybe be a HITAC hearing, an existing task force, or perhaps a need for a new task force that we will work with the HITAC leadership on? – but I just want to let you know that that work is getting under way, and we see the HITAC as being a really important vehicle for us to be able to get industry input along the way for that process.

Of course, we have non-COVID aspects of our work that continue, so we want to make sure that everyone knows that that continues and that does not slow down at all. A couple of things I would just point to are again, we continue to prepare for and are excited about the April 5th applicability date of the information-blocking rule. We have been working a lot on outreach, on education, working with industry partners to continue the outreach and the education to support that and to support all stakeholders in that. We have a number of FAQs in the pipeline that will hopefully be released next week as well to help better inform and answer questions that we have been getting, so that continues apace.

The other thing I would just point to is something that is normally a little bit small, but I think it is really important in the broader scheme of things, which is the applicability dates of the new standards and the standards version advancement process – the applicability date is March 12th for those new standards, and we had an announcement on January 12th, it is on the website of which those standards are, it is related to clinical quality measures, it is related to view/download/transmit to third-party apps, and then, there is one related to public health and healthcare surveys in particular with specifications in that area.

As many of you may know, the standards version advancement process is not required, but it is a sub-regulatory way of allowing health IT developers that have certified systems through the ONC certified program to be able to continue to update with new versions of standards that have already been approved by the Secretary of Health and Human Services.

The reason I mention this, again, is that it is sort of a small thing in a portfolio of many things, but this is one of the soft levers that ONC has and has been working with industry on to say how do we – we always have the hard levers of regulations that all of you are familiar with, but with feedback from industry, we have always wanted to have a set of soft levers as well that can give a road map to industry, can allow people to move forward and for us to continue to move forward as an industry, without everyone waiting until the next regulation or when the applicability date of a regulation comes into play. So, over the next few years, we want to spend a lot of time thinking about those soft levers and about how we can work with industry to help encourage industry to keep moving forward so that all of us can achieve what we want to achieve, which is better and broader health IT interoperability.

The last thing before I turn it over to Aaron and Denise is on a personal note. I wanted to thank Terry O'Malley, who I know has spent over three years on the HITAC, and I think this is going to be his last meeting, and I just want to thank him for all his great work. I have known Terry from Massachusetts and the fantastic work, Terry, that you did with the LTPAC community. I know you did a lot of things, Terry, but where you and I intersected was the work that you were doing with the LTPAC community in central Massachusetts as well as working on measuring interoperability, and I always learned a lot from you, and I know HITAC learned a lot from you as well in all your contributions here with the USCDI task force and the Interoperability Standards Priority task force. You are very much appreciated, and we wish you good

luck, and thank you again for your time here, and I hope that we can still call on you from time to time to get your wisdom and advice on occasion, but I just wanted to thank you again.

I know that while Terry is irreplaceable, the GAO does plan to have a replacement, but our understanding right now is that is probably not until January 2022. Anyway, thank you very much, Terry. Let me turn it over to Aaron and Denise now.

Remarks, Review of Agenda and Approval of February 10, 2021 Meeting Minutes (00:09:18)

Aaron Miri
Fantastic. Thank you, Micky. I appreciate the comments, and welcome, everybody, to the March HITAC. A lot has happened since the February HITAC. I do want to open up quickly, though, and say on behalf of the state of Texas, thank you to the entire ONC team and the administration for the rapid response helping us get through the weather event that we had here a few weeks ago, and of course, I can tell you that from a personal perspective, the fact that we are a vaccine hub here in central Texas – the amount of vaccine and coordination has been remarkable, and just yesterday, UT saw over 2,500 individuals in a single day to vaccine, and accelerating fast, higher and higher as more vaccine is available, so thank you for that. Micky, I think it echoes some of the comments you made about the constant coordination across the federal government and how we are seeing that translated on the front lines.

I also want to welcome all of you that are listening in today. I think we are going to be going through some great topics, and our task forces have some fantastic updates for you on what work they have been doing. Needless to say, we do all of this on top of vaccine delivery in our normal care every day as provider organizations or vendors and whatnot, so we appreciate the community listening as we also look forward and lean forward into exactly what Micky mentioned with interoperability and so forth and so on. Denise, anything you want to add?

Denise Webb
No, just to say good morning, and we have a short agenda today, and again, apologies for getting started late. We had some technical issues. Aaron, I think you can go ahead and go over the agenda, and then I will call for approval of the minutes.

Aaron Miri
Absolutely. So, let us go through the agenda today. So, first, we are going to be looking through the USCDI task force update on getting some good stuff there. Then, we are going to be speaking with the Interoperability Standards Priorities task force and getting an update there. After that, we will do a quick data brief from the ONC around the use of certified health IT and methods to enable interoperability by non-federal acute care hospitals, and then, of course, public comments, and then our final remarks, and then we will adjourn for the day. So, as Denise said, it is a little bit of a shorter meeting today, but it is going to be action-packed, as you already saw from this morning's little kerfuffle with audio issues, but we will get this thing back on track and to goal. All right, so, Denise, let me turn it over to you to do the approval of the minutes.

Denise Webb

All right. So, hopefully, everybody took a look at the February 10th minutes, and if I could get a motion for approval of those minutes.

Michael Adcock
I will make a motion. This is Michael Adcock.

Denise Webb
All right, and a second?

Andrew Truscott
I second – Truscott.

Denise Webb
Okay, thank you. All those in favor, say aye.

Several Speakers
Aye.

Denise Webb
All right. Any noes? Any abstentions? Meeting minutes are approved. All right, so, we are going to start off with our USCDI task force update, and we will turn it over to Steven and Leslie.

Michael Berry
Denise, excuse me. This is Mike. Sorry to interrupt. I just wanted to let people know that Terry corrected the record with us this morning right before the call to let us know that he is just stepping down from the USCDI task force co-chair responsibilities. He is actually not stepping down from the HITAC after all, so that was a miscommunication, and we just wanted to let everybody know that Terry is staying with us on the HITAC, and we welcome his continued improvements on the HITAC and all of his great suggestions along the way. Terry, I just wanted to open up and let you say a few words if you would like to.

Terrence O'Malley
Thanks, I should leave more often. Thank you, Micky, for your kind remarks.

Micky Tripathi
Great news! I was able to convince you to stay.

Terrence O'Malley
My preference would be to have stayed on the USCDI task force, but I have some caregiving responsibilities at home that made that impossible, I am afraid, but I will stick out my term until the end of the year, and thank you again, and I am just so pleased that Steven and Leslie Kelly Hall are carrying on USCDI. I cannot imagine two better people to do it, so, thank you.

Michael Berry
Thank you, Terry. All right, Denise, Aaron, I will turn it back to you. Thank you.

Aaron Miri
No problem.

Denise Webb
Okay, Steven and Leslie, you are up.

United States Core Data for Interoperability (USCDI) Task Force Update (00:14:17)

Steven Lane
Thank you so much. Can you hear me okay?

Aaron Miri
Yes, sir.

Steven Lane
Wonderful. Well, thank you, Terry, for all of your fine work on the USCDI task force, both of the earlier iterations. We are now into the third iteration of this task force and focusing this year on the Version 2 and helping to get that out the door, and then helping the ONC team to prepare for the Version 3 process, and we will talk more about that.

But, before we get into the content, I do want to introduce you all to Leslie Kelly Hall, who has been an active member in the health IT and interoperability community for a number of years. Leslie represents the patient and caregiver perspective primarily, but really has a deep understanding of the underlying technology and infrastructure that we all use for interoperability as she tells me this is actually her first visit to the HITAC, so for those of you who do not know her, you are going to get to do that through this process, and you will likely love her as much as I do. Leslie, do you want to introduce yourself briefly?

Leslie Kelly Hall
Sure. Thanks, Steven, and it is great to see so many familiar faces and to be part of this great work that you guys continue to do. So, I will not take up any more time with my background except that I am a former CIO and chief marketing officer and converted to patient advocacy for health information technology as I saw how much access to medical records changed patients' lives, so I continue to do that work and am honored to be here. Thank you.

Steven Lane
Thank you, Leslie. So, we are going to jump in on the next slide. We are going to talk about our committee, our task force, who is on it, what we are trying to get done, what we have gotten done so far, and what we are going to do next – so, a pretty basic agenda. This is my third trip around the sun on this task force. I worked closely with Christina Caraballo and Terry O'Malley on the first two iterations, and am really honored to be able to help co-chair at this time.

On the next slide, we have our roster of participants. Many of these names will be familiar to you; many of these names are you. So, we have great participation both from HITAC members as well as from members of the public who have been involved in prior task force work. We have a great representation from providers, from payers, from health IT developers, a couple of very strong folks representing the patient and caregiver perspective, as well as standards development organizations, so I think we really have a

great group, and I thank all of you, including our HITAC co-chairs for participating in this important task force.

On the next slide, you can see we have had quite a number of meetings over the past month or so. We just dug right into this project, and will continue to meet weekly for the foreseeable future because there really is a lot of work to be done here. On the next slide, you will see a representation of the draft USCDI Version 2. This is really the primary focus of the work that our task force has undertaken. You will see we have designated with stars the new data classes and elements that have been added since Version 1, which I think we are all quite familiar with. You can see it was a very modest proposed advancement of the USCDI with some additional data elements under "care team," some additional data elements for "diagnostic imaging," "encounter type," and "problems."

There are also two new data classes that have been introduced, the "diagnostic imaging" class as well as the "encounter information" class. So, we will touch on those a little bit more, but really, when you think about it, when this draft came out earlier this year, it was received by the industry as a modest change, and there are people who thought that was terrific in the context of COVID and very appropriate for this point in history, and there are people who felt that it may not have gone far enough. I have not heard anybody say that it went too far, so I think we are mostly either embracing or concerned the modesty of the proposal.

On the next slide, you will see a timeline which really represents the cyclical annual process that ONC has put together to advance the USCDI, and I will just take a moment to say one of the things the task force has spent a lot of time talking about is what the role of USCDI really is in the larger ecosystem that is health IT and especially interoperability because obviously, a number of federal regulations from both ONC and CMS point to the USCDI, but it is also being used by other actors in the industry, so I think that as we get into this annual cadence of review and update, I think one of the really key questions is what role this plays in our industry and what the parameters are. We have had a lot of discussion about that, and thankfully, the ONC team has been just marvelously engaged in these discussions. I think that our task force is informing their thinking, and I anticipate that we will all see greater clarification coming out, perhaps in the context of the publication of Version 2 later this year, but certainly going forward.

So, we are in this cycle in the early 2021 here in that red and blue box, where the draft Version 2 has been prepared and published and is now out for public comment, as well as analysis by the HITAC task force. So, that is what we are in the midst of now. That process goes for another month until mid-April, at which time the public comment period will close and our task force will come back here to the HITAC with our recommendations for you to consider to then forward onto ONC, but truly, while we are going to do a good job putting together a clean report and make it look lovely for all of you, I think the process of providing comment and input to ONC is really very much in process given the engagement that we have.

At the same time, the website is open for people to make submissions for Version 3, so all of the Version 2 submissions were stopped at the end of October. Quite a number of submissions were made – recommendations for new classes, new elements, or changes to existing classes and elements – and now, new submissions are coming in, and they are being queued up for consideration for Version 3.

As you can see, after April, in our discussion here, the ONC will be going over all of the comment that has come in, and they will be putting together the final Version 2 for publication midyear. Once that is published,

it will be considered for inclusion in that standards version advancement process that Micky mentioned earlier, which will make these new elements and classes and applicable standards available for developers to confidently go forward and implement in their systems.

And then, we get a little bit of a break until the fall, when they will close the submission period for V.3. During that time, our task force is going to be looking at the process, so right now, we are looking at the content, making comments and suggestions related to the draft V.2, and then we will be looking at the process and helping to inform that for the next cycle. So, that is kind of where we are, and then the cycle repeats itself, and I would anticipate that our task force repeats itself because we have that little red box coming up again next year, and presumably year by year until this model changes.

On the next slide, we have the charges that were given by ONC to our task force. This was presented here. Since you have seen this, we have just added some numeration to these so that we can refer to them more easily than saying "the second sub-bullet," so these are our charges as we see them today. We have also made some other modest adjustments, but the first focus our task force has had is to look at the draft USCDI Version 2, as I said, and provide recommendations, and this includes any recommendations related to Version 1 that people may have, including the applicable standards and the proposal to update those standards to the latest terminology standards that are available, so we will talk a bit about that.

The second sub-charge was to look at the new data classes and elements that were proposed in the draft Version 2 and see if ONC got those right or not and provide an input, and then, our third task is to really look at the element and classes that were leveled by ONC as Level 2 – that is to say, being ready to go – and to see whether or not more or fewer of those should be included in Version 2 when it was published. So, it sounds simple. There is a lot of detail under that.

And, as I said, once we complete that work and bring our recommendations back to you next month, we will be focusing on the expansion process, making recommendations related to the ONDEC submission system to the evaluation criteria and the process used to assign suggested items to different levels, and then, the prioritization process used by ONC to select new classes and elements to be put into the next draft. And then, also, we are going to go on from there and focus on suggested priorities related to the Version 3 submission cycle, and I assure you that our task force members have lots of great ideas about what should be added to USCDI and why, as well as the public comment that we all see coming in, which is contributing as well.

I will point out that public comment is received directly on the ONC website. People can post there with text and/or attachments. The early task force co-chairs – with some help from Andy Truscott – did a pretty broad outreach to a number of stakeholders that we knew across the community and have encouraged people to submit public comment, so a lot of that is coming in, and I think that the ONC is going to have plenty of ideas to chew on as they put together the final Version 2. So, I am going to pause there, Leslie, and invite you to chime in with anything you want to say about our process and scope so far.

Leslie Kelly Hall
Thanks, Steven. No, I think you have nailed it. This is the work to be done, and it is a lively group, and very interested and engaged, so we are constantly seeking ONC's help, which they are Johnny-on-the-spot to

give us, making sure that we stay within the rails, but I do imagine we will drift a bit at some times and seek your guidance, so, thank you very much.

Steven Lane

So, I am going to go ahead and walk you through the draft recommendations that we have so far, and these will focus on Charges 1A and B. We are digging into 1C and intend to have that work done and ready to present to you next month, but thus far, that has not been the focus. As Leslie said, we tend to drift into the 1C area pretty regularly because people are so enthusiastic about supporting interoperability, but our focus has really been on Version 1 and the draft Version 2 proposal as opposed to what might yet be added to that.

So, on the next slide, we have some highlights from our discussions with Task 1A, which was specifically to evaluate the Version 1 data elements and the applicable vocabulary and content standards. This should be clear that we are not talking about transport standards or document standards. This has really been about the vocabulary standards that support the individual data classes and elements. And, you will recall that when the USCDI was first envisioned, it was designed to include the data classes and elements for which there are standards, where interoperability is going on. The USCDI was itself a modest advancement from the prior common clinical data set, so it really builds on historical work.

So, the first thing was that there was a set of new standards proposed to support each of the – some of the data elements, and the ONC proposed updates to those. We went through those in some detail with a lot of expertise on the call, and really felt that the ONC had done a good job there. There was a comment that there might be some additional updates to some applicable standards – specifically, LOINC is expected to have a new version published in June – and we do want to make sure that when the new version of USCDI comes out each year, it contains all the latest applicable standards, so that was one point.

Another change that you may recall from the earlier slide – I did not pull it out – was that there were three of the clinical note types that were included in USCDI Version 1 that have been reclassified into different or newly available data classes, and we will talk more about that, and the group felt comfortable with that decision by ONC.

There were specific suggestions about the need for further clarification of the scope and definitions related to the data class for diagnostic imaging, as well as the definition of the class for assessment and plan of treatment. We will not go into that in detail today, but I think it really represents the kind of deep thinking that people have – assessment/plan of treatment, for example, had a number of different applicable data elements that could go into it, and I think the group really is representing the fact that the industry has struggled to adopt the USCDI, especially as it has been such a key part of the information-blocking regulation, which Micky mentioned earlier, so I think people really have become aware of how important it is to nail these things down. So, that was our Task 1A output.

On the next slide, you can see a little bit about what happened. We had this list on the left of the eight clinical note types that were included in USCDI Version 1, and then, what they have done is reclassified some of those note types. There is this new data class, called "diagnostic imaging," where the diagnostic imaging narrative clinical note type was put, and then there was an existing data class for laboratory data, and the narrative reports for laboratory pathology were moved over there. This seems like a trivial

reclassification – a little bit of a shell game – but it really engendered a lot of discussion about what is the role of the narrative portion of result reports, be they related to imaging or laboratory, and how to fit that into the grand scheme, but again, that was one of the changes that was proposed in draft Version 2.

On the next slide, a little bit about how we have tackled Task 1B. Again, as I mentioned, trying to understand the role of narrative in results – it ends up that whether you are talking about labs, pathology, or imaging, those results can have discrete data elements and narrative data elements, and I think most of us understand that those are both important, and there was a real concern that there not be a confusion about that. We did not want industry players to feel that they could just include the narrative and not the discrete elements, so the decision – or, the recommendation – is being put forward to incorporate the narrative into the report and to clarify the scope of those reports as including the narrative as well as any and all available discrete elements, metadata, context, et cetera. The same is true for laboratory and pathology – the notion that the narrative is really part of a holistic report and cannot be separated out – we want it to be clear to industry that it needs to be included with other components of the result report.

Another area that we spent some time talking about – and, I really attribute this to our strong representation from the patient and caregiver community – was that there is a desire to change the name of the provider name – the provider identifier – to call it a "care team member name and identifier," acknowledging the fact that the care team often involves individuals who are not themselves professional providers, but really need to be captured as members of the care team and to have that information made available. That will be one of our recommendations back to you next month.

And then, a lot of our discussion about encounter time. Encounter time was included in draft V.2, and there is a real need for the vendors to understand what time you are talking about. Is it the time that it was scheduled? Is it the time the patient arrived? Is it the time the provider may have walked into the room or into the home? Was it the duration of the event? Are we talking about times for future events? So, there are a lot of questions about that, and a lot of suggestions regarding how ONC might be able to flesh that out going forward.

So, on the next slide, what we are doing now is we are finishing up any additional comments coming in related to Tasks 1A and B that we discussed. The next task that we will be completing over this coming month will be Task 1C, which is to say, looking at other elements that were leveled as Level 2 that might appropriately be included in Version 2 when it is finalized, and struggling with that Goldilocks question of how much is just enough to be included. We do not want too much, we do not want too little, and whatever the ONC decides, there will be people with concerns on either side.

After next month, we will be focusing in on our Phase 2, looking at the USCDI expansion process and priorities for the Version 3 submission cycle, and with that, I want to turn it back to Leslie because we really are interested – probably not today, but next month, we would like to have a little bit more time on the HITAC agenda to really get your input and guidance as to how we are going to approach Phase 2 and what direction we should be taking that, and Leslie, take the next slide.

<u>Leslie Kelly Hall</u>
Sure. I think as Steven summarized, there is a lot of tension and great enthusiasm for setting aspirational direction and also very specific direction for USCDI, but we are struck by the differences of the stakeholders'

demands. Sometimes, these are competing needs, and yet, when we look at the genesis of USCDI, we can say it is to serve the patients, it is to serve the providers, and we would like to tee this discussion up because we do see great differences in prioritization based upon a priority in stakeholders served.

So, one area is the data-underserved, like patients in public health, federally qualified health clinics, tribal nations. Then, the providers themselves that are probably data-rich, the payers, as well as CMS, and then, regulatory bodies. We often get discussion about even competing needs and definitions within regulatory tasks and bodies. How does that get reconciled? And then, of course, ever having a need for quality and safety and learning organizations.

So, as you can see, all of these are worthwhile and all of these are necessary, but as we get to data element level and class of services that we are tasked with, understanding the prioritization of these stakeholders would be important, as well as some guiding principles that have often come up in our discussion. So, in our next effort with you, we hope to tee up this question of stakeholder priority and also perhaps guiding principles as we come forward, and we are excited to have that guidance from you, and the reason we bring it up and tee it up now is because it is thoughtful and will require a good deal of thought and discussion. So, with that, I will turn it back to you, Steven.

Steven Lane
Thank you, Leslie. Our last slide is simply our plan for the coming month. We are going to cram in quite a number of meetings before we come back to you with our proposal next month, and then we will finish it up on the last slide and open it up to questions.

Aaron Miri
Let me go off mute here. Denise, I do not know if you want to take the questions.

Denise Webb
I do not currently see any hands up. Do we have any questions or any input for the USCDI task force? There we go. Steve Posnack.

Steve Posnack
Hey, thanks. This will be quick. I will try not to fumble turning on the video. Thanks very much for the presentation and catch-up, as always. One of the things that would be helpful – and, this is perhaps just passing along experience –the suggestion to change the naming of the term, like the "care team member" one, could have corresponding data collection implications in terms of how that is interpreted by health IT developers, so as you all have those discussions, it would be super helpful and welcome to consider the interpretive ramifications of not just changing the term because it seems to resonate better with everybody, but what actual data collection changes could result from a ripple-effect perspective, so I just wanted to pass along – those are often discussions that we have as well. It is an arduous process to pick terms for data elements that resonate with everybody, and every tweak to the naming conventions has impact.

Steven Lane
Thank you, Steve. I think that is very well-placed commentary, and certainly not something that we have overlooked. We do have great representation from vendors, we have got Clem, who always keeps us honest with regard to the impact this might have on providers and users, and I have had that discussion,

especially related to the fact that how you collect or if you can collect an ID number to go along with a given member of the care team and the need for the enumeration of care team members to have sufficient flexibility so they can both meet the needs of really representing holistically the group of people who are caring for the patient while still capturing the depth of information that might be needed to support care coordination communications between professionals, et cetera. So, great feedback. I think we have got it, and your team is not – they tell us pretty quickly when they feel like we are going off the rails or heading off into territory that is outside of our scope, but we will definitely keep that in mind and bring that back to the task force next week.

Denise Webb
So, next in the queue, Steven, is Clem McDonald.

Steven Lane
Aha, Clem!

Clem McDonald
So, I was wondering – and, this is with a nod to Terry O'Malley. He would ask about wedging in some additional tests under the category of "lab tests," and that did not seem very doable, but we have heard some sparkles and rumors that it is possible that they might be passed in through some requirements for quality assurance CMS has, and I just wonder if that is progressing or not. We get his dream content in that way. We give him a special gift for still being on the committee.

Steven Lane
I will respond, Clem, that CMS is represented on our task force. We reached out to them specifically when we were assembling the task force, so Michelle Schreiber has been participating very actively. As with other government agencies – CDC and others – CMS has also assembled a team to dig deep into the draft V.2 and to put together their public comment. CMS has been very thoughtful in that, and as you point out, they have a desire to see data elements that are important for their work be included in USCDI, a real interest in aligning the work of ONC and CMS within HHS, as Micky mentioned earlier, and just yesterday, they actually posted their document of public comment to the website, so it is there for all of us to read. We are actually planning on assigning that to you as a task force member to read by our meeting next week because we want to make sure that everybody is well aware of it.

Having said that, the ONC has also reminded the task force that our job is not to necessarily review and sort through all of the other public comments. You will recall from our timeline slide that there are two parallel processes of public comments coming in and HITAC task force comments coming in, and our goal from the beginning was to incorporate feedback from other sources, but because CMS has posted those publicly, they are in the public record, and we can now consider those within the task force. Again, as you say, there are a lot of folks who have aspirations to expand USCDI somewhat more quickly – not being quite so modest – and our task force is going to grapple with that over the coming months and try to come back with some suggestions, but hopefully, we will represent a consensus among our group.

Clem McDonald
Well, CMS is sometimes described as the 800-pound gorilla, so I am hopeful that their muscle would have some effect on this particular one.

Denise Webb
All right. So, we have Michelle Schreiber next in the queue.

Michelle Schreiber
Hi, thank you. I am the representative from CMS, and I want to take a moment to thank Steven, as well as Terry and Clem, for thinking through some of the needs that we have. It is true that we would actually like to see a broader vision of the USCDI, but that is something that Steven outlined very well that needs discussing, and clearly, there are elements that we need for quality measurements, and we outlined those, but we also clearly recommend that there are a lot of asks for the USCDI, and this is a much broader conversation than just what CMS wants, although it is interesting being thought of as a gorilla, so thank you all.

Steven Lane
I will add – and, I will channel Al Taylor here a little bit and maybe invite him to chime in if he is on the call – one of the real challenges has been to understand what the USCDI is – what is its purpose, what is its role in our industry and ecosystem? Thus far, ONC has seen it really as a small piece, and not necessarily designed to replace other standards efforts like C-CDA, FHIR, US Core, et cetera. Those efforts are meant to be supported by USCDI, as are many other efforts, such as information blocking, exchange by payers under CMS, et cetera. So, there is not a shared understanding that USCDI is meant to be all-inclusive, but rather to represent the floor of just what data classes and elements must be supported when they are available to exchange. Al, are you on, and can you perhaps comment a bit?

Al Taylor
Yeah, I am on. Thanks, Steven. The way you described it as a floor is one way to think about it, but that has always been our intent, and the key word of the USCDI is "core," so the most – what is the most important, most valuable information that can be collected and exchanged related to patient data? And so, the question is how do we define it, how broadly or narrowly do we define "core," and then, how broadly or narrowly do we define "interoperability impact" as far as the number of use cases of exchange, sharing of information that is necessary or most important across the entire enterprise, and we are working on that, working to see how we have defined it previously in the rules and with the supporting material since then, and if we need to make some clarifications to help the industry – the entire community – understand how best to prove it, change it, and expand it over time.

Steven Lane
Thank you, Al. One thing I will just add to that for those of you who are interested in digging deeper is all of the submitted data classes and elements have been posted on the website, so one should not just look at what was included in draft V.2 or what was leveled at Level 2, but there is a lot of rich data classes and element suggestions in Level 1 and in the comment level, and I think you will see that a lot of work has gone into making these proposals on the part of industry stakeholders, and then, a lot of work has gone in from the ONC team in terms of determining what the technical readiness of each of these is. So, the hope is that we will continue to see this move forward year by year as the cycle continues.

Denise Webb
That looks like the last question, and I do not see any other hands up.

Aaron Miri
I do not see any either. One last pass, maybe, for anybody else?

Denise Webb
Michelle was our last person.

Aaron Miri
Okay. Should we go to the next one, then, Denise?

Denise Webb
Yes, yes, thank you.

Aaron Miri
All right, fantastic. Dr. Lane, thank you. Leslie, great seeing you again, and welcome back to the fold and the action. For those of you who do not know Leslie, she is an amazing patient advocate. I know we said that before, but I am so glad to have her back as a part of this effort. It has been fantastic. So, the next up is the ISP task force with Arien and David. I will pass it off to you.

Interoperability Standards Priorities (ISP) Task Force Update (00:48:57)

Arien Malec
All right. I am very glad to be here. Hopefully, you can hear me. I need to click that button to be able to be seen. There I am. David, do you want to introduce yourself?

David McCallie
Good morning, everybody. David McCallie. I recognize and know a number of you, but I have not met some of you yet. I am a fairly recently retired healthcare executive. I worked at Cerner for about 30 years, and was a previous member of this task force, and I think through some process that I do not understand, I got promoted to co-chair, but I am happy to contribute if possible.

Arien Malec
We refer to this task force as Team OG. So, we will go to the next slide. This is actually a good follow-on from USCDI. We will talk about the goal of the ISP, but really, the ISP is about setting – if we think about the USCDI as data classes that are about to enter into the floor, ISP is about raising the ceiling. Here is our task force. It is a great group, both of members from the HITAC as well as members from the broader community. I think we have one more outreach to see if we can find one additional person, but I think we have a fantastic group that represents both the mainstream health information technology community as well as folks who are representing some of the frontier about where standards are going. Can we go on to the next slide?

So, the mission and charter of the ISP is grounded in the CURES Act, in particular the notion that the national coordinator should identify priority uses and make recommendations for technology standards and implementation specification priorities, and our task force is intended to serve Micky, the national coordinator, and ONC in identifying the next fronter of standards. Can we go on to the next slide?

Our goal here – oh, timeline. So, we are on a pretty compressed timeframe, so it is already not February. We have yet to begin meetings; we are beginning meetings this week, so we are going to be meeting through March, April, and May, and then conclude in June with updates to priorities back to the HITAC, so this is sort of a pre-meeting announcement/mission and role announcement to the HITAC. We will be working in conjunction with the HITAC to update our group on the direction that the task force is going to make sure that we are lining up the priorities of the task force with national priorities. Can we go on to the next slide? Here are our meetings. Maybe next slide. We have a lot of them. We are going quickly.

We can go one more – oh, wait, there we go. Maybe I missed the slide where we talk about our mission is, but really, our intent is to update the ISA and identify interoperability needs in the ISA in order to update, as I said, the frontier of interoperability. We are following on the great work over the last incarnation of the ISP task force that identified interoperability needs in the area of orders and resulting, in the area of 360 care coordination, and then, had identified a set of priority needs for the next incarnation of the task force. That was in the before times, so maybe I will turn it over to David for some of the conversations we have been having in terms of where we might want to go relative to where we are right now after the past year of experience and identifying where any public health crisis standards did and did not work, so David, maybe you can update the HITAC on some of our speculation in terms of where we might address standards priorities given the last year.

David McCallie

Yeah, thanks. It was somewhat sobering to go back and look at the output – the final report – of our task force that finished in 2019 and look at what we thought was important at that time and what we recommended that we should work on next, and then, "next" did not happen, 2020 happened instead, so now we are back, and when you go back and look at the stuff that we thought was going to be important, you find some pretty obvious gaps based on what we have all gone through in this bizarre 2020 year.

So, I think one of the things the task force will want to get a handle on quickly is to what degree do we, in a sense, interrupt the trajectory that we had established in the past to deal with the emergent issues from 2020? Obviously, there are a lot of things that we could look into. One of the priorities for the task force is to identify new priority use cases for health IT, and I think some new cases that no one had envisioned have emerged in the last year, so we may want to take a look at some of those. I will just throw one out as an example: Proof of vaccination, vaccination passport. There is work under way by a variety of industry groups to try to create some standards to make that an interoperable process. Is that something that the task force should take on, identify, and push back to you all?

So, there is a lot of coordinating work that we will have to do in our early meetings to try to get in sync with what is already under way and where we do not need to put our toes, and then maybe find some places where we should put our energies and expertise to work, but I think that will be a main driver. If it turns out that we are not needed in that space, if that input is not useful to ONC or HITAC, then we have plenty of queued-up issues from our work in 2019 that we can pick back up and move forward. Arien, did I cover what you had in mind there?

Arien Malec

That is fantastic. I would say another obvious area that happened in COVID times, but I think actually has some more general relevance, is the work that the U.K. did in the recovery trials. It seems like the U.S. is a

machine when it comes to sponsored trials and running through the investigational new drugs and biologics, but the kind of natural history and real-world evidence trials that were done in the U.K. around COVID – even though we arguably have a better HIT deployment and EHR deployment, that is an area we just were not able to get done at the same cadence as the U.K., so that may be another obvious area for us to look.

The problem with the ISP task force is that there are so many obvious areas where, as a nation, we could be doing better in interoperability by all the progress that we have been making, but the challenge for us is to pick a couple of areas to really go deep on and make sure that we are providing good guidance to ONC, and also to make sure that we are lining up with both national priorities and the regulatory and non-regulatory areas of interest that ONC, CMS, and potentially Congress have with regard to funding mechanisms and certification mechanisms, regulatory mechanisms, and just the power of the bully pulpit with the national coordinator and the White House.

So, I think with that, we will conclude our notion that we are reforming the ISP. Our first mission will be to identify those priorities. Maybe we can open it up to the HITAC for commentary on both the role of the ISP and any feedback that the task force has – sorry, the committee has – in terms of the formulation of the ISP. As we identify priority areas for the ISP, we will come back to the full committee, presumably next month, and update the committee on the ideas for selection of priorities that we come up with.

Aaron Miri
Wonderful. All right, Arien. So, I think with that, you guys are ready for some questions. Am I right?

Arien Malec
Absolutely.

Aaron Miri
All right, let us shoot. First up in the queue is Mr. Steven Lane.

Steven Lane
Thank you so much, Arien and David, for taking on the leadership of this important task force. You guys look like you have assembled a great group of folks, and it is nice to see that there is a fair degree of co-membership between the USCDI and the ISP task forces, which I think will facilitate coordination between our efforts.

One thing I just wanted to mention in terms of priorities really goes back to Micky's initial comment, which is the critical importance of addressing this and potentially future pandemics and the needs related to public health interoperability. We are all painfully aware of the challenges that we faced over the past year and the need to clarify how that interoperability is going to be supported by standards, both data standards, transport standards, et cetera. I think the needs related to bidirectional interoperability – certainly between providers and public health, but also other stakeholders, including patients and members of the community – really cannot be overemphasized. So, I hope that the task force is called upon to integrate with the work that is going on across HHS entities and the White House so that we can avail ourselves of the tremendous insight and expertise that your group brings to the table.

Arien Malec

Thank you for that. I would note that in our last incarnation of the ISP task force, when we looked at orders and results, we discovered that we actually had a ton of standards, and a ton of content standards, and a ton of transport standards, and a lot of our recommendations were how to make the ecosystem work better. I suspect that if we get into, for example, the immunization reporting and immunization query problem – I had the pleasure of being on a CDC task force in, I think, 2011, where we talked about transport standards for immunization reporting and query, and we actually had a fair amount of standards in play at the time, we are going to discover some of the same issues – we have a lot of standards, but not a lot of wiring across the board, and that may be an area for investigation both in terms of standards gaps, but also in terms of how to better wire those standards across the board. Do we have other questions?

David McCallie
I will just add to that. I have to remind myself that the mandate in the CURES Act is to identify priority uses of health IT, which is broader than just the standards, so highlighting what we might find to be some underappreciated priority uses could be one of our main drivers.

Arien Malec
Thank you. Any other questions?

Aaron Miri
Let us see. I actually have a question here – a question and a comment for you. First, thank you. It is great leadership. I look forward to you guys stepping up and leading us forward. So, I will start with the comment. I appreciate the nomenclature of the "OG committee." It reminds of my age, that is excellent, and I look forward to seeing the results of this and the collaborative work of all of us, but I would say the question I have is related to health equity. As the ISP task force looks at various scenarios – you talked about immunization registry and some other things – something we are struggling with here in central Texas particularly is the disproportionate amount of folks that just do not have access to their health information in an equitable manner, so I would just ask the ISP task force to try to look at various scenarios and what has the best bang for the buck broadly so that we can try to help underrepresented areas of the country and of respective states.

Here, we are trying to do a massive boots-on-the-ground effort of understanding where some of these locales are and these different demographics, but it has become a critical priority for us to make sure that people are able to get their data at the right place, at the right time, where they want it, so I would ask that the ISP task force try to look at these scenarios and ask if there are elements here that would help everybody and really help to level the playing field as much as possible from an information access perspective.

Arien Malec
Fantastic point, and I would add to that that when we were doing the work at the Duke-Margolis Center for Interoperability in April or May, one of the priority areas there was really basic block-and-tackle work of making sure we had demographic information coming in in orders and results that could then inform public health reporting for reportable labs – in this case, for COVID labs – and also to make sure that we had actionable demographic information so we could look at disparities.

If I look at, for example, Alameda County, we have areas in our county that are almost COVID-free, and then we have areas in our community that have been really disproportionately affected by the disease burden of COVID, and that disproportionate burden follows socioeconomic and racial disparities that we have in this country, so I definitely endorse that notion that we should be looking at equity and also basic information that allows us to better target vaccination, therapy, testing, and some of these other measures. Again, I think that is a mission that transcends public health or public health writ narrowly in terms of disease response into public health writ broadly in terms of improving the health of communities.

Aaron Miri
Makes sense. All right, next up in the queue is Cynthia.

Cynthia Fisher
Hello, everyone, and it is an honor to have Micky at the helm as we move forward into addressing the needs of our American public in getting access to their health data. I guess I would just pose this as a priority, and I know that there was an excellent job focusing on the sharing among providers and the collecting of data from the public aggregation of data for addressing the COVID pandemic, and I think the delay on the interoperability rules has also, in some way, harmed patients getting access to this critical information, and I guess I would just ask the committee to look at really putting the patients first in an incredibly supportive way of looking at enabling the American public to timely and efficiently get access to the third-party applications that can provide a synthesis of data. I know our priority has been with providers and networks in being able to share this data.

However, at the end of the day, for telemedicine, which is a new, great silver lining from this horrid pandemic that we now have embraced much broader access through telemedicine, but I think for people to get the best of care and the best of diagnoses, they really have to have smartphone access readily available at their fingertips to their complete health information anywhere they get care. Sad to say that even I have moved – been on this committee for over four years – I have moved to a different state and am waiting to get access to my records in paper form because they still cannot yet get transferred, and I find that quite ironic because here we are, and sometimes we forget how expeditiously this committee could work to deliver access to the patient and the public, and also provide education to the patient and public that this access will be readily available to all people.

And so, I think that will address the equity because most people do have access to smartphones today or have relatives that do, and when the patients can be in control of getting access, they can have relatives stand in for them even if they do not – an elder person who might not have the capacity to use a smartphone anymore does oftentimes have a team of relatives, and so, that open access is really going to be critical to people being able to prevent crisis in their health and to protect their health as we move forward.

So, I guess I would just say to the committee let us remember to put the patient first in all of this and, expeditiously in this time of coming back from this pandemic, enable the patient to truly get the ability to go anywhere for their care, and if you think about it, it is absolutely absurd that we have narrow networks. It is absolutely absurd that people cannot get access to get care anywhere in this country. We live in a very big country, people live in a transient world, and we are so narrowed in our access and ability because of the crisis of lack of information and the crisis of lack of coverage in remote locations outside of where our domiciles or our work headquarters is.

So, that said, I just want to support that we put the patient first, and I would like to also hold a flag and a ticker for ONC to also think about expeditiously putting standards in place that are financial standards so that we can readily see this hospital pricing information. There are 357 different file types that have been published so far by hospitals in conforming to the healthcare price transparency rules, so one could appreciate a standard for not only pricing, but also billing, and the provenance of billing and pricing given as access to patients because today, when patients are erroneously charged, they have absolutely no recourse because they have no digital record of any price or digital record of the billing or their explanation of benefits. So, we can play that role, and I think expeditiously. The American public deserves it. So, I just would encourage all of us to look forward to deliver to the patients timely what is practical and commonsense and available in every other market of our economy. Thank you.

Arien Malec
Thank you, Cynthia. Great comments there, and again, I think we have a great membership of this task force that represents digital health and the consumer perspective, the patient perspective, as well as the traditional health IT perspective, so I definitely appreciate your comments.

Aaron Miri
All right. Next in the queue is Micky.

Micky Tripathi
Yeah, hi, thanks. I just had two things. First, I just wanted to reinforce the point you made earlier, Arien, about equity considerations and encourage all of us to be thinking about health equity by design so that it is not a tack-on, and I think that cuts across policy, technical, business, and functional considerations, and I think that this task force, for example, as Arien describes, is setting the ceiling here. We should be thinking about how that gets baked in, and in lots of ways, it is not obvious, right? I think there is just implicit bias, as we know, in almost everything we do, and again, I just wanted to reinforce that point because I think it is a really important one.

Secondly, I wanted to reinforce both Arien and David's points about how we think about prioritization because there are so many different dimensions of it, and as we think about the current needs of the pandemic, which is a very unusual situation, but it is very real, as we know, so, what can be done in the near term, what is the near-term investment toward the long-term, and how do we think about that judiciously, also recognizing the role that we can expect out of HITAC versus implementation-focused things? So, bringing all of that to bear is going to be important, but I have great confidence that both David and Arien and the task force are very well prepared, expertised, and experienced to balance all those considerations, and I am really looking forward to working with you.

Arien Malec
Thanks, and thanks for the confidence.

Aaron Miri
Excellent. I know we have a few more folks in queue, so I am going to ask Clem and Carolyn to hold their questions just so we stay on time. If we get through the rest of the agenda, we can come back right after public comment and make sure your two questions are answered so we can keep the schedule here, so I

would appreciate it if we could just hang onto them, just write them down real quick so we do not forget them, and I promise you we will come back so you both can ask from Arien and Dave any questions that you have. All right. So, with that, let us go on, then, here, and Denise, do you want to choose the next one?

ONC Data Brief: *Use of Certified Health IT and Methods to Enable Interoperability by U.S. Non-Federal Acute Care Hospitals, 2019* (01:12:46)

Denise Webb
Yes, thank you. So, we have Talisha Searcy from ONC today presenting a data brief from ONC on the use of certified health IT methods and interoperability at U.S. non-federal acute care hospitals, and this is a 29 report. So, I will turn it over to Talisha.

Talisha Searcy
Great! Can everyone hear me? Perfect! So, thank you so much. First, I want to thank the HITAC. I came to you back in late October – ages ago – and talked through some preliminary measurements, constructed a framework that we are working on to assess interoperability under the 21st Century CURES Act, and I just want to start by thanking you all for the feedback that you have provided. So, today, as was mentioned, I am going to walk through some results from our latest data brief. We work with the American Hospital Association on an annual health IT supplement survey, and the results that I will talk to you about today are from 2019, but were actually collected – the surveys were collected during the first quarter of 2020 – so, from January until about April of 2020. So, the results that I will share shed some light on the technical capabilities that non-federal acute care hospitals had at the start of the pandemic, so I do like to level-set that a little bit so that as we are talking through the results, that gives you a framework in which to keep in mind. Next slide, please. Perfect.

So, ONC has been measuring interoperability based on four domains. The first is whether or not the hospital reports that it has the capability to electronically send summary-of-care records to organizations or entities outside of their own electronically, if they are able to receive those summary-of-care records back from outside organizations electronically, if they are able to query or search for patient health information outside of their own organization, and lastly, if they have the ability to integrate information from summary-of-care records into their EHR without the need for manual entry.

So, send, receive, find, and integrate are the four domains of interoperability that we have been measuring, quite frankly, since 2014. So, what you see here is that rates of interoperability are increasing, but it is important to keep in mind that one area that has lagged for a number of years has been integrated or data integration. We have seen a substantial increase from 2018 of about 15% and today, about 70% of hospitals reported that they are integrating data into their EHR, but only about 55% report that they are able to do all four interoperability domains – so, send, receive, find, and integrate. That is important to keep in mind. Next slide, please.

So, we have heard – and, folks have mentioned quite a bit – about understanding equity and disparity, so what this slide is designed to show is about 9 in 10 hospitals nationwide had a 2015-edition certified EHR in 2019. However, we have seen disparities in terms of that adoption, so small hospitals are less likely than large or medium hospitals to actually have a 2015-edition product, and what is not shown here but is highlighted in our database in an appendix table is also that fewer independent, small, rural, and critical-

access hospitals had a 2015-edition EHR compared to their counterparts in 2019, so again, while the overall numbers are pretty high, we do see a disparity in terms of facilities that are smaller in rural communities and likely lack resources to upgrade their technology. Next slide, please.

So, one of the things that we wanted to do is also to do a deeper dive into the methodologies that hospitals are using to send and receive information, so we wanted to do a bit of a deeper dive, so we categorized those methods into three buckets. One is nonelectronic methods – so, mail, fax, e-fax – second is electronic methods not using a third party or a network, so that relates to the HL7 interface and whether or not you're able to view into someone else's system, and third are electronic methods using a third party or network – so, those are HISPs that enable direct messages as direct, whether or not you are connected to a state, local, or regional HIE. So, we tried to understand the methodologies that folks are using to send and receive data, and what we found is that the HISPs were the most common electronic method for sending and receiving summary-of-care records used by hospitals in 2019, and that was closely followed by state, regional, and local HIEs.

One thing that is important to keep in mind is that we still see a high number of hospitals that report that they were sending and receiving information using those non-electronic methods, and we will do a deeper dive on the next slide in terms of what that means, but it is important to keep in mind that there is an increase in the use of some of those third-party networks. Next slide, please.

So, again, we saw on the prior slide that folks are using various methods to send and receive data, but they also are still using these non-electronic methods, and what we found was a majority of hospitals reported taking a mixed approach by using electronic and non-electronic methods for exchanging summary-of-care records in 2019. So, what you see here is that the electronic-only method has been relatively flat over the last two years. We do see – particularly as it relates to receiving an increase in the number of hospitals that are reporting – that they are taking a mixed approach. Next slide, please.

So, similarly, we did that deeper dive into the methodologies of sending and receiving electronic health information. Now, we also did a deeper dive into the methods of electronically querying for patient health information, and what we found is that the proportion of hospitals that use national networks to find or query increased by nearly 40%. Now, I am going to draw your eye to the bottom part of this chart, which is where we see a lot more of that movement. So, the national networks that enable record location across different EHR vendors such as Commonwealth – we see an increase there, and in 2019, about 44% of non-federal acute care hospitals reported that they are doing that. And then, also, we see about 53% of hospitals report that they are using state, regional, or local HIEs, so those are some of the things that are important to keep in mind, especially as we are moving forward on things such as TEFCA in terms of the really important role that HIEs are playing in exchange of information. Next slide, please.

So, similarly, again, we wanted to see – all right, so, we have seen folks used tons of methods for sending and receiving. We see that there are a lot of methods people are using for the purpose of querying. We wanted to get a feel for the average number of methods that hospitals may be using to send, receive, and query for patient health information to really try to get a grasp of what you need in order to be interoperable, and what we found was about – in terms of sending, hospitals used over three methods on average to send information and about three methods to receive information, and on average, between two to three methods to query for patient health information. So, you can see that they are using different approaches and they

are having to use multiple approaches in order to make sure they have access to the information they need electronically available. Next slide, please.

So, when we did a deeper drive into querying, we also found that the number of national networks that people are a part of has increased between 2018 and 2019, with nearly half of hospitals participating in more than one national network in 2019, and so, when we do that deeper dive, you see that about 41% of hospitals report that they are using those single-EHR vendor networks like Epic Care Everywhere, but we also see that about 38% report that they are using direct checks, so folks are using various methods – and they are usually using more than one – to engage with national networks. Next slide, please.

So, in addition to those national networks, more than half of hospitals participated in both the national networks and the state/regional/local HIEs, so again, it goes into this needing to layer over and over again in terms of different methods in order to make sure you have access to the information that you need, and so, what we found was that about 7 in 10 hospitals reported participating in a national network, and that is a 21% increase in 2019, and then, 1 in 10 hospitals did not participate in a national network or a state/regional/local HIE, so that is a statistical difference from 2018 as well, but again, it is important to keep in mind that on average, we are seeing an increase in folks that are participating in both. Next slide, please.

So, again, we wanted to understand whether or not there are disparities that exist. We talked earlier about disparities that may exist from the perspective of access to the 2015-edition EHR, but we wanted to do a deeper dive into whether or not similar disparities exist in terms of participation in a national or a state, regional, or local HIE, and what we found was that the proportion of small, rural, and critical-access hospitals that participated in both a national network as well as a state, local, or regional HIE was lower compared to their counterparts, so you can see that there are lower rates of participation across all domains from participating in solely a state, regional, or local network as well as participation in a national or participating in both, and that is true for small, rural, and critical-access hospitals. Next slide, please.

So, we also wanted to take a look at what are some of the barriers to interoperability or barriers to exchange that hospitals reported experiencing in 2019, and some of these are the same as what we have seen over time and what the HITAC has been grappling with for some time. The highest was more than 70% of hospitals reported challenges, and that is exchanging data across different vendor platforms – so, that cross-vendor exchange – and that is that lower category here. So, just to make sure everyone is oriented to this table because there is a lot here, we looked at barriers in terms of three buckets. The first are barriers related to electronically sending patients' health information, the second bucket are barriers related to electronically receiving patients' health information, and then, the last bucket are other barriers related to exchanging patients' health information.

Now, some of the higher points are – actually, the highest – in that third bucket, and that relates to some of the technological challenges that hospitals reported to exchange, and so, those exchange challenges across different vendor platforms is problematic at about 73%, but when we looked at that second bucket related to barriers to electronically receiving patient health information, one barrier that was reported is about 66% of hospitals reported that there are providers that they share patients with that do not typically exchange patient data with them, so they know that they are exchanging patients, but they do not exchange data with that facility, so that is important to keep in mind, especially as we start to think about aspects of

information blocking, one from the cross-vendor exchange aspect, but also as it relates to provider business model aspects of information blocking, so these are some important things to keep in mind.

And then, I am working in this table up, so the first two rows in that first bucket – barriers related to electronically sending patient health information – two things I want to bring your attention to. One is hospitals reported difficulty in finding providers' direct addresses at about 58%, and another big thing, which I think is also exacerbated by the pandemic, exchange partners' EHR systems lacked the capability to receive data. So, that would mean I want to send information to some other entity outside of my own, but they do not have the capability to receive data, and so, those exchange partners could include public health entities, behavioral health providers, mental health service providers, different providers, or other primary care providers that the hospital wants to send their information to, but they do not believe that that system has the ability to take that information back. Next slide, please.

So, in summary, I just want to highlight the key points. About 70% of hospitals reported integrating data into their EHR, a nearly 15% increase from 2018. A majority of hospitals used a mix of electronic and non-electronic methods to exchange summary-of-care records. However, the use of electronic third-party methods – so, HISPs, HIEs, and vendor networks – increased in 2019, and the proportion of hospitals that used a national network to query for information increased by nearly 40% between 2018 and 2019.

So, again, this is just one data brief. We have tons of other analyses that we are conducting right now. We are doing additional analysis related to hospitals, particularly as it relates to questions in that survey on public health exchange, but we are happy to come back to you and provide results on public health exchange and patient access capabilities. We also work with partners at the National Centers for Health Statistics on surveys of office-based physicians and their rates of interoperability as well as we partner with the National Cancer Institute looking at patients' or individuals' access to their portal as well as any challenges they may experience in terms of exchanging data. So, I am happy to answer any questions you may have, and I am also happy to come back and share additional analysis as needed.

Aaron Miri
All right. So, Denise, I know we need to keep to time here, so do you think we should go to public comment and then come back to questions so that we can keep the time of public comment?

Denise Webb
Yeah, public comment is supposed to be in just a couple minutes, so maybe we should go to that, and then I know Carolyn is still in the queue from the ISP presentation, and John Kansky has his hand up, probably related to the topic that was just discussed.

Aaron Miri
Yeah. So, if the HITAC members can appease us and allow us to keep the time precise with the public, we will come back to you immediately thereafter and let you ask your questions, so I appreciate you holding for just a brief moment.

Denise Webb
And, thank you, Talisha. If you can just hold on while we do public comment.

Aaron Miri

Yes. That was a great setup, Talisha. Thank you. Mike, you may be on mute.

Public Comment (01:30:42)

Michael Berry

I am on mute, thank you. Anyway, we are getting ready to go to public comment, and I would like to ask the operator to open up the line.

Operator

Thank you. If you would like to make a comment, please press *1 on your telephone keypad. A confirmation tone will indicate your line is in the queue. You may press *2 if you would like to remove your line from the queue, and for participants using speaker equipment, it may be necessary to pick up the handset before pressing *. One moment while we poll for comments. There are no comments at this time.

Michael Berry

Thank you. Aaron, Denise?

Aaron Miri

Yeah, absolutely. So, we are going to start, then – Talisha, since you are on, we will start with your presentation most recently. I see Steven – I actually see Carolyn – was your hand raised for both ISP and this one you wanted to make comments on?

Carolyn Petersen

No, just for the previous presentation.

Aaron Miri

Okay, we will hold on for one moment there. Steven Lane?

Denise Webb

Actually, Aaron, I think John was in first, and then he dropped, and then he came back.

Aaron Miri

Then he came back? Okay, John, you are next.

John Kansky

I hate to cut in front of my friend Steven, but I will be brief. So, great information, very useful, and I would say most of the trends are – everybody would like them to go faster, but they are encouraging. The point I wanted to make, which I think is not obvious and there may not be uniform agreement on, but dorks like me that run a health information exchange and obsess about interoperability at a local and national level have run across something.

There was an observation in the report that organizations are using more than one method to achieve interoperability, and people might think, "Aw, dang, that is too bad. We need one onramp or just one way to get all of our interoperability needs," and while that is not elegant, I think it is not accurate, so I do not find it discouraging at all that organizations are using multiple methods to achieve interoperability because

interoperability – I am air quoting, and you cannot see me – is a more complicated beast than we would like to define in conversation. So, in other words, in summary, for a complicated organization or even a medium complicated organization to achieve all **[inaudible] [01:33:39]**, it is probably going to need multiple methods, and that is okay, even good. Thank you.

Aaron Miri
That is exactly correct. I can tell you that here, we connect to multiple data sources because we have to. Our providers do everything they can to get a complete record before doing anything, so I echo those comments firsthand. All right, next in is Dr. Steven Lane.

Steven Lane
Thank you. I really wanted to thank Talisha and her team for the great work that they continue to do in measuring interoperability. We certainly cannot advance this goal if we do not have good, solid measurements around it, so thank you for that. I wanted to call out what I consider to be a little bit of misinformation on Talisha's Slide 8, where she refers to Carequality. For one thing, she refers to it as being Sequoia Project's Carequality, which it is not. Those companies were separated a couple years ago, and Carequality stands on its own feet today as an independent company. And, by the way, I do serve as the chair of the steering committee for Carequality, so I have some knowledge of this.

And also, it refers to Carequality as a national network, which it is not. Carequality is a framework that allows national networks to connect to one another and exchange data, so the other national networks – eHealth Exchange, Epic's Care Everywhere, Commonwell Health Alliance – those are networks, and they exchange with one another using the framework of Carequality. I just think we need to make that clear for the public record. If you think about it in the context of the TEFCA work that ONC is undertaking, Carequality really serves in that role as the coordinating entity, whereas those networks and need to connect to one another would be more akin to the QHINs that we have discussed many times here. So, I just wanted to make sure that is clear, thank you.

Denise Webb
That is an important clarification, Steven, thank you. I also see that myself, where Carequality is referred to as a network, and I say, "No, it is a framework."

Talisha Searcy
Thank you so much, Steven. This might be a byproduct of the survey lag a little bit because we also needed to compare 2018, which means the survey was developed in 2017, but we will make sure that that distinction is clear in future surveys, so, thank you.

Steven Lane
Great work.

Aaron Miri
Yeah, great work, and it is harder to gather and explain in a concise survey "Choose A, B, C, or D" kind of thing, so kudos on your **[inaudible] [01:36:29]**, Talisha. I am sure it will get better as you go on. I do not see any other hands for Talisha's presentation.

Denise Webb

No, we just have Carolyn for ISP.

Aaron Miri

Yeah, we have Carolyn for ISP. I just want to make sure that we are good with Talisha's presentation. Are there any other questions on that one before we get to ISP? All right, kudos again, Talisha, and kudos to the partnership with AHA and other organizations on gathering that data from hospitals, and from CIOs. Great job. All right, now to the ISP questions. So, Ms. Carolyn Petersen, please, your question.

Carolyn Petersen

Thanks, Aaron. It is not so much a question, but rather, a follow-up comment. I know Cynthia talked quite passionately about the importance of patient access to their own information and mentioned in particular the value of being able to access that over a smartphone. I just want to make note that individuals have a range of abilities using different devices, and that whatever approach we take needs to be fully accessible and to support individuals using information in different ways, not just with a smartphone, as well as also usable through excellent usability, again, for all users. There is sometimes a financial issue also for some individuals in that smartphones can add an additional cost to that form of use, and it is important to keep these things in mind as we develop systems that work for all patients. Thank you.

Aaron Miri

Well said, Carolyn. The real-world example is we employ a QR code for all our vaccine hub stuff. People can walk in with it on their smartphone. You would be amazed at how many folks walk in without because they do not have a device, and we have to print up a QR for them to scan when they go through the line, so you are exactly right. All right. John Kansky, did I see your hand up for ISP as well? No? Okay.

Denise Webb

I think all hands are down.

Aaron Miri

All hands are down? Okay. So, I will open up the floor here. We have about eight minutes left before we adjourn. Are there any other comments or questions across all the presentations we have seen today, all the feedback that any HITAC member wants to raise their hand on? Okay. Denise, do you want to start closing remarks?

Final Remarks and Adjourn (01:39:15)

Denise Webb

I just want to thank our task force co-chairs for presenting today, and Talisha as well, and I know we have a lot of work under way. I think our next meeting will probably have a longer agenda. I know it is nice to have a short meeting once in a while, but we certainly have a lot of work going on, and I think we will hear a lot more at our next meeting. Thank you.

Aaron Miri

Agreed, and I also want to say thank you to all of you today for the phenomenal presentation data, the robustness of conversation. I know that there are numerous groups actively engaged in trying to move the ball forward, and I give credit to all of them that we all see every single day partnering with the ONC to drive

things forward, so, thank you for that. Also, special thanks to our national coordinator, Micky Tripathi, for the phenomenal comments at the opening that really set the tone for today. So, I wish you all well, good luck, good health, stay safe. If you have not gotten your shot, get your shot when you have a chance to, and we will see you all again very shortly for the next meeting.

Denise Webb
Thank you.

Aaron Miri
With that, thank you all. Have a great day.