Transcript

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) ANNUAL REPORT WORKGROUP MEETING

July 8, 2024, 1:00 – 2:30 PM ET

VIRTUAL

MEMBERS IN ATTENDANCE

Medell Briggs-Malonson, UCLA Health, Co-Chair
Eliel Oliveira, Harvard Medical School & Harvard Pilgrim Health Care Institute, Co-Chair
Shila Blend, North Dakota Health Information Network
Steven (Ike) Eichner, Texas Department of State Health Services
Hannah Galvin, Cambridge Health Alliance
Anna McCollister, Individual
Rochelle Prosser, Orchid Healthcare Solutions

MEMBERS NOT IN ATTENDANCE

Hans Buitendijk, Oracle Health
Sarah DeSilvey, Gravity Project
Jim Jirjis, Centers for Disease Control and Prevention
Kikelomo Oshunkentan, Pegasystems

ONC STAFF

Seth Pazinski, Designated Federal Officer, ONC
Michelle Murray, Senior Health Policy Analyst, ONC

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

Seth Pazinski
Hello, everyone, and welcome to the Annual Report Workgroup meeting for the FY 2024 cycle. I am Seth Pazinski, and I will be serving as the ONC Designated Federal Officer for this HITAC meeting. I will remind you that all HITAC workgroup meetings are open to the public, and public feedback is welcome throughout. Members of the public can type in their comments in the Zoom chat feature throughout the meeting, or you can make verbal comments during the public comment period that is scheduled at the end of our agenda for today. I am going to start the meeting with roll call of the workgroup members, so when I say your name, please indicate that you are present. I will start with our co-chairs. Medell Briggs-Malonson?

Medell Briggs-Malonson
Good day, everyone. Since we are in between morning and afternoon, I will say good day. It is great to see everyone.

Seth Pazinski
Thank you. Eliel Oliveira?

Eliel Oliveira
I am here, thank you.

Seth Pazinski
I did get a note that Hans Buitendijk will not be able to make today's call, and I also got a message from Hannah Galvin that she will be joining late, so we will be looking for her to join, and we will let folks know when she comes on. Jim Jirjis? Anna McCollister?

Anna McCollister

I am here.

Seth Pazinski
Hello. Shila Blend?

Shila Blend
Good afternoon. Sorry, my mute did not come off.

Seth Pazinski
No problem, thank you. Sarah DeSilvey? Steve Eichner?

Steven Eichner
Good morning and good afternoon.

Seth Pazinski
Good afternoon. Let's see. Kikelomo Oshunkentan? Rochelle Prosser?

Rochelle Prosser
Good afternoon.

Seth Pazinski
Good afternoon. Thank you, everyone, and now I am going to turn it over to Medell and Eliel for their opening remarks.

Opening Remarks (00:02:06)

Medell Briggs-Malonson
Thank you so much, Seth, and good morning and afternoon to everyone here on the Annual Report Workgroup. We hope that you are already enjoying your summer, but also staying cool, given the significant heatwave going across our country. I am really looking forward to today's meeting. It is the first meeting where we get to dive into the crosswalk, so we really appreciate everyone's thoughts, and as always, we look forward to hearing from the public as well. Eliel?

Eliel Oliveira
Good afternoon, everyone. We have a packed agenda today, as you can see here, and for the weeks ahead, so we have a lot of work to do, and I am so grateful to have many of you here to contribute to the topics of discussion that we have here today, so, thank you for joining and giving some of your precious time to us to advance our agenda. I appreciate your time. Seth, would you like us to continue with the agenda on the next slides?

Seth Pazinski
Yes, please continue.

Update on Workgroup Plans (00:03:07)

Eliel Oliveira

Okay. So, in addition to what we covered, we are going to update you all on the workgroup plans today. Then, we are going to deep dive, which will be the greatest part of the meeting today, to discuss the draft crosswalk of topics for the annual report. We are going to open for public comment at the end and define the next steps on our journey. Next slide, please.

All right, updates on the workgroup. So, we are here today, July 8th, and we are working on the development of the crosswalk topics for the Annual Report. As you can see here, we are going to spend a few meetings for the next couple of months, all the way to August 26th, in the development of those topics, and then start drafting the final annual report in September and October, update that draft report to get ONC's approval in November, and be ready by December with the transmittal of the report. Next.

Here is the schedule of the full HITAC committee. As you can see, on the 13th, we present a bit of an update, and we will again on the 11th, so we are going to have a couple of meetings, the meeting today on the crosswalk and the provision of an update on July 11th, but August 15th is the one where we are really going to cover most of the content of the crosswalk, so it will be a much larger update to the HITAC group at that point. Finally, we will do another one in September, which would cover all the crosswalk discussions we had, and then review the final draft that we will put together at that point in October for final approval in November. So, that is our timeline. Next.

So, here are the next steps for the development of the HITAC report. As you can see here, the workgroup is going to present the potential topic list to the HITAC in July based on the discussions we are going to have today and in the next meeting. We are going to develop the draft crosswalk of topics with gaps, opportunities, and recommended activities across the targeted areas at the workgroup meetings in the summer, as you saw in the timeline, and then present to HITAC in August. The workgroup is going to review the draft report in September and present to HITAC in October, and after further edits, the HITAC votes to approve the report and transmittal to the national coordinator in November, and finally, ONC forwards the final report to the HHS secretary and Congress and posts it on HealthIT.gov, and our goal is for December transmittal at this point. So, I think it is clear where we are and where we are headed, and with that, next slide. Let's jump right in. Medell, I will pass it on to you to start.

Discussion of Draft Crosswalk of Topics for the HITAC Annual Report for FY24 (00:06:19)

Medell Briggs-Malonson
Thank you, Eliel. For our Accel team, can we go to the next slide? I think we have some key areas that we are going to discuss first, and then we will jump directly into the crosswalk. What we are going to do now is go over the draft crosswalk, which includes all of the various different topics that we have mentioned so far that we believe should be included in the Annual Report for fiscal year 2024. Our goal is to go over each one of the various different topics, discuss the gaps, challenges, and opportunities, as well as the recommended HITAC activities, for the five primary target areas, which, of course, are: use of technologies that promote and advance health equity, use of technologies that support public health, interoperability, privacy, and security, and patient access to information. So, once again, this is the time when we need everyone's thoughts and insights so we can continue to refine the crosswalk as closely as possible. I believe the next thing we will do is bring up the other document so we can start diving into the crosswalk. Thank you, Accel team.

And so, let's start off with our design and use of technologies that advance health equity. Now, before we jump into this, I want to orient especially our newer members to what the crosswalk is. The purpose of the crosswalk is that we take each one of the various different topics, we discuss the various different gaps and challenges, as you can see there in the second and third columns, and then we talk about the opportunity of why we are even bringing this topic up to begin with. And then, the second-to-the-last column is proposed recommended HITAC activities.

So, with these reports, as we have discussed in the past, these recommended HITAC activities are very important for multiple different reasons. 1). It helps to inform ONC in terms of what our recommendations may be in order to address this topic, 2). It also helps to inform what our activities are directly going to be, for instance, in the upcoming fiscal year, and then, 3). What it also does is this gives even anybody else who is reading the report additional ideas of what we believe as the Annual Report Workgroup on behalf of the larger HITAC are some of the activities to address these gaps and challenges.

And then, for the very last column, which we will come back to, though we are not doing it today, but once we have gone through all of the different topics in the crosswalk and we have refined it and built it out the way that we all feel comfortable with, we will come back and do what is called the proposed tier. In the past, what we have done with that proposed tier is say if this is a near-term topic that needs to be addressed, meaning we have to act on this in the next six to 12 months or a longer-term where there are other pieces that need to be put in place first, and we really do need to address this in the next two or three years.

What we likely will also do, and we will speak to all our ONC staff and leaders about this, especially Michelle, is think about how we also incorporate some of the various different tiers that come from ONC. There are certain things that are not only directly within ONC's jurisdiction, but also things that they are very, very interested in addressing sooner than later, so we may also have that opportunity to take our proposed tiers and what we think are some of the urgent versus the less urgent, but we still need to address these topics, and combine them also with what ONC is currently looking at in terms of those incredibly urgent topics we need to address ASAP versus those that are very important, but on which we can build some additional foundations before we address them.

So, before we start, are there any questions about the format of the crosswalk? Great. I do not see any hands, and I do not see anyone coming off of mute. Once again, this crosswalk is so incredibly important because this is actually what is incorporated into the final report. So, let's go ahead and jump ahead, and we will start off with our design and use of technologies that advance health equity, and the very first topic is the use of artificial intelligence in healthcare. Oh, I do see a hand. Ike, I see your hand.

Steven Eichner
I am preparing myself for comments when we get there.

Medell Briggs-Malonson
Okay, no worries at all. Feel free. By the way, everyone, if you want to come on camera and join me on camera, you can. If you want to stay off camera, that is totally fine too. Of course, we are a little less formal here in the Annual Report Workgroup than we are for HITAC when people are presenting, so we are more of a discussion group, so, any questions you have, of course, feel free to raise your hand or just chime in. So, this is the gap of it all. Artificial Intelligence (AI) holds significant promise in solving healthcare

challenges, yet research and regulations are necessary to ensure AI is implemented in a safe and nonbiased way. Various AI governance standards and approaches are being developed, but consensus has not yet been received. So, we remember all of these different discussions, even from our past AI hearing.

Then, when it comes to the challenge, it says that AI furthering inequity and bias is a significant concern that must be balanced with the potential benefits as policymakers consider regulating AI, and part of that is going to include also data quality that can also contribute, and I would also add representation, so I am adding that for our teams that are captured. I think this needs to be "problems with data quality and data representation," which can contribute to inequities and bias. So, what we have stated so far as our opportunity is to explore how AI could be used to improve data quality in Electronic Health Records (EHRs) and a system reaching consensus regarding various AI governance standards and approaches. Some of the proposed recommended HITAC activities are to explore steps ONC could take to establish additional AI governance standards or ways to leverage industry-developed approaches. So, I will pause there and see if anyone has any thoughts or additions to any of these different areas, whether it is gaps, challenges, opportunities, or proposed recommended HITAC activities.

Steven Eichner
Medell, this is Steve. I do have some thoughts.

Medell Briggs-Malonson
Yes, please.

Steven Eichner
Looking at the first column, the landscape analysis topic, I think we might want to consider changing it to "in health and healthcare" or "in healthcare and public health" so we are incorporating things beyond the narrow scope of healthcare, not going outside our domain, but just looking at ensuring that we are inserting **[inaudible] [00:13:30]**.

Medell Briggs-Malonson
We just missed that last piece. You just went on mute for a quick moment.

Steven Eichner
Not trying to expand HITAC's scope, but ensuring that we are looking at inserting everything within the breadth of HITAC's scope in the component and not being too narrowly focused.

Medell Briggs-Malonson
That is a great recommendation because there is a significant difference between health equity and, for instance, healthcare equity, since this is under this topic area. To your point, there is a difference between health, healthcare, and public health, so we should make it a little bit broader, especially since, right now, it is underneath this target area, so that it is incorporating that public health, overall community health, and pop health aspect in addition to healthcare, because those are two very different domains, so that is a great recommendation.

Steven Eichner

Absolutely, thank you for that. In the challenge column, looking at problems with data quality, as you pointed out a moment ago, "quality" may not be the right term. I am not sure "completeness" is either, but we want to make sure that we are encompassing the breadth of data that is representational of the entire population, and not really high-quality data for a very narrow band of people.

Medell Briggs-Malonson
Agreed. I had some significant thoughts about that as well when I was just looking at the data quality throughout. I want to give others a chance to respond to that very quickly about the challenge with just saying "data quality" versus others. Eliel, I know you had your hand up as well. Was it for this portion, or was it for some other aspect of this topic?

Eliel Oliveira
It was for this portion, that we say there in the challenge that problems with data quality contribute to inequity and bias, and I do not disagree, but that is not all of it. Data quality can contribute to safety issues, which I think is mentioned in the gap, but not in the challenge. We should highlight that there as well. If an algorithm is using data that is inaccurate in helping physicians make decisions, that can make a lot of challenges, too.

Medell Briggs-Malonson
Great, absolutely. Anna, you are up next.

Anna McCollister
This sort of builds on what Eliel just said. I do not know if I raised this last time, and I certainly do not want to take credit if I do not deserve it, but this is an area of interest to me in the sense that when you look at all the data that comes out that you see when you download all your data from an EHR system, which I have done recently, it is a mess. Nobody is going to dig through that. I feel like the only way that we are going to fix that is to make everything Fast Healthcare Interoperability Resources (FHIR), which will help to some degree, but will take time, or to enable the use of AI tools to be able to go in and extract the most salient elements of the 200 pages that my Consolidated Clinical Document Architecture (C-CDA) includes. So, I would say it is quality, but also usability and comprehensibility, particularly as we think about how data that is exchanged is actually incorporated into healthcare decision-making and guidelines of care.

Medell Briggs-Malonson
Absolutely, and those were definitely some of the things we were talking about, that not all data is useful or relevant data, but right now, it is just all dumped. So, this is in terms of the usability and relevance of that data. Thank you for that, Anna. Rochelle?

Rochelle Prosser
Hi. I just wanted to thank you, Anna. You kind of said what I was looking at. Eliel made some very great points. We also want to look at the topic of data to ensure that we are not putting algorithms or rules in there that would be harmful or exclusive to people. Steve, you make a great point on what data quality should or should not be, but we also need to bring in those algorithms as we look through those medical records to ensure we are not excluding people surreptitiously because the algorithm was built incorrectly.

Medell Briggs-Malonson

Absolutely. I completely agree with that, Rochelle. I would not challenge the word "quality," but I think we need to define what that means. Going back to everyone who is capturing this information, when I look at artificial intelligence and the models that are being used to drive the various different algorithms, we know very clearly that there is a significant amount of lack of representation of data for the entire population that that algorithm or those models may be used on, so it is going to be really important that we call those pieces out. Not only does the data need to be representative, it needs to be inclusive, but it needs to drive safety, and as we said, it needs to also be relevant. And so, that may be part of defining what "data quality" means, and its accuracy as well, but really making sure that it is comprehensive and nonexclusive because right now, that is the current state.

I think that we need to expand upon the challenge a bit more, and the same thing for the opportunity. When we think about data quality, we do think about more accuracy and where it is pulling from, but if that data itself is still not representative, if it is still not relevant to making clinical decisions, if it still can potentially cause harm because it is not really including all people or a representation of people that those models may be applied to, then it is still not high-quality data. I feel we need to expand upon this a bit more and get some additional language that is more specific, and not just at this high level of quality, because quality is not defined right now, and I think it is really important for us to define what we think quality data is, and therefore, that will allow us to have much clearer recommendations, not only for HITAC activities, but also directly to ONC to establish additional AI criteria.

Maybe it is a set of criteria, very similar to even the nutritional labels we have right now that came out of Health Data, Technology, and Interoperability: Certification Program Updates, Algorithm Transparency, and Information Sharing (HTI-1), where it is very clear what this data quality means or what the data that is driving these health and healthcare models should include in order for it to reach muster, especially when it is data that is within the ONC domain, so, all of our certified health IT data. Those are just some of my thoughts because when I read this, there were a lot of things that went through my mind, and I definitely think we have some areas to expand upon the gaps, challenges opportunities, and recommendations. Ike, I see your hand, and welcome, Hannah. We are happy to have you.

Steven Eichner
I think the other part is not just looking at the data inputs from a quality perspective, but looking at the algorithms and the output. To give myself as an example, I am one of 300 people in the nation with a particular condition. If you take my data and put it in the model, it is going to disappear in a model that has 5,000, 10,000, or 20,000 records in it. Well, when it comes down to treatment, I need that model to recognize my condition and account for that in the clinical analysis and clinical recommendation, and not just disappear in the ether. So, part of that quality in the regulatory component is looking at the outputs of the algorithm, not just the inputs.

Medell Briggs-Malonson
Correct, and that goes back a little bit to what Anna was saying. We have all these inputs, and that is fine, but the output is not ideal, so what else can we actually do to make sure those outputs are at the highest level of accuracy and usability possible? So, I completely agree with that.

Steven Eichner

To add, I think we can keep these at the individual level. That is the key piece, that it is not just usable, it is usable at the individual level across that spectrum of diversity.

Medell Briggs-Malonson
Right. Those are all good points. Eliel, I think your hand was up first, and then Anna.

Eliel Oliveira
I put a note here in the chat as well, Medell, to maybe reference the HTI-1 fair, appropriate, valid, effective, and safe (FAVES), which are fair, appropriate, valid, effective, and safe, and CDS, or CDI, if you use the HTI-1 nomenclature. I think that will be important because it all encompasses what we are talking about in terms of data quality to achieve the goals, and I think the reason we see this as an opportunity is because data quality is hard, especially with the fragmentation that we have, the way that individuals may enter data, and standards that are not necessarily followed by different EHR systems and providers. We are talking about EHRs that are certified, and some that are not, from several parts of our healthcare ecosystem, such as Long-Term and Post-Acute Care (LTPACs) or mental health organizations, that do not necessarily have a certified EHR that can use the standards that we have established for others, so it can get pretty messy, but I think that is why we think that AI could be transformative here, because we could build enough intelligence to maybe address that data quality challenge, which is quite large.

I think the recommendation that we have here of ONC establishing the governance is helpful. There will probably also be several other federal agencies trying to do the same, but I think another thing I would like to recommend on that column is the fact that things are moving so fast in this space, and ONC has the leap opportunity right now for AI and data quality, which is right in line with this point that we are discussing, but to me, that is a very small project to be able to address and a much larger problem that is moving so fast, so I think one of the recommendations for HITAC activities here could be to maybe try to collaborate across agencies on how to bring this specific topic of data quality and focus across agencies, whether it is the Agency for Healthcare Research and Quality (AHRQ), National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC), Food and Drug Administration (FDA), and so on and so forth, and bring the necessary resources to advance on this one, because otherwise, we are not going to make a lot of progress with the way that things are moving so fast in this space.

Medell Briggs-Malonson
Great recommendations. Thank you, Eliel. Absolutely. Anna, you are up next.

Anna McCollister
When I think about AI from the perspective of a patient, I have a number of concerns and excitements. There are a lot of good points and bad points. Thinking through how on earth you would set up any kind of a policy that tries to mitigate harm and encourage innovation around positives is challenging, obviously. One of the things that has been rattling around in my brain is the possibility of creating policy around the objective of the algorithm. One of my concerns is using the algorithm as a way of screening people for access to certain treatments, and we have seen some really horrible case studies of how that has gone awry and has created additional burdens for people and limited access.

Maybe the policy focus could be on identifying the areas that are in scope and appropriate for AI rather than attempting to figure out what inputs need to go into it and how the AI is going to work. What is in scope

that the AI can maximize, if that makes any sense? I do not know if these are particularly well-formed thoughts, but again, I am trying to get my head around how you could approach this from a policy perspective in a way that makes sense and creates guardrails, but is not limiting in terms of what potentially could happen with innovation.

Medell Briggs-Malonson
Got it. So, just to make sure that I understand, Anna, you are saying for patients themselves… Well, Hannah, you just dropped something in the chat. Do you want to address that? I know you have a question, too. Anna, it sounded like what you were saying was that from a patient perspective, which we should always be thinking from, where does the role or interface with AI come into play and how do we look at the potential legislation or regulation of what is appropriate and what is not? Did I pick that up?

Anna McCollister
Yes. I am concerned about the use of AI for decisions around access to care in terms of insurance and reimbursement because I think we have already seen the use of pretty basic AI as a way of discriminating and keeping people from getting access to care that they needed and making it really challenging for patients. Anyway, these have really significant implications for individuals and their families. On the other hand, one of the things that I am hopeful for is that AI might be able to work toward identifying… One of the refrains that you frequently hear from payers is that you cannot develop a payment policy for outliers, and I have always found that really frustrating because we have to find a way to incorporate outliers and be able to give to people who do not fit within the description of a cohort of a particular patient population, such as the one I always use, chronic kidney disease, because I do not look like or have characteristics that are consistent with the characteristics of large pools of patients with Chronic Kidney Disease (CKD).

So, how do you create some sort of a guardrail against AI that would be discriminatory or overly restrictive? Maybe if it cannot be used for access decisions, it can be used for the development of better outcomes measures or incorporation of what is appropriate for outliers. These are poorly formed thoughts.

Medell Briggs-Malonson
No, it is a very important piece because we always think about the various different uses of AI, so I think we need to discuss it. I think it may fall into some of Shila's questions as well. I am happy you brought that up because we know how it has been used in the past and we cannot allow that, but we also have to be adaptable with innovation as well. Let's hold on that because I think that is a very important piece that we need to unpack a bit more about what we can recommend to ONC. Hannah, and then Shila, and then, Eliel, we will see if we can wrap up this topic and go to the next one, which will also be something we will have an extensive discussion on.

Hannah Galvin
Thanks, Medell. Maybe I can answer the question briefly and then move on to my thought. What I dropped in the chat was an article by David Bates and a couple others that recently came out in *Health Affairs* that describes a framework or model for five levels of automation in healthcare. It is one of the things that our governance group is using as part of our framework, thinking about the safest, to start with, to the riskiest. There are a bunch of different frameworks people have come up with in this regard. Anna, to your point, I know you are hesitant about access. I am actually really excited about using AI for access. We have an access problem, we want to increase access, but I think that with any use of AI, whether it be for access or

triaging radiology studies or images, going to health equity by design, you have to give very careful consideration to bias and to including algorithm-propagating disparities, in a way.

I am not sure that there are hard and fast rules about not using AI in one situation or another situation, but each situation needs to be really assessed with all the nuance that it affords based on that particular algorithm and how it would be operationalized to look at bias. So, I like what we put here, "AI that furthers inequities and bias is a significant concern and has to be balanced." I think the one thing that I wanted to bring up was around ONC's scope, and you guys may have discussed this before I got on the call, so I apologize if I am stating something you already discussed, but great AI in healthcare, as Eliel mentioned, spans a number of different organizations.

Now, there are a number of different federal entities, such as NIH and FDA, and I know that Micky is now the AI czar, or whatever his title is, and is working across all these federal entities, but I do think that in us thinking about what ONC's scope is, one of the things I would like to see is our certified EHR technology, that certification involving some specifics around AI in that certified EHR technology, which does not necessarily include all AI across the FDA and across every startup that is using AI. I defer somewhat to our ONC colleagues here, but I think it would be hard for ONC to govern all of that, although Micky has some role in governing that in his other role, but for ONC to govern it, there is specifically AI within certified EHR technology, and I think ONC holds more power to do that and focus there.

Medell Briggs-Malonson
That is a very important piece, Hannah. We touched on it. So, as you know, Eliel mentioned that about all of our clinical decision support tools that are within certified health IT. I mentioned it briefly, but the way that you went deep into it was wonderful, and that is one of the things that we absolutely have to make sure we are keeping our scope appropriate, making sure our recommendations do directly drive and align with ONC's oversight when it comes to specific forms of decision support interventions, or DSIs, that are included are part of that certified health IT development or platform, so thank you for really nicely laying that out, because that is going to be important all the time when we think about AI, so, thank you for that, and thank you for dropping the article as well. Shila, you are up next.

Shila Blend
I think mine probably relates to building a little bit off of Hannah's point because working in the state government, as I do in our IT department, is very similar to what she discussed as we talk about governance and AI developing across these agencies, these departments, these different things, and the governance of all of it, the information that is being collected, what is allowed, and who owns that, which is very similar to our healthcare records.

Again, in AI, when you are pulling from different areas, there is a bit of a difference. I did see after I asked the question in the first column that they are being developed, but consensus has not yet been reached, but I do think that is a key area that we really need to focus on because right now, it seems like in AI in many areas, it's kind of an experimental phase when I go into things. What can you use AI for? Let's try it with this, let's try it with that, to see, but to kind of give a concerted effort on what the appropriate uses are for AI in healthcare because while some may be responsible, you may have some that put some risks in there and different things. In the chat, they were also talking about cybersecurity, so I just want to emphasize that point, on that importance on governance.

Medell Briggs-Malonson
Thank you, Shila. Those are all incredibly important points. This is all an emerging field, so that can possibly even still be part of our recommendation as HITAC, of still saying yes, we know there are still things being formed across the board, but it is still our recommendation that we need to have some type of understanding of governance, especially when it comes to the AI that is within our certified health IT or within those decision support interventions and how that may look even more, so, thank you for bringing that in. Those are really important pieces. Eliel?

Eliel Oliveira
Thank you, Hannah, for your article. I love the way it breaks down the different levels. Usually, we tend to think about AI in healthcare for clinical decision support, but there are so many other things, like administrative steps and tools that can do all kinds of wonderful things, but because ONC has that charge of defining data standards that **[inaudible] [00:38:23]** are looking at, at least in my mind, that is the first thing that comes, how we use this for clinical care or clinical decision support, but it is not the only thing. I love what Josiah is saying here as well about cybersecurity, which is not something that even crossed my mind yet, but is very important to highlight as well. I think if you were in the last face-to-face meeting where we had the AI open discussion forum, which I think we called something else, we heard from Dr. Embí from Vanderbilt talking about the model of how we validate AI, and I remember still having a question for the FDA at the time there on how we could do this effectively.

My thinking is just like the article that Hannah shared, that we already have established models to do certain things in other industries and other practices that are not related to AI, but that would apply here, and I will remind you of the point that I made in that meeting. When we talk about drugs and drug safety, we have a process for how it is created in a lab, how it is tested in animals, how it is tested in humans, how it goes to market, and how we surveil it to make sure that drug is doing what it is supposed to be. You could think about the same model for AI, how it is developed, and how it is tested, how it is put on the market, and how it is surveilled to make sure it is doing what it is supposed to do.

I think all that comes under that umbrella of governance that we are describing here, and yes, Hannah is right. Having Micky serving in the capacity now of the AI czar is a great way to bring the agencies together because yes, we are not necessarily going to be the ones regulating all of this, but because we have that hold on the standards of EHRs, clinical decision support, and tools that are directly related to clinicians and patients, we may have the ability to bring everybody together to evolve this, so that goes for that recommendation that I had earlier, that we just need to bring everybody together and accelerate the process because the industry is moving very quickly, and no one is necessarily considering many of those areas that are described in that article that you shared, Hannah. What controls need to be in place?

Medell Briggs-Malonson
Excellent. Thank you, Eliel. Those are really all insightful comments on that as well. So, we have had a wonderful, robust conversation on this first topic. We have many more topics to get to, so we are going to keep on going down to the next one. The next topic is health equity by design, and obviously, we will see some movement on this topic, and we already know we have some things planned for our upcoming HITAC meeting, but the gap is that many health IT systems and initiatives do not include health equity in their design, build, and implementation, resulting in gaps and disparities in health equity. And so, consensus has

not yet been reached on how to effectively implement health equity by design and health IT policies, programs, projects, workflows, and tools. The opportunities for health equity by design in health IT initiatives and the proposed recommendations recommend that ONC consider developing a toolkit that gives healthcare providers and health IT developers a step-by-step guide for how to start implementing health equity by design in their work.

So, let's open it up for discussion. I am going to be quiet until everybody else talks. I have lots of different thoughts on this, of course, but I would love to hear if anybody has any additions or thoughts to any of the gaps, challenges, opportunities, or proposed recommended HITAC activities. No thoughts? I am surprised! Eliel, I see your hand, and Ike, I saw you come off mute as well, and then Hannah.

Eliel Oliveira
I raised my hand because I was trying to give an opportunity first to everyone to voice their thoughts. Hannah, please go ahead, and I will come back if needed.

Medell Briggs-Malonson
We will go with Ike really quickly. Ike was at the same time you raised your hand, Eliel, so we will go with Ike, and then Hannah will weigh in as well.

Steven Eichner
One piece that we probably want to include is a little more of an explanation about equity across which populations: Race, ethnicity, gender, sex, disability, language, culture? What consideration factors do we mean when we are saying "equity"? What do we specifically want to bring to attention?

Medell Briggs-Malonson
Ike, I think what you are saying is key. As a health equity practitioner, I can tell you it means across everyone, all subpopulations, with demographics, rural, languages, cultures, as well as all the various different geographies. To your point, that needs to be cleared out. True practice of health equity, as we know, is not just about, for instance, race, ethnicity, gender identity, and sexual orientation, but it is across all the different identities as well as circumstances in which people live, which is why it takes a very systematic and intentional approach in order to drive it. I love what you said, so I am happy that you mentioned that. Hannah, you are up next.

Steven Eichner
Well, I do have a Point B. Point B is looking at the second column. I think we need an evaluation component as well, because it is great to have a great design and a great plan, but if we are not looking at tracking our behavior through implementation, we are not going to figure out if we have any implementation gaps and where we need to correct our courses of action.

Medell Briggs-Malonson
Correct, absolutely. I have some thoughts on that in a moment. Hannah?

Hannah Galvin
I have one thought and one question. I like that we are seeing in our proposed activities that we get a step-by-step guide. When I read over the draft health equity by design proposal from ONC, I found it very well

done, and also relatively high level, and I think that it is a great framework, but when you bring it to boots-on-the-ground and how you apply this to your organization or to your company, I wonder also if including some case examples in the step-by-step guide might be helpful for people to try to mirror how to include these examples from different parts of the industry. If one is from the health system and one is from a vendor, that might be helpful. I think the more specific we can get, the more useful it may be because I like the high-level framework, but how do we apply it? My question is one of our target areas is health equity, correct? And this is health equity by design, which is a little bit nuanced, a little bit different, but I think a lot of our topics crosswalk to health equity and even health equity by design, so I just wonder how we might want to think about that.

Medell Briggs-Malonson
So, Hannah, these are all really important pieces because you are right, it is a little nuanced, but also, health equity by design is even part of Secretary Becerra's equity by design, in which every single agency has been charged with equity by design, in whatever their domain is. And so, I agree with you. I look at health equity by design of really being thoughtful and strategic about how you are doing in conducting business, like your practices, policies, and procedures, which definitely go back to every single thing that she mentioned about how we are interweaving all of this work already, but when it comes to the ground level of how people should do this, there is a significant gap. So, I do think we need to think about this a little bit more to try to figure out if there is a way that this can be teased out a bit more, so maybe it is not health equity by design, but maybe it is health equity by design strategies or health equity by design implementation, in order to get to exactly what you are referring to.

Hannah Galvin
I guess I just wonder what we actually meant by our target area of health equity. When I think about our target area of health equity, maybe I should not, but I sort of think of health equity by design. I would want to understand how our target area of health equity differs from the topic of health equity by design.

Medell Briggs-Malonson
Absolutely. I am going to try and be quiet, though, so everyone can have some thoughts about this topic here. Shila, you are up next.

Shila Blend
Yes. So, with health equity, I see on there that you are talking about making a toolkit. Being in a rural area, one topic that consistently comes up with me and my team is that oftentimes, when we look at health equity, we are asking about things that, in some populations, might make an individual identifiable. As a part of that toolkit, there needs to be some clarification, especially on reporting requirements when they are asking for data or to do different things with data, on those ways that we can still be compliant with Health Insurance Portability and Accountability Act (HIPAA), yet meet their needs for their health equity project. As an example, say that we are looking at changes in gender. In some rural areas, if you get too small a population and you are narrowing it down, that individual is identifiable, which makes a lot of these health equity processes a lot more challenging than it would in a metropolitan area.

Medell Briggs-Malonson
Safeguarding the patients is huge and very important. As you said, that is part of equity, so yes, thinking about how to do that in that protected way. Those are all really good points as we are moving forward

through this. I will just say my thoughts on this very quickly because I believe I was the one who recommended this aspect. As a little bit of an anecdote, last week, my entire health system, all of our inpatient hospitals, underwent the joint commission healthcare survey advanced certification, and we went through a two-day survey with all of our hospitals. It was a highly successful survey, so we are the first within California, as well in the western region of the country and one of the first in the entire country, to have this healthcare equity certification.

The reason why I think this is so relevant is because so much of that certification is actually rooted in the health IT systems being able to identify patients when they may have a need or identify groups of patients when there is an inequity and be able to monitor the implementation of various different interventions in order to do so, and this is everything from, yes, race, ethnicity, gender identity, and sexual orientation all the way to those living with various different disabilities and all of those that have different languages. And so, all of that has to be included within the health IT system: Identification, identifying when there are any challenges, and most importantly, trying to circumvent those challenges, make recommendations, and then see what occurs when those interventions are put in place from a performance improvement standpoint, and it all is very intentional.

And so, even thinking about what the joint commission has done, and I was actually very proud of the joint commission for creating these standards, which really should be the minimum at every single hospital, I think when it comes to this whole health equity by design piece, while we are thinking about AI, social drivers of health, and all these other things that have influence over health and healthcare equity, a lot of organizations, both healthcare providers and health IT developers, oftentimes do not have the framework or the foundations of understanding how to do this work and how to do it so that we can make sure we are not excluding certain individuals or certain groups of people. We are making sure to elevate everyone's overall health outcomes and patient experiences in the best way possible.

I do agree that the proposed recommended HITAC activities should be developing some type of that framework or toolkit, but I also think that it cannot be so high-level still that people cannot really have lessons learned from it in order to say, "Okay, the very first thing you do is allow all patients to self-identify, and if they do not self-identify, here is the next step," and you have to be able to assess for intersectionality. There are certain things that are key that have to be within the health IT system.

So, going back to what Hannah was saying, I do think that this health equity by design piece is truly more of how to incorporate health equity and healthcare equity principles into health IT systems, policies, and practices because it is a very different skill set than just developing technology and ensuring that there are not adverse intentions. This is building the framework, building the foundations, in order to then also assess to make sure it is not discriminatory or biased in any way, but if you do not even have the foundation, if you are not collecting information on your patients with rare conditions, cognitive disabilities, or that are of a certain sexual orientation or gender identity in which they are very gender-diverse and of a small population, if you are not even able to collect that information, there is no way you can ensure that their overall health is going to be improved. So, those are just some of my thoughts about that.

Very quickly, I am going to propose some language. The last two sentences say, "resulting in gaps and disparities in health equity." "Disparities" and "health equity" really should never be together because they juxtapose each other. It should be "resulting in inequities," period, or "resulting in lack of parity," period, but

never “gaps and disparities in health equity” because health equity and justice mean that there are no significant challenges, so there cannot be disparities in that. That is just a little bit of language for us to clean up, so I would just say “resulting in health inequities,” “resulting in variation in outcomes,” or something along those lines, but not “gaps and disparities in health equity.” Okay, I will stop speaking on all those different topics. Eliel, I see your hand.

Eliel Oliveira
Thanks, Medell and everyone. I wanted to tackle the challenge aspect. I feel that there is more than just what we say in there in terms of why we have not achieved health equity by design. I think it is a great banner that many have adopted, but I believe that without incentives, we are not going to make an impact necessarily. Some of the things that you mentioned, Medell, were why will a software developer, for instance, add language features in a system when that isn’t a requirement. Would they, or would they not? In some situations, I do not think they ever will, and some of that is even from the government itself, for example, Supplemental Nutrition Assistance Program (SNAP) applications. They are very extensive in English only, but that does not help the individuals that we are trying to help oftentimes that do not speak the language. In another call, I mentioned that we got a ton of people from Ukraine in our region now, and Latinos, of course, but it is not just Spanish and English. We have a lot of Pashto speakers and so on and so forth.

So, I think that under challenges, we might want to highlight that there is a lack of incentive, for these incentives to enforce some basic aspects of health equity that need to be there. I think you mentioned gender and a few other data elements, but I will go then to the recommendations side, given that, and maybe recommend that one of the actions is looking at policies that need to be enacted to enforce certain things. From other work that I do, I think a basic one is language. It is just like we are talking about with data quality for AI, which is foundational. Otherwise, no AI system can function well. Without language variations, I do not think we can have systems that can be widely used.

An example I can think about here is operating systems and office tools that we have in our computers, like word processors and all that. You can go into any country, and it was not always this way in the early days, when you could only have English, but now you can have your keyboard basically use, read, and type any language that you may be using in whatever country you are in. Why did that happen? It was because there was a financial model that incentivized tech companies to do that so that they could grow their business. But again, like I was saying, I do not know if there are incentives there for organizations and software developers to do that because the individuals that are suffering the most may not have the resources to guarantee a business model that incentivizes or develops a health system to actually make those basic language challenge access solutions. So, that is a challenge, and maybe a possible recommendation there that I am putting forth.

Medell Briggs-Malonson
Eliel, I think that is really important, not only for the challenge, but I also like the recommendation. Because what you said and what I fully agree is that when it comes to health equity, there are two different types of healthcare equity. There is the healthcare equity where everyone has a just opportunity to engage in their healthcare the same way that anybody else would, and be able to interact with their providers, and be able to understand what their diagnoses are, and their self-management is. That is one aspect of health and healthcare equity, and then, there is also the health aspect of overall outcomes equity, where, regardless

of who you are, you have the ability to be as healthy as possible. What you are saying in terms of language is really important in terms of making sure that everyone, regardless of their language, is able to take part in our healthcare delivery system the same way that anybody else would be, and I would actually add on disabilities with that as well.

So, if you are hearing impaired, if you are vision impaired, if you have some other type of mobility disability, there should be various different standards of saying no, we cannot allow just some people not to have the same experience, opportunity, and understanding of their overall healthcare practices solely due to their identity because that, in itself is unjust. I think you bring up a really good point about reinforcing this in some type of regulation or standards, and also, when it comes to outcomes, reinforcing that you have to actively search for inequities in patient populations and subpopulations, and if you identify them, you have to make plans. This is the same thing we do all the time with quality of care. It is the same exact process, and this space should be no different in how we deliver high quality of care with, of course, the patient at the center of it.

Steven Eichner
Medell, this is Steve. I want to add onto and expand that. This should be across the entirety of healthcare, including ophthalmologists and optometrists. Particularly, I am a wheelchair user and have other mobility limitations. I desperately need glasses, but I cannot get an eye exam because there is nowhere in central Texas that has eye equipment that I can use in my wheelchair, and I do not stand up straight, so I cannot position my head to use it standing. I am stuck. The Americans with Disabilities Act (ADA) has been in place for how many years?

Medell Briggs-Malonson
Yes, and your personal example is exactly why so much of this is so important, because that is just unacceptable, because that is what we are talking about when it comes to equity and justice in healthcare and overall health. Until, as Eliel said, there are some standards and reinforcement, it is going to be the same, so, at least with ONC, though, there is an area within their jurisdiction where I think there is some possibility that they can recommend various different standards in order to be part of their certified program, so, absolutely. Thank you so much for sharing that with us, Ike, and hopefully someone is going to be able to find the right accommodations for your wheelchair, too. All right. Any other comments or recommendations for this? I know we have about 26 more minutes. All right, I think we have drilled this down, so we will continue to move out of this target area, and we will move into the next target area, which I believe is technologies that support public health. Eliel, I will turn it on over to you.

Eliel Oliveira
Thank you, Medell. This is great progress. I think we are doing great here in how we are covering this topic, so, thanks, everyone, for the comments. The next one we have here is use of technologies to support public health. The topic is optimizing public health data exchange and infrastructure, and that is a topic we identified where there is a need for improving public health data systems and collaboration among federal, state, territorial, local, and tribal public health authorities. The challenge we have seen so far is that the existing national networks do not sufficiently support the public health use case and do not address the data quality needs of public health.

The opportunity here might be to leverage the Trusted Exchange Framework and Common Agreement (TEFCA) to further advance interoperability between healthcare providers and public health authorities to support public health's unique data quality requirements, and some proposed recommendations so far are to invite TEFCA Recognized Coordinating Entity (RCE) to provide periodic updates to HITAC and have focused discussions on data quality improvement required to support the public health use case in TEFCA. So, that is where we are at this point at a high level in terms of the gaps, challenges, opportunities, and proposed recommendations, and I would love to hear if anyone has thoughts about these four pieces of this topic. I have thoughts, but I will leave them for others to comment first. Any thoughts? Steve, I was expecting you to say something about public health.

Steven Eichner
Yes. Looking at challenges, it is not just national networks that I have in mind. Personally, I would remove the word "national." Most data reporting for public health is not really national in scope. Most of it is local and state action. There are some situations where there may be some interstate exchange when residents of states cross to somewhere else and data needs to get back to their own state, as an example. Looking at opportunity, really looking at transactions via TEFCA, they need to support the regulations of local and state jurisdictions, not just comply with things at the national level, really looking at the use standards to facilitate interoperability, especially looking at laboratories and the long-term care, which is, of course, the next item down, but it is really looking at supporting exchange, not just from traditional healthcare providers, but also the support from long-term care centers and other providers facilitating exchange, not just for public health purposes, but for healthcare in general.

Looking at recommendations, I know CDC has recently acquired some additional expertise in this space looking at mapping Logical Observation Identifier Names and Codes (LOINC) codes and the like for laboratory reporting, so it would be easy for them to do a really good presentation on that, if there is interest.

Eliel Oliveira
Thanks, Ike. That is a great point. If I understand correctly, there is an opportunity there with what is coming, but if I heard you well, there are probably opportunities early on. We just kicked off the Qualified Health Information Networks (QHINs), and everybody is still trying to understand how things go, but if I understood you correctly, you are saying we have local, territorial, or other regions that need to do public health data submission and tracking, and we may need to make some advancements at that level, and also, as you see, in other agencies, like the CDC. So, if I understood correctly, there are also opportunities there beyond just leveraging TEFCA because many of these organizations are not going to be leveraged in that resource just yet.

Steven Eichner
Drilling down, public health has long invested substantial resources in data quality and onboarding providers. Currently, onboarding TEFCA for general healthcare exchange does not usually require much of anything in quality control on healthcare providers going in TEFCA, so, just staying connected to TEFCA is not going to be sufficient for meeting public health data quality needs that providers are still going to need to onboard with public health. One of our concerns is basically being asked to or potentially having to re-onboard every provider for every system. That is a bit of a challenge as we are thinking about the logistics of it in terms of looking at what we need to revalidate in terms of reestablishing connections. What does a transition path look like for moving successful reports coming in through one channel to a different, currently

untested channel? How much revalidation are we going to have to do, and where are the resources coming from to achieve that?

Eliel Oliveira
Thanks, Ike. I am also wondering here if some of the proposed recommendations that you are saying as well are not only for the RC to talk about the updates on TEFCA and how they can address public health, but maybe, from what you are describing here, we might also want to hear from CDC and their pathways to get integrated to the network, but also maybe from the local and more regional groups that are trying to put together public health data and the challenges that they are faced in so that then we can start preparing for leveraging these national networks in addition to short-term issues that need to be addressed currently.

Steven Eichner
I think bidirectionally, looking at where we can experience public health as developed in looking at data quality and onboarding be leveraged to support better data quality across TEFCA for other purposes. There are some lessons learned by public health over the last 15 or 20 years about interoperability that we would be happy to share, and some technologies we could probably make available to be leveraged in other spaces.

Eliel Oliveira
Excellent. Thank you for that. Other thoughts or comments, anyone? I think there is so much in this area that supports public health reporting, and given what we went through with the pandemic, I think we have made some great advancements, but if I am hearing correctly, and I know some of it as well, we are not quite there yet in terms of being able to monitor a similar situation.

Steven Eichner
Another piece of the puzzle is looking at what information public health has maintained that would be appropriate and easy to share with healthcare providers for continuity of care. There may be some spaces where there is really good logic and really good resources, things like Immunization Information Systems (IISes), and the like that are designed for sharing healthcare information for continuity of care. There may be other systems that public health maintains that are more research-oriented that may not be the best or good source of information for continuity of care for a variety of reasons, so it may not be the best thing necessarily to make everything that public health has fully interoperable for healthcare purposes. We need to be purpose-driven and really look at serving the patients, making sure that the data that we are sharing advances patient health.

Eliel Oliveira
Excellent. That makes total sense. Thanks, Ike, for those comments. Are there any other thoughts or comments? I know the Accel team is capturing some of those thoughts here to make adjustments, but is there anybody else?

Medell Briggs-Malonson
Eliel, I think Ike summarized this section very well about some of the recommendations. The only other thing that I was thinking of, which, again, I think Ike actually commented on, is what additional systems we might be able to use outside of TEFCA. When I read this, it seemed like everything anchors on TEFCA, but we do also know that TEFCA, as you said, Eliel, is still up and running. I would almost like to see if there is

something even more. While we hope TEFCA is the long-term solution, are there multiple other alternatives that we can explore in order to continue to optimize our public health infrastructure? That was my only comment, about what other items we can potentially use, going back to Ike's point that not all the systems need to be interoperable, but what other utilities or tools do we have that we can invest in while TEFCA is also still up and running?

Steven Eichner
It is not just on the public health side. I think it is looking systemically and looking at healthcare providers that do not have technology platforms that integrate well with public health systems or other systems, thinking about some long-term care or home healthcare environments where there is a data gap, not just in data pertaining to public health, but the same data you have for home healthcare and the like getting more integrated into healthcare in the more general sense as well. So, there are some spaces where you implement once and use many times or for multiple purposes, not just looking at it as single-purpose implementation, and that is certainly good for many more participants.

Medell Briggs-Malonson
Agreed.

Eliel Oliveira
Yes. So, it sounds like an opportunity here might be to identify best practices across agencies or different regional levels that then can be replicated to other parts of the country while we are in the buildup of a national network that can do this more efficiently.

Steven Eichner
It comes back around to a certain extent to health equity and access to care as well. If we look at healthcare in schools as an example, there are a number of schools, both in Texas and nationwide, that have school-based healthcare centers. Some of them are more integrated with local health delivery systems than others, as an example, but how do we look systemically for better integration of healthcare overall into the TEFCA network? It is not necessary solely for public health purposes.

Eliel Oliveira
Right. Yes, we clearly saw the intersection between social needs and public health challenges, and by intelligently identifying areas of challenges in specific regions during specific times of the year, you can react more efficiently and address health equity more effectively. Great point. Other thoughts or questions, anyone? I know we have 12 minutes left. Medell, I am wondering if this is a good time for public comment, and if we have time, we can always come back and continue on the crosswalk.

Medell Briggs-Malonson
Let's see. How many more topics do we have? Accel team, are we able to go down to the next one, just to see? Oh, we are going to get into interoperability. That is true. That will be a fair amount, and that will also be a very robust conversation with interoperability, so, yes, Eliel, I think your recommendation makes a lot of sense for right now. Thank you.

Public Comment (01:16:50)

Seth Pazinski

All right, then we will transition into the open public comment period. Accel, could you open up the line? If you are on Zoom and would like to make a comment, please use the raise hand function, which is located on your Zoom toolbar at the bottom of your screen. If you are participating via phone only today, you can press *9 to raise your hand, and once called upon, press *6 to mute and unmute your line. We will give folks a minute to queue up. Okay, there are no comments on the line. Let me just check. I do not see any hands raised, so, Medell and Eliel, I will turn it back to you for the remainder of the time in the meeting.

Next Steps and Adjourn (01:17:43)

Medell Briggs-Malonson
Great. Well, thank you so much, Seth. It is probably best that we take a break here because the next set of topics is so incredibly also important. I just want to thank all of the Annual Report Workgroup members for all of your suggestions, insights, and engagement. It is always great to hear and really receive all of the information from all of you because this is definitely a group effort, so please keep those recommendations and those insights coming. In addition, this will still be the standard crosswalk, so our next meeting, I believe, is in two weeks, where we are going to go over the next items, and Eliel will be making sure to usher us through all of those. I will be out of the country, so I will not be present, but if you do have any thoughts in advance, we can also capture those as well, so please review, and we will make sure that, when we meet in two weeks, everything is nice and smooth, and we can get through the rest of the crosswalk. Thank you again, and Eliel, I will turn it on over to you.

Eliel Oliveira
Thanks, Medell, and thanks, everyone. I will just emphasize that you have any edits, comments, and whatnot, do send them electronically as well so that we can capture those details. I think this is the important part of building the whole report, to capture as many ideas and suggestions as we can, and sometimes our calls do not allow for that, but today was a terrific discussion, so we are looking forward to the next meeting in a couple of weeks to go over the interoperability discussions with everyone. Thanks, everybody.

Anna McCollister
Thank you.

Medell Briggs-Malonson
Thanks, everyone. Bye-bye.

QUESTIONS AND COMMENTS RECEIVED DURING PUBLIC COMMENT

No comments were received during public comment.

QUESTIONS AND COMMENTS RECEIVED VIA ZOOM WEBINAR CHAT

Eliel Oliveira: We may want to reference the ONC HT1-1 FAVES (Fair, Appropriate, Valid, Effective, Safe) framework for predictive CDS interventions.

Medell K. Briggs-Malonson: Agree, Eliel. We need a set of criteria and/or framework to define data quality, inclusivity, relevance, and safety.

Steven Eichner: For the Opportunity column. first bullet, considering utility and usability in addition to "quality" (defined as discussed) is important.

Steven Eichner: an additional opportunity: • Explore how AI can assist patients in accessing and understanding their health information.

Rochelle Prosser: +1 Eliel

Hannah K. Galvin: @Anna, there is this nice article from Health Affairs that categorizes levels of automation in health care: https://www.healthaffairs.org/content/forefront/five-level-path-ai-automation-health-care

Eliel Oliveira: Great point Josiah!

Anna McCollister: Plus one to Ike!

Steven Eichner: Health equity is also an issue for patients.

Steven Eichner: Involving patients in the design of program to meet them where they are is important.

Hannah K. Galvin: Agreed, Eich.

Anna McCollister: Congratulations!!

Medell K. Briggs-Malonson: Thanks Anna. We are very proud as a system.

Eliel Oliveira: If you search for answers for any condition online you are likely to only find trustworthy answers in English. Even the NLM is very limited to content that is in English only.

QUESTIONS AND COMMENTS RECEIVED VIA EMAIL

No comments were received via email.

RESOURCES

AR WG Webpage
AR WG - July 8, 2024, Meeting Webpage

Transcript approved by Seth Pazinski, HITAC DFO on 8/6/2024.