Health Information Technology Advisory Committee

The Office of the National Coordinator for Health Information Technology

Transcript

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) INTEROPERABILITY STANDARDS WORKGROUP MEETING

February 22, 2022, 10:30 a.m. – 12:00 p.m. ET

VIRTUAL

Speakers

Name	Organization	Role
Steven Lane	**Sutter Health**	**Co-Chair**
Arien Malec	**Change Healthcare**	**Co-Chair**
Kelly Aldrich	Vanderbilt University School of Nursing	Member
Hans Buitendijk	Cerner	Member
Thomas Cantilina	Department of Defense	Member
Christina Caraballo	HIMSS	Member
Grace Cordovano	Enlightening Results	Member
Steven Eichner	Texas Department of State Health Services	Member
Rajesh Godavarthi	MCG Health, part of the Hearst Health network	Member
Adi Gundlapalli	Centers for Disease Control and Prevention	Member
Jim Jirjis	HCA Healthcare	Member
Kensaku Kawamoto	University of Utah Health	Member
Leslie Lenert	Medical University of South Carolina	Member
Hung S. Luu	Children's Health	Member
David McCallie	Individual	Member
Clem McDonald	National Library of Medicine	Member
Aaron Miri	Baptist Health	Member
Mark Savage	Savage & Savage LLC	Member
Michelle Schreiber	Centers for Medicare and Medicaid Services	Member
Abby Sears	OCHIN	Member
Ram Sriram	National Institute of Standards and Technology	Member
Michael Berry	Office of the National Coordinator for Health Information Technology	Designated Federal Officer
Al Taylor	Office of the National Coordinator for Health Information Technology	ONC Staff Lead
Denise Joseph	Office of the National Coordinator for Health Information Technology	ONC Staff Lead
Carmen Smiley	Office of the National Coordinator for Health Information Technology	ONC Speaker

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

Michael Berry
And, good morning, everyone, and thank you for joining the Interoperability Standards Workgroup. My name is Mike Berry, I am with ONC, and we are always pleased that you could join us. As a reminder, your feedback is welcome, which can be typed in the chat feature throughout the meeting, or can be made verbally during the public comment period. That is scheduled for about 11:55 Eastern Time this morning. I would like to begin roll call of our workgroup members, so when I call your name, please indicate that you are present. I will start with our cochairs. Steven Lane?

Steven Lane
Good morning.

Michael Berry
Arien Malec?

Arien Malec
Good morning.

Michael Berry
Kelly Aldrich?

Kelly Aldrich
Hi, good morning.

Michael Berry
Hans Buitendijk? Thomas Cantilina? Christina Caraballo? Grace Cordovano? Steve Eichner?

Steven Eichner
Good morning.

Michael Berry
Adi Gundlapalli? Raj Godavarthi? Jim Jirjis? Ken Kawamoto? Leslie Lenert? Hung Luu? David McCallie?

David McCallie
Good morning.

Michael Berry
Clem McDonald? Aaron Miri? Mark Savage?

Mark Savage
Good morning from the West Coast contingent.

Michael Berry
Michelle Schreiber?

Michelle Schreiber
Good morning from the Midwest contingent.

Michael Berry
Abby Sears?

Abby Sears
Good morning.

Michael Berry
And, Ram Sriram?

Ram Sriram
Good morning.

Michael Berry
Good morning, everyone, and thank you, and now, please join me in welcoming Steven and Arien for their opening remarks.

Workgroup Work Plan (00:02:10)

Steven Lane
Well, good morning, everyone, and welcome back. We see that Christina has joined since we passed over her name in roll call. We are excited to have a session today where we can really dig into the comments that everyone has been providing, so we are going to do just that under our Charge 1A. I think we are kind of simultaneously looking at 1A and 1B with the comments, looking at things that can be done to improve on the items that were included in draft V.3, as well as things that people would like to promote into V.3 over and above what was included in the draft, drawing on what is in Level 2. Naturally, we have commentary about things that are not yet at Level 2 that people are enthusiastic about, which is always an interesting discussion, but not directly related to our tasks, and then, we will have public comment and adjourn. Any questions about the agenda or anything new that anybody feels they need to bring to us today?

Arien Malec
Steven, we might want to just give a briefing on when we are going to have the hearing for disability status and accommodations.

Steven Lane
Yes, which is next week.

Arien Malec
Which is next week.

Steven Lane

I have to admit, I have been a little bit in rehab land this past week, not an excuse, but just a reality, and I know we have had some ideas and names submitted, I know there are some people out there who are thinking about joining us. I do not think we have an exact roster of who is going to be joining us next week. Al, Mike, and you, Arien, what is everybody's impression of that? I was thinking we would get at that towards the end, but we might as well jump in with that.

Al Taylor
I do not think we have everybody locked down. We have a couple of candidates.

Arien Malec
Yeah, why don't we just spend our time after this meeting just locking in the roster? But, I did want to make everybody aware that we were going to spend today going deep into spreadsheet land, and then, next week, going through disability and accommodation.

Steven Lane
And, I think the other thing we would like to do today as part of our work is go back and close the loop on some of the questions we have already opened up. Abby raised some key questions around the address standard and how we can potentially recommend moving forward with Project US@ while simultaneously recommending to ONC that they do the parallel work to focus on address standards as they relate to people who are experiencing homelessness, which I think we all felt was pretty important. We still want to finalize our thinking about the recommendations regarding the Gender Harmony content, and so, we do not want to drop the ball on any of those. So, Arien, before we jump into the spreadsheet or perhaps simultaneously, did you want to bring us back to either of those items?

Charge 1a – Draft USCDI v3 New Data Classes Elements (00:05:36)

Arien Malec
I think the spreadsheet is probably the best place for US@. There are at least two comments in the spreadsheet relative to US@. I was thinking this morning about how we never memorialized our recommendations for Gender Harmony and a particular gender identity, so why don't I take the action of committing to memorializing some of the email summary that we have had for the Gender Harmony work and putting that into the spreadsheet as well?

Steven Lane
Great.

Arien Malec
But, I think the sense of the Task Force is let's adopt the Gender Harmony vocabulary for gender identity, basically adopt the Gender Harmony recommendations relative to vocabulary for gender identity, and then, I think the only point of controversy might be what to do with sex assigned at birth from a USCDI V.3 perspective or V.2 perspective. We can either follow the recommendations of Gender Harmony and not include it, or we can let it pass through, but put in some of the Gender Harmony commentary. But again, I think it is probably better for me to sharpen up the discussion by having something more specific in the spreadsheet to react to.

Mark Savage

Arien, I had a quick thought there. I noticed this morning that Abby and I had put our names by a recommendation, but we had not actually fleshed anything out, so I took a stab at that this morning. I do not think Abby has seen it yet, so I want to leave room for her to edit, but there may be something to start working with if that is the pleasure of the group.

Arien Malec
Fantastic. Okay, good.

David McCallie
Arien?

Arien Malec
David?

David McCallie
Just on that topic, I get confused exactly about what we are to do with commenting on things that are already in earlier versions of the USCDI.

Arien Malec
Yeah, that was the "I don't know what to do" about sex assigned at birth comment. I think it is better to just put a sharper proposal and to have a discussion as a workgroup.

David McCallie
And, was your point that sexual orientation would become gender identity?

Arien Malec
My understanding is gender identity is already a field in USCDI V.3, and that the sense of the workgroup was to adopt the Gender Harmony vocabulary set for gender identity.

David McCallie
Right, and then, what happens to sexual orientation, which I think is already in there? Or, I cannot tell now. It is not listed as a new element.

Mark Savage
It is in V.2, and it is separate from the Gender Harmony Project's recommendation.

Arien Malec
Fine, okay.

David McCallie
Is there a conflict? I may not be completely up to speed on the subtleties of how we should think about these things, but do they both need to be there, the V.3 and the V.2?

Al Taylor

David, this is Al from ONC. Gender identity and sexual orientation are both part of USCDI, and they are both part of certification, and the comments that we are seeking are specifically on gender identity and not specifically on sexual orientation.

Steven Lane
And, those are not redundant, David. One has to do with how one thinks about one's own gender and the other has to do with how one is oriented to others sexually.

David McCallie
Okay, I do not understand, but I have nothing constructive to add, so I will leave it be.

Steven Lane
All right, shall we proceed?

Arien Malec
Onward.

Steven Lane
Good.

Albert Taylor
So, where to start, Steven?

Steven Lane
Let's see. We have sitting at the top of the spreadsheet, interestingly now in Row 2, where you are pointing us, the recommendation that now has both Abby and Mark's names on it about patient demographics and the data element address. This was the Project US@ issue.

Arien Malec
Steven, maybe I can recommend that we go to my comment first as a meta comment relative to US@, and then we dive into this particular one. I am happy to go in either direction, but I feel like we are zooming in, going down deep as opposed to looking at the broader recommendation first.

Steven Lane
Your comment on Row 3?

Arien Malec
I do not know what row it is in these days, but I did put in commentary on… I do not know how the spreadsheet is filtered yet. There we go.

Albert Taylor
Yeah, there are two address comments.

Arien Malec

Yeah. So, I committed to this one last time for how to propose generally handling the Project US@ specification. In the commentary that we had after the hearing, we noted that we have a bunch of data that has been collected prior to the US@ specification. Because of the way the specification is written, it is an address normalization specification, so it is possible to collect address information in line with Project US@. It is also possible to collect address information as funky old fields. And, the proposal that I had, I committed to more sharply defining in a recommendation… There are two ways that we could go about this. One would be to strictly require going forward that address information be normalized to the US@ standard and the associated AHIMA implementation guide. If we did that, we have to also recommend that all previous address information get renormalized and that all healthcare stakeholders commit to normalization of data to US@. I think particularly the latter would create a ton of value.

There are other conversations I think we might have that are a little bit out of remit relative to standing up a US@ validator as a nation. That feels like it would have to be a prerequisite. But, my belief is that the right way to handle data variability is to include the US@ specification and AHIMA implementation guide as the content model for address, but also include a metadata tag in the same way that we do for vocabulary content that indicates what content model was used for address information, and one might imagine, at least out of the gate, two content models. One would be a normalized content model and the other would be an assertion that this content is normalized to the US@ specification. So, I will pause there.

Steven Lane
So, Arien, restate your recommendation so we can get it down.

Arien Malec
Sure. The recommendation is to, as noted here, adopt Project US@ and the associated AHIMA implementation guide as the content model for address with an additional metadata element indicating the content model used, and initially, pre-US@, so basically, non-normalized content model and the US@/AHIMA IG guide. In the future, we might contemplate that there might be multiple guides or multiple content models, but at the outset, there would just be two. And, receivers of data or reviewers of data in the EHR would know, based on the associated metadata tag, whether they could expect the data they are receiving to be normalized and processed accordingly to the US@ guide or non-normalized, at which point they might make decisions relative to normalization.

Steven Lane
All right. Is anybody unclear on Arien's recommendation? We have some questions coming up in the chat. Go ahead, Clem.

Clem McDonald
I just wonder how high a lift this is for users and senders, or whether there should be some kind of intermediate. From reading the US@ thing, it sounded like they are being cautious because it might be hard about pushing forward. They were going to set some slowness.

Al Taylor
Who is "they," Clem?

Clem McDonald

Pardon me?

Al Taylor
Who is “they” when you say “they are being cautious”?

Clem McDonald
Well, I got the impression from reading this spec that there was some concern it might be hard to do this all at once.

Steven Lane
So, Carmen kindly has joined us today. Carmen, I do not know if you are on audio or not.

Clem McDonald
I **[inaudible – crosstalk] [00:16:37]** spec.

Steven Lane
She pointed out in the chat that the Project US@ tech specification and companion guide does not dictate how data holders, including providers or developers, should handle historical data, so the spec as it exists provides structure for new data being collected and then shared, so it sounds pretty inclusive, not exclusive, at this point. Carmen, if you have audio, feel free to join in.

Carmen Smiley
Can you hear me?

Steven Lane
Yeah, there you are.

Carmen Smiley
Okay, great. Hi, Carmen Smiley from ONC. I just want to point out that yes, just as I stated in the chat, the technical specification companion guide does not dictate how providers will handle historical data, and that was out of caution because we have received feedback from a number of developers that were taking part in the technical workgroup or participating in the technical workgroup that that could actually create some issues. But, Dr. McDonald also had a really good question if there are other content models, and one of the reasons why we forged ahead with Project US@ is because there are no other content models that were known. I suppose somebody could enter Publication 28 as a different content model, but it is still difficult to interpret how it was applied.

Clem McDonald
I have to say I like the model, I just do not know how heavy a lift it is.

Arien Malec
And Clem, that is why this recommendation is structured this way, to basically allow for people who have pre-collected address information pre the US@ guide to not have to retroactively go back and renormalize it, but at least have some hints or a metadata flag to receivers to let people know whether the address

information had been normalized or had not yet been normalized, which could then allow the receivers of data or actors who are processing the data to make a decision about whether to call the API or otherwise treat the data differently, whether it has been normalized or not normalized.

Clem McDonald
That is a good idea.

Steven Eichner
This is Steve Eichner. I think that by exchanging normalized data, you are still forcing the hand to modify, or at least, there is an API to update it at least for patient matching purposes, because otherwise, you are not going to get a match.

Clem McDonald
Well, matching is not all or none. People are matching now.

Arien Malec
That is right. People are doing matching against the existing non-normalized content model. One might imagine that you would do better by pre-normalizing address information. I could imagine, for example, in some of the work that I have done in the past that it might be useful to get data and make a decision about whether it has been normalized or not, and if it has not been normalized, normalize it prior to engaging in matching behavior. It would be really useful to know which of those two it was so that I could make differential decisions.

Steven Eichner
Exactly. I wholeheartedly agree with that part of the process. That is kind of where I was going, is that as soon as you get over that cliff, you are basically encouraging the normalization, not that that is a bad thing, it just creates a heavy lift.

Steven Lane
Al, can you scroll a little to the right, or perhaps shrink your view a little so we can see the discussion text?

Arien Malec
By the way, Abby asked a question about where we are relative to the recommendation that she had about the unhoused.

Steven Lane
Yeah, we should go there next.

Arien Malec
So, the thought process that I was proposing is we first deal with high-level US@ recommendations and then dive into recommendations relating to the unhoused.

Steven Lane
Well, I just want to respect the fact that Abby suggested that she wanted to be sure that those were included together, that we not approve the one without addressing the other, so I think before we go towards making

a final decision on this, or a today decision, I would like to go ahead and invite Abby and Mark to discuss their thoughts in the row above.

Arien Malec
I think that makes sense.

Steven Eichner
This is Steve Eichner. If we are going on this path, it probably ties to recommendation for public health for investment in infrastructure in that same space, and looking at adopting US@ and investing in the technology to upgrade.

Arien Malec
Yeah, I do not know how to handle that one. I think we either handle it as part of the V.3 recommendations to contemplate a recommendation to ONC to sponsor HHS or U.S. Post Office to stand up a Project US@ service for the nation, or we could take it with our next remit relative to the ISA portion of our work, but like I said, I did not quite know how to handle that one. My sense is it would be really useful for the nation to have an address validator that was conformant to the US@ specification. It feels like it is two halves of a sandwich, maybe the top bread and the bottom bread, but again, I am not quite sure where we want to insert those recommendations, and Steven, I am also cautious that USCDI is a content model specification, not an interoperability or services model specification. So, I will defer to you about whether you want to wade into those waters here or just stick where we are, and then, later on, wade into those waters.

Steven Lane
I like where we are so far, but again, I would like to invite Abby and Mark to reflect what they have included here. Does one of you want to take the mic?

Abby Sears
At a high level, and then I will have Mark do more detailed. At a high level, I think what we tried to propose was some additional language that would help alleviate some of the impact of making this change. Overall, the change is a good change, and I think having a standard and a normalized way to do this across the country will reflect on it being easier to use for many purposes. What matters to me is that at the same time, we are adding in a pathway to reduce the impact of the equity divide that will be created by doing this for some populations. So, that was really the intent of what Mark and I batted around over the weekend. Mark, do you want to add more detail?

Mark Savage
Sure. Abby and I tried to work out something that was the smallest lift possible to try to create a placeholder for this issue, and so, adding a value for homeless or lack of stable address, not being prescriptive about what the proper name for that is, so those are just conceptual terms in our writeup, deemed to make at least an important minimal contribution. It does add a whole range of things that could be there, such as the **[inaudible] [00:24:57]** health community's list of different reasons for not having a specific address, which might actually help with matching.

It is just a basic placeholder for lack of a stable address, and the thought that that both helps with matching, in fact, you have something rather than nothing when you are doing the matching, it precludes inaccurate

matching when you have the same person with multiple addresses because they are moving from shelter to shelter, etc., and at the beginning of the justification, it says it tries to avoid embedding some structural issues. I think the overall thought is the best approach to patient matching is actually some efficient combination of characteristics, not just address, but Abby and I thought that was maybe a little too much for today's conversation. Abby, is that a good summary?

Clem McDonald
Could I clarify, Mark? Are you just saying we should have an attribute saying something implies they do not have a stable address? Is that all you are asking?

Mark Savage
Yes, that is what we have for now. I am not saying that that is ideal, but it seems like that would not be a heavy lift.

Clem McDonald
Yeah.

Al Taylor
Mark, would that distinguish between housing instability and an address with a really short effective period or a past effective period?

Mark Savage
That is a distinction that the health-related social needs screening tool takes into consideration, but we did not know how much appetite there was for adding detail here.

Clem McDonald
From the chat, it sounds like they already have it.

Carmen Smiley
Sorry, this is Carmen Smiley. There already is a metadata element that indicates if a patient is known to be homeless.

Mark Savage
And, that is in the address field?

Carmen Smiley
It is in the specification under the metadata schema towards the end. It is an optional field at this time because not all systems will be collecting this information, or sometimes, it is unknown, but if systems decide to apply this, they have the option to do so.

Al Taylor
Carmen, that would not be represented in the address field, it would be something separate from the address field, like an address being "none," address being "homeless," or something like that?

Carmen Smiley

Yes.

Al Taylor
It would be a separate thing? So, it would be a blank address with some indicator that they are homeless?

Carmen Smiley
Precisely, and hopefully there is some provenance data as to the date on which that was collected, or by whom.

Clem McDonald
That sounds like we are done, then.

Arien Malec
Maybe we can ask Abby and Mark to review the content model and verify that it meets the concerns that I think they very appropriately raised.

Mark Savage
Carmen, if there is a link that you could drop into the chat or to send by email, that would save me a little time. I would so appreciate that, thank you.

Carmen Smiley
Of course. I will do that now.

Al Taylor
Based on that conversation, if it is not part of the address itself, which is a discrete data element, it sounds like what we would need or what we might be proposing is either a reworking of a current data element that has already been submitted, like a homelessness flag or a homelessness indicator.

Arien Malec
Al, I have a basic question here, which is does USCDI list discrete fields, or does it refer to a content model? I was being deliberate when I talked about the notion of a content model for address, and what I mean by "content model" is a little more structure than a bag of fields. So, part of the complexity of healthcare data, and I was really sensitized to this when Steven pointed me at the naming specification for how to handle unknown names or new baby names, part of the issue that we have is we are trying to force fit a content model into a fixed set of bag of fields that exist in databases, but when we think about a content model, we are thinking about something a little more sophisticated than text in a bag of fields. We are thinking about metadata that can be used to tag and accompany fields that help interpret what those fields mean, or may, in some cases, tell us that certain fields are or are not applicable.

And so, when I am thinking about adopting the content model for address, I am actually thinking that for USCDI, we think about address not as a bag of fields, but we think about address as something that has some structure and semantics to it, and there clearly are going to be some changes that are required to registration systems and EHRs to better adopt the content model, and the US@ specification lists some ways that you can adopt the content model specification when you have a bag-of-fields implementation.

Al Taylor
So, let me answer one question. I know that I can answer the way it is right now in USCDI. We have a loose structural requirement for the data element of address, and our goal with considering US@ is to have a more structured…I guess "bag of fields" is a way to put it, but to just put more structure, and Carmen can for sure speak more intelligently on exactly what an address structure would look like under US@, but the structure that we have now for it is these things that are on screen right now, with all the things that most people think about when they think about what is in an address. So, it would sort of be imposing a new structure on it to say it has to be in this way, maybe in this order, using certain conventions, and so, that is how we currently represent address, and that is how we would do it if we were to adopt US@ as the standard for current and previous address capture and exchange.

Arien Malec
Yup. David has a question or comment.

David McCallie
Yeah. There is always a question of the encoding of all this data, and some things have fairly complicated encodings, like lab results, so I have never been quite clear how far USCDI goes toward specifying the encoding. I was assuming that would be left to particular implementation choices, whether using FHIR, C-CDA, or whatever, but at the USCDI level, I would assume we would want to list those metadata fields that we now think are relevant to passing this address information regardless of the encoding model that eventually gets applied, and this current list does not include the metadata, which I think would be an issue if we are going to use the metadata as a solution to Abby's suggestion.

Arien Malec
Yeah, I think we would memorialize my recommendation as saying that draft USCDI V.3 would either adopt the content model that is implied by the thing that was previously on the page or would adopt the US@ content model with an accompanying metadata field.

Clem McDonald
So, US@ has very, very specific lists of what those **[inaudible – crosstalk] [00:34:05]** should be for various purposes.

Arien Malec
Correct.

Clem McDonald
So, that suggests to me it defined the encoding.

Arien Malec
Well, it is defining the content model, and that content model wants to get poured into a V.3 container, or an FHIR container, or a V.2 container.

David McCallie

Right, but it seems clear that our recommendation is going to broaden what the current data element list there is of current address: Street name, number, city, town, state, ZIP code. It is more than that. It is not just those things encoded per US@ style, it is actually some additional metadata that is important.

Clem McDonald
Well, certainly, Arien's thing is an additional metadata.

David McCallie
Well, so are Abby's and Mark's.

Arien Malec
Right. So, in good computer science fashion, I am proposing to handle this through one layer of indirection, that we have a high-level encoding or content standard applied. The content standard that is applied currently is effectively the USCDI V.1/V.2 content model, which, with no disrespect intended, is much more of a bag-of-fields content model. And then, if you set the US@ metadata flag, then you are also adopting the US@ content model that is defined through the US@ specification and the AHIMA implementation guide.

Steven Lane
So, I want to go back to a question that Mark put in the chat. Would the Project US@ metadata approach help with patient matching if it is not part of the address field? I think that is a question to Carmen.

Carmen Smiley
Yes, and I think that is a really, really good point, and I added just a little follow-up in the chat. What we have heard, and in my experience, any time health systems will add words like "homeless" or "unknown" within an address field, it creates a challenge whenever you are trying to match, also because of the great variation in descriptive text that is added, but it has nothing to do with an actual address. And so, in order to help overcome this, that is why we built out the metadata schema, to provide additional information or data about the data for any time something is unknown or perhaps may need human adjudication or other decision making.

Arien Malec
Yeah, and again, this is this key point that I have been trying to make very poorly because we are computer scientists talking to social scientists and biological scientists. I think people are implicitly assuming that address is a bag of fields; that is, address is a set of text fields that are labeled in a certain way, and you pour text into them, and that is just because we have designed our systems in that way. As we adopt the US@ spec, we are adopting a content model that has got some structure to it. That structure includes metadata. The metadata changes the interpretation of what is in those fields, and then you have an impedance mismatch problem when you are trying to pour something with a structured content model into something that has a bag of fields, and that is where you get into these strange and inefficient workarounds, like saying "unhoused" or "homeless" in an address field.

Clem McDonald
My opinion is that this will help patient matching not hinder it. I do not see how it could hinder it.

Arien Malec
Completely agree.

Steven Lane
Okay. It would be good to move on from this discussion soon. So, it sounds like our final recommendation is really what Arien originally put down, if you scroll down a row and over a column. I am trying to capture that so we can put this to rest. "Recommend adoption of Project US@ address content standards and the associated AHIMA implementation guide as the content model for address with an additional metadata element indicating the content model used, whether the address conforms to US@ specs or not." And, we believe, and I think Abby has confirmed in the chat, that with the now greater awareness of this additional optional field to specify homelessness, that that will cover the need. Are we comfortable with that?

Hans Buitendijk
Steven, it is Hans. I am very comfortable with that with maybe just one wordsmith that after the words "content model," it says "/standards" because we are effectively pointing to an implementation guide, a standard of sorts. It might help **[inaudible] [00:39:16]** some people more.

Arien Malec
No objection.

Steven Lane
Done. All right, let's let that percolate here as we move on to the next area of inquiry.

David McCallie
Steven, it is David. There were multiple parts to Abby and Mark's recommendation. Are we deferring discussion on that?

Steven Lane
I think that what we found was that the metadata element that is already included in the US@ technical spec addresses this.

David McCallie
Yeah, I got that part, and I am comfortable with that, but I am wondering about "further recommend ONC advance a second process with timeline and deliverables, etc.," that additional part of their recommendation. Is that just so far outside our remit that we do not discuss it?

Steven Lane
Well, it is outside our remit. Abby, do you feel that there is a persistent additional request or recommendation there?

Abby Sears
The truth is the answer is yes, but I also understand it is out of our remit, so I do not know when the task of the Task Force is to really work on data elements or what to do in that situation, and if we separate out that recommendation, it can be easily sidelined, and I think the truth is we do not really know how what we are

saying here is going to impact equity and/or patient matching, and it would be really nice to actually be able to do something and test it to be able to validate our assumptions.

Steven Lane
Carmen, you spoke to us last time about your plans for the next phases of Project US@ and additional testing, as well as additional focus on that. Can you say how that would address what Abby is looking for here?

Carmen Smiley
Sure. I just want to point out that the pilot that we are working on this year will measure the effect of the specification and the API on improved patient matching. So, these are algorithmic tests that we are doing, based on unstandardized versus standardized data. I unfortunately do not have current resources to invest in its effect on equity, and I am not sure how that could be measured, but it does not exclude it. I think it is an excellent suggestion and definitely agree that it would be incredibly meaningful. It is simply not on the to-do list in the immediate sense.

Abby Sears
Can I just say, Steven, that that is what I remembered from the conversation? And, that is why I was asking for what I was asking for, and Mark put in the chat that what he recalls is that that is within the organization, not amongst organizations. How we test that is the error rate. If the error rate is higher with racial and equity descriptors and demographics attached to it, then we actually have a biased algorithm, and that is how we are testing it. We are actually seeing that our matching rate is higher for Caucasian and white populations.

Clem McDonald
You have to be aware that in a lot of hospitals, the reporting of race, especially nonwhite and Asian, is very low. In the hospital I worked in 15 years ago, it was 30%, and it has a lot of complicated causes. The clerks do not want to ask. They figure it is being racist. So, it is very complicated, but mostly empty a lot of times.

Abby Sears
Clem, I hear you. We have the same issues in our health centers. They do not want to ask. We just did a survey to our staff, and I am not sure staff want to be labeled. So, I get the question around what is the best way to ask that question and what is the accuracy of that data, but we have to do something, and in my opinion, we cannot continue to perpetuate standards and/or policies that do not think about this.

Jim Jirjis
Hey, it is Jim Jirjis. Can I make a quick comment about that? I think you are right, Clem. In the past, before 21st Century CURES FHIR APIs that make USCDI relevant, we were stuck with a clerk at the front asking, and all the human stuff that goes along with that. But, it is important to do this work now because all the patient-facing apps that develop may create much more acceptable ways to bring that up from 30% to much higher, and with our being ready with the USCDI recommendations here, hopefully there will be patient-facing apps that will overcome some of that front desk clerk hesitancy.

Arien Malec
I think David has a comment, and then I will put my hand up as well.

David McCallie
Maybe for Carmen, do I recall that there is a future phase of the work that would address person identification as opposed to just the address of the person, and if so, would not that be a place where you can address some of Abby's concerns? Because if you do not have an address or you do not have a stable address, then the identification matching is going to come down to something about the person.

Carmen Smiley
I completely agree for the need to further specify other demographic elements, but the scope for Project US@ is only patient address.

David McCallie
Okay.

Abby Sears
Right. She was really clear about that last week, and that is my hesitation.

David McCallie
Well, I would then try to broaden Abby's suggestion to say that there should be a future ONC effort to address identification of persons that would include people who do not have a stable address, or who have a tribal address, or who have something that just does not fit to the US@ metadata, because if this is about person matching, that is the problem we should be trying to solve.

Arien Malec
Could we get either you, Abby, or Mark to put that recommendation in the spreadsheet so we can consider it more formally?

Steven Lane
Ideally in Row 2, Column G. It would be in red text, Abby, so we can come back and revisit that next time.

Clem McDonald
If I could just make a comment, we did a lot of patient matching, and that is why we realized the problems with missing racial data, but you can go a long way without the racial data. You have the name, the telephone number, multiple address sometimes. We should not be limiting it to one. Certain names are easy to match, and certain ones are hard. Some of the Hispanic names and Asian names are hard.

Abby Sears
Clem, if you look at the recommendation that Mark and I put into the spreadsheet, we actually touch on that, but we agree with you completely that that is more complicated. There is a way to improve the matching algorithm and not reduce the disparities, and improve the equity issues, but I am not sure how to handle our recommendation in the confines of the request that this task force is being asked to resolve.

Arien Malec
I would like us to use the hand-raising feature just to streamline conversation, and then, just as a point of order, I have my hand up. I dropped this in the comment, but I think it is important to memorialize in the discussion itself. I am definitely interested in Mark and Abby's view on this, and my view is by adopting a

more principled content model, the bag-of-fields model has implicit bias because it assumes there is one and only one address, it assumes that an address is something that is a fixed abode, it assumes that we do not have co-housing, co-living, or other kinds of situations, and by being much more explicit in the metadata about how to handle those situations, moving to the US@ specification reduces implicit bias.

I think that is a statement that makes plausible *a priori* sense. It probably needs to be tested in the real world, and that sounds like something that, if OCHIN could take on, would actually serve the world. That is, by adopting the US@ spec, we better handle equity, but it feels to me more plausible that adopting the US@ spec has the intent or the implication of reducing bias by forcing us to be far more explicit about things that are rendered inappropriately implicitly in many contexts. So, thank you. Steve is next in our hand-raising.

Steven Lane
Ike.

Steven Eichner
Thank you so much. I do think **[inaudible] [00:49:05]** that we consider it is not necessarily part of the standard itself, but it is looking at better utilizing the standard, is a port for real-world testing. And, to Abby's point, looking at future work, I think looking at intraorganizational success is one thing; looking at interorganizational success, exchange, and matching is a whole different piece. So, what does that roadmap or utility look like, and what are our expectations in utilization? That is not to say that we should not move forward in normalization. I think it is a good thing, but we need to set reasonable goals with the available resources. That is it.

Steven Lane
All right. So, we are looking forward to Abby, Mark, David, and perhaps others collaborating on a specific recommendation that we could include as a complement to our recommendation to adopt the Project US@ standard that would help to address some of these core issues. And with that, I would like to move us beyond the address. I think we have Michelle… Oh, that was Level 1. We are not going to talk about Level 1 issues right now. So, I am just going down the list. In Row 5, we have Clem, who submitted a comment about assessment and plan of treatment regarding an item in draft USCDI V.3, which makes it our Task 1A, that LOINC should be an applicable standard and/or provide a sample list. So, Clem, do you want to comment on this?

Clem McDonald
Well, sometimes, the goal is to get your glucose down below 100, and so, you are describing a complicated thing. It is not just a single statement, and for that, you need LOINC. They want to get the hemoglobin up, they want to get the glucose down, they want to get whatever it is. The goals are sometimes stated that way.

Arien Malec
David has his hand up.

David McCallie

Thanks. My general concern with some of these broad categories like assessment and plan of treatment is that we do a disservice if we try to force too much structure onto something that is fairly complex and fluid, as Clem points out, and I would rather see us handle a textual statement from the provider as to what the assessment and plan of treatment is rather than force them into overly complex structures that they do not bother to actually be careful about because it is too much work. So, this is a generic comment about a number of these more complex fields. We should at least allow for passing textual information that summarizes the sense of the plan, even if, in fact, it is not fully encoded.

Clem McDonald
David, I agree 100%, but assessments per se are often structured. Medicare has a bunch of them. There is post-acute care that is formally structured, but does not always have LOINC codes. You are right, maybe we should split this up a bit.

David McCallie
Or allow for the nonstructured assessments when that is all you have. I agree, some of them are highly structured because they are very specific to use case, but in a discharge from an outpatient clinic, there is going to be an "assessment and plan" part of the note that will not be structured, and we should be able to pass that information. Maybe that gets passed under "notes."

Clem McDonald
I think you are absolutely right.

Arien Malec
Al has his hand up.

Al Taylor
I just wanted to respond to David's comment. I appreciate you saying that the way that you said it because it was really intentional. As most people know, assessment and plan of treatment is quite the legacy data element. I want to say that it goes back to common clinical data set, but because it is such a broad topic, even the fact that it is really two parts and not just the single part that is unstructured, the two parts are unstructured, and we want to be able to capture quite a few different kinds of things in the assessment and plan of treatment. And, where it is more specific, like SDOH assessment, then we are more specific about what sort of standards ought to be used for something in a narrower use case.

David McCallie
So, the intent, then, here is for us to be open-ended. Is that what you are saying, Al? I appreciate your weighing in on that.

Al Taylor
Yeah. We have gotten comments in the past about making assessment and plan of treatment more structured, and we have not done that because it has really almost always been a place where a lot of different things could go into that category. So, yeah, that is why we did intentionally leave it more open and less structured.

David McCallie

I like that. If you have structure and you wrap it and encode it properly, it should be recognizable as structure, and a system that can handle the structure should deal with it, but you would not want to exclude the more open-ended content that is not structured because there is a lot of clinical value in that, and you would hate to leave it on the floor.

Al Taylor
Right, and even if it is not machine readable, at least it is there, similar to the way clinical notes are structured, at least in USCDI.

Steven Lane
So, is there a recommendation here? Is there an opportunity? I know last year, we spent a lot of work, Clem in particular, identifying specific items from LOINC that we felt should be listed, and Al is going to come back and tell us at some point what happened with all those recommendations. But, is the workgroup interested in being more specific around this data element of assessment and plan of treatment and specifying some or all LOINC assessment tools as related?

Clem McDonald
Excuse me, I cannot make my hand raise on the computer. I think the problem is when you say "assessment and plan of treatment," that is typically part of a physician's discharge note, but you separate out assessments, those are often quite structured. You can go down a whole list: Glasgow coma score, Apgar score, and then there are all the ones that Medicare and a lot of nursing assessments structure.

Steven Lane
It is a good question. So, under the assessment and plan of treatment data class, is there perhaps a need for a more specific assessments data element that would then point to some or all of these structured assessments that have already been standardized?

David McCallie
This is David. I am speaking out of turn, but some of those things like an Apgar score are an observation, really. It is a structured observation because of the multiple ones of them, and it is really more like a lab result. So, the generic solution is to be able to pass these structured assessments in whatever appropriate place they belong, including here, if it is warranted. If there is an assessment that is at the scope of a discharge assessment and plan, it could be passed here, and it is incumbent, then, on the system to recognize if this is a structured assessment or textual. Hans, I assume that in FHIR, that is easily encodable in a way that that distinction is machine readable.

Hans Buitendijk
That is correct. You can code, you can be structured, and you should know what that is if you did fill it out right.

David McCallie
It might make sense for ONC to list the appropriate known and established structured assessments that could go in this field that should be expected by a system. It is a long list, like Clem points out.

Al Taylor

Yeah, David, it is a thousands-long list, and we made an attempt to identify at least a sample set of structured assessments in the new data class clinical test. So, SDOH assessments are a more discrete list, and they are a value set that has now been published to identify what I would call a starter set, a sample set, or at least just an example set of these coded structured assessments for SDOH, and then, the coded structured clinical tests, which could conceivably, quite easily include things like Glasgow coma scale and Apgar scores. That is still within the nature of a clinical test as a structured thing that is done clinically, and those are both in that category.

Steven Lane
So, Al, are you saying that based on the current USCDI conception that we have put these structured assessments in clinical tests as opposed to in assessment and plan of treatment, and that that is where they could stay for now.

Al Taylor
I would say that that is a reasonable approach. Of course it is reasonable because we did it, but that is what I am suggesting. I am suggesting that the clinical test is an appropriate container, or, where needed, more structured assessments, like an SDOH assessment, which is, if not structured, at least coded, there is room for more well-defined, specific assessments. Currently, there is only the SDOH assessment that is part of that assessment.

Clem McDonald
Again, my hand cannot go up. Arien, your hand is up, right?

Arien Malec
Yeah. I am just wondering whether… This is such an unprincipled field, particularly combining assessments and plan of treatment or plan of care. I wonder whether the way to handle this particular area is to deprecate this piece of USCDI structure in favor of the clinical test, make sure that SDOH assessments have a natural home there, and then, there is a broader conversation around plan of care. It is a little funny to have assessment and plan of care be lumped into the same underlying thing. I do not know how clinicians think about it, but in my computer science informatics hat on, it just feels very unprincipled and funny. Clem?

Clem McDonald
I disagree. I think we should keep assessments as an optionally structured thing because it is not just clinical people. The nursing homes do it, and those are nurse aides or something. There are all kinds of assessments that are done, and in the nursing field especially, they characterize them very clearly. They think of assessments as part of their job. So, I do not think I would throw them into the clinical tests.

Arien Malec
Clem, I think that is right, but I think the gist of Al's recommendation is to consider assessments as something that has some structure associate with them, and that that pairing of LOINC code and the textual or structured output of the LOINC code is something that is already handled by that field.

Al Taylor
And also, specifically talking about the many post-acute care settings, this was one of the reasons, actually, that that particular setting is what led to the current structure of the health status data class, and things like

functional status, mental function, disability status, and those sorts of data elements are really designed to address the structured data requirements of, amongst other things, the post-acute care settings.

Steven Lane
So, we will be getting back to that next week. A couple hands are up. David, I think you were up first.

David McCallie
Yeah, I would just point out that the most specific part of the plan of treatment is often the medication list, which we capture elsewhere, so the notion that it all has to be in this field would contradict lots of things, so I would just make sure that we allow for a free-flowing textual assessment and plan for those things that are not well captured in other fields, like discharge medications, for example.

Steven Lane
Kelly? You are muted still, Kelly.

Kelly Aldrich
As the nurse on the panel, I have to say I agree with some of these comments that are being made about assessment, and so, are we discussing actually separating them out? I am hearing a lot of mixture here that we are trying to quantify what goes under "assessment" because nursing assessments are more than Apgar scores. We need to be able to use our defined interventions and assessments that go beyond LOINC, and so, I am not sure if someone is advocating to separate these out, but I certainly would. Nutritionists would argue that they have evaluation interventions that should be discretely coded, and respiratory therapists, but as nurses, we too have different assessment codes. I throw that out there, as I have said, on a number of the ONC Task Forces, and we seem to favor the physician documentation aspects, which are fine, but adding to the care coordination and the overall health goes beyond social determinants of health.

Steven Lane
So, I think the question is is there a need that is within our remit this year, at this time? We have been asked to comment on items included in USCDI draft V.3, which certainly includes assessment and plan, which is still there and has been for years, whether those need to be clarified, specified, or potentially removed. So, I think this is about further clarification of the assessment and plan of treatment data within the data class of the same name.

What we have heard is SDOH assessments have gotten special treatment, that specific LOINC-coded assessments have been called out under clinical tests, Al has mentioned that patient status, as we are going to discuss next week, is a place where some of these assessments go, so I think the question that people are asking is within assessment and plan of treatment itself, which is currently fairly unstructured, is there a need to go deeper in specifying whether it is assessments by any member of the care team, such as physicians, nurses, nutritionists, etc., or should this one just be left as it is, and should we be focusing on adding more specificity within clinical tests or somewhere else? I think if there is another tranche of specific assessments that we might want to add to clinical tests in addition to the ones that were added last year, that would be fine. We can certainly recommend that, and my guess is that if we did that thoughtfully, HITAC would approve that, and whether those were assessments done by any specific member of the care team I think would be immaterial.

Arien Malec
I wonder whether somebody can volunteer to put together a more structured recommendation along those lines. It feels like the sense of this discussion is to deprecate this data class to include an assessments data class that is sort of parallel to clinical tests, and that that assessment could serve as a class that holds a bunch of stuff that wants to happen, but it feels like this is an area where we need a little more of a concrete recommendation to react to. I am happy to go do the work of putting together a straw case recommendation, but other folks may be closer to it or better situated to be able to put a more structured recommendation in place.

Kelly Aldrich
This is Kelly again. I would be happy to join you on that journey. It seems as though what we are ultimately trying to get out of, excuse me, a garbage-in, garbage-out, we are actually trying to help formulate to help support some of the advanced analytics that could help with structured data analysis, and where you find many clinicians' complaints and concerns is that they are really not providing what they need to within the EMRs, and so, often, these free text notes really manage what they are trying to say. And so, if we were actually able to capture them in those structured data elements, we may scale and find many benefits.

Steven Eichner
This is Steve. I am happy to contribute as well. One of my current scratch-the-heads in that space is looking at administering assessment. I have completed my share of assessments as part of clinical trials where the form may have been handed to me by a clinician, but I sat in a corridor and filled it out, so I am not quite sure if that counts as a clinician-administered assessment or not. I am not trying to resolve that here and now, but just pointing out that is one element where things could get a little confusing or conflagrated, depending on how you want to define terms.

Steven Lane
Okay. So, Al, if you could zoom out just a bit, I have tried to capture our discussion here. It sounds like there may be a subgroup that is going to think about perhaps some more specific recommendation.

Clem McDonald
Yes. Steve, I did find my hand.

Steven Lane
There you go. It is a good-looking hand.

Clem McDonald
I think so did David. But, I think a small thing is that clinical tests are things you send that someone else does. Assessments are usually done by the person who is doing the assessment, a nurse or whomever. That is all.

Steven Lane
Good point. We might want to pull some of that work that was done in clinical tests last year over and reset it into a new assessments data element.

Clem McDonald
I would leave clinical tests alone.

Steven Lane
No, but we did put some of this into clinical tests, and I think we were using that as a bit of a catchall last year, and I think what you are saying is some things should be called clinical tests and some things should be called assessments, and since we have different classes with those different names… Again, one of the things we do with each version of USCDI is we rearrange things to make them more logical, so that is something that could be considered that is not part of our current remit, which is good to remember. That would be a different kind of a recommendation, focused ahead on V.4.

Clem McDonald
David has a patient hand.

Steven Lane
Yes, David?

David McCallie
Thanks. It is a really zoomed-out question that I realized I did not fully grasp, how USCDI thinks about when and for what purpose information is encoded in USCDI. In other words, some of these things are things you might expect on discharge and transfer to a new facility. Other things are things you might expect happening three or four times a day during an inpatient stay. When does USCDI take effect? What is it associated with in terms of a triggering event? Does it imply that everything that is done continually in the hospital should be done as USCDI-encoded data, or is it only applied to data that passes interface boundaries to external systems? I am not formulating my question very well.

Arien Malec
No, David, Steven is the expert here, but the way I would conceptualize it is it is the underlying content model to which interoperability specifications are applied, and so, in particular, we map the US CORE FHIR spec and consolidated CDA spec to USCDI, and there is an implication that EHRs have the ability to collect and manage information accordingly so that they can interoperate according to that specification, but we do not specify the content model or the representational model in the EHR.

Hans Buitendijk
Or other HIR, because I do not think we are just talking about EHRs.

Arien Malec
Yeah, that is right, Hans.

David McCallie
But, any place where an API or a system boundary is crossed, this would apply. I guess what I am getting at is something broad like assessment and plan of treatment could apply multiple times a day in a hospital setting if you were querying a FHIR interface. It is not a discharge-only assessment and plan, like the historical use of the term.

Al Taylor
That is correct, David. It is any API access or any access to one of the several C-CDA document types. It would have to be able to query the data classes in USCDI.

David McCallie
Thank you.

Steven Lane
Okay. Well, I have continued to capture or attempt to capture our discussion, and we have some interesting ideas here. Clem, thank you for bringing this forward. I do not think we have any specific recommendations yet, even though it is within our remit to suggest added specificity to existing data classes and elements, so if somebody comes forward with a specific recommendation, I would put that into Row 5, Column G. If you do it in red text, we will find it when we go back through this next time and come back to it. So, we have a few more minutes before public comment, an if we are just going down the list, as we are, Clem, you had the next item as well, which had to do with care team members and the care team member identifier. Again, this is in draft V.3.

Your recommendation was a code should be specified, and if you scroll down, Al, you will find this on Row 6. You mentioned "There is no code that covers all possible members. Codes should always include a code and code system. I think NPI and DEA would go a long way. Also, note almost anyone can request an NPI, but would require code when available, an approach we have taken in the past." So, the kernel here, Clem, is…? You are looking for more specificity for care team member by specifying a code and the applicable code set. Is that correct?

Clem McDonald
Yes. In general, it is just going to be not very usable to know who is supposed to be there, what kind of a person it is, etc. The reason I bring up the NPI is because anybody can apply for one. It is not perfect, but most caregivers have them, even taxi drivers who deal with Medicare, and I am just not sure about pediatrics because they may not have a Medicare connection. But, we need something so you have a label and you can hang onto it.

Steven Lane
Al, do you want to comment on where you have been and what you are thinking about care team member identifier?

Al Taylor
Well, we had first considered adding something specific like NPI or a DEA number, but because the potential use cases for care team member and care team member role are so much broader than simply credentialed providers, which is generally the group that has NPI numbers or DEA numbers, we decided to just make it less constraint and say if there is an identifier in this particular case with this particular care team member in this particular role, then you may provide it, but we basically answered the question "Should all health IT be required to capture NPI?" We decided with USCDI Version 2 that we would not require all health IT to capture NPI.

Clem McDonald

With a lot of other situations, we have codes for some, but not every single element that could be there, and we just say that if available, you should use it.

Al Taylor
The point about the additional number of different identifiers, like was added in the chat about unique nursing identifiers, there could be other identifiers, could be business identifiers if a care team member is some other entity, we recognize that NPI needs an appropriate care team member identifier for a certain group, but we elected not to specify that particular code because there are so many others.

Steven Lane
So, I guess the question, and then we will get to the hands, is is it something the workgroup would like to do to specify at least the addition of a code set item within care team member identifier so that if an identifier is included, it could be specified what type of an identifier it is. Is that something that you included already, Al, or would that be an add-on?

Al Taylor
So, we did not include that…I guess "caveat" might not be the right word, but if you provide a code identifier, provide a code system as well. I think that is your question, right?

Steven Lane
Yeah. So, that would be an option, right?

Al Taylor
We did not specify that, and I have to double-check the certification companion guide or the USCDI reference document. I believe we did not specify that stipulation.

Steven Lane
Okay, let's go to the hands. Hans?

Hans Buitendijk
I am on the last comment from Al, that in USCDI, FHIR, and other places where identifiers are used, the type is normally included. But, the question that then raises here for USCDI: At what level of granularity are we going to define these attributes? We have stayed fairly coarse in many cases. When are we going to get more granular, and are we effectively starting to create a much more detailed data model that already done in some of the standards? So, that is the balancing act. I guess the question is that we want to at least be able to capture NPI and DEA if available. Perhaps that is one thing. But, to indicate there must be a **[inaudible] [01:21:40]** identifier, then I think we are starting to get more granular in the USCDI than we need to in light of what is already being done in those standards.

Steven Lane
So, I think you are saying that maybe the juice would not be worth the squeeze by adding an additional code system data element.

Hans Buitendijk

I do not think so. The intent is that we indicate that there is a minimum set of codes that we are interested in that we should be able to capture if available. For that part, I could see the potential, but if it is to indicate that for an identifier, you should maintain a code system and a code to understand what the identifier is, then I think we have drifted over into the standards space.

Steven Lane
David? Oh, Kelly, you snuck in front of David. I do not know how that happened.

Kelly Aldrich
I think my hand was raised. I might have changed the color of it.

Steven Lane
It is matching the wall on your deck there, sorry.

Kelly Aldrich
My scenic wall. No, I just want to emphasize that I agree with what the gentleman just said. If there is a standard, then we should incorporate that. It is really important with data modeling and demonstrating value outcomes associated with the care provider, potentially as a very strong analytic ability to see the impact of their performance, practice, and interventions on that patient's care outcome. There are many people in healthcare trying to find these equations, and if we do not allow for that discrete data element through a digital citizen capture, we are not going to be able to achieve improving our care outcomes. So, thank you.

Steven Lane
David?

David McCallie
I think we have to be careful of perfect being enemy of good enough in this case. A nationally scoped global identifier for everybody that is involved in the patient's care would be wonderful, but the lift to get there would be intense, and I would suggest that this should be worded to say that a locally scoped identifier is fine. You want some repeatability within the context of the current care events, "Is this the same person that treated the patient yesterday?", but you do not necessarily need a global identifier to answer most questions. So, locally scoped identifiers would be acceptable. Global would be fine. If you have a provider who has a global identifier, sure. It is the easiest thing to use.

Arien Malec
Do we need to go to public comment?

Steven Lane
I think we do. And, look at that, we have drained the swamp of the hands. Okay, I have tried to capture the discussion for everybody on this one. Public comment?

Public Comment (01:24:52)

Michael Berry
All right, thank you, Steven and Arien. We are going to now open up the call for any public comments. If you are on Zoom and would like to make a comment, please use the hand raise function, which is located

on the Zoom toolbar at the bottom of your screen. If you happen to be on the phone only, press *9 to raise your hand, and once called upon, press *6 to mute and unmute your line. So, let's pause here for a moment to see if we have any raised hands. I am not seeing any raised hands, so I will turn it back to our cochairs. Thank you.

Steven Lane
All right. I do not think either one of us had a chance at the beginning of the meeting to clarify how much we appreciate the input of the public and welcome that along the way if you can jump in for us. So, we have just a few minutes left. I do not know how much further we can go. Clem, it looks like you included a number of these recommendations about trying to get more specific, and we can go through those. I want to call out or thank Mark for providing extensive input regarding health status. I think we are going to be getting back to that next week, as we said. And then, just looking down the list, we have a number of things that Abby and Mark put in. So, I think we are falling a little behind, or at least I feel like I am falling a little behind in terms of doing my homework, in terms of checking into all of this, making sure that we are reading things ahead of time, but let's try as best we can to come next week prepared to focus in on the health status data class. Clem, your hand is up.

Clem McDonald
Just regarding David's suggestion, I think allowing a universal identifier and a local one is fine, but there are not local ones set up routinely, so I think that can be a heavy lift, but I still think that option is fine, it is just that I do not think it will happen.

Arien Malec
Well, Clem, my concern is you have a family member involved with patient care in many settings, and probably more in the future. Are you going to tell them to go get an NPI? It is silly.

Clem McDonald
No, I think we allow numbers.

Arien Malec
Put a phone number in.

Clem McDonald
Hey, that is a great idea, or an email.

Arien Malec
Yeah, email, anything that is locally scoped and understandable by the people that need to know.

Clem McDonald
That is a great idea. There is no lifting to get that done.

Steven Lane
I am scrolling through the spreadsheet, and there is just a tremendous number of suggestions that have been made, I think a lot of them by Clem. We are going to need to figure out how to manage our time so that we get to use our time as wisely as possible. So, as workgroup leads, we will endeavor to organize

ourselves around this. Hans, I notice that you put in an item that is on Row 31, where you did not specify anything in Column F. If you can fill that in, that would be great, and I will commit to you all to at least get through and read all this with Arien, and we will try to probably develop a prioritized list of focus areas for the time ahead of us. Let's go to the next or last slide here. There we go. This is what we have in front of us, a number of meetings, remembering that next week we are going to focus on the patient status, and then we are going to work through all of this as we go. Hans, do you want to provide a brief update on where you are at with the second spreadsheet and the mapping to C-CDA and FHIR? Is that pretty well done?

Hans Buitendijk
The FHIR column is done. The C-CDA column is about halfway done, so I should have that in the next one or two days.

Steven Lane
You are amazing. Thank you so much, and thank you to anybody who has offered to chip in and help Hans with that. All right, well, we are at time, over time. Thank you, everyone, for your time and attention today. Always greatly appreciated. See you next month.

Clem McDonald
Thank you, Steve.

Adjourn (01:29:39)