

# **Transcript**

# HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC) U.S. CORE DATA FOR INTEROPERABILITY TASK FORCE MEETING

March 16, 2021, 10:30 a.m. – 12:00 p.m. ET





# **Speakers**

Name	Organization	Role
Leslie Kelly Hall	Engaging Patient Strategy	Co-Chair
Steven Lane	Sutter Health	Co-Chair
Ricky Bloomfield	Apple	Member
Hans Buitendijk	Cerner	Member
Grace Cordovano	Enlightening Results	Member
Jim Jirjis	HCA Healthcare	Member
Ken Kawamoto	University of Utah Health	Member
John Kilbourne	Department of Veterans Health Affairs	Member
Leslie Lenert	Medical University of South Carolina	Member
Clement McDonald	National Library of Medicine	Member
Aaron Miri	The University of Texas at Austin, Dell Medical School and UT Health Austin	Member
Brett Oliver	Baptist Health	Member
Mark Savage	University of California, San Francisco's Center for Digital Health Innovation	Member
Michelle Schreiber	Centers for Medicare and Medicaid Services	Member
Sasha TerMaat	Epic	Member
Andrew Truscott	Accenture	Member
Sheryl Turney	Anthem, Inc.	Member
Daniel Vreeman	RTI International	Member
Denise Webb	Indiana Hemophilia and Thrombosis Center	Member
Cassandra Hadley	Office of the National Coordinator for Health Information Technology	Acting Designated Federal Officer
Al Taylor	Office of the National Coordinator for Health Information Technology	Staff Lead



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

#### **Operator**

All lines are now bridged.

#### Cassandra Hadley

Great, thank you. Good morning, everyone, and welcome to the USCDI task force meeting. Today, we will have continued discussion on the task force recommendations, so let me officially open the meeting with the roll call, starting with the co-chairs. Steven Lane?

#### Steven Lane

Good morning.

#### **Cassandra Hadley**

Leslie Kelly Hall?

#### **Leslie Kelly Hall**

Good morning.

#### Cassandra Hadley

Jim Jirjis? Ken Kawamoto?

#### Ken Kawamoto

Good morning.

#### **Cassandra Hadley**

Les Lenert? Clem McDonald? Aaron Miri?

#### Aaron Miri

Good morning.

#### **Cassandra Hadley**

**Brett Oliver?** 

#### **Brett Oliver**

Good morning.

#### **Cassandra Hadley**

Michelle Schreiber?

#### Michelle Schreiber

Good morning.

#### Cassandra Hadley

Sasha TerMaat?





Good morning.

#### **Cassandra Hadley**

Andy Truscott?

#### Steven Lane

He is lounging in the lobby.

#### Cassandra Hadley

Okay. Sheryl Turney?

#### **Sheryl Turney**

Good morning.

#### Cassandra Hadley

Denise Webb?

#### **Denise Webb**

Good morning.

#### **Cassandra Hadley**

Hans Buitendijk? Ricky Bloomfield?

#### **Ricky Bloomfield**

Good morning, I am here.

#### **Cassandra Hadley**

Mark Savage?

#### Mark Savage

Good morning.

#### **Cassandra Hadley**

Dan Vereen?

#### **Steven Lane**

Who was that last one?

#### **Cassandra Hadley**

Vreeman, my apologies.

#### Steven Lane

Oh, Dan.





#### **Dan Vreeman**

Dan Vreeman. I am here, yes.

#### **Cassandra Hadley**

Grace Cordovano?

#### **Grace Cordovano**

Here.

#### Cassandra Hadley

Okay, and John Kilbourne?

#### John Kilbourne

Good morning.

#### Cassandra Hadley

Good morning. Steven?

#### Steven Lane

Actually, Leslie is going to kick us off today.

#### Leslie Kelly Hall

Good morning, everyone, and welcome back to more hard work and a great meeting. We have some wonderful things to work on, and also some news to report from our presentation to HITAC. It seems like a bit ago, but it was just last week, right? So, we also have a new member joining us today, Dr. John Kilbourne, who is now our representative for CMS. Dr. Kilbourne, I wondered if you would take a minute and introduce yourself.

#### John Kilbourne

Hi. I am actually from the VA.

#### Leslie Kelly Hall

Oh, I am sorry. I knew that.

#### John Kilbourne

I've basically worked in terminology for the last 20 years or so, and I came to the VA from the National Library of Medicine, where I was the head of MeSH, which involved the UMLS, Meta, [inaudible] [00:03:17], RSTORM, and the SNOMED extension. Those were all part of what I had to do at the National Library of Medicine, and now I am at the Veterans Administration, where I am part of the terminology team at the VA. So, the part of the medical field that I am most familiar with would be terminology, and I am very interested in participating here and hopefully being of help.

#### Leslie Kelly Hall



Thank you. We will count on you to be of great help. Your background is tremendous, and as we tackle many of the questions around terminology, I am sure you will provide wonderful assistance. Steven, do you want to go ahead and talk about the past meeting? How would you like to do things?

#### Steven Lane

Do you want to give some reflections on our HITAC discussions for those who were not there?

#### Leslie Kelly Hall

Yes. I thought it went very well. There was no pushback on our schedule and the work done to date. There were some questions about particular work on provider name and asking us to make sure that for any recommendations we have, that we have thought through all consequences of such. They were generally receptive, with good questions. We did put forward a heads-up that we would like their guidance in future meetings around stakeholders that they felt should be prioritized because as we go through these efforts, we are constantly faced with how to prioritize the tension or competing efforts of different stakeholders from regulatory bodies to the data-underserved, like patients in public health, to the providers themselves and also payers and other stakeholders. So, we have given that heads-up, and we hope to have some guidance as we go forward in our future efforts. That was my take on it. How about you, Steven?

#### **Steven Lane**

The only other thing I will add is that Steve Posnack specifically did chime in regarding our recommendations to change the name of the... I am trying to remember which way we are going, but it is about the care team member name that we are advocating for. His comment was primarily to think about data collection ramifications and what downstream impacts might be because, of course, the vendors would need to implement this change, and as that data moves around the system, everyone would need to be aware of that change that would be considered. So, he was not against the change, but really encouraged us to really think that through all the way along down the line.

There was also some public comment that came in about considering the challenges of using an NPI for individuals and to be able to include those individuals who might not have an NPI. Again, that is something that we have talked about, but it was also really nice to see that coming in through the public comment.

The other thing I jotted down was that there was really a discussion about what it means to be the Core Data for Interoperability and what those terms in the title really mean, and I think a lot of work around the concept of "core" being the most important and valuable data that we exchange across the ecosystem to support patients, caregivers, et cetera, so I think we will be coming back to that in our discussion, especially around Task 1C.

#### **New Task Force Website (00:07:09)**

#### **Steven Lane**

So, with that, why don't we go ahead and dive in? If we go down a couple slides in the deck, we do have the URL for our task force website. Again, there were some delays in getting that up and going, but it is there now, and I think essentially all of you should be listed and have your little bio there, and if you see any problems on that site, be sure to let the ONC team know about that, and that will be there for reference.





#### **Steven Lane**

So, with that, I think we want to jump in. Again, we were in the midst of working through Task 1B. We got pretty much through all of it last time before the presentation to HITAC, but there were a couple things left. Al, could we ask you to bring up first the shared spreadsheet, which is the recommendations-tracking spreadsheet? Hans did introduce one new comment on there. Do we have Hans here?

#### Hans Buitendijk

Yes, I am on.

#### **Steven Lane**

I see you. Good, okay. So, I wanted to touch on that if we can, and then we will jump into the member recommendations doc, where Al and I had some subsequent discussion after a meeting about units of measure that I just wanted to share with folks, and then we will turn to you again, Hans, to talk about encounter diagnosis. So, while Al is bringing that up, on the task force recommendations document, which I hope you all have handy, on Row 13 was the discussion of laboratory tests and the bounds of laboratory tests, and we talked about that, and last time, we came to the conclusion that we wanted to recommend including diagnostic studies and exams with results data in V.2, and Hans, if I have the timing right, you had a little bit of a supplement that I think you added to that discussion where you say, "In principle, adopting diagnostic studies is appropriate. The challenge is to understand the scope in terms of vocabulary. Can we define a clear set of LOINC codes or other encoding as the documentation diagnostic studies and how they are to be represented consistently through support standards?" Hans, I do not know if you want to elaborate on that or if that is a footnote to the recommendation, if you will.

#### Hans Buitendijk

Sure. I think the challenge with diagnostic studies is that there is a wide variety of them, and they may be documented in a variety of different ways across different systems or even within systems depending on the context in where it is being used. So, unlike laboratory/pathology diagnostic imaging, where there is more definition and clarity around that, diagnostic studies may be more widespread. So, perhaps starting with a targeted list and saying that these are the studies where we are focusing on that vocabulary aspect of it would be a good first step because there is such a variety of expressions and capabilities out there that it would be very challenging to understand how we are going to get our arms fully around it. That is not to say that it is not being documented, but we would need to look at the variety of ways in which it is being documented. So, we start to recognize the need for it, and we begin with a clearly defined set of [inaudible] [00:11:10] and of studies of interest and begin to build from there.

#### Steven Lane

I have one question. Would diagnostic studies beyond the laboratory be considered a new data class altogether? We could specifically define elements within the class as we included, as we said, cardiac, pulmonary, EEG, and sleep. There are so many different categories. Might it be appropriate to think about what the highest priorities are, cardiac and EKG results in particular being so relevant to a very common cause of morbidity and mortality, which is cardiovascular disease? Might that be an appropriate place to start if we want to consider doing this in smaller chunks?



#### **Hans Buitendijk**

Yes, I would agree with the ideas of taking it in chunks, not necessarily considering it part of labs, but beyond that, and the variety of it. You named a couple of them in which they are being expressed that are not all the same or not done in the same parts of the system, so therefore, we need to look at that to see how we can progress that and recognize where we have standards for that, how widely they are adopted, where we do not, what can fit into more general categories where it is done, and where it is not, so I think there is more work to be done to make sure that we can have uniform expression of those.

#### Steven Lane

Clem, your hand is up.

#### **Clement McDonald**

I understand what Hans is saying, but there are lots of codes available for EKG, spirometry, and a lot of the overview tests in LOINC, and whether we could not take the position to use the LOINC code when it is available, like we have in other spaces. Even in the lab, there is still possibly a new test that will not have a LOINC code, so you use whatever you have. I think that would get us started. EKG is very rich, echo is pretty rich, spirometry is pretty rich, and most of the common studies have richness of LOINC codes. I would just hate to put this off when these are tests that have been sent by computers in V.2 for decades.

#### **Steven Lane**

All right. So, does the group have a feeling about whether we would specifically want to suggest this as a new data class in V.2 versus elements under "laboratory tests"? To me, that seems more honest, if you will, as opposed to trying to sneak it in under "laboratory."

#### **Leslie Kelly Hall**

I agree with you, Steven.

#### **Clement McDonald**

They are not laboratory tests, as much as I like to see them flowing.

#### Al Taylor

This is Al from ONC. I would just point to the existing submission, which is a Level 2 data class and data element on diagnostic studies, which is mentioned in Column K, which is the final recommendation determination. So, there is an existing data element and data class for diagnostic studies. I just wanted to point that out.

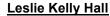
#### **Steven Lane**

And, it is in Level 2, right?

#### **Al Taylor**

Yes, and it was submitted by CMS, particularly in support of eCQMs, but there are obviously many other use cases for it, and the recommendation in that submission was to use LOINC as the default, and obviously, as Clem pointed out, other code systems could be used to represent different groups or categories of diagnostic studies.





Andy's hand is up. Andy?

#### **Andrew Truscott**

Thanks, Leslie. Steven, I just want to clarify so I understand exactly what you are asking us. Were you asking us to recommend that this should be underneath lab tests in general? Where do you want it, under these lab tests or as a separate discipline? Maybe "diagnostic studies" is actually a superset as opposed to a subset of "labs," and "labs" should be a subset of "diagnostic." I am not quite sure what the question was, and I would like to hear from people who have much more expertise in this precise space about how they should be treated.

#### Steven Lane

I think the current proposal that is on the table is to look at the new Level 2 data class, which is called "diagnostic studies/exams," which was submitted by CMS, so perhaps Michelle could comment on that, and we are going to suggest that we elevate that Level 2 data element to Version 2 and consider starting with a subset of most commonly and most used and impactful studies, such as those in the cardiovascular space. I think that is the proposal. I will make that as a motion, if you will, even though I am co-chair and I am not supposed to, but let's bang that around and see if people are comfortable with that.

#### **Leslie Kelly Hall**

I think before we have a vote, we have a comment from Dr. Kilbourne.

#### John Kilbourne

I am actually in agreement with what was just said because I think limiting the scope of this initially to cardiovascular studies versus anything that might have a result is a wise move. In other words, we limit the scope of this, because I think if we just say it is anything that a physician or clinician can find, see, or know about a patient, it possibly opens up the door too wide and leads to decades of discussion that never end. But, limiting it to cardiovascular studies initially and just seeing how that goes might be a wise approach.

#### **Clement McDonald**

I would disagree. Cardiovascular studies are important, but so are spirometries, and chest is available and just as standardized. There are a number of other ones. Optical penometry protects you from **[inaudible] [00:18:22]**. It's a simple number, easy as pie. I think it is a better way to go that if the codes are not available, people have to use something else and request them too. This has been going on for decades. We have labs, but we do not have the other stuff, which is almost as important.

#### John Kilbourne

Well, we should limit the scope in some way because there are discussions in the SNOMED world about observables, and anything that can be possibly known about a patient, and whether we call that a finding or an observable. I do not see that that will land anywhere, and that is my concern.

#### **Clement McDonald**

Well, what does Medicare want? I think they want a broader spectrum because they want to do quality assurance, and there are other important tests.



#### Steven Lane

Michelle, as the representative of the submitter of the diagnostic studies and exams, do you want to comment?

#### Michelle Schreiber

Thanks. You are right, and [inaudible] [00:19:21] too, so, thank you. In our letter, we were actually broad in our view that the data classes we strongly suggested were observations and results, including diagnostic studies and exams, and we were not that specific as to which ones. There are diagnostic exams like bone density, eye exams, or screenings. I think making it a subcategory or another subtopic... Steven, we would probably agree on the direction we need to go in because there are going to be a lot of these. As people here are already pointing out, it is not just cardiovascular. There are a lot of these, and I think over time, we will need to rethink them, so CMS actually was not specific about which diagnostic studies it wants at this time.

#### Steven Lane

Great. Well, again, for our recommendations, we will come back to the fact that we only have a few weeks to put them together, so they will be fairly high-level. We do not need to get deep into the weeds, and we can leave it to Al and company to sort this out. Again, I think we are really quite fortunate that Al and the team, who will be reviewing all of the public and HITAC comments, have been here, listening and participating in our dialogue this whole time. I do not think we need to spend a lot more time on that. I have tried to capture the core of our discussion and our recommendation, and I would suggest that we move on.

#### **Andrew Truscott**

Steven, you made a motion.

#### **Steven Lane**

I did, but we are not really a voting body. Does anybody disagree with the direction that we are going in?

#### **Andrew Truscott**

I think we have sufficient disagreement across this group so far that is not resolved. That is just my view.

#### **Steven Lane**

Andy, sorry, please articulate that. What I have here in Column K is that we would recommend suggesting elevating the new Level 2 data class, "diagnostic studies and exams," submitted by CMS, to be included in Version 2, and to consider starting with a subset. What do you disagree with in there?

#### **Andrew Truscott**

I think that is fine, but we need to articulate the relationship between diagnostic studies and exams and laboratory tests and results.

#### Steven Lane

Yeah, it is a separate data class.

#### **Andrew Truscott**



Yeah, but we need to be clear what goes into one and what goes into the other, and when you have certain types of cardiovascular studies that also include laboratory tests...

#### **Clement McDonald**

Andy, I would suggest we just make a comment that the "laboratory" class is separate. Laboratory tests require specimens, and other categories do not.

#### **Andrew Truscott**

That is fine.

#### **Steven Lane**

All right, I have captured that in the comments. I know it is a little hard to read in Adobe, but hopefully you are all able to follow along in Google. We have that. Is that good, Andy? Are you comfortable?

#### **Andrew Truscott**

Yes, that is awesome and immaculate.

#### **Steven Lane**

I love it. Let's keep going then. Let's swap over. I do not think there were any new comments in the recommendations tracking document that I saw. If anybody is aware of a comment that they have entered there that they have not attended to, please raise your hand and bring it to our attention. Otherwise, we will move on to the recommendations document on Row 11, where we finished up last time discussing laboratory units of measure and the need for the clarification that laboratory values and results must have units of measures included.

Al and I spoke after our meeting, and he made the point that units of measure is a standard that applies to a data element, not a data element itself. The exclusion of an applicable standard was intentional on the part of ONC due to concerns about the existence of an applicable standard that could be used across the entire domain of laboratory data. Leaving this out means that any applicable standard is acceptable. When there is a disagreement between the C-CDA and FHIR/US Core, ONC does not see that it is its role to break the tie. Al, I do not know if you want to add to that, but again, I think that addresses our question as to whether "units of measure" needs to be a data element unto itself.

#### Al Taylor

I think you captured what we talked about, and as a reminder, UCUM is one of the two standards listed under "vital signs," where in my head, it is much clearer that the right standards for vitals are almost only LOINC and UCUM. So, it is the vital sign measurements and the units that are the result of the measurements. I think there is a possibility that UCUM could be an appropriate standard for lab results, but not the only one, so [inaudible] [00:25:02].

#### Clement McDonald

This is Clem. I do not know where you are getting the idea that there is a contradiction between CDA and FHIR on UCUM in the US Core. There is not, and it is also supported by DICOM and IEEE. I do not know what the alternative is. Tell me what the competition is for a computable standard.



#### Al Taylor

Clem, we are not making the assertion that UCUM is not an appropriate, applicable standard. I am saying that where it is not clearly the only one or almost the only one to be used in a certain setting, it should not be designated as a required standard, but it is a data standard, not a data element.

#### **Clement McDonald**

We can separate that, which is okay, but how are you ever going to automate the use of numeric values without a unit standard? We look at units, and I have found 120 string representations for red blood cell counts if you just look at the raw stuff that comes across from labs. How can you compute on that? I just do not understand where there is an alternative or who is proposing an alternative for laboratory units. They can still send their usual strings. That is not a contradiction.

#### Al Taylor

There are several other representations of lab results, including simple numeric and unit, which would be UCUM, but there are other things. There are LOINC results, SNOMED results, and other things.

#### **Clement McDonald**

Wait a minute. LOINC does not represent units. It carries them in its database, and they are UCUM units when it carries them.

#### Al Taylor

Right, but sometimes LOINC is the answer, sometimes SNOMED is the answer, and sometimes UCUM is the answer.

#### **Clement McDonald**

No, UCUM is not the answer. UCUM is a modifier of numerically valued texts. It is never the answer for a categorical test.

#### **Andrew Truscott**

Clem, that is my understanding, too.

#### Leslie Kelly Hall

Dan has a comment to add.

#### **Daniel Vreeman**

Can you hear?

#### **Steven Lane**

Yes.

#### **Daniel Vreeman**

My comment is that "result values" is a separate data element from the unit of measure. That is the way CDA treats it and that is the way FHIR treats it. It comes right along with it, but it is separate and coded, meaning there is a structure for it, meaning a code, a naming system, and a display string, and I think the challenge is that yes, sometimes result values are numeric, sometimes they are coded themselves,



meaning it is positive or negative, detected or not detected, and sometimes it is a big old blob of text. We know that. It is just that in a case where the result value is quantitative, there is another data element that has to come along, and that is the unit of measure, and it is a coded representation. I think from the perspective of what has been implemented everywhere, I do not think there is really disagreement on the use of UCUM for that purpose.

#### Leslie Kelly Hall

Hans had some comment in the chat about UCUM. Hans, could you elaborate?

#### Hans Buitendijk

I could, but it is going to go into more detail. Units of measure have been around as separate data elements for...well, Clem was part of the ASDM definition of OBX, so, since that time, sure. It is just a matter of if it has always been entered in a structured fashion and has been done separately, and once UCUM came around, it became a more defined structure for unit of measure to be recognizable consistently. So, I think we have to be careful mixing UCUM with answers and values. It is a qualifier of it, but something on its own. I agree with Andy. There are other answers as well, but LOINC and SNOMED are the ones where you can structure it and encode it. That is where LOINC and SNOMED are being used. Where you cannot encode it, it is text, numeric, or something else.

#### **Steven Lane**

So, in the momentary absence of hands, I would propose that we are not going to resolve this here. We have had a rich conversation that we will include and incorporate in our recommendations to ONC, and I think to spend more time on this is probably to limit our time for other endeavors. Does anyone feel strongly about continuing here, or can we move on?

#### **Andrew Truscott**

I think it is best left for the team.

#### **Clement McDonald**

If you want to process numeric values automatically, it is impossible without a standard unit, so why don't we just forget about sending numeric values, except for readable ones? I think it is a big deal, and maybe I am the only one, and you can just cut me off.

#### **Leslie Lenert**

I second what you are saying, Clem.

#### **Steven Lane**

Thanks, Les. Andy?

#### **Andrew Truscott**

I feel like there is a sufficient strength of opinion on the call, certainly from Clem. I do not think Clem is alone. I think there are others who are lining up with the same point of view, myself included. It sounds like Hans is. I suspect there are others. It might be worth having a quick poll, but it almost feels like this group is actually saying something quite affirmative and strong about the sense of direction where things are

being taken, so if we say nothing, then there is some degree of complicity, which I do not think is reflective of the sentiment of this group.

#### Steven Lane

ONC

I agree, Andy, and I have tried to capture that in our discussion, but you are right, I have not gone on to capture this as a recommendation, so perhaps that is what we need to do. We actually did not have recommendations in this particular spreadsheet. Al, could you click the tab to go over to the second spreadsheet you have there in your browser? That would be terrific, thanks. We are down on Row 11. So, I believe that the recommendation of the task force that I am hearing is that UCUM would be an appropriate standard for units of measure. I heard Dan, Clem, and others weigh in that when units of measure are included, UCUM would be the standard. I have not heard disagreement from anyone except perhaps Al. Is that fair? Does anybody object to that as what will be our recommendation?

#### Leslie Kelly Hall

I think that Hans has articulated it in the chat and described the case for it.

#### **Steven Lane**

Great, all right. "Where available across standards," all right. I will try to capture that if I can. So, we will be moving that over as a recommendation to the other side. Thank you for that. Al, was that you?

#### Al Taylor

Yes. Do you want me to flip back over now that you have captured that?

#### **Steven Lane**

No, now we want to move down to Row 12, where we also left off, and invite Hans to go on. He did a lot of work on encounter diagnosis, and I think we wanted to finish that.

#### Hans Buitendijk

So, this is trying to get a little bit more clarity. It is not meant to argue against encounter diagnosis, but it can be a variety, and it needs to be clear whether we truly mean every diagnosis that is associated with an encounter, every clinical diagnosis or diagnosis that is clinically relevant, which might be more than what might be relevant for billing or quality measures, so it would be helpful to have clarity on that to ensure that when we get downstream into the guidance and the standards that we can clarify which ones we are looking for exactly because there are different types of diagnosis associated with an encounter. So, that was the intent of the statement there. We talked about it last time, but it still remained general, so we wanted to get a little bit more specific as to which ones.

The second part is that in the proposal, the terms "reason," "diagnosis," and "coding" are used. Typically, terminology is used when you get into the standards part of it. The reason for the encounter allows for free text to indicate the reason it was articulated and why the patient is seeing the physician, clinician or otherwise, and therefore, having those two concepts next to each other is helpful in itself, but there is a distinction that is made where "diagnosis" is typically going for an encoded statement and "reason" is typically going for a free text statement, although it could have some codes, but it is typically that. So, do we want to separate that out and make it clearer that there is an interest in the reason as defined that way, that there is a diagnosis, and then let's make sure we understand which one we are looking for: Just

admission and discharge, all clinically relevant that have been associated with the encounter, whether that would include working diagnosis, differential diagnosis, or just the ones that are going to be used for billing. How do we know we have the proper set included?

#### **Leslie Kelly Hall**

Hans, may I ask you a question? What would be considered a complete record in your mind, then, of the encounter diagnosis? Would that be the billable event? Because if we are looking for transparency, would you not indicate all associated diagnoses with that particular encounter?

#### Hans Buitendijk

I am pretty open. I just wanted to raise the question to make sure that as USCDI is being used to clarify US Core/C-CDA, there is clear guidance there on what the intent of the scope is, so I am neutral on that.

#### **Steven Lane**

Les, you have a comment.

#### **Leslie Lenert**

So, I am not sure we capture the reason for the encounter in a clinical note as much as we capture the chief complaint regularly. Of course, diagnostic codes are not diagnoses, they are what we are trying to diagnose in clinical encounters. Oftentimes, those are used in billing, and so, yes, it is always important to remember the difference between trying to rule out a diagnosis, which may be your rationale for the billing, and a patient having the diagnosis. So, I would recommend that if you are going to have the reason for the visit, it probably needs to map to something like the chief complaint because I do not think we capture the reason for the visit in clinical care.

#### **Steven Lane**

Clem, I will just comment that certainly, in the ambulatory setting, it is often captured by the people who are making the appointments or scheduling. They will ask that question. As Clem said, it is typically entered as free text. In the system that I use, I think the chief complaint can be encoded, that there is a list of chief complaints that you can use. I know there is yet another list for "reason for call" that is used. I think there is often a mix. My feeling about this is that when we speak of encounter diagnosis or encounter diagnoses, we are really talking about the diagnoses that are declared at the end of the encounter, that are used for billing, associating with orders, et cetera, and I think that certainly goes in the ambulatory [inaudible] [00:39:12]. There is a clear list of diagnoses attached to every encounter.

I think in the inpatient setting, it is a little more complicated because they do not tend to select diagnoses to associate with orders, but there is clearly a list of diagnoses at the end of an inpatient encounter that are established and utilized for billing purposes. I think that when this was included, it was really meant to include encoded diagnoses that were established through the course of the encounter, and I think that if we limited this or suggested limiting this to the billing diagnoses, we would be capturing the data that is most important for stakeholders. Grace, did you want to comment?

#### **Grace Cordovano**

I agree. My concern is that realistically, in the real world, patients have very limited time with their doctor, and there may be a number of things happening, but in an 8- to 10-minute timeframe, maybe one thing can

be addressed, and it would require a series of appointments or visits to get down to the solutions for all the different reasons a patient may be showing up. I am concerned with just a diagnosis. For continuity of care purposes, let's say a patient does not follow up. A system may lose that patient and a doctor may lose that patient, not having the opportunity to follow up with a social worker, a nurse navigator, or something like that. I want to think broader on more of the chronic illness/multiple comorbidity populations, the marginalized, and the vulnerable communities which would benefit from capturing more than just a diagnosis, if that makes sense.

#### **Steven Lane**

Are you simply speaking to the need for multiple diagnoses for an encounter?

#### **Grace Cordovano**

You might not be able to diagnose everything at once, though, in the real world, so even if you have multiple diagnoses, that may not adequately capture it. That is why "reason for visit" seems to be a more comprehensive opportunity from my perspective.

#### Steven Lane

Al, can you remind us if "reason for visit" is somewhere down the line here under "encounters"? I'm looking quickly.

#### Leslie Kelly Hall

It is "chief complaint."

#### Al Taylor

I think it was a submitted data element. I do not have it pulled up, but let me do that right now.

#### Steven Lane

I am looking to. Okay, so, are a bunch of encounter items in comments. Identifier, participant, time period, status, subject... I am not sure what "encounter subject" means. I am just checking.

#### **Clement McDonald**

Could I just ask Grace something? I understand what she is saying, and she is right on with this miniscule amount of time we have got, but the question is are you looking for a free text thing for "reason for visit" so people can say what they want, or are you looking for a coding structure for either "diagnosis" or "reason for visit"?

#### **Grace Cordovano**

I am happy to include structure, I am just not seeing where you would capture that.

#### **Clement McDonald**

So, you are looking for text, right? I just want to clarify that. Okay, thank you.

#### Steven Lane

The other thing that I will comment on, Grace, is that there are a lot of codes out there in ICD-10 that can be used to describe symptoms, complaints, and concerns that are not true clinical diagnoses, and at least



for my part, I code those. If somebody comes in with fatigue, malaise, anxiety, or whatever, it is not a true diagnosis, but those can certainly be captured using the "diagnosis" field, but I think everyone has said that "reason for visit" is typically free text, and I agree. It does not look we have that in there, so this is not really within our purview other than to say someone should submit that for Version 3 because it does not look like that has been submitted yet.

#### **Brett Oliver**

Steven, this is Brett. Sorry, I am on the phone, so I cannot raise my hand, but I would like to address that same piece. "Reason for visit" is oftentimes extremely vague. "Checkup" and "follow-up" are what gets typed in, so you are not missing a lot. I think the combination of the problem list and the diagnoses, whether they be symptoms or true diagnoses, are about as complete as you can get at this point, at least in the ambulatory space.

#### Leslie Kelly Hall

I agree. I think Mark has a comment to add.

#### Mark Savage

Yes, thanks. So, I have put it in the chat, and I will expand a little bit. ONC has had a "reason for referral" data element listed since 2018. I checked, and there are four data elements for referral submitted. They are listed as "comment" right now on the website. That may not have complete overlap with our current discussion of a broader reason for any visit, but I just wanted to flag that there may be some useful work already done. That particular data element was submitted by IHE.

#### Steven Lane

Oh, we have a lot of hands up.

#### Leslie Kelly Hall

Yeah, I think our next one is Hans, then Ricky, then Les.

#### **Hans Buitendijk**

I was just going to make a background comment, and I was about to type it. In FHIR/US Core, and I am pretty sure in C-CDA as well, a reason code or a reason reference that can be textual could be encoded along the lines of code that Steven mentioned. It is already recognized and separated from "diagnosis" to make that distinction. So, from a standards perspective, it is already there, but that then goes to the larger earlier comments that we have made. If we were to look at what is already required or must be supported, we would pick up a number of these things already.

#### **Leslie Kelly Hall**

Great. Ricky, did you have a comment?

#### Ricky Bloomfield

Sure. Just building on what Hans said there, I think it would be a huge advance here just to have something in this field. I have heard a lot of great comments about what specifically might be there, and I think that is also great, but from the viewpoint of the standardization, simply having something there will be really important, and then, over time, that can be further refined based on additional feedback that might come. I

think it is important to remember that at least from a US Core perspective, that has not been implemented at scale yet given that the requirement is not until December of 2022, and I think we will gain a lot of knowledge as we see how this is implemented, and it can be refined over time based on feedback from the ecosystem, but I think simply having something there will be really important.

#### Leslie Kelly Hall

Thank you. Les, do you have a comment to add?

#### **Leslie Lenert**

I probably have the exact opposite position. A blank field, which can represent one of four different data types of different data sources in free text, is potentially parsable within LP or whatever, but we do not know what it means because we do not know who collected it, how they collected it, or those types of things. I think that if we are going to have this, it has to be a field that is collected by a medically trained person and business processes, and it is fairly structured as to what it means from a business process point of view. If it is just a placeholder for some free-text comment by someone somehow, which could be a patient, a provider, a front desk clerk, or whatever, it has no value. It is just too vague, and there is too much variability to be able to use it in any type of decision support, analysis, or other things.

#### **Ricky Bloomfield**

I would clarify my comment to build on what Les said. When I said something should be there, I would strongly encourage that it be something that is coded versus in free text, and currently, in US Core, for example, they recommend a value set that includes codes from one of the following four systems, which are all SNOMED codes, but it has the category of "clinical finding," "procedure," "context-dependent category," or "event," so there is quite a bit of leeway in what can be there, but all of them are codes.

#### **Steven Lane**

So, to try to wrap this up and move on, what I am hearing is we agree that encounter diagnoses should be coded, that they should be entered by professionals, that utilizing the billing diagnoses is probably a pretty close approximation to what we are looking for, though there might be some other opportunities to capture coded data, and that a free-text reason for visit, which is similar to but different from the reason for referral, would be valuable to consider for future versions. Is that fair?

#### Leslie Kelly Hall

I think you got it, Steven.

#### **Steven Lane**

Perfect. I think we can say that at this point, we have completed our work on 1B based on the submitted comments, and we are going to turn our attention to 1C, which will keep us busy for the rest of our time between now and our presentation to HITAC. I just wanted to share a couple of thoughts about our work in 1C, which I think will be very interesting. Clearly, I think we heard at HITAC and a lot of people have suggested here that there may be an opportunity to expand the scope of Version 2 beyond what was included in draft Version 2, and I think as we go forward and put together our recommendations, we should consider all the various suggestions that people have.

I think we are really looking for the Goldilocks experience here. We do not want to ask for too much, we do not want to settle for too little, we really want to get it just right. I am sure each of us has our own sense about where that Goldilocks balance lies, and I think that as a task force, we are going to need to come to something resembling consensus, so as we think about these really good recommendations that people have put forward, we should think about whether, in our hearts, this makes the cut. Is this so important that we should encourage ONC to include it, or are these really good things that perhaps could wait? Again, waiting means waiting a year, not waiting forever. Version 3 is just around the corner, and hopefully, many of us will be involved in the consideration of a draft Version 3 12 months from now. So, I wanted to really be looking for that sweet spot as we think through these things.

Also, there have been some clear vocal constituencies that have come forward. We are going to ask Grace to go through her carefully thought-out recommendations that she has posted as public comment on the public website, as well as including here. Hopefully, next week, Michelle will have a chance to do so similarly from the CMS perspective. If there are others who feel that there is a voice that needs to be brought forward, we want to pursue that. I think we have a couple of weeks to work on this, but we do not have forever, and we really want to see what value we can add to ONC's consideration. So, I just wanted to offer those as orienting concepts. Does anyone have anything to add to that discussion before we invite Grace to walk us through some of her 1C recommendations?

#### **Aaron Miri**

This is Aaron. Can I add one color to this that echoes what we said at HITAC last week? Even Micky mentioned it. I think a lot of these recommendations in 1C are really fabulous, and we should build them in a context of trying to balance inequities of care across a care continuum. Take food. If we share, update, and understand that, maybe we can uncover food deserts that we did not know existed or access to high-quality food. I think those discussions would resonate a lot further given where we are now and what we have learned, particularly over the past year with COVID.

#### **Steven Lane**

Thanks, Aaron. Other thoughts on the 1C discussion, if you will? We will see what *Politico* makes of this. Mark?

#### Mark Savage

I will build on what was just said to say there are a collection of comments on the "social determinants of health" data class that may warrant a targeted discussion along the lines of the list you just mentioned.

#### **Steven Lane**

Yeah, and I think again, we have to remember that our current 1C discussion is bounded by the rules of engagement, which is to say that at present, we are here to discuss items that have been leveled as Level 2 that we may want to recommend consideration for inclusion in Version 2. As you have so clearly pointed out, a lot of the SDOH stuff is down at the comment level, so we will get to that after we finish this work, and I think we need to do the task at hand, which is looking at Level 2 items that we may want to advocate moving into Version 2.

#### Mark Savage

Thanks. There is an SDOH data class that is at Level 2.



Yes, indeed, and I am guessing that Grace is going to take us there.

#### **Grace Cordovano**

I am definitely going to use the analogy of Goldilocks because that is how I am looking at myself joining this group and all the work that has been done and trying to balance what the ecosystem needs versus what I see day to day with patients and their loved ones at the bedside and at home with their health situations, so let's dive in.

There were two things both Leslie and I had discussed, allergies and intolerances. We both focused on the need for the data element "food and non-meds" to be recommended to be moved to USCDI V.2. The reason for this was that the environmental and food allergies are material to care, and it is also likely now that we are seeing allergies and reactions with COVID vaccinations, and that will need to be detailed as part of the public health and national response, so from our perspective, prioritizing some, but not all, allergens could endanger patient care. I also wanted to comment that while we tried to bring our suggestions together, I did leave a second one separate. As you look at all of the different substances, do we also consider collapsing everything into allergens? Is that something that is possible? I would love to hear everyone's thoughts.

#### Steven Lane

I am not seeing any hands, so I will just chime in, Grace. I think in a lot of systems, they differentiate drug allergies from food allergies from environmental allergies, and I think that there are coding systems for each. Here, this data element was listed as "allergies and intolerances: food and non-meds," and again, you are suggesting moving this to Version 2. What do people think? Is this one of those things that is going to make the Goldilocks cut here and warrant our support? Clem? If you are talking, you are on mute.

#### Mark Savage

He is typing that he lost connection.

#### **Steven Lane**

Got it. Well, we will come back to Clem when he comes back in. Anybody else want to chime in on this?

#### **Aaron Miri**

I will say this, Steven. Particularly as we have done contact tracing and whatnot, particularly in the central Texas region, we have uncovered a lot. Food, access to food, allergies, and issues like that have really been underrepresented in a lot of the traditional data sets whenever people present themselves, particularly to our ambulatory side, unless they are coming in specifically for an allergy to shellfish or something. So, I do not know so much about how we say "intolerances" and whatnot, but again, I do think this type of data has a lot of merit, and it ties to a lot of other comorbidities simply because a lack of access to high-quality food. Here, we partner with Meals on Wheels to try to address where we see that in the data, but obviously, if something like this is shared more readily, that can lead to a lot of other better outcomes.

#### Steven Lane

Ricky?



#### **Ricky Bloomfield**

I would just add that if it is not clear already that food and non-meds should be included with allergies and intolerances, we should absolutely do that. I want to point out that US Core already accounts for all of these in "allergies," so the amount of implementation burden should be nonexistent.

#### **Steven Lane**

I think that as we have these discussions, it is important to speak to both US Core and CDA, and I know we have some people who have deep expertise in C-CDA.

#### **Clement McDonald**

Steve, I am back.

#### **Steven Lane**

Oh, good. Go ahead, Clem.

#### **Clement McDonald**

These two spaces are really quite messy. Even drug allergies are messy. It turns out about 90% of the people who report a penicillin allergy are not allergic to penicillin because there is a lot of confusion. With the food allergies, there are probably only five to seven foods that count statistically, so that could be easily handled, but when we start to get to Campbell's mushroom soup as an allergy, it can be really messy, and I think one has to be careful. And then, in terms of the other kinds of allergies in the environment, it is probably just latex. There is a lot of stuff that bothers people, but it is not necessarily an allergy. I just think it is a messy space, and we need to be careful. It would be nice to have a list of the common things for people to check off rather than have some monstrous thing with 10,000 chemicals to try to pick from. It is just tricky.

#### Leslie Kelly Hall

Clem, this is Leslie. For instance, a walnut allergy can be indicative of a latex allergy. Someone might not have experienced a latex allergy yet, but by denoting that they have a walnut allergy, we can get there, and there are some other things like that. Is there a place where you suggest we can refer to find those distinctly accurate allergies?

#### **Clement McDonald**

I do not know which one it is, but one of the websites of either the American Allergy Association or Immunology Association lists the seven or eight important allergens that are not drug allergens. The real problem is there is so much... So, people get irritated by aspirin, but it is not an allergy. There are all these complexities of what an allergy is, which can be deadly, but it is an irritation or some other kind of phenomenological thing. So, I think it would be really good to have a smallish list that people could pick from when they are dealing with these non-drug allergies, but even the drug allergies are really kind of a mess because of confusions and misrepresentation, or what is really what.

#### Steven Lane

Clem, the data class is entitled "allergies and intolerances," so I think that acknowledges that these are not all allergic-mediated responses.



#### **Clement McDonald**

Well, it may, but that makes it even messier because they do not have the same clinical meaning.

#### Steven Lane

Indeed, and I think the question before us is whether allergies and intolerances to foods and non-medication agents should be elevated from Level 2 to Version 2. That is really the only question we are contemplating.

#### **Clement McDonald**

I think non-medication things should be included, but I think we need to make it practical for typical users to get the stuff in.

#### Steven Lane

Medication allergies are already included in Version 1. So, you have the substance drug class, substance medication, and reaction, so those are already in Version 1, and then, in draft Version 2, those were carried forward, but in Level 2, there were two new data elements suggested: "Substance non-medication" and "substance food." So, the question before us is simply if this task force recommends that moving these from Level 2 to Version 2 would make a Goldilocks difference.

#### **Clement McDonald**

Well, the substance can include 100,000 chemicals if you are talking about the code systems. That is not Goldilocks, that is...I do not know which extreme it is on.

#### Leslie Kelly Hall

Dr. Kilbourne has something to add.

#### **Steven Lane**

Go ahead.

#### John Kilbourne

Hi. First, I want to absolutely agree vociferously with Clem about the messiness of this field. The question is if we should elevate this right now, whether that messiness will ensue if we open this up. If someone says they are allergic to tree nuts, how does that relate to walnuts? There is no vocabulary I know of that can make the connections between tree nuts and walnuts. That is just a minor example, but you are going to get a lot of data entered into the record, so that will be an outcome of this. I am not sure how useful that data is. It might be very useful, but I think we will add to the mess, and that mess may very well be beneficial, but I think those are the criteria to use to decide if we should add foods and environmental allergens to this, but it is very messy.

#### Leslie Kelly Hall

Steven, I would like to comment as one of the people who put this forward. I think the suggestion of having some constraints, as Clem indicated, could be a reasonable approach, but leaving it out because of messiness does not acknowledge the fact that it is a considerable worry to patients who might not understand all of the implications in care and who might actually understand more implications in care. So, I think it is important for patients to be able to indicate these things because when it is not captured, then there can be very untoward events, and this is an opportunity to have people provide information about



themselves they feel is important, and I think as Clem indicated, constraints are a good start, but eliminating it because it is messy is irresponsible.

#### **Steven Lane**

May I ask our vendor reps to chime in? I am pretty sure that all of the major EHRs endeavor to capture this data, probably in different formats. Again, this was leveled as Level 2, suggesting that it is widely available and already being exchanged. Again, the key question is simply whether or not this warrants inclusion in Version 2. What do the vendors feel about the challenge or lack thereof of including this?

#### Hans Buitendijk

Do you want me to start, Sasha?

#### Sasha TerMaat

Go ahead, Hans.

#### **Hans Buitendijk**

So, from a standards perspective, I am still going back and forth. FHIR is easy. It is accommodate there, as Ricky already said. It is part of a version of US Core that is already being referenced. I think the discussion goes back to the codes that are available in SNOMED because, for instance, when we want to get encoding, allergies have the opportunity to be encoded using SNOMED. That is what is being pointed to, both by C-CDA and FHIR, so I think it is more of a matter of if the vocabulary is sufficiently granular or coarse for the purpose and if the systems can handle it once those codes are there because they are already able to collect allergies and intolerance at the moment. I think it sits more in the vocabulary space.

#### Sasha TerMaat

From my experience, I would think it would be reasonable to accommodate, but it is not something that Hans and I have had an opportunity to discuss with other vendors at EHRA, so we could certainly take that as a follow-up, but I do not know broadly what the capabilities would be offhand.

#### **Steven Lane**

Well, Sasha, hold that thought because I think there are going to be a number of these items that are similar where we like to run our ideas or recommendations by EHRA to see if there is a perspective we are missing here just having two major vendors represented.

#### Sasha TerMaat

Sure. We would be happy to take some questions back to EHRA in our next meeting.

#### **Steven Lane**

Awesome. Let's see how far we can get. Grace, I think you got us off to a good start, but let's keep moving and go as far as we can.

#### **Grace Cordovano**

Okay, so we will disregard the next line on the allergens and move on to the next one. Leslie, can I defer to you to go over? I know we have already tackled the care team members, but the next three are for you. Do you want to go through them quickly?



#### **Leslie Kelly Hall**

So, in the care team members discussion that we had, first of all, we talked about changing the name, and I think that was consistent with this particular area of "provider name" and changing it to "care team member." That is one of the discussions that we had, and also, we were cautioned against it. I think we do have to come to some sort of understanding about what the consequences are when we name something differently in one class than in another.

But, our big issue here was that all of this information is necessary. It is almost as if you only get one piece of information, what do you do without the rest? How do you contact a provider? How do you look them up? Where are they located? So, a piecemeal approach like this that we are on a path toward seems somewhat more constraining and confusing than taking that entire class.

And so, we talked about making sure that at least in the beginning, we are able to have more information about the provider and all associated information, but also to expand that role in the future, under the related patient and care partner information, for instance, which we will get to in a minute. Grace, did you want to add anything more on that?

#### **Grace Cordovano**

No, I think that pretty much covers it.

#### Leslie Kelly Hall

So, I think we got enlightened by Clem's comment about being stingy a while ago. Why are we being stingy on things that we use nonstop? We have been passing this kind of information in HL7 for 40 years, so let's figure out how we can continue that and make this robust in this environment as well. We would like to see this brought forward.

#### **Clement McDonald**

No more stinginess.

#### Leslie Kelly Hall

Exactly, Clem. So, we would also like to bring that forward to V.2. We have the same discussion on the next two around encounter information, the facility location, and the name. This is all very basic information with the same argument. It is relevant, and a piecemeal approach seems more confusing and disruptive. Also, with the encounter information, we suggest aligning this with SNOMED, with encounter details, and making sure that we do not have a piecemeal approach because these are constantly used in every bit of information that is shared, so it is the same thing of bringing these classes to be more robust and moving them into V.2. I would invite comment. Mark has his hand up.

#### Mark Savage

Thanks. I just want to support and add that these elements, like the care team members and so forth, are especially important, they are critical for shared care planning and new delivery models, and also, there is perhaps overlap with the security and access functions where you are identifying people where you also want to know about the security and access. So, that is another set of reasons why these should be included in V.2. Thank you.





#### Steven Lane

Andy? Mr. Truscott, do you have a comment?

#### **Andrew Truscott**

Sorry, I was waxing lyrical while on mute. I agree, this is well understood, well constrained, and well documented. The only area I think we should touch on would be relationship type so that you actually have a way of capturing the relationship to the patient of the caregiver or care team member, et cetera, as an option. That would be sensible and logical to include. And then, we can build upon a bunch of the HL7 V.3 modeling that was actually done by the NHS some 17 years ago in this space.

#### Steven Lane

So, just to be clear, for relationship type, V.1 has "care team members," draft V.2 has "provider name/identifier" as an addition, Level 2 includes "provider telecom info," "role," "NPI," "location," and "DEA," and then, comment is "data steward." So, the scope of this discussion has to do with the Level 2 data elements that could potentially be elevated into Version 2. So, "relationship type" is not called out specifically. "Provider role" was actually submitted by none other than Dr. Al Taylor. Al, do you want to comment on "provider role" and whether or not it is the same as "relationship type"?

#### Al Taylor

Sure. The reason that we added it was because it was a requirement in certain other certification requirements, and so, we had added some of those data elements, but that was part of the background. We provided a number of different provider elements into the ONDEC system, and then selected just the two of them. I think that we all understand what "provider role" means, and the applicable standard for this is the provider taxonomy value set or the provider taxonomy list from NUCC. Looking at that value set, if you are not familiar with it, it is actually an interesting read, and it includes things that could very easily be applicable to family members because even though it is called "provider role," it usually refers to a medical provider or healthcare provider, but it definitely includes parts of that list that include things like "family member," "caregiver," "power of attorney," and other nonmedical provider roles. So, I think along the lines of renaming "provider name" and "provider identifier" to "care team member name," the role itself could be used to describe non-provider roles as well, even using the same standard of NUCC.

#### Leslie Kelly Hall

That is encouraging.

#### **Andrew Truscott**

I think we can definitely use the same standard, but I do think that renaming it from "provider role" removes the opportunity for confusion.

#### Steven Lane

So, are you saying it is a good thing or a bad thing to change the name?

#### **Andrew Truscott**



It is a good thing. It is called "provider role" because it is explicitly stated that this is the role of a provider as opposed to a care team, which is made up of people who are not just providers, and I use the word "just" in a nonpejorative sense when I describe providers.

#### Steven Lane

Of course.

#### Leslie Kelly Hall

Dan has a comment, and so does Hans.

#### **Daniel Vreeman**

My comment was along those same lines, just to be clear in your proposal whether you are carrying forward this broader idea that we started with, which was that things labeled as "provider" should be relabeled. I did not know whether that was true or not.

#### Leslie Kelly Hall

It is. I think we were just simply asked to make sure that as we do that, we deliberate for any downstream consequences, but the idea of the roles being able to be used across those medical and nonmedical personnel in the same standard is quite encouraging for our decision or recommendation to change the name.

#### **Daniel Vreeman**

Okay, and then, the second comment I had was simply in our previous discussion about identifiers, I thought we had landed on a spot where because it is more of a complex data type, multiple different kinds of identifiers could be shared, whether those have a DEA number, an NPI number, a locally created identifier, et cetera, and whether we were still thinking along those lines or whether this was intended to be sure in some other way that we called out these specific types of identifiers.

#### Steven Lane

I think the one that is specifically called out is the DEA number and the NPI, so those are specific identifiers. I think in the broader provider identifier or what we might rename as care team member identifier, there is more flexibility.

#### **Leslie Kelly Hall**

Correct.

#### **Daniel Vreeman**

I do not see those as different, meaning the broader one is just a superset of all the possible ones.

#### Steven Lane

That is fair. Hans?

#### **Hans Buitendijk**



I have a couple questions. One is that unfortunately, I got a 404 on the NUCC.org link. Does the NUCC indicate it to be the role of the provider regardless of what team they are in, or is it the role in the context of that particular team for that patient?

#### Leslie Kelly Hall

We had envisioned it to be to that particular patient and that particular event, an event-specific role.

#### Hans Buitendijk

Right, so that is where the guestion is. I could not look at the NUCC. Is it actually meant to be reflective of those roles as well, or "just" the independent role of the provider? I am just curious about that. But, we can take that off.

#### Mark Savage

It works for me for whatever reason.

#### Hans Buitendijk

All right, we will try again. The other one is provider location. Which location are we talking about here that would be of interest that would help clarify? There could be a number of different locations in play.

#### Leslie Kelly Hall

I think it is whatever was in the Level 2 definition of "provider location," but I do not know if we had thought through all the potential locations at the time, such as telehealth, so that might warrant some further review or discussion or an addition of other standards that could be applicable when doing virtual locations of any kind as well as physical locations of any kind. Hans, do you know if there are any standards emerging for helping in those things, like virtual care?

#### Hans Buitendijk

I think that is part of the question about in what context it is being used to understand which location. So, there is location information that can be captured, but are we capturing it in the right context? When it is virtual, I think that is one of the areas with more confusion as to which one to use.

#### **Al Taylor**

Hans, the [inaudible] [01:20:01] provider was listed as physical location, so that does not mean what services that provider did, it just means the physical location of that provider, and if services are being provided virtually, that is a different piece of data, but "provider location" is talking about the physical location of the provider.

#### **Leslie Kelly Hall**

Thank you.

#### Hans Buitendijk

That could still be multiple, so it would still be helpful to understand which one.

#### Steven Lane



Also, I think it is worth noting that these are all data elements attached to the care team member. This is not attached to the encounter, so presumably, these would be static or longstanding attributes of the care team members, so a given provider who might have a location on Main Street might clearly provide encounters that are virtual, on Front Street, in the home, et cetera. These are provider attributes, not encounter attributes. Okay, it is five minutes of the hour. We are going to quickly and awkwardly transition to public comment, and then we will come back here if we have time.

#### **Public Comment (01:21:23)**

#### Cassandra Hadley

Operator, can we open the lines for public comment?

#### Steven Lane

Sorry, Al, did you want to slip something in?

#### Al Taylor

I just wanted to let the call know that I am going to have to drop prior to noon, so I will stick here until the end of public comments, but I am going to have to drop.

#### **Steven Lane**

Thanks, Al.

#### **Operator**

Thank you. If you would like to make a comment, please press \*1 on your telephone keypad. A confirmation tone will indicate your line is in the queue. You may press \*2 if you would like to remove your line from the queue, and for participants using speaker equipment, it may be necessary to pick up your handset before pressing \*. Our first comment is from Tom Bronken with Trinity Health. Please proceed.

#### **Thomas Bronken**

Can you hear me?

#### Operator

Yes, go ahead.

#### **Thomas Bronken**

Good. Good morning, everybody. My name is Tom Bronken. I am a physician informaticist who works for Trinity. My background is family medicine and emergency medicine, and currently, I am a member of the LOINC document ontology subcommittee and the Sequoia Project data usability work group. I am here with Didi Davis of the Sequoia Project. First of all, as a clinician, I need to tell you I am very happy to see that clinical notes are included in the USCDI versions, and I think they are going to have a huge impact on interoperability and its usefulness, and I now understand that the five notes that you have chosen are exactly the right ones, I think, but at first, I did not think so, and judging from some of the comments that were on Version 1 of the USCDI, I was not the only one who thought that. I think there were others who commented that we need an outpatient summary note.

The Sequoia Project had a previous task force to the one I am on that produced a report concerning those five clinical notes, and within the five, there were two encounter summary notes. There was the inpatient summary note, which would be called the discharge summary, which makes sense, and then they had the outpatient encounter summary note, which has been called the process note, and what is where I see a problem. In the wild, as they say, providers, nurses, and clinicians refer to the progress note. When they talk about it, they are talking about notes that go on the inpatient chart daily while the patient is hospitalized, and I have to say I have never heard of an outpatient office note or an ED note referred to as a progress note. Now, HL7 does define a progress note as either inpatient or outpatient, and LOINC has followed that convention. That is probably where this comes from, but again, it goes against the common understanding and usage of an outpatient summary note.

So, my comment for the task force is to consider changing the name of that outpatient encounter summary note to something that would be recognized as that. Otherwise, I am afraid we are going to have tons of confusion. The wrong notes are going to get sent, the right ones are not going to be sent, and we will spend the next few years trying to fix this. I do not know if you have questions, but I am willing to take any questions anybody has, or if not, thank you for the opportunity to address you.

#### **Steven Lane**

Thank you, Tom. Clem, you have your hand up. Is that in reference to Dr. Bronken's comment, or something else?

#### **Clement McDonald**

No, never mind.

#### Steven Lane

Okay.

#### Cassandra Hadley

Operator, do we have any other comments?

#### Operator

There are no more comments in the queue.

#### **Cassandra Hadley**

Thank you.

#### **Steven Lane**

I will thank Didi Davis from the Sequoia Project for including in the public chat a link to the written version of what Tom just shared with us. All right, no more public comments. We have less than one minute left, so I think we will call it a day. We will pick up our discussion on Row 16 of the editable document, and thank you, Grace, for stepping forward. I think we are hoping to have both Grace and Michelle walking us through some 1C recommendations at our next meeting, and the homework will be to review what they put in the spreadsheet ahead of time so we can come with well-thought-out responses. Have a wonderful day.

#### **Leslie Kelly Hall**



Thank you.

### Al Taylor

Thanks, goodbye.

# **Andrew Truscott**

Thanks, Steven. Thank you all. Take care.

## **Clement McDonald**

Thank you.

### Cassandra Hadley

Bye.

Adjourn (01:26:00)