



U.S. Core Data for Interoperability Task Force

Transcript
 March 11, 2019
 Virtual Meeting

Members/Speakers

Name	Organization	Organization Type
Christina Caraballo	Audacious Inquiry	Co-Chair
Terrence O'Malley	Massachusetts General Hospital	Co-Chair
Tina Esposito	Advocate Aurora Health	Member
Valerie Grey	New York eHealth Collaborative	Member
Ken Kawamoto	University of Utah Health	Member
Steven Lane	Sutter Health	Member
Leslie Lenert	Medical University of South Carolina	Member
Clem McDonald	National Library of Medicine	Member
Brett Oliver	Baptist Health	Member
Steve Ready	Norton Healthcare	Member
Sheryl Turney	Anthem Blue Cross Blue Shield	Member
Stacy Perchem	ONC	ONC Staff
Adam Wong	ONC	ONC Staff
Johnny Bender	ONC	ONC Staff
Cassandra Hadley	ONC	ONC Staff
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Lauren Richie	Office of the National Coordinator for Health Information Technology	Designated Federal Officer

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Thank you. Good afternoon everyone. Welcome to the USCDI task force. This is now our second meeting, having our first one last week. So, I know it's been a while since the group met, so why don't we dive in, starting with a quick roll call and then I'll turn it over to Terry, one of our co-chairs to kick us off with a few opening remarks.

Christina Caraballo, I believe she is going to be either absent or late but I'll just double check. Is she on the line? Okay.

Terry O'Malley?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Steven Lane?

Steven Lane – Sutter Health - Member

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Oliver?

Brett Oliver –Baptist Health - Member

Good afternoon.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Sheryl Turney?

Les Lenert?

Ken Kawamoto I believe is still on vacation. Clem McDonald?

Valerie Grey?

Valerie Grey –New York eHealth Collaborative - Member

Here.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Tina Esposito?

Tina Esposito – Advocate Aurora Health - Member

Present.

Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer

Okay, maybe the others will join us here a little bit late. Terry, I'll turn it over to you.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay, that's great. Thanks again everyone for coming in. Christina, the co-chair, is going to be between phone connections, so may or may not be able to participate. But if she can, she'll chime in.

So, meanwhile, why don't we move to the agenda, and we will go sort of quickly through what we're going to be doing. So the – we're going to touch on our work schedule, and then we're going to dive into reviewing what we did last time on the demographics. But spend the bulk of our time today on the provenance. So, if we have the next slide up, please Lauren, and thank you all for being here. Much appreciated.

Actually, we're going to throw a timeline slide in there, at one point, just to remind everyone sort of where we were going. There we go. So, we are now on March 11, and then we break next week for the face-to-face meeting and then come back the week of the 25th where we'll talk about clinical notes and then vital signs. By the first week in April, we going to have to complete our draft recommendations, and then we'll spend some time refining them, and then ultimately present them. It's still a pretty tight time schedule and the basic outline of each of these sessions is going to be a short period of time spent reviewing what was done the previous week or weeks, the bulk of the time on the topic, the major topic of the day, and then public comments. And then we may, if we can, start thinking about the work for the following week.

So let's go off. I think Johnny, you were going to pull up the Google doc.

Johnny Bender –ONC –ONC Staff

Yes, sure, did you want me to share my screen for that? Or did you want everybody to just navigate to the URL?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Whatever's easiest – why don't you put your screen up? People may find it easier to follow if they log in on their own. It's live so any changes that are made on the screen here will show up on your version.

Johnny Bender –ONC –ONC Staff

Is everyone able to [inaudible-crosstalk] [00:03:43]

Steven Lane – Sutter Health - Member

Can you repost the URL in the public chat for people to get to it quickly?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Good idea. I think the screen going to have to – let them blow the screen up a little bit. If you hit that box with the four arrows going to the corners, it will expand everything for you.

The reason we are using the Google doc is Steven Lane and Ken Kawamoto really have used it to perfection in the Interoperability Standards Priorities Task Force. We hope we can do the same. The point is we need everyone to comment and the nice thing about a Google doc is you can comment anytime you want, whether or not the topic is currently being discussed or will be discussed or has been discussed.

But it requires our comments and sort of the rules of the game are listed in the front of the Google doc which just says make all your comments as suggestions and we'll edit them real time. So our plan is to use the Google doc as our live document, which we will continue to refine and ultimately will be what we present to the HITEC.

So, with that in mind, if you've had a chance to get your own Google doc, great, if not, Johnny, let's take us to patient demographics.

Steven Lane – Sutter Health - Member

And again my suggestion was not so much to display the link as to copy and paste the link into the public chat so that people could grab it from there and get to it easily.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

All right, I will let Johnny do that too.

Steven Lane – Sutter Health - Member

Thank you.

Johnny Bender –ONC –ONC Staff

Absolutely.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay, all right. So, very briefly, we're going to spend maybe five or 10 minutes on demographics. I think we can kind of scroll down a little bit, Johnny, down to the ONC proposed elements. So, a couple of things. One is we are likely not to be making too many suggestions about the elements that are already in the Common Clinical Data Set. So we probably won't spend a lot of time on that. We may want to search the ONC about it. But let's focus instead on the proposed new data elements that ONC has. Then any other data elements that we want to tee up. So we had some discussion about address and I think it was Clem who made the suggestion, or has made it at another meeting, that where there exist standardized data sets that are curated and maintained by an authority, like in this case the U.S. Postal Service, that we should probably just point to those as being the active standard. Having said that let me stop and hear comments from the committee whether you think that's reasonable or whether there are other alternatives.

Steven Lane – Sutter Health - Member

Well, Terry, do you mean standards for the addresses themselves or are you talking about the format of the address?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Is there a difference? I was just thinking that we – if we have a format that allows us to be very granular on an address, the standards can follow that. But I think the format becomes a very important piece.

Steven Lane – Sutter Health - Member

You know when you're going on a website, and you put in your address, and they say do you mean this one or this one or this one and they are sort of all variations on your address and some have all the digits of the zip and some have fewer and etcetera. That sort of the standards of the address content. But the address format, I mean I know the Postal Service has sort of an address format, but I don't

know whether that -- whether there's a format standard that says whether or not you spell out Avenue and those sorts of things. I know we talked about leveraging work done by AHIMA in terms of documentation of names and whatnot. I don't know if they have anything on address standards.

It just seems like we have both format and content issues with the address.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. Good point. Yeah, thanks, Steve. So we should make sure we have got a format that makes sense, and a content that helps us again going back to our use case, which is really patient matching. So the issue with patient matching is how granular do we have to get?

Steven Lane – Sutter Health - Member

I think we talked last time about the need for standards for addresses for people who are experiencing homelessness.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yep. That's included a little later on – there we go. So thanks Stephen, those are great comments. Anyone else wants to chime in on the address? **[Pause]**

Steven Lane – Sutter Health - Member

Did we decide whether we were interested in simply current address or addresses? We talked about work address, school address, I think that obviously can be helpful.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yep. Yeah, I think that is in the AHIMA appendix. I don't know if school address is, but – you know, I think that's a separate, well, that may go into our suggested additions to this data class.

Steven Lane – Sutter Health - Member

Our friend Lisa Nelson is providing some further input in the public comment chat about another source for standards, *AHDI Book of Style*. Not something I'm familiar with.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay great, thank you, Lisa. Much appreciated. All right. So we'll go back and work on that and we'll take a look at the *AHDI Book of Style* and we'll look at Postal Service and we'll look at AHIMA, and we'll come up with, I think, two data sets. What our system is currently required to capture under their requirements for certification. Then, what do we think ought to be the next frontier that goes through USCDI to become part of certification? So we'll chop it into those two pieces and we can talk about that when we come back after the face-to-face. Does anyone have any other comments or suggestions on that? **[Pause]**

Okay. Then we're going to go back – we're going to do probably the same thing with a phone number. I think we had a good discussion last time and the fact that the mobile number is now probably the most stable patient matching identifier out there, so the question is – again we'll look to AHIMA's guidance on their – their paper. But we'll probably have to come up with some further detail for this ONC measure.

Again the question will be what's currently being collected and what is EHRs currently required to be able to collect? Then just make sure we require them to turn that functionality on. That would be sort of a quick first hit, and then come up with a list of what we want them to do next time.

Again let me stop there and appreciate anyone else's comments on this. **[Pause]**

Okay. So let's –Johnny, I think we can go through the new data elements, and I think we'll probably just keep going through this. I'm not sure we are ready to have much of a discussion on that. So you want to just keep on going down the list? Okay. So this is...

Johnny Bender –ONC –ONC Staff

These are the use cases I believe, yeah, problems and comments. Did you want to go here you said?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Well, I think the primary use case, and again anyone on the committee, please correct me, I think it's really patient matching. If we get it right for patient matching, we will probably get it right for all the other use cases that we came up with. So, I think -- let's go through this. I think we had a good discussion about that last time.

This is sort of a quick summary of what we did last week. Again, we'll keep cleaning this up, and when a little bit fuller committee reconvenes, after the face-to-face, our first order of business will be going through this line by line and cleaning it up and making sure it's in final form. So again, everyone is encouraged to go to the Google doc and make suggestions on any of this.

Okay, so let's then dive into provenance. Again, if anyone has a comment, just break in. Don't worry about it, whether or not it's on the topic being covered or not. Just speak up.

So ONC has proposed those three elements, the author, time-stamp, and the organization.

Steven Lane – Sutter Health - Member

Well, one thing that struck me when I first read this is we need to specify the organization at the time that the contact was created. Right, because the author might have changed organizations.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Correct. So that actually brings up the pretty fundamental point and it's one I think you may have made at some point, Steven. That is, does each data element require a unique identification? That identification would include its source organization, its source author, and its timestamp.

Tina Esposito – Advocate Aurora Health - Member

If I may, this is Tina. I guess the question is how granular the author intended to be. Right, that's also a question. Is it at the organizational level or below?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah. So what you think?

Tina Esposito – Advocate Aurora Health - Member

I can see both. It also depends on the setting. Right, a provider's office is different than a hospital stay.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

I'm having problems thinking of an example where -- well, where both levels would be important. If I

order a lab at Mass General, and it's reported out by Mass General although -- so I'm not the author of that, I guess, I'm not the author of a lab report. I may be the ordering clinician, but I'm not the author. I may have answered my own question.

Tina Esposito – Advocate Aurora Health - Member

Maybe both, then, right? Ordering provider, I don't know what the right term is. So you guys can -- we can think through this, but basically the author in which, in that example, I think maybe both entities might be valuable. I don't know. I would want to do whatever our clinicians think.

Unidentified male speaker [00:18:53]

Yeah, you definitely need the actual clinician. Everything from their own monitoring of quality metrics to an insurance company monitoring quality metrics down the road.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay, so we want to expand the definition of an author. Or do we want to add another category? I'm thinking the author is the agent that actually generates the data. So if I write a note, a clinical note then I am the author of that note, but if I am -- but who's the author of a lab report? Or an x-ray image?

Steven Lane – Sutter Health - Member

Yeah, I think it's really important that we drill down into that, and we talked about it last time. You can think of lots of different authors, the ordering provider, the authorizing provider, the lab tech, the head of the lab. But we have to think about that. Because those -- potentially any given piece of data could have multiple authors. I don't think there's one right answer, but we should come up with something for each class of data.

Clearly, clinician notes, it's pretty clear it's the clinician who wrote the note, or clinicians as we discussed. If there's a scribe, if there's a student, if there's a trainee of some other sort, if the nurse helps with part of the note document, do we just want the authorizing physician or provider for the note as a whole? I think clinically that's the thing we're most interested in, the person who put their signature on it and verify that this was the note. I don't think we need to ask for a lot of the extras.

I think similarly as we think through an imaging study, I think most of us are going to be less interested in the radiology tech or techs who supported it as opposed to the signing radiologist. If we're talking about a lab I think most of us are pretty comfortable with the physician whose name is responsible for the lab results and less interested in the lab tech. I think there are rational answers that will lead us to limited numbers of authors for each data type. But I do think it warrants thinking through.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

I'm going to push back a little bit and say doesn't every -- isn't there only one author? Because if you have more than one author then provenance becomes difficult. What I'm thinking is that we need other terms besides author.

I think of author as being the generating agent, whatever that agent is. Then there -- then there are other people involved in that data element -- that element. But they are not the author of the element. They are the site where it was created or the...

Steven Lane – Sutter Health - Member

I certainly have no objection to saying that any piece of data should have one principle author identified. I just think we need to define, as I said, for each type of data, who that should be. It shouldn't be random. It shouldn't be – there's a radiologist on one site and a tech at another site and the head of the lab medical director on one site and the tech at another site. We shouldn't be that loose about it.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. So...

Steven Lane – Sutter Health - Member

I think the medical director of the lab is a really nice one because for CLEA issues oftentimes it's important to have that person's name and those folks tend to have a real sense of responsibility for the quality of their data. I don't think – I think the resulting radiologist is pretty clear. And if you want to winnow notes down to a single author then I would say it's the signing licensed independent practitioner, right?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

So the implication of that, which I agree with, is that for each sort of class of the element, we are going to need to specify an author type, a permitted author type.

Steven Lane – Sutter Health - Member

Right. But when you get down to the things like FHIR resources, vital signs, who is the author of a vital sign? It seems to me it's the person who took it, so it's the patient or it's the nurse. It's not necessarily the attending physician, right?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Right.

Unidentified female speaker

Does location matter? Would that be something we want to add here, and I don't know, I'm asking that as a way to get...

Steven Lane – Sutter Health - Member

Well, we got author organization. Obviously, a given organization can have multiple locations. I don't know how important location is. Do I care that the blood pressure was taken? I mean I care perhaps if it was taken in ICU as opposed to in the mobile clinic van, but if they are both run by Harvard, that's sort of a different thing.

Unidentified female speaker

Well, you know what made me trigger that, Steven, is when you said the patient took the – if it's home or if it's nontraditional. That's the only thing that generated that comment.

Steven Lane – Sutter Health - Member

Right, home, drug store, those things end up being relevant.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah, so the patient or the drug store would be the author, I suppose. Do we really need to know the name of the person who took the blood pressure as opposed to the site in which it was taken? Or...

Steven Lane – Sutter Health - Member

I don't think the name is all that interesting. It would be really highly unlikely that anybody would go back and talk to that person about that blood pressure. Again, I think the context is certainly relevant.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay.

Steven Lane – Sutter Health - Member

Street nurse versus ICU nurse is a different thing.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Right, versus patient versus drug store. Versus patient, right, versus your Bluetooth blood pressure cuff which is beaming it directly somewhere.

So, I guess when we say author, we really mean the originating source. Is that -- does that make sense? If we think of -- the originating source can be the author like in a note. It can be the lab, that's in a lab test, or the radiology site for the image and the radiologist, or the image report.

Steven Lane – Sutter Health - Member

I mean it seems we should be thinking about why is this data important. What I think of is it helps me think about how much I trust the data, it helps me think about how I interpret the data, and potentially, it would be where would I go back to if I had a question about the data or if I wanted to seek out the original documentation. I think that's another use case for knowing the author.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Perhaps one more is by knowing the author, you can also compare it to who changed the data last. It becomes Author-B2. Is it the same author, is it a new person, a new site? I worry about data just passing through without any guarantee that it stayed the same.

Unidentified female speaker [00:27:54]

The only thing that I guess is top of mind here as I look at this is there a process? I kind of get beyond it, but what – where I'm going at it, is there a level of validation that occurs at some point that would – Steven's point, just allow you to know, someone's reviewed this, this is valid, this is true, as opposed to things that might just be passing through. I don't know. Is there a process – an underlying process, if you will, that would allow for some level of verification or validation, knowing this has been reviewed and verified or something along those lines? I'm not using the right terminology, but some level of validation.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah. You know I was thinking about faxes the other day. They don't have provenance. You're getting a piece of paper, getting an electronic image of a piece of paper without any idea of where it came from. It may be on the lab stationary, but realistically, you don't know. So provenance is the way to tag the data element with enough information to give us comfort that it's from a reliable valid source or not. At least that we know what the source is. [Pause]

Christina Caraballo – Audacious Inquiry – Co-Chair

Hi, Terry, this is Christina. I'm back at my desk.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Oh, welcome. [Pause] We're plugging away. Johnny's typing over time.

Christina Caraballo – Audacious Inquiry – Co-Chair

I see him. [Laughter]

Johnny Bender –ONC –ONC Staff

I will try to continue to organize this as we're – as you all are talking.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

I think the point of how much information do we need to be assured about the data elements in question, so we know where it's from and who it was generated by and when and who changed it? So maybe there's a way – I mean we've kind of jumped away down in the weeds, and I think certainly one pathway here is going to be to specify a lot of accepted authors for a particular type of data or data elements. And that may not be a really long list, but we ought to understand that if we generate sort of an accepted authors list, it's probably going to need to be amended as processes change.

The reason I ask that is maybe there's a simpler way of designating the author that's less likely to be subject to process change. It would be less granular in that sense. It would be – perhaps give us less insight but might be more stable over time. [Pause]

Okay so, when we say author organization, so the ONC, or we – go back up one more, Johnny – yeah, back to the original ONC. Okay, so, author, and then the author timestamp and the author organization. Okay. We got off on location through author organization. All right.

Unidentified female speaker [00:33:07]

I might have put these in the wrong place, but under the new items, they've added the author contact information and organization contact information. That kind of gets to Steven's point earlier about verification, like picking up the phone, who I call or reach out to verify that this is true.

Steven Lane – Sutter Health - Member

You know I would just comment that there's a lot of really thoughtful chat coming in the public comments, and I really do hope that folks will, when it comes time for our public comment period, take the floor for a moment and summarize your ideas. We so often at these meetings open for public comment and have none. [Pause]

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

So if under the existing framework that ONC proposed, and notwithstanding our other discussion, how does – I was wondering whether – if someone changes the data and I'm not sure exactly how that would get done, but does it make them sort of, again, the next author, Author v2 or 1.1 or something, but -- I'm just trying to think if that's actually clinically relevant, if it's ever happens.

Brett Oliver –Baptist Health - Member

Yeah, Terry, that would – an example of that would be in the emergency room or Urgent Care Clinic, when there's a preliminary reading of an x-ray by the attending at the time and then you'll have a radiology final result two or three days later that could vary.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah. That's true. So you'd need to – right, in that case, the second author would be the definitive

read. So we would – right, so again the data – sort of the tests, the core data, the radiology image didn't change. And that obviously would be part of, how we would identify the reading, would be with the core image. But the reading, which would have something to do with the core image the data was taken in the initial reading and reading author, would then have the same preliminary data plus the new reading, and the new – and so the new reading author. But it would be the same original data tracked back to the original source image. I guess the same thing would happen for lab tests that get a preliminary reading of positive and then they come back with a quantitative reading.

Brett Oliver – Baptist Health - Member

Sure, pathology reports would be another one where you have overreads or SINDA.

Steven Lane – Sutter Health - Member

And we're saying we want to have both authors, is that right?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Almost in a chain, right? You almost want the provenance to be a long descriptive tag for the data element that says where it started, who did it, and then who's been involved in its evolution.

Steven Lane – Sutter Health - Member

And that's kind of what we discussed in our other task force. When we were talking about just assuring the veracity of the data and especially if it went out into a patient-controlled or another controlled environment, and then came back into the healthcare sphere, assuring that it wasn't tampered with or modified while it was outside of “our control”.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah thanks for reminding me of that. That's right, too. It was – and in that case, the patient would become an author. They said whether or not it was changed, just knowing Site A sends their information to the patient to their patient portal, the patient puts it together and sends it to Site B.

Steven Lane – Sutter Health - Member

Then there are probably a lot of situations where we don't have the author entered in a discreet manner. I'm thinking, you know, my patient goes out and has some hair analysis done by their naturopath, they bring me a copy, I might scan it into their record, it's now part of their record. But the author data is stuck somewhere in the PDF or the scan of the PDF. So there's clearly a place for unknown authorship.

I'm also thinking of the patients that go to Korea and get a full-body MRI scan. And again, I get it. I might or might not scan it in. Authorship is very hard to determine. **[Pause]**

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

I appreciate all the comments coming in on the chat line. Thank you, Brett and Lisa and others, thank you. **[Pause]**

Okay, so, where are we? If we go down to our problem statements and see if there are other problem issues that we want to address? I think we're addressing Problem 1 okay. Now we're clarifying the source and the author.

Steven Lane – Sutter Health - Member

In that list, research probably belongs. Got an extra letter in there.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

That's why your Google doc's so good, Steve.

Steven Lane – Sutter Health - Member

This one is impressive.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Well it's getting longer. Let's see how impressive it is when we finish it. So we've addressed the question of who changed the data last. So the next [inaudible] [00:44:01]. The number four is – I guess we've already answered to say yes. Does everyone agree with that? Every data element. We'll have to define what we mean by the data element. That really needs a unique identifier which will include – it's kind of – what it is, it's source organization, author, timestamp.

Steven Lane – Sutter Health - Member

Well, I think your point about needing to define the data element, I think we should think through – as we go through the list of items in the various versions of the USCDI. In that table where it says is this in CCDA, is this in FHIR, we need to, kind of, go through them one by one, probably creating some kind of a master table. Because I think as we look at different data elements, I think we'll have different judgments about some of these things.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

So, we should take the current existing table out another column that says who would be an appropriate author?

Unidentified male speaker [00:45:24]

Yeah.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

All right. So when do we – all right, so we'll do that as our homework.

Steven Lane – Sutter Health - Member

I'll admit I've been accused of making really big tables with lots and lots of columns. But I think that might help.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah, I think because in a sense provenance is a lot of columns.

Steven Lane – Sutter Health - Member

Again, as we say, it's going to, kind of, vary by data type. And then I think as we bring new datatypes into the USCDI over time, this gives us a little bit of a checklist of what we need to think about as each one is added.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Good point.

Unidentified male speaker [00:46:05]

Oh look, we've got Gary Dickenson chiming in. We are in luck. [Laughter] We have the A-Team in the public comments today.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

I guess. [Laughter] Okay, good comments. All right, so we do agree that everything needs a unique – a unique identifier and the identifier in provenance is part of the identifier. I think number three, I don't know if that's really provenance or...

Steven Lane – Sutter Health - Member

I don't think that is provenance. We've got that in other columns in the USCDI table, right?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

It's another problem, but it's not going to be solved by provenance. Although, if you're required an element that said this is the designated code set, standardized code set. I don't know if that would – well, maybe we should – is that worth thinking about at all or we just drop that and let somebody else worry about it?

When we get data from other places that are using their own proprietary codes and they're not using a standard code set, it's hard to know what to do with it. Maybe it is part of provenance if you just say we want to know – we just want to know the codes that – we just want to – give us – give us the identity of your code set. And that they'd say, you know, (wink) okay, that's fine. That's probably more of a – that's a question, so, we can come back to that.

What else – what other thoughts about provenance? So we've really done – we've riffed on the three that ONC wants to add, and we can continue to discuss those three. Or if you want we can go to author, timestamp, organization, okay. So then maybe we just swing down to our – to some of the ones that have been proposed. So Christina put in author contact and organization contact.

Christina Caraballo – Audacious Inquiry – Co-Chair

I think that can be deleted from there because we moved it up.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. And I'm not sure what unique identifier since we're creating a unique identifier and the original identity of the data, I think maybe we've already – have we already done those two?

Unidentified female speaker [00:51:28]

So I have a note, and I don't know where it came from, but in my notes from our last call, under Providence – provenance, someone said Medicare code.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Medicare code. That may be the Medicare patient ID. That may have been [inaudible] [00:51:59]

Unidentified female speaker

Not sure.

Steven Lane – Sutter Health - Member

Individual ID in place of a national ID, a voluntary Medicare ID. Any thoughts on anything we would want to add to this new – the three elements that ONC is proposing?

Steven Lane – Sutter Health - Member

I think we've – this is good.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. Lauren, what about – what if we open public comment now because it looks like it might be pretty robust.

Cassandra Hadley -- ONC

Okay, hi, this is Cassandra. Lauren had to step away. But if you guys want to open comment now, we can do that. We want to limit it to obviously a short period of time so you guys can go back and finish your comments.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yes, Let's run it, we'll run it as long as we can but let's stop it at twenty past.

Cassandra Hadley -- ONC

You want to stop it at twenty past? Fifteen past or twenty past?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Twenty.

Cassandra Hadley -- ONC

Okay.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

And if we run out of comments we'll just resume.

Cassandra Hadley -- ONC

Operator, can you open the line?

Operator

If you would like to make a public comment, please press star 1 on your telephone keypad. A confirmation tone will indicate your line is in the queue. You may press star 2 if you would like to remove your comment from the queue. For participants using speaker equipment, it may be necessary to pick up your handset before pressing the star keys.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

And, I think it's – is it the ONC rule that it's a two minute limit to comments, then you can get back in the queue and make another two minutes?

Steven Lane – Sutter Health - Member

But also we are going to capture all of the chat in our notes. And again, if – John said he had to step away, but if Gary or Lisa or Brett, who've been offering a lot of good input, want to comment, that would be great.

Operator

Our first quest – our first comment comes from Brett Marquard with ONC. Please proceed with your comment.

Brett Marquard -- Principal – WaveOne Associates

[Laughter] I don't know if this is a comment from ONC but this is Brett Marquard. There's a variety of provenance activities going on. I guess my question to Dr. Lane and others who are existing and are using EHR today, is when you do reconciliation from outside sources, and I guess maybe I'll make it

really simple, when you look at your list of lab results, is there anything, what organization is displayed and do you even know if it was sent out to a reference lab or do you just have the last lab that sent it to you?

Steven Lane – Sutter Health - Member

Can we use Brett's time to discuss that?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

[Laughter] Sure. Why not?

Steven Lane – Sutter Health - Member

I mean, I think he makes a really good point. There's the issue of where was the order placed, where was the test performed. If I place an order, it might be done in my own organization. It might be sent out to a reference lab. I mean I think we are, for the most part, interested in the lab that actually performed the test which may be the reference lab and distinct from the organization where it was ordered and then resulted to initially. And of course, we are less interested in – if it went through a bunch of hands, on its way to the current reader. Where you're sort of interested in that chain of trust as it's been described here. But that's not the same as the author. The author should be that lab who performed the test.

Brett Marquard -- Principal – WaveOne Associates

Sure. So another one, another kind of on the same [inaudible] [00:56:44] is when you do – if you do any kind of outside reconciliation, I know, sorry for picking on you, Dr. Lane, but I know you use Care Everywhere to exchange information between different sites. When you do reconciliation of a medication list or an allergy list, what information is displayed to you to help that process beyond the allergy or the object itself, what provenance is associated with it?

Steven Lane – Sutter Health - Member

You're right. What we see is the organization that actually sent us the data. Which again may or may not be the actual author. Like I might get an immunization from an immunization registry but they're not the ones who actually administered it. Deep inside, as I dig deeper into the metadata, I might see where it was administered or I might not.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

So the implication of that being – what would be helpful for you to know when you're doing – I think, Brett, your focus on reconciliation is an excellent one, I think that's a – that's an important use case that we ought to highlight and work off of.

Steven Lane – Sutter Health - Member

Well, the other critical aspect of that is this provenance data is used to recognize when items that come to be reconciled are duplicative. You might have the same piece of data coming at you from different sources. And you want to be able to track back to the original author to be able to say oh, this is the same thing. I'm just hearing about it from multiple places.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Good point. Okay, Brett, you can get back in line again. Thank you. Those are great. Great questions. Really helpful.

Cassandra Hadley -- ONC

Operator, anybody else?

Operator

Our next comment comes from Emma Jones with Allscripts. Please proceed with your comment. Emma, your line is now live.

Emma Jones – Expert Clinical/Business Analyst -- Allscripts

Hello, I was just commenting, can you hear me okay?

Terrence O’Malley – Massachusetts General Hospital – Co-Chair

Yeah. Great.

Emma Jones – Expert Clinical/Business Analyst -- Allscripts

I was just commenting on the reconciliation piece that Brett just brought up. I know typically, I'm a nurse, typically when nurses do reconciliation, they are looking for the prescriber, the person who prescribed the medication. And then all the other pieces that go with it – when did the patient start on it, what the dose to take, the medication name and all that kind of stuff, just make sure the patient isn't double dosing or, you know, safety checks are in place.

And for nurses, it's important to capture the prescriber in case we need to get back in touch with that prescriber. If the patient has problems, or issues with the meds, that's part of the nursing workflow.

And in another part about reconciliation that I think is important is to – in order to streamline reconciliation from assistance perspective, and this was discussing the IHE RECON profile, is to keep the ID that came with that medication – with that element, data element, you know, to be able to trace back to see if you've seen this in your system. If you see it again, if you have already seen this piece of data element previously, as well as checking the components of the attributes of the data element, so you don't only just look for the ID and then you're done. You also look for the ID, see if you've seen it before, check the attributes to see if the attributes have changed from what you have in your system to what it now is. But that was just my feedback.

Terrence O’Malley – Massachusetts General Hospital – Co-Chair

So Emma, thank you very, very much. And so Stephen, to your multicolumn spreadsheet, when we get to author types, and the data element is a prescription, then the author is probably the prescriber.

Steven Lane – Sutter Health - Member

Yeah I think that's how most of us think about it.

Terrence O’Malley – Massachusetts General Hospital – Co-Chair

All right, so, medication, lists of medication, becomes another data element and has its own provenance. The author is known as the prescriber. But then the date and time – maybe some other information you'd like to know about if you'd like to add onto that data element.

Emma Jones – Expert Clinical/Business Analyst – Allscripts

And then another thing, I'm sorry, I've got 15 seconds left. But I didn't think that we needed to take into consideration problems that have transitioned, you know, like when a problem morphs, say a cough, provider thought it was a cough, now it's pneumonia, how is that handled in provenance?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. Good question. So this applies – so again, we need to go through that whole big table of the common clinical data set and the data elements displayed under it. And probably go through and just think through who would be the author. Then if there are other elements besides the timestamp and organization that are needed to make sense of that data element, to reconcile the data element. And again I think reconciliation is a great use for this.

We have any other – thank you, Emma. Do we have any other comments in the queue?

Operator

Our next comment comes from Lisa Nelson with MaxMD. Please proceed with your comment.

Lisa Nelson – VP of Marketing & Business Development – MaxMD

Thank you. Can you hear me?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yes Lisa.

Lisa Nelson – VP of Marketing & Business Development – MaxMD

Thank you very much. So, thank you for picking up all the public comment chats that are there. I put a lot of things in as you are going through some of the other data elements. I hope you take that just as written. But I would like to spend three minutes in the area of data provenance. And I just wanted to say that when it comes to digital technology, sometimes what we've done in the past doesn't offer a good roadmap for what we need to do going forward into the future. Digital technology changes what's feasible, and it can really change reality in terms of what's even possible, what we know to think about how things can work.

There are many roles besides authors, so if you guys do go into a table and start to think through author, I would recommend that you begin by collecting from the various standards organizations like CDA and FHIR, to understand the other available roles that are already there like performer, and participant, and custodian, and authenticator. Just get a list of the other roles so that you understand that who is the author is independent of and in addition to what other roles a person may be playing. Just so that your work at least lines up with what's already there and makes sense given the other roles that are already defined.

I believe that deduplication is one of the key use cases. I definitely think reconciliation is important, but maybe it's kind of a special flavor of deduplication. And for that reason, I also think that the three elements that we kind of skipped over, we didn't have much conversation around unique identifiers, original identifiers, and supplemental identifiers. I think that they play a very fundamental role in all of this discussion and very much need to be considered a part of it because the thing which you are marking authorship about is identified with an identifier. And in order for these things to be shared across disparate systems, you have to get those IDs working, and contextually working so that the authorship can make sense.

I will offer one other use case. It's something around if you guys know the acronym HCC Scoring, has to do with value-based care, and risk adjustment for patients who have a score applied based on diagnoses that they have, active diagnoses. And there are notions that a person's diagnoses – diagnosis could just go away if it has not been re-attested in a certain period of time. And so as we think about

authors and re-authoring or re-asserting that somebody has got diabetes, that authorship and the timestamp is very important because there's starting to be other dependencies around this use of this data that unless you have the ability to say, okay, somebody was originally diagnosed with diabetes back in 1999 but it has been re-asserted as recently as three months ago, therefore they still have this condition.

You have to take those things into consideration. So timestamp paired with that authoring is – and, you know, paired with IDs to go along with what you're talking about, all those things need to be taken into consideration together.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Right. Thank you, Lisa. That's great. Excellent. Who else is in the queue?

Operator

There are no further comments in the queue at this time.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

First of all, thank you, Emma, Lisa, Brett, for your comments. They're really, really helpful. So, task force, shall we go back – I guess, Johnny, maybe go back to the Google doc?

So we did our public time, all right, so we're doing good. So, maybe go back to the Google doc and go to the problems we are trying to solve with our provenance. So let's add a few more rows. So, we had reconciliation, and de-duplication, and I guess the concepts apply more to then just HCC but it's, sort of, the role of re-attesting or re-authoring. I guess it's really re-attesting.

Unidentified male speaker [01:08:36]

Sorry I'm just figuring out this outer row here.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Okay. I'm trying to remember where that was. There you go. You're all set; you can add them anywhere you want. So I think if we put those in, we can then – in this case it's de-dup – de-duplication – de-duplication – **[laugh]** I don't know if there's an F in there, and reconciliation. And then probably, I don't know if it's quite the right term, but sort of re-attestation. And then what we can do is we can go through our big spreadsheet and see what common clinical data elements these might apply to, who – what the roles are, so that was another comment Lisa made. Make a list of potential roles. Make sure they are consistent and there's a place that they can tack back into these recommendations. **[Pause]**

So, between Stephen and our public commenters, we've got a lot of homework to do between now and the 25th.

Steven Lane – Sutter Health - Member

Luckily we have a very capable ONC team, right?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Absolutely. **[Laughter]** And they are on their own. All right, any more comments on provenance.

[Pause] Okay. Then let's spend the last few minutes we have looking ahead to our next set of work, which is clinical notes.

Steven Lane – Sutter Health - Member

And so I had a question on this when I first saw it, and that is this is taken as a subset of the CCDAs templates or is this just off the top of somebody's head as important note types. I mean can we map this list to CCDAs, or should we?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah, it has a striking resemblance to the CCDAs list.

Steven Lane – Sutter Health - Member

Yeah, we have Lisa and DiDi in the public comments chat and they are experts in this area.

Matt Rahn – ONC

This is Matt Rahn with ONC.

Steven Lane – Sutter Health - Member

Hi Matt.

Matt Rahn – ONC

So there's been some work being done by the Argonaut Project and so that is where we started from.

Steven Lane – Sutter Health - Member

It's so interesting. The Argonaut always get like special, you know, [Laughter] special class. So, Argonaut is trying to figure out note types to send on FHIR, which is great. But again, we want to make sure that we're thinking about CCDAs and FHIR, and mapping between them. [Crosstalk] [01:13:11]

Matt Rahn – ONC

So these exist in CCA as well. Again, this is a – this would be proposed as a floor. So, in the future, there may be more added.

Steven Lane – Sutter Health - Member

So I guess one question I have is people put a tremendous amount of thought into CCDAs and the different note types and they recently went through an expansion and added a few more. Is there a reason why we need to kind of go through that again? Or can't we just all agree? I mean if this is the majority of the CCA note types, why not just take them all? Why start with yet another subset and have to go through a cycle of adding the rest later?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Good question. So, Stephen, that can be our recommendation. And we'll just take them out and list them and just say let's just do it.

Steven Lane – Sutter Health - Member

Rather than just taking a subset of CCDAs, let's ride on the coattails of that fine work and take them all.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

And sort of along those lines, if we flipped it, are there FHIR resources that are being built that don't have a CCDAs reflection?

Steven Lane – Sutter Health - Member, That is to say, are there note types that are being built or suggested for FHIR that have not been considered by CCDAs, is that what you are asking, Terry?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yes, thank you. That's what I'm asking. And if there are, we ought to take that list as well.

Matt Rahn – ONC

There is work being done at HL7 on FHIR to be able to capture these.

[Crosstalk - multiple speakers]

Steven Lane – Sutter Health - Member

Brett and Lisa are providing us with a lot of the background in the comments.

Matt Rahn – ONC

Yes.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

So again, just think of doing it once and making it recently completed, it seemed to me that we should just make sure...

Steven Lane – Sutter Health - Member

Matt, potentially, as one of the authors of this section, or certainly you've been involved from the ONC side, was there a reason why you felt that the Argonaut subset of interest was preferable to taking the whole list?

Matt Rahn – ONC

I mean there's a million clinical note types. So but ...

Steven Lane – Sutter Health - Member

Well yes and no. I mean, again...

Matt Rahn – ONC

This was work that was being done and this was a decision we made based on the work that was being done in Argonaut that this could be started as a floor.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Got it. Okay. But they are asking our input about whether that floor is high enough.

Matt Rahn – ONC

Yeah.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

That's fine. So we'll do our due diligence and make sure that anything that's not on this list of significance gets added, and if not then this is agreed.

So Lisa's – Lisa Nelson's comments about that all CDA document types have been profiled on FHIR.

Steven Lane – Sutter Health - Member

It just seems silly to add an extra step.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yep. So that maybe – let's make that one of our recommendations. And put it in black. Meaning we're not going to edit it again.

Steven Lane – Sutter Health - Member

And it seems to me that it doesn't make – we wouldn't necessarily want things to come through multiple channels. If we've said CCDA is the home for note types, if USCDI got a request from some stakeholders, say oh, I think I need a note type of ABC, I would think that we would want to route it through CCDA. And they have a process for coordinating with the FHIR team, etc. rather than having those come directly in through USCDI.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Right. Do you mean through HL7? Or through...well, same thing.

Steven Lane – Sutter Health - Member

Whoever owns see CCDA.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Right, right.

Steven Lane – Sutter Health - Member

Just the idea that we are pointing to that standard, as opposed to trying to take some independent take on it.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

That's a great point. So again, in our overall philosophy of not redoing stuff that's already been done, that's just extending our process to say if someone's developing note types, in CCDA or in FHIR then we're pointing to those as the sort of next steps in the USCDI.

Okay. Well, I think that's a good start for thinking about notes. **[Pause]** I think we have enough homework to...

Steven Lane – Sutter Health - Member

Do we have time for opening up for public comments again for the last five minutes?

Cassandra Hadley -- ONC

If you **[inaudible]** **[01:20:16]**, we can do that.

Steven Lane – Sutter Health - Member

Just because we hit another topic here?

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Yeah, no. Good idea.

Cassandra Hadley -- ONC

Okay. Can you **[inaudible-audio breaks up]** Operator?

Operator

Our first public comment comes from Lisa Nelson. Please proceed with your comment. Lisa, your line is now live.

Lisa Nelson – VP Marketing & Business Development – MaxMD

Thank you, I was just copying – typing into a comment near your area in the Google sheet, so you'll have this.

Under consolidated CDA right now, we already define three types of information artifacts that apply to clinical notes. There's the notion of a clinical model as a document as the whole thing, like history in physical mode is really a document on a whole. And then there are templates in consolidated CDA, which came into existence in the companion guide for 2015 certified EHR Technology.

And they define how to make a clinical note section, which allows you to add clinical narratives, you can even type it, you know like this is a section that's clinical notes that are procedure notes. And you can put a clinical narrative into a structured document by adding a section. And then there is a third, and the most granular, notion. Which is a clinical note, we call it to note activity that is a template that tells you how to go about adding some narrative, like a sentence or two, that may be specifically relevant to a particular procedure or a particular encounter and that's called note activity. So there is a great depth of guidance already available on how to represent clinical notes as a concept, three levels of granularity.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Very helpful.

Operator

Our next comment comes from Gary Dickinson. Please proceed with your comment.

Gary Dickenson – Director, Healthcare Standards – CentriHealth UHG

Hello, this is Gary. I thought I was in the queue for the provenance discussion but that ended and I am still stuck on the line. So okay if I go back to that?

Steven Lane – Sutter Health - Member

Oh absolutely. Absolutely, this is wide open.

Gary Dickenson – Director, Healthcare Standards – CentriHealth UHG

Okay. Just noting in terms of provenance, of course, data is typically captured in conjunction with some kind of an action being taken or some kind of activity. And so, when I think of provenance, I think of the "who, what, when, where and why". So the "who" of course could be multi-dimensional in the sense that there's who the subject of care, there's who is the performer of the particular activity that is described, similar to what Lisa was mentioning in terms of roles. And then there yet may be another author who is not either the subject or the performer or the observer or one of the other roles. And so I think we have to think that dimension as well.

In the – from the standpoint of "who", from the standpoint of "what", that's where I think about the action being taken. What action is being taken, that is where the data is being captured. And then of course "when" may have at least a couple dimensions, one of which is when did the activity or action occur, and then when was it documented, recognizing that oftentimes something happens and is documented sometime later. And then "where" may have the same two dimensions in the sense that what – where it happened may be different than where it's documented. And of course "where" has

the dimension of a physical location, but also may have the dimension of a network address or device ID where the documentation occurred.

And then of course “why” I think is something that may be important from the standpoint of understanding why the action was taken, what was the rationale from that standpoint. So I think we have to think of those dimensions, and then also need to think about data as it flows from source use and recognize that there may be multiple points of provenance as different artifacts appear along the way. In other words, there's an artifact created at the point of authorship or point of origination, and then that is captured within the source system, then there may be artifacts which were then created in the course of exchange, such as FHIR resources or CVA documents or version 2 messages. And so that's a separate artifact, and there may actually be transformation occurring from the original source content to what is required by the exchange artifact. So there is provenance associated with that exchange artifact because it really is a separate representation from the original source document itself. And then thinking about it from the standpoint of being sent, is received, the receiving system than creating its own artifact internally that may have yet another set of provenance associated with the creation of that artifact within the receiving system.

So we kind of have to think of all those dimensions, I think, when we talk about provenance, because it's important for us to be able to relate data to the action where the data was captured, and also be able to document who did what, when, where and why and of course, with the associated data with that activity. Thanks.

Terrence O'Malley – Massachusetts General Hospital – Co-Chair

Gary, thank you very much. You get the last word. I think we have run the clock out on this one. So hand it back to ONC to wrap us up.

Cassandra Hadley -- ONC

All right. Well, thank you, everybody. As a reminder, our next public HITAC meeting will be March 19 and 20th, and you can visit HealthIT.gov for more information on that. And our next USCDI task force meeting will be on March 25 and you could find information on that on the website as well. Thank you chairs and thank you, everybody, for your comments.

Unidentified male speaker [01:26:49]

Okay, thanks very much. **[Crosstalk]**

Unidentified female speaker

Thanks everyone, bye.

Steven Lane – Sutter Health - Member

Bye and thanks.

Unidentified female speaker

Bye.

[End of Audio]

Duration: 87 minutes