U.S. Core Data for Interoperability Task Force

Transcript
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Virtual Meeting

Speakers

Name	Organization	Title
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
Sasha TerMaat	Epic	Member
Lauren Richie	Office of the National Coordinator	Designated Federal Officer
Adam Wong	Office of the National Coordinator	Back up/ Support
Al Taylor	Office of the National Coordinator	Staff Lead

Operator
Thank you. All lines are now bridged.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
Good afternoon and happy Friday, everyone. Welcome to the USCDI Task Force. Of the members, we have Christina Caraballo, Terry O'Malley, Steven Lane, and Brett Oliver. And, hopefully, the others will join us soon. We do know of a couple of absent members. Namely, Sasha TerMaat and Valerie Grey. So, with that, I'll hand it over to our co-chairs to get us started today. Do we have Christina or Terry? This is Christina. I'm trying to get into the WebX still. I'm actually logging in remotely from vacation myself. So, Terry is going to kind of help lead us a little bit more. I can't see slides right now but I know that we're going to go ahead and go through the promotion model criteria looking specifically at the criteria requirements. So, I think if we can probably see if Terry is back on and pull up the Google Doc, I think that's where we're headed today. Terry, are you on? I thought Terry was on just a minute ago.

Christina Caraballo - Audacious Inquiry - Co- Chair
He was and I was just texting him because I know, hopefully, he can get back in. Since I was out this week, Terry has kind of taken a lead for us. But if we can get in the Google Docs, I'm not going to be able to join the WebX because I'm on my hot spot. But I've got the Google Doc up.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
Okay. And we do have the Google Doc displayed in Adobe as well.

Christina Caraballo - Audacious Inquiry - Co- Chair
So, if you guys can kind of bear with me. What we've done is if we go to the submission sheet in the tabs in the bottom, we've, basically, taken the criteria of the different stages and laid it out in this in a grid saying what's in kind of stage or the Level 1, what's new, what's in Level 1, what's in Level 2 and update it a little bit. I'm still trying to get into this WebX.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
And, Christina, I'll let you know when Terry is back on. I think we may have just lost him, lost the audio.

Christina Caraballo - Audacious Inquiry - Co- Chair
Okay. Well, hopefully, he'll come back in. I'm really sorry. I was kind of dialing in to say attuned to this conversation but Terry led us this week.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Hello.

Christina Caraballo - Audacious Inquiry - Co- Chair
Oh, yay. You're back. I'm drowning.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Oh, sorry. My apologies. Sorry. I hit delete call instead of hitting mute/unmute. So, there we go. My apologies, folks. So, thank you, Christina, for doing the intro. And can everyone hear me now?

Christina Caraballo - Audacious Inquiry - Co- Chair
I don't know if you could hear us, Terry, but we've pulled up the Google Doc. I don't know if you could hear me talking, struggling since you kind of crept up but we've got the Google submission sheet up. And I was just trying to give an overview but if you could just kick us off that would be wonderful. Thank you.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Can you hear me okay now?

Christina Caraballo - Audacious Inquiry - Co- Chair
We can. You're back.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Good. All right. Thanks, everyone. So, our work today. I thought we would go over where we've been and confirm the consensus that seems to have emerged about how we adopt the ONC model. So, briefly, what we did, we created a comparison of our 2018 proposal and put it alongside ONC's 2019 proposal. That's Tab 1 in the Google Doc. And our consensus it seems was that they lined up really well. Most everyone liked the 2019 version and thought it was much better than the 2018 version. And there were no significant omissions that I heard about. But let me pause there for a second to see if anyone had any significant omissions that we didn't pick up. Is that generally the consensus?

Brett Oliver - Baptist Health - Member
Yes.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Good. All right. Then, what we did is we had a really detailed discussion that got us into really minute areas of how we could make this advancement process more specific. And Christina's point was to build it out as if it were a user's guide for someone who was proposing a data element. And we set that up alongside a use case. And the one we ran through was smoking, tobacco use, as a way of tackling each of the different levels and each of the questions that ONC was proposing to ask in the application process and see whether we needed ore detail or more specificity. And Adam came out with Tab 2, which was a series of prompts asking for more specific information.

So, based on that, the last tab, which was the submission tab, this is the current version where we lined up in Column A sort of any number that had been assigned to one of the items by either ONC or in Adam's second spreadsheet is in that column. And if there's a new item, for the most part, it got a new designation and was then added. And then, the name of the element, the next column was sort of what sort of value it had, how it was used. Any additional comments on that. And then, Column E, what was required for advancement. And then, finally, the appropriate level if this criterion is missing. So, we tried to line it all up together. So, let me stop there for a second because this is going to be our work today is

to kind of plow through this. So, let me stop and you guys can take a quick look at this and see if anything is confusing.

Steven Lane - Sutter Health - Member
Scroll back up to the top.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Actually, Adam, can we freeze the top row?

Steven Lane - Sutter Health - Member
Yeah, that would be helpful.

Adam Wong - Office of the National Coordinator for Health Information Technology - Back up/Support
I would like to. I am not entirely sure how.

Steven Lane - Sutter Health - Member
It used to be right there, right, Adam?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. I couldn't find it either. I would have frozen it a while ago. Anyway, maybe we'll just keep going back up to the top.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
We can try the view command. Yeah, the first one.

Steven Lane - Sutter Health - Member
Freeze, good job. Lauren, you rock.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Thank you. I couldn't find that. All right. Steven, will that help?

Steven Lane - Sutter Health - Member
It helps me. Thank you.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
There you go. All right. Okay. So, our job today, we're going to start on Row 2 and just keep on going as long as we can. We have one more week, one more meeting after this one to get through this application form. And then, we have one more meeting where we can, I think, use that to go over our proposed presentation to the HITAC September 17. So, I think we have a meeting on the 7th and we have a meeting at the end of this month. And then, we're done. So, here we go. And please, everyone chime in. Again, the context for this is to think about this as you're a data element submitter and this is the checklist or the questions that you're going to be asked about your data element. And a question for us as a group

is whether we need more or fewer questions, whether they need to be phrased differently. So, just anything that would make this process better. Again, chime in. You don't have to raise hands.

So, I will start us off. We're starting off with very low controversy issues, I hope. So, I thought it would be nice if knew who was actually proposing the information and how to get in touch with them. So, I added that to the process. And then, the next one I already called out the data element name. This, I gather, is the proposed name, the name that the proposer has attached to the data element. And with that, a data element description, which I was thinking kind of meant broadly, where does this fit. Is this a lab piece? Is it an observation? Is it a – how would you describe this data element? And I'm not sure. I don't know if we need, at this point, to have a list of categories as data elements if that would be helpful to show people whether we have one.

Ken Kawamoto - University of Utah Health - Member
Terry?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah, Ken.

Ken Kawamoto - University of Utah Health - Member
Should we have here or I don't know if it's instruction clarification on what's the appropriate level for a data element? For example, would a data element be someone's pack year history? Or would it be, for example, detailed smoking information? So, more like a data element group? Or would it be, for example, echo results? Or would it be more like ejection fraction? I'm just trying to get at – because that will likely be – often times, things that are requested probably will come in a package.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. That's a very good point. And I may be wrong but I thought in our initial instructions, Steve Posnack said that each data class so if you thought about echo results as a data class containing, among others, ejection fraction that each data class would be considered one data element at a time. And please, Adam or Al, correct me if that was a misconclusion.

Adam Wong - Office of the National Coordinator for Health Information Technology - Back up/Support
Yes, that's correct. Elements would be kind of disaggregated from a full class. Each element would get its own submission.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
So, I think, Ken, that just means that if you're going to provide – but you're right. The instructions ought to read if it's a specific and clear data element, provide it. If it's part of a related set of data elements then, we can use your examples. So, please provide the data elements in that set.

Ken Kawamoto - University of Utah Health - Member
It seems like it would make sense to have a way to have things that are common across the request to not have to be repeated each time. So, you can imagine let's say you have newborn screening results and there are like 15 or 20 things in there. It would seem silly to recreate every single metadata like why

these things are important unless it's very specific to that specific result to have, basically, 20 duplicate applications.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
No, good point.

Christina Caraballo - Audacious Inquiry - Co- Chair
So, on that, I'm wondering if we need a middle tier event. So, we've added on Line 7 the proposed data class. So, we recognize that even though a data element needs to go through the process separately, often data elements are a part of a bigger data class. But within those data class, data elements could be at different levels. But for groupings, is there a middle ground that is so similar that they are really a cluster? Do we need to add that as well to kind of find that balance?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. Or maybe ask if they want to consider – well, they have to ask what's in the data class. But we could ask if you want this to be a data class submission made up of the following data elements. And then, to Ken's point, you repeat it once. ONC in the later levels will tease it apart and make sure each data element is staying up with the group. But for the application, you're right, we should make it as simple as possible.

Ken Kawamoto - University of Utah Health – Member
Yeah. And I think metadata is important, too, because, for example, if you're doing ejection fraction, do you do one for ejection fraction value, one for ejection fraction date, one for ejection fraction source and are those three separate data elements that are proposed? Do you know what I'm saying? If you take it to the point of – depending on how you define a data element, if you define it as the smallest unit that you can break it down into, you will have a ton of data elements that you would never really consider separate from one another.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. So, that may just be the nature of the beast. How would we get around that?

Ken Kawamoto - University of Utah Health - Member
I think, in the form, you would say tell us who you are and, if applicable, please define a group. And the questions that relate to the group you could put there like why is this group of things needed. And then, it would say please specify the data element within this group. And you can add more within it. But it's, essentially, the typical notion of if there are natural groupings to things, it doesn't really make sense for you to repeat it each time. I guess it would be like if we were booking a flight and you could only book in one way segments and you have to re-enter all of your information and your birth date and your TSA number every single time and that's just the way – that would be a very silly information form. But that's almost what we're asking for here.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Well, excellent comment. So, other folks? I'm taking it, Ken, that that is a proposal for modification, an amendment. So, does that sound fine to everyone else, make sense, raise other concerns?

Steven Lane - Sutter Health - Member
Sounds good.

Ken Kawamoto - University of Utah Health - Member
Maybe another thought, too, is maybe we define it like you don't need to, at a data element level, disambiguate further if you would never really see these data elements apart. That might be another way to think about it. Just being careful about things like if we consider, again, ejection fraction, to what level do we go down? And we might just want to have examples. But maybe it's a given that you would assume date/time of its being observed as there and potentially, I don't know, things that you wouldn't otherwise separate out. I think we assume things, right. We assume if you have a lab that the value is going to be there and that the units and the actual numeric value or text value are all part of one data element.

But having a definition that, basically, makes it clear what should be the unit of a data element, I think, would be important because – yeah, anyway. And there may be some assumptions we put like if we're asking for data, you don't have to specify the time that it was captured as relevant unless it's something that's timeless like, I don't know – well, I don't know if there are timeless things. But unless there is something where it explicitly doesn't need a date/time associated with it. Let's say a birth date. A birth date field data element doesn't need a time observed probably associated with it. But otherwise, I think as someone who is writing it, you'd be wondering do I need to specify that I need to know when it was actually recorded or when the observation was from?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. And I think you're on safe ground assuming that the metadata is going to be there. So, author, authors, organizations, and time.

Ken Kawamoto - University of Utah Health - Member
I'm not sure about the author part but maybe those are some examples that need to be specified in the instructions.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Got it. Yeah. Good idea. That sounds fine. Okay. And the next new line, Line 6, if I can read it right was, in a way, asking the proposer to search this database for similar data elements. In a sense, to do a little homework for ONC because that, I presume, is what ONC is going to do. And see if there is anything else already in the data set that looks similar. And then, really ask if there is then, why is this different.

Ken Kawamoto - University of Utah Health - Member
Or you could say please provide additional data in support of this, right. You can imagine somebody might have said this ejection fraction is important for this reason and you found it. And you as an organization might want to say looking at this, this all looks good but this is another reason. So, maybe it's like saying what else do you want to add to this. Do you know what I'm saying? I guess, if it was like a legal thing, it would be like a friendly brief or something. Just because somebody else put in an argument doesn't necessarily mean that that means you have nothing else to say about it.

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

Right. So, you really – but it's probably a one-way comment. You probably would add things to that data class that cluster of data elements.

Ken Kawamoto - University of Utah Health - Member

Or you may comment that it's not properly specified. There might be all sorts of comments about it, right. And we probably want to – or you might just say I don't think it's well specified so I'm going to put in this one. You don't want it to be like just because somebody put in a poorly written proposal for the data element you care about that now, you're stuck and unable to put more information that you think is important.

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

And I think that raises sort of maybe the next column over, Adam, that's sort of an issue of what is ONC going to have to do to manage this database? And that's going to be one of the things they have to do is to harmonize proposed data elements, aggregate them, clarify them, make sure they're specified properly. So, there is going to be some editing that ONC will need to do. And the question is do they – is this application form going to give them enough information to help that task. That's a side. We can come back to that one. Thanks, Ken. Where are we now? Down to 7. This is sort of – Line 10, Item 2 is the proposer's pitch for why this is important and why it should be a national exchange. I don't see any problem with that one. And 2A was a question of use cases. And 2A gets you now as being the first requirement for being thought of as being a Level 1 data element.

And if that characteristic is not present, it means that the level of the data element is the comment level. So, if you have it, it's necessary but not sufficient to get you in Level 1. If you don't have it, you're not getting into Level 1 no matter what else you have.

Steven Lane - Sutter Health - Member

I really like they way you've organized this, Terry, and populated the table. Thank you for that.

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

You're very welcome. It was your idea. Okay. So, again, we'll just kind of go through these. And if you have something to say about them, interrupt and we'll stop and clarify it. Okay? So, 2B is Line 12. Again, a list of projects that are currently underway using this or proposing to use this data element.

Ken Kawamoto - University of Utah Health - Member

That's a little bit different from what's stated there where you say to define use cases.

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

I'm sorry, where are we?

Ken Kawamoto - University of Utah Health - Member

Row 12.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Line 12, okay. I'm having trouble reading so I may not be reading it right.

Ken Kawamoto - University of Utah Health - Member
As written, it says projects to define the use case. If what you intend more is projects to sort of pilot the use case or to underway related to the use cases. But defining, to me, is there a project to write down o paper what this use case is. And so, if that's not the intent, I think it needs to be –

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Good point. And, Adam, can you go back to your prompts tab and see what we have in No. 2? Because I may have just misquoted it. Maybe go up a row or two. And some of these, the new elements in the submission tab, some of them are just breaking apart of these previous ones in the prompts tab. I was just looking to see what – oh, we got what Ken was concerned about. It looks like I probably just miswrote it. So, let's go back to submission. And it's, basically, then site projects currently underway using this data element. Or do we – does that make sense?

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
It's really what we want to know is just does anyone care about it and is anyone using.

Ken Kawamoto - University of Utah Health - Member
And it doesn't need to be being used in say a Fyre implementation?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
No.

Ken Kawamoto - University of Utah Health - Member
So, take an example – okay. So, in the case of heart failure, if it's just in our health system if the patient's ejection fraction is this then, we call them to make sure that they're doing okay or whatever. That's okay. It doesn't have to use Fyre.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Right. In fact, I think this needs to be sort of transport agnostic. It's just about the data element itself and not how it's being exchanged.

Ken Kawamoto - University of Utah Health - Member
I guess, by that definition, if we go to then, a lot of things might be in Level 2 like evidence of impact use. So, for example, with ejection fraction, for example, somebody can say yeah, we do care management based on ejection fraction and they do better when we do it, does that mean if it can be documented, it's already right up at Level 2?

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

You have to have everything you need to get into the level.

Ken Kawamoto - University of Utah Health - Member
There are more things – okay.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
So, there are five or six things you need for Level 1. There are three or four things for Level 2. If you've got all of them then, yeah.

Ken Kawamoto - University of Utah Health - Member
I got it. Okay.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Then, you can go there. But it gets tougher as you go along.

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
All right. But that's a good clarification. Thank you. And then, 13 is is it currently being captured in any system. And really, I guess we should be asking – so we do ask them, all right. So, is it being captured, yes/no? If it's yes then, tell us what **[inaudible] [00:30:21]** to use. And, again, this information is to help ONC make the leveling decisions.

Ken Kawamoto - University of Utah Health - Member
And, again, just to be clear, a lot of things will not meet Level 1. And the assumption is if it doesn't meet Level 1, if ONC has a desire to promote things to make it to Level 1, they would help out, right.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Well, that's a good question. That's another question for the ages at some point. It's not clear to me yet what, if any, role ONC will have in "helping out" data elements in their advancement process.

Ken Kawamoto - University of Utah Health - Member
I think this is where it's important that there are mechanisms for things that fail to advance to the next class. There is information that helps identify which should be prioritized for helping to move to the next step.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. And, Adam, can you capture Ken's comments? Because you're right. They kind of goes to whether or not this whole process will work the way it's intended.

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
And some data elements are going to make it through with not much help. But you're right. Some are likely to – some may need help. And then, the question is – go ahead.

Ken Kawamoto - University of Utah Health - Member
Based on this questionnaire, the only people who are going to be able to fill it out are people who are, basically, in health IT, right. That's the way it's set up. So, if you ask like a patient advocacy group, if they say we really need to know whether patients are homeless and they're the one putting it in and then, they get to Question 14, do your current electronic systems track it, Question 15 is a current standard on implementing guide exists, they're going to have no clue how to fill that out. Maybe it's okay but the way these forms are structured, it is, basically, implying that the only people who are allowed to submit these things are people who are in health IT or can get in touch with people who are in health IT.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. So, that may be the conclusion that you could safely draw from this. But that's not what's intended. I think the intent is that anyone can submit. So, you can get up to Row 14 without any IT being involved. It's just that you think this is good. The question that you raised earlier is then how do you advance? How do you begin to acquire the characteristics that you need to get to Level 1? And that's an important question and one we ought to come back to.

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
But you can be an advocacy group and make your proposals and tell people why it's important. And you have a project locally that you're doing that's not HIT. So, you can get up to this level. You can get well into the comment box.

Ken Kawamoto - University of Utah Health - Member
And I think that's where perhaps the place where we need to flush out more is the what's the value proposition for this data part because, as it currently stands, it's mostly free text, right, which means if you get – and it depends on how many you get. Maybe this is going to be one of those places people don't really know is there. And the only people who actually submit things are people kind of in the know. And ONC is going to get maybe 50 to 100 proposals in a year, in which case it's totally reasonable and totally fine. You don't really need a particular process. But if you end up getting like 1,000 of these, it's going to be really hard which one should be prioritized. And that's where I wonder if there's a way to quantify it a little bit more that would allow for sorting or ranking or, I don't know. It gets very technical, of course.

But the big picture as a society we might be thinking of more things like what's the quality adjusted life of your saving potential here if this could be implemented and that kind of thing. Because otherwise, it's really just going to come down to how articulately can people make the case or create a story around it, which it would be very hard, right. Because the judgers at the ONC are not going to be experts in every single domain that people are commenting on. There will be no common rubric for which to judge.

Maybe that's okay, especially if ONC or a group isn't intended to identify the most promising things that need to be pushed forward. And if it's more like hey, here's the case. Look here and see if you want to work with these people. But if there is an intent to say let's identify some prioritization where we put some resources, other than having people on staff literally reading through all of them and then, making arbitrary decisions based on that then, there probably needs to be some way to better quantify that. I don't know.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. Good point, Ken. And there's another series of questions that were left for final advancement into USCDI to touch on those. So, we might want to ask whether we should move those up earlier in the application process. So, Adam, if you scroll right down to the end, there you go, and we can sort of go from the bottom up. So, maybe up one more row. So, sort of 15, 16. How many people are going to do it? Is something making it hard to do? These are the things that the HITAC is going to wrestle with and make suggestions to Dr. Rutger and the ultimate decision of whether something gets into USCDI is going to happen at that level.

Ken Kawamoto - University of Utah Health - Member
That's a great point. Maybe the common thread is say USCDI task force reviews the applications and we have some sort of metric that's transparent that says what's the likely clinical impact, what's the likely financial impact, and that kind of thing.

Steven Lane - Sutter Health - Member
Well, I don't think it's been determined that our task force is going to be functionally involved in this process. Adam or the co-chairs, perhaps you have a different perspective. So far, all I've really sensed is that we're here to inform the design of the process as opposed to necessarily be involved in helping to manage or support the process once it gets going. I'd love the latter to be true but I haven't heard that we're being assigned to do that.

Ken Kawamoto - University of Utah Health - Member
Yeah. I would love to hear who is going to actually adjudicate these.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. It's probably not going to be us to Steven's point but someone will have to. And I think we had a section in a previous document about how are priorities being set. Who sets them? And then, how do we know whether the proposed data elements are addressing and are there gaps in what's needed versus what's being proposed.

Christina Caraballo - Audacious Inquiry - Co- Chair
Remember that in the draft conversion model, the HITAC does have a role. And once the data element has been assigned to Level 2 by ONC, the HITAC is tasked to review all of the data elements in Level 2 and that's per the draft right now. So, maybe we look at that and add a process for some of the new ones coming in because every call, we kind of come back to this. How do we bridge the gap between the really technical and the advocacy groups that really need data but can't fill out this form? And we need all of this information in this form for the data elements. Plus, I feel like it's kind of a yo-yo.

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

Yeah. This is the second move because these elements should be earlier and then, push them back later. But maybe they really belong, to Ken's point, how do you make the case for this as a national data element because it adds value? And here are the following ways it adds value. Maybe we push that up early so people can make the case to the extent they know it early. We don't have to ask them for – this asks for some explicit evidence later on. Maybe we leave them in both places. This one, we really want the data in these latter stages. But in the earlier stage, we were really interested in some sort of opinion about the significance rather than the documented significance.

Ken Kawamoto - University of Utah Health - Member

And in terms of the promotion, I think it really comes down to who has resources to make this happen. And so, for example, in the current way this works, the people who have resources are, essentially, the EHR vendors for the most part. So, it's like the Argonaut project. So, if they decide that something is worthwhile because of their inputs or inputs from their clients then, it proceeds through that. That's one potential lever, right. Another is if the government says this is needed, although we're really moving more towards, and it's probably a good thing, let's not propose something unless it's already there or it's already been really proven out. Historically, ONC has also done things where they facilitated public/private partnerships to define things in areas of need and to pilot them.

But I guess, having this process so that those groups have a way to sort of digest this, I think, would be good. So, for example, if this was in a very well digestible form, I would imagine initiatives like Argonaut would find that useful where they say here is a concise summary of the things that look the most promising. Should we just take a look to see if we missed something? Or ONC could say hey, we're going to do efforts to facilitate moving forward on things kind of like the prior auth kind of example and get ideas. So, whatever can be done to facilitate that process, I think, would be useful. In terms of HITAC and HITAC task forces, it seems a reasonable place for ONC to put some process to get guidance there. But if the preference is ONC staff would prefer to just do this on their own without input from HITAC or HITAC task forces until it's ready for Level 2 that would be another decision.

A lot of it does depend on to what level of submissions we get, too. If it's high level, should we decide between these 30 data elements, HITAC would probably be fine. If it's we need to sort through 1,000 proposals, that's another thing.

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

Right. Okay. It sounds like we are slowly building another section of issues that need to be addressed in sanding out this process. We will keep building that file. So, are there any objections to me sort of taking a less data critical rewrite of these last data points and putting them earlier? In a sense, to let the proposer make the case for why this is valuable and should be national exchange. And then, say the same questions later on because ONC is going to need it require citing of the data. Does that make sense or should we just leave them in one place or another?

Christina Caraballo - Audacious Inquiry - Co- Chair

I think that makes sense. And I think having it in both places is good. It gives you the chance that you need to just kind of do the written more pros and then, down later, try to collect as much of the technical information as you can. But it will also give ONC more information and a case for data elements that are being input more from advocacy groups that they have the opportunity to add a little bit more flavor in there.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. So, Adam, before that detour, how far have we gotten? Somewhere around here. So, we were asking it was currently captured in an electronic system. And we're not saying what constitutes an electronic system. Does that need to have more definition or will people –

Ken Kawamoto - University of Utah Health – Member
This is a tricky one, right. If you were in a health system, for example, and let's take structured ejection fraction as an example, maybe you know that in your system it's widely available and it's just there. But how is anybody going to comment if you weren't like an industry representative or have access to people from multiple EHR systems? How are you going to say it's prevalent beyond us? Anyway, it's important information. I guess I'm just pointing out that these are going to be hard questions to answer without a fairly robust network of people and resources you can rely on. So, anyway, maybe it's intended to be that way but, I guess, I'm just assuming most things are going to be stuck in comment.

Christina Caraballo - Audacious Inquiry - Co- Chair
I think this is an area that we should discuss. I see Rita has a question in the public chat that says does the system that capture data elements specify EHR vendors and their healthcare organizations. And I can't remember where we had the conversation, Terry. But it kind of had me thinking because I was thinking it doesn't matter where it's captured because sometimes, it might be outside of a healthcare system or an EHR where data is captured such as on a mobile app. But then, we have to think about how that data may be captured outside of the traditional ecosystems comes into current ecosystems. And if we don't also always consider the connection between the two then, we could run a risk of creating almost data gaps of information where you think that things are being shared but they're not because that core EHR isn't able to take in all of the data and then, you lose some. So, you can kind of argue both sides here. But I think it is important to think through.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. My interpretation of this question was getting to the issues of feasibility of capture. Has somebody actually done it or are they doing it? And if they are then, that's sort of a gold star for that data element. So, I'm just wondering if that's the right question to ask or whether it advances the data element sufficiently. So, if it's not being captured, what's the value add of being able to cite the fact that it's already being captured?

Ken Kawamoto - University of Utah Health - Member
I think it's so that you can say that work effort would be making that data available rather than having people, in particular, clinicians, enter the data.

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

Thank you. Well put. Okay. Right. It's making it available rather than acquiring. Okay. So, I think that's an important element or item to ask. Presumably, if you can capture it then, it's not a big of a step to share it or making it available. So, if you know of them then, the next 3A just asks you to give some detail. How often is it – is this widespread? Is this one system? So, again, to get a sense of how robust this process is. Again, we're trying to think is this going to help ONC in their task of deciding where to put a data element.

Ken Kawamoto - University of Utah Health - Member
I would think so, right. Now, getting this information would be hard but if you can say we queried the EHR association and among respondents, 90 percent of responding EHR systems said they capture ejection fraction in a structured form that would probably be a big deal. Now, the question, of course, is not many people are going to have access to an EHR association. Not many folks are going to have a direct line of communication with that kind of a group or Argonaut. So, again, I think the questions are good and they're probably the right ones to have but I'm just bringing up the issue that getting to the level of even being able to answer these is going to be beyond many groups, even beyond individual large health systems.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. Now, I agree. And to a certain extent though, Ken, that's the point as well. It's the process to technological specificity and consistency and reliability that this whole process is going to rest on. If the data element is garbage, by the time it gets through this, no matter how good it is, how wonderful the concept is, how valuable the concept is, it's not going to make exchange any better.

Ken Kawamoto - University of Utah Health - Member
But there may be cases where it, in fact, is being captured consistently in structure but you just don't have the resources to learn that. So, again, it's the kind of thing of how do we imagine that people are going to get that data. So, I'll give another example. Whether it's ejection fraction or whether it's the QT interval on an EKG in a structured form or it's the pack years of a patient's smoking history, or a baby's gestational age, these are all examples of the kinds of things we're thinking about for different things we're working on. And the question is how does a group even find out whether, for example, how prevalent pack year history is in terms of collection across EHR systems. That alone seems like it would be a major effort.

And it does seem like the kind of thing where if, for example, ONC could create a network of even health systems or among people who are using different EHR systems to be able to answer, yeah, in my health system, we do capture ejection fraction and it is in a structured form. And queries can go out to them whether it's volunteer wise or just paying them a little bit of money to answer questions. Those are the kinds of things that I think would be immensely valuable for something like this but I think we do have to think about the question of how do these questions actually get answered.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Adam, again, I put Ken's comments in another column. How is ONC going to get the information needed to adjudicate or identify whether the answer is correctly stated? And it would be nice if there was some

broadly knowledgeable group who was consistently reviewing the applications and augmenting the data where the answer was known. Something like that. Again, Ken, it's a critical piece.

Ken Kawamoto - University of Utah Health - Member
In terms of the coordination role of the Office of the National Coordinator, setting something like this up seems like it would be really important. It would be the natural body to do something, even if it was volunteer wise. Like please volunteer for this email list or whatever that just asks you do you guys collect this and is it in structured form. It's very hard for people who are not in those situations to answer. Very easy for the people who are in those situations to answer. So, that's where I think this coordination can do it. Anyone who practices in a health system in primary care is going to know if certain things are true or not true.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. All right. Again, I think all of these answers and this discussion are well within our purview as this task force. And this application form is making us think about the details involved and the implications of asking these questions for the advancement process. So, I think it's doing its job. Good work. Okay. And, again, Ken, the next questions just get progressively more technical. And so, the people who know the answers to them are going to be progressively narrowed. And the issue you raised applies to all of these.

Ken Kawamoto - University of Utah Health - Member
I can imagine you guys might even have a process that ONC coordinates where the applicant can pay like $1,000.00 and have this investigation done for them or I don't know. **[Inaudible] [00:56:47]**. But you can imagine, often times – I don't know. And maybe it's an application fee. Who knows? Question 4 about content standards, did we need to clarify that, for example, it needs to be US standards or applicable in US standards or must be – do we want it specifically around Fyre and those kinds of things. So, for example, if there's an HL7 Version 2 standard on it, if there's a CDA standard on it, if there is an open air standard out of Europe on it. For example, if there's an open air standard around something we care about but not in the US, does that count? Because we don't implement open air standards there. But that is a standard. So, we might want to clarify a little bit more about what standards are we really talking about here.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. And the other point someone made somewhere was that we also should be standards diagnostic. In other words, whether it's HL7, CCDA, Fyre, ITTT, does it matter as much as the fact that there is a set of standards that can be pointed to? But you're right. It should just say US realm.

Ken Kawamoto - University of Utah Health - Member
Yeah. And for example, is being in LOINC sufficient, for example? Because one easy way to get into Cures for that criterion would be to propose it to LOINC and see if they can it incorporated in the next six months. And maybe that is okay. But if we do have and ONC, in particular, has something very specific in mind then, it should probably be clarified. Say examples of things that would be very beneficial here are in order things like Fyre, CCDA, that kind of thing. Specifically, maybe it's like standards that are used in the US or something because – yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. That definitely makes sense. And then, again, as we're getting some of the questions, once we get beyond 4A, we ask for links to current standards. Is that appropriate? Can we just do that rather than asking people to fight them?

Ken Kawamoto - University of Utah Health - Member
Yeah. I think links sound good.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Point and go. Okay. And 5, again, these are just sort of levels of technical maturity.

Ken Kawamoto - University of Utah Health - Member
I think that's good. Just one question and issue that I recently learned. Apparently, the term connectathon is trademarked by Oracle.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
No way. Seriously?

Ken Kawamoto - University of Utah Health - Member
Yeah. We ran into this for AHRQ Learning Network conference we're trying to hold with the connectathon where, apparently, there was an experience before that they'd been warned that they can't use the term. Anyway, ONC might want to check into whether they should avoid referencing connectathon without getting – anyway. I looked on the trademark office. Connectathon is registered by Oracle.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Interesting. All right. So, maybe we just have testing pilots or productions.

Christina Caraballo - Audacious Inquiry - Co- Chair
I've heard that, too. Another term can be plugcessed.

Steven Lane - Sutter Health - Member
Ouch.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. But connectathon.

Christina Caraballo - Audacious Inquiry - Co- Chair
Use it anyway. No, I didn't say that.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Good to know, Ken. So, we'll just modify that. The point is is it out there and are people trying to push it forward by testing it. We'll find a good name for it. And it's like the links. No. 6, are there binding

definitions, which is the question. And I don't know the answer. Binding definition, is that well understood what that means? Because I didn't understand what it meant or if it had a technical definition.

Ken Kawamoto - University of Utah Health - Member
I assume binding definition is talking about terminology planning but it's really unclear.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
I didn't know what it meant.

Ken Kawamoto - University of Utah Health - Member
I think it's just a subset of the standards so I think you can just get rid of this. So, binding is typically used in the concept of if you have the Fyre lab observation standard, the code is bound to LOINC and says you must use a LOINC code here. That's what binding usually means. But by pointing to the standard that says you use LOINC, it's already part of that standard or spec. And if it's not specified – I guess another way to say it is, of course, you want as tight binding as you can but that relates to – that's more getting at the question of how actually semantically and interoperable are these standards. So, another example might be for the Fyre US Core medication standards, I believe the route of medication is not standard in US Core. So, you could use any local terminology to say this is an IV medication versus an oral medication, etc.

That is literally what's in our current standards that I think ONC is referring to or at least it was until recently. That might have gotten fixed. I don't know. But the issue here is that's more a way of judging how mature the standard is because you could have a standard like current procedures where you could say – well, you could have a standard that basically says send procedures around and you can use any code you want including local codes. Or you could have one that says you sent around but you must bind to SnoMed if it's available and it's relevant. And those are very different levels of interoperability. But I'm not sure this is the kind of thing – it's just part of what you need to evaluate. And it has various implications even from the burden perspective just saying make all of your procedures available through an API. And it's okay if you don't encode it.

That's one thing. If you say everything must be mapped to SnoMed if there's a relevant SnoMed code, assuming it's not already done, that's a pretty monumental task where you take tens of thousands of **[inaudible] [01:04:15]** in your system and you start mapping them. So, I guess all of that is to say I don't like the binding question but it's probably getting at this notion of how tight is the specification. How much room is there for – but I'm not sure you want the submitter to necessarily talk about that. It's really getting at the issue of are two implementers of the same standard potentially going to be able to talk to one another or not in a semantically interoperable fashion.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
And I can see in the chat Rita and Rob have both put things in. So, thank you both. We will amend things accordingly. So, Rob is saying are there specific standard terminologies that are known.

Ken Kawamoto - University of Utah Health - Member

That's great, yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Thank you, Rob. Thank you, Rita. We'll go back. All right. We're making great progress, by the way. We had set five as our goal so we're cranking along here. So, then we get to six is the first one that's actually required for Level 2, which we just answered so we'll send links. And 7 is the next requirement for Level 2 and that has been tested in two or more unrelated systems. And the question that people have raised is are two systems too many, not enough. And is unrelated clear? What do we mean by unrelated?

Ken Kawamoto - University of Utah Health - Member
Yeah. We need to specify that.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
So, unrelated probably means it should be on a different platform. We don't really care if it's owned by the same people. It may be related to ownership. But technically unrelated.

Steven Lane - Sutter Health - Member
Yeah. I think that's what we were driving towards. It certainly sets a higher bar but it does seem more relevant. To show that Athena can do it with Athena doesn't really get us where we want to be.

Ken Kawamoto - University of Utah Health - Member
And in some cases, for example, for Fyre API's, it's not meant for cross institution on interchange. We just need to make clear that in certain use cases, it's not necessarily that you can transfer data from Health System A to Health System B that's important. It's that in both Health System A and Health System B, you can, in fact, pull the data.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
So, is the term systems correct or should that be –

Ken Kawamoto - University of Utah Health - Member
At least two different EHR systems and just stop there.

Steven Lane - Sutter Health - Member
That doesn't get at the multiple vendor issues directly.

Ken Kawamoto - University of Utah Health - Member
Yeah. Do distinct EHR vendor systems? Although that might buy us – so let's just be clear.

Steven Lane - Sutter Health - Member
Yeah, that's fair.

Ken Kawamoto - University of Utah Health - Member
If open MRS supports it, is that sufficient to count as one or does it need to be commercial?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
And Bob is saying it shouldn't be the deciding. Don't focus solely on it.

Ken Kawamoto - University of Utah Health - Member
Do we need to say vendor? Is there another term other than vendor?

Steven Lane - Sutter Health - Member
Developer.

Ken Kawamoto - University of Utah Health - Member
Two distinct EHR platforms?

Steven Lane - Sutter Health - Member
We know what it means. I'm just not sure everyone else will.

Ken Kawamoto - University of Utah Health - Member
Yeah. And I guess we need to give a sense of are we going to specifically weight commercial systems or not. I think that's a question.

Steven Lane - Sutter Health - Member
Yeah. I don't think it has to be commercial. I think we want to empower government agencies, VA, DOD, etc.

Ken Kawamoto - University of Utah Health - Member
And Rob has a comment of do you restrict the EHR. I don't know.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
I was going to say unrelated parties because registries different from EHR's –

Ken Kawamoto - University of Utah Health - Member
Well, I guess that's where it gets down into the details. If we're just trying to get information asking people to say describe further is fine. Now, the question is, for example, if no EHR is supported but let's say the cardiology registry supports it and the American College of Surgeons registry supports it, is that sufficient to say it should move to Level 2. Is there any – was the promotional criteria to Level 2 – can we review that? And what level was it previously HITAC approved? Is there a statutory language that requires that they meet a certain threshold?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Good question. I don't know about whether it's statutory or not.

Ken Kawamoto - University of Utah Health - Member
I think the idea is though, in the end, the implication of things making it to a certain criteria level is that we make it required as a part of EHR certification criteria, right. That's sort of the end result. Is that not right? Once it gets to a certain point, the anticipation is future rules would say now everyone needs to

be at this version of the standards by three years from now and it gets incorporated into the USCDI and the US Fyre profiles. So, from that perspective then, maybe the focus should be EHR systems. And I think Rob made a note that what he's referring to is maybe the EHR system is connecting to a clinical registry. But I still think, for example, one EHR vendor system connecting with two different registries using the standard isn't the same thing as two different EHR systems connecting with an outside party or an app or something like that. So, could we just say has the exchange of this data then been successfully tested by at least two distinct EHR platform systems. And there's nothing in there that says it can't be with a registry.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
And distinct really means different, unrelated.

Ken Kawamoto - University of Utah Health - Member
Different. Yeah, different is fine, I think. Unrelated I'd be a little bit careful about because what if there is consolidation and like an EHR vendor used to be completely different and now they're owned by the same entity. And we've had certain examples of that in recent years. And is it no longer counted because those two EHR systems are owned by the same entity now?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
What we're almost asking is this data element sufficiently robust that the systems that handle it differently don't alter the outcome.

Ken Kawamoto - University of Utah Health - Member
Agreed just with the caveat that if we're looking at bidirectional transformation, the data can be sent from System A to System B and returned to System A and it will look exactly the same. That is not what we're asking here. That's a higher level bar. And I think it's appropriate not to go down to that level.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Aaron says to say two different types of systems. Thank you. And let ONC figure it out. That's my approach. And I think we're getting – Lauren, are we getting close to public comment time?

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
We have about four or five minutes.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Then, we'll keep on plugging through.

Ken Kawamoto - University of Utah Health - Member
I agree that 7A links are not what we want. It should be please provide links or other information or supporting data because I guess we call it artifacts but, essentially, we're just asking to tell us about this. And unless they've already written it up somewhere, it's probably going to be just description like we did this pilot. In this pilot, EHRA was involved and we did this and we also involved EHRB and we did this and we found that it works. That's probably not going to be a link.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay.

Ken Kawamoto - University of Utah Health - Member
And maybe when we ask for more details, maybe it can be generically for those. Just please provide details and then, it says parentheses. If this has been described elsewhere, you may refer it through reference or something or that kind of thing.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. And Item No. 8 is this is the first one that's required to get into USCDI. So, this one says four unrelated systems or more.

Ken Kawamoto - University of Utah Health - Member
And maybe that's – it's the same thing it's just the two became a four. So, I think we just used that different terminology. Now, there may be implications. I guess, part of the question is do we treat meeting these criteria as an automatic in or are we just saying it's a minimum bar but if the interpretation is if you check all of these, you must make it to the next level, that's different. So, I'm assuming it's a minimum bar, right?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
It's a minimum bar because also you need to be considered for USCDI. You have to get over these minimum bars. Whether you make it into CDI is up to HITAC and ONC.

Ken Kawamoto - University of Utah Health - Member
I agree. That sounds good.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Good. And so, we rewrite 8 and 8A the same as we did 7 and 7A.

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
And then, does formally published documentation exist for its representation and exchange?

Ken Kawamoto - University of Utah Health - Member
Isn't that basically the same as when we asked for the standards before accepted, it's now saying it's formal, whatever that means? Because, obviously, it's published if we referred to it before, right?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
So, just ask what is it.

Ken Kawamoto - University of Utah Health - Member

I think this is getting at do you at least have a standard for trial use, formal standard development organization standard or something.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Should we just ask do you have formally published documentation such as a –

Ken Kawamoto - University of Utah Health - Member
I assume we're not going to want to take something to Level 2 for USCDI unless it's an actual standard, right. Just because your organization came up with a spec that four groups worked on, I'm just assuming that we're not going to do that. I could be mistaken. But then, I think what we're saying is there a standard at least in a draft standard state published by an accredited standards development organization. Unless the intent is different, I think that's what they're after. Anyway, ONC can clarify if that's not what they mean.

Adam Wong - Office of the National Coordinator for Health Information Technology - Back up/Support
That's correct. This is intended as like, for example, has it gone through a valid cycle at HL7 and received comments and that kind of thing.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Cool. All right. So, Lauren has got the slide up for public comment. Let's cut to public comment.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
Great. Can we open the public lines?

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 cue. You may press star 2 if you would like to remove your comment from the cue. For participants using speaker equipment, it may be necessary to pick up your handset before pressing the star keys.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
And, operator, do we have any comments in the cue?

Operator
There are no comments at this time.

Lauren Richie - Office of the National Coordinator for Health Information Technology- Designated Federal Officer
Okay. Terry, Christina, I'll let you know if we get any other comments over the phone.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
That's great. Thank you. So, Adam, can we go back to your – we're pretty close to the end here.

Ken Kawamoto - University of Utah Health - Member
Could we then consider updating No. 14 to has at least a draft standard been published by standards development organizations such as HL7, NCPDP, etc.? I guess maybe ONC, Adam, could just specify it the way you intended it. Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. So, once you get beyond the technical stuff then, it's really – I just said it's strategic value. Basically, the significance to the country, whether that's meeting the quadruple aim or whatever it is, national security, cyber peace.

Ken Kawamoto - University of Utah Health - Member
I like the quadruple aim, Terry. Maybe we should explicitly just say around that. So, improve patient outcomes.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Health of populations, personal health, **[inaudible] [01:21:12]** care.

Ken Kawamoto - University of Utah Health - Member
And provider satisfaction or that kind of thing. And I think there's something to be said for something that makes providers not burned out and such.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. Absolutely. Such as EHR's? Right. I saw a cartoon of two doctors together and one saying, "Have you seen the new ICD10 code for carpal tunnel derived from overuse of an EHR?" I thought it nicely captured two favorite things.

Ken Kawamoto - University of Utah Health – Member
I think this is good. The cost one is going to be a little bit tricky because, I guess for all of these, maybe we need to add this notion of can you specify the stakeholder group to whom this benefit accrues. So, both for the benefit and the cost, I think it's important to maybe sort of have people explain from what perspective they're talking about because we have all sorts of perverse incentives, right. Maybe in the current environment, let's say getting people to do more expensive imaging is bad for the patient, bad for the society, but good for the radiology group. There are all sorts of – I think we just need – high specificity on whose perspective are you talking about from here.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. That's a good point, especially given the fact that costs and benefits don't move in parallel.

Ken Kawamoto - University of Utah Health - Member
Yeah.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Well, team, great job.

Ken Kawamoto - University of Utah Health - Member
And should we add a requirement that in all cases, you need to include a patient perspective? Just a thought. Or maybe you're encouraged. It just seems like – or maybe we just say please comment from each of these perspectives, NA, not known is sufficient perhaps. But we should probably just prompt like can you think of it from the perspective of the patient, from the perspective of society/overall economy, perspective from a healthcare provider under capitation. Do you know what I'm saying? Maybe even it's just instructions to say you may want to consider describing in these terms and whatnot. I think many times, we don't actually think of it in those terms. And it's not explicit and we sort of have to tease it out after the fact. What did they actually mean here when it says it's going to be good financially?

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Maybe that's another good point. Maybe, as I said, we ask explicitly. I don't think we want to run down a big, long list. But, certainly, the benefit to patients and maybe it's benefits to patients, providers, and society.

Ken Kawamoto - University of Utah Health - Member
Do we want to include insurers just noting they're a major part of our –

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Yeah. It's the stakeholders, right.

Steven Lane - Sutter Health - Member
We don't want to be exclusive.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Okay. Other stakeholders and society. Good. We'll put that one in early. That will be a Row 2A or B or C. Okay. So, what we'll do is we'll turn this around, get it back out to everyone so they can look at it for a while. And then, we'll see what we do in the next two weeks. Great.

Steven Lane - Sutter Health - Member
Great work.

Terrence O'Malley - Massachusetts General Hospital - Co-Chair
Outstanding job, everybody. Ken, Steven, thank you all. Rob, thank you as always. We are adjourned.