Transcript

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

March 1, 2023 10:30 AM – 12:00 PM ET

VIRTUAL

Speakers

Name	Organization	Role
Sarah DeSilvey	**Gravity Project Larner College of Medicine at the University of Vermont**	**Co-Chair**
Naresh Sundar Rajan	**CyncHealth**	**Co-Chair**
Pooja Babbrah	Point-of-Care Partners	Member
Shila Blend	North Dakota Health Information Network	Member
Ricky Bloomfield	Apple	Member
Hans Buitendijk	Oracle Health	Member
Christina Caraballo	HIMSS	Member
Grace Cordovano	Enlightening Results	Member
Raj Dash	College of American Pathologists	Member
Steven Eichner	Texas Department of State Health Services	Member
Nedra Garrett	Centers for Disease Control and Prevention	Member
Rajesh Godavarthi	MCG Health, part of the Hearst Health network	Member
Bryant Thomas Karras	Washington State Department of Health	Member
Steven Lane	Health Gorilla	Member
Hung Luu	Children's Health	Member
Meg Marshall	Department of Veterans Affairs	Member
Anna McCollister	Individual	Member
Clem McDonald	National Library of Medicine	Member
Deven McGraw	Invitae Corporation	Member
Aaron Miri	Baptist Health	Member
Aaron Neinstein	UCSF Health	Member
Kikelomo Oshunkentan	Pegasystems	Member
Mark Savage	Savage & Savage LLC	Member
Michelle Schreiber	Centers for Medicare and Medicaid Services	Member
Shelly Spiro	Pharmacy HIT Collaborative	Member
Ram Sriram	National Institute of Standards and Technology	Member
Michael Berry	Office of the National Coordinator for Health Information Technology	Designated Federal Officer
Al Taylor	Office of the National Coordinator for Health Information Technology	ONC Staff Lead

Name	Organization	Role
Laurie Whitsel	AHA	Presenter
Paul Chase	AHA	Presenter
Lloyd McKenzie	AHA	Presenter
Scott Robertson	Kaiser Permanente	Presenter

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

Michael Berry
Good morning, everyone, and welcome to the Interoperability Standards Workgroup. I am Mike Berry with ONC, and we are always glad to see that you can join us. We do have a few guest presenters with us today, and I would like to welcome and thank them for their participation. All workgroup meetings are open to the public, and your feedback is always welcomed, which can be typed in the Zoom chat feature throughout the meeting or can be made verbally during the public comment period that is scheduled at about 11:55 Eastern Time this morning. I would like to begin rollcall of our workgroup members, so when I call your name, please indicate if you are here. Let's start with our cochairs. Sarah DeSilvey?

Sarah DeSilvey
I am here.

Michael Berry
Naresh Sundar Rajan?

Naresh Sundar Rajan
I am here.

Michael Berry
Pooja Babbrah?

Pooja Babbrah
Good morning, I am here.

Michael Berry
Shila Blend?

Shila Blend
Present.

Michael Berry
Ricky Bloomfield?

Ricky Bloomfield
Good morning, I am here.

Michael Berry
Hans Buitendijk?

Hans Buitendijk
Good morning.

Michael Berry
Christina Caraballo will not be able to join us today. Grace Cordovano?

Grace Cordovano
Good morning.

Michael Berry
Raj Dash? I see Raj on, so he is here. Steve Eichner?

Steven Eichner
Good morning.

Michael Berry
Nedra Garrett?

Nedra Garrett
Good morning.

Michael Berry
Raj Godavarthi?

Rajesh Godavarthi
Good morning.

Michael Berry
Bryant Thomas Karras? Steven Lane?

Steven Lane
Good morning.

Michael Berry
Hung Luu?

Hung Luu
Good morning.

Michael Berry
Meg Marshall?

Meg Marshall
Hi, good morning. I am here.

Michael Berry
Anna McCollister? Clem McDonald? Deven McGraw?

Deven McGraw
Good morning, I am here.

Michael Berry
Aaron Miri? Aaron Neinstein?

Aaron Neinstein
Good morning, I am here.

Michael Berry
Kikelomo Oshunkentan? Mark Savage?

Mark Savage
Good morning.

Michael Berry
Michelle Schreiber?

Michelle Schreiber
Good morning.

Michael Berry
Shelly Spiro?

Shelly Spiro
Good morning, I am here.

Michael Berry
And Ram Sriram?

Ram Sriram
Ram Sriram is here. Good morning.

Michael Berry
Thank you, Ram. Thank you, everyone, and now, please join me in welcoming Sarah and Naresh for their opening remarks.

Anna McCollister

Hi there. This is Anna McCollister. I jumped on just after you called my name. I am just letting you know.

Michael Berry
Great, thank you, Anna.

IS WG Charge (00:02:45)

Sarah DeSilvey
Greetings, everybody. It is Naresh's and my honor to bring us to the next installment of IS WG. We have an interesting agenda today because we took your suggestions and integrated guest speakers who are critical subject matter experts in a couple of the elements of reference. So, we will have a brief review of the charge and then welcome our AHA friends to discuss physical activity assessment and Lloyd McKenzie to discuss that as well as part of the HL7 work in that ecosystem. Then, we will move to medication instructions and medication adherence, welcoming Scott Robertson, and then, after the conclusion of those two elements of public presentation of subject matter experts, we will go into a brief dive into some of the existing Level 2 data elements that were recommended so far by workgroup members.

We also will try to integrate the findings of the little taskforce that Hung led regarding definitions of procedure time. They were tasked to do definitions that were built off of our conversation at a previous meeting, and they completed that work, and you can find that in the draft comments in the share drive. They have uploaded those comments and discussion there. We will then just review the work plan and timeline again. We are making great headway on our work. We have a few more guest speakers to come in the weeks ahead. We will open up public comment, and then we will adjourn. Naresh, anything to add?

Naresh Sundar Rajan
No, Sarah. I think this is exactly what we need to do for today. Thanks a lot for your contribution so far.

Sarah DeSilvey
Wonderful, all right. Next slide, please. We do this every meeting as a level-setting, again, just reviewing our charge here in the Interoperability Standards Workgroup. In general, it is to evaluate draft USCDI V.4 and provide HITAC with recommendations on two specific subtopics. One is those new data classes and elements from draft USCDI V.4. Again, we have made significant headway and touched upon, at least in some way, each of the elements in draft USCDI V.4, and I am very grateful for all of our work on that, doing deep dives on some of the elements, specifically inviting our guest speakers, and there are also some subgroups working on definitions to bring back to the group. Our next task is to reevaluate and evaluate any Level 2 data classes and elements not included in draft USCDI V.4. Again, per the agenda, if we do have time at the end of our subject matter expert presentations, we will hope to get into that today and in the upcoming meetings. Any questions on the charge? Okay, next slide.

Again, this is the rough view of where we stand. Everything green had consensus on moving forward. Everything that is in yellow is a work in progress. Some of the elements that are in yellow have yet to be really addressed because we are waiting for subject matter experts. Some of them have been addressed, but we are just seeking refinement and doing more granular analysis in the discussion elements, and we will revisit them before the end of our work here. So, yellow is discussed but not finalized, green is having achieved consensus to move forward, and again, you can see that we have covered everything so far, at least briefly. Next slide, please. Now, it is again our honor to pass the mic to our colleagues at the American

Heart Association and Lloyd McKenzie to talk about the work that is being done at HL7 regarding the physical activity assessment.

Physical Activity Assessment (00:06:44)

Laurie Whitsel
Thank you, Sarah, thank you, Naresh, and to the entire workgroup for the opportunity to be here today. I am Laurie Whitsel, National Vice President of Policy Research for the American Heart Association, and I also help support and lead the Physical Activity Alliance. We are a national 501(c)(3) that is really bringing the physical activity community together to speak with one voice on policy and systems change, and one of our key projects is the one that we are talking about with you today, our effort to make physical activity assessment, prescription, and referral a standard of care in the U.S. healthcare system. We are calling this work It's Time to Move, and it is a multipronged, multiyear effort integrating with a number of federal regulatory agencies. We can go to the next slide, if that is okay.

While we are doing that, I want to introduce Paul Chase on my team, who is helping to manage this project, and of course, Lloyd McKenzie, who is our technical consultant and expert helping us navigate the HL7 pathway. We have been in HL7 for about a year now, making incredible progress. We will be bringing our implementation guide to ballot this spring, and Lloyd can answer technical questions regarding IG, but we are also concurrently doing this application with ONC to get our work concluded in USCDI. In that process of IG development, we did settle on core measures for physical activity, so our ONC application really address physical activity assessment in the implementation guide.

We are doing the whole continuum of assessment, prescription, and referral, trying to standardize measures along that whole continuum, but the assessment measures that we settled on are aligned with the Physical Activity Guidelines for Americans, validated in the peer-reviewed literature, and involved a question on muscle strengthening activity as well as aerobic physical activity, getting us to moderate to vigorous minutes of physical activity per week. There are LOINC codes associated with each, and we are staying true to those LOINC codes in the implementation guide. Go to the next slide.

We are building on a lot of the great work that has been happening for many, many years and building physical activity assessment into healthcare delivery. These are just some examples of the health systems that are already doing this, and I would just highlight that because Kaiser Permanente has had physical activity assessment and, actually, the questions that we proposed in our implementation guide in their system, during COVID, they were able to correlate patients' physical activity levels with their COVID outcomes and were able to publish in the peer-reviewed literature on physical activity being a key way to improve COVID outcomes, both hospitalization and mortality, so that was then picked up by CDC, who did a comprehensive review and then incorporated physical activity into public health guidance. So, it is an example of physical activity being there in the EHR. That assessment being there has been really critical to correlating physical activities with other chronic disease outcomes as well as infectious disease outcomes. Next slide.

These are important links to our project, our homepage in HL7, Confluence homepage, and our draft implementation guide, and obviously, our listserv. We have been inviting any stakeholder that wants to join us to this work, and we already have a really robust set of expert advisors and stakeholders that are helping us in the HL7 process. I think those are all of our slides. We really wanted to leave lots of time for questions,

of course, and conversation. Lloyd, I would turn it to you for any comments that you would like to make on the measures or technical part of the IG.

Lloyd McKenzie
Sure. My understanding is that there had been a question raised previously about whether we were comfortable with the way physical activity was represented in the proposed USCDI measure in that it just points to LOINC in general rather than to specific codes. The short answer is we are happy to have it there, period. We chose specific codes in the implementation guide and in our submission because there are specific codes within LOINC that correlate with national guidelines, and there are lots of potential codes in LOINC that deal with different aspects of physical activity, how many steps you have done, various cardiac assessments, etc., and yes, it is great to have any or all of those things, but what we are really looking for is those primary measures as something that everybody does so that we can properly screen and evaluate. In our implementation guide, we also have a number of supporting measures to help better evaluate why you are not getting to target levels, but what we are really hoping for in the national standard is getting everybody to at least do those primary measures, and that is why we had proposed the specific LOINC codes, but we will take what you give us.

Laurie Whitsel
Thanks, Lloyd. So, we would love to answer any questions. I will turn it over to discussion.

Sarah DeSilvey
Mark?

Mark Savage
Thanks. Can we go back to the slide with the core measures on it, please? This is mostly a question for my understanding. As I read these core measures, they looked like they were structured around what we think of as exercise, and I can think of lots of things happening out there in the world where it does not necessarily qualify as exercise per se, but there is a lot of muscle strengthening, a lot of aerobic physical activity. So, if somebody is working in a warehouse and lifting boxes, there is muscle strengthening. The people who kindly empty our garbage and recycling on their trucks are jumping up and down, moving really quickly. I just wanted to check: Do these four core measures capture that kind of physical activity as well? I would not have thought of including those kinds of things in the way they are written, and so, that is what I am checking.

Laurie Whitsel
Thanks, Mark, for asking. It is validated in the literature that these questions are capturing both leisure time physical activity and exercise as well as the occupational level, so, yes.

Mark Savage
Thank you.

Sarah DeSilvey
Thank you, Laurie. Steven?

Steven Lane

I am certainly happy to vouch for that from the clinical perspective, that these are the standard questions that I have seen used, and as a provider, I have utilized them to capture physical activity and occupational activities as well. I also wanted to provide a little bit of context from prior work of this group and its successors where there is definitely precedent for recommending specific LOINC codes to be included coming from our workgroup, and I think also, I like this idea that was presented, that this is the core set. We do not want to ask for the world, but if we ask for a modest number of codes, oftentimes, we can get that included, and like so many other things, such as SDOH and labs, it is okay to start with a small set and know that we could move forward in the future as appropriate for further additions to USCDI, but I certainly personally support this subset for inclusion.

Sarah DeSilvey
Thank you, Steven. Al?

Al Taylor
Thanks, Sarah. Laurie, I am not sure if everybody is aware that ONC, going back to 2015, developed some certification criteria around physical activity in an optional criteria which also introduced some of the social determinants of health data elements. There is a slight difference in the first of the physical activity codes that you use. The one in your particular measure is average per week over the last 30 days, and the data element that ONC adopted back in 2015 is in the last seven days, so it is not an average over a month, and I just wanted to see if you were aware and had any comments on the differences between those two. I understand average weekly or over a month is different than in the last seven days because I may have just started something or just stopped something, and that would impact it, but ONC has adopted different versions of those first two physical activity measures in the certification already.

Laurie Whitsel
Thanks for writing that, Al, and as you say, we were really trying to adhere to what we know is validated. As you say, 30 days from the literature is a better measure of consistent behavior in physical activity over time, so that is why we did use the 30-day measure, but I really appreciate that you guys have started in this space. It is an important foundation.

Sarah DeSilvey
Thank you, Al and Laurie. Ricky?

Ricky Bloomfield
Thank you. Thanks to the team for coming to present this. I think this is exciting work, and I think it is meaningful. One of the questions that has come up in our discussion within the workgroup has been around when we think about new data types added to USCDI, we want to make sure that they represent data that is already captured in a structured way in the EHR. What this does is make sure that when that data comes out of the EHR, it is done in a standard way. Do you have any data or have you done any surveys on how many EHRs record this data in a structured way today and what the scope of that would be, or would adding this data to USCDI require some sort of change in workflow on behalf of the providers in order to capture this in a way that then could be applied here using these LOINC codes?

Laurie Whitsel

Ricky, thanks so much for asking that question, and thank you for being one of those experts helping to inform our work. So, by our understanding, about 30% of EHRs have this capability now to ask these questions based on the work that ONC has done and that Exercise is Medicine has been driving over the last many years, so there is already a significant percentage of EHRs that have this capability. In terms of changing workflow, this is where we hope to continue to drive both patient and provider workflow with this standardization. To us, this measure of standardization was foundational in helping to drive this implementation uptake in workflow that will come in health systems, and we know a number of health systems that have recently reached out to us that are now interested in beginning to do this work, so I feel like there is a snowball effect here, and we have a pretty good percentage now who are already making this part of the standard of care, but we have a long way to go to get this completely to national scale.

Ricky Bloomfield
Great, thank you.

Sarah DeSilvey
Thank you all. Shelly?

Shelly Spiro
Thank you, that was a great presentation. On the behalf of the long-term and post-acute care setting, physical activity plays a very important role in strategies in managing frailty, which is a key indicator for activities of daily living and measuring activities of daily living. This is a really important data element to make sure that this is part of an interoperable exchange. I am in definite support of moving forward with that using LOINC for this data element. Thank you.

Laurie Whitsel
Thank you. You are absolutely right. We are hearing a lot in terms of frailty, and this work that we are doing is across the lifespan, so, from children to older adults, and we really appreciate your comment about this being important to address osteoarthritis, balance, and frailty. We know that is really important for a lot of patients.

Sarah DeSilvey
Thank you, Shelly and Laurie. On to Deven.

Deven McGraw
Thank you, Sarah. When I look at aerobic physical activity, Bullet No. 2, on the days the patient engages in moderate to vigorous exercise, how many minutes on average they exercise, I am no exercise expert, but I am a bit of a dilettante, and I read through this stuff, and I know that there has been a growing body of literature that you do not necessarily need 20 straight minutes of aerobic activity, but that spurts of it throughout the day can also be very beneficial. I assume that in Bullet No. 2, when patients report this, which they will, that there is some instruction around those minutes not having to all be together. It can be five minutes in the morning, five minutes in the middle of the day, and five minutes at the end of the day, etc. I think the science on this continues to evolve, as it does in so many of the areas that we touch on. 2018 feels a little outdated to me, but maybe not so much, so I am curious how often those guidelines get updated. We do not want this stuff to get ossified too quickly.

Laurie Whitsel
Thank you, that is such an important question. So, you are absolutely right. In the 2018 guidelines, it was one of the major changes in the guidelines, that you could accumulate smaller bouts of physical activity throughout the day, and absolutely, that would be part of this No. 2. This would be the accumulation of those minutes throughout the day, not just in one bout.

To answer your question about how often the physical activity guidelines are updated, right now, it is every 10 years. Unlike the dietary guidelines, which are in statute by Congress to be updated every five years, the physical activity guidelines are not in Congressional statute. We are trying to change that. That is one of the things we are working on as part of this work. Right now, the Department of Health and Human Services on its own has done these physical activity guidelines, and they are on a 10-year schedule. They do a midcourse update. Right now, actually, the current midcourse update has a focus on older adults and is out for public comment. That is kind of a focused area where evidence might be changing within the 10 years, but for the most part, the physical activity guidelines are a 10-year process, so the next iteration will be in 2028 if all goes as planned.

Sarah DeSilvey
Okay, thank you.

Paul Chase
I can answer your question regarding Bullet Point No. 2 with the accumulation of minutes of exercise throughout the day. There are instructions. The one place that they can be found is the paper that is cited down below from 2012 with the initial validation of the vital sign. That has specific instructions in there, and there is also a separate document. So, that will come as we educate the uptake of the RIG that is sort of in the plan too.

Laurie Whitsel
Thanks, Paul.

Deven McGraw
Thank you.

Sarah DeSilvey
On to Ike?

Steven Eichner
Hey, good morning. I have three or four questions or observations. First, looking at the anaerobic physical activity, the third bullet seems to be derived from the first two elements, looking at days, times, and minutes, so I am not sure we necessarily need to incorporate the product of X times Y in the same space. Secondly, I would envision there might be some deviation across the year. Particularly, you should look at people in colder environments where they may be more active during certain times of the year than others, and I am just kind of curious, though not from a standards standpoint, how that fits into the puzzle.

A third piece is an observation of looking at how we are using this type of data because not every patient is capable of meeting a standard recommendation for reasons that are directly related to biology. For

example, I will pick on myself because I am an easy target. For me, given my particular biology, muscle strengthening exercises are actually really bad for my health. At the end of the day, if I overstrain my muscles, they will turn into bone permanently, so I want to make sure, again, not so much from a standards perspective, but the usability of the data and making sure that we are going down a path that uses the information to inform, but not make decisions about activities or evaluate physicians or other caregivers based on patient activities. I think that is all I have to say.

Laurie Whitsel
Great, thank you. Those are all great questions. So, the reason we have the multiplication is because that then aligns the final information with the physical activity guidelines so we can see total minutes of moderate to vigorous physical activity per week, and that tells us if a patient is just starting on their journey to be more physically active, if they are already meeting the guidelines, or if they are sedentary. And then, this is why the conversation is so important starting in the health system, because then, as you say, it is really important to tailor the next step, the potential prescription and referral, based on the patient.

That should all be individualized based on this initial screening, this initial assessment, so we absolutely would not want to have some standard recommendation across all patients. It would be totally tailored to their current health needs, functional capacity, and what they are capable of, and starting that conversation with their provider or clinician is really, really critical. In terms of seasonality, there is some indication of seasonality, and maybe I am going to ask Paul to go into this. I have not seen it as a significant issue because a lot of people will adapt their physical activity levels, moving inside when it is colder and outside when it is nicer, but that also ties into all the other work we are doing around systems changes, making sure that people have access to facilities or recreational spaces or safe, equitable opportunities for active transportation. There is a larger policy ecosystem where we are working on those issues. I hope that answers all your questions. I may have missed something, so please let me know if I did.

Steven Eichner
Thank you. I think you just touched on them all.

Paul Chase
I will add that the seasonality issue… There is a kind of hibernation that sometimes happens, and it seems to be more of an older adult issue than a younger adult issue, and it seems to increase with age. There is not a ton of research on that, but that sort of seems to be the pattern. Part of this is to also educate individuals about being physically active throughout, so it is to kind of help address those issues. I do not think it is a major issue, but it is an issue. In regard to the individualization of exercise and excess prescription, one of the things that the 2018 guidelines did include was that those with chronic conditions should be as physically active as their condition allows. If that is what your condition allows, then you are technically meeting the guidelines in terms of that. It does take some clinical reasoning and decision making on the far end in understanding the individual's condition, but that is actually included in the physical activity guidelines.

Laurie Whitsel
Thanks, Paul.

Steven Eichner

Thanks. This is Steve Eichner. I am just going to interject. Wherever possible, please be sure to include a statement like that so as things get coded by our friends in the HIT development world, they are cognizant of that because that is a very important fact that could easily get overlooked as people look to a particular standard and want to codify things, and there are lots of conditions that I am sure have variable aspects or highly variable measures in that space, and getting ourselves in a position where there is a lower category of things to choose from or a smaller data set would be unhelpful. Thank you.

Paul Chase
I will just say that the alternative to what you refer to as the PAVS score, the physical activity/vital signs score… You are given a score based on how much you are exercising, and the reason we did not go that route is because it becomes more programmatic that way and does not allow for that variation. You are just given a low score, and this does not give you a score. It just says what you are doing, and then you can have a discussion about it.

Sarah DeSilvey
Thank you so much. I just want to note that we are at the end of our allotted time for this conversation, but we do have some critical voices to come. If we can have our next questions be brief in order to allow the full time allocated to our next speakers, that would be great. Noting the critical voice next, Nedra, speaking from the CDC, we welcome your comments.

Nedra Garrett
Sure, thank you. I just wanted to further emphasize our support of this physical activity as a really important health behavior that we should include in routine **[inaudible] [00:32:16]**. There are four LOINC codes that have been identified. I specifically want to ask about the one regarding the calculated measure to get at the full recommendation of the American Heart Association around the 150 minutes. So, is this calculated variable/calculated value done automatically for populating that LOINC code?

Laurie Whitsel
Lloyd, can you answer that? I think Lloyd is the best person to answer that.

Lloyd McKenzie
Sorry, I was busy answering a question in chat and I did not hear the question online.

Nedra Garrett
My question was about the LOINC code that multiplies minutes, just to talk about that a little bit.

Lloyd McKenzie
The main reason that we wanted to have the calculated value exposed is because it makes it a lot easier to search, to find who is within guidelines versus not. There is no good mechanism in FHIR to search by a multiplication, and so, having that as a stored, searchable measure makes life a whole lot easier in terms of quickly trying to find the patients I have that are potentially not in range and determining how you want to engage with those.

Laurie Whitsel
Lloyd, does that LOINC code already exist?

Lloyd McKenzie
Yes.

Laurie Whitsel
So we are all set there.

Sarah DeSilvey
Nedra's question was whether it happened automatically. Does that answer the comment of the automatic calculation?

Lloyd McKenzie
Yes. We would expect systems would gather the two factors and determine the total automatically in much the same way as they would add up the pieces for an Apgar or something like that. You do not have to answer that separately.

Laurie Whitsel
That is the way Kaiser does it now, and others, like Intermountain Health, do it.

Sarah DeSilvey
Thank you so much. I just wanted to make sure we got that element. Again, I can see that Steven moved his comment to the chat, but just because of timing, if we can quickly move through the last couple comments, that would be great so we can move on to the next elements. Hans?

Hans Buitendijk
Hello, good morning, and thanks for the update. Part of the question I have might follow through, but what is the scope of the USCDI proposal? Is it around the three LOINC codes and physical activities, to be able to record that, if you will, as observations, or is it something more because the references and the discussion very much include indications of the implementation guide that is still to be balloted, reviewed, etc. that includes elements of the care plan, questionnaire **[inaudible] [00:35:22]**? What is really the scope that is being asked for in USCDI?

Laurie Whitsel
Great question.

Hans Buitendijk
The discussion and the submission give the impression that it is more than, let's say, three observations of three or four different LOINC codes.

Laurie Whitsel
Thanks for that question, Hans. I mentioned at the beginning that in the USCDI application, we are focused on the assessment part of the implementation guide, so these core measures are what constitutes our application to USCDI.

Hans Buitendijk

It would be great if that can be clarified when we say what exactly they are. So, I understand the focus conceptually, but what has specifically been the subset of the IG in the progress that is being looked at to say it is timely to put it in USCDI?

Laurie Whitsel
So, the implementation guide deals with the full spectrum of care across assessment, prescription, and referral, but this fundamental piece of assessing physical activity is what we hope to get into the core measures because this starts the conversation and starts the patient on their journey.

Hans Buitendijk
Thank you. A link to exactly what subset of the guide would be helpful.

Lloyd McKenzie
It is the primary measures. I will put in a link.

Hans Buitendijk
That would be great, so there is no confusion as to where it is.

Laurie Whitsel
Thank you, Hans.

Al Taylor
Hans, this is Al. Just to be clear, the data element in USCDI is a data element that only captures and exchanges physical activity information, and only that, and that is what the American Heart Association submitted, and we actually carried through that into the implemented data elements. We could potentially modify what the coverage is, but the very specific coverage of that data element is only the assessment and the results of the assessment of physical activity.

Hans Buitendijk
I appreciate that clarification. It has been hard, between the submission, the documentation made available, and the discussion, to understand exactly what the scope is around that statement.

Al Taylor
I think the American Heart Association's submission points to how this might be exchanged and what is covered in the IG, but as I think most people know, USCDI does not specify how things should be exchanged, only that they would eventually need to be exchanged from using a FHIR US CORE IG and/or a C-CDA IG. That is clear. Their suggestion about how it might be is really informative to ONC and to the general public about how feasible this is, how feasible the exchange would be, and what the burden on development would be. So, we appreciate pointing to a very concrete IG at whatever stage in development because it would appear to have answered the question about feasibility of exchange.

Hans Buitendijk
Thank you, Lloyd, for pointing to the section that is actually applicable for the scope of the request. That is very helpful to the subset.

Lloyd McKenzie
No problem.

Sarah DeSilvey
Thank you so much for the conversation. We have hopefully one last, brief comment or question.

Bryant Thomas Karras
I think mine has been addressed in the discussion. I missed the start of the conversation, no conflict, and I wanted to make sure that if it is not included in this round that we have a plan for how to incorporate wearables and personal health devices. It has been addressed.

Sarah DeSilvey
Thank you so much, Bryant. There really is a very robust conversation in the chat regarding that, and I appreciate that, and luckily, we will capture that in our minutes. At this time, I think it is appropriate to deeply thank our friends from AMA and our friend Lloyd McKenzie from Dogwood for leading us in a deep dive on the physical activity work in HL7 that came at our request because when we were originally reviewing this element, we had two questions, one regarding the measures and one regarding the status of the IG, and I believe both those have been addressed in this presentation. Again, thank you so much, team from AHA and Lloyd, for coming today, and we are moving to our next guest, which, again, was at our request. This is a deep dive into medication instructions and medication adherence with our guest, Scott Robertson, who we asked to come after last week's meeting. Next slide, please. Scott, are you ready to speak?

Medication Instructions and Medication Adherence (00:40:27)

Scott Robertson
My mute button did not work the first time. Good morning, everybody. So, I put this slide together quickly just because we seemed to have a lot of discussion last week about the textual SIG, the components of SIG, and the individual codified elements that can be present, and also, because it is important to make sure that the current e-prescribing systems that are based upon NCPDP SCRIPT and the FHIR representations that are used in many of the EHRs, even though the EHRs end up using SCRIPT to send it, but you need to be able to see how they relate to each other. In both cases, there are really two places where… Well, there is a global textual forum available for both, and that is the SIG text on the left and the rendered dosage instructions on the right that are representing SCRIPT and FHIR, and that should fully encompass everything that is being told to the patient.

Within that, both SCRIPT and FHIR support multiple sets of instructions, and that may not seem obvious at first because you normally see something like "take one capsule four times a day" or "take one tablet every other day," but it is actually very common to have multiple SIGs comprising the entire thing, such as "take one tablet Monday/Wednesday/Friday in the morning, take two tablets Tuesday/Thursday/Saturday, and skip Sunday." That is actually three sets of instruction that then go into the entire SIG. They both support that. On the left side, that is where it shows instructions, multiple instruction modifiers, and more instructions, and on the right, it is that whole group of elements starting from sequence and going down through dose and rate. So, I did not think you really needed to see how multiple pieces go together, but I just wanted to show that there are these two different parts, but I really think at this point in time, the idea of providing the SIG is that global SIG text that is represented and available on both.

Sarah DeSilvey
Thank you so much, Scott. I believe you were present at the last meeting, so you came back specifically to answer the elements that we asked you to. Any further thought there, or should we open it up for comments? Scott, are you ready to open it up for comments to the committee?

Scott Robertson
My mute button went back on. I do not know why. No, that is fine, because really, there was that specific question. This sort of lays it out, and I think other comments are welcome.

Sarah DeSilvey
Wonderful. Thank you so much, Scott. On to Shelly, appropriately.

Shelly Spiro
Thank you, Scott, and thank you so much for bringing in the more technical portion of the directions for use, which is an important component. As pharmacists, we must have that information readily available and exchangeable, not only from the standpoint of patient education, but also for sharing that information with the care team. Also, during transitions of care, there are many components of the directions for use that are extremely important, and I know that we have had a structured SIG availability for many years in NCPDP.

As we move forward with using the directions or including medication information into other areas beside just generating a prescription, we include the directions for use in the care plan, or at least the Pharmacist Electronic Care Plan, where we are exchanging the clinical information with the care team, and these are important components moving forward that we try to codify the information, mostly for patient safety, and assuring that the pharmacist who is going to be dispensing that medication or educating the patient has clear understanding of what those directions are. So, I commend you for coming in, and thank you very much. My question is what you brought forward is mostly on the e-prescribing side. Can you talk about how we technically use the directions for use in other types of FHIR resources, such as the electronic care plan?

Scott Robertson
Of course. So, within an electronic care plan in FHIR, the same structures are available. The dosage data type, which is the bottom two thirds on the right, is used in a number of different resources to provide support for dosage instructions. I do not quite recall if the rendered dose instructions are also replicated across, but the sequence of texts for the individual dosage elements would still be available. What we need right now is to support the instructions. If this information is going to be used for things like clinical decision support and confirming that a dosage has been adjusted appropriately for other conditions the patient has, then the codified elements really become very necessary to note because breaking down and parsing out the textual representation can become very difficult.

Shelly Spiro
One other question on that, Scott, is we know that the directions for use have to go into medication administration records, and we do have a FHIR standard for med administration. How are the directions for use put into the FHIR for medication administration?

Scott Robertson

Actually, it is the same.

Shelly Spiro
Or is it med statement? I cannot remember.

Scott Robertson
A simplified dosage structure is present in administration. This same structure that you see is on administration and dispense. For the medication statement, I am just confirming… Yes, they have both the rendered dosage structure and dosage because in that sense, it actually might be something that can be pulled into that medication statement resource instance, but if not, it is something that the patient would communicate to whoever is taking the medication history, so it may end up being just typed into that history record. So, it is available on all the medication-related resources. I do not really think it is used widely for other resources.

Shelly Spiro
Thank you.

Sarah DeSilvey
Thank you so much, Scott. On to Hans.

Hans Buitendijk
Thank you, and thank you, Scott, for that perspective. It is very helpful to have to diagram. I had general questions in the prior section for L that I think might be best. As Scott described, in the medication request, the prescription, the needs for medication instructions provided this perspective, which is a subset of the discussion in the submission and various discussions prior, very focused on this. Is that meant to be the request or suggestion to go into USCDI and the rest is context, or is more than this being asked for it to go into USCDI and beyond medication requests, i.e. prescription, into other elements, if not potentially up to the Pharmacist Care Plan guide that is also referenced in the submission. What is really the scope? Is this it, or is there more?

Al Taylor
I think the question was to me, right, Hans?

Hans Buitendijk
Yes, Al, just to put it in the context of how you were looking at constructing the draft and what was meant to be the proposal, recognizing that there are many other elements to it that are described, which is very helpful, but this seems to represent what is being proposed, correct?

Al Taylor
Well, yes, and this is one source of medication instruction, this is one format of medication instruction, and there are other formats of medication instruction we have discussed in the past, including things like how the patient reports they are taking the medication, or what the patients believe to be the instructions for use, or what their over-the-counter package says about dosing. Those are all sources of medication instruction that can be relayed by the patient or to the patient, not specifically the NCPDP codified SIG. So, that is the

scope of the USCDI data element. I would say the intent of that is to be broader than SCRIPT codified SIG because… Well, I will stop there. That is the scope of the data element.

Hans Buitendijk
I appreciate that clarification. It would be helpful, then, to maybe have further clarification on what that subset is, and what you just described is very helpful to understand that it might not be clear to everybody reviewing the draft that that is the intent versus the full pharmacist care plan, for example. That is the rationale behind the question, to ensure that we understand what is being asked for. Thank you.

Sarah DeSilvey
Thank you, Hans. Before I move to Bryant, Pooja is back. I believe this is one of the elements where we had some work going on on the sidelines with a subgroup to work on some of those definitional elements as well. I think I remember that that was work that was happening in the interim, but they just kicked off that work.

Hans Buitendijk
I believe that is for adherence, but it might be helpful for instructions to do the same, whatever it is.

Sarah DeSilvey
Got it. Thank you, Hans.

Scott Robertson
I have one thing to throw out in terms of adherence that Hans just mentioned. Adherence in FHIR is simply a code and an optional reason, and it maps to a subset of SNOMED codes.

Sarah DeSilvey
Thank you, Scott. Any other comments on the specific presentation and the questions we had that stemmed from last week's review of the data elements and reference? Oh, great, it looks like Shelly is stating the subgroup is meeting both on medication instruction and adherence. Fantastic. Naresh?

Naresh Sundar Rajan
Bryant asked a question. **[Inaudible] [00:54:29]**.

Sarah DeSilvey
Yes.

Bryant Thomas Karras
Was that to me? My question was has there been a mapping or a check that after the NCPDP scripts have been mapped to FHIR, can they still successfully be leveraged and utilized in activities such as the Prescription Drug Monitoring Program reporting that relies on those instructions to calculate morphine-equivalent doses? I realize that is a secondary use of this, but it has significant consequences on our public health use cases for the end product of these kinds of data elements.

Scott Robertson

I can just mention that basically, everybody has to be using SCRIPT to communicate this information, and at least the SIG text at this point. More and more installations have been using the codified portions of SCRIPT. They can be used as part of the medication-equivalent dose for reporting that a pharmacy does. I am not quite sure if the prescriber side of e-prescribing systems uses it in the same manner. They are typically going to be doing it from their native data, which is then either represented in SCRIPT or FHIR, depending on how they are communicating with other systems. Both of these could support it, but I cannot say that either one is being used specifically for that transition or that reporting. Shelly might know a bit more.

Shelly Spiro
Yes, this is Shelly. I believe that in the PDMP data feed that pharmacies send, they can send text-based directions for use today, but there are other data elements that would lead to the calculation of morphine mil equivalents based off of other features that are captured. I cannot put my finger on what that data element is, but as pharmacies are bringing PDMP data into a registry, there are certain data elements that have been defined, and in all cases, this is not necessarily the need for a text-based direction for use or instructions.

Bryant Thomas Karras
Right, it is that dilemma that it exists as optional in the specification because it is not always needed, but in the use case for opioid prescribing, it is no longer optional because if those data elements are missing, then we cannot fully calculate out, so I am just wondering if we might be missing some data elements that could become critical once people start adopting this.

Sarah DeSilvey
Thank you so much. We are, again, nearing the end of our allotted time for this presentation. Any other further comments or questions? It looks like Shelly has her hand up. Shelly?

Shelly Spiro
Yes, I just wanted to respond to the comment that was just made. There are many data elements that pharmacies capture. Because there are some pharmacies that submit using claims-based data, they have added more codified fields into that feed for those who are using claims to feed into PDMP. So, having the full direction for use is not necessarily needed in all cases for things like PDMP, but it might be needed for things like medication reconciliation or more clinical exchange of information. I know Kim Boyd has added a couple of links in there on some of the NCPDP standards that might be useful to answer this question.

Bryant Thomas Karras
Thank you.

Comments and Recommendations – Level 2 Data Elements (01:00:00)

Sarah DeSilvey
Thank you so much. Are we ready to close out this element of the conversation and then proceed to our next topic, which is moving on to some loose ends from USCDI V.4 draft elements and Level 2? It seems so, so, Scott, thank you so much for coming. Quickly, given that we identified that we wanted to hear your voice last week, we really appreciate this presentation, as it directly answered one of the questions we had regarding the range of possible documentation, everything from free text to FHIR, so, thank you so much.

Okay, on to comments and recommendations, Level 2. This is when we have a little bit of time for public comment to loop around on some elements that were identified in previous meetings, and also to try to start diving into those Level 2 elements that have been suggested by workgroup members. Can we go to the Google doc at this time? Al, are you ready to share as you do?

Al Taylor
I am. I am just trying to get a cleaner view. There we go. Can I share, please? There we go. I pulled up the first Level 2 data element. There are others that are still under discussion that are part of draft V.4, and we are going to come back to those in future discussions, but unless you want to go somewhere else, Sarah and Naresh, I am starting with Entry 21, the first Level 2 data element that was not included in USCDI.

Sarah DeSilvey
If it is okay, I would like to start someplace else, only because I am picking up a thread of our previous meeting and at least making sure there were groups aware of the status of something that we asked them to do prior. Is it okay to go to the procedure time USCDI V.4 element, just so at least the workgroup can be socialized to the work that Hung and colleagues did regarding the definitions we requested? Sorry for the brief hijacking. Entry No. 16 was time of procedure. If we recall, we very clearly identified that there really were two critical elements within time of procedure as a laboratory element, and we asked a workgroup subgroup to go out and figure out definitions for those. Hung, sorry to put you on the spot, but if we go over to workgroup discussion, you can see that the first element in the workgroup discussion at this time is the definitions that Hung and colleagues created for those elements. There we go, right there. It is hard to find it in Google Sheets because it flips back and forth. Hung, are you ready to discuss the findings of that subcommittee?

Hung Luu
Yes. We did review the existing submission for procedure time, and we also looked at the other Level 2 elements associated with the laboratory, but we thought that it would be best to have two new elements that are not meant to replace procedure time, but would be complementary, and these would be the laboratory results report time, and this represents the time when the testing is completed, and this is required for CLIA on all reports, so this is the time when the testing is completed and the results are recorded out, not necessarily to the EHR, but it is when the laboratories are advised that the testing is done.

Secondly is the specimen collection date and time. This is necessary because this really represents the clinically relevant observation time. If blood is drawn today, put on ice, and then tested tomorrow for chemistry, what the results represent is the status of the patient's chemistry today, when it was drawn, not tomorrow, when it is performed. So, this is essential for interpretation of the results, and for both data elements, we felt strongly that they should be able to accommodate time zone differences if they do not already.

Sarah DeSilvey
Just a deep thanks to everyone who participated in this exercise. Just for clarity, I just want to note that there is a Level 2 element that was suggested below that kind of correlates to this. I think it was Entry No. 26. Can you very clearly specify what the recommended elements would be out of this exercise, procedure time and then plus, just to make sure that we get it on record?

Hung Luu
Yes. So, we do not replace procedure time, so we agree with keeping procedure time, but specific to laboratory, we would have a laboratory result report, and also specimen collection because I think that procedure time can apply to things outside the laboratory, and so, that is why we do not necessarily want to withdraw that.

Sarah DeSilvey
That makes a lot of sense. Any discussion on this work that our colleagues have done?

Steven Eichner
This is Steve Eichner. From a public health perspective, there is value in understanding when the laboratory or testing facility actually receives the sample from the ordering physician or the performing practitioner for public health in terms of looking at delays in delivery or processing and helps public health identify what the queue backup is at the testing facility, and that is really, really useful from a public health perspective.

Additionally, there needs to be probably linguistical guidance about what is the timestamp on procedure as to whether it is the actual time the sample is taken or whether it is the timestamp a label is printed in that space because it also makes a huge difference, especially if there is a significant delay in looking at printing a sample label and data being collected. Again, that might happen in a situation for an emergency where you are serving a large number of people and preprinting labels. It really becomes, again, important both from a public health perspective and a care delivery perspective to understand the true difference in time between sample collecting and sample processing. Bryant, do you have anything to add in that space? Bryant, are you still with us?

Bryant Thomas Karras
Sorry, I was distracted.

Steven Eichner
Bryant, we were discussing about the value of having a timestamp for when a testing facility actually receives a sample and guidance about a timestamp on procedure reflecting that it is actually the procedure time, not just a label stamp, or being clear about what procedure time actually is.

Bryant Thomas Karras
Absolutely, because if that specimen sat for two days, then the collection time and the run time could be wildly different in terms of understanding risk of transmission from that date forward, so it is critical that we get the timings correct.

Al Taylor
Just correct me if I am wrong. I think that these two data elements as Hung has presented them do accomplish that task of differentiating between when it was run. Result date/time is roughly equivalent to that, when it was run, and the specimen collection time differentiates between when it was run and when it was collected.

Steven Eichner

From a public health perspective, having a timestamp about when the laboratory or testing facility actually receives a sample is incredibly valuable because that identifies or can help identify if there is a gap in getting the sample from the extraction point to the facility or whether there is a backlog in facility testing.

Sarah DeSilvey
Ike, have you documented those comments in the workgroup discussion in the share drive yet?

Steven Eichner
It was brought up briefly, but I thought it was important to bring it up in the broader conversation.

Sarah DeSilvey
It does seem important. I am wondering if you can help by putting that in the document so it can at least be **[inaudible – crosstalk] [01:10:03]**.

Steven Eichner
Absolutely, my pleasure.

Sarah DeSilvey
Even if we do not move forward with an element, we can at least document it as part of critical discussion, especially given this moment in time.

Steven Eichner
My pleasure. I just want a confirmation from the larger group that it is indeed important.

Raj Dash
This is Raj Dash. I advocated for this in our small group discussion, and I was educated a little bit, and I agree that the two most important date/time elements are the specimen collection date and the final report date because the final report date, as Dr. Luu pointed out, is required by CLIA and the collection date and time is the only way to interpret the sequence of events, like if you are doing multiple arterial blood gases, the collection date and time is the only way to tell the sequence of events because they might all be reported out at different times depending on the analyzer it is put on and those kinds of things, so those are the two most critical.

There are additional date/time elements, such as the date and time received in the laboratory, that I agree are helpful, but we kind of put it in the second tier, if you will, and I would love to get many more data elements, but thinking of the USCDI as the floor of what we need and where we are at right now with these two date and time elements, we felt that that needed to be prioritized. I actually raised my hand because there is an error here. The first sentence in the justification says the date and time of procedure could be used. That was my old way of thinking, but in discussion, the procedure date and time could be a surgical date and time, so we need to delete that line. We probably should not say that because we speak to just the opposite in the workgroup discussion now. I can probably delete that later if everyone agrees to that.

The procedure date and time should be kept separate from the collection date and time and from the report date and time. The other comment you made, Steven, was about the time at which you print a label versus the time at which you actually collect a specimen. Unfortunately, one does serve as a surrogate for the

other in most EHR platforms, and I do not know that we can be proscriptive about how EHRs implement these data elements. That is probably outside the scope of USCDI as far as I know, but just for the general education of the group, it is true that the print label date/time is what is used as the collection date/time in most EHR implementations and lab systems.

Steven Eichner
And again, those two data points may be very useful from a care delivery standpoint. I am not taking anything away from that. However, there are other users of data, including public health, in a variety of different ways, including supporting care delivery, and from a public health response perspective, understanding if there is delay in processing samples is really, really important. As we saw looking at COVID-19 response, there was oftentimes a backlog of tests held at particular testing facilities, and if you are informed of that backlog or aware of that kind of backlog, you can take action to help redirect some of those test processing components, so that really does become important.

Sarah DeSilvey
Thank you so much. I want to give space for the fact that the subgroup did what we asked them to do. One of the things I want to see is if we can get to consensus on recommendation after we hear a few other comments based on the fact that the group took time to do really excellent work in exactly what we requested. Al?

Al Taylor
I think Shelly has her hand up. I do not know if that still applies.

Sarah DeSilvey
I have you above her, but I am happy to do whatever. Shelly?

Shelly Spiro
Go ahead, Al, if you need to.

Al Taylor
I just have a really quick question. I just want to be really clear about the wording of the recommendation from Hung. To me, those two data elements appear to be already submitted as data elements, and the wording is slightly different in the names of the data elements, but lab result report date and time and specimen collection date and time are both Level 2 data elements in the laboratory data class. Is your recommendation to add those to USCDI V.4, or do you not think that those accurately represent what you think ought to be captured?

Hung Luu
We definitely do not think the name accurately reflects what we want, and so, that is part of the reason for not trying to revise the Level 2 elements. Instead, we would like to use these names, and then, the second one, the specimen collection date and time, is actually a combination of two of the Level 2 elements, and so, they do not necessarily fit nicely into what has already been submitted.

Sarah DeSilvey
Is that clear, Al, from a recommendation perspective before we go to Shelly?

Al Taylor
It is. ONC does, from time to time, exercise some latitude in shaping data elements to be more appropriate for the requests, so there is also a possibility that the data elements can be… Because sometimes ONC's intent is to have a data element be different or broader than what was submitted. For example, there is still the possibility that we could modify the data elements as submitted to meet more specific needs.

Hung Luu
That would be great. If you can modify what has been submitted to meet these needs, then that would be ideal.

Al Taylor
Because the names are pretty close. I understand that they are not exactly what you were looking for, but the names are pretty close, and to me, the intent is pretty close, but maybe not quite right.

Sarah DeSilvey
Certainly, renaming and redefining V.4 and Level 2 elements is within our charge, so although these are comments and improvements on existing Level 2 elements, it sounds like we have a path forward for addressing those Level 2 as we go forward with these recommendations. At least, that is what I hear from Al. Shelly?

Shelly Spiro
I actually joined this subgroup for a couple reasons. First, I wanted to know more about the date/time stamp, which is really important in relationship to medications, but also, we have many pharmacies throughout the United States that do collect laboratory data on multiple levels, and I wanted to make sure that we understood from the pharmacist standpoint how we need to make sure that we are following the CLIA and that we are assuring that we can move forward with this. In relationship to collecting data, knowing the time when the data is collected, and knowing the time that might be a discrepancy in time, that could cause erroneous data to be transmitted. I think there are other methods of explaining that a sample could have an issue, and I think that that would be an appropriate way.

We also have to think about how that lab data is actually collected within a system to feed into an interoperable exchange, and I think we have to take that into consideration, of how the actual clinicians are capturing the lab data within their systems and using date and time stamps, and I think we had those discussions during the subcommittee, and I think we need to be aware that there are locations out there who are collecting this type of information that might not have sophisticated clinical documentation systems, other than a timestamp on when the label is printed or other aspects to be able to share that in an interoperable way, and I think we need to take that into consideration, as we discussed during the subcommittee. Thank you.

Sarah DeSilvey
Thank you so much. Clem, you raised your hand and put it down. Do you have anything to say on this topic, just to make sure we are centering you?

Clem McDonald

You can drop that.

Sarah DeSilvey
Thank you so much. All right, so, I feel like we do have some clarity. First of all, again, I am very, very grateful for the work of the subgroup, and we have a few more minutes before we go to public comment. Thank you for your patience and revisiting this before we move on to Level 2, because it did seem fairly critical as we gave a request to our subgroup. Are we further to a point where we can say we have consensus for recommendation of procedure time and, now, the associated Level 2 elements, given the work of the subgroup? Any concerns for moving forward with a recommendation from the committee?

Hans Buitendijk
Not here.

Sarah DeSilvey
Hearing no concerns, is it appropriate to understand that as consensus?

Al Taylor
Go for it.

Sarah DeSilvey
Woo-hoo! I am incredibly grateful for the work of the committee in responding to the request for clarity, and I am grateful to move that element forward into consensus recommendation, noting that the elements of things yet to be determined are really critical for discussion, and if those folks can put them into the comments in the workgroup discussions and we can include it in our final report, that would be lovely. We have a couple more minutes, not a ton. I think it might be helpful to socialize everyone to the Level 2 elements that have been submitted so far so that we can do as little socialization as possible when we come back together because we really are going to be trying to address the Level 2 suggestions over the course of the next month in order to get our recommendations back to HITAC.

So, if we can just quickly just run down the list and then move to public comment, I think that is probably a good idea. So, from Mark Savage, we have submitted “patient summary and plan.” I want to make sure that everyone reviews the recommendation and the justification in the discussion and adds thoughts prior to our next meeting. From Grace, we have “clinical notes,” which is an existing Level 2 element. Mark, do you want to say something?

Mark Savage
Yes. I have been doing a lot of thinking about “care plan,” but there is not much there, as everybody can see, and I am committing to make sure that I have that filled in this week. I am just trying to connect a lot of dots. Thank you.

Sarah DeSilvey
It is understandable because we have been otherwise occupied in this committee as well. So, again, could we go back up one row so we can see Mark’s element? Underneath “patient summary and plan,” Mark is working on “care plan.” Grace has submitted under “clinical notes” and “operative note.”

Al Taylor
Hold on.

Sarah DeSilvey
Sorry, Al. Thank you.

Al Taylor
All right.

Sarah DeSilvey
I think we are good. You sorted by entry. And then, Entry No. 23 is the next entry, which is the one below. Grace submitted under the data element "advance directive." Under Entry 24, Mark makes a general comment regarding a move that is part of USCDI V.4, and if everyone can review that, that will be helpful. In Entry No. 25, Mark resurfaces last year's IS WG recommendations for gender identity, sex for clinical use, recorded sex for gender, and name to use and pronouns, which were outcomes of the Gender Harmony Project from HL7. That is another Level 2 element. And then, Steven Lane has a recommendation under "laboratory for test interpretation." Some of this might be included in some of the conversation we had above.

And then, we do not have a ton of time before we go to public comment, but can we just scroll down? This is one of the elements that might be rolled into the discussion we just had. So, prior to next week, if we can just see that any of the Level 2 elements we have suggested here are resolved by our recommendation for procedure time and the associated new definitions, that would be helpful. Hans is asking if it would be possible to populate Column F for the Level 2 proposals as well, that is, a link to the submissions. Hans, yes, we can work on that. We will work on that so we can do our homework. And then, we have 27, 28, and 29 under "laboratory," "lab test report date and time," "test kit universal device identifier," and then we go down to Shelly's Entry No. 30, which is really a recommendation relating to the Level 2 element that relates to USCDI V.4 up above, so we will integrate that into our revisiting of substance use, alcohol use, and the other elements that we had documented up above when we revisit USCDI V.4 elements above.

And then, Shelly has a comment on "medication adherence," which I think is part of Pooja's subgroup, and then, "medication instructions." So, for all these Level 2 elements, if your concerns have been addressed by the decisions happening up above in USCDI V.4, if you can add comments prior to our next meeting, that would be helpful. And then, Aaron, in Entry No. 33, has "provider NPI" under "care team members." I believe that is almost all of them. Al, am I missing anything? Do we have an entry past 34? Oh, we have a "provenance" element. Again, I do not want to delay going into public comment, so we do have to go, but everyone, please look at Level 2 elements before next meeting because we want to make sure that when we hit the ground with the conversation on Level 2, we are ready to go. Specifically, try to make sure that if your Level 2 suggestions have been addressed by previous conversations, you note that so we can make sure to move on. Let's move on to public comment.

Public Comment (01:26:13)

Michael Berry
All right, thanks, Sarah. We are going to open up our meeting for public comment. If you are on Zoom and would like to make a comment, please use the raise hand function, which is located on the Zoom toolbar

at the bottom of your screen. If you happen to be on the phone only, press *9 to raise your hand, and once called upon, press *6 to mute and unmute your lines. Let's pause just for a moment to see if any members of the public raise their hand. I am not seeing any raised hands, Sarah, so I will turn it back to you. Oh, we do have one. Let's just pause and turn the call over to Maria Moen. You have three minutes.

Maria Moen
Hi there. I hope you can hear me okay.

Michael Berry
Yes, go ahead.

Maria Moen
Excellent, thank you very much. I am the use case project lead for the Advance Directive Interoperability with FHIR Project within HL7, and the data class, if you will, of advance directive enabling data exchange to have a specific container of data elements for this important information to move within is an area that I want you guys to give some thought and consideration to. We had seated the advance directive observation, so, within the overarching category of advance directives, you might have a clinical observation of what exists. I can see in the draft V.4 that the care experience preference made it over, and then there is an advance directive data element, which disappeared from Level 2 to draft V.4.

We definitely appreciate under draft V.4 the treatment intervention preference and the care experience preference, so it is probable that losing the advance directive data element in exchange of those two more specific data element descriptions is absolutely fine with the groups that have been working on this, but I am curious about seating those two under "goals" as opposed to the data class of "advance directive" so as to more accurately confine that information. So, I do not know where I am at on three minutes, but those are my comments.

Michael Berry
Thank you, Maria. Does anyone want to respond from ONC, or Sarah or Naresh?

Sarah DeSilvey
It looks like Al has his hand up.

Al Taylor
I will. First of all, I would like to say thank you to Maria Moen for her comments and support for the data elements that we have added. The reason that we added "care experience preference" and "treatment intervention preference" to the "goals" category is because it seemed to fit into the PACIO model of categorizing goals, preferences, and priorities into a single group. That said, a preference and a goal are not exactly the same. They may or may not be synonymous, but they are similar, at least in our thoughts, but that is the reason that we put it in "goals," because there is a group of data called "goals preferences and priorities" that seemed to travel together.

Michael Berry
Thanks, Al. Sarah, do you want to close us out?

Sarah DeSilvey
I certainly can. I want to thank everybody for the great work that happened today and thank everybody for the work that happened in the interim. I am looking forward to some other guest speakers and subject matter experts next week, and I am hoping we lean deeply into the Level 2 elements that we have on our charter. I am looking forward to seeing you all next week, and thank you so much for your time. Naresh, any other final thoughts?

Naresh Sundar Rajan
No. Again, I just want to iterate thanks a lot to the subgroup that worked on this, and we will meet you again next week.

Sarah DeSilvey
Thanks.

Adjourn (01:30:49)