

**HIT Standards Committee
Consumer Technology Workgroup
Transcript
September 3, 2013**

Presentation

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you. Good morning everyone, this is a meeting of the Health IT Standards Consumer Technology Workgroup. This is a public call and there will be time for public comment at the end of the call. Sorry, this is Michelle Consolazio. As a reminder, please state your name before speaking as the meeting is being transcribed and recorded. I'll now take roll. Leslie Kelly Hall?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Brian Carter? Art Henderson? Brian Ahier?

Brian Ahier – President – Advanced HIE Resources

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

John Ritter?

John Ritter, MS – Software Engineer – Co-Chair HER Workgroup and Volunteer HL7

John Ritter's here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Anshuman Sharma? Susan Hull?

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

Good morning.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Mo Kaushal? I'm sorry Susan.

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

I'm here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Good morning. Mo Kaushal? AJ Chen?

AJ Chen, PhD – Chair, Data Committee – National Partnership for Action Region IX Health Equity Counsel

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Tonya Dorsey? John Derr?

John F. Derr, RPh – Health Information Technology Strategy Consultant – Golden Living, LLC
Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yair Rajwan? Tom Jones?

Thomas M. Jones, MD – Chief Medical Officer – Tolven Health

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Liz Johnson?

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Christine Bechtel? Marcia Nizzari? Fred Trotter? Russ Leftwich?

Russell Leftwich, MD – Chief Medical Informatics Officer – Tennessee Office of eHealth Initiatives

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Hi Russ. David Harlow?

David Harlow, JD, MPH – Principal – The Harlow Group LLC

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Wes Rishel? Susan Woods? Kim Nazi?

Kim Nazi, PhD, FACHE – Management Analyst – Veterans Health Administration

Here, thank you.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Good morning. And are there any ONC staff members on the line?

Debbie Bucci – Office of Standards and Interoperability – Office of the National Coordinator

Debbie Bucci.

Ellen V. Makar, MSN, RN-BC, CPHIMS, CCM, CENP – Senior Policy Advisor – Office of the National Coordinator

Ellen Makar.

Mary Jo Deering, Ph.D – Senior Policy Advisor, Office of Policy and Planning – Office of the National Coordinator

Mary Jo Deering.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thanks Mary Jo. And I will toss it back to you Leslie.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great, thanks Michelle. So for those of you who are joining after a long weekend, in the early morning, thank you so much for joining us and also continuing the discussion from last week. We were lucky to hear information now from Lisa Nelson about the HL7 patient-generated health data work, from Chuck Parker about the Continua Consortium that's helping to develop standards and implement standards for devices. We heard from Dr. David Kibbe about the Direct standard and how that can be used for patients, as well as Dixie Baker about the NwHIN standards that can help us in our deliberation and discussion. We have before us some, I guess – next slide please, okay.

We know our charge and I would like to remind us all that part of making sure that standards are ready and able to be used by patients, to make sure that we have the ability to reuse and to repurpose existing standards, as well as balance that with emerging technology, AJ continues to remind us of that need. So we want to make sure we're reviewing these standards in terms of adoptability, repurposing, maturity and then balancing it with emerging standards. That might mean that as we go forward recommendations, we have recommendations in both areas. We heard – we also know that our scope is really to look at how patient data can be used to inform the care process. We want to make sure that we're incorporating patient preferences as well as things like in the future, care plans.

We need to touch point with other workgroups, and we continue to do that work. Important in that is some deadlines that are coming up. We have a goal of presenting our recommendations in the September meeting of the Standards Committee or excuse me, the October meeting, and it would be a joint presentation, as I understand it, between the Consumer Technology Group and the Consumer Empowerment Group on patient-generated health data. So we have some deadlines to go forward with, October's a big one, and that's in time to meet the recommendations coming forward from Meaningful Use 3. The way that this works, for those of you are not familiar, the sub-team makes overall recommendations to its parent team, who then incorporates that in a letter of recommendation going forward to the ONC for Meaningful Use Stage 3. That would be issued I believe sometime in November. Is that correct Mary Jo?

Mary Jo Deering, Ph.D – Senior Policy Advisor, Office of Policy and Planning – Office of the National Coordinator

Yes it should be.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. So that's the deadline we're working towards and that's why I'm very, very thankful that each of you have been able to join us in this process. Next slide please. So, our members, we have a great representation along the industry and along different types of technology, as you all know. Next slide. So we're going to start with some presentations again, a recap from Chuck and from Lisa and have some ongoing and open dialogue about patient-generated health data standards that we still might have questions going forward and also come up with our recommendations.

So we heard from Lisa Nelson last week, who co-chairs the HL7 patient-generated health data team. She talked about an approach that this team has used, modifying the existing Consolidated CDA standard at the header level. And I'll remind you what that really means is that whatever happens in the CCDA happens to all so that the Consolidated CDA now just has a new group of actors participating with new roles. This allows us to not have a separate but equal environment, but truly an equal environment. This is exciting because it means that the templates as they're going forward will go forward with not just the provider in mind, but all members of the care team including the patient. This approach means that there's minimal work necessary to integrate patient-generated health data into the record, and that we're using an existing standard. So Lisa was going to talk further with us today about some emerging issues, including the vocabulary recommendations, data reconciliation.

Chuck is going to talk to us today about continuing discussion on the Continua standard. What we heard from him last week was that the standard is very much adopted internationally and that Continua has done a good job to be mindful of both the needs of the provider and the needs of the consumer, as exemplified by using a hub-based approach for perhaps provider prescribed devices that might go home with that patient, where the provider needs an ongoing feed of information, where the cadence might be much more frequent and much more specific to a care need. And then the information that a consumer might be gathering on their own with devices that they gather in the home, where they might be consolidated with something like a HealthVault and then having that information use that same standard going back into the electronic health record. We also heard from – Dr. Kibbe talked about the Direct message and how that is emerging for patient-generated health data and also from Dixie Baker about NwHIN and how that standard and also the maturity index can apply to the work that we're doing.

So some outstanding items we have are vocabulary recommendations, further reconciliation. Russ talked to us about the ongoing work in HL7 with care plans and also the need for harmonization across multiple teams as a patient and their families enter this ecosystem. And we've also heard from – much more about self-evaluation needed and also our evaluation needed using the NwHIN maturity index for these existing standards. So one question had come up was also that the percentage of developers or industry from more newer technologies that have been involved in the standards development, so each of Chuck and Lisa will be addressing that today. So with that, we're going to start with Chuck to do some opening comments and overview based upon the questions that we had last week, and then we'll go into some further discussions about device integration. So Chuck.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure. Thank you very much, appreciate that. And just thanks for the overview. Just to let everybody know, Continua is an organization that's been around for about seven years, a little over seven years now. It has as its base; it certainly was created with working with device manufacturers in mind, but has a broad base of support not only from those manufacturers, but also from the healthcare sector itself. We have healthcare entities such as Partner's Healthcare, Kaiser Permanente here in the US. The NHS in the UK as members of this, as well as other international bodies who represent healthcare organizations. In addition to that we also have governmental organizations who are part of Continua who are working towards these solutions as well as, we see on an international basis, many of the nationalized governments have control of the healthcare and therefore are very interested in driving these standards and activities.

We as Continua are not, per se, a standards body, we work as a guidelines body, much like IHE does. We help the industry to really assemble together the existing standards that are out there and then constrain them down with a set of guidelines, because you need to in essence make some tough choices in the market space to ensure that you have that interoperability to make sure that you can make it plug-and-play. We are now – based upon some of the questions that we had last week, we are now seeing adoption international requirements from Denmark, from the nation of Singapore, from Japan, the NHS of the UK now has official public tenders that are requiring Continua compliance as part of their new 3millionlives campaign. We are also seeing interest from other organizations now starting to drive some of this activity from the European Commission perspective as well. We are now participating in four funded European Commission projects there. That's sort of the international approach.

Here in the US we're starting to see adoption happen. There's some experimentation taking place and quite frankly, it's these devices really truly need EHR adoption in place at the physician office level in order for you to really effectively use them as a physician practice. So rightfully so here in the US, over the last few years the real main focus has been on EHR adoption, and we laud the ONC for pushing that, and we certainly are happy to see that number is growing dramatically. And so now we're seeing some interest now in beginning to take in the data from the device architectures and being able to manage those disease states.

We're so – at this point what we're seeing now is adoption begin to happen across the – not only the globe, but now really interest starting to take place here inside the US and get standards in place to use these devices. What it actually does allow us to do is create a total interoperability model so that you can have devices from multiple manufacturers and based upon the consumer choice, plug in which ever one they decide they want to use, and then be able to make sure that you can acquire that data and place it in a similar and very easy fashion into a medical record. So it makes it a single point of connection for the medical record. So, my – just a quick, brief overview of where Continua is and sort of a highlight of some of the questions that we received last week, but certainly open for more questions now.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Chuck I have one this is Leslie. We talked a little bit about vocabulary recommendations last week and wanted to know whether or not that has been applicable in the device world and if you've gone forward recommendations with Continua?

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Yes we have, and specifically we used – at the time that we started, we were using SNOMED CT, but are very easily adaptable to the ICD-10 model as well. We were very keen on ensuring that we had a very descriptive capability of measuring. When you take a look at a blood pressure cuff, for example, the standards say that there's 43 different ways that you can take a blood pressure reading, and so you have to be prescriptive in where and how you're taking that reading so that you can clinically assess that value accurately. And so yes, we were very keen in driving the actual SNOMED CT language in the initial outlays, but are now evaluating on how to map that to ICD-10, once that becomes public.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. And would you say with the PHR companies and other kinds of newer technologies and merging, have you had good involvement with them inside your standards recommendations?

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Yes we have, up until the point that Google was there, that they closed their PHR, and they were part of that chain. HealthVault has been really a demonstration project for us from day one and still continues to be our primary way that we work with PHRs. And as a result of that, many of the PHRs that build off that platform, and roughly – at last count, there's more – roughly a hundred, use that capability that's already inherent in the underlying HealthVault platform. As well in the US, we've also worked with Dossia as the other major PHR. Outside the US there are several different organizations, too. Most notably the largest commercial deployment taking place right now is Goo. Goo is a PHR that is actually deployed by NTT – in Tokyo and Japan.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. I know there was a good deal of interest in this group about device integration in patient-generated health data, the question is, is this ready for prime-time for Meaningful Use 3 and so I'd like you to comment on that Chuck first and then also I invite the group to ask questions of Chuck and also open up dialogues. So, Chuck.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure. Yeah, thank you very much. And towards this on the patient-generated health data, I think that we – when the device standards themselves, and having them be an automated type of a source, provide a higher level of accuracy for – at least a reliance that the doctor that's acquiring the data can rely upon. And the reason I say that is that it's – since it's now automated to the point that it's basically an individual steps on a weight scale, they don't have to do anything else. That data is then collected and automatically transmitted from the machine itself. So therefore there's less interpretation error, there may be less error from the individual, and perhaps just mis-keying information into a website or even saying it over the phone and having that interpretation. So it's a machine to machine capability that has now captured that data and with the security wrappers and the ability to identify patients within the system, it's a highly reliable capability so that you're not – you reduce the overall potential errors for being able to capture the personal generated data in this case.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. Thanks Chuck. I'd like to open up for group for questions and while we're doing that, Caitlin, can you – in Chuck's slides from last week, there's a slide that shows the NwHIN maturity index, towards the end, if you could pull that up, that would be great. So now I'm opening up the group for questions of Chuck.

Thomas M. Jones, MD – Chief Medical Officer – Tolven Health

Hi Leslie, this is Tom Jones. Say Chuck, thank you so much for the overview again. What is – what I find so gratifying about this is it's not just focusing on patient-generated device data, the focus actually is on device generated data. And that is what is so critically important because the fact that the device is from the patient's home and may be selected by the patient rather than put on in the hospital and taken home, all that is kind of irrelevant. It's actually the device data itself which needs to be very carefully monitored, so that in fact as we move to Meaningful Use 3, we probably would be wise to step back from recommending or insisting that there be some device data integration in Meaningful Use 3, but rather to say, if there is device integrated data, it must comply with the following sorts of standards. And that will get us out of the business of insisting that everybody have an army of devices in their home, which is – which can be a little bit off-putting.

My second comment is I would hope that the group would actually stick to its guns on SNOMED CT. And rather than saying we're now going to add ICD-10, I would like to have Continua join the bandwagon that jumps up and down and says, what we need is federally ratified mapping from SNOMED CT to ICD-9-CM or ICD-10 or ICD whatever. Because SNOMED is a much larger, overarching vocabulary. So that's the end of my little sermon.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So I have a question of you – both of you before you answer that. With regard to the SNOMED CT, ICD-10 implies a bill as an artifact whereas SNOMED CT is really about care and I'm wondering if that's an important distinction because the fact the patient isn't generating something that will have a bill as an outcome – as an artifact.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

And that's specifically why we went with SNOMED CT in the initial outset of this was that it is clinical in context, it's not describing a part of the bill, as you said, with the ICD structure – ICD-9 or ICD-10 structure in this case. And so that's why we went with SNOMED CT as the model going out. And what we're just investigating now though is, we are – SNOMED CT is ingrained in our program today, and really what we're looking at today is really how do you map – as we begin to make a transition to ICD-10, what are the mappings that may need to take place, and it's just for us to make it a little bit easier for those – that data to flow into systems, if they don't have SNOMED CT. We're not stepping away from SNOMED CT, it's just we'll actually include the mappings for that.

Thomas M. Jones, MD – Chief Medical Officer – Tolven Health

I'd like to make another comment about ICD-10 and billing. We have to recognize that there is some peculiarity about the way in which ICD-10 has come to be used for billing. It was not invented as a billing system, as billing vocabulary and in fact, ICD-9 right now is used for other sorts of things like epidemiology that have really nothing to do with billing. So, we have this peculiar fascination for ICD-10 for billing codes, but in fact, just to emphasize what Chuck has said, if we pay attention to the rich development of the clinical context, then the transformation of clinical activities into billing codes should be much more straightforward because in fact, you should not be able to bill for something that didn't happen and anything that happens, should be happening in the clinical space.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you. Other comments or questions for Chuck?

AJ Chen, PhD – Chair, Data Committee – National Partnership for Action Region IX Health Equity Counsel

AJ here. I have a – I would like to make one comment on the vocabulary and then ask Chuck one question. In terms of the vocabulary, when I was working on the CCDA generation for the meaningful use it becomes very clear that you – it's not even a question that you need to pick SNOMED CT or ICD-9 in fact, in order to model all the data that we are going to face with PGHD, we probably still need to use all of the available common vocabularies, that currently CCDA allows, and also probably the meaningful use actually requirements are using. That means the several top vocabularies like SNOMED CT, CPT, ICD-9 – and RxNorm, they're all – they probably all need to be used, I don't think that we need to pick and choose one or two vocabularies, because that's not the reality.

The one question I want to ask Chuck is that I think our workgroup what we are facing now is that what to look into, how do we integrate this patient-generated data into EHRs or into care providers. And given the fact that the EHR, there are so many different EHRs and then there are unlimited or infinite possibilities of patient-generated data. Now we – I think it would be good to start to look at examples – any examples that has actually has done this end-to-end integration. So Chuck, have you in your – have you had one – any of your partners or members that actually has done end-to-end integration of patient-generated data either from a device or application and integrated into providers, and in what kind of form – how it's integrated in – at the providers, it could be into EHR or could be outside EHR. But anyhow, my question is really trying to get some examples from you to see how that – hopefully that would further our discussion.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure. Yes, so we have several partners and so from our perspective, it is an interoperability model that goes not only from the device to the hub over the wide area network and into backend system that we actually call a health records network interface. And at that point, it's where we hand off data. We're handing off fully compliant, CCDA document in that point that is using something under HL7 called the PHMR, the Personal Health Medical Record standard in this case, under HL7. At that point we're using the XDSB transport mechanisms to be able to move that data. We can use a static method, so if there is a possibility or preference for taking a data element and sending it via secure email, we can also take a basically or a USB stick, you can collect data and then transmit it that way as well, but that's sort of an underlying just alternative method.

We've been testing that and have demonstrated that now on an ongoing basis now with NIST for the past 18 months, so NIST has now been testing and we have a demonstration project with NIST that shows how the data can flow in. In addition to that, we've been working directly with IHE Connectathons. We will actually be a formal part of their Connectathon this year, they'll be a whole section where device data can now be plugged into and demonstrated to flow into EHRs as part of the overall central model. And for EHR companies that want to collect that data, they can. More specifically though, we've actually done interoperability demonstrations at the HIMSS Interoperability Shows for the last three years. And those organizations we've actually done projects with Greenway, with Allscripts, with NoMoreClipboards as those that are some that are here, just highlighted in the US.

That's not a complete list by any imagination, but just wanted to let you know that we've actually been doing that and demonstrating that capability. Really any EHR that can actually accept a CDA can get data today from Continua, because we make it – our design standards are such that it's a single common interface that you can collect from the CDA. So any EHR that's been certified should be able to pull a CDA document out and as a result of that, we can hand off to them that information today.

AJ Chen, PhD – Chair, Data Committee – National Partnership for Action Region IX Health Equity Counsel

Thank you.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you. Other questions from the group, or comments?

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Yeah, this is Wes Rishel.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Oh, hi Wes.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Bet you missed me –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I did.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

I was just able to join the call now, so I won't ask Chuck to repeat everything he said, and you can tell me if my questions are redundant, but, did I understand just in this – just implication of what Chuck just said that their standard interface from somewhere in the network of various kinds of devices and their architecture to the EHR is a pull rather than a push? Is that correct?

Charles Parker, MSHI – Executive Director – Continua Health Alliance

It is a push today, so we're handing – it's one way today. We are working with HL7, and Lisa may actually confirm some of this as well for bi-directional communication, so that you'll actually be able to ask, for example, questionnaires. But that's coming, it's not here today.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Okay, so, my understanding of XDS.b is that you push data – you offer a repository service and that an EHR can pull from it. I'm not familiar with that standard being used as a way to push data into an EHR, so that's why I'm confused. Because I think this is a significant concern in terms of the relationship between instruments and EHRs.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Okay so in this case yes, we are actually handing data off, so we're using the transfer mechanism of the XDS.b to hand that data off. So as part of the HRN interface, it does describe how you would temporarily store data, we're not acting as a repository by any long term, but collecting the data for transformation and then pushing that through and into the CDA itself using the XDS.b. So that's, we're using that as a transfer mechanism. In essence what we're doing is we're putting a document out there and then as part of the – whether it's a document repository or an HIE gateway, at that point then, a service would go out there and look and be listening for it, and then grab that document and pull it into the EHR of the provider at that point.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

That's okay, yeah. So, I've got – in previous calls and here, I've expressed a couple of concerns and had some hopeful responses, if it's okay, I'd like to summarize – if Leslie says it's okay, I'd like to –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Absolutely.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Yeah, all right. So, my first concern is this push versus pull, and although I don't understand the combination of you're saying you use XDS.b and push, I understand from you that there's apparently a way to do that, I wonder if you might be able to have somebody talk to me offline and help me understand that.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure. Yes.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Secondly, I am fairly concerned that with the architecture in the sense of relying on a hub, given that the way most of the instruments that are in commercial production now work, is where the interface from the instrument to a, in effect a repository maintained by the instrument manufacturer is their own, and the – whatever integration is needed happens out of their cloud repository. I'm not saying that that's an ideal architecture, I'm saying that it has some advantages in that there is a concern to standardize on a standard that is different than the way the industry is already working, in terms of, we know a lot of standards that have attempted to do that and many of them have not ultimately become the dominant way of transferring information in the industry. I understand that you are working on revising your architecture to support a mode where there needs to be – there need be no hub, is that correct?

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Yes, that's actually in demonstration today.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Okay. And I would say that all, and this is not a – not meant to demean all the great work that's been done; because I think there's a huge amount of really great work that's been done. But in terms of our experience in looking at demonstrations and ConnectaThons and trade show booths that are the size of a small trade show themselves, doing demonstrations. That does not mean that there isn't the need for a ramp up and test and more experience, because as soon as you start transferring real data for real patients, things come up that weren't noticeable in the demo, but still have to be fixed. So I think we need to regard ongoing work as being very important to get some experience in production, before any specification gets frozen and slammed out as the whole industry has to adopt it in the next two years kind of standard.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

No, understood and I think though that one thing Continua has been doing though is that we've been selecting standards that have actually been in play in the market space for many, many years. So underlying the standards are – underlying our guidelines are standards like the IEEE specification, the HL7 specifications, which have been around for quite some time. So –

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Yeah, but just to go on about our experience, the CCD was arguably a document that was in use for many years. And yet when people started to use the features of the CCD that involved structured data, they found huge incompatibilities among the different EHR vendors that had implemented it, to the point where one statewide attempts to aggregate data across CCDs from EHRs from different vendors just gave up. And the CCDA is the response to that, but it took going out of the demo and into the world to recognize that we needed more work on the CCDA. The – so, it having – taking existing, being used standards and adapting them to a new use case is a great way to do it, but it's not by itself a proof that it's ready for primetime.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

No, understood. And I think one other point I want to clarify is that Continua itself is, to your point about the architecture itself. So yes, Continua has – it came from what was historically known as the hub and from a methodology where you had a hub in place and you collected multiple device data, and that was intentional from the device manufacturers, because they wanted the devices themselves to be as lightweight as possible, not to have to carry a lot of intelligence. Now with the rapid advance though of cellular capabilities and very small modular capabilities of having intelligence put on the device, we now have the capability of putting sensors with intelligence directly on them, to be able to transmit to the backend. So that's something as when I talk about it being in demonstration today, it literally is in demonstration today in a bike ride that's taking place from Brussels to Barcelona with type 1 diabetics who are now collecting data on a real-time basis and sending that via cellular capabilities through their – from their sensors that are on the individual.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

So again, I'm really sorry that I was not on the call when you described that. I'm sure you must have some material about that Chuck, if you could just send it to me; I'd like to hear about that –

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

– but I don't want to take up the committee time.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure and there's one other point –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you, is the – let me, I want to ask for other questions and comments for the for Chuck.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Just one point I want to make is that the Continua architecture is actually broken into four steps, if you will, so there are devices that certify and Continua compliant, there's hubs that then have a capability of transmitting data – collecting that data from devices and transmitting that. You can actually take the hub and the device and compress it into one single device, as needed, on a physical layer – physical type of a device. On the backend you can become Continua certified at the what we can the WAN level, sort of the in the cloud service and that the health records network capability as well, so you can collect data from legacy devices and still be able – make them Continua compliant at the health records network level before you hand that data off.

And that was the design intention of Continua so that we knew that there was a significant amount of legacy devices that were not going to be upgradable per se, but what we could allow them to do with using some services in the cloud, we could make them compatible and become standardized in the future. So, we recognize that there was a significant amount of investment already in play that was going to take a while to transition, and we wanted to create a model that allowed us to, you could move devices, the hubs themselves and then – or, any type of a new architecture in that model as well. So, that's what we were contemplating when we actually designed the way that the Continua model is laid out today.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Super. Other questions and comments for Chuck? So, it sounds like we have some – still some questions, we is going to go offline with some of his questions or concerns. I would like to add that in the whole area of patient-generated health data we are entering a time of experimentation and that we can't get stuck in a chicken and egg where something is not there for us to use, and I'm ever mindful of that. And I think the policy side of the house is looking at very modest requirements for use like using it once in a menu item, accepting something once, or very modest use of policy in order to drive adoption of patient-generated health data.

So I don't think we can go forward without an expectation of some messiness and without some expectation of evolution. Using existing standards gives us a leg up and gives us the ability to at least be treading on somewhat familiar ground. So, but I do think to Wes' point, this is going to be a bit messy, but shouldn't be so much so that it gets in the way of moving this important agenda forward. Chuck would you –

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Leslie –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yes.

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

This is Liz. I just want to make one other comment. I really appreciate your candor about that. I think what I worry about is as much as I want this to go forward, recognize, as you were just describing, that even the requirement of once requires us as providers to have it in place. I mean, whether it's – .you know what I'm saying, so there's this real –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise
Right.

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

– quandary that we face where we want this to happen because we think it's right for patients and it's certainly the direction in which we need to move, but there is no such thing as just once in terms of being prepared and putting in the technology and so on. So, I think that your caution that we consider, without holding ourselves up, somehow we've got to find this fine balance of moving this agenda forward as it's critical for our patients, without putting our providers in such a place that they can't get there.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Let me ask you a question on that note Liz. For those of you who don't know, Liz co-chairs the Implementation Workgroup in Standards and so if we build it, she makes it happen. But I have a question for you Liz.

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Sure.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thinking back years ago as a provider CIO, starting with more proprietary systems to solve problems sounded very easy and good, and yet here we are with this problem of interoperability. Now we have an opportunity with patient-generated health data to start with standards first, to actually say, here's a way to start and we're going to presume interoperability from the get go. We are going to start and drive an architecture with that in mind. So my concern is a little bit the ying and the yang to yours, is if we go forward without the standards as an approach to patient-generated health data, or to patients involved in the HIT ecosystem at all. We will end up with a proprietary environment, because there is significant demand –

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Right.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

– so, what would your advice be as we try to look at that balance?

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Well, I think what I have to have and I think what you're trying to establish through this workgroup is a really, and maybe Wes has it, a really better understanding of the maturity. You know, we've talked about for – since the advent of the Standards Committee, of looking for things that were not necessarily mainstream, because if we wait for everything to get mainstream, we'll never make forward – we will not make forward motion at the speed that we hope. But when I think about the availability of standards today, my question is, where do they sit on the maturity schedule.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Right.

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

When I think about the way that often Dixie presents some of her standards and she shows them in sort of the four quadrant presentation, we really look at how mature they are and available, then I want to go to, should we be doing a pilot? Should we be doing something that proves this can actually be done before we put it into a requirement? Now, I understand that once we put it in – if we put it in menu that people can opt for other types of ways of meeting the standard, which has pros and cons to it. What we do need to realize though is most frequently, once something's in the menu list that within two years it's in the required list, two to three years. So that's – so again, I heard I think what is a legitimate sense of caution without being so cautious that we can't make motion happen, and that's what I think we all want. But again, I have to caution because often people forget they – I even hear from the policy folks, the Meaningful Use group, and you do too, well, they don't have to do this, it's menu or they only have to do 10 percent or they only have to do 5 percent. What that means in reality is, you're right, coming from the Implementation Workgroup I have to tell you, what that means in reality is, you have to be able to do it 100 percent.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And I think that's why we've asked the presenters to come forward with first recommendations using existing standards.

Elizabeth Johnson, MS, FHIMS, CPHIMS, RN-BC – Vice President, Applied Clinical Informatics – Tenet Healthcare Corporation

Right.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So to that end on the maturity, Chuck, would you briefly go over the slide that this is a self-assessment that you did on the work with Continua, can you review this for the group? This is from the – standards.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Sure, if you'd like to –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yup.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Would you like for me to step through all the boxes here at this point?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yes please.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Okay. So in this case, the breadth of support, we've had more than 200 plus organizations participating from industry and healthcare that are using – that have been participating as part of Continua over the seven and a half years. We use a use case model that's also described in the presentation as well that are sponsored by member organizations. We routinely do quite a bit of IEEE training to help people understand what this is and then we maintain a significant amount of really standards development organization relationships in order to maintain and really enhance upon the existing underlying standards.

We've been developed now for seven years, we're in release five of our current set of standards, release six will be coming up in October of our – what we call our guidelines activity at this point. We do include additional and new functionality on an annual release. We do have a lifecycle defined for these devices as well to ensure that we can incorporate new technologies, but also as technologies become obsolete, make sure that they are sunsetted appropriately. We do have a way too, for managing errata that pop up and so once we do see those things, as was mentioned, which do happen, we have a process by which we can include those – incorporate fixes and then be able to, in essence, redistribute that back out, at least three times a year as necessary and needed.

We've been building our design guidelines here on the continuity side. They've been based on existing standards but we extend their value in practical applications by defining the architecture for a solution in this case. So what we're doing is we're taking the standards themselves and in some cases what we're doing is specifically profiling down, constraining down where necessary against the guidelines. So where the guidelines may say, you can use a "may" or you an A or B, what we're requiring is a "shall" or you must use A, in this case. And you have to do that unfortunately for interoperability's sake, and that's where the industry comes in handy here in this case, because it's industry making those decisions for themselves.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Leslie –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yes.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

I'm sorry, I didn't mean to interrupt Chuck, I thought you – I mistook a breath for being done.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Go ahead Chuck.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Well, we've got quite a few of these, so do you just want me to read through all these at this point, because I certainly think the –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I think we've had it up for a while so, if there's no need for – I'll ask people to ask clarifying questions or comment on this. So Wes, if you have –

Charles Parker, MSHI – Executive Director – Continua Health Alliance

If you don't mind, what I'll do is, if you can – we'll go through the slides and I'll kind of hit some of the highlights that I can tell you about in this space.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

So really what I do want to point out is second from the bottom, adoption of spec is low to moderate, it's low inside the US. We do have a couple of organizations such as Partners Healthcare who have begun testing with it, as well as with, like – as I mentioned NIST has tested with it and we're doing some sample projects or demonstration projects. But, really outside the US it's mandated in five countries, Denmark, Singapore, Japan, UK tenders as well at this point and now also with the UAE in Abu Dhabi. So that's something I just sort of put that out there as well. And then we have – we're very much so working with existing standards across the globe as well. So while the Continua guidelines themselves may be relatively new, most of the guidelines that underpin them, the standards that underpin them are, in some cases, 15 plus years old.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Leslie, it's Wes.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yup.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

So I'm going to challenge low or moderate. I think if we have learned one thing in the four years now we've been working on this committee, it is that until a standard is used in production by a fair portion of the industry, it hasn't been wrung out. There are technology questions that are subject to errata and there are other questions about appropriate use case, economics, things like that, that are only demonstrated. And if you look at usage, I would say that – usage in production by real patients – doing things, I'd say it's probably zero to low, zero being the United States and low being across the rest of the world. I believe there are a few cases where some parts, some of the interfaces are being used in production, but that many of the – several – some of the listed countries here are more in a tender stage or a requirement stage as opposed to having had a year of using it with real patients. I'd be happy to get an update on the specifics of the five countries, but that's my understanding.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

So in the UK and in Japan, it actually has been longer than a year, the UK has been using parts of – to your point Wes, that when we talk about the Continua ecosystem, there's the four components of it and then the UK has been using at least one component for the last roughly two years –

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

What component?

Charles Parker, MSHI – Executive Director – Continua Health Alliance

That's the health records network interface to pull the data into the system and basically have the data plug-and-play into their EH – well, their National EHR system. And in Japan, it's actually at the device level. They've been requiring Continua compliance at the device level for a year now in deploying with the NTT commercial system.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Okay, thanks.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Are there other comments on the maturity or questions of that? All right, thank you Chuck. And with that, we're going to turn this over to Lisa for opening comments and Lisa joined in a little bit – I'm sorry Lisa, I don't know when you joined in. But I did provide a general overview and that was that basically the patient-generated health data team has taken a header approach so that as you advance the Consolidated CDA, all are advanced. There are currently templates available and a minimal amount of work is needed for – to have this standard to be able to use for patient-generated health data.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

Leslie, this is Chuck. Actually just wanted to note though that on the end of my presentation there were actually six slides that go through the full breadth of the NwHIN maturity index.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay.

Charles Parker, MSHI – Executive Director – Continua Health Alliance

So, I'm not trying to go through, that's why I was trying to halt on that, but I just wanted everybody to know that there are actually multiple slides that go through each one of the specifics of that.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Super, and I encourage the group to review that, and it also will be part of our transcript going forward. So Lisa, with that, if you could provide opening comments and Caitlin, if you can dig up Lisa's slide on emerging issues, that would be great, and we're going to talk – Lisa's going to talk a little bit about vocabulary recommendations, data reconciliation, also some opening questions or follow up questions from last week. So, Lisa.

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

Okay, great. Thanks. Actually, I sent new slides yesterday. I don't know if anybody has that presentation, I think I'll talk from there, for September 3. Thank you very much. And while I'm getting started, I'll just reintroduce myself. My name is Lisa Nelson and I am just an independent medical informaticist. I think if there were ever anyone who could represent patient co-design, I think of myself in that space. I'm just a little guy out here trying to figure out how do we really make this work. And through involvement in various projects, I have acquired a perspective about some spots where we really do have some issues still. And I appreciate Wes' comments about true maturity of some of the standards that we think are so mature, as we learned from what it was like to start using the continuity of care document that had been around so long, only to discover that there was so much that still needed to be figured out.

I talked last week about the approach that we took to add this new capability for patient generated documents by using and reusing, to the extent that we could, the existing templates. And primarily our concern was focused on the basic information that can be communicated in a continuity of care document, but allowing that data to be authored by the patient themselves. And so our focus was merely to make the adjustments in the standards that needed to be put in place, the tweaks that needed to be present to have clear guidance on how to represent the individual and their role with respect to themselves or a family member or a legally related person writing for the patient. We just had to set that in place and then the idea is to be able to utilize initially the CCD document as the basic common, lowest common denominator kind of building block for communicating what's going on with your health and your healthcare back and forth between a patient and a provider.

The emerging issues that came out of that, and the things that I just really wanted to educate a little bit as you are all thinking about very important topics and where we really are and what we can expect for meaningful use is to shed some light on vocabulary and template management. I was listening to the full conversation so far and I live down in the weeds of the details for this technology and at the high level, when there's common understanding around the use of something like SNOMED, which you may call a vocabulary. People who are really taking a fine grain approach on this might call that an ontology or it's a code system that has complexities to it, hierarchical complexities to it, and it represents the univer – a universe of some codes and concepts that can be used. But by merely saying that SNOMED will be the vocabulary, we have not eliminated or protected ourselves from some of the interoperability vulnerabilities that are really present in what we have designed with Consolidated CDA.

So when we talk about vocabulary, we're actually getting to nuances around – oh, actually I'm already kind of, this is what I'm going to talk to you about. But just in the consideration for time, I'm actually working on my next slide, these emerging issues, I'll be talking about vocabulary and template management, data reconciliation and I have a slide, if you could please advance to the next, about these issues that I want to bring up on vocabulary and templates. So value sets are the ultimate mechanism that really gets defined at the standards level to pull certain codes from a code system like SNOMED or LOINC or ICD-10. They're not adopted in a whole, portions of them are called out to be used in appropriate spots within a structural design of a CDA document. And if you're not knowledgeable about how those value sets are specified, we can think that we have employed standards, which are going to eliminate interoperability issues, and instead we could be creating interoperability issues.

I give just a very brief, simple example here with Meaningful Use Stage 2. A value set was chosen for language codes that requires a three-letter code to be used from this certain set of language codes, and that set of language codes also supported a two-letter language code set and inside of Consolidated CDA, that two-letter language code value set was indicated. And there's a brewing issue out there that has to be worked out now, because the validators are expecting one thing, the standard says something else and the implementers, of course, get smashed in the crack in between trying to figure out what's the right thing to do. And so as we move forward, it's really not enough to require alignment at the very high level of what general sort of code system are we going to draw from. But we as an industry need to be prepared to dig in to the level of these operational units of semantics that are called value sets, and we need to be prepared to make sure that they are right and lined up.

We need to be prepared to establish them with real usability and sustain them over time. So we have problems right now, for example, I'm probably one of the few people who will ever bring an issue like this up to your level, but our problem list value set you would just think, oh, that's so taken care of. But in truth, when you look at it, the value set has not been touched since 2009. It is populated with concepts from what was then the current version of SNOMED, but no one has matured that value set to keep up with the twice a year updates that are going on with the underlying code system. And so now implementers are faced with sort of a perplexing problem of looking at the current version of SNOMED to get reference to codes to represent certain concepts and then having their hands tied, through the standard, to use of a value set that was built with concepts that were developed in a much earlier version. And even though the binding is dynamic, which means it's supposed to be you get the current value set to use it, because no organization has taken responsibility for making sure that that value set is continually updated, the current value set is really four or five years out of date.

We have a similar sort of underlying problem with the value set that was established for drug classes. On the surface you would think, oh, there's a drug class value set, we're all set here. But in truth, there are very significant usability issues that implementers are having where the codes and the concepts don't really line up with what practitioners and what the use cases have for what are the set of beta blockers. And the vocabulary we use to describe the drug classes and what drugs are actually in those drug classes and there are all kinds of usability issues that still need to be kind of worked through at this value set level. So while we made great strides structurally, getting on the same page with Consolidated CDA and many of our templates that didn't match up before, now align structurally, we still have this next level of greater due diligence that's needed around the value sets that give the semantic meaning to the data that will be housed in those structures.

And then finally, just because I didn't want to – I'm not done with all my gloomy news yet here, but templates have made a great step forward, but what we've found now is that we are continually still progressing. And so with the latest version of Consolidated CDA, we are introducing improvements to those templates and new versions of existing templates are being put forth. This is a good thing, but as an industry, our – we have to ask ourselves, are we ready to have the operational capabilities and the flexibility to be able to absorb ongoing improvements, which we acknowledge are needed. Because we're at a time right now where we can expect that we won't get it perfect on the first stab, but do we have the practices in place so that our – what we legislate into – to bring into being, will still have enough flexibility that if something like a new version of a template or a new version of an implementation guide comes along, that we know how, as an industry, we will smoothly absorb those improvements. I will take questions. I only have three slides, so I think it makes sense to take a breath and ask for questions around vocabulary and template issues.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So Lisa, this is Leslie, I'll start and then move it over to the group, but I also want us – I appreciate the caution that you've brought forward. And to some degree, well, to a 100 percent degree, when we absorb current standards, we are inheriting both the problems and the opportunities. And so by having patient-generated health data use those standards, it doesn't mean that either one of those automatically go away or that they are – it is what it is, we have to live with them. So one way to look at this is to say, what's the minimum necessary that we need to go forward with so that we aren't exacerbating the problem, but maximizing the opportunities. And one of the areas we've heard early on is in the questionnaire structure, because of the nature of having the data coming first from provider as a request for information, and then a response back from the patient, there is an opportunity to be more prescriptive in the actual use cases and the design, the templates and vocabulary. So I would just offer up that we need to be cautious but understand that this new inclusion of the patient and their families does not inherit the good and the bad results of that.

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

Yes, yes. Thank you Leslie. And that is the – an important point to realize is by the way that we have done this, really we have an opportunity right now to engage the patient in this process. So that all the work we do to address these issues and to move forward won't – it will be more right because the right people will be at the table. If we really want to design this so that it is producing meaningful use by the people who the system is meant to take care of, then this is the right time to involve them. And then all the work that we do to improve and move forward will already have that facet of patient inclusion, as part of what guides us to the right answer.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. So, open it up for comments and questions from the group.

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

This is Susie Hull. Thank you, I missed last week's call, the one on Wednesday, so this is really helpful to take a deep dive here. The question I have relates to putting ourselves in the position of the patient or the family. The patient is making sense of their health through growing their own profile, their preferences, their values. They may be periodically responding to push-out questionnaires from their provider or doing things over mobile devices like the Barcelona Bike Race today, or they may have device-generated data, what is the current maturity of the standards to support those different types of data from the patient that are both in this push and pull. I heard earlier some limitation on the bi-directional nature of being able to push and pull that kind of data and I'm just wondering at a high level, what did I miss about that in the conversation last week or any new comments today?

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

Um, let's see. So, I don't think you missed too much, other than just some of the framing around the positioning that patient-generated documents are intended to make use of the existing templates in Consolidated CDA. And that means that like a continuity of care document, which already establishes the most basic buckets for recording your information, your medications, your preferences, your allergies, the procedures that you've had, your vital signs over time. Those sort of compartments have already been well defined and the EMR vendors are in a position to exchange information in that structure already, sort of clinician to clinician, EMR to EMR. And now all we'll be doing is utilizing those same patterns, which is how people think about their healthcare too, if you think about what tests have I had, what procedures have I had, what's my family history, what's my social history in terms of my smoking or my alcohol consumption. You think in those same buckets and if people were to just start to have their information documented that way, where they could share it across those same chunks, I think we – the systems are already in place to be able to handle that in a pretty mature way, and we're not inventing anything new to make it possible for patients to do that.

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

Yeah this – thank you. I think I really concur with that, that that's one sort of basic level, but I also see the industry moving, particularly on the innovator side, with pushing and pulling data through mobile health devices and other things that are not fitting in that structure. They could fit in that structure, but it's a both and, and maybe what we want to work on is that basic level and then look to bridge and accommodate other types of data. It's almost as if we're asking the patient to think in our buckets as providers, but in the patient's lifetime and in their health over time, they may or may not be thinking in those buckets. They may be thinking about a three or six week challenge to stop eating butter or things like that that the cycle and the rhythm will be different for the patients.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I think you make a good point and one – some of the broad themes we’ve heard from Dixie’s overview of their hope for the use of FHIR and OAuth 2 as a way to bring familiar ways to register applications, for lack of a better word, to pull data ongoing with the Blue Button pull in the future. We’ve also heard from Direct to say, how can we do secure messaging in a way, and then also from device data and from Lisa. So we’ve heard from a really broad array, but I think your point is right on. There is a – the world that the patient lives in is theirs and so what we’ve done in healthcare in the past is say, the patient is invited to our table for dinner, when in fact, going forward, the patient is inviting healthcare to their table. And we have to be mindful that in order to have fellowship at that table, both parties have to be considered. So, this is a tough task and I think we need to start small and then be both the mess and the opportunity will help to advance the industry. So those are my comments. Other comments from the group?

Thomas M. Jones, MD – Chief Medical Officer – Tolven Health

Yeah, this is Tom Jones. I’m getting a little nervous because this is beginning to sound like the patient is living in their own special world and that’s – I’m sure that’s largely true, but we all live in our own special worlds, doctors do, nurses do. And I watched it happen between doctors and nurses with the evolution of nursing terminology, because nurses weren’t allowed to speak like doctors. I’m very concerned, we all need to speak like caregivers, even if it’s self-care. And the challenge to stop eating butter or eating less butter is no less vital to the physicians and nurses and home health aides taking care of the patient, than it is to the patient and their family. So what we may want to do is look upon those things that we have thought, in our minds, were this very special other world on the eighth planet of Saturn that patients occupied. Bring that world, as you said to the table, make sure that all of the care providers can play in that space, as well and participate in that extremely important activity. Self-care is just as important as care by other providers.

Susan Woods, MD, MPH – Director of Patient Experience, Connected Health Office – Veterans Health Administration

Hi, this is Sue Woods.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Go ahead.

Susan Woods, MD, MPH – Director of Patient Experience, Connected Health Office – Veterans Health Administration

Hi, this is Sue Woods. I’ve really enjoyed the comments, they’re excellent. I missed the beginning of the meeting, but did hear Lisa. I actually think that the patient information supplements what we have, I don’t necessarily see it as different. I agree that the information – I think what we deal with is the fact that there’s different agendas and so instead of data on hemoglobin A1c and meeting specific benchmarks and measures, it – what the patients really want and the caregivers are – and I like the term basic things. Things like submit a request for an amendment, and here’s my comment. And here I have new side effects. And here’s my agenda for before a visit. And a lot of it – I mean I do think we have some very objective data such as tracking from different devices or WiFi, but the other side is really more of a narrative, similar to secure email. So one of the things that I think when we talk about this is, how are we going to balance the – are we moving toward a standard that right now is too high? How do we balance the fact that we want the communication to happen from individuals to a health system, similar to secure email. When I send an email to my provider or I get an email, I don’t necessarily want that email to be fully interoperable and across multiple systems. And so, are we – is there a balance here between creating standards where individuals communicate with individual systems or providers versus setting some kind of sort of interop – greater interoperable standard? What are the – to that?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

That's a good question, but I think if we go back to the history of how we integrated the provider, we went forward with a very closed system. And so we've been penalized by that lack of interoperability. We know that the average Medicare patient has 14 providers, who's – the patient who's active in care. We know that care coordination are some of the biggest opportunities for cost and quality improvement, and largely been managed by a patient themselves or their caregivers. So I – because something is interoperable doesn't mean it has to be, but if something isn't interoperable, it makes it difficult to move. So I think our charge as a standards organization is to go forward with standards that provide interoperability that allow the patient to participate in the ecosystem and do so with a bias towards standards, because that is what – that's who we are, that's what we're being tasked for. So we could, in fact, assume that the market's going to go forward, just as we did with providers, and end up with a proprietary environment, and not have advanced the patient on the same level as provider interoperability. So starting with a standards framework with a bias towards interoperability gives us at least that hope in the future. I think Chuck also said it very well that mobile is a game-changer and as we bring in data now from a patient or that patient's device, the ability to have meaningful use of shared information becomes greater, because the portability gets greater. So, I would just offer up, our charge is a standards-based framework to help with patient-generated health data. Are there other comments from the group.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Wes Rishel.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yup.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

So I think we are having a discussion here right now that is the single most critical meta-discussion –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Um hmm.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

– we need to have as a group, which is the trade-off between a fairly comprehensive standard without the benefit of too much evolution through use and the risk of having no interoperability or rather minimal interoperability, particularly for structured data. I think that the history – that history is full of examples of SDOs that created very elaborate standards and never got adoption. And that across the board the standards that were most widely adopted were done in little incremental bits that did have compatibility problems along the way, but nonetheless got in use and therefore got in a – got the chance to evolve. And particularly we have – we're trying to bridge two environments here, one is sort of the patient's own health environment that's dictated by what devices they buy on their own, what applications they buy for their Smartphones and so forth. And the consu – the CDO world where we would like to somehow have some of that self-motivated patient behavior be coordinated with the care plan and with the execution of the care plan, for those consumers – for those patients that we can actually put on a care plan. If we create too much of a barrier to the people who market and retail devices, or write apps and think of themselves as innovators, by stressing that relationship to the EHR, we're in danger of the entire self-help part of the industry, which we have no levers over, to go its own way. And in fact, I think we can see it's begun in that direction already, this is not a hypothetical conversation. Therefore I think we need to be very careful to set our focus – make the barriers to implementation low enough that the, if you will, the free market, the unregulated market, has an opportunity – sees a low cost of participation, even if that means we have to evolve our standards over years of usage.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Other comments from the group, because I think this is really our struggle, you've really hit on it Wes. And so there's often schools of thought that says if we do one thing very constrained in a small way and see that adopted, then we'll have people adopt and move forward with the market. Another school of thought is, well if we have a broad use that is not highly defined, we'll have broader acceptance from the market. Often time's confusion is as the result and confusion can be just as difficult as prescription. So this is really the fundamental, we – fundamental question. Others have comments and ideas?

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

This is Lisa. I just wanted to really agree with what Wes just said and I think it eloquently says what my point was and that is that it's better if we all advance together. And being able to move forward with patient-generated documents in the way that we have, with this approach to modify so that headers can now articulate this, then many new opportunities will come up and it may be more challenging to – and we may advance more slowly. But at least all the right people will be advancing together, and I think that ultimately even slower progress that includes the patient and their families is going to be better and produce more positive health outcomes than keeping this part out of what we push to adopt now.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Any other comments?

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Leslie, this is Wes. I just have a quick question, I'm sorry, I missed the start of the meeting. But, are we – with our proposals, are we planning to actually standardize the instruments, the clinical instruments that people would use in patient questionnaires or are we creating a mechanism by which they create a questionnaire and it gets answered?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

The latter.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Okay. So for the use case of – all right, I'll fight a question offline rather than take the time right now.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. Other comments from the group?

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

Maybe I should try my next slide, it probably will bring up some good discussion also.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay.

Lisa R. Nelson, MBA, MMI – Life Over Time Solutions; Co-Chair, Patient-Generated Documents Project – HL7

This was the other emerging issue that Leslie just asked me to kind of bring forward from last week's discussion, and the notion of data reconciliation and what that really means. And here I think we have not yet fully explored in a high use capa – sort of level, what it really means to achieve a vision that was set in Meaningful Use Stage 2 that clinical information reconciliation requires the system to simultaneously display in a single view. The data from at least two list sources in a manner that allows a user to view the data and their attributes, which must include at a minimum the source and the last modification date.

And I've been thinking quite a lot about what this means in terms of capability and I've been thinking through some scenarios where if you envision us being at a point in time when we're not just trying to get the first document to be created. But we're actually at a place where these documents are created and flow and the longitudinal information needs to move from time zero to time one to time two to time three. And so these four use cases that I put here I think demonstrate or bring us to the point in the story where we have to ask ourselves about what this data reconciliation capability really means.

So it could be a situation where, for example, a discharge summary produced by a hospital needs to be incorporated into a primary care physician's EMR. And perhaps there was some aspect of that treatment plan that doesn't necessarily make sense, given the PCP's overall view of the patient's condition or their care preferences. And so how does that absorption of information happen as you move from one snapshot of a discharge summary into the next point in time where that information is going to be used.

Here's another example, but a little bit different. Let's say that discharge summary needs to be incorporated into a person's personal health record. Now while that person was very sick, they may not have been paying full attention to what was going on and the set of meds that they were being discharged and asked to take. And perhaps they get home and when they go to import that discharge medication list, they find that some of the meds that are on it are no longer – they were taking medications previously that are no longer on the discharge medication list and they're confused about why they were left off, was it an accident? Was it a mistake? What should my new medication list really be? You don't necessarily just want to absorb everything to the new snapshot in time if you can see that previously you had been on some other medication, perhaps an error has happened.

Another example where perhaps a consult note comes back after a patient had been seen by a specialist, the primary care physician may not agree with all the medication changes. How – it isn't just when the patient is involved, it can be provider to provider issues that need to be resolved and reconciled. And then finally a notion of perhaps a patient shows up with a CCD document that's generated out of their own PHR, it has updated address information, updated insurance information, the accurate picture of what medications they are currently taking, and the physician's EMR needs to be able to incorporate those changes. So there could be someone administrative who may need to know that this different address, in fact triggers a question to say, "oh, Mrs. Smith, have moved? Is this information I should be absorbing? Or is this a new insurance carrier that we need to know about?"

And then even perhaps the doctor may want to see that the med lists are no longer different and ask them questions about why they aren't. And I'm not so sure how far we've gone with really understanding and moving – challenging ourselves to move to a place where we understand what this level of data reconciliation really means. Or if we have some opportunities in Meaningful Use Stage 3 to clarify and incrementally strive to understand this longitudinal issue and make it clearer about how data should be processed over time.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And I'd like to see if we could get Russ to comment on this, because I think – first of all, the idea of reconciliation means there's a right answer and a wrong answer to somehow reconciled. Often times there are just new data points. So with the patient-generated health data, we have new data points. There is an adjudication that might take place or someone might mediate that or a doctor might say that I believe this has certain credibility or this doesn't, but it's a new data point. And the longitudinal care team has been discussing this at length, so Russ, if you could comment on this, and then I'd like to turn the group back – turn it back to me, I'd like to ask some other questions. Russ, are you –

Russell Leftwich, MD – Chief Medical Informatics Officer –Tennessee Office of eHealth Initiatives
Umm.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise
Yeah.

Russell Leftwich, MD – Chief Medical Informatics Officer –Tennessee Office of eHealth Initiatives

I have suggested for some time that we are missing a data trio that – a trio of data elements that are an indication that a list is a reconciled list, and the date it was reconciled and who's responsible for that reconciliation. Because otherwise, medication lists, and I think it applies to other lists, problem lists as well, otherwise a list looks like a list and you cannot tell if it's a partial list that came from a medication history from a – some service or it is, in fact, the reconciled list done on a certain date. And I use the term reconciled to mean the best attempt at what a patient is currently taking at the time of the reconciliation without specifying any particular process. But I do think that in terms of exchanging lists, it's extraordinarily important that we be able to distinguish what a list represents, in particular if it is reconciled where nobody is making an assertion that it's reconciled. Those are missing data elements.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you. Other comments from the group? I'd like to ask questions of anyone in the group. So we really have recognized that the patient is new to this ecosystem. We've been tasked with trying to repurpose and reuse standards. There's a balance that we have to get into which is that the balance of being overly prescriptive and stifling innovation or limited or no prescription and foster confusion and also then stifle, I think, adoption. And that balance is something we will need to work in. We've also heard that we inherit every problem or opportunity that comes from using and existing standard, and I would say that would be the case if something was a new and emerging standard. And yet the compelling – we are compelled to have the patient, who is the person with the most at stake, to provide information to improve their care.

And so I'm reminded of something that Sue said in a meeting about a month ago when she said that although we can all see 3-D movies today, we're really still in black and white television. And I would like to ask the group going – what would you recommend? What are the minimal requirements that you would recommend, your individual ideas around this subject? And then I think we – that will probably end the meeting. So I'd like to start, if I can, going around the group. David, do you have anything to add, comments, recommendations?

David Harlow, JD, MPH – Principal – The Harlow Group LLC

Yeah, this is David Harlow. I have – here's my thought. I think that having sort of the patient perspective on all this is vitally important and I think to sort of make this work consistently with the rest of the meaningful use rules, I think it makes sense to have a number of options built in, and sort of aspirational goals built in. So the information that we've heard about different standards for use in transmitting patient-generated data thus far have been used in sort of only one way transmission of information. So to build on Wes' question earlier, I think the question is, is this really going to be usable in the real world in a two-way transmission of information scenario? And I'm thinking specifically about the Continua standard and also about the Direct as well. Because again, they've been used thus far for one-way communication, as far as I understand it. I think that our goal should be to establish a framework where multiple standards might be used in the service of the higher level goal of enabling bi-directional patient communication into and out of the record, whether it's from – it's a patient plain texts or patient transmission of data from a device.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you. Tom?

Thomas M. Jones, MD – Chief Medical Officer – Tolven Health

Tom Jones. Yeah. Nothing that'll surprise you, I just want to come back to the notion of bringing the patient into full-fledged partnership with the rest of the care team. So many of the comments I've heard about this is very special for the patient actually apply to the care team members, goes all the way down through secure messaging and adding comments to the records. This is a request and requirement that has come up over at least 20 years in my experience in developing electronic health records for clinicians, so we need to pay attention to that, and we need to pay attention to the fact that let's be careful when we talk about multiple standards. Multiple standards for multiple domains are a good thing. Multiple standards for the same domain are a bad thing, it gets us into a lot of trouble and prevents meaningful semantic interoperability, so particularly standards for instantiation of clinical information, possibly less so for standards for the mode of communication between systems. So those are the only things I want to continue to hold out for and everything else kind of flows from those general comments. Thanks.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thank you. Kim Nazi? We may have lost Kim. Brian?

Brian Ahier – President – Advanced HIE Resources

Brian Ahier?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yes please Brian.

Brian Ahier – President – Advanced HIE Resources

I – well, I agree with the previous comments actually and would just say that when we think of patients and their caregivers as equal and participating members of the care team, then it's important to – as Tom mentioned, it's really important to have a single set of standards. I look forward to a day when that's actually reality. And of course, we're just talking about standards, but the whole idea of a philosophy, I think, has to be ingrained that the patient is at the center of everything we do and that the patient and their caregivers are actually part of the care team and access the information and providing information is an important part of that.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. Thank you. Susan Hull? Okay. John Ritter? Russ Leftwich?

John Ritter, MS – Software Engineer – Co-Chair HER Workgroup and Volunteer HL7

Hi, this is John, can you hear me now?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Oh yes, now we can hear you John. Yes, thank you.

John Ritter, MS – Software Engineer – Co-Chair HER Workgroup and Volunteer HL7

I'm sorry, I'm just trying to come off mute. Okay, a couple of things. I just wanted to let you, and especially Chuck Parker know that the HL7 Personal Health Record System Functional Model opened for ballot today. Now the reason this is important, with respect to a single set of standards, this is the only functional model standard that exists in the world for personal health records. So it's important on that respect. It's added some new functionality that envisions stuff that Chuck was talking about on the Continua side where we have health care devices that are collecting personal health record related information, and it needs to go somewhere and be packaged and housed in an intelligent way. The PHR System Functional Model envisions collecting that data in an intelligent way. It doesn't proscribe how to do it, but it recommends that it be done.

Number three. It has shall, shoulds and may. The shalls are things that can and should be done today. The should and the may conformance criteria that would help certify systems can help folks build a roadmap to the future. And so a couple of times today folks have said, we need to strike a good balance between what we can and should do today and not close the door to the great inventions that are occurring from brilliant engineers and brilliant vendor companies. So by using this system, this standard that envisions the future and accommodates the present, I think this will help move the standards forward with respect to consumer technology.

And so we talked a bit, not a bit, a whole lot about the data side that is a smart envelope like CDA, the clinical document architecture that can package that information and share it in a secure way and open it up and merge it together. That's on the data side, but on the functionality side you have to know what to do with that data, whether it's pushed or pulled. Once you get it, how do we use it? So I'd invite all the members of this team, and especially Chuck and your team there at Continua to go ahead and download the package. It opened up for ballot today for the next 30 days, and provide some good, healthy comments or run it through. Does it – it's been out there since 2007, so it's fairly mature, but still not yet widely adopted because the whole PHR market is still immature. So, run it through the wringer and let us know what you think about it, okay? Back to you.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thanks John. Russ?

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

Leslie, this is Susie Hull, I just clicked the wrong button, so I missed my –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Oh – go ahead.

Susan Hull, MSN, RN – Chief Executive Officer – Wellspring Consulting

– comment. I concur with the other comments. I especially like keeping the patient in the center and I think that the patient’s ability to update their preferences, values, their sharing preferences over time is a really important key to keeping the patient at the center. And then we haven’t talked today about share – updating shared care plans, but the ability to share a care plan and for the patient to be able to update it along with their provider team, I think is part of the minimum that I would recommend. And I think it’s a big stretch though, so I would value other’s opinions if we want to move in that direction. But I think it’s the heart of the purpose of being able to share data through devices and other questionnaires, that it’s about progress and it’s about movement over time. So I think the ability to do both preferences and interact and update a shared care plan are key factors we need to ensure.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. Now Russ.

Russell Leftwich, MD – Chief Medical Informatics Officer –Tennessee Office of eHealth Initiatives

Yeah, I’ll just reiterate what I had a chance to talk in detail about a couple of weeks ago with the importance of having a defined care team with a data set that includes their relationship to the patient and their relationship to the health concerns and goals of the patient. And that includes family and community care team members. I think that the concept exists in HL7, the data sets that detail those relationships really don’t exist and that’s, I think, very important to the provenance of the patient-generated data or family caregiver-generated data that is part of the data. And I guess my earlier comment about the reconciliation data element is a version of data provenance, is that a reconciled list and when and by whom, is the reconciliation done, including if it was reconciled by family caregivers who are often the ones that know what the actual medication use is.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Okay. Thank you. John Derr?

John F. Derr, RPh – Health Information Technology Strategy Consultant – Golden Living, LLC

Yeah, this is John Derr. I don’t disagree with anything that anyone’s said. As you look at this thing through the HITECH Act and what our charge is and as Leslie knows, and Wes and Liz, I look at things a little bit differently. Because I am responsible for long-term post-acute care and it’s a little bit more complex in that say as an example the dual-eligibles in nursing homes, which are probably – billion, five hundred thousand people. They stay there and we have to then do the personal health record, has to go to their families, so you’ve got another sort of interim person in there, and then home care, we have a lot of devices out there doing monitoring and then that has to go into the personal health record. And it also has to be with the home care agency.

In the nursing homes we have twenty – the short-term people who are just in there for rehab and the length of stay nationally is about 25 days. And that again, we have to interface with the personal health record as well as the EHR and then now the assisted living is coming along now where they’re doing rehab in assisted living and medication management. And I just say these things just so we keep that in mind that there is another segment out there, as we start to do the things that we’re charged with – mostly from the private physician, primary physician and the hospital and how we interface with the – engage the patient. But we do longitudinal care all the time, not just 3.5 episodic days, that we have at least 25 days and 60 days in home care and sometimes a lifetime in the dual-eligibles in nursing homes. Thanks Leslie.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Thanks John. AJ?

AJ Chen, PhD – Chair, Data Committee – National Partnership for Action Region IX Health Equity Counsel

Yeah, this is AJ. I think it is a very difficult balance – thing to achieve the balance where we don't want to eliminate future innovation, in terms of the content presentation as well as the transport. So – but I'm still thinking – trying to think of anything that I can suggest in terms of specific recommendations. So I think – I'm going to say that the – at the probably I'd like to focus on what's possible today and also adding the – that you won't limit – add flexibility there – enough. So the specific thing I'm thinking about now is that maybe for patient tool or device to sending – to send – essentially sending anything to EHR and EHR can – or provider, provider can – as well as provider. On the provider side, on the EHR side, they can, I think, save the data and present the data in some way they – the provider or the physician can actually view. So – and it's hard to imagine too, that we – at this point we want to limit any particular use case, because we really don't know which one will have more importance than the others. And so maybe just to define a way that we can – the EHR can receive a set of data, either in CCD format, CCDA format or future format that are compatible. And so that's one thing, receiving data and view it.

The second thought I have is that we should not limit the transport mechanism as we had in Meaningful Use 2. That means, we need to figure out a way how to recommend that the data can be sent to the EHR through Direct or Blue Button Plus API or a third or a future mechanism, that are more efficient, lower cost. So, that's – I think that's the second suggestion I have.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. Thank you AJ.

AJ Chen, PhD – Chair, Data Committee – National Partnership for Action Region IX Health Equity Counsel

That's all.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

We have two, I think Liz and Wes, so – and I'd like you guys to be mindful of time, so probably three minutes each. Liz? Liz, are you there? Okay, Wes, are you still there.

Susan Woods, MD, MPH – Director of Patient Experience, Connected Health Office – Veterans Health Administration

And Sue.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

Yes, I'm here.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Oh, and Sue, too. Okay. Go ahead Wes.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

So I think that we have to – I just want to observe that probably the most adopted HL7 standard in terms of actual use by EHRs today is the Infobutton version 1, and that's because it was very easy to implement, it didn't get into structuring the data of the response.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Um hmm.

Wes Rishel – Vice President & Distinguished Analyst – Gartner, Incorporated

And that's a – there's a lesson there and I think we need to be very concerned that we walk before we try to soar at Mach 2. The – I don't actually know what are all the use cases we have in mind, but there seems to be quite a variety of them and we need to keep in mind that we don't create actual working interfaces, we enable them, and that means that there's an underlying business need that generates them. When we're more general on what we can support, what business cases we can support, because we're less structured, we create more opportunity for the innovative healthcare organizations out there to find ways to use it, and the standard gets more adopted. When we are real specific on this use case or that case and order what's necessary in order to be highly structured, then we narrow the scope of enthusiastic and willing adopters dramatically. Thanks.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great, thank you Wes. Sue?

Susan Woods, MD, MPH – Director of Patient Experience, Connected Health Office – Veterans Health Administration

Hi, Sue Woods. So, thank you for quoting me about black and white TV. So I think we have an unbelievable opportunity here to show people what color TV's going to look like. And someone stated about bringing in aspirational goals built in, because I think there's very specific issues regarding data and exchange, etcetera, but I think there's some more invisible things that we really want to convey. And we have an ef – I think this is a huge opportunity that we really need to take advantage of, sort of take the bull by the horns. So, I know we all have our heart in the right place and patients at the center, I don't want patients at the center, I want patients at the table. I want their information to be part of our real estate in our clinical information systems and electronic health records. I think we need to redesign our information that's in front of our eyeballs.

And so how do we – I think the challenge is how do we also convey some new kinds of thinking where patients are really the ones who are the primary beneficiaries of this. We have – and articulate new kinds of value, not all data needs to come into our clinical information systems. These tools can be for the purposes of patient's monitoring. And so what Chuck has talked about in the past about sharing data that is solicited by clinical information teams. Or patients may decide, I need to send this information to my clinical team, so they're the ones who want to push the data to us, when they feel it's important, just like when they decide that they want to send a secure message to me. It's their decision, not mine and that's the primary value of secure messaging, not necessarily proactive messages that go out. So, how do we create these – how do we have new kinds of terms and frameworks and thinking supplementing any sort of recommended "rules."

I think our terms are really critical. When I see a term like reconciliation, I know what we mean, which is someone needs to review it and look at it and integrate – clinical integration is the rubber that meets the road. But, reconciliation I don't think is the correct term. And it causes all kinds of emotional – it has some emotional baggage to it, because of all the medication reconciliation work. So – because I don't think it's always going to be that level of effort to review and integrate this information.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. Thank you. Did I forget anyone and their comments? So I'm going to make an attempt to gather up all these thoughts and put it in a cohesive framework for our disc – our next discussion, so that we can go forward with specific recommendations. That'll be something. Anyway, I very much appreciate all of your help and with that, I'll turn it over to Michelle for public comment.

Public Comment

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Operator, can you please open the lines?

Caitlin Collins – Project Coordinator – Altarum Institute

If you are on the phone and would like to make a public comment please press *1 at this time. If you are listening via your computer speakers you may dial 1-877-705-2976 and press *1 to be placed in the comment queue. We do not have any comment at this time.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

All right, well thank you all. The next meeting is scheduled, I believe, for September 10, is that correct?

Caitlin Collins – Project Coordinator, Altarum Institute

Yes, September 10 at 11 Eastern.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Great. So I – please, we'll review some of these comments and start taking a stab at our recommendations. So, thank you very much for this really great discussion and it really resonates with all of us the importance of our work for patients and for all of us. So thank you very much, I appreciate it. And with that, we'll adjourn. Bye guys.

Public Comment Received During the Meeting

1. Regarding the interchange of data, the sending and the receipt of data (information) needs to be integrated (and implemented) into the clinician's workflow. The sharing of information needs to have a clear shared "value" proposition to the stakeholders.
2. There should be more emphasis on the tools to implement current good (mature and adaptable) standards (best cases) as opposed to waiting for the next "big" standard and losing out on time.