Health IT Joint Committee Collaboration
Interoperability Experience Task Force
Final Transcript
April 6, 2016

Presentation

Operator
All lines are now bridged.

Michelle Consolazio, MPA – Federal Advisory Committee Lead – Office of the National Coordinator for Health Information Technology
Thank you. Good afternoon everyone, this is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Joint Health IT Policy and Health IT Standards Committee's Interoperability Experience Task Force. This is a public call and there will be time for public comment at the end of today's call. As a reminder, please state your name before speaking as this meeting is being transcribed and recorded. I'll now take the roll. Jitin Asnaani?

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Jitin. Anjum Khurshid?

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Anjum. John Blair?

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, John. Cris Ross? George Cole?

George Cole – Principal Scientist, Community Solutions – Allscripts
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, George. Jane Perlmutter is unable to join us, she's flying. Janet Campbell?

Janet Campbell – Vice President of Patient Engagement – EPIC Systems
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Janet. Jorge Ferrer?

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hello. Kelly Aldrich?

Kelly Aldrich, DNP, RN-BC, CCRN-A – Chief Clinical Transformation Officer- Center for Medical Interoperability
Hello.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Kelly. Larry Wolf?

Larry Wolf, MS – Principal – Strategic Health Network
I'm on.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Larry. Larry Garber?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Larry. Phil Posner? Shaun Grannis? Ty Faulkner?

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Present.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Ty.

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Hi.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
And from ONC do we have Chris Muir?

Christopher Muir, MPA – Director, HIT Infrastructure & Innovation, Office of Standards Technology – Office of the National Coordinator for Health Information Technology
Here.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Hi, Chris. Okay with that I'm going to turn it over to you Anjum and Jitin.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Thank you very much. Good morning everyone, hope everyone is doing well. I'll briefly update you on the activities since our last meeting and let's go on to the next slide. And this is a list of the members; next slide. So we had a good discussion last time around the charge of the task force and had agreed on developing some use cases to start identifying more pressing needs for improving the interoperability experience, and so we had good discussions around that. Next slide.

At the end of our last meeting though, we had roughly consolidated various ideas into four use cases and you all were very helpful in agreeing to do some homework, in small groups. Because we realized that these discussions may take quite long and given our time, we need to make progress in terms of identifying what use cases and what needs that should be prioritized, in terms of our discussions going forward. So thank you very much for taking the time, for doing the tasks so promptly and for holding meetings among your groups to fill out the needs framework for each use case.

So we had four use cases and four groups, and we will spend most of this meeting going over the homework as each group presents their suggestions. But before I hand it over to Jitin to lead the use case discussion, I also wanted to update you on a call we had last week with the Chairs of two other ONC task forces that are currently in operation; the API Task Force and Precision Medicine Task Force. And the purpose of the call was to help Jitin and I understand the scope of our charge better without duplicating work that is being done by other task forces.

So we had a good discussion and both the Co-Chairs of the Standards Committee and the Policy Committee were also on the call, which was very helpful for streamlining what each task force is doing. And it turns out the interoperability experience is quite squarely in the purview of our task force and at least from my understanding, none of the other task forces are necessarily focusing on anything related to that directly. So we seem to be in safe waters, I think, in terms of what we have at least understood our scope. But it was also helpful to briefly hear like the focus of other task forces.

So that was a meeting that happened last week and just wanted to share that information with you as well, if any of you had similar questions. But I think as we go forward we'll be ready to reach out to

those task forces or to the…through ONC to other members in order to either seek help or clarification as needed. Umm, next slide.
So basically, ah, that was the update and also the meeting today is mainly to discuss the homework assignment so, I'll hand it over to Jitin, unless somebody has any questions on just the last week activities.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Hey Anjum, this is Jitin; I'll add one thing to the summary of the discussion we had last week with the Precision Medicine and API Task Forces. As everybody here knows, when we first had our kick-off of this task force, Arien Malec in particular, you know backed up by Paul Tang had suggested that there are a plethora of different types of use cases that we'd want to think about and that we shouldn't think too narrowly about use cases, in terms of, for example, what, you know just what was defined in Meaningful Use Stage 2.

I think as a task force we did a pretty good job at the last meeting of coming up with a number of use cases. For those of you who recall, we had something like six or seven of them by the time we were almost done with the meeting and then we narrowed it down back to four, such that we'd have something that we could actually concretely work on and that, you know we felt would cover most of, you know most of the kind of needs you're required to satisfy those four would apply to other use cases.

Well, there are two things in particular that, umm, we needed to re-clarify with the Precision Medicine Task Force specifically, but as well as the API Task Force. One was, to what degree should we spend any time on precision medicine; and the short answer is, not really. We don't really need to spend any time there. If we come across aspects which are actually useful for communication to that team, then now we have an open channel to them.

The second thing that came up, and maybe this is more going back to that original meeting where Arien had suggested we look at those other use cases, was a question around quality management and we did realize that among the three task forces there is a gap in terms of anybody addressing the use case of quality management. You know, can, you know, for example can ACOs or MSSPs, etcetera reasonably collect the data necessary to measure and manage quality measures?

Now I don't claim to be any sort of expert on quality measures, but it was clear that from the use cases that we talked about over here and the ones we're going to look through today, we don't really cover that. We sort of touch upon it in some places, in terms of the recognition of the need for measures, particularly those measures beyond, you know, pure clinical data and looking at sort of the social and behavioral determinants of care. But we really don't spend much time addressing it and the challenges faced by that community of folks who, umm you know, are trying to get these measures and trying to implement these measures.

So, we'll probably want to do some work on a separate use case focused around that. I would love it if somebody here, anybody who is interested, would volunteer either here on the phone or via an e-mail to us to let us know whether you'd be interested in working on one mini-use case just around that as well, so we can bring it back to…back to this full team? I don't think I actually have tremendous definition of what that use case looks like, so if you have an interest in it, you know something about quality measures and you'd like to help us out, just let me know so that we can organize something offline and then, you know we'll bring back obviously the result right back to this public meeting.

Okay, does anybody have questions around that or around what…Anjum's summary as well of the activity of the last week?

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Anjum, this is Ty; I'll volunteer for that quality mini thing there.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay, thanks Ty.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Thank you so much.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Yeah, we'll fi…the first thing we'll do is we'll figure out what to call it, but thanks Ty, I got you here on a list. If there's actually somebody who can explain it to me, that'll be even better because I'm just writing what I learned in that meeting and like I said, I don't…calling myself, even pretending to be an expert would be a long stretch.

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Okay.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, okay. If there's anybody else, please let me know either here or via e-mail or let Michelle know; that would be helpful, then we can do a little bit of work offline and bring it to this team.

For today, as Anjum said, we're going to focus on the four use cases that we narrowed down to at the end of the last meeting. Each use case we assigned to groups of three people with the hope of getting both some expertise as well as some differing points of view for each of the use cases. And what we're going to do today is we're going to spend mos…almost the entire meeting focused on each of these use cases. I'm going to call on each sort of use case group, and I think we have…we have a lead for each group, to go through the use case, the needs they identified and how those needs are being met.

And then what we'll do is we'll, at the end of each use case, we'll discuss, we'll spend a little bit of time discussing whether the needs make sense, whether we all agree. We're really not into solution design right now, right? That's…I know that's something I'd like to underscore; we will get to solutions, I promise, but today we're still going to continue focusing on identifying the needs themselves so that we can make them as concrete, and that'll lead us both into the solutions as well as into the virtual hearings we may want to have where we will get more information from those folks who have more to say about the needs, to expand upon the needs themselves or to, you know, those who we think are actually solving the needs and thus that can help us transition from the needs to solutions phase of this workgroup.

So with that in mind, I'm going to ask for the Transitions of Care group, and I think Larry Garber, I think you're designated spokesman for this group, if you could help us go through this and then, you know we'll open it up to questions around it.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group

Sure, sure, thank you. So we were use case number one, which was titled Transitions of Care and the scenario is, as shown on the summary there, it's an automated query of a primary care physician's summary of information on a patient when the patient is in an emergency room in Florida. And in this case, it was an HIV positive patient. And we…the exchange that's described here is a pull, so we, you know right off the bat felt, well, that's not the only way transitions of care convey information.

But we started out focusing on the pull approach, and we did realize that, as you'll see when we go through some of the needs, we realized that some of the needs that we identified for the pull scenario do actually apply for other types of scenarios including push and subscriptions and so actually it does cover a lot of the transitions of care, and I think, I guess we're going to find that there's a lot of overlap in all of the different use cases we have here.

So in that summary statement, there were some, you know key words that we paid attention to. So first of all that it was an automated process; so, you know this is something that we, all of us on the group have realized from the work that we've done, that automation is the key to the hassle-free HIE that we're striving for and that…so we wanted to make sure that our needs address the ability to automate this query.

The fact that it's between two states, you know Massachusetts and Florida, is designed in part to address the fact that you know, there are often a lot of solutions that are just within a community or within a state, but we need to be striving for the ability to handle scenarios that do span large distances across our country. But also that there are differences in consent laws between Massachusetts and Florida; Massachusetts being among one of the most stringent consent laws above and beyond HIPAA, although I think as John Blair pointed out, New York I think was number one, but….so, you know, there is a huge variation and so that was also reflected here.

The fact that a PCP's summary was being requested is in part, you know respecting the fact that we're identifying someone's role as a primary care physician in relationship to a patient, so that was important. And then the patient's illness, you know having HIV is pertinent to some of the consent laws. And then finally, the fact that this is an emergency room visit implies that, you now this may be an emergency situation that needs to be conveyed to the primary care physician, which may…they may treat the release of information different because it's an emergency versus routine care. So there was a lot baked into that one sentence and we tried to reflect that as we went through the needs.

So I…so let's go to the, I guess the next slide, please. So the first need we identified as we're thinking about this in an automated way is that a patient has arrived in the emergency room in Florida and that we want it to be easy for the patient to convey this information, for the emergency room physician and staff to get this information and the holders of the records to be able to release it. So, umm first of all, the…so we're hoping that an automated process that after the patient's registered the electronic health record can actually start this process of doing the query. And in order to do that they need to know where outside records exist. Where are there records that are queryable?

And so we felt that there are sporadic implementations of ways to identify records, you know there are record locator services, there are relationship listing services; but it's nothing…there's no national standard for this for all types of encounters and there are sources, you know, of information, you know in the patient's personal health records. And as far as we know, there are no locator services for those as well. So we felt that the needs weren't being met and that there really is a need for a national view of how to find records that are queryable. And we felt that it's important, it's highly important because you

can't automate things if an electronic health record can't figure out where to find things. Should I go through all of this or do you want me to stop at each step for discussion?

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Hey Larry, this is Jitin, umm, I think…so I think what we'll do is, just given the time we have, we'll time box them to 15 minutes, but I do think it's worthwhile to at least go through the needs…the need itself, you know in worthwhile detail and whether it's being fulfilled, you can be more cursory. It's my suggestion…

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Okay.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
…but I do think it's important we kind of go through step-by-step and see if people…particularly at the end, if everybody agrees or disagrees and wants to add something or wants to question something, so there that we, you know so if we've gone through it wrong.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
All right, so I've got three sides of these and I'll try to respect your…the timeframe. So after an electronic health record identifies that, you know where records can be found, they need to identify where the records are that are of a particular type. In other words, they may want to query the patient's personal health record or they may want to query specifically the primary care physician or maybe query specifically the cardiologist for, you know, heart scenarios.

So we need to be able to identify the roles of these records in relationship to the patient. And we also felt that that was not really being met, perhaps sporadically, certainly not nationally. It's not a high importance, we felt it was a medium importance, in other words, heck, you know, at least if we can get all the records that would be great, but it would be nice if we could focus them on specific types of records to make the automated queries more focused.

For the next need, after its identified by the electronic health record in the ER where the query is going to take place; they need to know technologically how are they actually going to make a communication with that electronic health record that has that information, whether it's a PHR or an EHR? And so there has to be some listing of what are the capabilities of that system that we're going to be querying, you know what protocols are they…do they support? You know, IHE, you know XCA or what queries to…you know, what protocols do they support? What certificates are needed to do the communication and encrypting? What is the address that messaging takes place? So all of those technical capabilities.

So there are standards, and this is again one of those cases where the beautiful thing about standards is that there are so many to choose from. There are lots of different provider directory standards. And again, there's not a uniform national standard on how to identify how to contact, particularly across state lines. We felt it's high importance because if you don't know how to do the connection, you can't do the connection. Next slide, please.

So now that we know…now the EHR knows where to query and how to query, the EHR needs to be able to automatically perform that query, so that someone doesn't have to sit there in the ER and hit a button and say, please do a query now; but to automate that process. There are, you know some, again spotty places where this is being done but again, it's not a national requirement that EHRs support this

ability to do automated queries. We felt…thought that it was, you know highly important because you know people, if you're asking them to do a step to remember to go look for outside information, they're often not going to do it, particularly in busy emergency rooms. So we felt it was highly important to automate this process and make that standard functionality for electronic health records.

Next is that now that we're doing a query to…from Florida to Massachusetts, we need to be able to…the EHR in Florida needs to identify that there are particular consent requirements that are going to be required by that Florida…by the Massachusetts electronic health record that if those requirements aren't met, the Massachusetts electronic health record is not going to release this information.

So that means there need to be the ability to query and find out what are the consent requirements. So there has to be that messaging capability and also the standards for how to define what consent is required. It's not just, you know, for what purposes, for what types of information and also has to be…the EHR in Florida has to be able to assert back that yes, I have obtained this authorization from the patient for this purpose for these types of data. So we thought no, that those standards don't exist, but it's critically important in order for this to be done automatically.

And then the last one on this page, after the assertion is made by Florida back to Massachusetts saying, I have obtained this consent; the EHR in Massachusetts needs to be able to recognize that yes, it has appropriately been fulfilled for the information that I have, and that it is okay for me to release this. And no, there are no standards for that and yes, the need is high; just the same as above.

And then to the next slide, my last slide…our last slide. So now that the Massachusetts EHR recognizes that the information can be released, and it conveys that information to Florida. The EHR in Florida needs to be able to bring this information in, and we felt that there are three levels of incorporating or importing that data into the EHR. The lowest level is just to be able to display what was received from Massachusetts. The second level is to be able to bring it in with discrete data, but is manually reconciled between what comes in and what's in the electronic health record.

And then the third, and most sophisticated, is to be automatically being able to incorporate data, you know so that immunizations go discretely into the immunization section and recent test results go discretely into the lab section. And so in order to be able to do that, that automated piece, we need to have more information about the data provenance to know whether you can trust the data, you know as a keeper of an electronic health record, there are certain sources of information that I trust more than others. There are certain types of data that I trust as factual more than others and that will impact which of these methods I would potentially use, whether it's automatically loaded versus manual reconciliation.

So, we felt that most EHRs can display data that they receive. It's variable as to which ones can actually reconcile the data and which elements can be reconciled and that it's very sporadic whether some are being automatically imported or whether data provenance is being represented in the data. In terms of being able to…how important these are; display is critically important, if you can't see it, again you've wasted all this time. But in order to…whether you reconcile it or automatically load it, those are medium priority; they're nice to haves, but they're not critical.

And then the next one is, once the data comes into the EHR, someone needs to know that it's there. In other words, this automated query took place, but if you don't realize that there's data to look, the ER doc's not going to look at it. And so those notifications, from our experiences actually are variable, that

it's not…they're not all set up to easily notify someone or alert someone that there's new data to view. As I just had a meeting with one of our local hospitals, and that was exactly one of the problems they're having. So this is variable, it's critically important.

And then finally, in the emergency room, and this I guess came up part from the discussion that we had had at the last meeting is that, you know, now the emergency room is generating data, that data needs to be published in a way that others know that its available, whether it's the primary care physician or the patient, so that they need to publish back to a place to let other…let this national system know that they have a relationship with this patient and that they have data. And that's happening sporadically and it's critically important. And we're ready for questions.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, terrific. Thanks…thank you Larry for leading us through this. Let me open it up to questions and otherwise I'll queue up a couple of my own.

Janet Campbell – Vice President of Patient Engagement – EPIC Systems
So this is Janet, I had either a question or a comment back to the very first need that you had identified about the record locator service. Umm, one of the things I was thinking was that, I don't know if we want to do straight buckets of high, medium and low; but you kind of can use the patient as the poor man's record locator service. It's not as good as it could be, but it's, you know, that's kind of what you do today, right, with the patient; you ask them, hey, where else have you been seen and then presuming that you had the third need fulfilled, which is actually sort of the phone book to be able to electronically locate that place, then I would maybe think that that would be like a medium high or a medium versus a high.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
So actually…this is Larry Garber again. So I think that's an excellent point and I think it brings up a question is that, umm, I think you're right that we were shooting for sort of the ideal, but I think as you went further down, we did recognize that there are different scenarios and so I think that's a great idea to sort of, you know, have not just sort of the goal, but also you know second and best solutions and I think you're absolutely right.

Larry Wolf, MS – Principal – Strategic Health Network
Hi, this is…

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Great, any other…yeah, go ahead.

Larry Wolf, MS – Principal – Strategic Health Network
Yeah, it's Larry Wolf, so, I wonder given our charge about experience if as part of what we're doing we could also be pulling in some examples. So in the need met column it talked about that there aren't, you know, that there's choices of standards; so it might be helpful, I think, to sort of filling in the bigger picture if we could get umm, you know, from folks who've implemented these, what's working, what's not working.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
That's a really good point…this is Jitin. That's a really good point, Larry. Any of these needs in particular strike you as places where it would behoove us to get more perspective or were you thinking about the overall use case?

Larry Wolf, MS – Principal – Strategic Health Network
So I'm thinking that record locator services, there have been a couple of attempts to stand those up regionally and nationally. Umm, consent I know the CCC group, something Care Coordination Consortium or, I'm probably scrambling their Cs, did a fair amount of work around consent. Umm, I think some of the other national groups are trying to address consent and how it gets exchanged. So those seem like a couple of key areas where there might be some existing stuff to build on, umm, as well as examples of the query protocols, the profiles that have already been implemented.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
And provider directory, too.

Larry Wolf, MS – Principal – Strategic Health Network
Yeah, yeah, there's been a lot of work on provider directory in the last few years.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, great.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
This is Larry Garber again; I mean, one of the things we recognized is that, you know many times there were multiple standards and that, so it wasn't necessarily the lack of standards, there was often just the lack of agreement on which standard to be using.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
This is Jitin, yup, that's the story of healthcare at times, it feels like. Larry, I had a question for you actually, I think…actually I think both Janet and Larry Garber went to this point, but I'll ask it a slightly different way. As you looked across these needs, you know, one thing that struck me is that how important of the needs, you know, eight out of the nine of them are high and maybe to Janet's point, the first one you can argue is a medium high or something. But did…as you guys had your discussion within your group, was it clear whether any needs really stood out above the rest as, you know, this is a big whopping problem for healthcare and we need to fix it? Did any come, you know, stand up above the rest?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
You know, I…it felt like these were all part of a critical path, you know, in fact so many of the discussions that have taken place over the years are done at a high level and that when you get down to the nitty gritty of the actual steps that need to be done in the critical path, they really are all important. You know, and I think that's part of why we are where we are today, where we're seeing sporadic implementations; you know, there are some that are wildly successful and then there are other regions where, you know, it's just not happening, you know the communication during transitions of care and I think it's because, you know the devil's in the details and that if you don't get every step right, there's a manual work-around that makes it that much harder to accomplish.

So I, you know, it's can you communicate without a relationship listing service? Absolutely. Can do you it as efficiently and you know, reliably every single time when someone shows up in the ER? No. It's harder.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
In the ER it might even be impossible at times, actually.
Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Right.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
There a number of people don't come in conscious.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
And naked without any identification, as John Halamka points out.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
This is Anjum; I have a question, too, Jitin.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Go for it, Anjum.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Okay. Larry, thank you, this is great. Initially you mentioned that as you were looking at this case, in terms of like the pull that you also realize that there are probably some scenarios where push will also work in the same use case or similar use case. Could you explain that a little more like what kind of use case in a push scenario were you thinking about?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Well there, I guess what I was trying to say is that, you know if you wanted to do a push to, you know, I'm an internist in Massachusetts and if I want to do a push to Florida to a specialist who's seeing my snowbird patient, you know seeing…this is down there this winter, I would need to know from a provider, you know I'd need to know what capabilities their electronic health record has in order for me to send from my electronic health record to theirs.

So the provider directory services that we talked about needing for the pull are also necessary for this push scenario as well. So I think that was really the point I was trying to say is that some of the pieces here are, you know would be necessary for a push. And the other thing is that a query can also be thought of as two pushes, a…or multiple pushes. I'm pushing a request to send me something and there's a push to say, hey, but I need this consent. And there's a push back that says, here's your consent and then there's a push with the document. So queries are…can also be thought of as pushes.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Mm-hmm, very good. Thank you.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Sure.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay, does anybody else have any other questions, otherwise we should move to the next use case, in the interest of time. All right, going once, twice, thrice; all right, thanks…Larry, thank you so much; that was a really cogent explanation of the discussion you guys had, appreciate it. And we'll be coming back to it as we think about next steps that we shall take across use cases.

Can we go to the next slide? This is around shared care plans, and I believe it's either Shaun or Larry Wolf. I think Larry Wolf was going to…

Larry Wolf, MS – Principal – Strategic Health Network
Yup.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
…articulate for this group. Terrific, go for it, Larry.

Larry Wolf, MS – Principal – Strategic Health Network
Okay, so it's Larry Wolf. So Janet and I spent some time talking about this, we actually had problems connecting with Shaun, who's out of town, on the road this week. And I think our first piece was that, so as a broad comment that shared care plans connote sort of a very broad use case, that I'm actually sharing the…a rich, robust plan for a patient that includes goals and objectives and a whole host of things. But that in the detail, that this was actually describing something very focused, umm, an outpatient order for a blood draw and some lab work and have it performed by a home health agency, you know, the blood draw performed by a home health agency.

So we want to sort of recognize that potentially there's a broader discussion to be had here about shared care plans, but we focused on just the specific details that were given us. And then we added this context section, umm because it seemed like we were jumping into the middle of an established relationship, so we wanted to identify some of the things that were already in place.

So in this case that the providers have already figured out how they're going to address patient identity, whether it's…how they're going to link from one system to the other to recognize that they actually have a shared patient, that there's some kind of way for them to move information electronically and they've already figured that piece out. And that some of the specifics around home health agencies and requirements for care, particularly the CMS 485 has already been exchanged, so there's already a fair amount of information that's al…been passed back and forth among the providers; so having said that we dove into sort of the very specifics. So let's go on to the next slide.

Okay, so mostly we focused on the need column, and there's a general statement about need being fulfilled that applies across all of them. And much in the same way that the earlier use case, the team felt that these were all sort of a cascade of important things, that's sort of where we came down as well.

So the first piece is that, umm oncologist…go write an order, so there's a question about deciding how that order is going to be performed. So in this case there needs to be something that's going to track that this patient is homebound and that there's already a home health agency in place. So, you know a fair amount of complexity, and to varying degrees we felt that that was being addressed in specific EHRs,

but that there was no standard really for doing this, and sort of in general that there weren't overriding standards that would have made all of this, you know plug and play.

So once this order is created on the oncologist's system, it needs to be sent to the appropriate home health agency and wind up on a nurse's to-do list so it actually can get drawn. So there's a cascade of activity that has to happen inside the home health agency once they receive that order. And then we have all the activity around actually then processing the blood draw, right, which we talked about but I guess didn't wind up in our notes back. So the draw's been done, the specimen's been sent to a lab, assuming it's not a test that can be done, you know, at a point of care. So then we need to get results back.

So we want to get results back to the oncologist, as the ordering physician and go on to the next slide. And then we have a bunch of others to communicate the results back to. So, we'd like to get them back to the patient, and again, how do you get them to the patient? As their…the various providers have portals today, a patient might have a PHR, there might be Apps that are being used to communicate this. The lab could be directly communicating results back; so there's a fair amount of complexity around how results are communicated including to other interested parties.

And specifically one of those interested parties is the home health agency, because they're providing care and if they don't get the result, it makes it much harder for them to be informed when they're interacting with the patient. And then we have to mark that the order is done in the various systems that were tracking this, right? So the physician's initial order needs to be closed out, the home health agency's management of the order needs to be closed out as well. Next slide.

And then we have the couldn't do it case, right? We have to deal with the failure case. So if it couldn't be collected, we wanted to escalate this both within the home health agency and then back to the oncologist. So there could be a lot of reasons why it wasn't fulfilled, everything from the patient's no longer at home, they've been admitted to, we went to see them but they wouldn't let us in to, you know, we have a scheduled visit but it's not for another week, and the order did or didn't indicate the need to be done more quickly; things like that.

We'd like to get the results discrete so that they could feed decision support and they could be, you know, graphing as to other tests. And I think there might be one more slide…next slide?

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
I think that's it.

Larry Wolf, MS – Principal – Strategic Health Network
Nope, back up. That's it. Umm, so our sense was that there are lots of examples of this having been done in very specific use case…or very specific implementations, and we specifically pulled some of the language out of the original statement, which talked about this as a publish-subscribe model. Certainly that's a possible model; we also talked about that there could be care coordination that's done, because everybody is using a single EHR, which didn't seem to be the interesting use case.

There could be, these are all separate EHRs, but that there is some level of shared infrastructure that connects them across the EHRs; whether that's, you know everybody's using Direct as a way to transport or they've established HL7 v2 messaging among them and that they can send those messages for patients as needed. The lab might be using some intermediary to do results delivery, which is

certainly one of the models that the regional community HIEs have been using. So that there's sort of like a host of implementations that are out there that address bits and pieces of this, but we didn't feel like anything addressed the whole of it.

I think that's about it for highlights. Janet, is there anything you want to add?

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Silence is affirmation, is that what it is? Either that or Janet, you're on mute; one of the two.

Larry Wolf, MS – Principal – Strategic Health Network
Or we lost her.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
May…or we lost her, yeah. Umm, well, anybody have any questions for Larry?

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
Hey Larry, this is Jorge; I have a question. Did you address the interfaces that would be required to do some of the work that you were trying to articulate here with…for example to the different versions that…may or may not be running with regards to versions of HL7. Because, you know, I understand the problems…make and then what about things that…require for the actual individuals that have to develop these?

Larry Wolf, MS – Principal – Strategic Health Network
Yeah, no we didn't take it down to that level of, you know have…do they have compatible interface senders or receivers already in place in the EHRs…

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
Mm-hmm.

Larry Wolf, MS – Principal – Strategic Health Network
…in our discussion of the needs sort of broadly, which I guess didn't really make it back into the document very well. We recognized that today this seems to be addressed all through special purpose solutions…

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
Mm-hmm.

Larry Wolf, MS – Principal – Strategic Health Network
…and we didn't feel that there was a consistent set of standards that we could point to to say, there's success, let's build on that.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
Mm-hmm, okay. Thank you.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Hey Larry, this is Larry Garber. Along that same vein, I thought that there was, you know something that was implied through all of this but not specifically stated which was that there is a standard vocabulary for lab tests and…

Larry Wolf, MS – Principal – Strategic Health Network
Umm, good point.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
…and it doesn't truly exist. I mean LOINC…
Larry Wolf, MS – Principal – Strategic Health Network
Yup.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
…is reasonably good for a lot of lab tests, but it's certainly not universal, at least not, you know for instance the example I give is thyroid cascade where you start at with the TSH and depending on whether it's high or low, the lab automatically does other testing. And, it's specific to every lab and even within organizations we get our own flavor of that reflexing done and there is no LOINC code to represent that. So I think that's a, you know, I was just looking, we order 60,000 of those a year, so it's…this is still a big problem, I think, for a nation that in order for us to automatically do a lot of these processes, we really do need a national standard for a lab test compendium.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Larry?

Larry Wolf, MS – Principal – Strategic Health Network
Yeah, I think you're comment about the compendium is actually a key piece, right? Because individual labs we seem to be pretty good at identifying, but when we link them together in the kind of cascade you described, it often boils out the standards.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yeah, this is John Blair, Larry would you add orders to that, too?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Which Larry?

Larry Wolf, MS – Principal – Strategic Health Network
When you say orders, what do you mean?

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Larry Garber, when you were making your comment.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Yeah, I mean you can broad…you could probably generalize that to all orders, I mean, we have…radiology has the same problem, although not quite as bad.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yes.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
But it is still problematic. So I th…I would, I agree I would generalize it to, you know orderables, all orderables.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
This is Jitin; can I ask a clarifying question here on this sub-topic? So the issue is that we have LOINC codes, well, the good news is we have LOINC codes, but the issue is that the LOINC codes are not…is it that they're not comprehensive enough? There are not enough of them? They don't cover orders as well as they cover results? Or are you saying something different, are you saying actually we are in a better spot there than with acknowledge…that we should be focusing elsewhere?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
So I think this is Larry Garber again. I think that LOINC has gone a long way and…but they're focus initially had been, from my understanding, has been on the result component piece…

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Yes.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
…so that it was the pieces of the test, it wasn't the thyroid cascade orderable, but it was the TSH, it was the T3, the T4; those…the resulting pieces are what LOINC covers well and that the…and that they do a reasonable job of covering, you know, I don't know 80%, 90% of lab orders, but they don't cover 100% and, you know, 10% of a million labs a year is a huge number to not cover.

So, I think there…it's a…and it's difficult, the way I look at it is it's, you know they cover the hamburger and the onions and the tomatoes and the lettuce and the roll that you can get on your hamburger, but you know, McDonalds has a different burger than Burger, you know than Burger King than Wendy's and, you know so each one has their own recipe that they assemble these in and it's going to be…it's not an easy thing to necessarily have LOINC codes to represent every different recipe out there.

And it might equally be hard to say, okay, all of you, the hospital-based and national reference labs; you're going to have to conform to our LOINC standard; that's probably not going to happen either. So…and that's…and LOINC, you know doesn't, I think it has similar problems both in lab and radiology that there are some permutations that are just not represented.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay, got it. Okay. Anybody else have any other questions for Larry Wolf and team…and Janet and Shaun? Umm, Larry, this is Jitin again, then maybe I'll ask one more question, until we…before we part and go on to the next use case. As you went through this, and this might be a pattern, we've seen this as a pattern across all the use cases, you know, all the steps are high and to Larry Garber's point from the first use case, they kind of have to be because the problem is we don't have all the steps, then you don't actually have a process that works, so they kind of all necessarily need to be high. But at the same time, was there…were there any pieces here that you looked at as you guys we through, you know the discussion between you and Janet turned to, well, this is a huge…there's a huge problem here relative to not just this use case, but other use cases throughout healthcare?

Larry Wolf, MS – Principal – Strategic Health Network
Yeah, so I think that the underlying problem was the one of, we felt like there were bits and pieces of this that people had automated, but that it really wasn't there as a standard, that we couldn't just point to a piece and say, this is…this part is done; there's a consistent, established way of doing this, umm.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Right.

Larry Wolf, MS – Principal – Strategic Health Network
And then it would be, you know I think we sort of, you know the piece that wasn't in here about handling the lab specimen, which she and I had talked about, Janet and I had talked about, but didn't make it in the summary, was sort of a more detailed workflow piece that we decided not to sort of roll into this case. But in fact that maybe that's an example of a lower priority need.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
This is Larry Garber; can I add one last thing here? Similar to the implied need for, you know standardized vocabulary for the lab test, there's also an implication that the order number is passed from one person to the next to the next, to the next. You know, because when that oncologist places this order and eventually they get a result that comes back, they can't necessarily check that it's done unless it conveys the original order number that, you know, they…it's very hard to match these things up, you know, without the actual original order number that they started sending in the first place. So I think you may have a need that each person along the way continues to pass along the original order number, which HL7 can do, but the systems aren't necessarily required to do it.

Larry Wolf, MS – Principal – Strategic Health Network
So Larry, that's really a good place to sort of acknowledge, just like there's a piece in here about the individual…the organizations have to agree how to kind of identify this individual, that the rule's to identifying the order as well and potentially each organization that's handling the order is going to be adding their own tracking. And so there could be really a cascade of pairs of organizations and order IDs that need to be tracked as the order moves through its history, so as it gets shipped back, people can look for the piece that's theirs. And that's a level of sophistication that I don't think generally is implemented.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Agree.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Larry Wolf, this is Anjum; I just had one more question, clarification. So we've discussed like labs and also to an extent radiology and orders, but would the same issues be applicable to medications and prescriptions, as part of care plans?

Larry Wolf, MS – Principal – Strategic Health Network
Well I think, you know there's a whole set of issues around meds and the order IDs on meds that my sense is generally aren't dealt with at all and that there's a general, particularly in the outpatient world, there's a general lack of consistently discontinuing orders that are no longer active, so I think that there's a much bigger discussion around how meds get handled.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Mm-hmm.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay, this is Jitin and I'd agree there's probably some overlap here as well though, but then there's a whole new set of other issues at other times of care, like meds brings along, is that a fair way of saying what you just said, Larry?

Larry Wolf, MS – Principal – Strategic Health Network
Yeah. Yeah.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Terrific. All right, I suggest…I feel like there are a lot of other questions we can go down here, clearly lab results is a huge part of healthcare and the opportunity here to discuss IDing orders, IDing persons using pub-sub or push in heterogeneous EHR settings. I've picked up a whole lot of notes from what you just shared, Larry, so there's probably a large set of other questions we can run into, but why don't we go on to the next use case, so that we at least have covered all today. And I think the next one's going to be really exciting as well.

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Okay. Hi guys, this is Ty and Jan for the patient initiated data, and I'm putting myself on timer to get through this in four minutes. So when you hear my timer, that means I should stop. So, umm, the backdrop to this one is, we're thinking that the caregiver has a patient that perhaps might either be in a homecare setting or a setting where they're having the caregiver activate the data process for them. And it's probably also a patient who just got a new drug, because this is like a hero caregiver who's like going through all these steps just to track a glucometer read to an A1C.

So essentially the caregiver gathers notes and lab results from a PCP, which we're calling EHR1 or medical home EHR and then from the specialist, EHR number 2, and queries the…those EHRs to find A1C results and then tries to map out, maybe it's a 90-day read of the sugar. And then we want to know, in the last 30 days, you know, patient was put on a new drug, so what happened? So that's why they're trying to match up the glucometer feed with what's happening with the AIC; so it's a very realistic case when someone gets put on a like a third or a fourth drug, things aren't working, we need to know right away.

So, down to the exchange issues, the pull and push; the caregiver is really trying to pull the A1Cs and then generate some data, either through secure messaging or some other way back to both providers that hey, here's what's gone on in the last 30 days after the new drug. So as long as the patient has given consent, and we'll talk about that, that's one of our top issues by the way, on this one. And the caregiver should have the ability to access, monitor and submit data back and forth, which is our second top issue, which is, how do we, you know, get that data flow or the routing of that data, which is usually unstructured, free text, you know back and forth between the two…to the medical home EHR and the other EHR? Obviously we're going…an HIE through that process.

So looking at what the first need is, we're on the next slide; umm, the patient needs to provide authorization. So right now when we look at consent, it's usually paper-based, although there are ways electronically to do this. And the authorization between EHRs we feel is not quite there, so that could be

a policy issue around trust communities and how do we establish that process to ensure that the consent follows the data beyond one-to-one, which is the provider to patient relationship or provider to caregiver in this case to one-to-many, which would be, you know if a patient say for example is even from a public health setting where they have a different structure and the provider or specialty or EHR2 is not in a public health infrastructure. So we put it as a high, and it's got to be made simpler and that patient portal component of it as well, if the patient is using a non-EHR portal, that becomes kind of another issue.

Password controls, Jan really, and I both are big privacy advocates so we really want to focus as well on, you know what's happening with password controls because in this case, the caregiver has access to the patient information. But, you know God forbid if something happens where that patient no longer wants the caregiver to have access, and real world these things happen, how do we, you know revoke access if that's necessary. And that obviously could be done with a password controls.

Down to the next one, patient's caregiver needs a query, be able to query the medical home EHR and then the specialty EHR, that can be done, you know, to some degree in the API process or the C-CDA exchange process. Although it's a bit…gets a little clanky, if you will, when you talk about the patient doing that, but provider-to-provider could be…it is generally made available. So we put a sometimes there with Direct or an API recall.

And then technology standards for third party Apps, because the patient is also trying to use a glucometer, you know we need to kind of see where the FDA is going with that for even, you know the FDA generated data, approved data versus non-FDA generated blood glucose meter that is also able to perhaps do like a Wi-Fi exchange of that data. You know, we actually thought that might be a way to actually kind of interject, umm, current technology, right? So the patient would be able to have that data sent without any input, graphing or any other management.

But the patient's caregiver needs, so I think I just kind of spoke to that, but I'll say it again that getting that data for the glucometer to the cardiologist or endocrinologist in this case and the medical home doctor is the goal, that's what the hero caregiver's trying to do. And right now that's rarely done, I mean I thought this is an amazing caregiver that's actually trying to do that when actually they could probably just stick it in the mail and…but, you know, that's not what we wanted to do, but just trying to go through these heroic efforts to share glucometer data. Next slide.

Okay, our last two are the patient should be able to specify that this was the data entered by the caregiver versus the patient…the providers. In the patient portal there's an auditing process that can allow that, umm there's also free text for that as well, but governance is needed. So this gets back again to a policy, perhaps not so much a technical.

And then the last box, need to appropriately route incoming data. Like I said, that's our second sort of big challenge right now, the first being consent; how do we consent across the enterprise and across the exchange. And then how do we route this data that's coming from the patient. Again, that's rarely kind of done right now, it's usually sitting in the portal somewhere versus making its way back route…back channel to providers, including the specialist. But perhaps that could be something that is a feed picked up either by an HL7 query or something like that. So, that's our…that's what we've got so far.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Awesome, thank you Ty. So questions, questions for Ty and the team on this use case, which is clearly very different from the…well, each one of them is pretty different, that's what we did in selecting them. Anybody have any questions around this one, on the patient-centered part of it?

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Hi, it's Larry Garber again. I have a comment; well first of all, I think this is great, nice work. The one thing that I think was sort of implied but not explicitly stated as a need was the ability to authenticate throughout the process; authenticate that the…who the patient was so that you know that it was them that gave proxy access to the caregiver. Then be able to authenticate who the caregiver is, to know that communications are taking place with the caregiver. And then be able to authenticate, you know that it's their glucometer that is sending the data and not some, you know strange, you know someone…some hacker's glucometer sending data. So I think that authentication piece is, I think, probably just the one need that I didn't see here.

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Yeah. We definitely talked about that under kind of the governance structure, umm but I agree 100% that that's, you know that's like one of the other many issues when we start taking data from the outside world in is, you know, who's on the other end of that data. So we agree 100%.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
I…

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
This is Anjum…

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Go for it.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Ty, this was very helpful, thank you. Did you also discuss at least if there is like automated patient-reported data where the caregiver is not an intermediary, but it happens automatically and will that be any different for any other needs on that?

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Yeah, great, great point. We put that down as device standards, although I didn't talk to it much, was trying to keep mine brief. We know there's a lot of work going on right now with Bluetooth and you know different public-private initiatives and approaches. So as this goes further along, we'd like to evaluate some of those and add that as part of recommendations as to what's available.

Certainly, you know in the AI world when we move, you know downstream here, we're going to have machines talking to machines and it's really going to be great, but right now the top two challenges we saw really is consenting and ensuring that we're consenting across the exchange. And then, you know being able to route data from kind of the outside world in and taking a big sort of stake at dealing with unstructured text, either through NLP or contextual analytic tools or things like that. Because typically

patient's aren't going to send any structured codes or anything, it's just going to be a lot of things in there that we have to dig through, text mine and figure out, you know where does it apply?

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Mm-hmm. Thank you.
Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Hey Ty, this is Jitin. Did you guys discuss any particular circumstances where this currently works well? Or was it felt that this is largely not worked well across the board or really not been attempted across the board?

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Yeah, umm, if you're in an ecosystem that's kind of one EMR or medical home EMR world, this is probably your most successful plan right now is to have a specialty and sort of the ambulatory EMRs is the same and the portal is the same. And there's the secure messaging built in that whole network ecosystem but, you know once you get beyond that, it's a little…there's not much, you know hope at this point. I think that's probably why we're working on this use case.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Okay, terrific. Thank you.

Larry Wolf, MS – Principal – Strategic Health Network
Hi, it's Larry Wolf. One of the things that I've seen often happens where patients have home monitoring gear is there's some third party that acts as the manager of the data collection gear, uhh, and that they tend to have a way to communicate with that gear electronically and run some analytics and often have a help desk to interact with the patient. And then they generally are not supporting automatic links back to the EHR of the ordering providers or the overseeing providers, but certainly that could be one method to put some infrastructure around this that doesn't require full automation of the devices and having the patients have to set this up on their home networks and things, but would use a third party to manage the devices, collect the data, look for alerts and then sort of manage the critical data or the summary of the data back to the EHRs.

Ty Faulkner, MBA – Adjunct Professor – Lawrence Technical University
Yeah, I agree. And the other piece is that third party App operating at the exchange level so that all the EHRs can kind of tap in at that level that that might be another approach as well. So I put that down for continued follow up, along with the authentication piece.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, any other questions for Ty, otherwise we'll move on to the last one. All right, thanks Ty. Thanks Ty, Larry and Larry so far for the three use cases and let's go on to the last one, I believe data transparency for patients and PCP; another rich and very different area. I think George, you're going to lead us through this one, is that right?

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
I am George; I'm going to lead us through this one, yes.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Perfect, take it away George.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts

So we got a great start on this use case with the work from Phil, who actually I think was unable to attend with us today and Jorge and so that gives us for this use case a Veterans Health Administration, a patient advocate and a vendor perspective. There is a lot about this use case that we've talked about, it's familiar. But what's different here I think is the focus on data transparency and so when we look at the needs, I think we'll find that as we talk about transparency, particularly for the patient but also for members of the care team, some of what we've talked about previously in terms of transitions of care and provider directory, we…it may…we may find that the needs are a little more broad when we extend out to cover all of data transparency.

As we looked at the needs, I think we could classify them into four great, large, big buckets. There's, you know there's the typical transition of care, this is about a hospital discharge of a patient, happens to be a high-risk patient, but I don't think that necessarily matters so much. Discharge to post-acute care and involvement of all the members of the care team, so it's all about transition. We're going to talk about a need for reconciliation of content and access to that content by all the members of the healthcare team. We'll look at some very specific needs that come about, I think introduced by data transparency around medications. And then the last big bucket would be about care plan.

So we can go to the next slide. This slide has two rows of needs, but basically it's about the transition. The first part is the proactive piece about transitions of care and the second need is about the dynamic need for sharing of content. So in the prospective, proactive requirement, there's the need to identify. So we need to know about the care team, the caregivers, the PCP, the specialist, the home health agency; who is involved and how do we reach them? How can I a shared summary be sent to them? And it's not just a summary, but it may be also other documentation.

We felt like this is sometimes partially met, we know, you know hospital discharge summaries make their way to PCPs and other healthcare team members. It's, you know, partially met but probably not satisfactorily to our needs today. We worried a bit about the identity and identification process, thinking that might be a bit fragmented. Sometimes outside of the hospital, for example, care directors become involved and so the actual identification of all the members of the health team probably is a bit fragmented and work would need to be done there.

Dynamically, umm after the fact, it's always I think possible and probably a great ability to have…to be able to, upon request and of course validation of the request, to be able to create and disseminate a discharge or discharge content after the fact. Care team members change over time; there are lots of different reasons for providing that information after the fact. So from the transparency perspective its really all about finding the way to identify all the relevant and pertinent providers and to be able to share that content.

The next slide addresses a need around reconciliation, so if we go forward one slide. So this is written very specifically about the need to reconcile the patient chart data. We might find that that's too broad, and we said, this really isn't done today but we do have reconciliation that happens, quite often manually, typically piecemeal, but we believe you know reconciliation at least for medication list and allergies is a pretty common event that happens at umm patient-provider encounters, but lots of work to be done here. And still is, unfortunately, probably a manual process.

So transparency for patient and all healthcare providers, we looked focusedly at medication, so if you go to the next slide you'll see there's a need around access and here it breaks down into some very specifics around meds. You might generalize this or we might make another need around problems or allergies, for example, but let's just take the med list here.

So around medications for transparency, everybody needs to know about the medication list. Adherence and reconciliation come into play here and we said well you know, we know that sometimes fulfillment information is distributed and updated, but adherence is quite again a different story, probably something that's not well addressed whatsoever today and yet it's a very important piece, so we just don't really know much about how we know about adherence and compliance to date.

And then the next slide shows again more aga…about medication management. Here we don't know who's managing the medications, how they're being managed. Post-discharge medication management might be handled by a number of different, and ever-changing, members of the care team. And certainly the patient needs to know about their medication management and who's doing this. And it probably extends to all the members of the healthcare team, and even in payers, if we're very broad about that definition. Home health certainly needs to know and the PCP certainly needs to know.

And then I think we have one more slide which…no, I'm sorry. Last bullet on this one, the last need is about care plan. So, it seem that with reconciliation of all the chart information, and with the need for transparency around whom is caring for whom on what date and time and when and how and where, we need access, and we need consistent transparent access to the care plan, not just for medication management, but for all the follow up and all the other orders and results and plans that are going forward around…for the patient. So there's our four large groups.

Unfortunately we didn't pick any one area that was more high than any of the others. We did see that there was some need being fulfilled marginally in some areas, but it seemed that all these were important and high needs.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right. Okay. Sorry, I just lost my screen for a second, just lost connection; all right, there we go. All right, thanks George, appreciate it. Anybody have questions for George and the team around this use case?

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yeah, this is John Blair. Just one comment; I thought that was very good what you just went through, George. Something that we're noticing as we're…as we work on this is the timeliness of that document transfer. A lot of the hospitals sent those out in batch, umm, at various times during the day and particularly in the acute to skilled nursing transfer, we're pushing really hard on clinician-to-clinician hand-off, whether that's nurse-to-nurse or physician provider-to-physician provider, whatever.

But on the acute to skilled nursing and then even on the acute to community where there's the clinician-to-clinician hand-off, if the receiving organization hasn't received that document almost real-time in transit…in discharge, they don't have anything to look at to go over that. So, just another thing I'll mention…just wanted to mention because the capability is there, but a lot of organizations don't do that real-time on discharge.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
I think that's an important point, John…

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
This is Larry Garber.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
…about clinician-to-clinician and not organization-to-organization; we need to try to find a way to keep this at the person level.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yeah, and it's okay for organization-to-organization, but what I'm getting at is when the discharge nurse or whoever that is at the hospital speaks to that receiving organization and that individual, that document could have come into the organization, but that person that they're talking to needs to be able to look at it.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
Mm-hmm.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
And this is Larry Garber, I want to reinforce what John was saying is that we see this, I'm aware of one of the major Boston hospitals that batches all of their CDA documents once a day and, you know, if you miss that batch time, which is I think it's like 5 in the afternoon, you don't get it until the following day. So that's clearly problematic in the scenario where someone's going to a nursing, a skilled nursing facility.

The other thing I wanted to say that I, this is also, I agree, this is great; that one of the things that we've been seeing and I've heard lots of complaints, you know around the country is that when we're sending structured document like something, one of the consolidated CDA documents as the document that's exchanged, it doesn't have the free text descriptions and explanations that really give the flavor of, you know what happened and what really was most important.

And I've seen a lot of hospitals just sending CCDs, which really weren't, you know, there are better document types that could have been sent like the discharge summary or there's now a new transfer summary which convey more information. But if people are not putting in some, you know free text explanations of what's important and what's really happened and what we should be paying attention to, it really loses a lot of the flavor and communication capabilities, even within problems in a lot of the consolidated CDA documents, the problems just have the diagnosis but no explanation that further qualifies what, you know the nature of that problem. So I think we really need to make sure that we've got the ability to convey free text and encourage it and make it easy to do in these scenarios.

Jorge Ferrer, MD, MBA, LSA – Biomedical Informatician –Veterans Health Administration
This is Jorge; that's a very good point that we did discuss in the group that oftentimes the clinical nuance that's required is missing, so you volumetrically have these documents that you have to comb through that are very labor intensive for the clinician, but that have a very low yield with regards to the information that's relevant at the point of care clinically in an acute phase. So, that's exact…that point was well heard in the discussion and I appreciate you bringing it up.

Larry Wolf, MS – Principal – Strategic Health Network
Hi, it's Larry Wolf; I'll jump in with a comment about umm, the value of what might be called hybrid communications, where you've got an electronic document that's been sent or some information that's being reviewed in coordination with a phone call so that the clinicians are talking to each other, one-on-one and that they're reviewing a common document and that they can do that live; here's what to pay attention to. Oh, you've got a question, let's work this through.
I think about in non-clinical settings we do this all the time, right? We're using a shared presentation that we're all talking to. I've done a lot of work with; you know shared documents that are being edited during a call. So, outside the world of EHRs is this sort of the evolving norm of people working together and I think the need for a real-time transmission becomes all the more important around being ab…actually able to have that conversation.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yeah, this is John Blair again. I just want to amplify on that. I mean we've now added checklists on the sending side and receiving side and it really pulls out the need, a checklist for the clinicians that are talking to each other, it pulls out the need for this…the immediacy of this and if we're looking at a 24 hour phone call post-discharge from the primary, you know the patient-centered medical home or the ability for the clinici…the nurse that's receiving the patient in skilled nursing. This is just, if you don't have this, you can't really accomplish that.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
It's George again, I'll just follow up. I think those are wonderful comments, especially around the importance of conveying content to providers. I think in our techno-geek world all too much importance maybe has been given to the bits and bytes that machines process and we maybe have forgotten that the primary purpose is to convey information from provider to provider.

And Larry, I loved your comment about the hybrid communications and just kind of a follow up on that. One of the reasons that works so well, and this would be a challenge, potentially a challenge in today's health IT exchanges is it works well because, for example today we're all looking at the same or essentially the same view of the same content. Your screen may be larger or smaller than mine, but we're all looking at use case slide number four and we know we're seeing the same rows and columns on that display. And when we're talking about the display of CDA-based documents, that's not always the case; and that presents a challenge, I think.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Yup, that's a really good point.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
So this con…this is Jitin. So that's really the concept of shared con…well, context is probably not the right word, but it's shared context in a computer science sense of the word context. That's the only way you can really be sure that the other person's seeing the same display, unless you literally are using the same converter, right? Did I lose you there, George?

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
Same context in the computer science…

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Yes.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
…terms. Yeah, I mean I want to know if I'm talking to somebody that, and try to imagine being on the support side of a call or computer support, it's so much easier, support got so much easier when the support people had the ability to connect to our systems and see our screens as we described problems.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Yes.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
Without that, we're, you know, it's the elephant in the room problem.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Yes, okay. All right, terrific. Okay, this is good; this is really a rich discussion. I'm glad…thank you John for kicking off a few different other dimensions to this, not just this use case, but to all the use cases around timeliness, sharing of the screen, the value of free text, etcetera. I think those are actually beautiful cross-cutting ideas that are probably shared between multiple of these use cases.

Anybody else have any other questions for George before we kind of look forward and wrap up? Okay, thanks. All right, let's go to the last slide of the deck. All right, just to reset the context for everybody now, thanks to all the homework that everybody here did, we're actually largely on track, and I think we're also starting to see some sort of concrete steps we've taken and sort of concrete progress we've made in terms of the needs.

Umm, as we you know, look at today's meeting, today's meeting was all about trying to nail down a good set of needs and apart from the quality measures use case, which a few of us will do offline and bring back to this group, we're going to start pivoting towards solutions. But we still have a little bit of work do to before we get there and one of those things is we know that we want to get other experts to weigh in and help us, you know both nail down the needs and, you know help us share what are the types of solutions that can make sense that are indicative of where things do work.

And so the next meeting which we have, which is Wednesday, April 20, that's not a public call, that's going to be pri…a call where the task force members can get together and discuss what it is they'd like to see from the…from those hearings. Obviously we'll be able to get public comment into…both into the hearings themselves and before those…before we plan those hearings so that if there's any, you know, questions or concerns, you know that the public has, they can share with us and that can feed into our discussion.

We tend to keep that a discussion, a private discussion just so that we can talk very openly about specific individuals or some specific companies, etcetera or organizations who we think should or should not be present in order to form a good representative example of body of knowledge from out there in the world.

The next immediate step is actually that Anjum and I probably have some homework now. As we've gotten this use case, these needs from everybody over here, we've taken down, at least certainly I've taken down copious set of notes. I know that we're…everything here is transcribed as well. We're going to sit down behind the scenes a little bit, try to see if we can create some sort of framework that articulates what are the big needs we heard, you know, especially those ones we heard again and again, but really what's that full list versus what use cases they appear in and be able to hopefully pull out

some insights from there and share back with you, with everybody here in advance of the next meeting. At least that's my hope.

There's not a whole lot of science to this, it's a lot more art so if there's anybody here who has some suggestions for what would be a useful analysis of the learnings that we've taken so far from today's discussion and the homework leading to today's discussion; please do share with us. It will be helpful for everybody in this committee as now we…and one thing I'll just point out, now everybody has worked on these use cases, and that's very helpful. And as we look forward now, we kind of…everybody here represents all the use cases, so do help us think about how do we ensure that we're pulling out the kind of insights that really can help interoperability more broadly than every specific use case that was talked through today.

Anybody have any comments, including, I mean, Anjum, do you have any other comments, anything you'd add before we turn it over to public comment?

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
No, I think this was a wonderful discussion and thank you everyone for this. And I will just see to it that, you know, we'll try to obviously, as much as we have recorded in our records and other places, try to bring these things together. But if you have made a point during these discussions that has not been captured in the final product, please send us an e-mail when you see the next iteration of this because we want to make sure that, you know, any points made by the members are included in our thinking, in our collective thinking. So, but thank you, this was a great discussion.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, terrific. Anybody else have any questions or comments for us?

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Jitin, this is Michelle; I don't think we have time for more comments or questions, I'm sorry.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
All right, well then…

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Can we go to public comment?

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Actually, the only thing I'd say then is that please, do…if you do have questions, comments, etcetera, please do reach out to us offline so that we can give the best kind of result back…readout back possible of the work that was done here. Thanks Michelle, we'll turn it to you.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
Lonnie, can you please open the lines?

Public Comment

Lonnie Moore – Virtual Meetings Specialist – Altarum Institute
Yes, certainly. 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. If you are on the telephone and would like to make a public comment, please press *1 at this time.

Michelle Consolazio, MPA – Federal Advisory Committee Program Lead – Office of the National Coordinator for Health Information Technology
So while we wait for public comment, again, let me thank everyone for doing all your homework; we really appreciate it. If you have thoughts, too, before our meeting on April 20 about who or what you'd like to share from during the virtual hearing, we'd love to have those ideas as well. During that call we plan to review a framework and, as Jitin mentioned, talk about organizations and people, so. And it looks like we have no public comment; so thank you all and have a wonderful rest of your day.

Anjum Khurshid, PhD, MPAff, MBBS – Senior Health Systems Strategist – Louisiana Public Health Institute
Thank you.

Lawrence Garber, MD – Internist/Medical Director for Informatics – Reliant Medical Group
Thanks a lot.

Kelly Aldrich, DNP, RN-BC, CCRN-A – Chief Clinical Transformation Officer- Center for Medical Interoperability
Thank you.

Jitin Asnaani, MBA – Executive Director – CommonWell Health Alliance
Thank you all, bye, bye.

George Cole, MS – Principal Scientist, Community Solutions – Allscripts
Thank you.

A. John Blair, III, MD, FACS – Chief Executive Officer – MedAllies
Thank you.