NATIONAL QUALITY FORUM

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Operator: This is Conference # 82975685.

Welcome to the conference. Please note today's call is being recorded. Please stand by.

Poonam Bal: Hi, everyone. This is Poonam Bal from NQF. Thank you for joining our sixth webinar. And the goal of today's webinar is to really talk about the work that you've been doing for interoperability homework assignment we sent to you and what changes we've made from that point on. And as you've seen from the first document and now the current document, there have been some significant changes.

And as we go through, we wanted to first start out with just giving you an intro on what our thought process was, some of the guiding principles that we've been taking into account based on your discussions and so on. So, we'll jump into that.

Before we do though, I did want to do a roll call so I'll ask (Vanessa) to take roll call. Please make sure to mute your computer if you're on the webinar and on the phone. Thank you.

(Vanessa)?

(Vanessa): Good afternoon, everyone, apology in advance if I pronounce your last name incorrectly. I'll start the roll call.

Is (Rainu Kaushal) here?

(Rainu Kaushal): (Rainu Kaushal). Yes.

(Vanessa): OK. And how about (Mark Savage)?

(Mark Savage): Yes. Thanks much.

(Vanessa): OK. Thanks.

And (Julia Atlimilsi)? OK.

How about (John Mark Abis)?

(John Mark Abis): Yes, I'm here.

(Vanessa): Thank you.

(John Blair)?

(John Blair): I'm here.

(Vanessa): (Chris Boone)?

(Chris Boone): Should be muted now.

(Vanessa): I'm sorry; did you say you're here?

(Chris Boone): Yes, I got cut off.

(Vanessa): Oh, OK. Sorry about that.

(Jason Buckner)? OK.

(Hans Studenik)?

(Hans Studenik): Yes, I'm here.

(Vanessa): OK. (Kimberly Chondy)?

Is (Sarah Dwinwidee) here?

How about (Mark Sprees)?

(David Hershorn)?

(David Keybor)?

(Kerry Catchersut)?

(John Loof)?

Is (Terrence O'Malley)?

(Terrence O'Malley): Yes.

(Vanessa): OK. Thank you.

How about (Frank Opeca)?

(William Rich)?

(Bill Rich): Yes.

(Vanessa): OK. Thank you.

(Robert Rossetti)?

(Robert Rossetti): I'm here.

(Vanessa): OK.

(Robert Uden)?

(Robert Uden): Here.

(Vanessa): (Teresa Sullivan)?

(Teresa Sullivan): Here.

(Vanessa): OK. Thank you.

(Jason Shapiro)?

(Bruce Bigsby)?

How about (Allen Swanson)?

(Allen Swanson): Here.

(Vanessa): OK.

(Steven Waldren)?

(Steven Waldren): Here.

(Vanessa): OK.

And (Maryanne Gigger)?

(Vanessa): OK. Is there anyone else on the line that I may have missed? I'll hand it back for Poonam to do the agenda.

Poonam Bal: OK. Perfect. Thank you so much. I make (Vanessa) do the hard part. So, for the agenda purposes, as I said, we will view an overall overview and also set the expectations for this webinar. Hopefully this part of the presentation will give you a little more foundation of what we're hoping to gain from this webinar.

Then we'll go over the comments and updates to the domains, subdomains and the concepts and existing measures. And at the end of that discussion, we'll

do a short member and public comment and end with next steps so you know what to expect coming up.

So, first I want to start out with just doing an overview of the original document that we sent to you. (Vanessa) is going to do a screenshot real quickly of that. Even though the document is changed, the reason I wanted to go over this really quickly was to give you basically an idea of what our mindset was when we were going through it.

So, originally we did give you the domains and subdomains. This portion was really to make sure that our understanding of what the domains and subdomains were matches what your vision was for these domains and subdomains.

As you know, many of them did change, not the domains per se. We did change the wording for what was originally used to accessibility mainly based on the fact there was much conversation about how usability and use were very confusing and we needed to have a little more clarification. We made that slight wording change but overall kept the domains as they were. And then for the subdomains, majority of them are kept the same but we did try to clarify some information wording-wise, make sure that they're all clear, that things weren't repetitive and such.

And then if you go down to the measure concept section – almost there, sorry. OK. So, as you can see, we set up the domains, subdomains and then we had a section called Idea. We did remove that from the final document we sent to you. The goal of that Idea one was because as you know during our discussion, during the in-person, not everything was actually a measure concept.

A lot of things that we talked about and mainly because of a time constraint we were only able to say like in general this would be something we think is important to measure, but the exact details of how we would measure that wasn't exactly pinpointed during the meeting. So we wanted to make sure that you knew that we had those ideas and we understood that was really important

to you, so that's why we kept that column in the beginning when we sent you the document so you could kind of understand that.

And then we got the measure concept. Many of these are measure concepts you came up with. Some of them are things that staff tried to take from your discussions and create those so you can have something to respond to and instead of trying to create ones offsite.

Then next, we had another column for existing measures; these were measures from that homework assignment we had you do, seems forever ago, but hopefully not that long ago of going through current measures and seeing which ones of those fit into these domains and subdomains. And we kept them initially separated so it would be easier for you to see what was the measure concept and what was an existing measure. But for the new document we merged them together, because in the end the goal is to see what already exists in these areas and what's missing.

And so, that's why they were put together because it's supposed to be a comprehensive list I think. This is something important measure. It is being measured, great use of that, but here are some other things that we need to measure and they're not currently being measured. And this is how we think they should be. So, that's why those two were combined together for the new document.

And then you also see the timeframe section. We did not incorporate that in the newest version for you because we thought that this time was better used for gaining consensus on the domains, subdomains and measure concepts versus discussing how actionable are these items. We will still discuss those, just not during this webinar. We want to get consensus on these items so we can work on the framework before we get to that point. But it's not lost; it is just not a focus of this webinar. And so, that's the basic structure. We could go back to the slide deck.

Some more thoughts that I wanted to kind of put out there and why we structured it in a certain way or our thought process for maybe changing a

subdomain or combining subdomains that you may have not initially understood. So, one thing was we want these subdomains and measure concepts to be something that is the result of measurement. So, whatever that item is, if measuring it does not result in change, then it's not really something we should put into this framework because the goal is to actually cause change.

So, I think an example of this would be data-blocking. It's something that we talked about during the in-person meeting. Many folks felt strongly about it. When you think about it, we know data-blocking is an issue and, yes, we can track how often data-blocking happens. But in the end, what does that measurement, measuring of that data-blocking really going to result in change. It has to be something that's taken on by those organizations that for whatever reason are causing that data-blocking.

So, we didn't really think that would be something that measurement would actually solve. That may be something more of a better collaboration or something of that sort which would be covered in other measure concepts and ideas that we're talking about.

The next thing was that the subdomains and the measure concepts should be clear and distinct. We don't want anything where people are like well, this one I don't really know if this measure concept falls into this domain or, I mean, this subdomain or this subdomain; they both seem relevant and it's difficult to tell the difference.

We did try to do that for the first round. I know a lot of the comments showed us that we didn't do as great of a job as we could have. And so, this new version we've really tried hard to get rid of anything that seems repetitive or combined together subdomains that otherwise seem like they can fit together and still get us the same results.

And the last thing we had for kind of our thought process was that a measure concept should be a full description of the measure including plan target and population. And as I mentioned earlier, any measure concept, something we

discussed as a measure concept during the in-person, if it wasn't fully developed during that discussion, we did bump it to an idea and then tried to actually create a measure concept out of that idea.

Next slide, please. And so, beyond just on our thought process, these are guiding principles that we will be incorporating into the framework and also should kind of guide your thinking as we go through this. One, interoperability is more than EHR to EHR. We heard this various times during the in-person.

And so, we wanted to keep that in mind, when we're doing the measure concept that they are not only for that purpose; that they go beyond that. Also, there are various stakeholders from different settings that are involved. Each group has their own view and may want things different. And so, something we're going to do in the framework is try to define those stakeholder groups, say how they're different and what they may be.

Some of the comments we received on the measure concepts was it's not clear what you mean by non-clinical versus clinical. What do you mean by different stakeholders? So, that will be clarified more in the framework, but for the purposes of the document that we sent to you, it was not possible to clean it up then, but it will be cleaned up for the framework.

Next is something we talked about extremely during the in-person was the electronically exchanged data. That is the phrase that we came to consensus on to use instead of outside data, because you could be pulling data from a different department of the same hospital but there's just some doesn't talk to each other or something of that sort. So, we wanted to avoid the use of the terminology outside data because it did cause confusion and start using electronically exchanged data.

And then the last one was that there are many factors that affect interoperability and while they're all important, this framework is really about measurement. And so, whatever the change we want in interoperability and this goes back to what I mentioned earlier, if it can't be changed by

measurement, we didn't want to include it in this framework. And so, those things were excluded. It's not that they're not important; it's just out of the scope of this project.

All right. So, I will go over the goals of today's meeting and then I'll pause for a second to make sure we're on the same page. So, the goal of today's meeting is to really one, get consensus on the domains and subdomains. They have significantly changed since the in-person and even slightly from the last iteration that you saw.

So, we want to make sure that the new version that we've come up with, you understand why things were done a certain way, you feel that those are really the core ones. After this point, we really don't want to be adjusting too much with the domains and subdomains. After this webinar, we want to be content that these are the ones that we're going to be moving forward with.

The other thing that we want is consensus on measure concepts and the existing measures. This one has a little more flexibility. We will still continue to work on this to make sure they're a right fit. However, at the end of this webinar, we want to make sure that we're at least on the right track because we need to create the framework based on this webinar.

We have an idea in form, this document that you have will be a good portion of that framework. And so, we want to make sure that when we create the framework and send it to you which will be very soon, that we are on the right track and moving to a positive point, so the next time we meet for the next webinar it's really more of just changing slight things to make sure we're on the right track. And it's not a major overhaul of the measure concepts and existing measures.

And as I mentioned earlier, some items that are on hold are the timeframe. We talked about that in the in-person. It is important that we say some of these measures or measure concepts can be implemented immediately; some could be after a little bit of work fairly easily and some are really aspirational

hopes for the future, if we had a completely interoperable system, this is where we could be.

And so, we'll talk about that at a later point. But our focus for today will really be on the things of getting consensus on the domains, subdomains and measure concepts. So, I'll pause for a second before I start actually going through the changes and make sure that we all understand the goal and have any questions before we step into the actual work of today's meeting.

(Bill Rich): Yes. This is (Bill Rich). You lost me about the issue of data-blocking. It couldn't be improved by measurement. How do you define the degree of interoperability problems if you measure it and its deficient? You lost me, you didn't have enough.

You implied that the measure had to result in change. I think you'd better go into that a little bit more depth. I'm not sure exactly what you meant and you used specifically the sample of interoperability.

(Jason): (Bill), this is Jason. So, I think the idea behind the framework is to develop measures that will as you know independently and objectively assess a current situation or process or a structure or an outcome and identify whether certain metrics are being met, and if not then where do the deficiencies lie and how could those deficiencies be corrected.

So, if we work then to the measure concepts around data-blocking so let's say that we decide a measure concept is the number of closed systems within a particular environment, whether it's a hospital, whether it's a hospital network, whether it's a region, whatever it may be and if we look at all of the systems and say that 85 percent of them are closed, then we're reporting that 85 percent of them are closed systems and don't have the ability at this point to be fully interoperable which is a problem that, I mean, it exists. This is sort of the state of this world at the moment.

But what exactly does that measure do other than reporting something that most people that are involved with interoperability already know? A reporting of that metric isn't going to suddenly lead to people opening up their

systems. It's not going to create open APIs. It's not going to cause vendors to suddenly say oh, we see that we're closing off their systems, we'll open them up so we can exchange data.

It's not going to lead to anything other than just sort of a metric that says at this point in time this many systems are blocked or closed. It's not going to lead any type of change that would foster interoperability and inevitably meet the objectives of the roadmap. So, what we're looking at is how could we develop concepts that could be developed into measures that would provide objective assessments in which if a deficiency is uncovered, could then be corrected that would lead to greater interoperability and foster the goals of the playbook. And data-blocking while acknowledging it is a significant issue, I'm not sure that a measure of it would really necessarily change anything other than just reporting it.

(John Blair): Hey, (Jason), this is (John Blair). Why wouldn't measuring data-blocking, and I don't have an opinion whether it should be measured or not, but why wouldn't measuring data-blocking be important to see if certain things that are put in place diminish it? And if you're not measuring it, how do you know it's not going down?

(Jason): Exactly.

(Allen Swanson): This is (Allen). If I can add on that question as well, because I was thinking the same thing about the data-blocking; I guess my thought on the measurement of it is data-blocking is a word that gets thrown around a lot today in the industry but it's not measured well which means that I think that there are many times that data-blocking is thrown out there as a word when it's not actually happening. And there are other times where data-blocking probably should be discussed but isn't being looked at.

And if we were to have a measurement of where is it actually happening, that allows those who aren't data-blocking to benefit from showing that they are truly doing exchange while those who are data-blocking can be the ones called out needing to improve.

Male: Correct. I agree with (Allen). There are innumerable examples of extant measures that require the transfer of data. All you have to do and if there's no technical reason, if the score is low, it implies that there are some intrinsic problems with the exchange of data. Now, it may not be data-blocking; it may be the lack of standardization, but until you measure it, (Jason), you're just not going to have any idea at all.

Male: The question that I have around this is I think that the aspects of information-blocking are important that they are captured through a measure. I'm not sure whether there is one measure that's called information-blocking in part because we are still not sure exactly what the boundaries are, what's appropriate or not.

And the really online things that we're trying to get to is data flowing. And it's the right amount of data flowing, not too much, not too little whatever it might be for particular scenarios. So, I think if we look at other types of measures which a number of those are in the list and perhaps we can expand up on those, where we are looking at where is data not flowing and the cause might be the legal definition of information-blocking that somebody willfully and purposely is not sharing the data.

The other reason might be that it's not flowing is that, sorry, we did not put the integration engine in play yet and anything else in between. So, I think we have to be cautious using the term information-blocking in a measure, but not shy away from measuring the flow of information.

Male: Right.

Male: I fully agree. If it's the measure of interoperability or the lack thereof, it may be related to data-blocking; it may be a technical issue. But unless you start measuring it, you're not going to be able to identify the cause. And you can't just throw the name data-blocking at an issue. I think there are numerous measures that require the transfer of data from one source to another.

And if the transfer doesn't occur, then you have a problem, but until you measure it to find the problem, you're not going to be able to tell whether it's a willful act, whether it's a technical issue, whether it's people using different

standards. So, I just think the assumption that it can't change, you can't change something with policy or technical adjustment until you measure it.

(Jason): No, I'm not disagreeing with any of you. I think our collective thought was rather than singling that out as an independent subdomain, because I think we were struggling about how effective that was going to be in leading to creating some kind of change, that we felt it would be better rolled up into concepts around information quality, exchange of information around care coordination, improving processes and outcomes because you can build measures from those concepts that address that, rather than just singling it out as its own independent subdomain because I think we all felt that it wouldn't have as much utility or value as it would if it were rolled up into other concepts.

(John Blair): Yes. This is (John) again. I'm OK with that, and that's why I prefaced what I said with I'm not sure you want to label and it's just too nebulous.

Male: Right.

(John Blair): I mean, all the other points that were already made, so I can go along with not using that terminology but, again, we do need to be measuring this stuff to see if things are improving.

(Jason): Right. I agree with that. I think we just did not want to independently call it out because I think, again, I agree with (Allen), it's a term that's used a lot. There's confusion over the term. It may cause some dissatisfaction, particularly if vendors are getting measured and say you're data-blocking. And so, I think we can measure it in terms of a lot of the other concepts. So, I'll turn it back over to Poonam.

Poonam Bal: Thank you. So, were there any other questions or clarity needed on the task at hand? OK. Thank you.

(Mark Sprees): This is (Mark) with one question on the guiding principles. I appreciated seeing the principle reflecting our discussion about different stakeholders. In the conversation, there was also discussion of different types of data. I

wondered if that would be a useful thing to think of as well at a principle level.

So, we had folks talking about how some kinds of clinical data are flowing but images aren't flowing. Not to get into the specifics, but is it useful to say overall also different kinds of data.

(Jason): I think it's something to consider, (Mark), sure. Again, I don't want to keep pressing the issue, but domains and subdomains are purposely kept at a relatively high level so that the concepts can be broad enough in which many different areas can be explored and measured. Like Poonam said you want to measure concept that has a target and a population so that it can be defined in different ways.

So, I remember those discussions about imaging data being a large amount that might not provide a lot of utility, that was brought up in our group a number of times but I think that could be built into some of the measure concepts we have.

(Mark Sprees): OK. And for me particularly, it was also some of the external social determinant data that we're working now to get in.

(Jason): Right.

(Mark Sprees): So, I used image as an example but anyway that's the reason for the thought at the guiding principle level.

Poonam Bal: Thank you, (Mark). That's actually a great reminder, that is going to be a focus that we're working on.

Were there any other questions? All right. Great. So, we can jump into the domains and subdomains. So, the current slide that you're looking at is a summarization and I won't go into too much detail about them because we have sent you a good amount of documents about it. But we've kept the four original domains or I guess original from the end of the in-person.

So, exchange of electronic health information, usability of exchanged electronic health information, application of exchanged electronic health information and the impact of interoperability. And I do want to point out that (Steve's) comment earlier about how they go one, two, three, four or four, three, two, one, it's really based on the stakeholder who's using this framework.

So, I guess that was a great point that he e-mailed the group about, so I just want to bring it up real quick. And then for the subdomains, we did narrow them down significantly but I will just briefly mention them and then talk about some of the changes we made.

So, under exchange, we now have three subdomains. So, first, it's really more of an emphasis on availability, so the availability of electronic health information. We did remove that as independent domain during the in-person meeting. And I think that while we were mentally thinking it was part of the exchange, we didn't make that very clear in the actual document and so hopefully now the wording has been updated enough and the emphasis of the subdomain gives that the importance it needs.

We also have now information quality. So originally, this was data content and quality. I think, and we had used quality various times throughout the different domain as a possible subdomain. I think we're just causing a bit of confusion.

We had several comments come in, maybe it should be under usability and what does it mean under impact. And so hopefully, the changing in wording has provided a little more clarity on what we mean by that subdomain.

And the last one is method of exchange. So we did originally have a subdomain of data flow, which had taken data blocking and put into data flow. And then we realized that data flow was also related to the method of exchange, so that was also kind of merged into the method of exchange, and then that really will focus on those exchange issues and data flow and so on.

And so those are the three subdomains, again, keeping them broad enough, but narrow enough was real work can be done. Under usability, we did remove a good amount of the other subdomains, so (timeliness), accessibility, completeness. All of that was moved into relevance, as we were going through the measure concepts and the comments made from the committee, it became very clear that there wasn't a very fine line between those terms. And they all did merge into how relevant is the information that's being exchanged. And so we've now made that all into one, but kept comprehensibility as a separate entity because I think it's very different on what's relevant and why it's understandable.

And so, we've kept those two as separate subdomains under usability. Under application, we kept it the same, really no changes. I think there may be slight word changes, but nothing really impactful.

Under …

Female: Can I ask on quick question. And so, I think in our group under usability, we had thought about relevance and comprehensibility as dimensions of information quality. So I'm just now a little confuse about how information quality is in the top bucket, but two dimensions of it are now in the next bucket.

Poonam Bal: I think I'm going to let (John) answer that. (John), are you still online?

(John Blair): Yes. I am on the line. So, can everybody hear me?

Poonam Bal: Yes.

(John Blair): OK. Great. So this one, we had a lot of the feedback come in specifically around this information quality. It was something that I think probably more people than not said whenever they gave the comment – the red line comments that came in. And it's possible that we still do not have the right words. But what we had found was there was a lot of confusion as to whether it was clinically or health care related relevant versus the quality of the information, i.e., the correct bits and bytes transferred back and forth.

So that is what we were trying to get at. Under relevance, we did have – we were thinking this would be clinically the right information and also timely, that it was at the right time so that decision could be made.

Again, opposed to information quality which meant the actual data transferred properly. So if that is not the right word, I think we are still very open to making changes to that, because that was the stickiest point was trying to determine what were those – the bits and bytes quality versus in the clinical health care data quality.

Female: So maybe we should say clinical usability of exchanged health information for that second domain which will help clarify that sort of shift in perspective. And to me, timeliness is a different dimension than relevance. So, again, I think we put a lot of thought into the different domains of clinical usability, and so to go from the broader set down to just two is feeling like a big leap to me.

(John Blair): And again, that's certainly something I think we can take back, there was – we had them all there and then there was a few piece of feedback stating that it was too hard to split out the relevance versus the timeliness, but again I personally don't have a problem whether or not there's two or one of the subdomains there at all.

I will say if we put the timeliness subdomain back there will not be currently any measure concepts there. It doesn't mean that we cannot add them, but there wouldn't be anything that is on that list that would fit into that subdomain at this point.

Female: Sure. And I think as long as you are clear that relevance includes timeliness, that is fine. I don't care where it's bucketed, but I think, right, as long as those – like the concepts seemed pretty important, so I just wanted to be sure we haven't lost those.

(John Blair): Yes, absolutely. And thank you very much for the feedback.

Female: Sure.

Poonam Bal: OK. All right. So then the last section was impact where we had a lot of subdomains, but I think we've noticed in the beginning this is probably the core of what the work we're trying to do, is really get those – making sure that interoperability is after all the other ones were functioning, but this is actually making sure that it makes a change.

So patient safety is an element, we did send you the patient safety in HIT report. That was done a couple of years ago. That was really more of a research for you. One, for you to have a better understanding of what we're thinking when we talk about a framework, a measurement framework.

And then also, two, to give you an idea of what that project thought was important in terms of patient safety in HIT. It's not completely relevant to our work, because their focus is a little more broad than ours is. But just something to keep in mind as we go through to make sure we're – making sure we're aligning with their work as well.

Cost savings was another subdomain (productivity) care coordination. All those were in there before. The things that we changed was the improved health care processes and outcomes. This was originally called quality and then it – as we've talked about already, that terminology was a little confusing.

So we've changed it. And there's actually a typo on this slide. It says patient experience but actually it's patient and caregiver engagement, not patient experience, so sorry about that typo. But basically, we had talked about the patient and caregiver engagement during the in-person and we've kept that for this purpose.

So the only real change from the document that you originally saw up to now is changing the terminology around the quality subdomain and making it improved healthcare processes and outcomes.

And then we hopefully our description of that is a little more clear. And so we can go to the next, one more. I've already kind of talked about the major changes that are going through, so let's get that slide.

So far, we've already talked a little bit of the – about the subdomains. And so we wanted to give the committee an opportunity to state that they feel comfortable with these subdomains now or if anything needs to be changed.

There had been a comment about – early about timeliness and having that incorporated in relevance. I think based on the comments that we received from committee members, electronically it seemed like many of them felt that that could be merged in by – and we did have one comment on the phone saying they just want to keep that concept alive but make sure as long as it's covered somewhere.

So I just want to keep them, are there any other comments that people want us to register? Do you think that after looking at the measure concepts and how they will fit into the new subdomains, we haven't lost anything or feel that something that's very important to be a subdomain is missing?

(John Blair): Yes. This is (John Blair). Two things, under the concept of transport versus content on interoperability, something that you see in certification, with that kind of thinking, it makes me think that quality should be back down in usability. I know there was a comment on that, so I just want to at least register my opinion on that. And the other thing is on the subdomain under exchange, did it have quantity before? And did that go away?

Poonam Bal: There is a portion of it. I think when we did the original one, it was under method of exchange about quantity. There was a question about amount or quantity. But many of the comments that we received for that measure concept said that it wasn't relevant. So we did end up removing it, but we can always bring it back if there seems to be movement, but it was an important thing to measure.

(John Blair): OK. So I don't know how no exchange, zero can't be important to know versus a million.

(Off-mike)

(Bill Rich): I also think – this is (Bill). I agree with that because if we have some of these measures in a different subdomain, if there's initial of 10 versus a high quantity, I think that tells us something of our choice of measures.

I have a question about process. Perhaps we could facilitate it – the discussion we're having now as we try to recreate in their minds in terms of notes that we had or face-to-face, if we were privy or maybe I missed something. If we were all privy to the comments that you received back that resulted in the edits, that might have saved some time on the call or I might have overlooked at communication.

Poonam Bal: OK. Yes. We did not send out the comments that we received from the committee. We do have a master document that we can talk internally about what's the best format of giving to you. I would only warn you that if we send it to you, it's going to be very confusing because we merged everyone's comments together. So, it's a pretty large document, but we can strategize on what's the best way to get it to you in a comprehensive way.

(Jason): I mean, this is (Jason). I mean typically that's not what we do, because we take the committee's comments as they come in. We meet internally and go over them. There are times we will contact the committee member if we're confuse or they're ambiguous, which in this case none of them were.

And then merge them together and then proceed with the document, and make the edits based on the feedback that we're getting and then based upon what we're reading in the transcript of the meeting as well as our own notes, so that we are as much as possible reflecting the discussions of the committee.

Another thing I want to point out is I realize, as (Poonam) has explained, that in certain areas we folded up certain concepts into subdomains. We've made them more broad than perhaps they initially were – and there is a reason behind that. And I think if you read the HIT patient safety report, you'll see why, that – you want to have some degree of specificity, but you also want to keep it broad, so that again, a number of measures can be developed from a single concept.

So I understand that trying to assess the quality or the quantity of exchange as well as everybody else agrees that that's important, but the thing cannot be roll up into what we already have listed. Is that something that could be explored in a definition? Is that something that we could put into a concept that would go under such as availability of electronic health information? And quantity could be measured that way. It's not as if we're forgetting these discussions.

We carefully went over all of them. It is trying to make a concise and compactful framework that will be usable once it's released, so that different stakeholder groups can create different measures from these concepts and that overall it then advances or aligns itself with the overall goals of ONC is looking to do with their roadmaps interoperability.

(Hans Studenik): (Jason) on that note, this is (Hans) and combining it with the comment that (John) just made about the information quality as well. I believe that from an amount perspective that the subdomains under domain one that they have opportunity, ample opportunity to get into the details and get to those measures where we need to.

As it relates to the information quality, is it the domain one or the domain two type of subdomain? It seems that there are two angles to that and perhaps it needs to be involved for consideration.

There is the information quality part that still involves precision and specificity to the exchange itself. Did you include the quality, is it – or did you include the data? Is it breaking the exchange itself regardless of the amount? Is it properly in the right place, versus the quality in the context of the use case to which end you were trying to exchange it? Is it providing what you expected of the level of precision and specificity for that use case?

So in itself the data might be completely accurate from an exchange perspective, but not very useful to the end purpose. So I think there are two aspects of quality that we perhaps want to recognize, because for some reason, I don't feel comfortable removing it from domain one. But I do recognize that in domain two we might be missing that as something. And I'm not sure

whether relevance in domain two completely speaks to that aspect of quality or not.

(Jason): OK.

Poonam Bal: Yes. I think it's clear from the discussion that we probably want to clean up the language a little bit about information quality and maybe make it a little more clear that it's more, the actual data and how – what is the quality of that data and less of the benefits of that information that's being provided. And so we can definitely think about what's the best way to incorporate the information quality, but make sure it's clear what we're talking about in exchange and what we're talking about in usability.

Were there any additional comments?

(Terry O'Malley): Yes. Hi. It's (Terry O'Malley). Just a comment on the last domain, the impact in the last item where you said you had a typo of patients' experience. Actually, like patients and caregiver experience better than engagement. I think it's a little broader term and, so anyway, just a random comment.

Male: OK.

Poonam Bal: Are there any other comments on that?

(Mark Sprees): This is (Mark). I would – might actually put it the other way around to say that I agree experience is important, but think of engagement as embracing it and going beyond it.

Poonam Bal: OK. And now we have two comments. Anyone else have thoughts on that?

(Robert Rossetti): So this is (Bob Rossetti). I keep thinking about experience also from the perspective of whether or not it makes the patient or the caregiver's life easier, so that they don't have to continue to provide the same information multiple times.

Poonam Bal: OK.

(Robert Rossetti): I'm not sure that's really addressed here. So I think the engagement piece is important, but I also think the experience piece could be separate.

(Mark Sprees): This is (Mark). I don't disagree. That sounds right to me conceptually.

Male: I agree.

Poonam Bal: OK. Any other comments on that topic?

(Vishaly): So this is (Vishaly). Just one thought here and I'm just looking at the measures that are listed under patient engagement right now, under impact. And I don't see anything in there that relates to the point – and I'm sorry, I didn't catch who said it, but in terms of patient – and I think we talked about it in the in-person meeting, which relates to patients having to cart their information from provider to provider to get at in terms of patient experience, but maybe it's captured within one of these measures that I'm looking at, but I'm not, maybe I'm not just seeing it.

Poonam Bal: I think that's a good point. We can definitely try to make that clear because we did talk about it during the in-person. So, we can maybe talk about that.

(Vishaly): Yes. I don't know if that would just be like a separate measure to talk discussing how, because that is the direct impact with interoperability, if things were really interoperable, patients wouldn't have to physically cart around, you know, paper charts and things. I mean, try to collate things together, so …

(Rainu Kaushal): Hi, this is (Rainu). I have a very small comment, but it's troubling me, so I thought I'd bring it up. Under impact of interoperability we have now this new domain of – a subdomain of improve health care processes and outcomes. And my question is, is it health care processes and health care outcomes or health care processes and health outcomes?

Poonam Bal: (John), are you on the line still?

(Off-mike)

(John Blair): Yes. I'm on the line, so – and I think that actually probably just is, it should be health outcomes I think or it could be health and health care outcomes.

(Rainu Kaushal): OK. Terrific.

(John Blair): But we definitely can clarify the language around that yet.

(Rainu Kaushal): That's terrific. I was a little concern that it was health care outcomes and I didn't think that was sufficient. I think if it's health care processes and health outcomes, that's fabulous.

Poonam Bal: OK. Perfect. Thank you for that comments. Any other comments about the subdomains? OK …

(Vishaly): One last comment. This is (Vishaly). Sorry. This is (Vishaly). One last comment. Pointing to (John Blair's) point about looking at the volume, basically of transactions and whether that's in here or not.

And I was wondering whether – I mean, I was looking at some measures within the availability domain that sort of get at that in terms of number and types of users actively, for example, exchanging health information, but it doesn't get at – to the transactions.

Poonam Bal: Yes.

(Vishaly): I guess at the transaction level or at the patient level. It's more as the provider level. And maybe that might – maybe having a measure that's more at the patient level or like the summary of care level like did – add a transition – for example, the transition of care measure and meaningful use.

When there is a transition is the summary of care record set. I mean I'm not saying that that should be the measure, but something that gets more at a use case level or at a patient level when there is information that should be flowing, does it flow? And that's maybe one way for us to think about that and maybe that fits in with the availability domain, but I think it might get at what (John) was talking about a little bit more.

Female: Yes, I think …

(John Blair): Yes. And I wasn't just saying – thinking transaction. There is a lot of different quantity.

(Vishaly): Yes. I know. There's a lot of different …

(John Blair): Measure. Yes.

(Vishaly): Yes.

Poonam Bal: Yes.

(Vishaly): To measure that. But something that gets at it not just from a provider level, which is what I see here and that's what we're doing right now. ONC is measuring interoperability at the provider level through its national surveys. What we've ideally want to get to is measuring things that are more patient-centered around a particular use case when information should be flowing. Is it following and following the patient, you know?

(Hans Studenik): And then perhaps some of that information can come also under relevance. Is that some aspects of volume? Is it the right amount of information? Did we get too much information or too little and therefore relevance became challenging.

So I think it's not only in domain one that we have opportunity to get volume related or amount related to measures, but I think in domain two, there are still some elements of that as well. Is it the right amount of data?

Poonam Bal: Yes. I think that they're all great points. And as (Jason) mentioned earlier, we didn't have amount specific measure concept, but we did feel that it was incorporated in some of the other measure concepts.

But we will definitely go through the measure concepts again and make sure when we get into care coordination and rather than all of those other things, we are still – that is using all of the other measure concepts, we're getting to the end of goal and you don't make alterations as necessary if it seems that

we're not really getting the answer we need from the other measure concepts. So we definitely have that on our list of things to look into to make sure that the other measure concepts match up.

Are there any other comments? OK. So then we can move forward. Talking about the measure concepts and measures, we felt like the best use of this time, instead of trying to go through each measure concept and kind of make sure that every single one is exactly where it needs to be, a better use would be to get a greater understanding of some of some of the questions people had, get better clarity on which way want to go with measure concepts, so if you have a question -- So really, the point of this discussion points are to get a clarification on some things that came up during comments on how to make these measure concepts clearer, more usable. Something people can grab and go kind of deal. So we have about three questions for the committee to go through those and as we go through, if more ideas are coming, please let us know.

I believe these were things that came up pretty frequently that we need to discuss as a group. So the first discussion is what is the best way to determine if the desired outcome has been achieved? It's how the measure is interpreted. There's a difference if it's a count, a percentage, a yes/no. Should certain measures – we had several comments come in saying they're not sure if percentage would be the best way to measure it. It should be more of yes or no or like or it should be – there's no way to know the difference between if it's a yes or no or it doesn't – you don't know one piece of data was removed or 100 pieces were removed and so on.

We just want to have a discussion about that. What is the best way to determine if the desired outcome was achieved? And does it really make a difference if it's a count percentage, yes/no and for our purposes.

(Julia): So this is (Julia). My sense is that in general, it's hard to answer this question right without some specific examples, but I mean the value of percentage is that you have a denominator, right?

It's relative to something which presumably is the scope of like all providers or all patients or all care transitions. And so I tend to find those measures much more useful, if you just do count, then, again, you have no sense of what it's relative to. And if you just do yes/no, then you have no sense of the magnitude, so I'd say in general, if I had the answer in general it would be that we should stay with percentages where possible.

(Bill Rich): Yes, this is (Bill Rich). I fully agree with (Julia). And I have a real problem with the yes/no. It doesn't really tell you anything about the value of the process and there are many measures out there that do require some interoperability and they're meaningful to patients. One that's commonly talked about is closing the referral loop. This is communicationn between referring doctor and referred doctors, did it occur in a timely way. Well, there's good evidence that even the best systems, even a single system with maybe just two ERs, would we know that the exchange occurred if there was a consultation? The best number we can find is 40 percent. That tells us there's something wrong with the exchange of that, very important both to the provider and to the patient.

So I probably agree with (Julia). There's an example of, yes or no with the – I don't think, we should look at percentages. And sometimes when you do, the percentages are shocking, it seems like a very simple thing to do. But EHRs, it's not necessarily forming data points in a chart, yet it's very important to have the exchange of data for efficient and good healthcare.

(Allan): So this is (Allan). I know we went back and forth on some of the actual measure concepts because they were written as percentages and making sure that they made sense. I think that in general, I agree, the percentages are better though I think depending on the actual what's being measured a count or yes-no can, in some cases, work.

The thing with percentages that we have to be careful with is to make sure that the denominator makes sense and that we're not de-incentivizing sending information, because that's the issue with some of the meaningful use measures today that are percentages where the denominator is all messages that were sent out and then you have to do something with the numerator and

it essentially hurts those who don't need interoperability as much as those who do need it.

And so we need to make sure the denominator includes the interoperability piece, so that those – whatever it is we're measuring, those instances, those times where interoperability wasn't needed are not included in the denominator at the detriment of the measure.

Poonam Bal: Thank you for that comment. That's actually really helpful for us as we try to go through the measure concepts and make sure that we are getting to the right – we're going in the direction for structuring them. Were there any other comments in regards to the best way to get the desired outcome through these measures and the wording of them?

(Jason): This is (Jason). I should note that we have gotten some comments in the chat part of the website that have talked about potentially other approaches about looking at the best way to evaluate endpoints for the measures.

And I think that those, you know, what I want to remind people of is once the framework is done and we've gotten to a point I think where we're comfortable with it, it will go out to the public and the public will comment on that. And I think at that point in time in that 30-day window is when, you know, those that are working with these systems and sharing data will offer their views on perhaps the best way of refining or adding concepts or defining measures.

Because of the time that we have in terms of getting consensus from you all and proceeding with the developmental framework, there is some, to some extent, a limit as to what we are able to do. But when the document goes out to comment, I fully expect, as we all do, that we'll probably get a lot of responses from people who test systems and work with systems and exchange data about, you know, maybe their views on how to construct measures and whether percentages or counts or various other endpoints may be needed.

Poonam Bal: OK. Were there any additional comments? All right. Perfect. So the next thing we really want to discuss and, again, these are kind of pretty generic

discussion points and we realize that's going to differ sometimes by the measure, but the next thing was really about, you know, what should be measured in order to gain the greatest advantage from interoperability. Should we check by patient, encounter, data element or something else? You know, what should our focus be?

There were a couple of comments we received saying this should be by encounter or this should be one way or the other. So we wanted to get feedback on which kind of tracking mechanism is the best for really understanding the advantages of interoperability.

(Bob): This is (Bob). I don't know if we're going to be able to answer that because it's going to – it's going to vary a lot by use case. I certainly wouldn't want to restrict it to, say, encounter because that kind of encodes encounter as an encounter-based workflow as the paradigm, whereas we might move away from that to exchanging data that's used more for say population health management, right, not based on encounters. So I'm not sure. Is it necessary that we make a decision on that today?

Poonam Bal: No. None of these are really decision discussions. They're more us getting feedback from you on some of the comments you received, getting a better understanding of where your thought process is, so when we go through the measure concepts to make sure that they still make sense and are ready to go into the framework, we're keeping your thoughts in mind in using those to guide us. So all of these discussions are more for you to give us guidance on how to proceed and less, you know, coming to consensus on one thing.

(Mark Sprees): Yes. And this is (Mark). I would – I would – I understand that these are common questions that came up. I think what we're hearing so far and what I – what occurs to me is that the answer depends on which particular issue or measure we're talking about. So maybe at the very least so it's useful in the framework itself to throw this out to measure developers and say you need to explicitly consider this kind of thing because the committee was explicitly asking this question depending upon the measure concept or measure. Just a thought.

Male: Yes, yes.

Poonam Bal: That's excellent idea. Thank you.

(Hans Studenik): And I think that context I think when looking at the number of the measures in the spreadsheet so far and looking at this question, we are going to have some challenges in some areas to have a clear definition of the denominator. And in some areas, what a measure might want to look for is going to be very difficult to arrive at in an automated fashion, that may have to be counted by a person in order to actually figure it out.

And I think we want to avoid the latter as much as possible, so I think the combination of what level of granularity patient encounter data or on something else as well as is it indeed something that can be more easily obtained automatically from data already available will drive the answer. In some cases, patient might still be difficult, in other situations, data element is very feasible.

So I would not want to rule anyone out so at this point in time. But the other concern of can you really get to a clearly defined denominator that I can derive from the data that's available rather than a person having to figure it out through research.

Male: Fine.

Poonam Bal: Are there any other – I'm sorry. Any more comments? OK. Then we can move to the next one. I think this is a great deal because actually when we talk about relevance and such, when we talk about where, was the information that the provider needed at the time there for them and other kind – measure concepts we've come up with regarding that, you know, different stakeholders looking for different items. And what's relevant for them may not be relevant for someone else. So how do these measures adjust for subjectivity while, you know, still getting us the result we need, which is that when whatever information someone needs is available and ready for them when they need it.

So, you know, if there's anything we can really do in the way that we phrase the measure concepts or if this is something that needs to be an understanding, as was suggested earlier, is this something needs to be kept as a consideration in the framework when people use these or use these concepts to come up with real measures.

(Mark Sprees): This is (Mark). I'm not sure that that's – that that's subjectivity. I think of it more as granularity, that it's understandable that what the different stakeholders may be looking for different items, that's sort of the relevance concept. So I understand how can the measures adjust for something, but I don't think it's subjectivity.

Poonam Bal: OK.

(Allan): So I think – this is (Allan). I think as the measures are being written, they have to be written based on who the intended recipient, who it is, whose perspective this is looking at to see did this thing meet what I needed.

And, again, going back to the denominator piece and (Hans) kind of mentioned on this as well, this is also where we need to be careful with what – how the denominator is written. You know, as I look through some of the measure concepts right now, a lot of the ones that are percentage based, depending on how it's worded, I'm either going to just blast you with everything that I know so that I'm sending as much information as available to reach that percentage or I'm going to send you as little as possible so that I'm not dinged for sending more information than what you needed.

And so we need to make sure that the denominator, any time we're using a percentage, isn't de-incentivizing sending information if the sender is sending more than what the person looking at it may necessarily need.

(Hans Studenik): I think that context and I think that's a very important point that we have – we're going to have measures that we can derive from the system based on – and that will influence behavior, like (Allan) described, sending more, sending less, et cetera. I think in this particular question seems to indicate that there's a need and different number of the measures really need to be addressed from

the recipient's perspective as their opinion, their perspective, that they believe they got what they were looking for. And in that sense, that's very individual-subjective and based on different backgrounds and needs of data. But on the other hand, that's going to help I think fine-tune in combination with the other measures that we find the right balance between sending too much, too little and at the right time or too late.

Male: Right.

(Jason): This is (Jason). This really seem to be kind of rolling up into the guiding principles of the document.

Male: Right.

(Jason): And we really need to be concerned, you know, we need to be illustrating and documenting to help guide people through how to use these concepts. So thank you for the – for the feedback. It's very helpful to work.

Poonam Bal: Is there anything else on this topic? So those were the core, you know, the (commonly received things) that we, you know, weren't sure exactly how to deal with when we're adjusting the measure concepts. And we've been receiving really great comments on, you know, maybe just adding – maybe it doesn't have to be necessarily measure concepts that are perfect and cover all these, but that these are things that we include the framework and that's to say we are aware of the reality. People that try to use the framework should be aware of the reality and kind of, you know, kind of maybe putting it into the guiding principles or some other sort of consideration section and we can think through what's the best way to incorporate that.

So that actually is the core of what we wanted to discuss with the committee and I think we have what we need to move forward to create the framework. But is there something that the committee feels that is left out that needs to be discussed and to have agreement from the committee on before we move forward?

(Julia): This is Julia. I just have one question which was, you know, as I reviewed the document you sent around, I thought like I kept having a bit of like, you

know, dissonance between the measure concept and then you guys would, you know, there were some measures that felt like very narrow and clinically specific, right? They would be talking about the broad interoperability concept and then all of a sudden the measure would be like, you know, for this like, you know, very specific disease and this very specific care process for that disease.

And so can you just – I don't know, like help me think through like, you know, is our measurement framework at the end of the day going to have that or can we somehow sort of create and push towards measures that feel like they are sort of, I just feel like we're trying to fit a square peg in a round hole, we have these very specific measures and then we have these broader interoperability concept and it just sort of felt like the mapping between them is just, to my mind at least, is not working. So do we need to map them? You know, can we just sort of come up with measures that feel like they are sort of this broader level that's consistent with like what we want interoperability to do?

Poonam Bal: That's a really good point. I think we were struggling with that as well, staff trying to do this. I mean perhaps something we can talk about are the team and then come back to you with is – how do we make these better connections between the concept and the actual measures. Maybe it's that these are, you know, existing measures that are great for this one disease, but they should be considered to be something overarching for every disease or something of that sort.

So we can definitely – maybe for more of our guiding principles, again, maybe it's how we set it up and we say here's an example of an existing measure that reaches the goal of this, this should be broadened to incorporate something else. So I think we – that's a great consideration that we can go through.

(Mark Sprees): This is (Mark). I would…

(Bill): This is (Bill).

(Mark Sprees): I would build on that just a little or give another example of how that helps, which is this is a framework not only for the present but it's also to be useful not forever but, you know, in the immediate future. And so giving the level of generality that leaves room to design measures using the framework that we come up with, but it still applies for what's happening over the next year or the next two years, I think that is also a piece of – I heard (Julia's) question. That raises that for me as well.

(Bill Rich): Yes, this is (Bill Rich). I'd like to comment – respond to Julia's comment. I think that if you have a general concept, sometimes it's a good idea to have a very, very specific measure that exemplifies that, that can show that their trade variability between EHRs and systems. And so I think that it may seem like a conflict, but I really don't think it is because of something. Sometimes, the general concept is too large and can't be measured. It varies.

But I think we could probably agree on very specific measures for a very common high-impact disease. And we – and actually those of us that actually are in the measurement field now in industries, we can tell you that there's huge differences in the ability of EHR systems to exchange data. Sometimes it's not there. So I think that there's a certain advantage to having some very specific examples of measures that will fulfill the goal or the intent of the general measurement.

(Jason): So this is (Jason). So to just sort of echo what (Dr. Rich) was explaining, you know, I think that's sort of where our thought process was heading to, towards, because the scope of the project involved two different dynamics. The first was to broadly come up with measure concepts that explored ideas of interoperability in which there was no measure or no way of assessing. And then there was to look at existing measures and to sort of follow the work that (Rainu) had done to measure the sensitivity of those existing measures to interoperability.

But as (Julia) pointed out, now there needs to come a point where we're thinking that together so there's some congruency between the development of these concepts and the use of these measures. And so one way, again, and we'll explore this in our next webinar, is the timeliness aspect which is what

can be used now, what's something that could be used in the future, but also I think it is to take a general concept and show how some of these measures you all evaluated as interoperability-sensitive, elucidate and illustrate that particular concept. And, you know, I think when you get the documents for review you'll be able to tell us if we've done that successfully or what else we needed to do. But I think your points are well made.

(Julia): Yes. I think as long as there are examples, that's fine. And I felt like, you know, the final word on this concept will be assessed by this one very specific measure.

(Jason): Yes. Yes, yes, yes.

(Julia): So as long as there's an example, I think that completely works well.

(Jason): Right. We – yes, so, (Julia), we wouldn't put a framework forward that said this is the only way of doing that because I can just imagine the public comments we would get back on that from new – I mean I'm already expecting we're going to get a large amount on just the document of, in itself, but, you know, certainly your point is very well made to keep it broad and to have examples and make sure the people can take the example and the concept and develop a number of measures from it to sort of shorten up those gaps and then come up with a way of really assessing interoperability that everybody here is satisfied with but also more importantly aligns again with, you know, the overall objectives of ONC.

(Bill Rich): I'll give an example coming back to something (Mark) was talking about, (Jason), in the beginning, the data exchange.

(Jason): Right.

(Bill Rich): If you can develop a very specific measure for the – for the transfer of a diagnostic testing data that actually will raise huge policy issues that may have nothing to do with interoperability but there's many dangers out there who have – I think (Allan) can attest to this – have very proprietary forms of data that the EHRs have no ability to collect. Let's say, they may say they have a (dicom) standard, it's a massive file. So I think having very specific examples

will raise other public policy issues that actually have nothing to do with interoperability itself. We may be surprised at what we learn.

(Jason): Right. Agree.

Poonam Bal: Were there any additional comments? OK. Great. This has actually been a very helpful call for us. It's not done yet. We will still do member and public comment and next steps. But this has been very useful and I think we're in a really good place to create the framework. And hopefully after this discussion and kind of understanding the thought process a little better, you're at a better place to review the framework and, you know, check that we're on the right track once you review it to review.

So with that, (Cathy), could you open up the public comments please?

Operator: Yes, ma'am.

At this time, if you would like to make a public comment, please press Star then the number 1.

There are no public comments from the phone line.

Poonam Bal: OK. Perfect. Then I'll give it to (Hiro) to go through the next step.

(Hiro): OK. Thank you, Poonam.

All right. So we do have another meeting coming up on May 8, another webinar, and at that point, you know, you will have received the draft framework review beforehand and we will go through and discuss that. And then there will be a subsequent webinar on May 22nd where we will have another opportunity to kind of finalize and further discuss and just come to conclusion as far as that same framework.

So those are the upcoming and then public comments on the draft framework will be claimed from June 1st to June 30th. And then we will have another webinar following that public comment to review comments that were

received on the draft report on July 20th. And, again, the end goal is to have that final draft framework report ready by September 1st.

Poonam Bal: And then just to give you a better idea of timeline, basically after those next two webinars so in the next month the framework will be close to done. You know, that should be considered the ready product to go to public comment. And so when we have that last webinar in July, it's more of just cleanup. It's like, oh, well, we didn't think of that commentary that we should incorporate something of that sort and so on.

And so we'll work with you, but as usually, you know, the timeline's always short and we're going to try to get to you things – get things to you as quickly as possible. And we – I want to say we truly appreciate all your hard work. We know that a lot of you are ready and just hold on a little longer for us and thank you for all your hard work. Were there any other questions before we let you go today? OK. In that case…

Male: No, just appreciations.

Poonam Bal: Thank you.

Male: Thank you. Thanks very much.

Male: Yes.

Male: Thank you.

(Bill Rich): May I ask one question before…

Poonam Bal: Yes. Sure.

(Bill Rich): I'd like to thank everyone for participating. There's that whole – the quality domain, how would you like us to get comments back to you? I sent – I actually talked to some of the special teams and came up with high-impact quality measures that had huge variation and the problems in data exchange. Can we talk as (inaudible) to address that as maybe separate committees for our next webinar or comments between now and then?

What would you like, (Jason)?

(Jason): You want to send us an e-mail with the comments probably the best way.

Male: Yes.

(Jason): Then we can get through and then incorporate it.

Poonam Bal: Yes.

(Bill Rich): Did you get my e-mail as it regards to quality?

(Jason): I did. We got it, yes.

(Bill Rich): OK. Yes. Perfect. Just by e-mail. OK. Thank you very much.

(Jason): Thank you.

Poonam Bal: So, you know, as mentioned, feel free to still send any comments that you have if something comes to mind afterwards. And in the end of the day, you know, while we're guiding you, this is your product so we want to make sure that you're comfortable with it and feel comfortable moving forward with. So we will be working on the framework for the next week or so, so if you can get it, get comments to us by Monday, that will be very useful for us as we build up the framework and start going to internal review before sending it to you.

So if you have any additional feedback or any other works that you're aware of that may be useful for us, please send it through e-mail to the interoperability inbox by Monday so you'll be – so we can make sure that we are taking that consideration for building the framework.

(Jason): So before we leave, on a completely separate and independent note and I'm only saying this because I've known her for a long time and I have a tremendous respect on a personal and professional level for her and I don't know if all of you have heard, but I do want to make the announcement that our distinguished committee member Julia Adler-Milstein is now accepting a position at the

University of California in San Francisco and will be launching a new center called the Center for Clinical Informatics and Improvement Research. It's an extraordinary opportunity. It is well-deserved. It is something I know she'll do an extraordinary amount of work with.

And, Julia, congratulations from me and everybody and well done and we look forward to working with you in the future.

(Julia): Thank you. It's very kind. I'm very excited and I hope it'll bring new opportunities for collaboration with this group.

(Jason): Yes. And if that embarrassed you, then I've really accomplished my goal.

(Julia): Oh, I know.

Rainu Kaushal: (Julia), this is Rainu. You very, very well-deserved and I was thrilled to hear the news earlier today and congratulations. UCSF is lucky.

(Jason): Yes, they are.

(Julia): Thank you.

(Jason): And it gives us an opportunity to go visit you in San Francisco which is always relished and welcomed, so yes.

(Julia): Not surprisingly. Not very many people have come through--

(Jason): I know.

OK, guys, thanks very much. We appreciate it.

Male: Thank you. Bye.

Female: Thank you.

Male: Thanks.

END