NATIONAL QUALITY FORUM

Moderator: Meredith Gerland
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4:53 pm CT

Meredith Gerland: It looks like we have a few people starting to join. We'll get started in just about five minutes. Thank you.

Good afternoon everyone, this is Meredith from NQF. We'll get started in just a few minutes here. Thank you.

Hi everyone, this is Meredith from NQF. I see a number of folks are still joining the call, so we'll get started in two minutes. Thank you.

Good afternoon everyone, this is Meredith Gerland from NQF. And I'd like to welcome you all to our eighth and final committee Web meeting for the Improving Diagnostic Quality and Safety, Reducing Diagnostic Error Measurement Considerations Committee.

Before we begin, I'd like to share a few housekeeping items with the group. The call is being recorded and we will post the recording on the committee SharePoint page after today's Web meeting. All of your lines are open, so, please do remember to mute your line when you're not speaking, and please refrain from placing the call on hold.

We know many of you are following along with the slides on the Web platform. So if you are on the Web platform and have also dialed in through your phone line to be able to contribute to the conversation, please remember to mute your computer speakers to avoid any feedback coming through the line.

Today's Web meeting is a pass agenda. We'll briefly touch on an overview of the draft report after our committee introductions, before diving into a detailed discussion on the broad scope, comprehensive recommendations for applying the framework, measuring and reducing diagnostic error, and improving patient safety. We'll then spend the second half of the Web meeting reviewing and discussing the public comments we received during the 30-day public comment period for the draft report, before opening it up for public comment on today's call. Finally, we'll conclude with discussing the next steps and some closing comments.

Per usual we have NQF project staff on the line today, including myself, Meredith Gerland, as well as Chelsea Lynch, Deidra Smith, Udobi Onyeuku, and Jesse Pines.

I'd now like to turn it over to Udobi to facilitate a committee roll call.

Udobi Onyeuku: Thank you, Meredith. We'll go ahead and get started with our co-chairs. David Andrews?

David Andrews: Present.

Udobi Onyeuku: David Newman-Toker?

David Newman-Toker: Present.

Udobi Onyeuku: Flavio Casoy?

Karen Cosby?

Karen Cosby: Present.

Udobi Onyeuku: Sonali Desai?

Sonali Desai: Present.

Udobi Onyeuku: Jane Dickerson?

Jane Dickerson: Present.

Udobi Onyeuku: Andreea Dohatcu?

Mark Graber?

Mark Graber: Present.

Udobi Onyeuku: Helen Haskell?

Cindy Hou?

Cindy Hou: Present.

Udobi Onyeuku: John James?

John James: I'm here.

Udobi Onyeuku: Joseph Kunisch?

Joseph Kunisch: Present.

Udobi Onyeuku: Prashant Mahajan?

Prashant Mahajan: Yes, I'm here.

Udobi Onyeuku: Kathy McDonald?

Lavinia Middleton?

Lavinia Middleton: Present.

Udobi Onyeuku: Craig Norquist.

Shyam Prabhakaran?

Ricardo Quinonez?

Roberta Reed?

Roberta Reed: I'm here.

Udobi Onyeuku: Hardeep Singh?

Hardeep Singh: Yes, I'm here.

Udobi Onyeuku: Colleen Skau?

Colleen Skau: Present.

Udobi Onyeuku: Michael Woodruff?

Michael Woodruff: Hi, I'm here.

Udobi Onyeuku: Ronald Wyatt?

Okay. We'd also like to check and see if our federal liaisons are on the line.

Andrea Benin?

David Hunt?

David Hunt: Yes, I'm here.

Udobi Onyeuku: Marsha Smith?

Marsha Smith: I'm here.

Udobi Onyeuku: Great. Thank you everyone for joining us today. I will turn it back over to Meredith, who will begin the discussion on the draft report.

Meredith Gerland: Great. Thank you, Udobi, and thank you to all the committee members for joining.

Just briefly wanted to remind everyone, the outline of the draft report, so I know you've seen this a number of times throughout the past couple of

months, and it is a really robust report. So we spent many Web meetings discussing the use cases. And then we've also discussed the comprehensive recommendations throughout the last several Web meetings. But today's Web meeting will really focus there on that bold area, the broad scope comprehensive recommendations, before we discuss the public comments.

And just to remind everyone, I know it's been a while since we last met, which I believe was in June, but this work really builds on the 2017 diagnostic quality and safety measurement framework. So the goals of this project were really to focus in on that diagnostic process and outcomes domain of the 2017 measurement framework. And through this committee's work, we identified and developed practical guidance for the application of this domain and for measuring diagnostic error, which includes use cases and broad scope recommendations.

As I just mentioned, we won't spend time today focusing on the use cases, but I did want to reorient everyone to what the focus areas were for each of the use cases. So as you'll see, Use Case 1 was focused on cognitive errors due to missed, (bottled) clinical findings. Use Case 2 was focused on system errors and communication failures. Use Case 3 was focused on cognitive errors and information overload. And Use Case 4 was focused on cognitive errors in dismissed patients.

So, moving along to the recommendations. As we've noted in various emails to the committee, we made a number of adjustments to the recommendations section of the report after our June Web meeting to incorporate the committee feedback.

Most significantly, prior to public comment, we separated out the recommendations section into two separate recommendations sections. This

was directly in response to the committee's feedback that we need to incorporate more measurement focused recommendations. I hope you've all had a chance to review the near final report that we shared last week, which reflects even more changes related to this. We'll spend the next 45 minutes or so discussing the measurement recommendations in more detail.

But first, I wanted to highlight the recommendations that discuss how to apply the framework. These recommendations target specific sub-domains within the diagnostic process and outcomes domain of the 2017 framework, which include information gathering and documentation, information integration, information interpretation, diagnostic efficiency, diagnostic accuracy, and follow-up.

The recommendations in front of you are what appear in the report if we're applying the diagnostic process and outcomes domain of the measurement framework. These remain largely unchanged since the version that went to the committee and went to public - to public comment in early July…

Operator: …conference, this conference is being recorded.

Meredith Gerland: The recommendations here remain largely unchanged since the version that went out to the committee and to public comment in early July, with the exception of more detail included for each. The only major notable change here is the addition of this first recommendation that's highlighted in bold, which is to implement quality improvement activities to identify and reduce diagnostic errors from occurring.

This recommendation is really foundational to the other recommendations as quality improvement serves as the backbone for progress and change. When healthcare organizations and clinicians perform quality improvement activities

to identify the types of diagnostic errors occurring within their facility or practice, they're better able to identify the causal factors and deploy targeted interventions like those that are outlined throughout the use cases in the report. These programs need to include multi-disciplinary teams to identify errors, their root causes, develop specific solutions, and measure results.

Before we move on to the recommendations for measuring and reducing diagnostic error and gather additional input from the committee on those, I wanted to draw your attention to this process depicting the relationship between the recommendations for applying the framework and the recommendations for measuring and reducing diagnostic error and improving patient safety.

We developed this graphic in response to feedback from our committee co-chairs and the committee during our last Web meeting to help make the recommendation section even more digestible to the end-user. We really see all of these recommendations as related to one another, with direct alignment across the two sets of recommendations. As you'll see on the graphic, each recommendation for applying the framework directly relates to a subsequent recommendation on measuring and reducing diagnostic error.

With that, I'm going to turn it over to NQF consultant Jesse Pines to discuss the measurement focused recommendations in more detail. Since we have a lot to get through today, we'll look to focus the discussion on identifying any additional actionable opportunities for implementation of the recommendations related to specific stakeholders and populations. Jesse?

Jesse Pines: Thank you, Meredith. So what I'm going to do briefly is go through where we are on the recommendation, and like Meredith said, go through them high level first, and then go through them in detail, we'll have the opportunity to

really give it some feedback, on how organizations will be able to implement some of these recommendations.

So the first recommendation is about using the measurement as a mechanism for CQI, from a diagnostic process, we think is really the - sort of the baseline of what organizations will need to do and a process that will need to be set up to really drive the rest of these processes.

Number two is about using patient reported measures, understand the test, and improve the role of patients, and the diagnostic process.

Recommendation three is about measuring clinician's level of competency in diagnosis, as well as adherence to protocols, and also getting some feedback from clinicians about this process to further reduce diagnostic error. (Unintelligible) there are, maybe, good ways and not so good ways to clinicians. So we want to, you know, have very specific things that organizations can do to do this and do this well and to make sure that clinicians are involved in getting feedback (in the) process.

Fourth is about evaluating the impact of technology on diagnostic error, specifically using technology to detect and reduce errors. Number five is about measuring the use of and communication between specialists for second opinions and ensuring the use of teamwork throughout the diagnostic process.

Sixth is assessing appropriate use and follow-up of labs testing and radiology for diagnosis. Seven is about measuring the total cost, time, and other impacts of the diagnostic (unintelligible). And then finally, number eight is measuring the participation and how the information changes and other (data-share) programs.

So I'd like to focus (unintelligible) go through this again is what are we missing? We're not really trying to change these - the recommendations at this point. It's really focused on how we can best implement these.

So for the first one here, using measurement as a mechanism for CQI in the diagnostic process. Some of the groups that we thought could take action here would be medical specialty societies, provide guidance on which specific measures can be developed. Organizations, health administrators and clinicians can use these quality concepts to assess processes. Healthcare organizations can deploy teams (unintelligible) system to facilitate the process, partner with clinicians to understand that information on delayed diagnoses. And we think that, overall, measurement should be deployed at a national level to hold facilities as well as clinicians accountable.

So let me go ahead and stop there and see if there are any questions or comments. Is there anything that we missed here?

Hardeep Singh: So, Jesse, this is Hardeep. Are we going to also give additional guidance or frameworks, you know, because right now some of these have - some of these are not even being done in research setting. So, how do healthcare organizations, you know, deploy teams for using the HR data for instance? Or how do medical specialty societies, what do they do specifically as sort of next steps? Are we going to go into that or do we think that's sort of later on?

Jesse Pines: Yes, that's a good question. So we don't really get into a lot of very specific detail there. You know, particularly we, you know, we didn't want to have a - have this about how to do clinical improvements, you know, specifically, but these are really sort of intended to be, you know, as specific as possible but sort of very high-level recommendations of what organizations can do.

Hardeep Singh: So I would think that, you know, some of these maybe almost be some research areas as well. I was thinking, it's not for this one, but, you know, physician competency, for instance, do we know how to measure that adequately or is that more for, you know, sort of the scientific audience to even further that goal.

Jesse Pines: Sure. So we can also have very specific call-out in terms of what research resources should look into. We didn't really - that really wasn't a part of the - what we added to the recommendation but we could certainly do that.

((Crosstalk))

Jesse Pines: …we want to call out.

Hardeep Singh: Yes. I mean, just for areas where we know (unintelligible) and because you're making a specific recommendation, for instance, on, you know, measurement for off-competencies, and it's people that, well, how do I do that? Some of these may need to be refined over time. And that's, as long as we make it clear, that's probably okay.

Jesse Pines: Okay.

Meredith Gerland: Hardeep, this is Meredith from NQF. I think that's exactly right, if there are areas that we can share how to get closer to the next steps for implementation for specific stakeholder groups, including those in the research community, I think that would be really helpful for us to call out here. So it's certainly welcome as we go through the recommendations, if you have specific ideas for that, please do go ahead and share them with the group today.

Hardeep Singh: Okay. Thanks.

So, you know, Meredith, sorry, I don't want to sort of monopolize it, Meredith, for this one I'm just wondering, and I saw the report, and I don't - I'm not seeing specific references, but maybe we just refer people to some resources that are out there. For instance, the AHRQ operational guide for measurements that just came out a few months ago. That could be one that could be sort of referenced as a next step for organizations. And we could do that similarly for some of the other arears as well. So, just refer people to some existing resources in the area.

Jesse Pines: Okay. I think that's a good comment. And I think being as specific as possible like that is useful for resources. So we can certainly mention the AHRQ operational guide.

Other thoughts on - and again, this is probably our most general recommendation.

Karen Cosby: I had a question, this is Karen. Under the organizations, healthcare administrators and clinicians, when you say that measures should measure outcomes rather than process or structure, I don't understand why you would exclude those things. I think it will be important to emphasize that we care about outcomes, but would we disregard process or structure? Why would we not include them all?

Jesse Pines: That's a, I think that's a good point. I think in general NQF is moving more towards outcomes rather than measuring structure or process. You know, when it comes to this particular area, that, you know, we, you know, maybe we could make that a little less strongly worded, you know, that we would prefer outcome but structure or process measures. But we wouldn't

necessarily, not, you know, if there is a good process measure that is associated with outcomes, we wouldn't necessarily want to (make) that.

David Newman-Toker: Jesse, I think the - this is David. I think the goal here really is, I mean, in the end, you can't measure just outcomes or process. You have to measure both. I think the question is how do you use them? So I think the problem with process only metrics is that they become sort of this self-fulfilling loops that may or may not be impacting outcomes. The key is to leverage the outcomes to drive better care for patients. The outcome measures should drive better care for patients, in terms of reducing harms from diagnostic error, improve diagnostic accuracy, etcetera.

The process measures should be used for locally trying to move the needle on outcome measures, because that's what you're going to have to do. You're going to have to measure your processes, but you may be constantly recycling your process metrics and changing them and adapting them to try to move the needle on your outcome measures. I just think somehow if we could make that clear, rather than saying it's measure outcomes rather than process or structure, but emphasize the idea that the target needle you're trying to move is the outcome measure and you may need to measure some intermediates to get there, to that moving the needle piece, I think it'd be great, if there's some way to kind of wordsmith that in.

Jesse Pines: Okay.

Hardeep Singh: And I think this is more about just process and outcome measures, it's organizations trying to take a measurement approach. There's a very nice framework, and I can't remember whether you reported it or not, Vincent's framework for measurement, that sort of lays these five things to think about in terms of measurement and monitoring for patient safety.

We recently adapted this to diagnosis. I can send you a link to that through the chat. Maybe good to sort of refer to, something like overall framework for measurement as well. It talks about both retrospective as well as prospective things and reliability of processes, but at the same time looking at outcomes as to what happens.

Jesse Pines: Okay. Yes, that would be useful.

Karen Cosby: (Unintelligible) yes.

Jesse Pines: Other thoughts, other groups that might implement this measure or if there's areas that we missed?

Okay. Let me go ahead and move on to the second recommendation, which is the use of patient reported measures. So, specifically on the implementation side, I'm going to go through slides and then go back.

One, organizations should assess (unintelligible) be part of the diagnostics team, making sure that there are patient portals developed (unintelligible) for patients to report errors, as well as a robust way to respond and remediate these errors through CQI.

There are some key measures that can measure experience of communication, specifically the HCAP measure, as well as the use of (unintelligible) services, got qualified language service providers, and also opportunity to measure developers, you know, this is not intended to be a comprehensive list, but specifically patient reported (understand) the diagnosis and diagnostic uncertainty after discharge, patient reported with perceptions of the input into

the diagnostic process, and (unintelligible) experience with the diagnostic process.

So let me go back and open it up to see what we missed or if there are any big gaps there. Or other very specific measures.

David Newman-Toker: Jesse, I think there's a little piece of this that maybe as a missed opportunity. You've got, and again, I apologize, I'm trying to flip back and forth between (unintelligible) to make sure that you haven't set it on the other slide. But the where it says "develop systems for patients to be able to report errors," in some sense the implication there is like traditional kind of incident reporting systems, with the notion being that, you know, there's sort of a vehicle for them to say, hey, look, by the way.

But I actually think you want to go one rung beyond that at some level. In other words, the measurement piece here is really not just to create systems for them to be able to report errors. It's really to structure measures around patient feedbacks about errors. So it's conceptually the difference between what we do for HCAPS, which is we call some random sample of patients and we ask their satisfaction and experience with a structured instrument. We need to do that in patient engagement with respect to diagnostic error. We should be calling a random sample of (unintelligible) the department, or the primary doctor's office, or whatever, 30 days later, to figure out how often there were errors.

And there are, you know, examples of this having been done. (Kelly Gleeson and Hopkins) are doing work with the LEAP program and so on and so forth. I think it's important not to have that come across as just an - a vehicle for incident reporting but more as a measurement based on patient feedback.

Jesse Pines: So, more systematically gather feedback (unintelligible)?

David Newman-Toker: Yes. It may just be a matter of the way that sentence is worded, but I think somehow explaining the idea of leveraging patient engagement to help measure diagnostic errors is an important piece of this "patients engaged" puzzle.

Jesse Pines: Okay.

((Crosstalk))

Karen Cosby: I will comment but I'm not sure if it's the same as David's or not. The title of this, Patient Reported Measures, implies that the only thing they're doing is patient reported measures. That's one example of other things that the others - of things that could be done. I think the broader title of engage patients to improve diagnosis, of which a subset might be patient recorded measures, just for my part. I'm afraid I'm making the title Patient Reported Measure…

((Crosstalk))

David Newman-Toker: So, Jesse, could you just clarify for us, in response to Karen's question, is this section of the report that we're viewing now explicitly intended to just be related to the measure recommendation?

Jesse Pines: Yes. These are, well, these are, you know, each of these recommendations have measure implications, but some of these are broader than that. For this particular one, this is - this one focuses on patient reported measures and, you know, (unintelligible) directly impact patients, (like) patient portal. There are other recommendations that impact other ways to measure diagnostic error that are outside of patient reported measures.

So we don't have to have all the measure (unintelligible).

David Newman-Toker: Yes. So I think there are two separate issues here. One is this issue of, does the title on this slide fully capture everything that's underneath it? So, for example, the, you know, whether there's a patient portal or whatever, it's not a patient reported measure. So there may be a linguistic issue with the way it's titled.

But there's also kind of a conceptual issue. I think what Karen was getting at, and Karen, you can correct me if I'm wrong, was you want the report in general to emphasize the notion of patient engagement as an important lever for improving diagnosis.

I think what's confusing about this slide, and in a couple of other places in the documentation, is that there's a little bit of slipping back and forth between measures and sort of general recommendation. So it becomes a little bit less - in other words, where it says "develop systems for patients to be able to report errors" almost feels like a method for patients to engage in improving diagnosis. Then there are 10 more that are for patients to engage in improving diagnosis that may or may not sort of link back to measures.

I think there's - is that where the ambiguity lies, Karen? Is that the issue? Or did misunderstood what you were saying?

Karen Cosby: No, I think that it's a little overly constrained with the (unintelligible) everything we do consider the patient perspective for that - the diagnostic process is designed with them in mind, and just having a patient reported measure doesn't necessarily have that overarching view of diagnosis. And I

feel like by the recommendation being a patient reported outcome measure, that you're prematurely constraining the focus.

Man: So you think maybe adding more (unintelligible) statement about that, you know, that patients should be involved in - I think we do have a lot - we use a lot of the themes in there throughout the report, that the patient should be involved in all of this.

Karen Cosby: And that's totally fair.

((Crosstalk))

Karen Cosby: …but I'm not seeing the report as a whole in this one slide, so it may be not totally fair without that context. But it's just - I would just mention that, I would be cautious. If it's handled elsewhere, that's great. I just want to make sure that people don't think the answer to everything are patient reported measures, when there's many other things that can be done and that there are other measures that can get the same information.

Jesse Pines: Absolutely. I mean, this is not to say that it says patients would not be involved in some of the other pieces of it, but this is - these are very specific actions that organizations can do that would specifically engage patients.

Hardeep Singh: I mean, this may be another area, this is Hardeep, this is maybe another area that you, you know, call out scientific advances are forthcoming sort of specific. Because some of the reporting tools as well as patient reported measures, all these are, you know, being talked about and discussed in research right now, and three, four years, it might look different. So, maybe good to highlight that.

Man: So, Hardeep, would that be a very specific - would that be a recommendation to organizations to sort of stay up on the latest science of this, or what would be a specific recommendation?

Hardeep Singh: You know, so it says "develop systems for patients to be able to report errors," right? So I mean there's a (unintelligible) on this from AHRQ that somebody, you know, on my team is working on. So, but it's not ready yet, but it may be in like three years.

So I'm just thinking, could you call out, say, you know, maybe with a star or something, we understand some of this is still under development, but it's - I mean, organizations need to keep up in some way with some of this science. Not sure how you do that though.

Jesse Pines: Yes. And you know, a lot of these - a lot of the recommendations are more general like that, with, you know, which I think would assume that some of these mechanisms may not be totally in place but that should be something that, you know, I'm not sure if there's a specific product that's available on the market that can do this, but this is actually what we think is a valuable intervention, you know, whenever that's available or there's sufficient evidence that demonstrates that that's a valid way of gathering data.

Hardeep Singh: Yes. No, I think it will be good to sort of say something general, just like you said, Jesse.

Karen Cosby: Well, the other thing is there really aren't patient reported measures for diagnostic error yet. So (unintelligible) reading this (unintelligible) to develop them, or you need someone to use - or other methods to do it. So I think you might say "develop and use patient reported measures or other methods," and that would cover everything and make me more comfortable with it. And it

also, if a community health person is looking, they wouldn't know where to go to find patient reported measures for diagnosis, and the recommendation sort of lacks a landing place.

Jesse Pines: Okay.

Mark Graber: Jesse, it's Mark Graber. I was a little distracted by the title of this part, where it's talking about just using input to study the role of patients. I think we would value patient's input on the process generally, not just the patient's role in it.

Jesse Pines: Yes. Yes, the - you know, I think a lot of that is throughout the rest of the recommendations, that patients should be involved. So this is, you know, just sort of focuses on the patient reported measures and ones where, you know, things like portals and patient error reporting, that sort of thing. But you know, certainly, exclude patients from some of the other areas.

Mark Graber: Thanks.

Jesse Pines: Okay. Other thoughts on this recommendation? This has been helpful, thank you.

Okay. Let's go on to the third one here, which is measuring clinician's level of competency in diagnosis, as well as adherence to protocols, and measuring clinician feedback about the whole process of doing this.

Specifically, organizations should ensure that clinicians get training on diagnostic errors and have tools available to prevent them. Specifically have protocols measure the ability of clinicians to make an accurate diagnosis by assessing the presence of use and adherence to protocol that exists within the

process. (Identifying) clinical syndromes that are particularly amenable to protocols (unintelligible) (complaints), clinical decision support tools, etcetera, other electronic tools that can be in place, and also use chart review to measure the rate of protocol use.

(Other) things that organizations can do, promoting transparency by developing a dashboard that looks at clinician level adherence to protocols or actual rates of diagnostic errors (unintelligible). So, basically, so a clinician would get actual feedback about how they're doing. Using, you know, measuring protocol use for a particular syndrome, like a hard score. There are some existing measures out there.

Some of these are not totally, you know, I think are related to this, but don't necessarily directly do this (unintelligible) chest pain, again that's sort of the very, you know, low-bar measure, use of spirometry testing in COPD.

We also identified some measures for measure developers prioritizing measure to actually get clinician feedback, so, what do clinicians think about the process about receiving this that, you know, about all the adherence, how are they responding to these dashboards. And it's also exploring measure concepts. You, you know, would look at existing protocols that use (unintelligible) to measure and monitor compliance.

So, thoughts on these specific recommendations and (implementation)?

Man: Thank you.

Hardeep Singh: Jesse, this is Hardeep again. I'm just sort of wondering, you know, this is where I was a little uncomfortable because the (scale) of the science on this area is fairly underdeveloped. And we're asking organizations, especially

with the should, you know, organizations should do this. I'm not clear sort of what kinds of protocols and system support tools we could, you know, directly put in the workflow of clinicians to give them, let's say, feedback. Did you have something specific in mind that we could sort of give a little bit of a proof of concept or prototype that, you know, we know what they can actually do?

Jesse Pines: I think an example would be something like a hard score in checking, you know, to see whether or not clinicians are actually adhering to the hard score and are admitting the patients that are supposed to be admitted, discharging the ones that should be discharged. I think that would be one example. Another one could be support for pretty much any clinical protocol that if, you know, programmed properly into the EHR, it could be monitored.

I mean, again, I totally agree at this time this is really in its infancy. There is some data to suggest that, you know, that pushing some of these protocols into the EHR can, you know, promote adherence. So that, yes, that's sort of where I was going with this.

Hardeep Singh: Yes. Again this would be good, if you can maybe refer to some, you know, literature around that to make it a little stronger and more pragmatic, that would be good. And I'll put in the chat as well one of our recent papers on feedback. We're trying to implement sort of this learning lab with (Geizinger) where we target feedback to clinicians and sort of the program. If that's useful to inform some of the thinking around like a pragmatic strategy to do this, (unintelligible).

Jesse Pines: Fantastic.

David Newman-Toker: So, Jesse, I think one of the things that maybe is a little misleading about the way the title is worded, it says "and measure clinician feedback to support further reduction of diagnostic error." Is that feedback from clinicians or to clinicians, or both?

Jesse Pines: It was I think measuring feedback from clinicians. You know, this is about giving feedback to clinicians but not making that a one-way street. Also make sure that, like Hardeep said, because the science to this is really in its infancy, this is something that does need to be developed in a way that's actually usable and accurate and, you know, that's not disruptive.

((Crosstalk))

Jesse Pines: Every chest pain patient you're not sort of jamming something out there, then, you know, got to do this, and so - and create (unintelligible) more quick.

David Newman-Toker: So, two questions. You got one thing listed in there that says, (prior to the) measure development of measures that assess clinician feedback, such as clinician reported measures on receiving feedback. It's very meta or circular, or something, I'm not totally sure what it is that's meant by that line. But somewhere in these two slides, pages, whatever, is there a place where you called out the need for organizations to provide feedback to clinicians?

Jesse Pines: Yes. I mean, yes, I mean this is what this is all about, is that it's about having protocols in place and then giving feedback to the clinicians of that, whether or not that actually adheres to the protocols, and having that be a two-way street, you know, that may be rolled out in such a way that that is, you know, like Hardeep said, the science to this is sort of in its infancy, you know, the (unintelligible) is effective but does have, you know, can have a lot of pitfalls

(for making sure) that clinicians actually have the opportunity to give feedback about these processes.

David Newman-Toker: I'm just saying, any - does any place in those two slides say that organizations should measure performance and feed that back to clinicians?

Meredith Gerland: This is Meredith from NQF. I can chime in here, that in this recommendation we do talk about the need to be transparent with clinicians and staff and provide feedback to them on the performance for diagnosis and use of protocols. And I think, David, we added this in follow-up to a conversation we had with you and David Andrews just a few weeks ago, but it sounds like we might have gotten a language not quite right here. Because I think the intent really was…

David Newman-Toker: Yes, I think it just needs a little - it maybe the - on Slide 2, there needs to be something, where it says "promoting transparency," or whatever, it's really - promoting transparency seems to imply that the organizations shouldn't like hide these results from clinicians, for sort of ethical reasons. But really this is sort of a functional intervention. I mean, many people have talked about how the lack of feedback is one of the critical problems in the lack of improvement of diagnostic skills over time. Dwell time in practice is not sufficient if you never get feedback, or worse yet, you get biased feedback.

I think it's actually important that somewhere the - in the "organizations should" section, there should be something that says, you know, you can say promote transparency if you want, but it has to be by providing a dashboard that provides feedback on clinician diagnostic performance, or something like that. There has to be some place, I don't know if it's another bullet or that bullet or something, but somehow we have to - we have to call organizations

out and tell them they have to provide that feedback to clinicians, not in the sense of it's the right thing to do but in the sense of that's an intervention to improve diagnosis.

Jesse Pines: Yes. I think we have that in the second bullet under "organizations should." Is that what you're getting at, or something more specific than that?

David Newman-Toker: Measure the rate of protocol use? Am I looking at the wrong slide? I'm sorry, I'm - which one, which second bullet?

So, measure the ability of existing clinicians to make accurate diagnoses?

Yes, but it doesn't say - so you can add to that. You can say, and feed those results back to clinician.

Lavinia Middleton: Hi, this is Lavinia. I think both of those comments are good, but then you also want to provide a mechanism for the providers to give feedback on this system. So the providers need to be able to say, okay, we're not using this protocol because of the way that it's presented as (e-trigger) or this could be enhanced in a particular way. And that way you're putting a mechanism in place so that providers cannot complain about the one-sidedness of the recommendations, because you're providing a mechanism for them also to contribute to refining or enhancing the diagnostic tools.

Hardeep Singh: Yes. And I think, Lavinia, this is a good point, this is Hardeep again. I think the point Jesse made about feedback being a two-way street is really important, and this is sort of what I think you're also mentioning. I mean, if I know that the system is broken, I should be able to tell somebody when they come and let me know that I missed a diagnosis for instance for a patient, or if we're having a debrief on it.

So, anyway, some of the things that I just sent through the paper can help.

Karen Cosby: This is Karen. I had two general comments. I think we're largely captured in this discussion that there's different - you can interpret this statement in different ways, depending upon your perspective. So that clinician feedback encompasses three different things.

One is the ability of clinicians to tell the system there's a problem, to tell someone, and then use it back and forth to drive change, and recognize problems. There's one that was - measured their performance in standards that are set on how to use this system, where it's establishing either a protocol or getting feedback on how patients - what their outcomes are, feeding that back to them. And there's thirdly that sense of how, when you implement a measurement about a clinician performance, their ability to feedback whether or not that's constructive or burdensome.

The second big thing is I was fine with this until I actually saw the how might they be seen by other people, in this title. When you start talking about measuring clinician's competency, in anything, it will probably evoke a pretty strong reaction. I mean, they're board certified specialists, and someone outside now comes in and declares competency in some subset of diagnosis. We might rephrase that or maybe…

Man: I mean, I don't know whether it's too late to change that word, but you could just say performance instead of competency.

Karen Cosby: Performance.

Man: Yes.

Karen Cosby: Competency, there's a lot of things that they're judged by and they wouldn't be practicing if they didn't have some proven competency.

Hardeep Singh: Yes. The joint commission paper that I just sent through chat has the word exactly "diagnostic performance" as well. I think that's a better word than competency.

Jesse Pines: Okay. We can definitely make that, I think. So, yes, this is really helpful feedback. So let's, if we could move to the next just because we still have a lot of slides to get through, if that's okay. But we can certainly make the (unintelligible) helpful.

So, next is evaluating the impact of technology and leveraging technology to reduce errors. This is about usability of the EHR. This is about the use of data visualization records, you know, helping to manage complex clinical information. There is the ability to use health - to perform care management on the care. I think there was a little bit of an older measure that existed to do that.

We also need to look at unintended consequences. So we're going to be pushing people into protocols and giving them dashboards and feedback. We've got to look at unintended consequences, making sure that the over-adherence doesn't lead to different types of diagnostic errors. And you know, some opportunities for measure developers around measuring how technology can actually protect errors across settings, evaluating the diagnoses where e-trigger tools is used.

So, thoughts on other ways to implement this particular intervention? Again these are very general, but, you know, any other big thoughts on this?

Okay. No comments on this one. Let me move on to the next one, which is measuring the use of communication between specialists and second opinions and teamwork.

Specific things that organizations can do is continuously identify opportunities to improve the consultation process, involvement of teams and diagnoses that are known to be error-prone, or where there are (unintelligible) outcomes. Share the measurement results transparently with staff, creating learning and feedback systems similar to what we've already developed, we've already discussed.

One of the existing, I would say, related measures here, not - it doesn't totally get at this, but this is around ensuring that communication happens. This is making sure that emergency information is transferred, that appropriate communication is - I'm sorry - appropriate chart information is sent when a patient is transferred between the hospitals.

And also looking at, you know, disease specific quality measures that incorporate specialized exams, you know, being performed, documented to the - documented communication to the physician who manages the ongoing care. So if there's a specific issue that is identified for a patient, that that would be able to ensure that that would get to the next clinician. Example being, you know, radiologists identifying high-risk findings and making sure they communicate in person, that sort of thing.

So let me just go through quickly. Some other disease specific quality measures include diabetic retinopathy, communication with the physician managing ongoing diabetes care, osteoporosis. Some of the opportunities for measure developers include measuring (unintelligible) that actually are

protocols (unintelligible) communication (of) that result, and coordination, and also measure concepts that (unintelligible) when specific team-based approaches are initiated, so, protocol use, diagnostic escalation, second opinion, and consultants being involved in very specific scenarios that are particularly (unintelligible).

So, thoughts on…

Karen Cosby: I have one comment. This is Karen. I mean, this phrase "documented communication," I think that might actually not be really what - it's nice to document, but really what you are is effectively communicating. Because (unintelligible) can say they sent an email or they wrote on the report or they left a message, but I think you'd rather measure effectively communicated and let them interpret that, is set a higher bar.

Jesse Pines: I think that's a good point. So (unintelligible) wrote it down that the communication actually occurred and received and acted upon. Great point.

Prashant Mahajan: This is Prashant. I just want to make a comment. Are we going to mention anywhere in this anything about balancing measures? Because you know, I'm just thinking about this, you know, like the previous slide had conditions which are more likely to be error - prone to misdiagnosis, right? So if you look from the emergency perspective, like a non-specific or undifferentiated abdominal, you know, chest pain, a headache, these are often prone to it, because that's how most patients would come in.

And if we have a measure that suggests consultation, but if it is not done, or if it is done on every - I mean, more number of patients are needed, then what is the negative or the downside of this. I'm just wondering, should there be a paragraph somewhere in the whole report about balancing measures?

((Crosstalk))

Jesse Pines: Yes, we do actually call that out at the beginning of the recommendation section, saying that it's important to have balancing measures. So that's a great point. We don't discuss that specifically in this measure, but that is a general discussion that's part of the report, which we think is important, so.

Prashant Mahajan: Okay. Thank you.

Hardeep Singh: And Jesse, this is Hardeep again. You know, I think the other thing is a lot of this is retrospective type of measurement. I'm almost wondering, should we also be making a recommendation when it's feasible to do some sort of prospective risk assessment, more of the proactive measurement strategies?

There's a paper guide for instance on communication, which is more forward-looking and proactive, rather than a retrospective look. Should we be making some sort of call-outs for that?

Jesse Pines: I'm not sure I totally understand what does proactive mean.

Hardeep Singh: Sort of, you know, we're looking - instead of looking at events that had already happened, sort of doing a risk assessment of what might be - what could go wrong, looking at the level of risk within the organization for let's say a communication breakdown happening.

Jesse Pines: Okay, so, particularly trying to prevent communication errors by…

Hardeep Singh: Yes. Yes, or adverse events. Yes, beforehand.

Jesse Pines: Okay.

Hardeep Singh: I mean, that's right. I think the - so the measurement should be both retrospective as well as prospective when it's possible.

Jesse Pines: Okay. That's something we can certainly add. If you could send us over the…

Hardeep Singh: Yes. I'll send it in.

Jesse Pines: Thank you.

Other thoughts on this one? We have a few more to get through.

Okay. So, next is assessing appropriate use of follow-up lab testing and radiology. These are - the implementation is focusing on clinician about communicating and coordinating to facilitate (unintelligible) follow-up results. Also recognizing the impacts of overusing testing. So that's what some of that's built in here. Ensuring (unintelligible) communicate to make sure that the next steps are communicated to the patient.

Things that organizations can do is measuring the appropriate use of imaging and radiology, and this is some of the balancing measures that come into place, particularly (overuse of) imaging headache, appropriate follow-up imaging for (incidental) abdominal lesions, inappropriate use of probably benign assessment. There are also some existing measures for biopsy follow-up as well as tracking clinical results between visits. And there are some - highlighting some measurement opportunities, specifically assessing the use of testing, communication and test results, and sharing lab testing across

settings. So there's, you know, there's some existing measures here, but probably still a lot more that could be developed.

So, thoughts on this one?

David Newman-Toker: I think the way - so you've sort of put the balancing measures there without putting the measures of diagnostic accuracy. And I think it is important just that people tend to mistake the words appropriate use for preventing overuse. And really what appropriate use is, it's about correct use when it's needed and not use when it's not needed. It's a bidirectional thing. And I think you need to kind of say that. If you're going to just list measures underneath it that are for the most part designed to prevent test overuse rather than underuse.

Jesse Pines: Okay. I think that's a great point.

Prashant Mahajan: Yes. Can I make one more comment? This is Prashant.

And I'm just wondering if we should also think about equity aspects of these measures, you know, like specifically calling out that measures should be developed and monitored for equity distribution. Because you know, many of these measures are not necessarily equitable, and I can give you a couple of examples and send a couple of papers related to that.

((Crosstalk))

Jesse Pines: …yes, I think that's a good point.

Other thoughts on this recommendation?

Okay.

Jane Dickerson: This is Jane Dickerson.

Jesse Pines: Yes.

Jane Dickerson: Is it worth pointing to some other resources, you know, there aren't any laboratory specific measures that I can see. I'm not sure what tracking of clinical results looks like specifically, that may be pointing to (unintelligible) or other published records. All aspects are appropriate both under- and overuse for laboratory testing.

Jesse Pines: I think (unintelligible) could be appropriate.

Okay. Okay. Next one here is around measuring the cost, time and other aspects of diagnostic odysseys. So this is about organizations that are trying to identify the patients who had undergone odysseys to figure out what happened, doing a root cause analysis.

Some opportunities for measure developers including looking at actually measuring the time (unintelligible) other aspects, so, how long did it actually take from the original chief complaint to the final accurate (unintelligible). Looking at measures around delays and action on critical add values, number of digits from sort of symptoms diagnosis, that sort of thing, looking at the proportionate (unintelligible) people who touch the health system multiple times.

So, thoughts on this one or other areas that we could - other specific action items…

((Crosstalk))

David Newman-Toker: This is David. I have a specific wording suggestion for that last bullet there in the EG part, in the parenthetical. I think you want to change it to the more sort of real-world scenario which is the sort of ambulatory clinic visit that is multiple times, and the ED is sort of the late-stage cancer presentation. So I'd go with late-stage or emergency cancer presentations, for a patient who's been - who has visited the clinic multiple times, or something like that, because emergency cancer presentations are known to represent essentially missed, generally, missed opportunities in prior parts of the healthcare process, usually that they're happening in primary or other ambulatory care settings.

Jesse Pines: Okay, that's a good point. We can make that change. Great point, yes.

Prashant Mahajan: Yes. This is Prashant again. I mean, I'm not very clear that most people that understand the term diagnostic odyssey, right?

Jesse Pines: Yes. We can maybe, you know, just so this stands on its own, we can maybe define it. And maybe these are people who have been, you know, who have taken, you know, longer than expected to come to a diagnosis, you know, people who've had (unintelligible) symptoms for a while and end up with some later unifying diagnosis. So we can - do you think just adding a definition to that would be helpful?

Woman: Yes. I think patients - I think patients do understand that. But if it's not understood by some, it should have an asterisk.

Prashant Mahajan: Just that it's a little uncommon word.

Woman: Uh-huh.

Prashant Mahajan: And then the other thing is about measure the total cost, time. You know, those are like specific aspects of cost analysis and efficiency. I'm just wondering if there is a broader term, right? Because we are just calling out two things here. Total cost, you know, and time, so there could be like cost-effective analysis or pure cost analysis. So I'm just wondering, measure the economic costs and efficiency aspects of diagnostic journeys, or something like that.

Jesse Pines: So you think calling out other things like number of clinic visits or healthcare encounters, something like that?

Prashant Mahajan: Yes. Yes.

Jesse Pines: Okay.

Mark Graber: Jesse, this is Mark. I think it's fine to have a specific thing on odysseys, but it kind of - it brings to mind why there isn't any discussion of measures about how long it takes to diagnose any specific entity, like how long does it take to diagnose appendicitis or stroke. I think having that information would be really valuable to try and define norms for how long it should take. And if you have that, then you could say, well, longer than that is an odyssey. But I'd like to see something that asks for measurement of how long it takes to diagnose common entities preceding this more specific one.

Jesse Pines: I think that's a good point. A lot of the odysseys sometimes will (unintelligible) the less common entities, you know, the sort of rare diagnoses (unintelligible) and I think probably that would include, you know, looking at

(unintelligible) distribution of how long it actually takes to get the diagnosis of something that's maybe a little harder to diagnose.

((Crosstalk))

David Newman-Toker: So this is David. I sent in the chat box to the presenter, I don't think any, I don't, at least not for me, the other people's chats aren't coming through. But I sent a report about diagnostic odysseys for rare diseases that's from the U.K.

And I think Mark's point is well taken. I think really the question here is the extent to which you're trying to match this onto the use cases. Like, this is sort of structured to be related to the, you know, dismissed patient and the, you know, sort of less common disease presentations. But Mark's point is right, which is that at some level, we need to start thinking about measuring time to diagnosis as a concept on a consistent basis for a given disease or a given symptom disease pair.

And that time to diagnosis notion then can translate to, you know, the thornier question of how long is too long. Because what you can start to do, and there are some studies that have already done this, for instance, with cancer, how long a delay in colon cancer diagnosis before it's now - before it's now impacting patient health and causing harm. It's clear that a delay of one week doesn't. The breakpoint is probably somewhere around six to eight months for colon cancer, according to the JAMA paper that was published a few years ago.

So we can't say exactly what that break time time point is for every individual disease, although we have an intuitive sense that, for acute diseases, it's anywhere from minutes. In the case aortic dissection where we do have data,

to hours or days, for things like stroke and heart attacks. And for stuff like cancer, it tends to be on the order of magnitude of months and occasionally longer than that.

So I do think it's worth somewhere in the whole thing trying to kind of note this time diagnosis, it's not just specific to the diagnostic odyssey with a rare disease but that it's an important measurement concept.

Jane Dickerson: This is Jane. Building on that, I wonder, I don't know if it's part of this or another measurement, but if we should layer in equity or other (biases) that might impact the length to diagnosis as well other reasons why people don't even seek care.

Jesse Pines: Uh-huh. So you're thinking to measure that, you know, (start the) diagnostic odyssey, that maybe start before your first visit? Or that you'd look at the impact of, let's say, you know, socioeconomic status (unintelligible) on the impact on diagnostic odyssey?

Jane Dickerson: Yes.

David Newman-Toker: Well, that's done in the U.K. and in NHS system where they tried cancer. They call this the patient intervals, between the time the patient first to have symptoms to the time that they first access the healthcare system. And it's an important of delays. And those delays are sometimes due to remediable causes, whether they're, you know, biases healthcare, lack of access, or whatever.

Jesse Pines: Yes. That's a good point.

As I said, the (unintelligible). Other thoughts on this one? We've got one last recommendation here.

Okay. The last recommendation is about measuring participation in health information exchanges or data-sharing programs. Specifically there is a measuring EHR interoperability, (these sorts of) measures, being able to receive laboratory testing electronically into the EHR system.

Other, some opportunities for measure developers include other interoperability measures, assessing the presence of interoperability and (unintelligible) across not only within hospitals but across communities, looking at health system participation. And NQF has done a fair bit of work on this (unintelligible) another NQF report on healthcare (unintelligible) which does include some specific measures on interoperability, other data (sharing).

This one's probably our most specific measure and has a lot of specific measure concepts.

David Newman-Toker: So, Jesse, I think the second bullet there, and the third bullet, that sort of get at these issues, I think the third bullet in particular, about the sort of participation in health information exchanges. I think if we're going to call this opportunities for measure developers, what we also need to figure out is how the system in general can leverage data across institutions to measure diagnostic error.

These are sort of structural measures. But we know that the - that you're going to - you have a (unintelligible) system if you're only looking at your own EHR when you're measuring stuff. At some level, we're not just interested in meta measures that say you do or don't participate in the health

information exchange, we're interested in the notion that health information exchanges can be used to more accurately measure when a patient is discharged from your hospital or health system's care and seeks care in someone else's system, turns out to have a different diagnosis.

That change in diagnosis will not be apparent to you without the health information exchange. I think somehow you have to kind of encourage people to do those kinds of measurement as well.

Hardeep Singh: Jesse, this is getting a little sort of beyond, you know, where we started. I just feel there's a lot going on in interoperability and health information exchange that just maybe all you need to do is sort of refer to some other sources, including the previous NQF report that we worked on. I don't know if we should start making - I mean, the report's already getting quite large and very, very ambitious. And I think we should sort of try to weed out some of these things, or maybe at least scale them down, and, you know, refer (unintelligible) some other things.

Jesse Pines: Uh-huh. So you think that (unintelligible) recommended standard technology…

Man: Sure, yes.

Jesse Pines: …David was getting at was sort of, you know, in order to share information on diagnosis, we could have a technology tool that could be used (unintelligible) changes, that would be one way to use technology. And we could pull it off together.

Hardeep Singh: Yes. I just think we need to sort of (thin down) a little bit.

Jesse Pines: Okay.

Hardeep Singh: With some of the recommendations.

Jesse Pines: Okay. So we'll take a look at that and potentially do that.

Other thoughts on this one, before - I think we're behind here, so, going to move to public comment in a moment.

Okay. Well, thank you everyone for really great feedback, the discussion. Let me go on to public comment and turn it back to the team.

Meredith Gerland: Great. Thank you, Jesse. This is Meredith speaking. And thank you for everyone for that really thoughtful discussion. We'll be sure to make those recommendations and changes into the final version of the report.

So now with our - with the next half an hour, we wanted to take an opportunity to share the public comments we received on the draft report, one of it was opened for public comment in July and early August, with all of you, and also go through the proposed responses.

So, during the public comment period, we did receive a really impressive 24 public comments. These are all included in the slides and the report current draft which we sent in advance of the Web meeting. So I'm hoping many of you had a chance to look at those in advance. And I'll go through them rather quickly today since we do have so many comments.

So, for the public commenting period, we asked a series of 11 targeted questions to focus commenters on the use cases, the recommendations, and other general comments and considerations. So the forthcoming slides are

organized by question. And we asked two questions on each use case. One focused on if any causal factors were missing and one focused on if the solutions addressed the causal factors in an actionable and specific way.

So, after we go through the comments for each question, we'll pause for any committee feedback or input on the proposed responses. And these proposed responses, similar to other NQF reports, will be included in the appendix of the final report.

And I'm just trying to move the slide along here, and it looks to be frozen. Udobi , can you move off to Slide 32?

Udobi Onyeuku: Yes. Looks to be frozen on my end as well. Okay, it's loading, so maybe if we just give this a few minutes.

Meredith Gerland: Okay. While it's loading, I'm going to continue starting onto the public comments, and hopefully this will reload in one second. The Web meeting materials should all be attached as well to the Web meeting slides in the meeting appointment.

But the first public comment we received was related to Use Case 1. So we asked a question about if there were any additional causal factors or challenges for Use Case 1 which was cognitive error, missed, (bottled) clinical finding.

And the commenter here suggested that include additional language around contingency plans to help patients understand what to do if their clinical symptoms evolve in a way that is inconsistent with the diagnosis. So, on the slide, and hopefully you'll see in a second, but our proposed response thanks the commenter for their feedback, and then note that we've included

information about including contingency plans as a solution to address the challenges outlined in Use Case 1. So we've added that in to the final version of the report.

The next comment we received on Use Case 1 related to the causal factors and challenges was regarding their support for the references to clinical decision support that are included throughout the report. And the commenter himself also included mention of a particular software.

So in our proposed response to the commenter, we did thank the commenter for their feedback and did not indicate any additional changes since it was aligned with what's already in the report.

The next comment we received related to Use Case 1, asking about any additional causal factors that should be included, was where the commenter raised that the report did not include enough discussion on competing national quality initiatives regarding the judicious resource utilization. And the commenter went on to describe how this is a critical part of the discussion on diagnostic errors.

So in response to receiving that comment, we modified the final report to incorporate a causal factor for Use Case 1 about competing quality initiatives, specifically regarding judicious resource use. And we also added detail into this, into the first snapshot of the Use Case 1. We also tried to get at this by adding information about competing quality initiatives related to the over-testing portion of the recommendations section.

And then the final public comment we received related to Use Case 1 cognitive error was where they suggested a revision to one of the measure concepts that's included in the measurement approaches section. And in

particular, the commenter suggested changing what was originally displayed as the rate of clinical decision support use - oh, and I think we're back on the platform here, so let me just get up to speed where I am here. Yes.

So the final comment on this was recommending revising from the rate of clinical decision support use for use cases in which clinical decision support tools are available once clinicians complete the necessary documentation and field in the EHR. And the commenter suggested it was just a bit too complex and recommended if we simplified simply to the rate of clinical decision support use.

So as you'll see in the response on the screen in front of you, we've made the suggested modification to this.

So let me pause here. That was the feedback we got from the public related to the questions targeted for Use Case 1. I want to see if there's any comments or thoughts from the committee on those responses.

Okay. Hearing none, I'm going to move us onto the comments we received related to Use Case 2. So, in this first comment for Use Case 2, which is about system errors, and particularly communication failures, we received the comment or comments stating agreement at how patient empowerment, education and engagement is incorporated throughout this part of the report.

So as you'll see from the screen in front of you, no additional changes were needed as proposed in that response.

The next question related to Use Case 2 was about the solution for this use case. And you'll see in the response here, the commenters shared their strong agreement with the measure concept and approaches suggested in Use Case 2.

And then the proposed response, we've acknowledged the comment.

And those were the only comments we received related to the questions on Use Case 2. Are there any committee questions or feedback related to these questions?

Okay. I'm going to keep us moving along, related to the public comment questions, focused on Use Case 3, which is cognitive error information overload. So again we asked two questions specific to this. One about if any causal factors or challenges were missing, and one about if any - if the solutions effectively addressed the causal factors in an actionable and a specific way.

So the commenter here suggested incorporating clinical decision support software as a solution within Use Case 3. And as you can see from the response, we did go ahead and make this change in Use Case 3 to add this up.

The same commenter also suggested expanding the solutions around evaluating EHR notifications and alerts to be occurring at least annually. So as you'll see from the response, we've modified this within the report to reflect that this should be an ongoing activity, that (we reevaluate) it after initial implementation. So it's not just a one-and-done activity but this should be reassessed on an ongoing basis to support optimal EHR use and reduce alert fatigue.

The same commenter continued on to discuss medication alerts. And since this report is focused on diagnostic errors rather than medication alerts, no further updates were indicated based on this portion of the report - this portion of the comment.

And this last comment here on Use Case 3, the commenter also agreed with including the time to detection of important clinical events as a measure concept. So, no additional updates were needed, as you can see from our response here.

And those were the comments we received related to Use Case 3, cognitive error information overload. Let me pause now and see if anyone from the committee has any feedback or input on the proposed responses.

David Newman-Toker: Sorry, I don't know whether other people's things are tracking, I'm trying to follow on the - my PDF with my (unintelligible). The one you mentioned about the - that talked about the medication alerts, was that it?

Meredith Gerland: Yes.

David Newman-Toker: And so you didn't make any responses on the basis of that because they talked about medication alerts?

Meredith Gerland: So, and David, I'm hoping your platform is up and running. We had a couple of minutes of frozen time here. It looks from our end to be back up. So it might be just rebooting back up for you and hopefully the slides will be aligned so it's a little easier for you to follow.

But yes, that's correct. So there was a series of comments from a commenter about alert fatigue and EHR alerts and medication alerts. So we did make modifications about evaluating for alerts and evaluating the EHR alerts that are…

David Newman-Toker: Oh, okay.

Meredith Gerland: …that are happening.

David Newman-Toker: So I misheard you then. So you addressed the concern without getting into the medication alert piece of it.

Meredith Gerland: Exactly. Exactly. So we did talk about how this should occur on an ongoing basis, it should be reevaluated after an initial evaluation is done. But we did not dive deeply into medication alerts per se, just talked about it more as EHR alerts.

David Newman-Toker: Great.

Meredith Gerland: Okay. Moving on to the public comments received related to Use Case 4, cognitive error dismissed patients. So again we asked two targeted feedback questions to the public related to Use Case 4. One about any causal factors and challenges that are missing, and one about the solutions effectively addressing the causal factors in an actionable and specific way.

And so this comment here, similar to an earlier comment, the commenter requested inclusion of the contingency plan into Use Case 4. So, subsequently, we did add in information on creating contingency plans for this use case.

This next comment was focused on the measure concepts included related to Use Case 4. And the commenter expressed agreement with the measure concepts included there. So, no further action was needed.

This last comment on Use Case 4 suggested including more information about the role of clinical decision support and overcoming biases and synthesizing

complex information. As a result, we did add in additional language about this particular in Use Case 4, to share that clinical decision support can help organize and synthesize clinically complex or ambiguous information that clinicians might encounter when addressing a difficult diagnosis.

And so those were the comments we received specific to Use Case 4. Are there any questions or additional thoughts on the responses from the committee?

Okay. The next two questions, which I'll go through the answers to the - or the responses to those together before opening it up for committee feedback, were focused on the broad-stroke comprehensive recommendations portion of the report.

So the first question we asked about this was asking if the broad scope comprehensive recommendations outlined clear, actionable recommendations for various stakeholders to apply the diagnostic process and outcomes domain of the 2017 measurement framework and to measure and reduce diagnostic error.

So this first commenter expressed his agreement with the question, so we did not indicate any further action.

This next commenter supported the recommendations, especially those around leveraging clinical decision support and protocols. They also included information about a number of different specific software names, which we did not add the software names to the report. But in general, the comment was about supporting the role of clinical decision support and protocols, which is part of the recommendations here.

This next commenter shared their support for the measurement recommendations table, while also indicating that the use cases still be on just measurement. This is something we've talked with the committee about in our June meeting and talked about a little bit earlier today, and is really aligned with the scope of the project and the intent of this work to be focused both on implementation strategies as well as measurement recommendations.

The commenter also mentioned referencing machine learning, which actually is included within the report. And there are recommendations that include information about utilizing artificial intelligence and other evolving technologies. So this is consistent with what's in the report currently.

Similar to this commenter's previous comment, this commenter continued to express support for the inclusion of clinical protocols and pathways. And as mentioned a second ago, there are specific names of softwares, although we did not include the names of the softwares within the report itself.

And then the next question we asked related to the recommendations was if there's any additional recommendations that should be included to help measure and reduce diagnostic error.

So this comment here is actually a two-part comment, so it's over the next two slides. I'm going to flip it over the next slide while I describe the sentiment of the comment here. And really the commenter shared some concerns that some of the measurement approaches and concepts were not fully evaluated for feasibility, scientific acceptability, and for implementation barriers.

And the commenter is absolutely correct that the measurement approaches and concepts described throughout the report are those that are really brought forward as a starting point described by the committee. So these are concepts

and considerations, and would need to be thoroughly specified, developed and tested for feasibility and scientific acceptability before being fully implemented.

So we've shared this sentiment in our proposed response here. And then we went through an added additional language throughout the report to help meet this distinction about the measure concepts more clear to the (end-reader).

So let me pause here to see if there's any additional feedback on the recommendations related responses to public comment that I showed over the last few slides.

Hardeep Singh: So this is Hardeep. You know, I think this is probably one of the most serious and well-thought-out comment that could be useful for framing. It kind of goes to earlier when our discussions were centered around, you know, we don't have a lot of scientific expertise on - evidence for this. This really would reflect on what a lot of the professional societies and healthcare organizations would make about when they look at the recommendations from the support.

So I would say, you know, we should take extra care to address this comment, anticipating that we'll get a similar type of a pushback from other folks as well, especially from healthcare organizations and professional societies that have clinicians like this.

Meredith Gerland: Thank you. Do you have other thoughts aside from adding in some clarifying language and really making it more clear that, you know, full measures before implementation should be tested for feasibility and scientific acceptability, and really clarifying where we're talking about measure concept as distinct from measures? Do you have ideas of other ways to help address this?

Hardeep Singh: So, you know, some of the places that I was finding, like I should, along with doing something that had very little evidence, those areas were concerning. So, every time that I think you had "should" written in the recommendation, we should be looking at, you know, if the evidence isn't enough, then we should try to say that this is more of a scientific goal for the next, you know, few years rather than - I mean the organizations have to sort of, you know, also go ahead with the science, I'm not denying that.

But I'm just thinking that, if you get - if you say "should" in a report, that implies that there is, you know, good evidence that it should be done, and you know, you have pushback from places like AMA. And I'm not surprised at this at all. That, you know, don't tell us to do things that you don't have any evidence for, and we're already, you know, drowning in other types of burden. So I think we need to rethink the word "should" at some of these places where, you know, the example of the competence, or whatever the competency one, was a perfect one.

Meredith Gerland: Thank you, that's very helpful.

David Newman-Toker: I think one of the other things that you can do to get at this issue…

((Crosstalk))

Man: …that language (unintelligible) should, that's a great point.

David Newman-Toker: So I think this point is, I agree with Hardeep, is an important point. I think one of the things that you could maybe do a little bit explicitly, done it in various ways I think in the report, but maybe just explicitly, at the

beginning of the measurement section, talk a little bit about the - sort of the evolution that's anticipated here, right?

So what you really want is you want the measures that are well-developed and closest to the outcome end to be things that migrate through the "everybody does it" framework, you know, NQF approved, etcetera, etcetera, as soon as they're scientifically valid.

And a lot of the other recommendations are things that, rather than waiting 10 years or 20 years or whatever for the measures to be perfect and proven to have a benefit and so on and so forth, maybe the notion is to emphasize that they should be implemented on a case-by-case basis as warranted by the needs of the individual institutions deploying them. I think, in other words, the more - the rougher and earlier a measure concept is or a measure idea, the more it should be used in this kind of quality - local quality improvement sense and further away from that per-for-performance sense.

And so maybe if you can just sort of stratify that conceptually for people so that they understand that not everything is of equal weight.

Hardeep Singh: Yes. I think a similar sentiment was in the AHRQ operational brief as well. You know, I think we need to emphasize that this is for measurement for quality improvement and not measurement for accountability yet, just because the science isn't there. And I think giving the impression to folks like AMA and others that this is going to be yet another measurement for accountability for either a public reporting pay-for-performance or some kind of reimbursement type of, you know, penalty, slash, sort of (unintelligible).

We need to sort of go away from that and focus more on this is to get people to think about measurement for quality improvement. And we mean people,

we mean everybody -- clinicians, healthcare organizations, vendors, measure developers. Everybody needs to sort of first step on the sort of the bandwagon of measurement for improvement and then we can go around to sort of specific measures, process measures, or outcome measures that are sort of more reliable and valid down the line that could be implemented. Because some of the documentation burden all this language typically comes from sort of their language around tyranny of measures where, you know, there's just too much of measure burden that we can't focus on the meaningful ones.

David Newman-Toker: I think that's basically right, but I wouldn't remove all reference to the notion of accountability and pay-for-performance. I think it still has to be the expectation that that's where we're ultimately headed, but I think it's important to stratify that the measures that are less well-developed should be used for improvement, as Hardeep put it, and the path to accountability needs to reserved for things that have, you know, made it to that level.

Meredith Gerland: Okay, wonderful. I think that's really helpful, and we can certainly make that distinction in the report to talk about that evolution, as you both described it, to help make it more clear. The more nascent something is or the less testing it's been through, that's really where we're thinking about that local quality improvement and not necessarily the accountability and pay-for-performance.

So, to continue the discussion, I know we only have a few minutes left to review the last couple of public comments. The last public comment we'll show here were in response to just an open-ended question for any other general comments or feedback on the draft report. So let me go through all of these and then again I'll pause for any reflections or input from the committee on the responses.

This first commenter here marveled on the breadth and depth of the report, which we really do commend the committee for. The commenter also raised that there needs to be more clear guidance on measurement, which is something I think we've talked a lot about internally as well as what's been in our minds as we made those more robust measurement focused discussions.

So the sentiment of this should now be updated and incorporated into the refined measurement recommendations section of the final report, since it's evolved so much.

The next comment is aligned with prior suggestions from this commenter. He suggested adding more detail throughout the report on discharge planning and contingency plans, as well as mentioned feedback. So we've incorporated this throughout the updated version of the report.

The commenter also raised a question on the importance of clinical bias based on recent literature. We did not make any modifications to the cognitive bias portion of the report based on the extensive conversations that this committee has previously had on the role of biases.

This next comment is over the next two slides, and I'll begin here just the commenter expressed support for the use cases, as well as shared some additional feedback. One of the pieces of feedback the commenter shared was to add more information to the executive summary, which we did update and incorporate more details into.

The commenter also suggested making the distinction between subtle clinical findings that include symptoms that mimic common conditions, different from those that appear with non-classical presentations. So in the report we provide

examples of both of those, that should help the user see the distinction between different types (of) clinical findings.

And the commenter also suggested some wording modifications to the potential solutions, which we did incorporate to reflect his feedback.

This next comment is summarized over two slides, so I'll move to the next one to talk about here. But many of these were commenting on the formatting of the report, which we've addressed and we're working with our NQF copy edit team on. The commenter, similar to the previous commenter, also suggested adding more details to the executive summary. So we've gone ahead and done that.

This commenter also shared feedback on adding more details on the totality of cognitive pressures that clinicians face, really to illustrate the complexity of the cognitive process of diagnosis. So we included information in Use Case 1 about this, as well as included more detail on competing operational pressures into the recommendations portion. So there's a part that discusses those now.

This commenter discussed the use of the term "subtle," with which we have added detail into the report to clarify that although symptoms may not be subtle, their association with diagnosis may be what is considered subtle.

The commenter also suggested tying the use cases, solutions and measurement approaches more closely together. So we've incorporated language to reflect this. Although the commenter did also have an interesting suggesting to add a numerator and denominator to each of the use cases, as the commenter himself indicated, it's a bit beyond the scope of this report. But we did, however, include additional information into the measurement

recommendations portion to help tie the connection back to the use cases a bit more clearly.

And then this last comment was received from a member of the 2017 committee who works on the framework. And as you can, there are no additional further action was needed based on this comment.

So let me pause here for any additional committee reflections or input related to our proposed responses and the modifications we've made based on the public comment.

David Newman-Toker: I'll just say that I like the way you handled the subtle issue in Use Case 1. I think it was well done and it addresses the concern.

Meredith Gerland: Great. Thank you.

Okay. Well, hearing nothing else, we'll move on. But again, just thank you to all of our committee members who have shared input and disseminated the draft report during the public comment period. We were really pleased to have so many public comments. So, thank you all for helping support dissemination of the draft.

Let me pause now at this point during the meeting to open up for any public comments from public attendees for today's Web meeting.

Okay. Hearing none, we'll move forward to discuss next steps. So I'll turn it over to Udobi from the NQF team.

Udobi Onyeuku: Thank you, Meredith. Go to slide - sorry, the slide highlights upcoming dates.

As you know, today was our final Web meeting for the Reducing Diagnostic Error project. So the next key date to look forward to is October 7th, which is when the final report will become available on the project page.

So if you have any additional feedback, questions or concerns, you can reach out to the project team via email at diagnosticerror@qualityforum.com. And you can also view the project page as well as the committee SharePoint for our meeting information and meeting materials, as well as the final report.

So I'll pause briefly here to see if there are any outstanding questions that we can answer.

David Newman-Toker: This is David Newman-Toker. I'd just like to take a moment to thank the entire committee and my co-chair David Andrews for their hard work on this great report, as well as for all the staff at NQF who have labored tirelessly to bring this to fruition. So, thank you everybody for your engagements and spending your valuable time to make this the best report possible.

Man: Hear, hear.

Udobi Onyeuku: Thank you. Okay. Well, with that, I'll actually turn it back over to Meredith for closing comments.

Meredith Gerland: Great. Thank you, and thank you, David, for those kind words. And you beat us to the punch here because we were planning to open it up to both you and David for any…

David Newman-Toker: Sorry about that. I wasn't well-prepared, my apologies.

Meredith Gerland: No. No, that's great. But David Andrews, I don't know if you have anything else you'd like to share before we adjourn today as well.

David Andrews: I would just like to agree with David Newman-Toker. I mean I think this has been - the whole undertaking is a rather massive and complex one, and I'm extremely impressed with the quality of the participation of all the members of the committee and the receptiveness and the responsiveness of the NQF staff to getting this report to the place that it is. Obviously there's - it's still work in progress, there's a lot of work to be done.

From my truly patient perspective, an important part is where we go from here and how this moves forward to actually improving diagnosis quality in the long term. But I think we've laid a very solid foundation for moving this process forward. And we thank everybody for the participation.

Meredith Gerland: Thank you, David. And you know, we couldn't agree more, and on behalf of the whole NQF team, I'd really like to thank our entire committee for your tremendous engagement over the past year. And of course in particular, thank you to David Andrews and David Newman-Toker for your leadership on this topic. We've really appreciated on the NQF side the thoughtful dialogue and expertise that every committee member has brought over the past several months through our Web meetings and different discussions in the subsequent report that we've developed.

And really, you know, we know how busy you all are, and especially during this unprecedented time in healthcare, we can't express our gratitude enough for your continuous commitment to this project and to reducing diagnostic errors. So we're really helpful that this report will help offer practical guidance for stakeholders to continue on the journey of reducing diagnostic errors and improving patient safety.

So, thank you again to everyone. And please do reach out to the team if you have any questions or concerns at all in the coming weeks. As Udobi mentioned, our final report will be posted online on the NQF Web site on October 7. So we'll certainly reach out the committee with a note letting you all when it's up there. But thank you again for your time.

And I think, Scott, if there's any other parting comments, we can hear them. Otherwise, we can adjourn for the day.

Okay. Well, thank you all and have a wonderful afternoon and we'll speak with you soon.

Man: Thank you.

Man: Take care.

Man: Take care.

Man: Thank you.

Man: Bye-bye.

Man: Thank you. Bye.

END