NATIONAL QUALITY FORUM

Moderator: Meredith Gerland
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12:00 p.m. ET

Meredith Gerland: Good afternoon everyone or good morning to those of you on the West Coast. My name is Meredith Gerland. And I'd like to welcome you all to our seventh committee web meeting for the Improving Diagnostics Quality and Safety Reducing Diagnostic Error Measurement Consideration this meeting.

Before we begin I'd like to share a few housekeeping items with the group. As usual, this 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 mute your lines 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 the phone to be able to contribute into the conversation please go ahead and mute your computer speakers. We also have the capability to mute your line on our end if we're getting any feedback. And if we do that we'll be sure to send you a message over the Web platform if possible for (unintelligible).

I'd like to begin by briefly reviewing the agenda for today's Web meeting. We'll begin by going through an overview of the draft final report and then we'll move into a larger discussion on the broad scope comprehension documentation. After that, we'll have an open opportunity for all committee members to comment on the draft report before we open it up for the public comment on the report.

We'll conclude today's Web meeting by discussing the next steps for the committee and the report. I'd also like to thank all of our committee members for providing thoughtful feedback to the draft report over the past two weeks. Many…

((Crosstalk))

Meredith Gerland: …of you provided additional…

Man: I'll get it out.

Meredith Gerland: …evidence and references and we're working to incorporate those. We're also in the process of adding some new content based on the suggestions (unintelligible). We'll talk more about that today during the content of the report discussion.

Before we move into committee roll call I'd like to share the NQF project staff myself Meredith Gerland, Chelsea Lynch, Deidra Smith, Udobi Onyeuku, and Jesse Pines are all on the line today. If you have any questions during the Web meeting please don't hesitate to send a message over the chatbox to one of us and we'll be sure to address you. And with that, I'll turn it over to Udobi .

Udobi Onyeuku: Thank you, Meredith. We'll start with our Co-chair, David Andrews?

David Andrews: Present.

Udobi Onyeuku: David Newman-Toker?

David Newman-Toker: Present.

Udobi Onyeuku: Flavio Casoy?

Flavio Casoy: Yes, I'm here.

Udobi Onyeuku: Karen Cosby?

Karen Cosby: Present.

Udobi Onyeuku: Sonali Desai? Jane Dickerson?

Jane Dickerson: I'm here. I do have to hop off in an hour though.

Udobi Onyeuku: Thank you. Andreea Dohatcu? Mark Graber?

Mark Graber: I'm here.

Udobi Onyeuku: Helen Haskell?

Helen Haskell: Here.

Udobi Onyeuku: Cindy Hou?

Cindy Hou: Here.

Udobi Onyeuku: John James?

John James: Here.

Udobi Onyeuku: Joseph Kunisch?

Joseph Kunisch: Here.

Udobi Onyeuku: Prashant Mahajan?

Prashant Mahajan: Yes, I'm here.

Udobi Onyeuku: (Kathy McDonald)? Livinia Middleton? Craig Norquist?

Craig Norquist: Here.

Udobi Onyeuku: 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: I'm here.

Udobi Onyeuku: Michael Woodruff?

Michael Woodruff: Hi, it's Mike.

Udobi Onyeuku: Ronald Wyatt?

Operator: You are now being connected to…

Udobi Onyeuku: I also want to check and see if our federal liaisons are on the call today Andrea Benin? David Hunt? Marsha Smith?

Marsha Smith: I'm here.

Udobi Onyeuku: Thank you. Great, thank you everyone for joining us today. I'll not turn it over to Meredith who will guide us in an overview of the draft report.

Meredith Gerland: Thank you Udobi . And for anyone who joined after the roll call if you would like to send us a message to let us know you're on the line that way we can add your attendance. So as mentioned a few minutes ago we're going to spend the first 20 minutes or so providing an overview of the draft report.

This will mirror what you all saw in the Google document and will provide a high level overview for those of you that may not have had the chance to look at the Google document last week. We'll also touch on some of the themes that were in the process of incorporating based on your feedback.

So before we begin I wanted to give you a brief snapshot of what the full report looks like. As many of you saw on the Google document the report will begin with a brief executive summary. And then the report will start with background information on the scope and impact of diagnostic error followed

by the project objective. Next, we'll include an overview of the environmental scan findings before going into the four use cases.

The last major section of the report is the broad scope comprehensive recommendation which we'll spend the majority of our time later today discussing. Finally, there will be a brief conclusion before a series of appendices that lists the committee roster as well as measure inventory and (unintelligible) comments.

I know this project started way back last fall so to remind everyone this work really is intended to build on the work of the 2017 Diagnostic Quality and Safety Measurements Framework. The goal of this project was to focus on the diagnostic processes and outcomes domain of the 2017 framework.

The first goal was to examine the domain itself and identify if any needed updates were required. And then the goal was to develop practical guidance for the application of this domain which includes the four use cases and recommendations.

As we'll see on the slide in front of you this is a picture of the Diagnostic Quality and Safety Framework from the 2017 framework. The orange part of the diagnostic processes and outcomes domain. And this is the area that we've been focusing on over the life of this project. This includes subdomains of information gathering and documentation, information integration, information interpretation, diagnostic efficiency, diagnostic accuracy, and follow-up.

Although there is overlap with the domains and organizational and policy opportunity as well as patient, families and caregivers the focus area for us is really on the diagnostic processes and outcome sourcing. In performing the

environmental scan last fall we did not identify any needed requirements to the update or modifications to the subdomain.

This slide shows a bit of more detail of the subdomains and what is included in each. You'll see that information gathering and documentation refers to the collection and documentation of diagnostic related information. Information integration refers to the use of consulting, hand-offs and care transitions to team providers. Information interpretation refers to the use of support and best practices. Diagnostic efficiency refers to the cleanliness, efficiency and appropriate use of diagnostic resources and tasks.

Diagnostic accuracy refers to diagnostic errors, delays and misdiagnoses. And follow-up refers to the appropriate and timely follow-up of labs, radiology reports, consult notes and other diagnostic findings. There's a lot of alignment here with the contents of the report so I just wanted to (unintelligible) on what each subdomain really refers to before we dive into the report.

As part of the environmental scan NQF also reviewed the crosscutting themes identified in the 2017 measurement framework. The environmental scan reaffirmed the existing themes of patient engagement, the impact of EHRs on diagnostic quality and safety, transitions of care, the opportunity for specialty (unintelligible) to provide guidance, interprofessional education and credentialing and the role of the external environment which includes things like payment incentive and reimbursement.

During the environmental scan, one new crosscutting theme was identified which is the importance of advancing science and diagnostic care. The environmental scan also identified new measure concepts related to the diagnostic process and outcomes domain. These will be included in the final report as well as a list of new measures that were identified in the

environmental scan. So the appendix will include both the new measure concepts as well as the new measures.

I'm now going to shift the discussion to the use cases before I turn it over to Jesse Pines, the draft consultant, to discuss the broad scope recommendation. We'll review the use cases now at a high level since we've spent a lot of time on them during our previous Web meeting.

As you likely saw I have learned from our past Web meetings the report includes four use cases that we've fleshed out over the last several Web meetings. The use cases focus on the subtleties, communication failure, information overload and the (unintelligible) patient.

We did hear from one or two committee members during the feedback period or recommendation to broaden the missed subtleties group to missed clinical findings in general. We've updated this table to reflect missed subtle clinical findings.

Based on our committee discussion so far we felt we needed to keep the subtleties as a focus area to incorporate the previous committee discussions we've had about how subtle findings for rare diseases increase the likelihood of diagnostic error.

As you likely saw in the draft report each use case contains various sections. Use cases begin with a brief narrative describing the type of errors the clinical contacts and detailed information on several factors and diagnostic challenges.

The introduction also describes the relationship between this type of error and the subdomains within the 2017 framework. There has been a table that highlights the causal factors with primary solution categories and process

steps for implementing each solution. Following this table, three case examplars are included for each use case as snapshots. These snapshots are intended to cross settings and provide real world scenarios that detect diagnostic errors in practice.

Over the last several months we've talked with the committee about many possible case examplars that demonstrate these errors. We worked to build the key components of those discussions into the final case exemplars that are included. As you'll see in a moment the case exemplars also include a description of how the error manifested and possible solutions.

Each use case rounds out with a narrative describing how the highlighted solution can impact patient safety as well as include a table describing measurement approaches and concepts. As you'll see here this is what an example of one case exemplar snapshot looks like.

It's a brief narrative describing what happened and the errors it led to. Following that narrative is another brief narrative describing the case exemplar challenges that led to the diagnostic error. This section highlights one of the causal factors and challenges mentioned earlier within the use case manifested in this specific situation.

And lastly, each case exemplar includes three to four case specific solutions. The bolded text maps back to the use case table on the table solutions. And the paragraph describes how it applies and how it can be operationalized within the particular example included. Each snapshot includes about three to four specific solutions. Before I move on to the use cases let me pause to see if there are any questions about how the information was presented in the draft report.

Okay. Hearing no questions, I'm going to keep going and review the challenges, solutions and impacts on patient safety and the measurement concepts at a very high level for each of these use cases. Again since we've spent so much time discussing these over the last several months I'm going to go through this fairly quickly to allow most of the discussion around the recommendations today.

For Use Case 1 which is focused on comment of error, missed subtleties you'll see on the screen a variety of clinician factors, system factors and condition and disease factors. The condition and disease factors also include individual patient-level factors which was a suggestion we heard during our last committee meeting. We've used these three buckets of organization across all four use cases.

In addition to the factors listed on the slide in front of you, we've also added on based on the feedback we've received from the committee last week. This includes adding a display of results and information within the EHR to the system factors category and adding other competing clinical explanations to the condition and review factors. To (unintelligible) solutions for this use case center on enhancing expertise through education and training, employing a team approach and leveraging technology to understand the full clinical picture.

In the section here on patient safety, we describe the evidence and literature supporting the use of education, technology and teamwork to overcome subtleties in clinical presentations and support accurate and timely diagnoses. The measurement approaches outlined here map back to the solution and focus on ensuring protocols are used and followed as well as the use of clinical decision support.

Based on committee feedback on the draft report last week we've also expanded this to build on information on how e-triggers can be used to identify if someone deviates from a protocol. This section also describes how outcome measures could be linked to measures of utilization for consult and imaging. And also includes approaches for understanding symptoms of these pairings to measure short-term outcomes of acute care visits and asking for patient-reported feedback.

Moving to Use Case 2, this use case focuses on communication failure and failures to close the loop. The causal factors are again organized by clinicians system and condition and disease factors. Another key condition and disease factor we've added based on the feedback we received last week is about language and communication barriers for the patient such as the patient being too ill or short of breath to converse productively with the clinical team.

Solutions for this use case focus on ensuring clear roles and responsibilities for follow-up, engaging patients with access partners and leveraging data and technology to promote closed-loop communication and information sharing.

The section on patient safety for this use case outlines how reducing communication failure can improve overall patient safety and reduce diagnostic errors and adverse events. This section also describes the impact of the intervention at different parts of the communication continuum.

Measurement considerations for this action focus on opportunities for using e-trigger, communicating with patients and their preferred language and ensuring follow-up and verbal handoffs occur. Measuring interoperability of health information technology, assessing (unintelligible) diagnosis and patient reporting understanding of diagnosis and diagnostic uncertainty after discharge are also included here.

Continuing on to Use Case 3, this use case focus goals are on information overload errors. Again you'll see the causal factors are organized into the same three categories of clinician factors, systems doctors and condition or disease factors. Solutions for the information overload errors build on leveraging technology as a tool to help manage complex information, supporting clinicians and managing large or complex patient loads and providing opportunity for patients to help manage that information.

The brief section on patient (unintelligible) highlights how various support systems help manage the cognitive load of clinicians thus providing opportunities to improve patient safety. Some of the literature here highlights how patients can take an active role in this process leading to an overall better healthcare experience.

The measurement opportunity here includes assessing the usability of EHR platforms since we know they play a critical role in information presentation and information overload. Other opportunities include measuring productivity and the time to identify important clinical events. Additional opportunities include discussing participation in a learning system or a health information exchange, assessing patient perceptions and if they feel part of the diagnostic team and relational coordination.

The final Use Case focuses on errors that evolve from additional (unintelligible). Fifty causal factors and challenges again with the same three categories are shown here on the slide in front of you. The main solution groups for this use case are enhancing opportunities for future engagement through education and training and telling patients to raise concerns and share perspectives and identify opportunities for technology and data to recognize potential diagnostic oddities.

The impact of patient safety section here details how shared decision-making and partner with patients to improve the overall quality and safety of care. There is additional information included about health technology and the sharing of information can help pinpoint opportunities for diagnostic improvement in the future as well.

(Unintelligible) considerations for this use case include discussing team-based care, measuring sub-fields that support accurate diagnosis and time for diagnosis to rare conditions since we know many of these more frequently result in diagnostic oddities.

Other opportunities exist to measure cost and impacts of diagnostic oddities in testing as well as patient-reported satisfaction and experience with the diagnostic process. I'm now going to turn it over to Jesse to discuss the broad scope recommendations before we open to a larger group discussion. Jesse?

Jesse Pines: Great, thank you, Meredith. So broadly we took a lot of these solutions and tries to categorize them into several different groupings. And the grouping that we came up with for the recommendations was basically three Ts, so training, teamwork and then technology.

So there were a number of broad scope recommendations and they basically we, you know, patched them into those three areas. And for specifically for training the first recommendation is about one, educating clinicians to actively listen to patients.

Clearly that's a theme - a broad theme that came up during the discussions about, you know, making sure that patients are listened to as well as engaging patients to provide feedback specifically, you know, designing tools and

educational materials so the patients across all levels of health whether they are able to better engage with the group clinician.

Secondly, in terms of training, we sort of have, you know, condition-specific training and then more general training. So for the condition-specific training the idea would be to deploy clinical education and training for specific types of diagnostic errors perhaps linked to specific protocols.

So for example, you know, the pitfalls of diagnosing chest pain in the emergency department or dizziness. As well as linking that to for example protocol to use the HEART score or use a HINT exam or another tool around dizziness to reduce the likelihood of missing a subtle stroke.

And then more broadly, you know, because technology has changed so much over the last several years we really thought that, you know, really integrating information on the impact of technology and safety into training and educational programs was another broad theme.

And this is not just I think for, you know, med students and residents and people are training I think that a lot of this, a lot of the understanding of the impact of technology on errors really needs to be tailored more broadly, you know, to the practicing clinicians and being delivered in such a way that they can understand it. And also they can, you know, understand how to mitigate some of the impact by how they practice.

Our second broad area was teamwork. So obviously a lot of the recommendations were, and solutions were around improving teamwork. Spend the clinical team to support a, the ability of different team members to be able to speak up if there's a problem.

Obviously the, you know, the current hierarchy has been somewhat leveled over the last few years with the increased use of advanced practice providers and other clinicians and increased people trying to operate as top of license.

We think that this is an important, you know, cultural change in medical care and having people be able to speak up. Also including patients as part of the team giving patients access to their records is vital, you know, specifically for patients.

A second recommendation for teamwork was around improving and increasingly the availability of information sharing across teams. You know, coming up with not just sort of beyond interoperability beyond the sharing of information but finding useful ways to share information that actually makes things helpful for clinicians and can really facilitate the care delivery process as opposed to just putting in extra steps and, you know, trying to focus on human factors, you know, as people move across settings ensuring, you know, information is transferred appropriately and that everything is clear as possible.

And then the final area is around technology. So, you know, technology obviously plays a big role here. You know, figuring out ways to develop and deploy specific clinical protocols into care, into the EHR or other platforms that clinicians are using insuring that those integrations are user-friendly for the clinicians, you know, that doesn't just create additional alarm fatigue for the clinician.

Secondly using technology as a tool to identify and reduce errors. Specifically the e-trigger tool I think is a great example of that trying to use tools like that, identify problems and, you know, after the fact it was a misdiagnosis or even in real-time so the clinicians can, you know, get a sense of, you know, we can

potentially would mediate a problem in real-time. And then finally obviously a major theme of this was to use measurement.

You know, and through this process, we identified a lot of potential measures. You know, these measures are not intended to be the only measures that can be used. This is sort of a starting point and really I think and would be, what would be a pretty brand-new measurement area as this evolves. So let me go ahead and stop there and let's see if there are any questions or discussion.

Katherine McDonald: Hi. This is Katherine McDonald. Can you hear me?

Jesse Pines: Go ahead. Yes.

Katherine McDonald: So these all look, you know, pretty reasonable. What I'm wondering about is do we need to have the recommendations be a little bit more specific I mean just even like facilitate the teamwork. So it's - I mean it's a culture of teamwork for diagnosis. I mean you could say that that's implicit.

But I would just point out that it, you know, these types of, you know, shorthand often end up somewhere without being attached to a report and that it's the complexity of teamwork and the diagnostic context where people don't necessarily even recognize that they're, you know, on the same team for a particular part of the diagnostic journey or the whole diagnostic journey over time for the patient.

So that's just a thought is of that maybe a little bit more specificity that zooms in on the diagnostic challenges on some of these.

Jesse Pines: Yes I think our intention was for a lot of that to really come out into the new cases because, you know, like you said a lot of this is very contact-specific

and, you know, diagnosis-specific and, you know, making a broad, you know, making a broad recommendation as I think it would be more around understanding how to initiate a process, you know, around improving that around a specific issue. Let me just - I'm going to move forward a little bit with some of the more specific slides here.

Katherine McDonald: Yes.

Jesse Pines: So again why don't we maybe sort of go from, you know, through this in a little bit more detail so that, you know, so first is about educating clinicians to actively listen to patients and engage patients. And there's a lot of information on here where, you know, that has specific recommendations about what different stakeholders can do, you know, healthcare administrative clinicians as well as measure developers.

So let me - why don't we go sort of one by one here and open it for discussion? So specific thoughts about this particular recommendation.

Mark Graber: Yes, this is Mark Graber.

Jesse Pines: Yes, go ahead.

Mark Graber: I'm happy to see this. It's all good. But a general question, when we're talking about education are we talking about educating clinicians in practice or in the report? Do we also want to make some recommendations about training and education of people, you know, entering healthcare professions?

Jesse Pines: That's a great comment and I think the answer is both. And we actually did make some changes to both (unintelligible) to reflect that that we, you know, we think it is important to tailor education to those people in training as well

as people who are actively in practice. And the modalities of how we train those two may be entirely different.

Mark Graber: Great, thank you.

David Andrews: This is David Andrews. I also suggest that there's a need perhaps to more specifically identify the educating patients. Patients have a lot of resources available and often they aren't fully engaged in the diagnostic process so there's is an education of patients to be more active participants in the diagnosis that I think could be highlighted a bit more.

Jesse Pines: Okay. That's certainly something we can add. So I think we do have here creating policies in the future that support the consultation and engagement in the -,under the -,in the first bullet under healthcare administrative organization. Is that enough do you think?

David Andrews: Well, you know, going back to (McDonald)'s comment, and I think, you know, probably we would all like to take and get more specific in identifying that. I think that covers it at one level. The specificity of actually helping the patients understand and actively engage is probably could be a touch more specifically highlighted there.

Jesse Pines: Okay.

John James: Yes, this is John James. Could I make a quick comment to reinforce some of that? I think patients need to be educated well before they have their clinical encounter even to the idea of having professional societies provide information for high school curricula and high school curricula say here's how your role would be educating diagnostic errors and of course other errors as well but set people up to think about this before they're actually being treated.

Roberta Reed: Hi. This is (Bobbie) Reed too. I have a - I'm the patient care-giver person on the committee and I have a definite perspective on this as well. I feel that possibly you could introduce some suggestions here relative to the specific or maybe even a checklist of specific organizations.

For example, I work in conjunction with the National Kidney Foundation and the American Association of Kidney Patients and even (Picori), you know, doing research -- that kind of thing. I'm an ambassador for them. They all have definite resources that you could turn to or even refer people to or mention in your report that would give them better accessibility but from the patient standpoint and also from the clinical standpoint. I think that's a good suggestion. We can try to do that.

Craig Norquist: Hey…

Jesse Pines: Yes?

Craig Norquist: …just this is Craig Norquist here. Just maybe this is over call but kind of subtleties that words actually matter. I think a lot of clinicians I do want to say get insulted but we've been educated above and beyond. So to start something with educate clinicians might be perceived as a turnoff. And maybe if we just subtly flip two words if we engage clinicians to actively listen and educate patients that might be a little bit more accepted…

Woman: Yes.

Craig Norquist: …because I mean in medical school they do try to educate us on that but somewhere somehow we lose that. And I find so many of these directions for, you know, how to educate clinicians just tend to turn me in particular off and

a lot of my friends and colleagues as well.

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

Helen Haskell: Well this is Helen Haskell. I think you could say the same thing about educating patients. I would say encourage patients perhaps because they general - they have the information and they have the feedback.

Jesse Pines: Yes.

Helen Haskell: They don't (unintelligible).

Jesse Pines: Or empower, empower patients to provide feedback and care.

Helen Haskell: Even better yes. Yes, that's a good word.

Craig Norquist: This is just my suggestion I'd just add that I think there's a bigger dimension here in regard to healthcare administrative in organizations where they really can create a culture and an expectation of involving patients in co-design of diagnosis processes. I don't know if we called that out elsewhere that's fine but this might be a great spot.

Jesse Pines: Can you clarify what does co-design diagnostic processes mean?

Craig Norquist: So when we're thinking about empowering I think the voice of the patient in the clinical interaction when they interact with the healthcare system to raise their voice and ask questions and understand. But there's a level at which we design healthcare we design our diagnostic processes how we handle results, how we communicate results.

And there's a pretty strong movement to actually involve patients in designing those processes upstream so that it's really about the patient's voice in the process and it's going to be more successful.

So, you know, from an organizational standpoint if we said every new initiative, any clinical program or clinical effort is going to from the beginning involve a patient representative so they can have that patient voice in how we arrange our testing, how we arrange our resulting, how we arrange our follow-up, you know, there are obvious benefits there.

Woman: I think there are a number of ways to do that. There strategies like shadowing, surveying patients just make to get to the constant feedback for improvement and have the patient's voice in it. And I think I agree that's a really important aspect to call out.

Jesse Pines: Sounds good. Other thoughts about this particular recommendation before I move on? A lot of good feedback here. Okay let's move onto the next one here which is around deploying clinician education for specific errors.

So I - this is again sort of building on specific curriculums, focusing on specific areas that are going to be problems as well as information on specific biases. Again the - this was brought into the updated report (Mark) I think primarily based on your feedback to include more general education for clinicians in sort of the bigger categories and then clinician specific education deployed for more overall protocols and again not just focused on med students and residents but all clinicians.

(David): This is (David). I think that this sort of recommendation is just sort of looking at the broader landscape is a little bit anemic compared some of the others. This one and maybe the measurement one at the end. And I think you need to

say a little bit more than just build on existing curriculum to include training on specific types of diagnostic errors.

I think we should be putting out there a little bit more proactive kind of an approach and whether that's encouraging people to get specialized, go through, you know, specialized remedial course training programs for things that they're not good at or do simulation-based training or other things.

I think it feels like we've not - this is an important area because we know that 80% of the diagnostic errors associated with serious harm are essentially associated with bedside diagnostic failures of one kind or another and clinical reasoning. And so a big piece of solving this problem really needs to be linked to this idea of problem-specific clinician education.

We know that expertise gaps and knowledge gaps are a major part of that bedside diagnostic problem. And I think we need to put, we need to give a more fulsome set of descriptions are about what various things people can do. In the previous slide for instance we say what can healthcare organizations do?

Well they could measure their clinicians' performance or have - give people feedback and identify people who need additional training. There are lots of things at each level they can do. I think we need to think a little bit more about how we can flush this one out.

Jesse Pines: Okay yes, we do also have the recommendation around the building the protocols itself. So you think I guess we can make the different types of education more specific about what we're recommending. And, you know, we're building these into existing curricula.

Again this is - this does really focus on, you know, people in training but, you know, trying to build this into healthcare, you know, into people maintaining board certification or other ways of, you know, other broader approaches like that.

(David): Yes, I mean, I mean you could actually come you could push the boundaries here. I mean you could say, "Look name, you know, the certification, should be conditions on, you know, meeting certain minimum standards with respect to known diagnostic pitfalls right?"

I mean you could literally put that out there for people to make the point that this is a critical piece of the puzzle and it's - if it just feels like we're bringing a little bit too mellow a solution to something that needs a little bit more aggressive kind of change.

Jesse Pines: Okay so we can certainly build that out a little bit, good feedback. Other thoughts on this particular…

((Crosstalk))

(Cindy): Hi. This is (Cindy). And, you know, I (unintelligible) build on existing conditions. I mean I think sometimes we just (unintelligible) so whether is to create some modules or case review or in-person simulations just I guess it just goes towards (unintelligible) for more energy to the space really.

((Crosstalk))

Katherine McDonald: (Unintelligible) Katherine McDonald again. Can I ask a bit of a big picture question too? So just the recorded about measurement considerations, as we go through these recommendations how much (unintelligible) increase our

field from measurement (unintelligible) and so I'm worried about that.

Jesse Pines: Yes so we do have the last recommendation does focus on measurement. So these are more, you know, in general the report focuses on not just measurements but what organizations can do and really to provide a road map for organizations that really want to try to fix these issues. So it does go…

((Crosstalk))

Katherine McDonald: ... like I see that and I'm not objecting to the inclusion of such material. I think it's very helpful and like what (David) and (unintelligible) just talked about in terms of mellow versus more assertive and pointed.

But maybe the title of the report I don't know if it's allowable to change it but it maybe should be expanded a bit so that the, you know, folks realize that there's a little bit more in the reports than just measurement considerations.

Hardeep Singh: So this is Hardeep. I have made similar comments when I reviewed the report in writing about I think the measurement sections were (saying) these things in these sections with a whole lot of these generic interventions were pretty, you know, large and very quite generic and very reputative. And education type things are generally considered to be current events anyway even though I think they should be there. So I agree.

I think we need to sort of either tie it better to measurements that if you, you know, do the measurement you'll find things to improve on and here is some lists you can go through to improve. But a lot of these recommendations have been made before in the literature over the last, you know, ten years or so but nothing much has happened. So I think tying this concept better to measurement would be one thing that I think we may need to be thinking

about.

Jesse Pines: Yes and just more, you know, more broadly like you said the goals of this project at the beginning were it was really about taking the diagnostics, you know, process of outcomes framework that a prior committee had come up with and then applying that to, you know, to different systems and settings and coming up with a way - ways that when these errors do come up what can organizations do and are - think that's a lot of what, you know, this is different from other work at NQF that I've been involved in because it does actually zoom in a little further on specific recommendations.

And that was, I guess, I think the purpose of a lot of the use cases because really the specific recommendations are going to be very contact and, you know, condition-specific. So that, you know, I think that's why, you know, some of these general recommendations came a little, you know, sort of pie-in-the-sky well, of course, we're going to improve teamwork and technology but really when it comes to what is actually going to work that's going to be very contact and physician-specific.

Karen Cosby: This is (Karen). I have two comments…

Katherine McDonald: Can a report title be changed? Is it possible to change a report title?

Woman: This is...

((Crosstalk))

Woman: ...from NQF. I think we'll have to follow-up on that to see if that's feasible but we'll certainly look into that.

Jesse Pines: Okay.

Karen Cosby: This is (Karen). I have two comments about this. When we talk about education people tend to go back and think that there is some remediation. It's not always remediation. Sometimes I think the organizations can do a lot more in finding a way to give feedback back to people.

So developing mechanisms for feedback on diagnostic performance as well as within any system a good understanding of the system performance and capabilities would inform people as to what to expect so you know the usual time frame that you can do things by how to inform the patient and how to react to that so you know how to compensate for a system that's a week in one area but may be robust in another.

So both ways, both things, one is your patient follow-up, certainly can be done. There are mechanisms that could do that. And secondly a general awareness of the system capability.

Jesse Pines: Okay. Let me move on because we do have a third educational thought here. And again this is more broadly around about educating sort clinicians about technology and how it can impact delivery. And again this does go beyond, you know, this has been somewhat changed in the updated report based on (Mark)s' suggestion. But I will get some comments specifically on this and how we can improve this with your recommendations case if we missed any points.

(David): So I guess my sort of fundamental concern here is that we think about educating clinicians and you look at the three sort of categories of recommendations that you have here. The first one, you know, training them to be better listeners and the second one training them on specific skills with

specific problems clinically and the third with training them on how to use technology.

I just sort of feel like the first and the third are the kinds of things that people don't need more - you know, what they're going to end up with is the sort of 20 minutes you have to complete this online training course kind of stuff right? And people sort of took it to, you know, here's how to use an EHR or whatever it is I think there's - I think we're so - we're being so broad what it is that we're recommending that I think we're not necessarily getting the depth versus breadth of staying right.

It's true that clinicians really do need to listen to patients. I'm not arguing about that. And they do need to know how to use information technology systems. But when you think about the landscape of training the real problem is that we are not training people to do good diagnosis from the beginning through to the end because our entire system is structured badly around education for diagnosis. It's structured very well around education for treatment but not for diagnosis.

And I think, I just feel like that doesn't really come across. I mean we have a lot here. It seems like oh well we can train people how to -,it seems more straightforward. Let's just give them some remedial courses on how to or feedback on, you know, how to interact with patients better or interact with technology better and that'll solve our problems.

But I actually think we're going to have to really get into the weeds in education and to, you know, change the way we think about it. You know, it's like the stuff that we presented in at the diagnostic error medicine meeting last fall wherein nine hours of simulation training we made medical interns fresh off the boat in internal medicine residency program twice as accurate as the

graduating senior residents with two more years' worth of clinical experience or 2-1/2 more years of clinical experience.

So the - I think those are the kinds of things specifically, you know, with one clinical problem. You know, yes it's going to take you, you're going to have to do 50 simulated cases of every problem or 100 simulated cases or 500 simulated cases to really get there. I just sort of feel like we've - where sort of we're repackaging some of the high altitude recommendations rather than getting a little bit hard-hitting on some of the ones that are more likely to hit home.

Jesse Pines: So (Dave) what would that look like in terms of the report? You think another general recommendation about I mean, you know, about sort of rethinking the diagnostic process and how we teach that would be helpful to add? I mean we…

((Crosstalk))

(David): Well I do think, you know, without disrupting the architecture too much you could take, you know, the second of these the deploying clinicians education training for specific diagnostic errors and really, you know, beef it up as a comment did on the last slide.

But I think also being a little bit mindful that the more that we put in there - in other words, it's almost like we might want to say, you know, for this IT education programs right clinicians have learned about the role technology has on patient safety and diagnostic errors early in their career.

You know, you could say the amount of time that should be devoted to this sort of activity, you know, might be on the order of magnitude of a few hours

or whatever. Whereas you might say well look, you know, to train people in good clinical diagnostic reasoning at the bedside that should be months of their time that's devoted to that, you know, not just, you know, a little side course in tech.

It just feels like the relative size of things isn't coming through. I think it's actually coming through in the sort of in the backwards now because of there are more recommendations here for this sort of thing than there are for the other one. But it just feels like we're lopsided in the wrong direction.

Jesse Pines: Okay.

John James: This is John James. I'd like to make the comment on the previous speaker's discussion, particularly about simulation training. As a former NASA worker, we lived on simulation. And the mean guy simulated every kind of crazy thing that could go wrong and that we could get wrong and we had to go figure it out. And I think that kind of training would go a long ways to help physicians. And I think it would be very interesting to them.

Jesse Pines: Okay.

Woman: I would like to add a comment in terms of just the verb phrasing. I think that when you talk about the passive tense to educate about how something works that comes down quite semantic and not incredibly useful. I think it would be more impactful if you used an active training such as co-design or work to or apply or use technology. Then it's actually doing and using, not being told about something.

Jesse Pines: Yes, we do have a, you know, we do have a separate technology recommendation section where we talked about using technology rather than

just educating about it. Other thoughts on this one? Okay, let's move on here.

Flavio Casoy: I'd just say - this is (Fabio). I just want to echo that last point. You know, in one way that, you know, the wrong diagnosis sort of stays with a patient is because of the electronic medical records right? Like, you know, no matter what you do sometimes it's impossible to get rid of an incorrect or sort of a misdiagnosis because the medical record is designed to prevent that.

So I mean I really like the idea of a recommendation where, you know, it's not only teaching people how to use those records but having people design it so that, you know, you can actually align it with a clinical interest of a patient.

Jesse Pines: Okay.

Prashant Mahajan: Yes hi. This is Prashant. I just - can I add a quick comment in relation to technology? And I think it's related to the comment that I think (David) or someone else was making related to how the education system is now statement focused and not diagnosis focused. And I think that is so relevant.

And a comment I want to make but I want to paraphrase it by my personal experience because when I trained in India there was a lack of technology which forced people to think of a lot more at bedside which made the diagnostic reasoning a little bit stronger.

I'm not saying one system is better over the other. But to the flip example is like in the ER it's the very thing that's not resolved or I don't know what it is I order an ultrasound and immediately that is not (unintelligible) I'll order an MRI.

So I'm just wondering with technology we should paraphrase that term

technology by appropriate technology because sometimes the access to too much technology can actually predisposed use of tools and labs and (unintelligible) procedures which prevent the diagnosis (unintelligible) because it's easier to get an image than actually certain things. And I'm just wondering if that aspect can be brought in? So that was one.

And two, I think the example of the simulation is very useful. And I'm just wondering that should be - also have some statement saying that should we look at a medical education outside the US and see if there are aspects of healthcare system where there is less access to technology which, you know, that they can learn from to improve the diagnostic reasoning from?

Jesse Pines: So I think those are great points.

David Andrews: This is David Andrews. I have one additional thought. This could be probably several places, not just where we are now. But because I work a lot with radiologists they're highly sensitized to artificial intelligence as an aid to diagnostic processes in their realm.

We mentioned fleetingly in passing that artificial intelligence at a couple points but I think in the future how to integrate artificial intelligence tools as well as protocols that were mentioned earlier into the diagnostic processes will be an important skill for, you know, any of the medical practitioners in the future including those that are being trained now who are more technologically savvy than those who were about to retire.

So I guess I'd like to see some fairly specific mention of artificial intelligence and, you know, learning to utilize artificial intelligence because it's going to be a continuing part and a growing part of the whole process in the future I think.

Jesse Pines: Okay. Again I think we do make mention of that in the technology section but we can certainly beef that up a little bit. So let's move on here and talk a little bit about this recommendation around supporting a culture of teamwork here and specifically this is again about bringing in - bringing together non-physicians to be able to support the diagnostic process and making sure that everyone's a team. You know, it's often a question of who is on the team and who is not on the team, you know, for a particular patient.

I think that, you know, broadening that culturally to have people take more ownership and trying to (unintelligible) the cognitive load of a single clinician I think can be very useful. So yes that was the focus of this particular recommendation. So just wanted to get feedback and thoughts.

Helen Haskell: This is…

Jesse Pines: Well let's…

Helen Haskell: Oh go ahead.

Jesse Pines: Oh it ought to be Helen. I like what you've done with the measured developer. Again, I would put that at the bottom of every one of these slides. Like in other words that would help us get back to some of the measurement issues that I think Hardeep was alluding to and (Kathy) had wondered whether our focus was off. Okay.

Helen Haskell: Yes, I like that too. And on the specialist and second opinions that (unintelligible) mentioned in that bottom line. And I would think there should be more about communication between physicians and with consultants because that's where things often fall down.

Jesse Pines: Okay, so more I guess - I mean does that come out - that doesn't really come out in the concept of teamwork?

Helen Haskell: I don't think it does. When you're talking about...

Jesse Pines: More of a question run communication? Go ahead.

Helen Haskell: And you're talking more about interprofessional teamwork here. But I'm thinking just about the process of consultation is, you know, is very unsystematic and a lot falls through the gaps. So I think that it's something that - it could be improved by measurement just by having systems that are measured for those gaps.

Jesse Pines: Okay, good thought. Other ideas of about this recommendation?

Okay so this one again is around including information sharing and collaboration and I think gets at some of that specifically, you know, how we can promote diverse teams aligning the goals of clinicians informatics and the HR vendor, some recommendations around with payors around sharing claims and, I guess, gets to that earlier point of making sure that information is available and that people may - I think (Karen) said that people could get some feedback if they've missed a diagnosis.

Often we just don't know what we don't know and we need to improve. As well as policymakers supporting sharing information across information exchanges and providing incentives to organizations that do that. And that also specific measured opportunities of which types of organizations actually support closed group communication and coordination. So thoughts on this one how we can improve it?

Mark Graber: I guess it's Mark. I'd like to see us specifically call off the benefits of learning from diagnostic outcomes, try to give feedback to the people who made an earlier diagnosis so they can see if something changed.

Jesse Pines: Okay. And I think we did specifically call that out around, you know, leveraging payer data as well as EHR data to give feedback.

Joe Kunisch: Hi. This is Joe Kunisch. I would just add in there under maybe healthcare organizations, you know, definitely include quality and patient safety departments in there. You know, one of the things that is extremely important that we do is, you know, we do our filters which is our shared and safety events which reviews any patient safety incidents across the organization.

And, you know, this is a place where diagnostic error or delay or something like that would be identified. So, you know, it could add something in supporting that, that process of review within an organization.

Jesse Pines: Okay so basically I have, you know, best practices on how to share I guess issues with diagnostic accuracy back with the clinicians and, you know, to develop a learning system -- that sort of thing?

Joe Kunisch: Right, right. And just a way to track it also because, you know, it'll be categorized that way. And so in our variance recording system, we could pull up, you know, how many incidents were related to diagnosis, missed diagnosis or delayed diagnosis.

Jesse Pines: Right, so figuring out ways to actually measure that and then report that back and try to understand yes I think we can certainly extend on that. Other thoughts on this particular recommendation ways we can improve it?

Okay, so next let's talk a little bit about how, you know, how best to develop and deploy clinical protocols and pathways to standardized care and again what the different organizations can do. A lot of this sort of rest within health systems and medical societies too, you know, develop guidelines and then deploy them within EHRs.

Like I think David Newman-Toker said that, you know, there are - there's sort of a set of common mistakes people make and clinicians make in the course of medical care and trying to make, you know, specific protocols around those sorts of mistakes maybe due simulation training to support that through education.

But first, the concept would be to actually develop those protocols which should come from guidelines, have EHR vendors integrate those in ways that don't disrupt the clinical workflow and don't sort of create unnecessary reminders and then having some measures around that would, you know, specifically assess the presence or and utilization as well as adherence to the protocols, a lot of people collecting around them and how are they actually impacting care. Thoughts on this one?

David Andrews: Okay, so next and this is Dave Andrews' point about using technology as a tool to identify and reduce errors specifically using AI, data tools to go in and identify problems in real-time using technologies such as e-trigger tools, other technologies methods to support improvements.

And, you know, EHR vendors can, you know, often do not share a lot of the best practices about how to deploy such tools across various instances of their platforms. But we think that is vitally important and, you know, to share best practices as well as collaborating with payers and health systems to

understand how, you know, how do we enable technology as a measurement tool.

There's another upcoming NQF project that will focus on EHR safe measures for care coordination. So, that would be one particular use case that'll be coming up (unintelligible) through NQF.

And then we've got some recommendations about for measure development, measure developers about assessing the effectiveness of these tools, you know, trying to measure time to detection of important clinical events, rates of actual diagnosis as well as trying to partner with medical societies to really understand what are those top areas in emergency medicine?

You know, there are, you know, ten to 15 very common mistakes that are made so, you know, really having groups, you know, partner together to come up with specific management tools and protocols and then trying to deploy those into EHR. So thoughts around this one if we can bolster it?

David Andrews: This is David Andrews. I this one and the last I'm almost tempted to say that we shouldn't say just what EHR vendors can do but also AI vendors. And I say that partly because I've seen an onslaught of AI vendors in the radiology space and I think I'll just be more of that in the rest of the diagnostic realm as well. So it might be worth highlighting AI vendors as well as the EHR vendors.

Jesse Pines: Okay. Broader health information technology tools. Okay. Other thoughts on this one? Okay and this again this is more of a general recommendation around measurement although, you know, the - each one of the prior recommendations or most of them have specific measurement recommendations.

But these are, you know, general recommendation around partnering with clinicians that understanding how a clinician, you know, how we can, you know, basically sort of embedded measurements in the practice as well as focusing on research efforts understanding, you know, some of the science around this which I think we really pretty much only scratched the surface and trying to understand the frequency of how often errors occur.

You know, and particularly to Dave Andrews' point is as AI companies get a hold of EHR data I think there's going to be a lot of fascinating insight that will – comes out really understanding what are some of the ways that people are making mistakes which we - you know, there are certain known ways the people make mistakes but maybe by looking at big data in other ways and maybe other ways that we can try to identify and remediate some of these problems. So thoughts on this particular recommendation on ways to improve it?

Okay. So why don't we go ahead - and so there's been a lot of great comments and recommendations about how to improve some of the broad cross-setting measures. Any other specific action or recommendations that haven't already been mentioned or any other modifications for the current recommendation that have not yet been discussed?

David Newman-Toker: This is David Newman-Toker. I shared a little bit of this with you guys separately but I think if there's some way to conceptually link the original concept diagram to these three domains of teamwork, training and technology sort of a mapping that connects the two, I think that would really help in terms of, you know, bringing those concepts together so that this doesn't feel like it's just a whole another framework for thinking about the same problem because they can be mapped to each other so I think that would

be my concrete recommendation.

Jesse Pines: And well would - that mapping look like, you know, so we did, you know, sort of going back have specifically what the various stakeholders can do would that be where you would do the mapping or how would you do that?

David Newman-Toker: Yes so well so for instance I suggested for the domain of patient family and caregivers for training that it would be empowerment for self-advocacy, for teamwork it would be bidirectional feedback and information sharing.

For technology, it would be EHR portals and interactivity. For clinicians, the training would be about disease and problem-specific education. The teamwork would be inter-professional and cross-specialty teams. The technology would be a decision support function.

And for our organizations and policy it would be awareness building on the training front for CHB and policymakers on the teamwork front staffing, equipment and communication tools in our technology from EHR usability and design standards and closely reporting -- something like that.

I don’t know if that’s the perfect combination of things but it's just sort of an attempt to map what you guys have so nicely pulled together in these three big buckets. But to map it back to your circle, you know, your target bull’s-eye type diagram that shows the kind of the different levels at which this diagnostic process operates.

Jesse Pines: Okay. I think we can think a little bit more about that.

Roberta Reed: Maybe too this is (Bobbie) Reed. Maybe what you can do is use sort of like an

icon rule to reference it back to correlate the two together you know what I mean? Like after each waiver have like a little icon depicting what that was.

You can tie the two together you know what I mean like it's a reference point like a footnote almost, you know, this relates back to this by using the picture of something because pictures speak 1000 words. If one sees that you'll be more inclined to look further or see what it's referencing you know what I mean?

Jesse Pines: Yes having a figure more, you know, beyond just the two columns that we have?

(Bobbie) Reed: Yes, like utilize like an icon or a picture or something to correlate or to tie the two together. You know, do you know what I mean?

Jesse Pines: And so some sort of a graphic?

(Bobbie) Reed: Some sort of a graphic but you could like when you state your measure you could put out for the measure exactly what that measure is relating to, what you want to pull it back to by utilizing like all little icon or a picture to say, you know, if you have something represents clinicians like a picture of a clinician so you go back and you can see the description of where the clinicians are that what is drawing it back to and they can review this particular point so we link the two together.

Jesse Pines: Okay. Yes, we could basically come up with some visual icons for some of the subdomains and then link them yes so I think that's something we can do. That's a good idea. Other thoughts on areas that we missed for any recommendations or - all right? So Meredith, did you want to take it from here in terms of other open discussions? We've - looks like we've had some good

feedback.

Meredith Gerland: Sure absolutely. Thank you Jesse and thank you everyone for that great discussion. So I know we spent a lot of time discussing the recommendations and earlier I walked through the report in general. And I'd like to pull up a little bit right now and discuss the overall report.

So thank you again to many of you who provided input prior to this Web meeting on the draft report. And as we talked about before you'll have another opportunity to review the report again when it's posted for public comment on July 14. We just want to give you an opportunity to see it in advance and then to discuss it again today.

So, you know, thinking broadly about the report we would welcome any feedback now from you if there's any questions or comments regarding the overall structure of the report if there are - or if there is any suggestions on items you felt like that were missing or if there was something we could do to better appropriate committee discussion into the report before it goes for public comment in early July.

So I'm hearing silence which, you know, I just want to confirm if there's anything else committee members feel like we should incorporate we can certainly do that. And now is really our chance to make additional changes before that public comment period begins on July 14.

I know we did get a ton of feedback from those of you've who added comments to the Google document and we've been working through and incorporating that so you'll see the majority of that reflected in the updated version. But is there anything else committee members want to read or talk through well we have everyone on the line as a group?

David Andrews: This is David Andrews. I'd just like to say to those of you that have been taking our comments and integrating them that I think you've done a really good job of pulling together this into a meaningful framework. It's just been a lot of discussion and a lot of corrections and I commend you on your ability to put it together into a really nicely articulated and pretty complete document.

Man: Yes I want to echo that and also recognize the time and commitment of the committee members that have worked with me and David Andrews on the committee. I think everybody's really been a great contributor to this process and the NQF team has been super at trying to pull it all together. It's a very complicated space so kudos to you guys for rallying everybody and herding the cats in the direction of a final report.

Meredith Gerland: All right well thank you for those comments and certainly to echo David's comments we're so appreciative of the engagement of this committee over many, many months and really diving deep into diagnostic errors and the types of errors in helping us identify opportunities for meaningful improvement.

We've really appreciated the robust dialogue on each and every Web meeting. And it was really helpful to hear all the different perspectives that each of you brings from your backgrounds and disciplines and own personal experiences. So really just a big thank you to all of you and to (David) and (David) for co-chairing this initiative and leading us through this draft report.

Hearing no other feedback from committee members you can certainly always follow-up with the NQF team over email if you think of something after this call. Again we'll be posting this soon to public comment and it's another opportunity for you to provide feedback. Before we adjourn for the day and

proceed I'm going to allow opportunity for public comment. Is there anyone on the line today who's not head of a committee who would like to provide feedback or input?

Okay with that I will turn it over to Udobi to talk through the next steps.

Udobi Onyeuku: Thank you, Meredith. So this slide highlights the date of important upcoming events as well as upcoming Web meetings. The draft report will be available for public comment from July 14 through August 14, 2020. And our next and final Web meeting will take place on September 14. And on this meeting, we'll do a final review of the report as well as comments that are received during the public comment period.

You should have hopefully received Outlook invitations for the final Web meeting but if you have not, please let us know, send us an email. We'll make sure that we send those to you. And as always if you have any additional feedback, questions or concerns please don't hesitate to reach out via email at diagnostic error at qualityforum.org or by phone.

And for any information on or for our Web materials, meeting materials sorry, you can view the project page as well as the committee SharePoint page. So I'll stop there and see if there are any parting questions? Okay, hearing none I'll turn it back over to Meredith for her final remarks.

Meredith Gerland: Great, thank you Udobi and thank you again to all of our committee members for joining today and for reviewing the report last week and sharing their input in advance as well as during today's discussion. We found it really helpful to talk a little bit more in detail about those broad scope recommendations and so after the call, we'll be looking to make adjustments to those and to continue looking through that before it goes - gets posted for public comments.

So the titles of those recommendations and the content within them shift a little bit from how they were presented during today's Web meeting but that's really just to incorporate in the dialogue that we've had today. So with that, I think we can adjourn and give everyone a little bit of time back and please don't hesitate to reach out to us with any questions that may come up. Thank you.

Man: Thanks so much.

Man: Thank you, everyone.

Man: Thank you.

Man: Bye.

Man: Thanks, everyone.

Woman: Thanks, everyone. Bye-bye.

END