Orientation: Electronic Health Record (EHR) Data Quality Best Practices for Increased Scientific Acceptability

Moderator: Kim Patterson
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1:30 pm ET

(Sam McCoy): Hey, everyone this is (Sam McCoy) with the National Quality Forum.

So it's a couple of minutes after 1:30, so I think we're - might as well go ahead and get started. Thank you all for joining us for the first Web meeting of the EHR Data Quality Best Practices for increasing specific capability technical panel Web meeting; the orientation Web meeting.

So just to kind of quickly walk you through our agenda for the day, so we'll have a second to get through the roll calls to make you guys - to introduce ourselves here in NQF just play a little bit about our objectives for the meeting.

We'll review, you know, since some of you are new to working with NQF or you would - what NQF does and how this project system sort of rather works here. We'll talk about this project. It's all specifically what our objectives are over the course of next few months, what our roles and responsibilities are, you know, that has (unintelligible) staff and for you all (unintelligible) through panel.

We'll talk a little about the first kind of major deliverable project which is the environmental scan to our strategy and some of the findings to date. We will go over the SharePoint site. This is where we'll host some documents for you all on sort of a permanent basis, so we'll access that at any time. If you want to dig through, you know, assignments. And a lot of - and an opportunity for public comment towards the end and then we'll go over some next steps.

So with that, I think I'll take us right into the introduction. So in terms of (unintelligible) (John Matilla) with NQF for a little over four years now and working on a few different projects in our measure maintenance work, you know, through which I've, you know, did a little bit of technical assistance with different developers on - to meeting their measures including some of the eCQMs. And then I'll turn it over to my colleagues to introduce themselves.

(Katie Goodwin): Hi, good afternoon. This is (Katie Goodwin), Senior Project Manager at NQF. I've been with the organization for about nine now, working on lots of different measures, endorsement projects, as well as other HIT-related projects.

(Summer Chavez): Okay. My name is (Summer Chavez). I've been at NQF starting earlier this fall. I'm the current Health Policy fellow.

(Chris Molet): My name is (Chris Molet). I am a consultant of NQF. I've been involved with the eCQMs for a number of years. I used to be involved with (807) on the workgroup that manages standards related to eCQMs.

(Sam McCoy): And (Chris) and (Amira Chaterri) is the project analysts and (Anastasia) couldn't be with us today but you all have probably received the (unintelligible) and materials from her are already in the managing meeting and so on going forward.

So next we'll just kind of quickly go through the technical expert panel roster, so after I call your name, if you want to just kind of say a few words about yourself or anything else that strikes your fancy.

So, (John Mark Alden)?

(John Mark Alden): Hi. This is (John Mark Alden). I'm the Associate Director at the Joint Commission and Quality Measurement. I'm a nurse by background and I work primarily in health IT and informatics.

At the Joint Commission I manage the two teams we have that develop and maintain measures we use in our accreditation and certification program. So that includes both (unintelligible) measures as well as electronically-specified clinical quality measures.

(Sam McCoy): Great. Thank you. (Tahib Ba)?

Okay, (Cindy Collin) who is also one of our co-chairs.

(Cindy Collin): Hi. This is (Cindy Collin); and thank you for calling me (Cindy), my preferred (tongue nomen). I am a Director of Measures Development at (Mathematica). I oversee our portfolio of measure development and maintenance projects for - mostly for the Medicare population.

I have been in this role just a couple of months so prior to this have been leading our measure development (unintelligible) and also leading a number of measure development and maintenance projects for CMS. Much of the work has focused on electronic clinical quality measure development so we

are quite familiar with that space and some of the challenges that come with that.

I'm trained as an engineer, so bring a little bit of a different perspective to the measure development process. And very happy to be serving on this committee and look forward to our discussions going forward.

(Sam McCoy): Thank you. (John Der)?

All right. (Karen Dorothy)?

Okay. (Sabrina Gonzaga)?

(Sabrina Gonzaga): Hi, yes. This is (Sabrina Gonzaga). I am a nurse by background. I work for Lantana Consulting Company and I'm the Director of Health Informatics. And in terms of my background as a clinician, I'm a pediatric nurse petitioner and have worked with some of you either through HL7 or measure development.

I have been very much involved in the HL7 standards development and have worked on consolidated CDA, as well as some specialty standards. In terms of measure development, I have worked on building test decks, QA-ing some of the measures that are in the annual update.

And want to thank you for this opportunity to participate in this expert panel. Thank you.

(Sam McCoy): Great. Thank you.

Angela Kennedy?

Angela Kennedy: Hi. I am Angela Kennedy. I'm the Director of Measure Development at the American Society for Clinical Oncology. I have been involved in IT, gosh, dating back 'til 10 plus years ago working on DICOM standards and (RadLex) and then transferred over into the radiation oncology space, working in (Hero).

Now and in the clinical oncology space and currently in my role in ASCO working on measure development and closely working with cancer link on e-specifying the measures and we also have an initiative going on called MCODES which is the Minimum Clinical Oncology Data Element Set. So both IT but old-school IT and currently in measure development.

(Sam McCoy): Great. Thank you.

So, (Kanish)?

All right. Jim Langabeer?

Jim Langabeer: Hello, everybody. I'm Jim Langabeer. I am a Professor here at the University of Texas Health Science Center in Houston and the Vice Chair of Population Health for the Department of Emergency Medicine. I'm mainly focused on emergent things coming through such as cardiovascular and emergency medicine and neurology.

And I'm also the National Chair of the American Heart Association Ambulatory Quality where we're looking at measure development and measure adoption with a program with the American Medical Association.

(Sam McCoy): Great. Thank you.

(Jaime Lainer)?

(Jaime Lainer): Hi. This is (Jaime Lainer). I'm with the PCPI Foundation. I've been on the specification team here for about eight years and although work kind of started, you know, with perhaps more of the claims-based focus, it certainly quickly shifted towards that EHR eCQMs development.

So over the course of the many years and having worked with (Cindy Anderson) of the Contract, we've definitely heard a lot about implementation and seen some changes being made to the landscape and implementation and also understanding of EHR. So very excited to be part of this project.

(Sam McCoy): All right. Great to have you. And our other co-chair in this project, Mike Lieberman.

Mike Lieberman: Hi. This is Mike Lieberman. I work OCHIN which is a company that provides EHR services for safety net clinics, as well as I'm the Medical Director of Population Health for them. I also am at OHSU where I practice general internal medicine and teaching their informatics program.

I've got a long background in clinical EHR data having worked for GE Healthcare for a time and then also having been on the provider side of the OHSU looking at that data as well.

(Sam McCoy): Great. (Jacob Lynch)?

(Jacob Lynch): Hi. My name is (Jacob Lynch). I'm a registered nurse. I'm a consultant for medical advantage group out of Michigan. I focus on implementing new software at small to mid-sized practices and optimizing practices to niche

quality measures, some kind of on the other side and excited to work with you.

(Sam McCoy): Okay, thank you.

(Jenna Malinowski)?

(Jenna Malinowski): Yes, hello. Good morning. My name is (Jenna Malinowski) and I work (unintelligible). I've been in the IT (unintelligible) for about five years and I currently have the last 10 years has been regulatory and quality (unintelligible). So I've had the opportunity of (unintelligible) to work with (unintelligible), chair at (unintelligible) association workgroup in way back across the modern EH vendors. But currently I lead the quality management and also with EHR and also our (unintelligible) platforms.

So we have the (unintelligible), who's on the call and with the joint commission and to do a lot of upfront measure development partnership, doing analytical testing and partnership with some of our clients. So there is my (unintelligible) data with the data (unintelligible) in the workplace especially with our eCOM that we do a lot of development work on.

(Sam McCoy): Great. Thank you.

(Jim McLain)?

(Jim McLain): Yes, hello. Can you hear me? (Jim McLain) here.

(Sam McCoy): Yes, we hear you.

(Jim McLain): I hope I'm not muted. I'm a Professor of Emergency Medicine at the University of Nebraska Medical Center. And career has evolved around medical informatics and I have been on one of the technical expert panelist working on emergency medicine related quality metrics.

I'm a co-chair of the Emergency Care workgroup that helped HL7 and teach a little bit about (unintelligible) and clinical decision support work and I have my boots on the ground here trying to implement these things that I wrote to EHR.

(Sam McCoy): Excellent. Thank you.

Shelly Nash?

Shelly Nash: Hi, everybody. This is Shelly Nash. By background I'm an OBGYN doc and I've been working in clinical informatics for probably longer than it was called clinical informatics.

I'm currently the Chief Medical Information Officer and Chief of Quality for the Physician Enterprise of Adventist Health. We are a large multi-system health system across multiple states. We have about 50 hospitals and about 2000 employee providers.

My background includes I worked on terminology development and the initial development of SNOMED CT. I've worked for a couple different EHR vendors and I'm happy and pleased to be here today and to participate.

(Sam McCoy): Great. Thank you.

(Shay Blanchet)?

(Shay Blanchet): Yes, thank you. I am (Shay Blanchet). I am an Associate Professor at the University of Alabama at Birmingham. I am jointly appointed in the medical center.

My background is nursing, but I've been in improvement (unintelligible) for about 17 years; worked in quality measures and clinical quality informatics for the bulk - a lot of that time. Currently I am working on - at the frontline of profits redesign and data analytics, pooling information from systems to - for reporting purposes. So I'm very excited to be on this group which such an expert group of people.

(Sam McCoy): Great. Thank you.

(Stan Ranken)?

(Stan Ranken): Good afternoon. This is (Stan Ranken). I am an Integration Architect at (Teligen) where I've been for about 16 years. I have worked with the CQMs for approximately 15 years in various capacities mostly on the IT side and a variety of CMS quality measure or quality reporting programs that would include things like IPPS, OPPS, PQRS, the CPC initiative as well as CPC plus and most recently the primary care first program.

I've also been on a lot of medicated and commercial population management projects. I worked at the (unintelligible) previously for the CMS measure offering tool when (Teligen) had the sub-contract to NQF back in the day and also when I carried over to HCIS. Of course that work has been awarded since to semantics but basically that shows the number of years working on the measure (altering) tool.

And then I am an HL-7 person so I have actually helped collated a couple of HL-7 standards including (Q83) as well (HQMS), a contributor to a number of others on the far side. Thank you so much for this privilege and it will be a pleasure working with you.

(Sam McCoy): Excellent. Thank you. And finally, (Mike Sackett).

(Mike Sackett): Hey. It's (Mike Sackett). I am a Managing Director at (Imbec) International, leading our mid ID IQ work for CMS which includes patient safety, eCQMs work and also macro collaborative agreement with one of the awardees, a specialty society for developing measures for the quality payment program.

Prior to that I led a couple eCQMs projects earlier about five, six years back for meaningful use. So I've been in this space a little bit of since I guess about 2011 and in between those two gigs I helped with the rating and leading the strategy for the CMS measure development plan which was distinct to a combination of measures including eCQMs for the clinician programs like that quality payment program.

I also worked with a few of you guys and happy to be here and appreciate the honor and privilege to work with you guys on this. I think several of us have also worked on efforts with ONC and CMS and NQF previously around how do we get access to broader data to help with the data quality, and help with scientific acceptability and feasibility of eCQMs.

So I appreciate the opportunity to serve and looking forward to it.

(Sam McCoy): Great. Thank you. And then I think (Karen Dorsey) has joined?

(Karen Dorsey): Yes. Hi. This is (Karen Dorsey). And I am with Yale CORE, Center for Outcomes Research and Evaluation. We develop measures with CMS views and pay-for-reporting and pay-for-performance programs for different provider types.

And I've been spearheading much of our measure development work for eCQMs and happy to be with you all.

(Sam McCoy): Excellent. Thank you.

And now is there anyone else from the technical expert panel who didn't get a chance to introduce themselves yet?

(Said Bhatt): Yes, hi. This is (Said Bhatt). I CEO of (MetaSolv). We are a data analytics and quality measurement products company. We have implemented national measures roughly a little over 500 of them on our platform for a little over 500 hospitals in and of about 4500 physicians. So we support the entire eCQM stack both on the ambulatory and inpatient site in addition to attraction and claim-specified measures and hybrid measures.

I have been personally involved in a lot of the activities around the eCQMs, including the CMS Kaizens and also actually the original e-measures learning collaborative at the NQF.

And more recently we have also gotten involved in some measure testing activities and so just have a lot of experience in the collecting data from multiple EHRs both in-patient ambulatory and normalizing it for reporting using the QDM or the quick-fire models. And so data quality is something we deal with on a daily basis and looking forward to participating in this.

(Sam McCoy): Terrific. Was there anyone else who didn't get a chance to introduce themselves?

(Al Taylor): This is (Al Taylor). I'm a Medical Informatics officer. Another OB/GYN by training and informatics. I'm a federal liaison to the technical evaluation panel and having done clinical quality measure, eCQM development while here it owns C and continuing to advance use of standards across the entire enterprise - technical standards across the entire enterprise. Happy to be here today.

(Sam McCoy): Excellent. Thank you, (Al). And our other federal liaison on this project is (David Kendrick). (David), are you on? All right, great.

So with that I think we will just kind of quickly move in to discussing the meeting objectives here. So we today just want to kind of quickly give you a brief orientation to the National Quality Forum, you know, the (federal) review on our roles, the charge, the (unintelligible) panel, some of these project objectives and activities, including the timeline of the project.

And then kind of quickly run through some of the environmental stand funding to date, you know, especially with the idea of getting your own input on anything that we might have missed or some other places to look.

So with that, I'll just kind of quickly go into the overview of the National Quality Forum. Although, as you all have said you've here worked with us in the past. So NQF has been around since 1999. We celebrated our 20th anniversary this year. It was - especially a lot to do with the annual conference. I imagine many of you were able to attend.

NQF is a nonprofit, nonpartisan membership-based organization, with the goal of bringing together stakeholders from, you know, across the public and private sectors to risk consensus on individual per measures and another, you know, sort of what we call framework-type project that have to do with the, you know, sort of measurement science for healthcare performance measures. You know, our goal is to make healthcare in US better, safer and more affordable.

We have, as part of that mission, you know, could convene activities across a few different work streams. So NQF of course is a - has a Board of Directors, as far as the consensus development process where we endorse individual performance measures, we have 14 different standing committees of 25 experts each in those areas.

We have eight-membership counsel. The measure applications partnership or the process which is actually sort of midstream right now would be taking in the full year in just the next couple of weeks.

It’s a process by which NQF makes recommendation on measures for inclusion in federal - in Medicare's federal paper reporting and pay-per-performance program but across a few different settings with the workgroup, with the hospital workgroup, (unintelligible) long term care workgroup.

And that clinician workgroup which covers the (midst) program and the Medicare shared savings program. The (unintelligible) the national quality partners and convenes a variety of different kind of one-off standing committees on different issues such as this technical expert panel on the EHR data quality.

And so with that, you know, our goal is to be a, you know, always to be convening, not just experts but stakeholders really are everyone who sort of serve at the table can help set the standards that have widespread approval in the field. And then having endorsement centers to do a variety of different education and outreach effort to communities.

So, you know, as I said, and it was really, you know, we have committees in variety of different areas, the CDP process has endorsed 500 different standards across the 14 committees and so on.

So specifically, this project is taking place over in 18 months period of perform and our goal is to identify the cost of nature and extent of EHR data quality issue, (unintelligible) the impact the poor EHR data quality has on capability, usability and feasibility and make recommendations to HHS for best practice system, assessing, improving the HER data quality, you know, again for reliability, usability and the feasibility of eCQMs especially with an eye towards the intersection with the eCQM endorsement process.

With that, I'll turn it back over to my colleague, (Katy), to continue (unintelligible).

(Katie Goodwin): Thanks, (Sam).

So we're going to talk a little bit about the nature project activity and to execute the objectives of this past quarter. As you know, NQF convened the technical expert panel and will be convening the panel for a series of seven Web meetings to accomplish this work.

As background for the test review and deliberation, our team is now in the process of performing environmental scan. The purpose of this scan is to

identify how developers assess EHR data quality prior to testing, developing and implementing eCQMs present existing approaches and guidance used to mitigate data quality challenges and establish what data is needed to support the development in testing the eCQMs. And we'll talk a little bit more in greater detail about the scan later on in the presentation.

And just as far as our process, so you are aware, the environmental scan will be released for public comment. The test will be giving multiple opportunities to provide input on the findings from the scan and provide input as needed to address any comment that may have been received on the scan findings.

In addition to the environmental scan, we will also be producing a final report and the report will discuss the test appraisal of the EHR data quality issues, make your arguments related to any conscientious issues, rationale for best practices in resolving these issue to increase scientific susceptibility and really to facilitate measure endorsement or reimbursement.

Additionally, the report will include recommendations for implementing these best and along with limitations of these best practices. Further, potential areas for further research as well as the glossary for key terms related to EHR and eCQM. The report will also reflect the TEP's discussions assessing NQF eCQM evaluation criteria within the consensus development process.

So here's an overview of our project timeline. Our next TEP Web meeting will be December 12th and really, we'll continue working for the next 12 months thereafter. As far as major milestones, the final environmental scan report is due on May 19th and the final test findings and recommendation report is due on December 24th.

And again these reports will be posted for public comment along the way. We'll be soliciting input from all of our stakeholders, as well as the test. So it'll be an interim process that will be going through until the end of December 2020.

I'll pause there before moving, see if there any questions.

(Mike Sackett): Hey, it's (Mike Sackett). If I could ask a question and please keep me honest here. Can go back to Slide 15 for second? I guess in terms of the environmental scan from the prior slide, is there a nuance between assessing EHR data and the precursor ability to access EHR data?

Or is it inherent because I think that's the first thing that caught my eye, so I didn't know if others felt the same or if that's embedded in that - the ability to assess data quality has to have a precursor to be able to access it which is half of our challenge from a developer perspective. Or is that out of scope, so to speak?

(Chris Molet): Yes, I just want to - hi, (Mike). This is (Chris Molet). And I don't think assessing data quality necessarily a precursor. But we were looking to learn on those fronts.

So if there's something to this project we could learn on how to assess data quality, that'll be beneficial. And if, you know, we can likewise learn on how to access the EHR data, that's also beneficial and there's a link between just (unintelligible) the other. You know, we want to surface those (unintelligible).

(Mike Sackett): Perfect. Thank you.

(Katie Goodwin): Okay, if there are no other questions at this time, I'll talk a little bit about roles and responsibility of the NQF, the technical expert panel and also stakeholders and the public.

So the goal of this test is really to serve as experts working with our project teams to achieve the goals of the project. These are (unintelligible) TEP members to review the e-materials and participate in all seven Web meetings.

Really this will help our process asking you to guide and provide input on the environmental scan and the final report which will include recommendations to improve EHR data quality and assess NQF eCQM evaluation criteria.

The role of our co-chairs, Mike Liebermann and (Cindy Collin), thank you so much for agreeing to serve as co-chairs. They will really be facilitating the TEP meetings with - along with NQF staff as well as participate as TEP members.

So with that, they'll help guide and keep the TEP discussions relevant to project scope, (unintelligible) project team in anticipating questions and identifying additional information that may be useful for the hub. And we'll be working closely, the project team will be working closely with them to make sure that we're achieving the objective of this past quarter.

The NQF project staff will work with the TEP again to achieve the goals of this project. We'll do a lot of work, you know, organizing, staffing the TEP Web meeting. We'll be ensuring communication among all project participants, prepare material for your review, maintain documentation of project activities.

We'll also facilitate necessary communication and collaboration between different NQF projects and other external stakeholders. And finally publish all project report.

For our NQF members and the public, there are opportunities to engage in this work. NQF members and the public will be able, as mentioned, to review the draft report and provide feedback to NQF and the TEP. That feedback will be addressed in subsequent Web meetings and potentially incorporated into our draft report.

And as a reminder, all of our Web meetings are open to the public and we will be providing opportunities for NQF members and the public to comment during the Web meeting.

Okay, and I will pause for any questions. Okay. I will turn it back to (Sam) to talk a little bit more about our environmental scan.

(Sam McCoy): Okay, thank you, (Katie).

So I think we're right at the onset of the project and this is kind of the question earlier. I mean, it's a fairly broad topic so we want to try and near our focus as much as possible we did end up with a half dozen research questions.

So first, you know, thinking about measure developer assess EHR data quality, you know, as sort of as far as the development testing and implementation process for eCQM. And then having assessed that the EHR data quality was a process of using - mitigate the, you know, at this point, inevitable challenges that arise as part of the, you know, these three different processes.

You know, due to a process (unintelligible), you know, based on the data of quality issue, separately there and this kind of speaks to future question; also, you know, what data are you to support development and testing (unintelligible) mentioned.

And then taking a step a little bit further from looking at individual measures to think about structural and organizational attributes to institution that has successfully influenced eCQM, you know, with valid data quality (unintelligible) what, you know, are some of those, what can we be looking to emulate, you know, what might make it frame to our framework.

And then trying internally to NQF CDP process. You know, we've had a variety of different electronic quality measures come to our doors here as part of the endorsement process. And so have a fair amount of evaluation and submission data to draw on. So, you know, we're looking internally to those to identify data quality issues that are coming through.

I mean, ultimately the goal of this project of course is to think about improving future of the submission to (unintelligible) looking to the past there. And then, you know, finally who it's not very much to reinvent the wheel, you know, you know, what kind of guidance hasn't put out by standards and bodies that might help mitigate the EHR data quality issues. You know, what can we refer to as existing consensus space guidance?

(Unintelligible), you know, I alluded to review with, you know, fairly - I'm sorry; was there a question?

(Cindy Collin): Hi. Yes, this is (Cindy Collin).

(Sam McCoy): Great.

(Cindy Collin): What are the research questions? Do we have a research question that asks to define data quality?

(Sam McCoy): I think the first research question would kind of be inclusive of a - so as in the assessment of EHR data quality, the only thing we alluded in using that question and operationalizing it. You know, sort of necessarily involves defining it, you know, in is much just sort of cataloging the - excuse me, the (unintelligible) issues with data quality.

You know, as well we have a glossary that we are going to prepare that I think will address that definition.

(Cindy Collin): Okay. And I think it's…

((Crosstalk))

Woman: Go ahead.

(Cindy Collin): Sorry. I think that's going to be important for us to have a common understanding of what is - what constitutes quality issue. You know, what exactly are - how do we know that we have an issue with data quality, I guess, that's, you know, the questions that immediately comes to mind here.

And who was going to - somebody - I stepped on somebody. Who was on the (unintelligible) comment?

(Katie Goodwin): Hi. This is (Katie) with NQF. I think that is an important point. And as part of the literature review, we really will be looking at the different causes, the

nature and extent of EHR data quality issues and though we did limit or list data completeness, accuracy, comparability and validation, it's certainly something that we want to get feedback on and even with helping to define such things, we'll be looking for the TEP's input and hopefully with shared consensus on how to do that.

(Said Bhatt): This is (Said). Just to add one more thing, I think it might be also worth defining the two overlapping but potentially somewhat separate use cases; one being the measure development process all the way through endorsement and the other is the actual implementation and reporting. There is definitely an overlap but I think there are some differences as well.

(Dave): Hi. This is (Dave) (unintelligible). Apologies I had to join late but I'm here now.

(Mike Sackett): This is (Mike Sackett) again. I guess you're getting - I think we're getting at this in the fourth bullet in terms of the types of attributes of organizations and whatnot but is embedded in that is that - would it be also a research question to ask around that, the extent measure developers engage individual facilities practice sites for testing versus, you know, larger data suppliers organizations would have normalized data, centralized data?

Because I think that ties in to some interpretation or vagueness in some of the criteria or the, you know, what we can do or not do in terms of using normalized data.

(Sam McCoy): Yes, I think that would be a valuable dimension to that question. Thank you.

(Dave): This is (Dave). I know I just got here and it may have already been asked, but are we limited to EHR data in this conversation and are we limited to one

instance of one EHR in this conversation or is there some - is it in scope to talk about, you know, the fact that patient sees one small one practice is very different data set to measure quality in and then want to see the multibillion-dollar health systems for all our care.

(Karen Dorsey): And this is (Karen). Can I just bring up a related question which is, you know, I think the tension from time to describing some of this ideal state around testing and testing expectations are some of the barriers to getting access to adequate test (beds) or some of the expense of digging deep and finding out the answers to some of the questions that we raised.

And so I'm also wondering if it's in scope to talk a little bit about some of the big boundaries in the way, HIPPA, sort of privatized data, things like that, whether we want to talk to or not.

(Mike Sackett): Hi. This is (Mike). I just had a quick question about - we were talking about data quality, what does the NQF currently have in place and maybe that is part of question number one as well that as part of the measure, endorsement process, is there a specific set of questions that are asked about data qualities associated with measure, you know, not being on the measure development side. I'm just not that familiar with what is there at this point.

(Chris Molet): So those are all great questions on different dimensions. First, the focus is on EHR data quality, although if there's certainly worth its (unintelligible) with the relationship between EHR directly and EHR that possibly beat other systems whether it be our data aggregated into other systems or fed from other systems.

So those are the best I'm seeing the committee's experience with. I think that - I think these questions allow us to explore that and that might be that that'll be something of interest.

In terms of the question on what we currently look at in terms of EHR data quality, for the most part, we're - our requirements when endorsing measures are the same for EHR than it is for other data sources. EHRs we do - we know we have experienced - measure developers have experienced difficulty sometimes in getting the number of sites to be able to test in and (unintelligible) submission.

Sometimes there's an issue where their evidence and the testing - the evidence in the testing use specifications still on the line. and those are things that we hope to learn in this project further.

We're in the process now of looking through the previous submissions so that we can bring that to the committee to dive more into.

(Mike Sackett): (Chris), it's (Mike) again. I guess to piggyback on (Karen's) point which I think is really valid is there related research question to that around how to measure developers mitigate some of these real logistical challenges and, y financial challenges of, you know, having enough of the day, enough of a sample size, enough of a universe to show what needs to be shown to, you know, meet the criteria, number one, but also address what we all hear from standing committee.

Sometimes even scientific methods panel around, you know, is it generalizable enough or you don't have enough facilities or EHR vendors in the mix. So I think hearing more about how each of us sort of mitigate that might be valuable and get that I think what (Karen) is also asking.

(Chris Molet): Yes, I think we agree. I think this is something we hope to learn from this project, the question on data quality issues, the (unintelligible) endorsement of eCQM submitted to our consistent development process. I think this is (unintelligible) trying to get towards.

(John Der): This is (John Der). Can you hear me?

(Sam McCoy): Yes.

(John Der): I'm sorry Jeremy I joined a little bit late. When we talk about EHR, sure we're just talking about EHR that fell under the high-tech act of 2009 or meaningful use or all sectors of care including long-term post should carry EHRs.

(Chris Molet): We're not speaking about (OMP) certified EHRs. I think we still want to learn from those as well but we want to make sure we distinguish that because I think that (unintelligible) is important to me.

(John Der): Yes, I was on the standards committee for seven years as a representative from long-term post-acute care and I couldn't do anything because we were not in the legislation for the high-tech act so I had to do everything sort of offline but CMS and ONC was smart enough to please put one of us on it and (Terry O'Malley's) on the current committee took my place.

So I just wanted to make sure we were covering the whole spectrum of care and not just meaningful use because so many times my sector gets cut out because of all that legislation.

(Chris Molet): Right. No, thanks for that. I think that's something that we would want to include and make sure everything call out if there's different lessons on EHR data quality, you know, and be certified based on our technology. EHR versus none versus EHRs that are included in that.

(John Der): Yes. It tends to do certification anyway because, you know, you have to be a trusted resource and we do the security and we do all that of course without the happiness of getting money back in 2009 like the other sectors did.

(Sam McCoy): So this is (Sam). And maybe this is part number four but I think we're going to have to consider clinical workflow and the impact that it has on the availability of data as well as the body itself. That's a big piece I always hear.

(John Der): This is (John Der) again. And I agree. Sometimes there's not a harmonization between clinical workflow and administrative and technical workflow and that's one of the problems why interoperability is taking so long. Those two workflows have to be in harmony.

(Mike Sackett): This is (Mike) again. And somebody hit on this with I think a comment earlier about some of the tension that sometimes comes up around the current requirements.

I know you have a research question here around assessing or one of the objectives is to assess the criteria for scientific acceptability but is it worthwhile to have supportive what I would call more of a messaging and mindset research question here about, you know, how do we level set expectations and messaging across developers methods panel standing committees about what's acceptable based on current state versus what we're all trying to get to in terms of future state? Because I think we hope most of us probably agree that there is that tension.

And I think we heard it most recently to scientific methods panel meeting where certain members are going to sometimes vote based upon what they believe and understandably so should be stricter requirements. But that's not the current requirement, right?

So again might be a little bit marginal in terms of data quality but again it gets to an underlying challenge of, you know, meeting that scientific acceptability requirements and, you know, was there a need to level set and try to message diplomatically again, you know, what we're trying to do now versus future.

(Chris Molet): Yes, (Mike), that's a great point. And, you know, one of the possibilities from what we get out of this project and the things that will include in the report are possible feedback to feed into other processes such as the method panel and the endorsement process. So it has something we can really surface some meaningful recommendations or learnings around, that's definitely a possibility.

(Mike Sackett): You know, one of the things I hear from providers that undermine the credibility of measurement is lack of statistical significance or any attention towards determining whether result is really different than random chance.

(Cindy Collin): This is (Cindy Collin). That might be a bit out of stroke for this panel, I think. That seems to be something that the scientific methods panel would be wrestling with. Do folks agree? (Chris)?

(Chris Molet): I'll defer to that for sure. I'd agree with that.

(Sam McCoy): Great. Were there any further questions about the research question?

(Chris Molet): All right. Excellent. Well then we'll - let's just quickly walk through (unintelligible) person, you know, as you can imagine, you know, (unintelligible) standard (unintelligible) review. It's a look for - you know, the sort of published peer review scientific literature. but then also (gray) literature. You know, they're obviously looking for reports and standards that the (unintelligible).

You know, doing it much thoughtful to look elsewhere. I mean, and, you know, as I said, looking internally in NQF and measure inventory, the result with NQF measures and evaluation process due to I guess some information in there.

Some of the keywords that we've used here and also included on the (unintelligible) for a second are, you know, to help define - you know, especially when we're thinking about the literature view piece, you know, looking for, you know, papers soon to be addressing eCQM data quality, EHR data quality. You know, adding in different terms like structured field and so on to help us there.

So, yes, I think you just turn right to this discussion. You know, we've already talked about the research question quite a bit, but maybe if you want you to turn back to the keywords if there are any attorney reactions or looks like we're missing anything there or otherwise it's sort of right up the top.

See if you have really important (unintelligible) article that we should be taking a look at. Thing like the (unintelligible), the reports, you know, you can also feel free to submit citations to those by email and so we'll get all that in a second.

You know, was there any reactions to this (unintelligible)?

(John Der): Guys, it's (John Der). You got a certified EHR technology and I think we just said a few minutes ago that we have to look at uncertified or at least look at the whole spectrum of care somehow.

(Sabrina Gonzaga): Yes, this is (Sabrina Gonzaga). I'm just curious what if we do a search on HIP data quality because that could also include some other sources that they feed into in EHR. So what I'm thinking of is like pharmacy specific data or maybe there's an oncology database that may feed into the EHR so that we can have a comprehensive look at all the data that's out there.

(John Der): In my sector there's a whole number of different databases being put into the EHR like dietary, social, pharmacy, therapy and that's why I thought maybe we're concentrating on the EHR because they ought to all, I know they're not right today but they ought to all be in the EHR and if we look at that otherwise we might be getting in way too much in what we're trying to do.

(Dave): Hey, (John), it's (Dave). Let me ask you about that. So in the long-term care facility, let's say in that EHR, do you really want all of the data from the hospitalization, all of it?

(John Der): No. No. That's what they're really having a problem doing. I must be on five different committees that looks at what's necessary in that HER.

(Dave): Right.

(John Der): And because 183 pages of the CCDA is too much and it just can't be absorbed. Probably we have right now as we don't get the electronic one 'til after the patient has been admitted for three days of course still irrelevant. We get - we still get paper on Thursday, on a Friday afternoon to - at 4:30 and

then it seems like the EHR goes through the finance department then it gets to us maybe on Tuesday where still irrelevant.

We've started the meds and started the care three days before that time. So I've been arguing on that. It looks like the - I heard the other day they've moved up the time commitment to three days now which is still too late and then I'm starting to write a paper on the transitions of care coming from a nursing home or home care back in rehospitalization because that's an area that's never talked about and I know we're trying to do away with rehospitalization, but it's still going to happen.

And that part of the whole thing I brought that up when I was on the standards committee too that they only were talking about transitions outside and not transitions inside and - but it sort of got ignored.

(Dave): So, (John) you used an interesting term there, you said the entire spectrum of care and that makes me think about other groups that do measurement like registries and QCDRs and health information exchanges might be registered as QCDRs and other groups. Is that in scope here?

(John Der): Well I'm - not - probably not because I don't think we ever get done but eventually because (Vermus) finally said it at (HIMs) that we failed trying to get the providers to do person-centric a longitudinal care and we've got to get the consumer to participate and eventually I think persons, well especially chronic care persons, will have their own EHR and then they will control whoever they want to give permission to use.

And that EHR start talk about that on the longitudinal has to be completely quality measured because if a false term gets (unintelligible) you're going to get false diagnosis and then false treatment.

So I don't know I'm sorry I missed the first part of the conversation but it seems like we're under - that scope is very important and we got to start somewhere and - but eventually it's got to be whatever that person has the stair EHR because you can't - you know, I keep using example that the physicians can't handle all these fit information, you know. They just can't handle all that information if we put them in charge totally which got to be the patients got to be involved with their care team. Sorry talk too much.

(Said Bhatt): This is (Said). I think one keyword that you may consider is digital quality measures. I know NCQA sometimes uses those terms as not exactly eCQM equivalent but it could be something that might pull in some more.

(Mike Sackett): And I would just say for completeness, we probably want to include EMR as well as EHR and I would assume there might have more findings there as well.

(Cindy Collin): Yes, I was just going to say that.

(John Der): Yes, there's people who use those things interchangeably and there is an official definition.

(Chris Molet): Great. Well, thank you all very much for that input on those keywords. You know, I think you mentioned still pretty early days in the environmental stand process that we will figure your feedback and sort of integrate that into our approach. But we have had a chance to get kind of a head-start on the environmental scan so we'll, you know, quickly walk you through some of our findings to date.

So the first is that, you know, there are - in terms of that first research question, (unintelligible) EHR data quality. There are in the literature several competing frameworks already for assessing data quality that actually have a lot of consistent quality concerts between them. So completeness, correctness, concordance and, you know, plausibility (unintelligible) other kind of clinical possibility.

And then other construct that emerged, that are not always, you know, consistently found between the framework uniformity of the data at the - sort of the time pattern of the data, the granularity data and then the degree to which, you know, the data is - in a structured field or not.

Likewise, the…

((Crosstalk))

(Chris Molet): Please go ahead.

(Cindy Collin): This is (Cindy). What do you mean by concordance? How do you define that?

(Chris Molet): So a lot of the different groups define concordance to mean that sort of kind of agreement either between maybe like in expected value you might get out of the literature or different stores of data where you are the (unintelligible), kind of the sort of the (unintelligible) like maybe measuring group to the Social Security (unintelligible) for instance looking at the desk field and - in EHR, you know, so just be - the degree to which the data matches up with what you might expect. We, you know, obviously have some (unintelligible) overlap with correctness for example.

(Cindy Collin): Okay, thanks.

Man: So what constitutes completeness in this setting?

(Chris Molet): Completeness there you - usually is referring efficacy, the degree to which data is missing or not entered or even many did. The eCQM specified in a way that requires data from the EHR and there's a feel in the EHR to accommodate that data (unintelligible) from a different force).

Man: What about blood pressures and lab results or things that happen outside of that practice or, you know, some (unintelligible) EHR. Is that considered to be part of completeness or is that - maybe out of scope was conversation but considered a part of definition completeness.

(Chris Molet): Yes, usually the way that this framework (unintelligible) I think of the kind of clinic value. If there - if they're missing that, you know, that that will be a completeness issue in terms of the data quality.

Man: Okay. So there's not good interoperability. The metric it would affect here is completeness.

(Chris Molet): Yes, I prefer that - yes, that's right.

Man: Okay.

(Mike Sackett): This is (Mike Sackett). Just to clarify, you had mentioned something about looking at the eCQM and specification. So just at the higher level of this or the frameworks looking at I imagine the underlying EHR data quality not looking at a specification that's using the X, Y, Z yet.

(Chris Molet): Yes, that's right, yes. I (unintelligible) - what I mean by that is that obviously - you know, at some point we'll go into more detail about the user for the going exact definitions here.

But just that the specification of an eCQM that there might be a (unintelligible) to one EHR but another might kind of reveal an idea of quality issue there that might be the - (unintelligible) drawn out as a result of trying to apply the eCQM.

(Mike Sackett): Got it. Thank you.

Man: So that leads me to ask kind of a follow-on question. One of the things in eCQMs that it's sort of baked into many of them but it's - past that we done but it's the concept of attribution like who's responsible or who is this measure being attributed to which doctor or which clinic, whatever. Is that something here that becomes a part of the EHRs data quality looking or is that a method?

That's a good question. I think the attribution piece has not really come out very much in what we've looked at so far. The best in interest…

((Crosstalk))

Man: I can tell you that in our research that's the leading cause of variability measurement and inaccuracy.

(Jaime Lainer): This is (Jaime) with the PCPI. You know, when we were on the earlier sides I was thinking through about some of the attribution issue that have come up especially with respect to sort of how some of the measures are constructed or how we are able to construct certain measures and apply certain newly

developed attribute to I guess incorporate attribution to the provider into measure.

I expected at some point, at least from my thoughts from the earlier slides is that it will eventually come up, how it may take form in this it may vary depending upon sort of what gets played out in our future conversations. But I definitely think that that will be valuable because then at least from feedback that we've received for the current implementation of one of our measures in particular, we added those attribution attributes and there's some push back here because EHRs are just not - they didn't build up the attribution attributes and they don't capture that.

And so what we're going to see is a downward I guess decrease in performance because we just can't capture that. So I think that concept of do we capture everything that is required in measures or how do we incorporate that information from EHR into measure development will certainly be I think valuable to include for this project.

(Chris Molet): All right. Excellent. Thank you.

(Mike Sackett): Yes, I was going to say, just to build on it a little bit from my perspective and I don't mean to (unintelligible) too early but I really view attribution as a separate topic from measure itself and the calculation of the state of the patient and attribution is sort of built for purpose like health plans one attributions with their own patients.

And different quality - ring of projects have their own attribution and eCQMs likewise should know attribution sort of a separate idea I think and separate concept from the measure itself.

(Stan Ranken): So I would - this is (Stan), I would echo that because my experience at least has been that program attribution is usually decided after the fact and not before.

(Mike Sackett): Okay. We also discovered patients being attributed to every provider they see and depending on - you know, if it's an academic practice and they see a different person in the practice every time they go, and now got the same patient attributed fire safety doctors and if they're sick, like a patient see more doctors. You're over counting, oversampling sicker people, in that kind of measurement report.

(Said Bhatt): But - this is (Said). So I think attribution obviously is very, very important. The question is, is that in eCQM construct issue versus a data quality issue for EHRs.

(Mike Sackett): Yes that was my opening my question. I don't know if it was here somewhere else but I think it's got to be dealt with some are currently at stake and they're writing on the eCQM.

(Sam McCoy): So I think it's something we should keep at bay especially if we're looking at some of these constructs. For example, if we're looking at some of literature and we'll probably - the quality of beta EHR are in the delight regulatory to help support different attribution models but some things should (unintelligible).

The degree that lets data - the of the data in the EHR help or not help with doing attribution (unintelligible) to also look at.

(Sam McCoy): Great. So I think I - it's just what we're thinking about the seconds research question that we were checking there. We found (unintelligible) already in a

wide array of (charges) to mitigate these data quality issues. You know, some of which are listed here but, you know, very often I'm involved from the element of comparison to a gold standard or to otherwise kind of capture data from multiple sources within the EHRs.

We have a couple kind of (unintelligible) examples of - that we kind of literature that were kind of illustrative of that approach. So in Q1 example, for instance, the - a blood transfusion data set that - you know, coming out of the EHR was enhanced by - measuring that data from an annual blood bank report.

You know, some other (unintelligible) if there was sort of check for the clinical possibility by looking at hemoglobin count and looking at, you know, some concordance between different hospitals and then also (unintelligible) from literature.

And then separately a different paper looked at sort of the creation of a composite (unintelligible), you know, are primarily starting with the EHR data but then adding in social security (unintelligible) data and even some commercially available data.

Some other the mother approaches there too just in terms of diagnosis documentation for patient with multiple current condition. So their combined data from different places the EHRs the - from the medical history, the problem with, even the medication list.

The - doing that for a combination of data rather than relying on any one source improved the data from coming out of the EHR roughly 70% of the gold standard to matching the goal standard. We did find some other kind of examples. There's an - I'll turn it over my colleague (Summer).

(Summer Chavez): Right. So - this is (Summer). Just kind of moving a little bit more towards some actual tools or strategies that - from the other groups did. One of the articles that we found use a stakeholder workgroup specifically for eCQMs and they were looking at some of the different things that as (Bill) had talked about before that made it more difficult to get the eCQMs developed.

There were several articles that went into NLP program and how they were extracting the data and kind of compare thing - comparing that and then some other kind of a separate programs that were used internally to - for data quality issues and how that kind of help to develop some of these quality measures.

So go to the next slide here.

So now we've kind of gone over some of these different ways to improve data quality issues so we'll kind of go more into some of the data that's needed to support the development and what we've all talked about is kind of standardizing the data that we are discussing and again like the glossary, different issues with the data itself.

And one of the things we've seen before again and again is that using structured data instead of free taxes then one of the ways that some organizations have been able to implement eCQMs.

And then finally what we talked about again before is that integrating with clinical care, changing workflows, changing the data element themselves have all been ways that other organizations have been able to implement eCQMs successfully.

And then lastly when we're looking specifically for guidance on standard setting body, standard setting bodies, there again is the need to kind of have a standardizing process for this and to create standards for this in order to kind of assess the quality of EHR data that's been needed for measurement.

So I'll kind of pause right here to get feedback from everybody or any comments.

(Mike Sackett): It's (Mike Sackett) again. Isn't one of the - from a standard-setting perspective, isn't one of the other mitigation factors in a sense, you know, sometimes the results of our testing and our specification, our feasibility drive the need for a new standard or change in, you know, what's being done currently?

So is that baked in to this one or did you - or is that just something separate that's just inherent?

(Katie Goodwin): This is (Katie). I don't believe that was included into this particular article, yes. But definitely something that we would want to take note of.

Man: The other thing in terms of the standards bodies is to sort of again define the two sort of important standards that come into play. One is of course in the underlying data elements and the other is the sort of logical data model that sits in between a lot of it may be lost in translation often which causes data quality problems.

(Cindy Collin): This is (Cindy Collin). So I'm struggling a bit here with this because the EHR data has a secondary use for measurement. The primary use of the EHR data is to deliver care. So I'm kind of curious about how we can establish standards, you know, what was the rationale of setting the standard on data

use for measurement when we know that that's not the primary purpose with the data.

Man: Yes, thank you. So this is (unintelligible). So, you know, I think you're certainly right to make that distinction and I think that'll inform a great deal of our conversations going forward.

So the first is the literature review. We want a bit of a wider net in terms of EHR data quality issues to capture (unintelligible), you know, relevant and in measurement context and relevant in the global air context. You know, just kind of a full picture of those issues a lot of what we looked at, you know, either didn't necessarily make that distinction over the sort of capping of broader look at all the possible data quality issues.

Having collected all of those then, I - we would, I think, you know, as you say kind of near those focus on the work - you know, the highest priority in the measurement context.

(John Der): I think the interoperability standards have sort of a common sort of base between the quality measurement use case and the sort of care delivery use case, if you will. But I think that at some point they sort of have a unique sort of constraint on the quality measure use case side even though the data are secondarily used.

But in the context of the quality measures especially on the electronic quality measure side, semantic interoperability is a requirement whereas in the use case of point-of-care interoperability where a human being is reading even a PDF document, that interoperability does not put as much constraint on semantic interoperability of the machine to machine understanding of the data movement and as it lands on the other end.

So there's a subtle difference between those two types of interoperability standards and that should be recognized, I think.

(Sabrina Gonzaga): So this is (Sabrina). I was wondering if we could go back a few slides where you talked a little bit about the data needs and the - some of the tools that were used. It might have been either this side of the slide before.

Is there any mention of any specific tools that were used to help improve the data quality or test the data quality with validation tools?

(Summer Chavez): This is (Summer). So when we kind of looked at this first round of articles for this data scan, I don't think that any of them were necessarily commercially available but they were internal tools that have been developed by their workgroup or the development group to support testing the data or the measurement and development of the eCQMs.

(Sabrina Gonzaga): Okay. All right, great.

(Sam McCoy): Okay, great. Were there any further questions at that because if not we can go quickly to the SharePoint overview and to look at the comment. All right, so what you have well I'll just quickly share with you all is the committee side of the EHR slide. What you all will see when you log in.

So right now we haven't (unintelligible) very much but after the meeting you'll be able to access the recording of the meeting and the slides and meeting materials. There'll also be a calendar there with the upcoming Web meeting dates, so links, link to the roster and a way to get in touch with us (unintelligible).

So when we send out the link to the SharePoint site, we'll also include, you know, a little bit of a discussion about how exactly you can (unintelligible) to help you follow the project activity.

And so with that, I think I'll just move quickly info difficult comments. Are there any public comments at this time?

Okay, great. Well hearing none, we'll move into the next step. So just kind of a quick outline of our future Web meetings. So in Web Meeting 2 we will continue to discuss the environmental scans. So thank you so much for your feedback so far because we'll have a lot more to talk about there.

Web Meeting 3, you know, finalize those results and review the public comment from the draft scan report as well we'll have an opportunity for the public comment. Web Meeting 4, you know, whether it's really 4 and 5 and 6 we'll be, you know, moving ahead with sort of the meat of the product.

The real work there to identify the best practices to data quality, prioritizes best practices, you know, kind of get some clarity on the (unintelligible) standard setting organization kind of being effective promoting those best practices.

And then, you know, Web Meeting 6 thinking then of the application of practices to eCQM criteria so, you know, they kind of see some of the questions we had, (unintelligible), you know, what's reasonable to expect on the context of evaluation - of evaluating an eCQM for endorsement and what kind of improvement we recommend to that process.

And then finally Web Meeting 7 we will be reviewing and responding to public comments on our draft recommendations report or report that'll

summarize the activities or the conversation from Web Meetings 4, 5 and 6 and then closing gout the project from there.

So just in terms of project context information, if you have any kind of questions that upcoming meetings, I believe we already have or we'll surely have all those on your calendars. You can email EHR data quality at qualityforum.org or just call me in the office and we'll connect you to us. we'll do the SharePoint site as I said and then just turn the public side via project page where all of our materials will go to and where we'll be collecting public comments, et cetera.

Are there any final kind of questions that you have at this stage? Okay, great. Well by all means feel free to send us any of those questions directly to the inbox and I will be getting touch with you. And we will see you all soon for future Web meetings to continue work on this kind of environmental scans.

Thank you very much for your work today. Hang in there - with us for this last hour and a half. And look forward to some (unintelligible) from us soon.

Woman: All right. Thank you.

Man: Thank you.

Man: Thank you.

Woman: Thanks. Bye-bye.

Man: Thanks. Bye.

END