NATIONAL QUALITY FORUM

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PRIORITIZATION OF HEALTH IT PATIENT SAFETY MEASURES
IN-PERSON MEETING
HIT SAFETY COMMITTEE

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THURSDAY
SEPTEMBER 17, 2015

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The HIT Safety Committee met at the National Quality Forum, 9th Floor Conference Room, 1030 15th Street, N.W., Washington, D.C., at 9:09 a.m., Elisabeth Belmont and Hardeep Singh, Co-Chairs, presiding.

PRESENT:
ELISABETH BELMONT, JD (Co-Chair)
HARDEEP SINGH, MD, MPH (Co-Chair)
JASON ADELMAN, MD, MS, Montefiore Medical Center
GREGORY ALEXANDER, PhD, RN, FAAN, University of Missouri School of Nursing
GERARD CASTRO, PhD, MPH, The Joint Commission
DAVID CLASSEN, MD, MS, Infectious Disease Society of America
LINDA DIMITROPOULOS, PhD, RTI International
LISA FREEMAN, Connecticut Center for Patient Safety and Patient Advocacy of Connecticut
ANDREA GELZER, MD, MS, FACP, AmeriHealth Caritas Family of Companies
ERIN GRACE, MHA, (ex officio member,) Agency for Healthcare Research and Quality (AHRQ)
KEVIN HAYNES, PharmD, MSCE, HealthCore, a subsidiary of WellPoint Inc.
LAURA HEERMANN-LANGFORD, PhD, RN, Intermountain Healthcare

GEORGE HRIPCSAK, MD, MS, Columbia University and New York-Presbyterian Hospital
JASON JONES, PhD, Kaiser Permanente
NANA KHUNLERTKIT, PhD, Johns Hopkins Medicine Armstrong Institute for Patient Safety and Quality
WILLIAM MARELLA, MBA, Pennsylvania Patient Safety Authority
DENA MENDELSOHN, JD, MPH, Consumers Union / Consumer Reports*
JAMES RUSSELL, Rph, Epic
ERIC SCHNEIDER, MD, Msc, RAND Corporation
MARK SEGAL, PhD, GE Healthcare
KAREN PAUL ZIMMER, MD, MPH, FAAP, Independent Consultant, Health IT, Patient Safety and Quality

NQF STAFF:

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ANDREW LYZENGA, Senior Project Manager
ANN PHILLIPS, Project Analyst, HIT
JESSE PINES, Consultant for NQF

ALSO PRESENT:

DAVID HUNT, Government Task Lead, ONC

*** present by teleconference**

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P-R-O-C-E-E-D-I-N-G-S

9:09 a.m.

MR. LYZENGA: All right, everybody, I think we're going to get going. We have a little bit of time here at the beginning to sort of recap and talk about the goals for the day, but I think we all are pretty clear on that at this point.

We probably want to just jump into our report out, so we have as much time as possible to do that, and then get together as a full group and, sort of, review and reconcile all our concepts and ideas and come up with our final list of prioritized concepts. With that, I'll turn it over to Bill Marella to report out on Workgroup B.

MEMBER MARELLA: Ann, do you have a clicker? Are you going to forward for me? Okay, thanks. I'll just say a couple of words about our methodology, which borrows a little bit from the other groups, probably not as orderly as Eric's nine-step program, but we did some of the

same things in trying to cut the list of 27 concepts down to our top five. We ended up not going through some of the rating of the individual items for importance and feasibility. These were the things that rose for the top for us, so the high in both categories is implied in most of these. We also applied a bit of game theory to this. If you are inclined to judge us generously, you'll think we were pragmatic.

If you want to judge us harshly, you'll think we were opportunistic because we saw a lot of things on our list that we knew were on other groups' lists, so we didn't want to waste some of our votes on things we thought other people would address. In terms of the concepts that we brought up and we thought were highest, the burden of data entry we thought was very important and under laid a lot of the individual measure concepts that were on our list.

Usability evaluation was something that we thought was also very important, and documentation quality. We didn't talk about this

in the group yesterday, but I kind of looked at documentation quality and the burden of data entry as linked. Those are measures that might be paired with one another. I'll talk a little bit more about that. We thought that a risk-management infrastructure for both the vendors and provider organizations was important. There were probably about 10 or 12 individual measures that were on our list that were focused on patient engagement, but we didn't necessarily think they were safety measures. They were patient satisfaction measures.

They were patient engagement measures. They weren't clearly linked to safety, but we still thought it was important to have something in there that was patient focused, so we came up with something that I'll go down and drill down in more detail on that. We can go to the next slide. The burden of data entry. We basically felt that data entry burden for clinicians leads to workarounds. You could put a lot of things in that workaround category.

You would consider scribes to be potentially a workaround. We can consider lousy documentation to be a workaround, verbal orders, for instance. We thought a potential measure would assist in identifying those workarounds and their use, figuring that the more often those workarounds are used, the higher the data entry burden, and the facility and vendor could take a look at that. We also thought practitioners were responsible for this, as well, in terms of the quality of their documentation. If we go to the next slide. In terms of data sources and data collection methods, we were mindful of the burden of data collection when you're looking at quality and safety, so we wanted to see if metadata would be a useful source.

One of the measures on our list was number of orders entered by someone other than the ordering provider. This started out being a conversation about whether physicians are using scribes to basically avoid having to do their own interaction with the EHR. The concern with that

is that you are then exposing the clinical decision support to somebody other than the person who's making the decision.

We think that limits the usefulness of clinical decision support. But then I think it might have been Gerry that raised the issue of how is that very different from nurses entering verbal orders, which is very common? We sort of put this in a bucket of any time someone other than the decision-maker is entering orders, you're potentially limiting the effectiveness of the EHR and decision support. That was how we framed that measure. One of the difficulties in calculating that measure, based on metadata, is whether an EHR application and implementation discretely identifies all the different entities, based on their role, and whether those are discretely identified in the EHR and calculable in that way. Next slide.

Concept 2, usability evaluation. Usability evaluation can take a number of different forms. I think everyone agreed that

it's critically important to do, both in the lab, at the EHR developer, the vendor site, and to emphasize a point that Karen made at the end of the day yesterday, that's very different from the way usability would be evaluated in situ, after implementation. We think both are necessary.

That usability evaluation, one of the difficulties with it is the time constraints on clinicians to participate in usability evaluations. That can take a form -- I think there's a NIST standard on usability evaluation that's something like 150 pages long. It's unrealistic to think clinicians are going to take several days off to go through that. On the opposite end of the spectrum, though, there are validated instruments for evaluating usability of IT systems, in general, that are very quick and dirty, but show good validity and reliability, like the simple usability scale.

You've also got, certainly in academic medical center level institutions, you have informatics staff that are able to do usability

evaluations by directly observing clinicians, and that doesn't impose any burden on the clinicians. Next slide. I think I covered that already. Go on to the next one. Documentation quality. We think it's important that all stakeholders acknowledge that they are obligated to assess the quality of clinical documentation. We put that in three buckets, the completeness of documentation, its accuracy, and its timeliness.

In terms of the accountable entities, we think providers, facilities and users and vendors all have roles to play in that. Next slide. Possible data sources and collection methods. Vendors would need to obtain metadata from the EHR to calculate the timeliness of documentation. System time can be used to look at how timely discharge orders are signed off on and things like that, how quickly orders are co-signed, they're put in as verbal orders, or things like that. There's also an existing quality measure in the National Quality Measures Clearinghouse focused on medical record

completeness and quality. Comes from a French healthcare quality organization, but it's very specific in what it's looking for.

There are ten domains of completeness that they look at, and then there are other measures of timeliness and things like that. It's a composite measure that looks at quality and timeliness. Go on to the next slide. In terms of risk management infrastructure, where we left things yesterday in our group was that we think it's important that organizations use multiple methods to assess and identify safety risks.

We talked about IT help desk tickets, risk management information systems, most of which are in place in most hospitals, trigger tools, patient complaints and corrections to the EHR and things like that. Something that I added afterwards -- I thought about this -- everything that we discussed in our group was very inward focused on the institution, but of course, there are many sources of safety data outside the

institution, so I added this, that organizations should have formal processes for evaluating and responding to risks identified by other organizations, such as patient safety organizations.

Many of the vendors have user groups that address this, and, of course, the published literature. Next slide. The data sources and data collection methods are sort of implicit in that, but we also recognize that what it's reasonable to expect a provider organization, and maybe even a vendor organization, to do is different in different settings and for different sizes and scales of organization. So you're not going to have the same standards for a hospital as you would for, say, a small physician practice.

Next slide. Finally, engaging patients in identifying safety problems. This is the one where I said there were about 12 different patient-related measures that we didn't think were too focused on safety, so we tried to

craft one that was. We said do patient portals have mechanisms to identify errors, omissions, and other safety problems and have corrections reflected in other information systems, such as the EHR, if there's an open notes initiative, for example.

We didn't think it would make sense for -- if that mechanism existed in a patient portal, it doesn't make sense to focus strictly on IT issues, but it could also include other safety concerns that they didn't feel comfortable sharing with the provider at the time. A structural measure focused on this issue might look at whether that feature is present in a patient portal.

A process measure would look at something like how often that feature is used, or how often patients are engaged in that way. I think that is it. I'll ask my committee members to mention anything that I've overlooked, or if someone else wants to emphasize something else.

Any questions?

MEMBER JONES: I have a question. The charting quality, I don't know how to do this at scale, but I'm wondering if, in the group, there was any discussion of charting utility. Are the things that get charted predictive diagnostically or prognostically in ways that we expect? We see a lot of variation in practice with that, and we see that gets -- we see important changes in documentation when we put in decision support that actually uses it.

So the documentation is less of a homework assignment, and it actually becomes something meaningful to clinical practice. We then get the side benefit that people start documenting well because it matters. There's a difference between a respiratory rate of 16 and 20 all of a sudden, where it never mattered before. It matters if you document whether the patient's disoriented or not. That never mattered before. Did that come up at all?

MEMBER MARELLA: Not in that way, but I think something that relates to it is we did

have a couple of measures that were related to -- there was one about the presence of order sets for most common diagnoses and the presence of -- what else was it? Something about alerts. We thought there was another group that had a number of things related to clinical decision support and how that affects documentation, so we sort of put that on our tabled list.

CO-CHAIR SINGH: We talked a little bit about -- I would really like to get to things like copy/paste, things that could make a difference of what you suggest, but we're not there yet. One of the things I'd like to measure is differential diagnoses done on a patient who presents with new problems, or the length of your note, or excessively long notes, which make no sense. I think the measurability, the feasibility was a problem that we just didn't know how you would go around measuring these things right now, so we kind of kept it fairly broad. We just need something on documentation.

MEMBER MARELLA: But you could imagine

things like looking for problems identified in free text notes that don't appear in the problem list. You could probably come up with a list of discrete things that could be --

MEMBER JONES: Yes. That's a hard -- if you have to do NLP, that immediately increases the feasibility lift, but I'm thinking if anyone's tried to look at the CMS sepsis measure. That's fairly technical and clinically oriented. Most measures are not constructed that way, but if that's a trend, I think it opens up -- you have things like what's the initial lactate, and do you reduce it over time, and how long until you measure it, and all of things which tend to fit -- it's a little bit onerous, but at the same time, tend to fit more with a clinical workflow at the point of care, as opposed to something that's totally discharge diagnosis or DRG dependent and something that is not observable, like mortality for 30 days or something like that.

I just wonder if we're going to get to

a point where with EMRs and electronic measures and changes in the way that even the government measures things, do we have an opportunity to link safety and quality in a meaningful way to the actual delivery of care?

MEMBER MARELLA: The other way that came up in our group, I think, was when we did talk about the presence of order sets and things like that and clinical decision support, it wasn't just the presence of those things because those things are already in meaningful use, but rather, is the organization actually monitoring the extent to which those things are used and used appropriately?

MEMBER SEGAL: Just two fairly small clarifications. We talked about this in our group. I think I became annoying on it, on the mention of portals, just because different ways a patient -- the modes of patient engagement are evolving.

I would just look at, in some places, where we mention things like portals, we maybe

more generalize it, in terms of the use of technology for patients to interact with the record. There's a lot of dissatisfaction with portals, as a model. People do secure messaging, patient/physician, patient/clinician secure messaging, not through the portal. Then also, sort of similarly, I think, where you talked about the vendors providing metadata for the timeliness, I would probably generalize that.

Because again, it's going to vary by product, and in many cases, there just may be the capability in the EMR for people to generate reports, that just EHR should have the capability for assessing the timeliness of documentation and focus on -- our engineers always tell me, tell me what you want to happen, not how to do it.

MEMBER MARELLA: Right, good point.

MEMBER SEGAL: I think in this instance, I think in this instance, I would focus more on the outcome or the broader capability you want.

MEMBER MARELLA: Okay, good point.

MEMBER HRIPCSAK: Just to say in our session, Jason, when we talked about documentation, we were focused -- quality of documentation is important. We were focused on efficiency and usability. We were thinking of different metrics, like do you get your documentation done within the time period you have available? How much time do you spend documenting after work was one question, but we didn't know how to measure that.

Then we came up the timeliness. The specific thing was do you finish or do you sign off on your notes as complete within your outpatient session? That was the actual concrete metric we came up with for that one. That's where we're looking, but I agree, we could also look at the quality of documentation. That, I think, would fit into -- the vendor's the thing. We want to be able to say how many notes -- for the patients who are registered during a session, how many notes were completed during that session?

MEMBER MARELLA: That's right. That's the capability you want to have. People will skin the cat different ways.

MR. HUNT: One problem with documentation that constantly comes to mind is that in so many other instances, we have a good sense of what the prototype or the best case would be. If we look back and think back on documentation on paper, some of us who are older, how many times did you finish all your notes at the end of the session? How timely were your orders before? We've never, as a profession, done documentation very well, so it's hard to get back to that golden era because we've never been there yet.

MEMBER HRIPCSAK: We actually talked a lot about how it was on paper. We had exactly that discussion.

MEMBER MARELLA: David, back in the day, you had so many fewer handoffs, and you had fewer people taking care of -- people are using the medical record in a way today that I don't

think they used the paper record before. A lot of times, it was basically a physician maybe documented enough to jog their own memory the next time this patient shows up in their practice. Whereas now, you're dealing with this is the primary method for clinicians to communicate with one another. I think the bar's a little bit higher in what we have to expect of the documentation.

MEMBER CLASSEN: I was wondering if you guys discussed that now that we sort of moved the dragon's net, I call it, up to the real time -- because we all used to get the reminders from medical records that your charts aren't documented, and they're not finished, and if you don't do it, we're going to remove your staff privileges.

Having been in medical staff leadership, that was the bane of my existence, going after the doctors who didn't do their chart finalization. We've moved that up to make it much more acute. What's happened is people have

responded to that by doing end runs and workarounds. It's not only the fact that we don't document reliably, but we've really decreased the quality of the documentation through charting by exception and everything else. When I look through my medical record now, when I'm seeing patients, there are an awful lot of same forms over and over again with very little information in them. Narrative has largely disappeared. My physician notes, as you are well aware, basically copied information from laboratory and radiology, with very little narrative and impression.

It's very hard, especially for old records, for me to find any valuable information in this sea of information. What I'm wondering is if all we're doing is saying are you documenting with the same mindless template that's charting by exception, and you're doing it rapidly, is that helping me? What I was wondering is were you thinking of the quality of documentation, rather than just completing some

awful template?

MS. ZIMMER: This one will come up with our group, as well, but a couple things just to think about when we talk about documentation because I think there's really two issues that are happening. On the one hand, while technology increases the access of information, which is incredibly positive, it also has increased the ability to increase the volume of patients we see. When it does go down for an hour, whatever that time we decide, everyone's heads are spinning. They actually, today, can't handle seeing their patients without technology.

We are at a point where we can never go back because technology has pushed us forward, but the other pressure that is not realized and hasn't been talked about is we have to see patients every 15 minutes. There's never a break in the day that says, now take this hour to go document, never. All that documentation is happening on physicians' or clinicians', nurse practitioners', nurses' time after work, unpaid.

Keep those pressures in mind when we're talking about what's the reality.

MR. HUNT: I think it has been said before, but I think it may bear repeating that this is a direct correlation to the discussion of the accuracy of diagnoses. I think the relationship between the quality of documentation and accurate diagnosis is direct, and it's relatively proximate.

DR. PINES: Okay, any other comments on Group B? I guess we'll move to Workgroup D. Karen, I think you're up.

MS. ZIMMER: It's interesting going last because you see which of the methods we used, and of course, it's a hybrid of what everybody's been doing. We really spent a lot of time on narrowing from 27.

Unlike, I think, Eric's group, where I think he said they only threw out one, we actually went from 27 to 16, with a lot of rich discussion in there, and then we did a lot of regrouping, refining, rewriting, which went from

12 to 9, and then we rated them. That took a lot of our time. The reason I'm saying that is we did not flesh out, the way the rest of the groups did, in terms of the resources and the rest of that, the next detailed piece. I want to spend a little time here because I have to tell you I was surprised the way this fell out.

We'll go into the top five -- top six because we had a tie, but I want to point out the bottom three that did not make it into our top six. One was the number of alerts, overrides and times with clinical decision support modules are turned on and off. I was surprised by that. I'm kind of happy that it ended up in someone's group. I have to be honest, I'm not sure if it's just the way we all have alert fatigue, I almost felt like we have alert solution fatigue. I almost feel like it's one of those terms that keeps coming up because do you turn it on, do you turn it off? If you turn it off, you have problems, if you turn it on, it's ignored.

I think I kind of sensed that our

group -- we have really a diverse group of representation of stakeholders. I think we almost weren't sure where to go with this, except that it's a nice proxy for workarounds. That one ended up lower, but as you saw, it ended up higher in other groups. Identifying the number of records, data elements and type of fields for cut and paste.

Again, we thought it was highly important, but how to do that, we thought the feasibility was so low, it didn't rise up. I've heard some people say that the text color will change, but can you just imagine your eyes trying to figure out what you added, and then what do you add on top of that? It could be a little bit -- it hasn't been fleshed out how you would do that. We like the idea a lot, but we haven't really seen great models of it, other than a concept stage. However, we thought this was really important because if you see people are cut and pasting certain elements that would inform your hospital or outpatient what data

elements are either -- could automatically be brought over, like if it's to keep bringing over the same demographic information, or are things being brought over that shouldn't be and need to be fleshed out.

It just could be very telling for process improvement, but again, the tools we didn't feel like were really there. The review of all external sources, like care plan, transition records, HIE to ensure appropriate care. This one, we felt like the whole concept of care plans is a very, very important area, so I don't want to minimize that, but it's new.

It's in such early stages, we weren't sure that needs to be part of the scope of our group. The other piece that didn't even make it to the top nine is on patient engagement. We had a lot of similar discussions, as you did, Bill, in your group. For us, we finally just decided the patient engagement piece was a little bit out of the scope of where we were. There were so many other things to worry about. What we see

today for patient engagement will not be what's tomorrow. What we see as portals are going to have a whole different look and feel. There is good evidence that people using patient portals is not reaching the majority.

It's a very select group that use patient portals, and it's variable. Some it's just text messaging, some it's appointment making, some it's labs. Again, we just thought there's enough other things we could work on, and you'll see our top five actually reflect a lot of what the other groups also put in theirs. We can go to the next --

MR. HUNT: The columns of numbers to the right, what did they represent again?

MS. ZIMMER: It's just the total. If you go back -- sorry. We just added them. We were just looking for a quantitative way to rank them. We can just go to the -- here you can see the top five -- or six, sorry. The number in front of it goes back to the original sheet, if you want to see what the original was. With

that, I think we'll just go through them because we don't have that much fleshed out. You can go to the next one. Go through, sorry, it's the way we -- chart that we created. Okay. Timely clinical documentation and timely transmission, when there is a transition of care, whether post-visit or time of referral.

We see that there's a lot of delays in documentation and access that have a downstream patient safety consequence. For example, if you don't put in the information that your patient is on a certain medicine, you may not get the alert that there's a drug-drug interaction, or you may not -- there's a lot of smart sets and things like that there that things have been programmed and wired -- at least I know in EPIC because that's the one I'm using -- but those won't rise to the occasion if your documentation's late.

At the same time, with transition of care, I can't tell you the number of times people come post-ER visits and I don't have anything, so you're kind of stuck. Again, we thought this was

facility and clinician. It's interesting. We did not end up holding vendors accountable, and it's not because Mark was in our group.

PARTICIPANT: But I tried.

MS. ZIMMER: I actually believe -- I think that going back to, I think, Elisabeth's point, there's a shared responsibility, but someone ultimately has to move the boat forward. You want them on the team, and you want them to participate, but I'm not sure they're necessarily accountable for that. Accountable is a small word with a lot of meaning. Next one.

CO-CHAIR BELMONT: Mark and I had a discussion at dinner last night, and following your presentation, we're going to flash up some language which I think captures some of that point, so we can state it to you.

MS. ZIMMER: Wonderful. So again, data sources, admission discharge transfer files. We talked a lot about HIE and EHR. Again, we did really flesh that out too much, except there they are. Some of the concepts -- it sounds like

we're going to have a team to really delve into metrics, which makes a lot more sense, but just more of top of our brain ideas. You could look at records closed within X time, once they're open. As we know, there's many of us who are not very good about completing our documents at the time. One, because we don't have the time, but as Bill had -- you had mentioned. It's true. A lot of times, we'll put down just enough to jog our memory later to put that down. We all know the quality of that. The timeline between physical disposition of patient and electronic disposition of data, as well.

We just thought there are metrics to get in there, so we thought obviously this was feasible. Next. The next one's a timely follow up on diagnostic tests. This would include communication to the patient, ordering necessary tests or documentation as follow up. The original one we had was just labs, but we thought it didn't just end with labs. It should also be any diagnostic tests, imaging. It's not just

negative, but positive.

How many times do women, because it has such a high sensitivity, do they get false positives on mammograms, they're waiting to hear, and there's a delay. You can say it was positive. That's great, but they're stressed at home and freaking their whole family out right now. It's really important about the follow up of all diagnostic tests. It needs to be associated with workflow, should be configured, implemented, and used in a way that ensures diagnostic test results are identified and communicated. Again, we lump this communication piece to the patient, as well as ordering of the next follow-up tests, if it's needed. There just needs to be -- a big theme is follow-up.

Again, this was, again, facility and clinician. Next. EHR and interface systems, and then we thought, again, measure time from result availability to outcome, whatever that outcome may be, if it's communication, clinician follow-up. We're not saying that all these metrics

should be in one, but just to give ideas to stimulate for future thinking. Also, the percent of charts with active problems versus allergies, meds, coding and free text versus not in structured, designated fields.

Again, we think that would be a really useful kind of metric to assess on. It affects the communication and follow up. Actually, I feel like that was supposed to go in quality. Actually, that was not supposed to go there, but that's okay. That doesn't -- yes, that one we ended up putting in later. I don't know if you got that, so that part doesn't belong there. Anyway, next.

MEMBER SEGAL: Just go back over it.

MS. ZIMMER: Yes, that one I have in a different location.

MEMBER SEGAL: I think part of the thought was in free text only, and not in structured.

MS. ZIMMER: Yes, but that's -- it's not even in the right place, so let's not

confuse. If we go back -- that's about timely follow-up and diagnostic tests and the idea of just measuring result availability to outcome, end of story. Next one. Discharge and transition note quality and completeness. This is where we were talking about you might want to look at the percentage of charts with active problems, allergies, meds, in free text, versus not in structured, designated fields.

As an example of when we're talking about quality, there's actually an article -- I'm sad to say because this was from 2010, so it shows you we haven't gotten very far -- from Jeffrey Schnipper in the Joint Commission Journal, where they developed a consensus set of 12 required fields on discharge, and the discharge deficient rate changed from 65 to 96 percent. Here, one of the challenges, of course, is you have to figure out what the consensus fields are. But we all know in discharge and transition there are key elements we all need to know.

It used to be the verbal handoff, where we had a criteria. Well guess what? We also need something in documentation. Discharge, by itself, has been an issue since 2010, with no improvement. That also feeds well into what Bill and your group talked about, I think. No quality is very important. Next one. Again, on EHR reporting. Considerations.

As I said, what makes this one more of a 2 in feasibility, as opposed to a 3, is you do need to define the necessary data elements at a local level and consider using natural language processing. However, there's a false sense that natural language processing is a little bit the end all. There's a lot of work that goes into that, as well. But my group did reassure me that there are great apps out there that can do this in a little bit more simple way than the traditional fashion of the more labor-intensive NLP. Next. The use of barcoded scanning in medication preparation and administration. This one's kind of interesting that it made it up

there because it's so focused compared to the other ones, which are higher level goals. I know I like this one because it does get to a little bit of the workarounds.

Workarounds, by itself, is such a -- is a nebulous term that has so many elements that how can you just address workarounds? You have to kind of drill down. This one is a little more concrete, systems and associated workflows should be designed, configured, and implemented to enable and ensure proper delivery of care, and they should use the features and functionality as intended.

This is one where there's been start to be work, where again, everyone thought barcoding and scanning would be the end all. It is, if it's used correctly, but I sat on a number of safety committee meetings knowing where it's not and in these cases, where a person says here's the negligent provider, it turned out it was the culture of the entire department, so it's a problem. Next. The last thing I would like to

point out with the metrics --

No, just a point. Because we really didn't get to flesh out the metrics and things, and I know that's going to be the next stage, one thing I would encourage is if we break out into groups and work on our defined metrics, we get to our top ten, before we are asked with that charge, is there a way to do a crosswalk of the metrics that already exist that fit into the top ten that we are going to be asked to address? Because the idea of creating all new metrics, we're not going to get great buy-in from our stakeholders.

DR. PINES: Sure. Just to clarify how the rest of the day is going to go. For the next little while, we're going to discuss Karen's presentation and comments. Next we're going to talk about Elisabeth's work on shared risk models. Then we're going to take a break, and then Andrew's in the process of actually trying to basically put the four presentations together. We're going to be actually reviewing slides

together and trying to do some, actually, wordsmithing for the measures that percolated to the top. Because I think there was several measures that multiple groups presented.

CO-CHAIR SINGH: I think just before we do that, we might just sort of recap. I'm trying to make a list here of all the concepts that I heard across -- including matching our patient engagement one, for instance, or something like that. Did I miss one? You said timely clinical documentation, timely follow up on test results, discharge and transition note quality, barcode scanning. What was your fifth one?

MS. ZIMMER: There are six. It's timely clinical documentation, timely transmission when there's a transition of care, timely follow up on diagnostic tests and labs, imaging, that include communication to patient, ordering necessary tests and documentation. There's discharge and transition note quality, incompleteness, and then use of barcoding and

scanning in medication preparation. Oh, I'm sorry, you're right. We only hit those four. The other two we didn't even get to. The other ones were respond to patient electronic communication. We used that word instead of portals because that could include telemedicine, portals within 48 hours. I know places right now where they have people on call for telemedicine. The way it works is you literally write an email, and they will put you in the queue of when they will respond to you on telemedicine.

That is yet another way that we are responding to patients electronically. That's why we use that wording. Then the last one was med reconciliation performed, including patient verification either during the encounter or through technology, such as patient portals or HIE, if available, kind of thinking forward. That med rec, again, is really important, but there's already been a lot of work on that by NQF.

But those last two, five and six, we

actually didn't get to, in terms of fleshing out details of resources and measurement considerations. I just apologize. Does anyone on our team want to comment on any more? Because, as I said, they had so many thoughtful comments, and I don't want to miss any.

MEMBER GRACE: I have a question. What was the slide that said something about EHR reporting? Was that a data source?

MS. ZIMMER: I believe it was. Maybe that was the wrong word. The EHR reporting was probably not great semantics. It was EHR something.

MEMBER GRACE: There was a slide where the top part of it -- it was in one of the more detailed slides, and it talked about EHR reporting. I might just not have looked at it correctly. EHR reporting might have said -- might have been the source of data.

MEMBER GRACE: Yes. It's this one, the data source. Okay, thanks.

DR. PINES: Just a process comment.

If you have a question or a comment, just go ahead and put up your name tag like this. David, go ahead.

MEMBER CLASSEN: Did the group talk about how you're sure the patient actually got the information and was aware of it?

MS. ZIMMER: I'm chuckling because we were commenting that just because information goes to a patient portal, there is no notice. That even came up with medications. Again, I can't comment on other systems, but it used to be, in EPIC, where we would e-prescribe, and we had no idea if the patient ever picked up their medication. Now, that is in the chart, so now at least you know if they picked it up. Of course, you don't know if they take it, but you at least now know they pick it up. To your point, there is that challenge with information and ensuring there's a closed loop.

DR. PINES: George.

MEMBER HRIPCSAK: Just a comment on the natural language processing part. We've been

doing it for 25 years. I would say the main --

PARTICIPANT: At least 25.

MEMBER HRIPCSAK: And still haven't gotten there.

PARTICIPANT: Exactly.

MEMBER HRIPCSAK: We think in the next 75, we're definitely going to be there. We're going to nail it. It's actually quite accurate. It works quite well, but you have to be careful when you put in a quality measure because it's very easy to game because they're usually using these heuristics. You just have to be cautious that they don't realize that if I just do this, I'll get through the thing. Just when you're using it in a metric, it's more dangerous.

MS. ZIMMER: Also, just to clarify how we were thinking of using it was, for example, in the one where we talked about information that needs to be in structured fields that's in free text, if you create queries looking how many times do people put allergies in the free text, that could be really useful because then it makes

you question is there something wrong with the template? There's ways to do very targeted look of the essential fields that you believe should be structured to make it easier to send a report to someone. We were thinking of it that way.

CO-CHAIR SINGH: I would like to give everybody a reality check here because I really think even with structured data right now, we can't extract information from our EHRs. I'll give you a real example here. We asked -- unknown system, I want to tell you that, IT to simply extract hemoglobin, written queries. Wrong, wrong output, hemoglobin A1C was sent, wrong dates were sent. It's unbelievable how much little data we extract from the EHR. As we develop these measures today, please think if we can't get structured data right now, in this current day and age, despite these institutions leading meaningful use, we're going to have a hard time getting any NLP done.

DR. PINES: I think we've got Jason, then Kevin, and then Mark.

MEMBER JONES: One of the things that -- I guess Eric's not here today, but he brought up yesterday as someone who's done a lot of work in developing measures is immediately going to what would we do differently as a result of this measure? We've talked about a couple things. You've mentioned some. That idea about after-hours charting, which is really meaningful to a lot of clinicians because I don't know anyone who likes it.

Also, most patients don't like it because it means they can't get the information right away. If we can develop a measure appropriately, that's something where we've actually gone to the point, within Kaiser Permanente, of offering courses for physicians, which we realized we'd never done -- and nurses, which we'd also never done -- about how do you use an electronic medical record system? It has resulted both in a net decrease in an hour post-shift charting for clinicians and an increased patient satisfaction by offering a

course. When we have things -- because I noticed that a lot of this fell back to the clinician and the facility.

If we start to think what are some of the practical things that we could do, in our experience, that was really profound, just thinking about it. We never really taught people how to do this in a consistent way. We just assumed they'd be able to navigate the EMR in a way that was easy for them and satisfactory to the patient, but we never did it. Measures that can help us get to that point, figure out what might be effective, and then actually see the dot move, both in terms of patient satisfaction and clinician well-being would be fantastic.

MS. ZIMMER: I just want to comment. It's a very good point. Even in our clinic -- because I work with a lot of the medical students. They, depending on which attending they're assigned to, have different expectations. Some want it done in the room, some say you can work on it later. One of the things I've worked

-- and a lot of this will change, I think, eventually, when they can use something where you're facing the patient and can type as you're talking to the patient. Some of it is just a style. One of the things -- I am just giving this example.

I said to the medical students, you can actually, after you talk to the patient, say, I'm now going to summarize what I've heard. Can you tell me if I got it right? So you're now engaging the patient. You're getting your note done, and they're clarifying because oops, they forgot to tell you X, Y, and Z when they hear it back of what you're typing. The other thing, I know this is really novel, and I doubt anyone's done this, but tell me how many of you have gone to a visit where your provider has moved your chair over to the computer, as opposed to a lot of the retrofitted rooms, where the chair is against the wall, my desk is on the opposite side.

I had to teach the med students you

can actually pick up the chair and have them join you and look over your shoulder because it's their record. They can see what's in there. To your point, a lot of it is an educational piece of how to work with that. Then some people use scribes. I know in the ED, scribes have become very popular, and even dictation, again, which we used 20 years ago.

DR. PINES: Kevin?

MEMBER HAYNES: A couple comments from what I've heard, both from our group, as well. I come from a world where we have beautiful structured data because everybody around the table loves to get paid. You guys do a really, really good job of structuring the data in such a way to get paid. But even there, there is a very, very messy data world. I know we've talked about lab around this table. Marsha Raebel and I from Kaiser actually have a nice paper about the number of different ways you get units for hemoglobin A1Cs from 18 of the largest systems across the country.

So you can just imagine the number of ways you can do percent. It's incredible. I want to highlight that structured data piece as another example. The CVS that was below the hotel last night has better medication reconciliation data on me than when I hit the front door at George Washington University this afternoon, if I were to have a heart attack. We know how to communicate structured data. It's out there, so we did a lot of talk, in our group, about the HIE. We recognized some of the limitations there. I wanted to just comment quickly on the NLP.

We weren't necessarily thinking about NLP in a real-time quality type piece, but it was more to see if I had, in a free text note, allergy penicillin, but in a structured, I have no known drug allergies, that's an issue because -- it can just be done tomorrow, retrospectively, and say all of this data is bad. It's not like I'm trying to game the system because the clinicians don't even know that it's real time,

but it could be done. That's why we gave it a 2 because I know there's a big lift.

But if you see, ALL: penicillin, and they have a penicillin allergy, and their structured text, to Hardeep's point, yes, it's really -- it's bad because not only is it not right in the structured, it's conflicting in the free text. That was the discussion that we had there. Those were just a few global thoughts.

DR. PINES: Thanks. Mark is next.

MEMBER SEGAL: On the patient use of the data that's been made available, just two quick thoughts. One is I think one of the things I like about the measure of response to a query is you sort of have a loop already established, in a sense, for at least those people who are motivated to seek information.

The other is just a thought -- and there's probably people who know much better than I do -- surveys like HCAHPS. I'm wondering if either they already have measures that look at patients' use and/or judgment of the availability

of their information, and/or just however that survey is maintained over time, whether there's an opportunity to add in some of these.

Because again, there is a ready-made patient-oriented survey that's more and more important that's used for payment, and that it seems would be a basis to evaluate patients' perception of EHRs, of portals, of whatever.

DR. PINES: David, do you have a comment?

MR. HUNT: No, I'm good.

DR. PINES: Nana.

MEMBER KHUNLERTKIT: I just want to comment on the second one, which is the timely clinical documentation and transmission for transition of care. I really like this one because it's somewhat -- it's in relation to the patient ID as a downstream effect.

As a healthcare system who have multiple hospitals in which we share the same electronic medical record for a patient, we found multiple cases in which there is no timely

clinical documentation, in which when they get referred out of one hospital and arrive another hospital, they cannot register the patient in the system because they have found an open bed at encounter, or an open encounter, so they end up creating a duplicate medical record for the patient. I think the second one is really important.

DR. PINES: Karen.

MS. ZIMMER: I'm sorry, one last comment. I just wanted to share. When I first was looking through this, before I had the wealth and brilliance of the team, I almost saw documentation -- 13 of ours fell into documentation. I thought four of them were dealing with reviewing data, two of them were dealing with location of data, three of them were dealing with the quality/accuracy, and four of them were dealing with timeliness. We ended up merging and combining and bringing in everybody ideas, but I just wanted to point out a huge part of our 27 were documentation. There was four on

patient engagement, and then I put three of them in operation-type things. When we look at overarching things, when we talk documentation, we have to break it down, is my point. There's a lot of nuance to it.

MEMBER HAYNES: And to that end, it came up a couple of different ways, and similar to your comment. First of all, the information has to be there. Second of all, then, it has to be transmitted, either pushed or pulled.

I think if your data warehouse only pulls at 2:00 in the morning, and you get discharged at 10:00 a.m. to a nursing home that's even within the same system, it's not there -- let alone if the note is still open and the person doesn't actually close the note until 3:00 a.m., when their kids are down and they close out that note. This issue of documentation has a couple of pieces to it, with regards to not only does it have to be there, then it has to be looked at by the admitting service of the nursing home. There's a bunch of different pieces to

measure, so it's a really important concept, and it's come up a couple of different times.

MEMBER GRACE: I think it was Mark who said it, the comment about putting something in HCAHPS survey. I'll have to check the HCAHPS. I think there is some information, not the specific question that you asked, but one thing that AHRQ is working on right now is adding health IT into the safety culture surveys. We'll start with the hospital survey of patient safety culture. We're sort of trying to figure that out. It's an interesting question because you can look at it from two ways.

As we talk about for some of the health IT safety things we've talked about here, is it a culture of how do you use your health information technology to improve safety, or is it how do you build a safety culture around your use of health information technology? To me, those are two different things. Anyway, we're just starting the work on that.

MS. ZIMMER: Thank you for bringing

that up. I forgot Tejal had mentioned that to us because that was our first one, and we all decided since AHRQ was working on that, we didn't necessarily need to work on that.

DR. PINES: David.

MR. HUNT: Erin, thank you so much for saying that word. I made a note to myself for when we have the roundup of all of the different concepts. I was struck by the absence of that, the discussion of culture, although almost -- I've been making notes -- almost in every one of the measure concepts, the culture is looming behind timeliness certainly, the quality of documentation, diagnostic accuracy. In so many aspects -- usability -- the concept of a culture of safety is really the specter that's looking over our shoulders. I was waiting to see how long it would take before we at least even made some recognition of it.

CO-CHAIR SINGH: Erin, we developed some kind of early version of a survey to measure HIT safety -- David's nodding his head -- we were

trying to work with Pascal Metrics to try to do something about it. We submitted a grant to AHRQ, but it didn't get good reviews two times, so we thought there was no interest on the part of the reviewers to take this concept forward. I think we dropped the idea of doing anything with it. It's up to -- if you really have interest, you have access to the grant. You can look at it and see if you want to do something useful with it.

I'm sure all of us will work with you to make whatever you want happen. It is exactly the questions you asked. Is it about making the culture safe about HIT or all of that stuff? We have some items developed already, but it needs testing, and Pascal knows this. We told him it's not ready for the field right now, but that's why it needs a grant.

MEMBER CLASSEN: We surveyed culture in about 59,000 units across the country. There's no doubt that culture is the key determiner of outcome at the unit level here. We

really don't have a good culture assessment of HIT, and I think that's why Hardeep's comments are so incredibly important.

DR. PINES: Erin.

MEMBER GRACE: Hardeep, who's submitted as the PI on that one?

CO-CHAIR SINGH: Jason Etchegaray. He was at UT; now he's at Rand.

MEMBER GRACE: How do you spell that last name?

CO-CHAIR SINGH: I'll send it to you.

MEMBER GRACE: Okay; thanks.

CO-CHAIR SINGH: I'm going to have a tough time spelling that name, by the way.

MEMBER CLASSEN: I mean, it's so important. Culture actually should be considered as a measure of safety and HIT.

DR. PINES: Other comments? Thanks Karen and Group D. Next, we're going to move on to Elisabeth. She's going to share with us a document that she's been working on -- and get it up on the screen in just a minute -- on a

shared-risk environment.

CO-CHAIR BELMONT: Basically what I did, it was Workgroup A who had come up with several measures relating to vendor accountability yesterday. They were vendor-centric. I was very fortunate to sit next to Mark at dinner last night, and he was very gracious about bouncing ideas around with me for how to approach this. Basically, what I did was to take the measures that had been written from a vendor-centric perspective and I changed the concept to a more collaborative model. Basically, what we want -- and I know the print is kind of small, so I'll read it to you.

What the measure concept would be is collaboration between providers, organizations, and vendors that foster detection, fixing, and learning from EHR system vulnerabilities, including transparent exchange of information relating to patient safety and user experiences. This shared accountability needs to include appropriate confidentiality provisions. Let me

just also share with you -- because again, the print is small on that slide -- what we came up with for measurable items. Hardeep was great this morning at looking at what we did and offer his thoughts as well.

The first measureable item would be the sharing of best practices for EHR implementation and best uses of EHR technology to manage knowledge, and to ensure that those are shared across provider organizations and vendors on an ongoing basis. The second relates to timely vendor notifications which are sent to all users regarding: (1) concerns that are unique and specific to technology; (2) concerns created by the failure to use health IT appropriately, or by misuse of health IT; and (3) the use of health IT to monitor risk, healthcare processes and outcomes, and to identify potential safety concerns before they can cause harm to patients.

The third measure we came up with was timely vendor response to resolving provider-reported EHR safety concerns. No. 4 is

that vendor user groups will incorporate and share current user experiences, and the fifth measure is that software and hardware agreements -- as actually implemented -- permit (1) the sharing of user experiences with colleagues; (2) timely vendor response to provider requests for information; and (3) the use of either identified or de-identified vendor product information in research studies for peer review journals.

That last one recognizes that in some case, the vendor may have legitimate reasons in protecting certain information, so again, we want to have a collaborative approach with vendors, and that's why we included identified or de-identified vendor product information. In terms of methods of measurements, we had several. One would be to survey users, providers, and organizations regarding the timeliness of vendor notifications. We could also survey users regarding the timeliness of vendor responses to reported EHR safety concerns.

One set of users we could survey would

be AMIA membership, for example. The last would be an audit of applicable contract provisions and the number of research articles that used EHR screenshots or other vendor information that looked at EHR patient safety concerns in peer review journals or other scholarly dissemination outlets. What I tried to do, in sum, was to capture everything that Workgroup A had identified and shift it from a vendor-centric model to more a collaborative model. I certainly would be interested in everyone's thoughts.

MEMBER FREEMAN: I appreciate what you're doing here by expanding it, but I'm wondering if we don't need to explicitly include patient input as well, as part of that collaborative team, because it's clearly not assumed.

CO-CHAIR BELMONT: Good point. We can easily do that. Other thoughts, comments?

MEMBER MARELLA: Elisabeth, as I read some of these, a lot of them seem somewhat qualitative, so member in AMIA, some things like

timeliness of response to specific events. That would be pretty objective and discretely measurable.

I'm wondering if this is something you envision pursuing through maybe EHRA or something like that, so that even for those things that may be more qualitative or subjective, where these principles aren't followed, whoever is pointing that out can appeal to this. I know EHRA has already established some standards for how vendors should respond to safety information. I don't know how many vendors have explicitly subscribed to it.

CO-CHAIR BELMONT: There is a voluntary code of conduct that EHR has, which incorporates some of those concepts. I think following up there, that makes sense, as well. I think if we hit this from a variety of perspectives that it makes sense. In terms of AMIA membership, that was just meant as one example. There are certainly other user groups that we can survey. Another we can pursue this,

I'm in discussions right now with ONC to update some contract guidance on EHR implementation and software and hardware purchases that I did for them a couple years ago.

We're talking about including a section on health IT and patient safety. Some of these concepts can be included in that work as well. The other thing we can do is work on some of the qualitative concepts to make them more measurable. What I was hoping today is to see if we could get consensus on whether this general approach made sense to folks. Mark, please --

MEMBER SEGAL: I just want to follow up on Bill's point because it's very timely because I'm on the EHRA workgroup. We're looking at a revision of the code of conduct. Some of these aspects are already in it. I'd certainly be happy, after this is processed through the group -- and recognizing it's in draft -- to bring some of these thoughts to the group. Because again, that does -- I think we're looking at multi-methods, multiple approaches. I think I

would agree that becomes one -- it's sort of a basis for -- the way it's constructed, it's a basis for a customer, for example, to hold a vendor -- who says they subscribe to the code of conduct -- accountable for what they do, in the unique circumstances of that vendor/customer interaction. In any event, I think you're absolutely right that there's overlap, and I think it's just really timely to kind of have this injected as information.

CO-CHAIR BELMONT: The nice thing about the overlap is I think it helps us get to a tipping point, in terms of accepting this new notion of shared accountability. David.

MEMBER CLASSEN: Just wanted to add to that. I completely agree with this, Elisabeth. What's interesting is when we do studies with a flight simulator, what we find is that about 25 percent of the performance of a hospital's implemented operational system is related to the vendor they chose; 75 percent is related to their local configuration and implementation. So

really, it is a shared responsibility because we all customize the vendor products for our implementations. So I don't think there's any way around this. You can't say the vendor's responsible because actually, it's only 25 percent of the performance that goes to the vendor product. It's really the local operator. I think they're both in this together, and we must craft a way where both can allow this information to be shared.

We've talked a lot about sharing screenshots, but guess what? A screenshot from one health system looks a lot different than a screenshot from another because the local health system configured it. It may not look at all like what was certified on the shelf. That's why I keep coming back, and why the IOM report so screamed at this. This is a shared responsibility because they're both in it together. You can't really say one's guilty and the other's not. They're both guilty, or they're both involved.

CO-CHAIR BELMONT: Exactly. I think that you need both perspectives to have a true healthcare learning system. The other point I would make, Mark and I agreed that if we are going to share, it needs to be shared in what IOM and I have called safe spaces. That's why we said with appropriate confidentiality protections. David, I would be interested in your thoughts on this.

MR. HUNT: Yes. I like what I see. I think that this really -- we talked a little bit about the collaboratory yesterday. I think this is one piece of work that actually would find a good home in some type of shared safe space, where a number of the stakeholders could get together and work together. One thing I'm struck with is -- and I just made a note to myself -- the concept -- I don't know exactly how we get around -- this is perhaps one good step, but we've danced around the concept of prohibitions in sharing intellectual property. I'm just trying to figure out -- that always

seems to be a stop.

Once the intellectual property discussion comes, that means there's a stop of any progress on any process. I'm wondering if that would mean that there's some way to make it such that that's not a stop for the whole process. It just means further engagement from the intellectual property holder -- that they've got to put more at stake. They've got to put more resources to one, work through the process, discuss more, and work directly with those involved in trying to solve the issue, rather than let it sit over on the side. I think that might be a way of having some balance to this.

CO-CHAIR BELMONT: That's a great point. The way I approached this from MaineHealth is to actually draft a carve-out, if you will. I certainly understand, in this competitive age, why the vendors want to be careful about who they share intellectual property with, but I think sometimes we can ask for information that relates to patient safety

that is not necessarily considered intellectual property. Again, I think it goes back to the collaborative sharing, getting the vendor feeling comfortable, and saying, "What is the information that we need?"

That's why also, in the language, where I said that the vendor would share either identified or de-identified product information, that language was in there to address the intellectual property concerns because the vendor may not want to share certain identified information. I think we can work with the vendor on that. The reason that I put de-identified information in there, as well, is that I don't want the vendor community to think that we want to highlight errors that some of their products may have. I think what we can do, again, if we offer them the protection of de-identified information, it allows us to flag the issues, but we're not pointing fingers.

MEMBER SEGAL: Could I just respond real quickly on David's point of IP being a full

stop? My sense is that's not exactly the case. In some instances, IP concerns can be, let's say, a speed bump, or adding some friction. For example, it may then require somebody who wants to use a screenshot to ask for permission, but the fact that one has to ask for permission in some cases doesn't mean it won't be granted.

Again, one of the things we wanted to have was the timely response to that. I think you also have -- again, I'm not an attorney, but I've dealt with IP issues in past lives. In order to protect IP, as you know, particularly in technology, you have to have contractual provisions you have to enforce. But at the same time, I think that these provisions are typically, particularly in the current environment, let's say implemented in a fairly sensitive fashion. I can tell you, for example, just for our company, that our user group -- and Elisabeth and I talked about that -- it's an independent group. Again, it's sort of archaic. They have a bulletin board that they still -- for

exchange.

There's free discussion of issues that people find with their product. I think that's common of the industry generally. I think it's one where -- whether again, as Elisabeth is talking about, having it model contract language to have better contracts that both parties agree with, but I think it's one where it's clearly a consideration and a concern. I wouldn't frame it as it stops the discussion. In some cases, it's the starting point for a discussion.

But that's also -- just the final point I'd make is why we wanted to focus on sort of an actual outcome. Rather than evaluating a contract provision, let's look at how that actually affects what happens in practice.

CO-CHAIR BELMONT: I think by focusing on an outcome, as Mark suggested, that helps you draft a limited carve-out that the vendor would be more receptive to doing on the intellectual property front. I think we have Greg, then Karen. David, did you have your tent up again?

MR. HUNT: No.

CO-CHAIR BELMONT: Okay, so Greg and Karen.

MEMBER RUSSELL: I just want to actually say I appreciate a lot of the changes that you made with Mark's input. They really actually do hit us. Just want to go back to really some of the occurrence we have typically -- as Mark's already addressed -- is really just not a free-for-all, but people actually thoughtfully using the information, the intellectual property, screenshots, things like that. As David said, I think one of the things we see consistently when people ask for permission for screenshots and they send them in, they're all over the place.

They don't really reflect, necessarily, what we would expect people to do. They may be something different. That's one. No. 2, we see so many screenshots come in with PHI, all sorts of other things. They're in terrible shape. We just want to make sure that

if there's a screenshot that is included and we give the permissions for it, that it does have -- it looks appropriate, and it's appropriately representing what the system has, not just something somebody clipped off that doesn't necessarily reflect things accurately.

I actually like the idea that you're talking about that it's a shared responsibility between the people who want to share the screenshot and the vendor who wants to not only just protect IP, but also want to make sure that things are being reflected accurately. The one question I did have is just on the timely vendor notifications are sent to all users.

Maybe just need a clarification there because that can be construed that you have to try and find every single user of the system, which is actually not even possible, so just organization or something provider level. Otherwise, I have to Karen down and let her know specifically, and that's just not even doable. But otherwise, much cleaner and nicer.

CO-CHAIR BELMONT: Thank you. We can certainly make that change that you recommend. In terms of the screenshots, since this is such a big issue, I think that your comments are helpful. I think in the text of the report, we can include some of those points so people understand. Karen.

MS. ZIMMER: This would be great. This is a great idea. One of the questions with surveys is would you have users -- I know it's generic. It says providers and organizations. I just want to make sure when you get more granular that in providers, you're including IT departments, and not necessarily end-user clinicians or nurses -- just them.

The reason I'm saying this is when we had done the usability study with hazard manager, the IT issues that came in were described very differently when it came in from the IT department for the pilot study sites that use the IT department versus those that use their risk quality. I just --

CO-CHAIR SINGH: IT included in the organizations. That's where the IT departments have --

MS. ZIMMER: Okay, because every time I see providers, I think people jump right to --- it says providers/organizations. I would almost put IT departments in there to give them more. I think they're crucial and essential.

CO-CHAIR SINGH: So what I'm hearing -- and again, I'm just going to summarize -- there should be no reason for vendors to refuse sharing or dissemination of the screenshots, as long as it's de-identified in, let's say, peer review journals?

MEMBER RUSSELL: I don't know if it's that broad. I think we just need to have more discussion on what that really means and what's the context of it and how we're going to -- I guess the big thing we want to have is just not the idea of there's a free for all of just being able to just take a screenshot and put it anywhere you want to at any time.

With more of the give and take I think that we just talked about of making sure that they're being used appropriately, they are the appropriate screenshots, and the people asking are the appropriate people to be asking too. I think there's a lot of nuance there yet. I think there may be times where you say -- I think there's got to be an opportunity to sometimes say no because of the appropriateness, for IP reasons or whatever, but I think we're certainly going to be more open.

CO-CHAIR SINGH: I'll give you an example. We have a paper where we compared eight different EHRs on their graphing capabilities. There's only two screenshots in that paper, and you know why. If we were to redo the paper in two years from now, would we be able to publish all those screenshots of all the vendors?

MEMBER RUSSELL: I'm not in a position to say, to be honest with you.

CO-CHAIR SINGH: But then who is?

MEMBER RUSSELL: I think that's

something, again, back to the shared responsibility piece of coming up with what are the guidelines around what's going to be appropriate as to when to share what, in what context.

CO-CHAIR SINGH: Because actually, for all -- I actually de-identify the sites when I do research because I don't want the sites to get in trouble because most of the work that I do makes every site that I work with look bad. I would like to de-identify the vendors, too --

PARTICIPANT: That's why you're so popular.

CO-CHAIR SINGH: Yes, exactly. I would like for anybody to use that information for improvement. If that means that the six vendors or five vendors or whatever that were involved take that information that was displayed in that paper, use their ranking to make improvements amongst themselves and share those lessons that we put in that paper out there, amongst their teams or wherever, as long as it's

useful.

But I don't see that kind of dissemination from the current peer review literature that's coming out, or from anywhere else, being translated openly into improvements, or at least the providers can see it. That's why you see a lot of anger built up that vendors aren't letting us -- they're putting gag clauses on us. That's what they mean by gag clauses. I think that's an issue we'll have to address, in terms of shared responsibility.

CO-CHAIR BELMONT: As much as I would like to give you a definitive yes, I think there are some --

CO-CHAIR SINGH: Oh, I know I'll never get it.

CO-CHAIR BELMONT: I honestly think that there's some education that needs to be done. This is an issue that the vendor community feels strongly about. I think picking up on Greg's point, and if we can include in the text and report circumstances under which this will be

done, I think we can make the vendor community more comfortable with those.

At the end of the day, we want to do that because we want the vendors to collaborate with us. I think we may need to walk before we run on this point, but I think addressing this here, addressing this in the ONC contract language -- as Mark has graciously agreed, carrying it back to his peers -- I really do feel that we are approaching a tipping point. I think it's important that we approach this in the right way. David. Sorry, Jason.

MEMBER ADELMAN: As someone interested in health IT safety and an advocate for patient safety, I think that vendors should share all of their good, so that everyone can learn from each other. In the United States, in a free market, in a capitalist market, it would almost seem like it'd take an act of legislation to mandate that. The president of Cerner today may be all for it, and the next president may not be. I guess we can make a recommendation, but I don't -- it

would be quite something, I think, to just say you must share everything all the time. We had conversations yesterday about why a particular vendor chooses to be careful about screenshots.

They want to make sure it looks good. They want to make sure it's used in the right context. But the thing that's not often said is they also just don't want to constantly share their secrets. They're competing with each other. I just don't know how far we get to go with this.

CO-CHAIR SINGH: Actually, I would like to add to that. I think what researchers and the public wants to know is the bad stuff. We don't necessarily need to show this vendor is the one that had the worst screen. We want to be able to show here's an example of a screen that should never exist. You should talk to some of the lab people. They're the ones who I get the most horror stories from. I don't think we need to know every beautiful screen. In fact, if the screen's in the paper, there's a reason it's in

the paper -- because it's really bad. We had graphs that were graphing backwards. We had graphs that were graphing with different intervals for different times. That's high school math, guys.

CO-CHAIR BELMONT: How about this as a compromise? What if I work with Greg, Hardeep, Jason and David and we come up with some text that will go in the report that talks about this issue? I think we can provide the vendor with some compelling reasons as to why we want to share this information for patient safety concern and, again, indicate that we will work with them to make sure that the screen is displayed in a way that they are comfortable with.

I think that three quarters of a loaf may be better than no loaf at all. If we're trying to do a paradigm shift here, I think we have to do it in a way that makes the vendor community comfortable. David, do you --

MEMBER CLASSEN: All I would say is that we need to find a way to do this in a safe

learning space. So as we think about this, I think given the litigious aspect of our industry, it's not just vendors who don't want to share safety problems. It's health systems, as well, as we understand. I think we need to end up at the point where we have a safe learning environment, where safety's not something we compete on, we collaborate on.

I think that's where many other high-risk industries got to, but it took them a long time to get there. Just imagine Boeing saying, after a crash, "You can't see this part; its proprietary." That just doesn't happen. But it took them a while to get there. I think we have to have a safe space that we can all learn together because we're just far too litigious to get there without it.

CO-CHAIR BELMONT: I think, David, that goes back to the PSO discussion that you and have been flirting with. I think sharing the information through PSOs is one way. There are also confidentiality agreements that you can

enter. There might be some protection under state peer review statutes. Again, if Greg, David, Jason and Hardeep are willing, I think we can include some text that will make a compelling case for this.

MR. HUNT: With this process, I don't want to hang out on the clothesline Mark and Jim, if there's a way that we can see a process to bring in some of those -- on the legal side -- of the vendor community. So many times, you can't speak, and I understand, but is there a way to somehow or another bring in those who actually can and begin to engage in this process? I know, Elisabeth, when lawyers start talking, that's just -- you can talk that stuff that you talk.

CO-CHAIR BELMONT: I actually have a lot of friends in the vendor community. I can chat with some of them about that. But as I said to Mark last evening, the way I tend to work with vendors on contracts, even though I'm aggressive on certain things, at the end of the day, if both parties want to make a deal, there's always a way

to meet in the middle.

I firmly believe that there's a way to meet in the middle on these issues here. I think one can respect vendors' intellectual property issues and still be able to share certain information that will help advance patient safety goals. I think it's looking for that balance. Other thoughts?

MEMBER HEERMANN-LANGFORD: I just wanted to reiterate, I think what David was saying, about the provider or the clinical side of the house, when it comes to screen designs -- my observation of what's happening with Intermountain and designing within Cerner, there's a lot that Intermountain is having to say.

The screen designs are not just vendor owned, so it's not just the IP out of the vendor. It's the IP out of the clinical house, and it's what Hardeep is saying as well. I have no confidence that every screen that we're designing at Intermountain meets our standards even, at

times, because it is such an army of people, and some that have never done this before, that I have no doubt that we're not going to have a few little flubs here and there.

I think what you were saying, Elisabeth, is it really is coming to the middle, not just within the vendor communities, but finding that we have the safe environment and bring everybody to the table. Because it is the configuration as much as anything else that's going on in there.

CO-CHAIR BELMONT: I'd encourage -- if other people have thoughts that you want to include in the text that describes that measure, please send me your thoughts by email and we'll incorporate those, and then we'll redistribute it to the entire community. Are people generally happy, then, with the direction that we are going with the additional modifications that we agreed on? Thank you all.

DR. PINES: Is there another comment, David?

MEMBER CLASSEN: I think this is an absolutely critical issue because you can't really effectively have safety measures if you don't resolve this issue.

CO-CHAIR SINGH: So are we getting ready for a break in a few minutes? Should I do my summary now and let people think about it, or after the break? I have just a little summary of the 20 concepts. Here's what I sort of just did. I'm thinking all the group leaders are here, right? Perfect. I'm going to just repeat what I heard from you in terms of your top five, just for people to sort of think about -- and I'm only going to talk about the measure concept at a high level. I'm not going to go over the measure or anything like that, but just make sure that you get it right. I'll stop after every one of them. You people will see some things are also coming together. Eric, I'm going to start with you.

Your top five measure concepts revolved around measuring safety of the patient interaction with the clinical provider,

simulation-based measurements, such as Leapfrog tests, but on multiple other types of safety issues, not just DDIs, getting clinical distance reports and alerts right, such as the need to reduce alert overload, measuring safety around patient-facing technologies and getting these technologies to fix safety issues as well, such as corrections done to errors that patients find in their medical records.

The fifth was measurement related to EHR availability, integrity, confidentiality, realizing that was not as much fleshed out, but around that general area. We talked about real and functional downtimes. Does that sum up your five concepts? Okay, awesome.

Gerry, you ready? Yours was measuring safety related to test results' availability and display in the EHRs, including when test results were not either crossing over or displayed poorly, measuring unexpected downtimes. Third was measuring risk of misidentification issues through looking at duplicate patients in the EHR,

such as the Hopkins measure that Nana talked about.

No. 4 was measuring time spent on testing versus development, again, a measure that was not very well thought through, but had some nice overlap with some other types of measures, but really an important one that we discussed quite a bit about. Your fifth one was a big checklist which discussed, I think, most importantly, the shared risk environment and responsibilities, so I'm going to just sort of maybe say that Elisabeth's discussion sort of helped build on that checklist.

We can go back to the checklist to see if there's really important things that you may want to include going on to our discussion. Okay, fair? Bill, you ready? Measuring data entry burden as a proxy for safety, measuring documentation quality as it relates to implications for improving diagnosis or treatment, measuring the usability testing and evaluation so it's being done right to improve

patient safety, including using end users to improve design and development. Then we proposed a structural measure related to the organization of risk management infrastructure, so that organizations are actually measuring safety through retrospective and prospective approaches and learning through the data.

We talked about local safety teams, help desk logs, and other things, measures of data that the organization is collecting, the concept being unless we merge HIT safety with what organizations are already doing in their risk-management programs, we're not going to be able to get the leverage we need.

The fifth one was around patient engagement and safety, very much overlapping with Eric's No. 4 around patient-facing technologies. Anything I missed? Karen, you're ready for your five? Measures of timeliness and accuracy of clinical documentation in high-risk transitions, measures of timeliness of follow up of test results, measurement of discharge and transition

documentation not quality -- again, documentation quality being overlapping with other areas as well. No. 4 was barcode scanning. No. 5 was measuring response to patient-initiated communication -- electronic patient-initiated communication. The sixth one was med rec as some sort of a safety measure. Got your six, right?

There was two overarching issues that we needed to think about, which haven't been covered well elsewhere, measurement enabled through items in safer guides -- either in part or as a whole -- and then safety culture. We had a discussion on measurement of safety culture. Anything I missed that any of the groups -- or any other concepts -- because I think we've got stuff written, but I think these 22 items -- or 23 items, actually, is going to help us push forward.

I couldn't help myself but to write them down because otherwise, I wouldn't have. Anything you want to add? Anything I said that anybody -- last minute thoughts? No? Okay, back

to you.

MS. PHILLIPS: Is there anyone on the line for public comment? Operator, can you open the line for public comment?

OPERATOR: At this time, if you would like to make a comment, please press star, then the No.1. And there are no comments at this time.

MS. PHILLIPS: Let's take a 15-minute break. That'll be until 11:00.

(Whereupon, the above-entitled meeting went off the record at 10:44 a.m. and went back on the record at 11:11 a.m.)

DR. PINES: All right, if everyone could have a seat, we're going to go ahead and get started again. All right, so essentially, what we're going to do -- let's go ahead and get started here as everyone sits down. Thanks for -- got to herd the cats here.

So again, thanks for bearing with us. We took a little longer break so we could get ourselves organized. What we're going to do here

is really try to do a harmonization exercise, where we're hopefully going to be able to come to some agreement on the measure concepts. What we've done is taken a lot of the work that's come from you and tried to really summarize this information on the slides. We weren't able to get all the information from the PowerPoint presentation onto the slides, so we're going to have Hardeep basically moderate a discussion, where we're going to really try to come to some agreement on these concepts, specifically the areas -- at the top, we have the overall measure concept.

We have some examples, accountability. And accountability may differ a little bit from example to example, but what we want to do in that box is list pretty much all the accountable entities for the overall measure concept, data sources, and any other additional measurement issues and considerations. On the fly, we're going to be trying to populate from the group discussion, and also from some of the information

from the PowerPoint. I know that some of this information has already been presented. Let me turn it over to Hardeep.

CO-CHAIR SINGH: I think we'll have to sort of all learn how we're going to do this. Maybe what we could do is have final thoughts -- we're going to walk through probably 20, maybe, slides, by the time we consolidate, maybe a little less, 18 slides.

DR. PINES: I think we have less than that, yes.

CO-CHAIR SINGH: We've got accountability information on a lot, but you're going to populate, and we can refine it as we go, on the fly. For data sources, you've got information. We'll all contribute to data sources, modify it, put it in there. Then if there's major measurement issues and considerations, you already have some, we'll put it in there. I think first, I think what I'm going to do is start discussing this as the example while you all populate, and then let's

just go down the list and see if we can do that every slide.

MEMBER SCHNEIDER: Hardeep, I'm sorry, just to -- I apologize if I missed this -- it was said earlier, but where do you want to end up, which will help us calibrate our thinking a little bit?

DR. PINES: I think the overall goal is to have all the ideas on these slides and hopefully, on at least some of the slides, some sort of group agreement and harmonization across the groups.

MR. LYZENGA: Are we trying to cut down to a certain number of concepts here is the question.

DR. PINES: I think our ideal would be potentially ten concepts as a target, but if it's a few more than that, I think that's okay.

CO-CHAIR SINGH: Yes, but I think this exercise might help us realize that actually, a couple of these are obviously duplicates, but also we don't think that they are as important as

we thought they were, even though they were on the paper that I read out earlier.

MEMBER SCHNEIDER: So the end product would be a list of somewhere around ten in priority order, or just the ten?

CO-CHAIR SINGH: I don't think it would be priority order, no.

DR. PINES: We'll see how far we can get today. If we can get through all this and have some voting and overall prioritization at the end, we could potentially do that today, but we'll see how far we can get. Another alternative would be to do a voting after the meeting.

CO-CHAIR SINGH: I think the ten was arbitrary. David, if we end up saying I think it's 15, not 10, that's probably okay, as well, as long as we can maybe decide later if some of them are higher priority.

All right, we'll give you five, then. Let's go through this. This measure would address -- on the top is basically the principle,

and maybe the issue, so this is EHR system issues, system to system interface issues, which we know is a problem. The measure and the measure concept -- I'm thinking this is close to a measure -- is number of times an important test result is not available as a result of a system-to-system interface issue.

Jesse, this kind of combines the display? This is probably raw, written from before. I would like to first vote and say which should be available or displayed, in addition. Did you mean displayed? Do you know if you combined -- is there a separate one on display? There's probably not, right? This is the only one? Display is what I added to --

DR. PINES: I think this was just on data availability, so basically being able to see the information that's necessary in the electronic health record to best treat the patient.

MR. LYZENGA: We can maybe wordsmith this based on --

CO-CHAIR SINGH: Yes, let's work this. I would say -- and I'm not sure if it's number of times, or we can just say -- I guess we have to pick a number because we don't have a denominator -- we don't need a numerator or denominator, correct?

PARTICIPANT: Not at this point.

CO-CHAIR SINGH: Not at this time, okay. The number of times -- key test results or any test results? How do we know what's key? Maybe remove the word key, maybe? Please, I'm just putting in my thoughts. Feel free to modify. Test results not available or displayed, I think, should be said. That takes care of two things as one. Example, to facilitate diagnosis of treatment as a result of system-to-system interface issues.

MEMBER SEGAL: Couple of questions and thought. For this one, my recollection is this was more about intra, within organizational interfaces. I think we ought to be clear on that. Secondly, I think we probably want to have

some concept when such availability would be expected. In other words, if the hospital had not developed an interface, let's say, between two systems, then they're going to know.

They wouldn't have an expectation. I think it would be where there's an interface in place that either did not perform as expected or was down or what have you. I think you need to have some sense that there was a reasonable expectation of the data being available.

CO-CHAIR SINGH: As a result of a problem at the system-to-system interface in an organization's EHR?

MEMBER SEGAL: I want to get at the EHR issue. I think that it's -- you could imagine two systems that no one bothered to interface them. They could be operating at a health system. I think that's different than if you have an interface between a lab information system and an EHR, or PACs and an EHR, and it doesn't work. I think we just want to bound it by when we would expect --

CO-CHAIR SINGH: So number of times test results not available or displays as expected.

MEMBER SEGAL: As expected, yes. Then the other on the EHR is I think -- this is a general point. I think we're really talking about health IT safety. Particularly if you think about issues like what we were just talking about, it could easily not involve an EHR. It could involve a PACs to a RIS. It could involve a lab information system to a surgical system. I just think we want to make sure we're generalizing it, where an EHR may be one of the parties, but it's really health IT.

CO-CHAIR SINGH: As a result of system-to-system interface --

MEMBER SEGAL: I think as written, it's fine. I just think we want to make sure that we're not intending that this is only relevant when one of the systems is an EHR because it could be two systems, neither of which one would consider an EHR.

CO-CHAIR SINGH: Do you propose modification to system to system language?

MEMBER SEGAL: No, it's more just the commentary as you presented it. I think as written, it's fine.

CO-CHAIR SINGH: I think Kevin, then David, and then Karen. Kevin.

MEMBER HAYNES: I was going to actually say that I think you should modify it because system-to-system -- otherwise, then data source could be administrative claims. My imaging is available. It is available in a system at Temple. I'm now presented to HUD. They can't see it. How broad are we really talking about here? I think system-to-system actually is a big issue because you could go to the claims to know that last week, I had a CPT code, and there's a beautiful radiology report over at Temple, but HUD can't see it.

CO-CHAIR SINGH: That's why I was saying system-to-system interface issue, or in a system within an organization's EHR, or within an

organization's --

MEMBER HAYNES: I think if you mean that, you should say that.

MEMBER SEGAL: Again, it's just in a hospital, it's not just going to be the EHR. They're going to have a number of systems that are connected or not. I think maybe the focus is on available within the clinical health IT in the organization.

CO-CHAIR SINGH: So what am I saying? System-to-system interface, health IT issue or something like that?

MEMBER SEGAL: Or clinical system to clinical system, perhaps.

CO-CHAIR SINGH: Or clinical health IT system?

MEMBER SEGAL: Whichever, yes.

CO-CHAIR SINGH: Clinical health IT system to another clinical health IT system interface. Kevin, that addresses you?

MEMBER JONES: How about between clinical health --

CO-CHAIR SINGH: Between two different clinical -- yes, thank you.

MEMBER JONES: Darn prepositions.

CO-CHAIR SINGH: Always helps when there's about 25 people on the grammar.

MR. HUNT: To understand the distinction, I always -- I have blinders in this, as I'm always thinking about patient care. To that end, in what occasions will it be displayed? I can see radiology, but more times than not, what occasions will it be displayed that it's not in an EHR?

MEMBER SEGAL: It could be a cardiology system, it could be any number of "ology" focused systems. It could be -- for example, we happen to have perinatal systems, which may interface with other systems. I think -- and increasingly, the whole notion, in part due to what ONC's done with the modular focus of what is the EHR, and the EHR itself becoming more modular -- but I think there still are systems, as defined by the market, that may interface with

other systems, where the EHR wouldn't be a component.

MEMBER CLASSEN: I might add a little more specificity to this measure to make it address what is a known patient safety hazard. It's not general availability. It's availability at a critical transition in care or an ED visit.

COURT REPORTER: I'm sorry, sir, your microphone is off.

CO-CHAIR SINGH: -- post discharge. Is that what you mean?

MEMBER CLASSEN: Yes, exactly. In other words --

CO-CHAIR SINGH: But isn't this true for any outpatient care setting too, so I just --

MEMBER CLASSEN: It could be. All I'm thinking is making it really specific to what we know is a very high risk patient safety situation.

CO-CHAIR SINGH: So can we put that under additional measurement rather than modify

the text? Okay, great. I think Karen was next, and then Erin.

MS. ZIMMER: I would expand tests to be diagnostic tests, or consider it. And David, to your point, we've seen where labs will go to a main mothership system, but not, then, to the specialists, like the oncologist. People manually take the data from the EHR and put it into the specialist system. That's where there's a lot of breakdown. As long as our -- I think that covers it now, but you just wanted to make sure it's between the two different clinical systems and, of course, the fix would be the lab went to both, but they don't.

MEMBER SCHNEIDER: This is really helpful, and I really like having a list. I was looking at Nos. 2 and 3, and I apologize for reading ahead, but under 3, it looks like the first bullet point is on the same topic -- system supports interoperability, both internally and externally. I wondered if those are distinct, or if that -- whatever's intended in that bullet

point is really aligned with this metric?

Then the second issue that this raised, as I looked at the first three, was whether this first indicator is really about how the system operates? When it's operating normally, what's it capable of? But then there's the downtime issue, so key test results might not be available in the system, as designed, but they also might not be available because of a downtime event. I was just curious as to how we might start thinking about reconciling these first three areas?

CO-CHAIR SINGH: For the system interoperability stuff, it is broader right now, as written. But I would argue and say there's a huge discussion going on around interoperability that I don't know if we need to get into as far as health IT safety because we don't even know how we're going to deal with that, not just the safety aspects of it. I don't know whether it's worth going down that path because that's what they say externally between sites, organizations,

or vendors.

It's broad. I think it's broad to the extent that Kevin was mentioning between two different universities, for instance. You know, separate one on --- I think we're going to have a separate one on downtime, anyway, which is going to be broader, because it applies not just to tests, to everything. So probably we can revisit downtime in the next few slides.

MEMBER MARELLA: I think I heard you advocating dropping the first bullet point under No. 3, I guess.

CO-CHAIR SINGH: I would for that.

MEMBER MARELLA: Maybe when we get there.

CO-CHAIR SINGH: But I'm not sure if anybody else will.

MEMBER GRACE: I was in this group. I think that -- and maybe Gerry will say the same thing, but one of the things that we had -- or at least I had in my mind, and maybe I didn't say out loud, where we get to the number of times

diagnostic test results not available or delivered as expected, which I think Mark brings a good point about: if you don't have the interfaces, then it's not expected to be available.

But I, going to David's point of at critical transitions in care, was thinking when needed because is that critical transitions in care, but when the patient's sitting in your office, in the outpatient, and you've got to make a diagnosis, that's when you need the test results. So maybe when needed is too generic, but something to get at, it's at the time when the clinician and the patient are potentially together, or when the clinician needs it or the team needs it to make the appropriate decisions.

MEMBER SEGAL: Just a few quick things on this. One is I guess I would disagree a little with David for this one on just the focus on transitions of care because I think there's the need, from a clinician standpoint, for diagnostic or treatment decisions could be in the

middle of a hospitalization. Secondly, just as it's written, I don't think it's as expected at the interface. I think it's as expected as a result of the interface. In other words, it just --

PARTICIPANT: Sort of as expected because of a problem in it.

MEMBER SEGAL: It's with the interface. At the interface, the mental picture to me of where the two are connecting, but it's really as a result of the interface between the two systems, it's not available.

PARTICIPANT: As expected --

MEMBER SEGAL: As a result of the interface or something like that.

PARTICIPANT: As a result of a problem with the interface?

MEMBER SEGAL: Potentially, yes. The third is I think we just want to make it clear to whom they're available. So you could frame this as available for the clinician. You could also, frankly, frame it as available to the patient

because you can imagine, for example, lab results showing up in a portal as a result of an interface, let's say, between the lab system to the EHR to the portal. I'm fine with the focus on clinician, but I think we just want to be clear on available to whom. I'm fine with that. Then I guess the final point I'd make is I do think we may want to consider making this part of interoperability.

Because so much of the interoperability discussion, and whether we do or don't have interoperability, focuses on across organizational, but I think if you talk to a hospital CIO or chief medical information officer or clinician, they're going to be every bit as focused, perhaps even more so, on the interoperability within their organization.

CO-CHAIR SINGH: But this looks fine, then?

MEMBER SEGAL: Yes.

DR. PINES: I'm sorry, just as a question. For Eric's comment, do we want to

merge in the No. 3, system interoperability now, or do we want to discuss that separately?

MS. ZIMMER: I'm just going to jump on because I agree. I think this is a subset of interoperability. I agree with Eric and Mark. I know right now -- I feel like there's a certain framework that might be where you started, but I think you should consider it because it --

CO-CHAIR SINGH: Consider what?

MS. ZIMMER: This bullet we're looking, to me, is a subset or an example of an interoperability case that you're going to want to focus in on.

CO-CHAIR SINGH: Right, but the question to the group I think Eric's also sort of posing is do we need to go into everybody else's interoperability world, rather than just stay within an organization, which is where the real problems are right now? We can't even get the organization interoperability right.

MS. ZIMMER: But this is interoperability. I don't see them as separate.

I really feel like it belongs under interoperability.

MEMBER SEGAL: I'd move it under No. 3, and then we make the decision about what aspects of interoperability we choose to focus on.

MS. ZIMMER: Exactly.

CO-CHAIR SINGH: Okay, I think Greg has a --

MEMBER ALEXANDER: Yes. I just had a question about -- I think David had that first bullet point under additional measurement that says, potentially focus on known patient safety hazards. I'm not sure I understand that, from a standpoint that if you start dealing with these measures and implementation of things, other types of patient safety hazards that are not currently known may occur, unintended consequences or things happen that you can't predict or expect, especially when you start working with trying to do health information exchange and different kinds of things across

settings.

Making it very specific to known patient safety hazards makes me think that we're sort of leaving out the potential of something else that's unexpected to happen. I don't know if that makes sense. I wondered what you were referring to there.

MEMBER CLASSEN: I was referring to, based on my own experience, data availability becomes a threat to the safety of my patients when I see a new patient and I don't have access to all the data. That's what I was referring to. That's just the way my workflow works. It can be either a new consult in the hospital or a new consult in the outpatient.

CO-CHAIR SINGH: Does anybody else have any more comments on this? Do we have a separate one on interoperability now?

MR. LYZENGA: We actually pulled up these ones from No. 3 into this slide here. I guess we can discuss whether we want to keep them, or whether that first bullet is sufficient,

or if we want to have a couple other examples of measures here.

CO-CHAIR SINGH: Can you remind me what sub-bullet point this came from, system supports, mobile applications, and external data can be added? They were not in the top 23 that I read. Who came up with this, which group, anybody?

PARTICIPANT: I think this was Group A.

CO-CHAIR SINGH: Is this one of Group A's 20-point checklist?

MEMBER CASTRO: Yes, I think it was.

CO-CHAIR SINGH: Can we get rid of that listing?

MEMBER CASTRO: Yes, it was one of the -- part of the checklist. Just to remind the group, the external data, there were a lot of concepts dealing with health information exchange and the integration of that kind of data into your workflows. Then also, the support of mobile applications as a separate concept. We didn't

want to lose those two ideas because we thought they were still important.

CO-CHAIR SINGH: Right, but we could be talking about interoperability here all day. Do you want to do that?

MEMBER CASTRO: Do I want to do that? No.

CO-CHAIR SINGH: Does anybody really want to do that? We can have an interoperability safety measure, but we'll be here all day, and do you want to do that?

MS. ZIMMER: You could do two different clinical health IT systems or applications. Because that's what you're saying. If someone is using a phone to the EHR, or someone's using some other technology, isn't that the issue? I'm trying to paraphrase what you're saying.

PARTICIPANT: As worded right now, though, it is specific to diagnostic test results. I think we're talking about whether the system supports mobile applications more broadly,

as well.

MEMBER JONES: Yesterday, there was mention -- I think I gathered you guys thought this could be generated in some kind of an automated fashion. The broader we make it, the less likely it's going to be automated. I don't know how we're going to establish this mattered in patient care.

If it started with some sort of a safety system, quality safety tracking system, and we said how many of those does the reviewer feel were attributable to a system issue, that may change how we thought about it. If the denominator starts with, there was a safety event, and we say of those safety events, how often -- I'm trying to remember, David, with your standard lists of things that we check off, is one of those I didn't have the data I needed or something like that?

CO-CHAIR SINGH: It's worth having a discussion on interoperability as it generalizes to beyond organizations if we can actually get

hold of any data. Has anybody got hold of data across multiple organizations that connects patients? Not administrative data.

MEMBER JONES: I'm trying to punt for you, to David, to say he has the checkmark, and we've got this handled.

MEMBER CLASSEN: What was your question? I'm sorry.

CO-CHAIR SINGH: I'm trying to see its point, moving the interoperability discussion to broader, beyond just an organization, only when we know that we'll actually be able to have a measure that measure stuff across organizations using EHR clinical data.

MEMBER ALEXANDER: I'm part of a CMS demonstration project where we're implementing a health information exchange across 16 nursing homes and six hospitals in St. Louis. Some of the issues that we have with that -- the only reason that we've been successful in beginning to transfer documents, to begin to understand interoperability, is by having every person

responsible for those types -- for technologies at the table in the stakeholder group. You can't just have one organization there. You have to have them all there because each of them have different systems that have different looks and feels to their interfaces. The stakeholder group has to be broad and all-inclusive.

The measures that you have for one organization will impact what happens downstream with another organization receiving or sending information to and from those people. In my brain, I'm thinking interoperability has to go across the organizations, and you have to begin to think of that in the beginning, as you're developing these measures, versus later downstream. If you think one organization now, later downstream, it's going to have to change, I think. I don't know if that was a response to your question or not.

CO-CHAIR SINGH: Maybe a response, but may not be the response I was hoping to hear.

MEMBER ALEXANDER: Sorry.

DR. PINES: Are you saying that we would change the accountability, too, also at the regional level or state level, potentially?

MEMBER ALEXANDER: Are you talking to me?

DR. PINES: Yes.

MEMBER ALEXANDER: For example, one of the issues that we had -- I'll just give you an example. We're working with multiple HIEs. In order to get a readable document in a CDA, we had to have a style sheet. Each of the HIEs didn't feel it was their responsibility to apply a style sheet, so we were at a point of not moving forward because there was this discrepancy between who was going to do that.

That's a very specific example. If those things aren't discussed at a table, and we don't understand what that decision has -- any implication it has downstream for people that are trying to open documents, then the measures aren't going to really make any difference because you're not going to have a usable system.

That's sort of part of the measure, isn't it, is having a usable system? You have to have all people around the table, in my opinion.

CO-CHAIR SINGH: If we can maybe -- do the structural considerations need to be there to reflect both internal and external interoperability, those two items? If you just keep it broad and say number of times diagnostic test results, which is needed information, not available, and I think somebody said transmitted or something like that, or is that available, transmitted, or displayed? So make it available, transmitted, or displayed for the clinician or the patient as expected because of or as a result of a problem with the interface between two different clinical health IT systems. Is it broad enough to capture all types of interoperability?

MEMBER CLASSEN: But the question is why do you even have to have that description? If it's not available, isn't that a much more important measure than because of certain

interoperability issues?

CO-CHAIR SINGH: It may not be available because it's not being done yet. The lab hasn't finished the test. I think some amount of specificity, as Mark was saying, would be good because this targets a problem at the interface, either because the interface is broken or hasn't been built yet. I think we probably have to say something about the system interface.

MEMBER CLASSEN: I guess clarification about whether this has to do with the internal interoperability or external interoperability.

CO-CHAIR SINGH: That's why we've been having this discussion.

MEMBER CLASSEN: I can tell you, internally, interoperability has gotten a lot better. We've been measuring that with the flight simulator. Initially, when we started the testing ten years ago, a lot of places had standalone pharmacy systems that were not in their EMR. They did very badly on the test. Many of them have integrated pharmacy into their

EMRs. They do much better in the test. Internal interoperability has improved a lot, at least based on the results of the test. You may have a measure here that doesn't have lots of room for improvement.

CO-CHAIR SINGH: I'm not sure if that's correct. The error logs -- we visited Geisinger and they were still -- after 15 years of doing this, they were still running daily error logs of results that never crossed this phase.

MEMBER CLASSEN: No, never crossed it.

CO-CHAIR SINGH: I'm thinking it's happening, and unless we have a measure -- that's why maybe good to keep it broad, then, internal and external, and that way it applies for external interoperability, as well.

MR. LYZENGA: So just to be clear, for the structural considerations, did we want to take that out from the example?

CO-CHAIR SINGH: I vote for it to be out, unless somebody wants to keep it in. Both

of those structural things could go in a bullet. Slide's going to be big anyway.

MR. HUNT: Let me just make a case that if there's some way that we put that -- there's some reference to both internal and external, my fear is -- and I'm trying to think two or three steps down the road -- when folks look at an issue and one of them is interoperability, I'll be honest, everyone throws up their hands and says whew. It feels like a mountain that oh, my God, who's going to really work on that?

When we had this really focused on a test is not available, it's absolutely right that this does -- the solution comes down to interoperability. There's no doubt about it. But I feel as though people get -- they don't see a path to a solution if we're working on interoperability. If in some way we can make sure we provide some notation or annotation that this is both internal and external, so that folks can begin to think about working on that problem

of where's my test.

CO-CHAIR SINGH: Jesse, can you add, under additional measurement issues or consideration, measure could address both internal and external interoperability?

MEMBER HEERMANN-LANGFORD: I think he kind of covered some of what I was going to say. The term that we often use is clinically consumable because we can have interoperability where the data goes from one system to the other, but it's not really consumable by the clinician at the clinical bedside. It takes too much effort to find it, to go in and find a report and read it.

When you talk about a test result, it's a good example. The other one's allergies to medications, to actually get them into System B in a way that it's clinically usable and consumable. You can actually make decisions. You can do decision support with it, that type of thing. Because otherwise, it's useless to us if it's just oh, yes, check the box. It's

interoperable. We've got it there. Whether or not you stick with -- it has to be internal and external. You can't do this one way or the other if you're going to get it across. Whether or not you want to go beyond test results, there are a few other nice, discrete data elements that are useful for us.

CO-CHAIR SINGH: Allergies, things like that?

MEMBER HEERMANN-LANGFORD: Allergies, medication reconciliation. We could support a lot more if we did this with coded, discrete data.

CO-CHAIR SINGH: Jesse, you might want to say something -- I think downtime will be addressed later. It'll just confuse it. I would delete that. I would say things like could potentially be exportable to other critical data, such as allergies. What else did you say?

MEMBER HEERMANN-LANGFORD: Medications.

CO-CHAIR SINGH: And medications.

MEMBER HEERMANN-LANGFORD: Problem lists. You would start with the basics. There's a lot more that you could do, but --

CO-CHAIR SINGH: Even if you just put allergies, people can think broadly as to yes, we can use the measure for some other stuff as well.

MEMBER HEERMANN-LANGFORD: Immunizations would be huge, duplicating immunizations because we don't know what they had.

CO-CHAIR SINGH: David, did you have another comment? Okay. Mark.

MEMBER SEGAL: Just thinking about the structure of this, if we're talking generally about interoperability, I would be inclined to add a second example that focuses on the cross-organization interoperability, what we were just talking about. I think from a measure standpoint, they ought to be discrete measures.

I don't think we want to have a measure that lumps in mobile and cross-organization within interface. I think

ultimately, from a measure standpoint, we want to prioritize. But if we're having sort of a general concept right now, I would definitely keep the interface issue as within organization, have a second example that focuses on consumable or usable information coming outside of the organization.

CO-CHAIR SINGH: What would you say the measure would be?

MEMBER SEGAL: I would have a second example. I think the measure -- I think we actually have some -- there were some things on the list. Again, external data can be added. Again, I don't know if this is exactly the right end point. We've got the external data can be added to the patient record, but that's kind of the starting point, and then you have to think about are you incorporating it, or is it accessible? But I think if we're dealing at the concept level -- I would just pull maybe some of the other concepts here.

CO-CHAIR SINGH: The big thing that

I'm hearing from HIEs is even when the data is available to somebody in the EHR, clinicians are not looking at that data. Is it fair to propose some HIE --

MEMBER HEERMANN-LANGFORD: Because it's stuck in a repository in a document somewhere. It's too hard to get.

CO-CHAIR SINGH: Exactly.

MEMBER HEERMANN-LANGFORD: We're not breaking it out in a way that they can actually then insert it into their own data.

CO-CHAIR SINGH: Should we have a measure of something that available data is not being used -- available HIE data is never accessed, despite a patient visit?

MEMBER HEERMANN-LANGFORD: I'm not sure that it's the clinicians' access problem as much as it's our way of how we're storing it and present it from the IT side.

MEMBER SEGAL: Again, it's that shared issue, but I think it would be -- again, I wouldn't call it HIE. We talked about that. It

would be externally available data -- because again, that could be a lab or whatever.

If you want to focus on whether it's actually used, and again, a measure of how well we're all doing our job, I think it would be a measure of the extent to which externally available data is used in making diagnosis and treatment decisions or care management or what have you. Then you don't focus so much on was it incorporated, or was it a separate tab, but were people relying on it, and if they're not relying on it, then that's actually a good diagnostic that we're all not doing a good job. Again, I'd focus it on the outcome. It's using the outside data to do what the clinician needs to do.

CO-CHAIR SINGH: The extent to which externally available data is used to make diagnosis or management decisions, is that good?

MEMBER SEGAL: Mm-hm.

MEMBER CLASSEN: All I'd add is it probably would be a survey of the users to say how often did you not have critical information

available to you?

MEMBER SEGAL: I think that would be one way to do it.

MEMBER CLASSEN: One way to do it, right?

PARTICIPANT: Absolutely.

MEMBER ALEXANDER: I would even take it a step back from that, just to even ask a simple yes/no question, can you exchange a document that is readable, that has clinical data in it? Because there's a lot to just getting a document to be able to be exchanged internally and externally, mostly externally, where people can actually read it. If they can actually get a document they could read, they're more likely to use it, if it's structured the right way.

CO-CHAIR SINGH: Can we say externally available meaningful data?

CO-CHAIR BELMONT: The only other challenge we have with this, and you and Mark and I discussed this briefly at dinner last night, sometimes externally available data can be

available, like with EPIC Care Elsewhere and EPIC Care Everywhere, but the volume is such that a clinician may not go all the way through it, or they may not appropriately summarize it in the medical record. It can be available, but not necessarily in an easily accessible or manageable format. Some of the continuing care documents can be up to 30 pages.

DR. PINES: Also, just to remind you, we do have usability as a separate domain, so this is sort of, is the data -- is it there, and then potentially think about is it actually useful or useable?

CO-CHAIR SINGH: This implies usability a little bit. Not usability as Elisabeth said, but you're using the data to make diagnosis management decision, and the extent is zero because you're not using the data.

PARTICIPANT: So if the availability is no data?

CO-CHAIR SINGH: No, we already said externally available, meaningful data. There's

two aspects of this measure. One, there's nothing available, therefore we score badly, or it's available, but as Greg said, it's not meaningful, and we don't use it, or maybe it's too much, and we don't use it.

PARTICIPANT: What if it's available but not in a usable form?

CO-CHAIR SINGH: Is that good enough?

PARTICIPANT: Yes.

MS. ZIMMER: Just a thought. After we end up going through this, another way to maybe look at this is going back to match it with our workflow process. When we were talking about transmission of data, readability of data, which you have on here -- they're listed here, but in the end, we may re-order this so it fits the workflow process of how data comes through, and readability, follow-up.

CO-CHAIR SINGH: I think we spent 35-40 minutes on this slide, so we're going to have to move a little bit faster than this. Thanks. I think the next one is availability

again, but this time it's downtime. I'm hoping this will be a little bit simpler than what we just went through. Unexpected downtime affecting clinical care and lasting more than an hour. We didn't decide anything on the unilateral vendor lockout of clinicians.

Can we just remove that? People weren't impressed. I think availability of disaster preparedness plan is a good thing; frequency of drills is a good thing; frequency of security risk assessment, was that using a specific tool when we came up with that, or SAFER?

CO-CHAIR BELMONT: That was being consistent with the requirements of the HIPAA security rule.

CO-CHAIR SINGH: Okay, so just say consistency with requirement?

CO-CHAIR BELMONT: How about consistent with regulatory and accreditation requirements?

CO-CHAIR SINGH: That addresses,

actually, some of the issues that Eric's group brought out broadly around confidentiality, security types of things, and downtime and availability, so that's good.

PARTICIPANT: So the same goes for disaster drills and that sort of thing?

CO-CHAIR SINGH: Frequency of disaster drills, I don't know if there's a protocol -- Bill.

MEMBER MARELLA: Do we want to focus on the frequency of disaster recovery drills and the frequency of security risk assessments or something about the organization's response to their performance on those things? Or is that too hard to quantify?

CO-CHAIR BELMONT: Our discussion yesterday did focus on frequency -- it focused on frequency because our concern was there was a plan in place. It was in the file. It was stale. Then as David pointed out with some of the new physicians, they may have no familiarity with manual processes at all. We wanted to have

a more ongoing approach to this. Eric, do you want to add anything?

MEMBER SCHNEIDER: Yes. The thought was that might be a next-generation measure that these are maybe the entry point. One other comment, and I think members of our group persuaded me that system downtime is not necessarily -- isn't necessarily the best umbrella for the issue of security risk assessment and drills on disaster recovery and disaster preparedness. Security risk assessment, in particular, unless you mean data availability in the sense of data availability to hackers and other nations, it feels like an awkward fit there.

CO-CHAIR SINGH: We don't have anything else where security assessment goes, correct?

MS. ZIMMER: We do have risk management later, don't we?

PARTICIPANT: Yes, we can potentially move it to risk management.

MS. ZIMMER: Yes, risk management infrastructure, and to me, security risk assessment goes under that.

CO-CHAIR SINGH: Yes, because that's a pro-active way to do it, yes, because I have retrospective and prospective stuff on that. Actually, you could leave the drills in here because it's generally to do with how you -- when the system's gone, how do you -- I guess it's more broad than that.

PARTICIPANT: Maybe you can do frequency of downtime drills?

CO-CHAIR SINGH: Yes, I think it should be downtime drills. Then you can move security risk assessment to organizational responsibilities for risk management, and just either put it in the notes or something, or come back to it. Data source vendor facility accountability looks good. Data sources, EHR, people could do surveys -- could send surveys out, how many downtimes you had in the last month. I'm not sure if people would report, but

this is EHR available -- this is data you can access, right?

MEMBER SEGAL: I think some of it, but a lot of it, like the frequency of drills, I think that's going to be administrative records.

CO-CHAIR SINGH: Administrative records, yes, that's good.

CO-CHAIR BELMONT: Another data source would be -- say that you had an accreditation or other regulatory inspection and see what the report said about whether you're in compliance with those.

CO-CHAIR SINGH: Does the Joint Commission do any of this?

CO-CHAIR BELMONT: Yes, they prepare --

CO-CHAIR SINGH: They do some of these, right?

CO-CHAIR BELMONT: Yes.

CO-CHAIR SINGH: Perfect. Any additional measurement issues or considerations? We're doing good here.

DR. PINES: Specifically for that one hour, did we agree that one hour is okay? I know there was some concern about --

CO-CHAIR SINGH: Could we just say lasting one hour and put in parentheses time frame could be adjusted based on --

MEMBER HEERMANN-LANGFORD: We had just a little bit of conversation in our group about -- just not the hour, but that I'm not sure that we say what time. Because when we were talking about downtime and disaster planning is when do you go into the process? How long do you wait? People tend to -- they hesitate because if it's only 15 minutes, they'll use the paper towels until they can get it back in. We had a little bit of discussion about having in your plan how do you initiate downtime procedures, how long do you wait? It may need to be specific per the site, based on what their systems are like or how they manage it, and then this plan would -- not only when and how you initiate it, but then how you come out of it and test everything's up and

running again. That might play into the hour part of it because I'm not sure --

CO-CHAIR SINGH: Should we just say something like frequency and length of unexpected downtimes and just let people decide, rather than putting an hour?

MR. LYZENGA: Would it be sufficient to just say affecting clinical care, however long that is, or no?

CO-CHAIR BELMONT: I think that makes sense because we were talking yesterday that if this was in an emergency department, an hour would be a long time to wait. I think it's context dependent.

MEMBER GRACE: That's exactly right, or the OR, as David mentioned yesterday. Maybe unexpected downtime affecting clinical care, and then if there's a way to put in there, if you want a time frame in there, you could say reflective of your disaster preparedness plan or something like that, if you want the time frame piece, and make your disaster preparedness plans

then say if it's in the OR, this is the time frame, and if it's in the ED, it's this, and if it's on the unit, it's this.

CO-CHAIR SINGH: You could say time frame may be setting-specific, depending on the risk or something like that.

PARTICIPANT: No. Context-specific.

CO-CHAIR SINGH: Context-specific depending on the risk. Do we need to say frequency and timing of unexpected downtime or just unexpected --

MEMBER CLASSEN: Or you could just say total number of minutes or hours of downtime in a year.

CO-CHAIR SINGH: Yes. Frequency is length.

MEMBER CLASSEN: We actually track that. We know clinical system downtime. Everybody tracks that if you use total number of minutes.

CO-CHAIR SINGH: Frequency.

MEMBER CLASSEN: You could also ask

how many times was your downtime procedure activated in a year? That would be very alluring because if you had a lot of minutes of downtime and you never activated it, that would be a concerning measure.

CO-CHAIR BELMONT: I like that idea. I think that's a good one.

MEMBER CLASSEN: Very objective.

CO-CHAIR SINGH: You think add one more saying how many times you had to activate?

MEMBER CLASSEN: Yes, total number of minutes of clinical system downtime in a year and total number of times you activated your downtime procedures.

CO-CHAIR SINGH: So just put total number of -- that needs to go as a separate --

MEMBER CLASSEN: Very objective. Everybody tracks that, right?

CO-CHAIR SINGH: Karen, Erin, you still have your cards up. Do you still need to -- okay. Does anybody have any additional measurement considerations before we move to the

next slide? Our average is getting better.

(Laughter.)

MEMBER CLASSEN: Time to extend the hotel say.

(Laughter.)

CO-CHAIR SINGH: I just hope we don't have a fire drill right now, and we all leave. Next one is user-centered design. This was a big decision about -- I think this includes that concept of involving end users. Does it also touch upon the testing one that I -- yes, the test versus -- Gerry's group.

DR. PINES: We have -- four and five are -- we've got user-centered design and usability testing and evaluation. We could potentially combine this into one.

CO-CHAIR SINGH: Yes, I think so. I think so because they are part of the same -- this is really important, and we'll have to think about how we make this into a measure. Nana and I were talking. This is going to be a tough one to make into a measure. What do people think?

Mark?

MEMBER SEGAL: Just on the one that got moved, I would expand that -- I don't know if we have it up there yet -- from development to also configuration and implementation. Because particularly, and I think to the point David made, if we're looking at the shared accountability, you need the user-centered approaches both in how providers implement.

CO-CHAIR SINGH: Absolutely true.

MEMBER SEGAL: So I think that particular language needs to look at a larger life cycle.

CO-CHAIR SINGH: Can we just say life cycle of health IT?

MEMBER SEGAL: Perfect.

MEMBER HEERMANN-LANGFORD: I always take issue with end user involvement because how do you measure that, and what is meaningful? You have them in the room and they are sitting at the table, so yippee, I checked the box; I had end user involvement. Did you listen to them? Did

anything that is pertaining to workflow or clinical needs actually get into the development or the configuration process? I just feel like there's some way we need to be able to articulate that a little bit more clearly, besides yes, we had the token person in the room.

CO-CHAIR SINGH: Yes. Just so everybody's thinking -- the certification and the usability requirements of the vendors have been recently -- the papers that came out had a specific 15-physician requirement. Correct me if I'm wrong. Maybe there are already some existing standards that we could look into, in terms of certification and usability. David, I'm not sure whether there is something -- David Hunt, I'm not sure whether there's something that you think we should discuss with NIST a bit more about this measure, or is there something that ONC could help us with? Because you've done this thing quite a bit.

MR. HUNT: I think we can specifically, after the timing of some of our

regs come out --

CO-CHAIR SINGH: Yes, I've been hearing about these regs quite a bit, so is this --

MR. HUNT: I don't know anything about them.

CO-CHAIR SINGH: I've heard quite a few good things about them.

MR. HUNT: I have no knowledge, whatsoever, of --

CO-CHAIR SINGH: But do you think this could be a measure that we could wait to see in your regs? Because I've heard through the grapevine there's something about this stuff in your regs in the future, if you can say that openly.

MR. HUNT: Top secret. Let's just wait. It'll be easier, let's just say.

CO-CHAIR SINGH: Thank you. Can we just have a little consensus here that this is a measure which is really important but needs to be developed a little bit with discussions with ONC

and NIST. We can have a timeline within a month of some of the regulations coming out of ONC. We can circulate that around the group, and even have a little call to go through the similar slide arrangement here.

MEMBER KHUNLERTKIT: Can I suggest adding the design and probably development implementation after the HIT end users' involvement in life cycle, HIT design development and implementation?

CO-CHAIR SINGH: Do you want to just make it very clear, life cycle includes --

MEMBER KHUNLERTKIT: Yes, because this is not clear.

CO-CHAIR SINGH: Yes, just say end user involvement in life cycle design, development, implementation, use, and evaluation. Karen and Mark.

MS. ZIMMER: The third bullet point, system supports information transfer at transitions in care, either it goes to your No. 10 on transitions in care, or our system

interoperability.

CO-CHAIR SINGH: So we can leave the others if people are happy with it just so that it'll help us think through when the report comes out. Is that good? We've got to have a separate one on simulation, so I'm not sure whether the simulation stuff should stay here, or we should go into simulation as a separate measure.

DR. PINES: I think we had put simulation under usability.

CO-CHAIR SINGH: Oh, really? Okay. Because I was thinking simulation could be -- David Classen, do you think simulation stuff, which I think is critically important and should be included maybe as its own measure of some kind, do you think it should go under usability testing, or should we have a separate measure just focused on simulation as a way to test various aspects of safety?

MEMBER CLASSEN: Yes. I think the latter.

PARTICIPANT: I think so, too.

MEMBER CLASSEN: We've both done it at the organization level and at the user level. I think it could be used to test a lot of aspects of these systems we've only just scratched the surface.

PARTICIPANT: I'm going to go ahead and put that in the slide, simulation.

CO-CHAIR SINGH: There's too many mics on. We could take out the simulation part from here, and then put it as a separate slide, as a separate measure concept. I think it's important to develop simulation as a measure itself, not just as a way to get to usability.

MEMBER HEERMANN-LANGFORD: I would agree with that. One concept, when we were talking about simulation, we talked at length about using simulation to maintain and gain competency of use, so not just the usability, but competency.

CO-CHAIR SINGH: Absolutely.

MEMBER SEGAL: Hardeep, a couple things, if we can go back to the prior slide.

Maybe this was where we -- on the second bullet, I would just bring in the reference to usability because it's not just -- it's the end user involvement with respect to -- particularly on the usability aspect. I think that's worth calling out. Secondly, you mentioned standards. There are standards for both presentation, which NIST has, and standards for how to -- for approaches to usability. I think it's worth it, as we're doing our little bit of a parking garage, to your point, we consider whether we want to have measures that actually look at the use of available standards, without saying it has to be Standard A versus Standard B.

CO-CHAIR SINGH: Exactly.

MEMBER SEGAL: Then third, I'll just repeat it, but I don't think we need extensive discussion. I'm still uncomfortable with the first bullet on the testing versus time spent on development, both because the testing itself is very heterogeneous, and because testing is part of development. I understand what people are

getting at, but I'm just uncomfortable with that measure as framed.

CO-CHAIR SINGH: Actually, Mark, I would actually put your suggestion of use of existing standards in place of that because I think some of what you're talking about is probably addressed within that. That could mean the new ONC standard when it comes out, whatever that is.

MEMBER JONES: Can I just clarify that people are referring to all users, including patients and caregivers, or is this limited to --

CO-CHAIR SINGH: I think that's something that we could do as sort of a preface to the whole report. When we say users in this report it fits broadly to all HIT users, including patients, caregivers, healthcare, nurses, pharmacists, fair? Karen, do you have a comment? Are we done with the third slide? People must be getting hungry.

DR. PINES: Let's go back to simulation because we didn't really --

CO-CHAIR SINGH: Yes, which is a separate bullet. You want to do it now? We can do it now. It's not in order, but we -- oh, yes, because you had it there. All right, simulation. What I had sort of written is simulation based measurements, such as Leapfrog tests put on multiple safety issues. That's the concept I had in mind. Let's look and see is everything we want to do similar. I think one of the things we are saying is almost like all organizations use simulation of some type. Should we be bold enough to say something like that?

MEMBER CLASSEN: I think virtually every healthcare organization has some sort of simulation already going on.

CO-CHAIR SINGH: Can we just say testing/simulations of systems are being used in organizations to identify potential safety risks? Are being used is the essential thing. They could be doing simulation and safety training, but not EHRs.

MEMBER CLASSEN: Right, exactly.

MEMBER GRACE: Would smaller organizations or community hospitals, things like that -- are they using simulation, do you think?

MEMBER CLASSEN: Absolutely. In one form or another, most everybody's using simulation. Their simulation might be around codes and running codes, but almost everybody does that. Because if you're a medical staff member, you have to have BLS certification. To do that, you have to go through simulation training and certification.

CO-CHAIR SINGH: But as an example, David, if, let's say, a small community hospital with 50 beds doesn't have any simulation lab or nothing, calls upon you or somebody, "Can you help us do a Leapfrog test," that's considered doing -- you'll be able to do it, right?

MEMBER CLASSEN: -- I'll just do it over the net access to it, so they don't need any special facilities to do it.

CO-CHAIR SINGH: Anybody could do it.

MEMBER CLASSEN: Anybody could do it.

MS. ZIMMER: I would change the language of the first one, where it says, "Or problems as conducted prior to release," because it also includes post implementation as probably --

PARTICIPANT: Maybe life cycle.

CO-CHAIR SINGH: Yes, you could use the same thing, yes.

MS. ZIMMER: I know life cycle sounds so wonderful, but I would probably put it in parentheses.

CO-CHAIR SINGH: Yes, the five or six --

MS. ZIMMER: Something, yes, because post-implementation is lost a lot of times.

MEMBER KHUNLERTKIT: I agree with Karen, and I think we need to add a pre-implementation, so before release, pre-implementation and post-implementation.

CO-CHAIR SINGH: Then you can specify -- just copy and paste including evaluation onto the next slide. Accountability vendor/facility,

data source is simulation data. Additional measurements or considerations, anything? Anything else regarding those three bullets?

MEMBER CLASSEN: The other area you consider -- some people have used it -- is to test after unexpected downtimes, when the system crashes and things get turned off people don't know about, or after upgrades.

CO-CHAIR SINGH: I would say testing -- maybe add a bullet? You want it as an example of a measure? I think he wants a No. 4 bullet saying something like testing at -- simulation testing be used at high-risk situations or scenarios.

MEMBER GRACE: That's an additional measurement or consideration, right? You mean you would like to see that under big bullet four, not the fourth bullet under examples, right?

CO-CHAIR SINGH: You want to see it under additional measurement? Okay, cool, thanks. Nana, and then Karen.

MEMBER KHUNLERTKIT: I just want to

add it, I don't know if it's a bullet or anything here that, just like Laura was saying, that simulation can be used for training, for building competency. I would want to add the workflow analysis and sociotechnical analysis in there, too.

CO-CHAIR SINGH: Workflow analysis, competency testing, training --

MEMBER KHUNLERTKIT: Training, and sociotechnical analysis, and probably usability testing can be in there, too.

CO-CHAIR SINGH: Usability testing, sociotechnical analysis, five things we must put as additional consideration? Training, competency evaluation, usability --

MEMBER KHUNLERTKIT: Usability evaluation --

CO-CHAIR SINGH: -- evaluation, workflow analysis --

MEMBER KHUNLERTKIT: Workflow analysis, and sociotechnical analysis.

CO-CHAIR SINGH: -- and sociotechnical

analysis.

MEMBER CLASSEN: And probably both at the user and the organizational level, right?

MEMBER KHUNLERTKIT: Right.

MS. ZIMMER: Two just picky things because I heard you say to cut and paste as we go forward. Under life cycle, design, development, pre and post-implementation, I'm not sure use and usability is part of the life cycle.

CO-CHAIR SINGH: It is. Design, development, implementation, use and evaluation is the life cycle, but we probably will add usability just to emphasize it. It's under use --

MS. ZIMMER: Oh, okay, sorry, just because we're going to keep bringing it forward, so I want to make sure that phrase we all agree on.

CO-CHAIR SINGH: Put evaluation in there.

MEMBER SEGAL: It should say use, not usability.

MS. ZIMMER: Right.

CO-CHAIR SINGH: Yes, use, yes.

(Simultaneous speaking.)

CO-CHAIR SINGH: You want it to emphasize usability. Mark wanted to emphasize usability, so Mark, if you see --

MEMBER SEGAL: That's fine.

MS. ZIMMER: Then the other is when we talk simulation, do we need to be a little bit clearer what we mean? Are we talking about simulation like David's tool with EHR? Are we talking they're using simulation, as someone said, for BLF courses? Are we talking simulation where they have now ancillary staff actually do simulation with cleaning of the room? Is it the simulation itself, or is it the simulation of what, and do we need to clarify that?

CO-CHAIR SINGH: David, do you have any thoughts?

MEMBER MARELLA: I was going to make a similar comment in relation to the second example there because I think there's two

different purposes of simulation that are kind of being combined there. One is -- and David, correct me if I'm wrong, but the Leapfrog flight simulator, what you're testing and evaluating is the IT system, itself, whereas the first part of that measure, percent of users that are tested in a simulator, I think that's getting more to individual competency and making sure that --

MEMBER CLASSEN: Correct. I'd say both organizational and individual is the possibilities here in this measure. I think Bill's right. You're looking both at organizational performance, which is very driven by the HIT systems, but also the configuration of them, so it's measuring both the IT systems and the way the organization implemented it, that's one aspect. Another aspect is your individual users are tested through simulation to see how effectively they use the system.

MEMBER MARELLA: I've seen some hospitals where they're using simulation in a test environment for people. Basically, they

have very rigorous programs. They're giving CME credits to people, and they want to make sure that everybody uses a clinical information system in a test environment before they're exposed to it in production.

MS. ZIMMER: That's what I was trying to say. We've got to clarify what the simulation's being used for, I think.

(Simultaneous speaking.)

CO-CHAIR SINGH: You don't think the first bullet is enough?

MEMBER HEERMANN-LANGFORD: I think she's right that it would be helpful to have something in the title of it.

CO-CHAIR SINGH: Oh, okay.

MS. ZIMMER: I'm just thinking, as you said, CME credit --

CO-CHAIR SINGH: Can we just say simulation to promote safe health IT, so simulation to promote safe health IT or something like that? Jason what?

(Simultaneous speaking.)

MS. ZIMMER: -- IT usage or what -- that's fine.

CO-CHAIR SINGH: It's not only use, right? It's design --

MEMBER JONES: I'm afraid I can't come up with better words, but I'm hopeful that where this leads is that it's less about just harm avoidance and more how we learn through this to build better systems in the first place.

CO-CHAIR SINGH: Proactive.

MEMBER JONES: Yes, and how we build competency. When someone comes in and we just say, "Here's the EMR, have it."

CO-CHAIR SINGH: So simulation to promote safe health IT life cycle proactively?

MEMBER JONES: I don't know. If other people agree with that, someone else will have a better command of the language, and we can find it later. But if we're conceptually not aligned with that, and we only want to focus on the safety part, then it's different.

CO-CHAIR SINGH: No, it's prevention

of risk. SAFER Guides is all about prevention of -- risk mitigation.

MEMBER SCHNEIDER: This is an instance where I might argue for splitting them because they are different objectives from a quality improvement standpoint and from a measurement standpoint. The system design issues are one set of issues. The staff competency -- actually, the staff training is a second set of issues, and the staff competency and performance seem to be a third set of issues. The denominator's different for each of those three measures and the intent and the objective and how improvement would follow. It's one of the things I think I struggled a bit over, and this is natural, at this stage of the process, is how our overall framework is ultimately going to look, and then how it's consumed by the public or the other end users of this product.

CO-CHAIR SINGH: Do you think it's worth splitting it now into two different slides? We already have the material in there. I think

you would agree. But I think you're saying it needs to be structured a bit differently.

MEMBER SCHNEIDER: I would probably split it now, just so the issue doesn't get lost. If we end up re-sorting, then you've got the two pieces that you can --

(Simultaneous speaking.)

CO-CHAIR SINGH: What would the point -- user centered and organizational centered, and the user centered includes training and competency and all that, and that organization centered is, you know, working and things like that?

MEMBER SCHNEIDER: Yes, as a first approximation, I think that's a good solution.

CO-CHAIR SINGH: What he means is literally duplicate -- you can do this later, I think -- just duplicate the slide and take out everything for use in one, and take out everything for the organizational system in the other.

MS. ZIMMER: Could you take what you

were saying and put it under clinical decision support?

CO-CHAIR SINGH: Yes, that system --

(Simultaneous speaking.)

MEMBER SCHNEIDER: The sorting can be done later, but I just think disentangling -- if the title doesn't suggest the components, that's always a risk.

CO-CHAIR SINGH: Eric, look at the last bullet. You happy with that?

PARTICIPANT: We can't see it in the audience.

CO-CHAIR SINGH: Oh, sorry. Create two slides, user centered and organization/system centered. That good? Wow. Yes, sorry.

MEMBER KHUNLERTKIT: I want further clarification on the user scores on simulation testing. What exactly does that mean?

CO-CHAIR SINGH: I was making sure everybody will get lunch today. Yes, you will get lunch today.

MEMBER KHUNLERTKIT: I was asking

about the last bullet, the user scores on simulation testing, under example. I want more clarification on what that means exactly.

MEMBER CLASSEN: Is that test results, like what the scores were on the exam?

(Simultaneous speaking.)

CO-CHAIR SINGH: They don't know how to use a CPOE system, and they show that on a simulator. You could test, on a simulator, whether they can use a CPOE.

MEMBER CLASSEN: Right, whether they can effectively use a system or not.

MEMBER KHUNLERTKIT: So basically, the result whether or not they have enough training or competency to use the system.

MEMBER CLASSEN: Correct, that's one way to use it. Another way to use it is just say, "Here are a variety of scenarios, and how would you handle them on the system?" and effectively look at how they handle those scenarios.

CO-CHAIR SINGH: Yes, order this drug

--

MEMBER CLASSEN: Order this drug, see what happens.

MEMBER KHUNLERTKIT: Because what I saw the user scores, somewhat I think for them to rate the usefulness of the training.

MEMBER KHUNLERTKIT: Yes, for them to rate the usefulness of using simulation for training.

MEMBER HEERMANN-LANGFORD: I think you need to say user competency scores on simulation testing. I think that's what we're getting at.

MEMBER CLASSEN: I think that's what we're getting at. We're not using this to say how much users like the system. We're trying to decide how well they can use the system.

CO-CHAIR SINGH: Everything with user centered stuff will be user competency evaluation and training grade, correct? When you split it, Jesse, just make sure that we capture that.

MEMBER KHUNLERTKIT: But I don't think this last points are only getting at user

competency, though. It's getting at the gap in the workflow, too, right? Because if user cannot perform the task successfully, it may not be because they don't know how to do that, but it's because of the gap in the workflow.

CO-CHAIR SINGH: Okay, so let's just go back and look at those five elements. Training, competency evaluation, and workflow analysis could probably move to the user. Is that correct?

CO-CHAIR SINGH: Training, competency evaluation, and workflow analysis could move to the user slide. Whereas the rest of it could move to the organizational system centered slide. No?

MEMBER KHUNLERTKIT: I feel really reluctant to that because one simulation can capture all of those. If you separate them into two slides, are we going to do simulations?

CO-CHAIR SINGH: I think Eric was saying those are two different concepts, aimed at two different people. You wanted to make sure,

Eric, the concept doesn't get lost, and we don't overlap, even though it's within the same --

MEMBER SCHNEIDER: Simulation is a tool or a standard. I agree with your point that it's a tool or standard that should be consistent, but when we're thinking about quality measurement, we're thinking about what are the users going to do, and how are they going to improve? That's actually different across the different uses of the simulation tool. That was my argument.

MS. ZIMMER: If we're thinking about flight simulator, you get a score. Someone may not be able to perform not because they don't know what to do, but because the system technologically can't operate successfully. But yet, their score will be low. I think the issue is how the score's interpreted goes between the two slides. Maybe take the word score out and just use it as both a competency tool, as well as a --

MEMBER HEERMANN-LANGFORD: I disagree.

There are definitely more than one of these tests happening because they're happening at different points in time of the life cycle. When we talked about the competency, we talked at length about an initial competency, but this is something that they need to maintain because there are updates to the system on a regular basis and things drift. They figure out their own workarounds and things like that.

If we want to ensure that the system is safe, we would purport that they need to do regularly simulated competency tests, just like we're doing for BLS, ACLS, all these things that clinicians are being tested on and going through on an annual basis. This is another thing that we should include in that type of thing. Yes, there are multiple simulations happening over time and over the different cycle -- a usability test that you can support the workflow for that task is a very different test than when the user is doing a competency exam on whether or not they can use it.

CO-CHAIR SINGH: Right. Are you saying that we should just leave it on one slide and just let this be one concept or split it up?

MEMBER HEERMANN-LANGFORD: No, I can still support that there are two different concepts, but I think what we have to do is tease out that there are these different uses, and there may be some different scores in there for the different uses.

MS. ZIMMER: I think the confusion at least I was having is I was reading the slide with only the Leapfrog flight simulator, but to your point, there's other simulation tests out there for competency, and I think that needs to be somewhere acknowledged that there's different --

CO-CHAIR SINGH: I think everybody is just sort of looking at the nuances. I think we're all happy with what's the content on the slide, correct? What's the next one? Should we take a break now?

PARTICIPANT: Lunch is over there.

Why don't we work through lunch?

CO-CHAIR SINGH: Working lunch is okay with everybody, which means you still get to eat, so that's good. We should just break then, five minutes. Just get food and come back, and we'll restart. Don't go anywhere.

(Whereupon, the above-entitled meeting went off the record at 12:26 p.m. and resumed at 12:44 p.m.)

CO-CHAIR SINGH: All right. Thank you for bearing with us for a quick lunch. We should probably get started.

The good thing is a measure that we have first after lunch is, I think, an easier one. So, yes, I think so.

Where's Jason gone? He should -- he needs to be here for the -- no, Jason? Oh, he had to go a meeting. Oh, yes, that's right.

I know, right. We'll see.

(Laughter.)

CO-CHAIR SINGH: So, can we have everybody -- all right. So, it sounds good. So

this measure is about patient identification. We've got good examples here.

We've got presentation potential duplicate patients EHR. That's a measure of Hopkins. Nana, you can talk more about this.

The retract and reorder tool, which Jason is using. Almost an NQF measure. And then user barcode scanning in medications.

Everybody okay with these examples?

MR. LYZENGA: I realized we also left off the -- I don't know if we want to incorporate as a separate concept, but the patient overlay of information?

And how would you phrase that, Nana? The patient overlay?

MEMBER KHUNLERTKIT: Phrase it for what?

MR. LYZENGA: For a measure concept I guess. Or is it part of the duplicate patients?

MEMBER KHUNLERTKIT: It's a different problem. Yes. Because under patient --

MR. LYZENGA: The rate of information

overlaid in the same patient or something like that?

MEMBER KHUNLERTKIT: I'm sorry, what did you say?

MR. LYZENGA: Could you do like a rate of information overlay in the same patient? Or patients with information overlay? Or number? Or something like that?

MEMBER KHUNLERTKIT: I think we can probably track how many records are -- I don't know how we're going to track that.

MEMBER MARELLA: So -- if it's a standard measure for a -- at the registration process.

MEMBER SEGAL: In the registration process? Yes.

MEMBER MARELLA: So, it's called record overlay is the way they describe it. And it's basically instead of having duplicate records for the same person, when somebody shows up, you wind up thinking you already have a record for them when you don't.

And you put information in that patient's record. So you wind up screwing up two people's information.

MEMBER GRACE: Or you have two records open and you see a patient. And then you document in the wrong record, is another way of thinking of it too.

MR. LYZENGA: So, would it be just something like incidents of overlay of patient information?

MEMBER RUSSELL: So, it's really -- at the end of the day, what you really have is you have documentation in the wrong record at the end of the day.

And then the only problem with measurement on that is it's going to be only if someone catches it. And then you get a chart correction.

So, when you get a measurement for it, it's going to be, can you measure how many times you do a chart correction.

MEMBER CLASSEN: Jim, do you guys

think that's so critical that you would almost call it a Sentinel event?

MEMBER RUSSELL: It depends -- it's one of those that depends on the context I think too. And how quickly it's caught. And when you make the correction.

So, theoretically, yes, it could go all the way out to a Sentinel event. But then it could also be very simple where you catch it right away and you make the changes right away.

So, anywhere in between.

MEMBER CLASSEN: I believe if it happens once, it's probably happened multiple times. And an indicator of a serious problem. Fair to say?

MEMBER MARELLA: If it happens quite a bit. And actually -- and we've got a lot of reports of this that are coming up in our patient ID deep dive.

And the other thing that we're hearing is that people don't really have good solutions for this right now. So, once you create a record

overlay and you start making orders on this patient, basically everyone seems to wait until that patient gets discharged before they can separate out the records.

It's a very difficult process.

MEMBER RUSSELL: Does it get all the way to the point of billing the wrong payer? And if I have to cover my ears I will.

MEMBER MARELLA: Never. That never happens.

(Laughter.)

MEMBER MARELLA: And I'm forbidden from naming names.

CO-CHAIR SINGH: So, what am I hearing as a measurement piece here? Is there some way we can measure?

So, when Erin was talking about the two records open, the other thing apart from Jason's tool, is the way we do it, is our notes become so erroneous notes. And you can't see them.

And that was because somebody entered

their note on a wrong patient. So you go to medical records and say can you just take this note out.

And it's called erroneous notes. So, how do other systems do it? And is that something we are thinking of sort of measuring? Some kind of erroneous type things in the EHR?

MEMBER MARELLA: Well both the duplicate records and record overlay, AHIMA has very explicit standards for how those two things get measured. Those are sort of the core measures of quality improvement for patient registration processes.

So, that already exists.

CO-CHAIR SINGH: Can we all just put those in there? Can we put those as measures here?

MEMBER MARELLA: Sure.

CO-CHAIR SINGH: So, can you repeat?

MEMBER MARELLA: Yes. I'll send you the documentation on this.

CO-CHAIR SINGH: Can you repeat what

-- so he can put it?

MEMBER MARELLA: I forget where I saw this. I think it was in an ONC report on patient matching is where I came across it.

But, the duplicate records and record overlay, there are explicit calculation specifications that AHIMA, I think, put out. But I'll send them to you.

CO-CHAIR SINGH: Eric?

MEMBER SCHNEIDER: Does the --

MEMBER MARELLA: AHIMA, A-H-I-M-A.

MEMBER SCHNEIDER: Does the record overlay also include identity theft? Which seems to be a growing problem.

And then the creation of -- the entry of information into a patient's record based on a fraudulent identity thief?

MEMBER MARELLA: Yes. I mean, everybody who's talked about patient ID has brought up the identity theft issue. I don't know if that's captured in these measures.

CO-CHAIR SINGH: Kevin, did you have

something else? Fine.

Okay. Accountability? Vendor, facility, clinician. Everybody okay with that?

MR. HUNT: And Patients.

CO-CHAIR SINGH: Patients.

MR. HUNT: In know a few who would like --

(Laughter.)

COURT REPORTER: I'm sorry sir, your microphone is off.

MR. HUNT: To make sure that there's someone engaged in recognizing one that they need to actively be involved in the identification.

And not provide or understand why in some instances we're taking a picture. We're doing other things to help with the identification.

CO-CHAIR SINGH: Excellent. There are sources at EHR? Anything else? Oh, sorry, Lisa.

MEMBER FREEMAN: I don't want to diminish the patient's role in any of this. But at the same time, often when you're talking about

accountability, the patient is not well.

They're possibly a patient with diminished capacity for a number of different reasons. So, I think we have to be careful in the way we phrase the accountability of the patient.

CO-CHAIR SINGH: And I think David, the way you meant it was when patients catch these things. Patients should look for these things.

And when they catch them, they should sort of do something about it. And I know there's one for patient portal -- reporting stuff through patient portals are reporting it to the organization.

The other source is just EHR? Anything else? I mean, I guess patient reports of some kind?

Does AHIMA run any reports on a regular basis that we are going to say can be used as measures?

MEMBER MARELLA: I don't know -- I

don't know the extent to which ADT systems may capture these numbers automatically or anything like that.

But, it's -- if those numbers are monitored, they're monitored probably by the registration staff as part of their QI process.

CO-CHAIR SINGH: So we could just say something like yes, administrative record monitoring of some kind. And then we can sort of look into the AHIMA guidelines and then go from there.

Anything else on this slide? Average getting better. All right. Let's go to the next one.

Okay. So this is feedback. Is this the shared accountability one? Shared responsibility?

DR. PINES: Yes so what we wanted to do, and we can actually replace this potentially with Elizabeth's presentation. And you know, I think which is pretty nicely specified.

But I just wanted to make sure that we

didn't lose any of these concepts before we do that.

CO-CHAIR BELMONT: I'm guessing what I could do so we can save time today -- oh, thank you.

What I can do to save time, I can go back and double check. I think everything's in there. But I'll do a final check and send you a follow up.

CO-CHAIR SINGH: Yes. Actually I think you used their five bullets.

CO-CHAIR BELMONT: I did.

CO-CHAIR SINGH: Or six bullets.

CO-CHAIR BELMONT: Yes.

CO-CHAIR SINGH: So I think we should be good.

CO-CHAIR BELMONT: Yes.

CO-CHAIR SINGH: I think so.

DR. PINES: Okay.

CO-CHAIR SINGH: I mean, everybody should just read it just because you might see just a near final version. And we didn't want

any surprises in there.

Did we discuss data sources for this? Did you do data sources this morning?

CO-CHAIR BELMONT: No. We didn't.

CO-CHAIR SINGH: So we know accountability, it's shared.

CO-CHAIR BELMONT: Yes.

CO-CHAIR SINGH: Should we just discuss data sources quickly? That's to --

CO-CHAIR BELMONT: I think that would be helpful.

CO-CHAIR SINGH: We had the publications with, you know, vendor screen shots as maybe something we mentioned this morning.

DR. PINES: Could it be the contracts themselves?

CO-CHAIR SINGH: Yes. Contracts themselves. Yes.

CO-CHAIR BELMONT: Yes. Contracts. Hardware and software agreement.

MEMBER SEGAL: So just on the first item, I wouldn't say institutions. Because, you

know, I think it's organizations or practices.

And again, the all, it should be all relevant or pertinent.

CO-CHAIR SINGH: Yes. Mark, sorry. This is the stuff from yesterday's slide.

MEMBER SEGAL: Okay. All right.

CO-CHAIR SINGH: And the modification we made this morning.

MEMBER SEGAL: That's right. Okay.

CO-CHAIR SINGH: Yes, sorry. We're not going to reflect it. But as a concept, just make sure everything is there.

DR. PINES: We'll take this and refer it to together. But in terms of -- sorry, in terms of data sources, I just wanted to make sure we got.

CO-CHAIR BELMONT: Yes. Jesse, I'm confident that all of those have now been included in what I did --

DR. PINES: Yes.

CO-CHAIR BELMONT: With the revisions requested by everyone.

DR. PINES: Yes. So it won't be one.

CO-CHAIR BELMONT: Yes. She might want to just take it out so we don't get confused. And just say, see shared accountability.

CO-CHAIR SINGH: Yes. Just see document.

CO-CHAIR BELMONT: Yes.

CO-CHAIR SINGH: So, contracts? What -- any other ideas for measures? We had I think a number of publications with screen shots. Verified screen shots from vendors.

CO-CHAIR BELMONT: Right.

MEMBER SEGAL: Again, I wouldn't have contracts. I don't think we had contracts in the prior for data source.

Because I think we were focusing more on the outcomes rather than looking at specific contract provisions. And I don't think contracts is frankly --

CO-CHAIR SINGH: Yes. And we may not be able to look at them either.

MEMBER SEGAL: And they also vary.

CO-CHAIR SINGH: Yes.

MEMBER SEGAL: I mean, you know, there are both standard, but also negotiated.

So, if you're trying to do a measure, again I think it's best -- I think at least where we left it with what Elizabeth did, is we focused on the outcome piece rather than the existence of particular provisions.

CO-CHAIR BELMONT: We could do surveys. You know, to focus on some of the timeliness of the notifications and the shared learnings.

So, Jesse, do you want to include surveys?

DR. PINES: Sure.

CO-CHAIR BELMONT: User surveys?

CO-CHAIR SINGH: I was trying to see if you had anything else written on there. Could we -- so you know, one broad thing is this vendor sharing across institutions and across vendors.

How would we get to that? Because I

think that's sort of essential. And I think everybody's in agreement that we all need to sort of share that learning.

David?

MR. HUNT: Also, --

CO-CHAIR SINGH: Mic.

MR. HUNT: Oh, I'm sorry. Also it may tie into this, the ACBs, the accredited certifying bodies as entities. Because vendors are expected to report this type of information to them.

And they are an opportunity to -- they can be seen as a hub.

CO-CHAIR SINGH: Okay. Greg?

MEMBER ALEXANDER: Yes, I was just curious. So, what about help desks where they take reports of potential things that occur? Would that be a data source?

And then I also question -- I have a question about bullet five. It says free and transparent exchange of information about Health IT user experiences.

So, I'm curious, is this a bilateral exchange? Or is this only vendors or -- it seems to me like some of the bullets only refer to vendors sharing information.

And it's not a bilateral exchange from users to vendors.

CO-CHAIR SINGH: Yes.

MEMBER ALEXANDER: Should it be bilateral?

CO-CHAIR SINGH: Absolutely. And I think researchers too. So if I have something that I found based on a research, I need to also sort of share that with the vendors.

MEMBER ALEXANDER: Okay.

CO-CHAIR SINGH: So, it will be good to sort of point that out.

MEMBER ALEXANDER: Thank you.

CO-CHAIR SINGH: There were some things in your document that I think I want to mention just because we're at this sort of measure piece.

Timely response to resolving vendor

reported EHR safety concerns. Vendor user groups incorporate and share user experiences.

We're not going to go into agreements as Mark rightly pointed out. They may not be able to have good access to them.

We talked about peer-reviewed journals having identified screen shots as a source. Timely response to requests for information. And timely vendor notifications.

Anything that could be measured here? I'm just giving people ideas to think about specific measurables that we could put down.

CO-CHAIR BELMONT: WE did have a section under the methods of measurement where --

CO-CHAIR SINGH: And surveys.

CO-CHAIR BELMONT: You know, so we talked about surveys.

CO-CHAIR SINGH: Maybe surveys of people? Something there? Already in there? Yes. That's already in the document. Okay.

All right. Yes, it sounds good. Okay, so the next one is safe use of clinical

decision support.

Now, there was a lot of sort of cross-talk -- so across a couple of groups these concepts of alerts came out.

So I think we definitely need to do something about alert. You know, whether we do it on overrides, straight up alerts.

And here's where I want to bring in one of the additional items I mentioned. You know, there is a safer guide on clinical decision support in CPOE, which has a few items that are going to be relevant for this discussion.

So one thing could be, we could say, you know, either look at the items. Or say, you know, the organization conducts an assessment and then leave decision support out.

Because they should be conducting assessment on several other things as well. What do people think about clinical decision support as a separate measure?

So one -- another thing I can sort of tell you quickly is there are people working on

this.

So maybe their research is not out yet. But errors in clinical decision support that means over time that it was a problem that didn't get fixed.

So we could look at -- we could have a broader measure saying organization monitors the content of clinical decision support in terms of, you know, alerts and reminders and whatever on a periodic basis.

Which could be fairly broad. But then you get to the concept of bad decision support. You don't want an 85-year old man getting a PSA reminder. Right?

Yes, Karen?

MS. ZIMMER: We don't have to move it over. But this is where I think there is some of that cross discussion with this simulator.

With the Leapfrog tool. And you could just be referred in this section, see section whatever. But that is a -- that does lend itself to clinical decision support gaps.

CO-CHAIR SINGH: And the other thing is what about overrides? Are we addressing -- let's say that some alert has been put in.

And it has a 99.5 percent override. Does an organization do something about it?

And I think there was something about three level loading. Where did that go? Is that here?

MS. ZIMMER: We put it with some --

MEMBER CLASSEN: So, we have an aspect of the flight simulator that gives things that should never be alerted on as a test to see what their override -- what their over alerting rate is.

And it can basically calculate a score of what your override rate is. But this is such an important area.

I really think this should be a special focus of more work on measure development. Because there's just so much going on here both in terms of over alerting and under alerting.

CO-CHAIR SINGH: Yes. So, you know, David, could we be as broad to say something like measurement of under alerting and over alerting as well as sort of wrong content of CDS?

MEMBER CLASSEN: Right.

CO-CHAIR SINGH: In addition, the CDS measure is supported by Leapfrog, --

MEMBER CLASSEN: Right.

CO-CHAIR SINGH: SAFER as additional sort of area of improvement.

MEMBER CLASSEN: I think so.

MEMBER JONES: Yes, so, this is one where I think we ended up focusing on things that we thought we could measure. And we're sort of discouraged that it wasn't really getting at some of the important aspects.

There's nothing in here about order sets. There's nothing -- there are many -- alert fatigue we can sort of get at.

So, it's a measure. It's what we can measure. But I don't think it's what we really want to measure. So --

CO-CHAIR SINGH: Yes.

MEMBER JONES: If we can -- but at the same time there's so much work around what can you measure around CDS? Hopefully someone can come up with good ideas.

But this is -- the focus on alerts I think is too narrow. And yet at the same time, what we discussed as a group, if we improve that, it would be meaningful progress.

CO-CHAIR SINGH: So Jason, that's why I mentioned SAFER Guides because they go into all those things. They go into order sets as well.

MEMBER JONES: Would there be a role for user surveys here? Then sort of the concept of -- I mean, probably the best people to ask about whether or not the clinical service support is there yet.

CO-CHAIR SINGH: I mean, you could, but no one going -- you don't want too many surveys to rely on user experience.

MEMBER JONES: Yes.

CO-CHAIR SINGH: Because the user will

never answer them. But I think if some alert is 99 percent override, the user is trying to tell you something.

That's a, you know --

MEMBER JONES: We did talk about an inbox alert for when you didn't respond to your survey.

(Laughter.)

CO-CHAIR SINGH: Yes.

MEMBER ALEXANDER: I just was curious what bullet point two meant? Percent alerts that provide context. What's context mean?

CO-CHAIR SINGH: I would remove that. So I think it --

MEMBER CLASSEN: So, we talked about that. That very often the way, the method, the process you use for alerting is just out of decision making.

By that I mean, rather than getting an alert when you order a medication at the time of ordering it, you get it hours later when the system said, oh, you know, this medication was

ordered. And this patient might be allergic to it, you know.

And so very often we get alerts that are completely out of context of decision making or patient care. And it touched on the process of alerting.

And the process as Hardeep knows, is a really complicated one. Right? And compliance with alerts and how we handle them.

And whether we make them hard stops or soft stops for everything, there's just a whole lot going on there. And the context of alerts may ultimately change.

As when we show you an alert, we may put it in the context of all the other things going on with the patient. Rather than this one specific issue.

CO-CHAIR SINGH: Yes. And you know, I think David, you are also sort of discussing sort of the five rights of CBS. And the good thing about SAFER Guides, it captures some of that information as well.

So that's why maybe sort of one of the easier ways out, saying, you know, for clinical decision support and actually for CPOA too, you just have to do a SAFER assessment. It's just one guide by the way.

MEMBER ALEXANDER: Yes, so thanks for that clarification. That helps me.

So that makes me think that, you know, sometimes information systems are designed and built where alerts depending -- it depends on how it's built and the algorithms when the alerts are generated.

Whether they're generated automatically. Or whether generated every 24 hours. Depending on what kind of setting you're in.

And I'm thinking of assisted living facilities where we're using sensors and generating alerts for clinicians about functional decline. And we generate those alerts every 24 hours because it's a different environment.

It's not an acute care environment.

It's over a longer period of time. So, that context changes depending on the setting.

And the algorithms underlying in the structure, underlying that information system change according to setting. So I'm wondering where does the structure and architecture of a clinical decision support system come into play?

It seems like that's relevant to the context. But I don't really see that in here. You know, algorithms for decision support. And when those alerts are generated in response to the actual event.

CO-CHAIR SINGH: Yes. There's so many different types of scenarios, right?

MEMBER ALEXANDER: Right.

CO-CHAIR SINGH: You could build a scenario for every kind of setting.

MEMBER ALEXANDER: Right.

CO-CHAIR SINGH: Now people want to generate alerts to providers about data that patients have in variables. So, constant blood pressure monitoring. Constant glucose, weight.

How much data do you want providers to look at? So, there's no end to it. So I think we could again, go on with this alerting business.

But at least SAFER -- as David, you said, SAFER Guides are a start. I don't know whether Greg you want to just look at that and see of some of your concerns get addressed.

But I think as long as somebody gets a start, we could sort of preface this by saying you really need to have strategies to monitor the content of clinical decision support. Because sometimes I think people just sort of put it in and think that everything's working.

But they ought to be looking for new evidence of errors. And I can ask the people who are doing some research in this area if they've got some measure coming up and get back to you.

Yes, Sorry, go to three.

MEMBER RUSSELL: Yes, I could comment on number two. It just says, occur at the right time.

And back to the five rights. Is the right person -- I think we need to clarify -- it's not just the right time. There's multiple components to that.

Right person, right context. And we could go on.

CO-CHAIR SINGH: Yes.

MEMBER RUSSELL: And that's why I was wondering. Is one and two redundant, David, do you think? I think they're redundant in a way. Okay.

CO-CHAIR SINGH: Okay. Any other? Jason, do you have another comment? Okay. David? Oh, yes, sorry.

CO-CHAIR BELMONT: So, for additional data sources, we could look at -- oh, thank you.

For additional sources we could look at metadata too.

CO-CHAIR SINGH: Okay. Anything else? Karen, do you have anything? I think David is not there right now. No? Okay.

In his absence. Okay. So, I think

everybody agreed, we need something on CDS as a standalone.

We can sort of refine it a little bit using SAFER Guides. And using a broad sort of concept of organization measuring their content.

Okay. So, is transitions in care a concept? Measure concept? What was the measure concept? What was the underlying?

DR. PINES: I think the broader measure concept was this documentation quality where this was I think one of the subcomponents. And there was a lot on transitions in care.

So we decided to make it a separate concept.

CO-CHAIR SINGH: Okay. There's quite a few things in here. Did you want to -- Elizabeth, do you want to make a comment first?

CO-CHAIR BELMONT: Sure. One of the things that I didn't see in here that we might want to consider adding, is readmissions following discharge. Which can be an indicator of whether something was missed at the time of

transition of care.

CO-CHAIR SINGH: And the other thing we should think about is, do we want to keep documentation as a stand-alone item? Or do you want to merge it with things like, you know, follow up of test results and medication reconciliation?

So, if we want to merge it, then we should sort of reframe this measure concept as measurement of information technology safety at transitions of care. Or something like that I think.

That would be more useful. And then you could include many of the items in there. Are we allowed to have so many measures in there?

Because I have a feeling three or four of those are actual measures that are actually going to go forward. Do you want to have this under one umbrella?

MEMBER ALEXANDER: Is it really information? Or is it -- are you interested in HIT?

CO-CHAIR SINGH: No ID. Safety.

MS. ZIMMER: So I'm just -- the first bullet point, again, I think to your point, I think we kind of addressed in other places. So you might just put it under there, but refer.

It's been talked about. The discharge and transition note quality is really -- and even the readmissions you talked about is -- that's where there's great literature on this that show the importance of this that affects readmissions as well as --

CO-CHAIR SINGH: Right. But what's going wrong with Health IT use in that setting is what I think we need to be thinking about.

So, here's literature that electronically communicated test results, we're still losing them. We lose about eight percent of abnormal test results.

So there's good documentation that if bad notes would probably correlate with bad diagnosis. Or diagnosis or management decisions.

MS. ZIMMER: Where the technology

piece at least in that article, talks about is again going back to where we talked about things in free text versus structured fields, where there's a guarantee that certain elements are in a note.

And one of the ways it was helped is by better templates. So technology was part of enhancing that piece. It plays a role.

CO-CHAIR SINGH: Is the data burden one that we had in our group? I don't see those here. In here? In a separate slide? Okay.

MEMBER JONES: I'm not so sure about the --

COURT REPORTER: I'm sorry sir, your microphone isn't on.

MEMBER JONES: The readmissions and med rec. The med rec having tried the -- that's really easy to defeat with HIT. You can put a button that says reconcile all the meds.

And the readmissions is so multifactorial. I'm all for outcomes that matter. But that one seems like it would be very

difficult to tie -- like an -- the HEDES PCR would be awfully hard to tie to HIT I think.

DR. PINES: And also just to clarify, the med rec and the admissions are already -- readmissions are already NQF approved measures.

MEMBER JONES: For HIT? Or --

DR. PINES: For just general measures of safety.

MEMBER JONES: Yes. Sure. Sure. No, I'm sorry, I just meant within this context. That's all.

DR. PINES: I guess the question is, should we include this under the Health IT umbrella? Or should we take it out is your question?

MEMBER JONES: Yes. I would have suggested taking them out. Because it doesn't focus on the issue. It's too difficult to tie back.

DR. PINES: And also to clarify, so the med rec -- current med rec measure in the safety portfolio is an attestation measure.

And does not involve actual -- any actual sort of, you know, objective or sort of HIT use of information. It's just the clinician says yes, I did med rec.

CO-CHAIR SINGH: Lauren, go ahead.

MEMBER HEERMANN-LANGFORD: So what I'm struggling to find here, I'm not sure that I have a solution, is just the piece around the bigger picture of care plans. So I know in physicians it's orders and activities.

But for the rest of us that are non-physicians, care plans are a very contextual document that talks about preferences and barriers to care. And you know, environment of the care that's being provided at home. Goals, things like that.

And it's a huge piece of transitions from a patient going from one site to another. And I'm not really seeing that come through here.

And I don't know, I mean, now with the discussion on is it an IT problem? Is it not? Is it, you know, under this umbrella?

But I feel like somewhere, somehow, we need to encourage our IT tools to help manage all of this content in a way that is helpful to our clinicians. So, I'm not sure how to do that.

CO-CHAIR SINGH: Okay. So, we could relabel this and say Health IT is used safely across the care continuum. And that would include almost everything.

And then we could give specific examples underneath that. Would that sort of get it to you?

MEMBER HEERMANN-LANGFORD: It would help. Yes, exactly. Because I feel otherwise it's a little too narrow. And it's important in this.

CO-CHAIR SINGH: Jesse, do you want to change the title? I think -- yes. Kevin's first.

MEMBER HAYES: So just to comment both on medication reconciliation and readmission after discharge. I think it's really had to do without health information exchange data.

And almost one of your other data sources could actually be the payer data. I actually can probably do an outpatient medication reconciliation on about ten percent of the entire United States right here with Anthem data. Right?

Because it's all their outpatient fills. So it would be way beyond checking a button.

I mean, with all scripts dumping data back in with picking up. And knowing what -- that they got an antidepressant from some health system outside of their health system.

I mean, I think this landscape ought to change. And should change. And I think medication reconciliation is something that HIT can really potentially begin to measure.

But maybe not today. If all you're measuring is clicking a button that you did medication reconciliation.

And similarly with readmission after discharge. I think as you get into actually

being able to know what happened across the street through ACO models and pay for performance measures, I think this landscape is going to change over the future.

CO-CHAIR SINGH: Okay. So how about this as sort of a middle ground. Can we just sort of think of measures as measures we could do now?

Which is documentation and follow up. Which is what I see at the top. And then aspirational measures for the future to think about. Which will include things like what you all are mentioning.

Can we do that? And that way we could give two concrete measures, which I see out there at the top. Maybe three. Two or three in the top as concrete measures that we could do now. Fair? Maybe?

Well, I think dividing them up into two sort of examples we can focus on now. And put -- we'll have to refine one and two.

I think one and two are promising. So

we've got to keep them. I'm still having an issue with three.

And people can sort of talk about this. I think four and five which is med rec and readmission, everybody agrees, Health IT should be used for these concepts.

It should be used safely. Right now I don't know if we have the measures in order to measure that kind of safety.

If we are, please let me know. And we can put that in there.

MS. ZIMMER: So, I feel like this is more about documentation quality, which is number 13. It's more overarching.

But as I tried to stress when we talked about a number of these, at least that we were assigned, were in documentation. There is the quality and the timeliness.

And those are the two nuances I was saying we want to make sure they don't get lumped together. Because the documentation quality is the med rec. Is the assurance that information

is being completed in the chart.

CO-CHAIR SINGH: Yes.

MS. ZIMMER: I think the follow up is separate.

CO-CHAIR SINGH: I think Karen, we can move that bullet forward. There's one bullet a little further along on the quality.

Can we have quality and timing in the same one? Or you think keep it separate?

MS. ZIMMER: That I defer to everyone else. But either way, it's the two concepts. It's documentation quality and timeliness.

If you want to put that as the overarching idea. And then have measures below that. Or --

CO-CHAIR SINGH: Or can you put under documentation quality, can we put documentation timeliness as well? And that we can just focus on follow up or test results as a concrete measure which is almost ready for, you know, NQF to even look at.

Because that's the easiest thing you

can do in terms of diagnosis.

MS. ZIMMER: Right.

CO-CHAIR SINGH: If you go -- all right, so --

DR. PINES: Is that what?

CO-CHAIR SINGH: I don't know. Does everybody agree that timely clinical documentation and timely transmission when there's a -- well, this is transition of care. It's too long.

DR. PINES: It's too much?

CO-CHAIR SINGH: Timeliness -- it's still timely clinical documentation.

MS. ZIMMER: I don't know that you need the safe use of Health IT across the continuum. Because the reality is, you need documentation quality within a hospital. Within units, across units. At discharge.

And then that's the big overarching. And then we give examples of what we're really drilling down to. Or giving people specifics.

Because documentation quality and

timeliness is kind of huge. But we're really talking about, are elements in the document that need to be there?

Are they being used at discharge? Are they being used in care plans?

CO-CHAIR BELMONT: Just to pick up on what you're saying, what if we said that it's documentation quality and timeliness at transitions of care? Because I think that's what the focus has been on.

CO-CHAIR SINGH: Across the continuum I'm guessing.

CO-CHAIR BELMONT: Ye. But that seemed broader. I guess do we went to focus on it across the continuum?

MS. ZIMMER: I like transition of care because it speaks to even from like an ICU down to a floor. Which there's always a lot of problems.

And I had one other quick comment. When we talk about where it says follow up includes communication onto the patient.

Could we say patient and other care providers? Or just other providers?

MEMBER CLASSEN: Yes. If you looked at one of the critical tests of the heath system capabilities, medication reconciliation would be one, wouldn't it.

Because it requires a lot of competencies. And everywhere it's being done now seems to be done with the IT, right? I've not seen.

And yet in my last three primary care visits, the meds list was wrong every single time. I don't know about the rest of you, but when I see my patients, it's almost always wrong when I do medication reconciliation with them.

So this is a process that's still completely broken. And I almost think of it like clinical decision support. It's a whole system measure if you will, right?

We're really looking at a critical thing we do. The most common intervention in all.

So I think this probably, med recon, deserves more focus. Because there are a lot of measures ways to measure this. Right?

You could measure it looking at percent changes in medications. Each step that medication reconciliation's done.

You could look at it as a survey from patient's point of view. How often were your meds accurate when you went to see your doctor?

You could look at it from a physician's point of view. How often were the patient's meds accurately recorded in the system?

I mean, there are lots of ways to look at this. And it's such an important system measure.

CO-CHAIR SINGH: Okay. Are you proposing that we add something here that's not on there? Or are you just saying that we should keep it as a --

MEMBER CLASSEN: Keep it. And I would say almost expand the number of measures that you might have in this area.

CO-CHAIR SINGH: I think it's Erin then Jim and then Lisa.

MEMBER GRACE: So, is -- I'm just a little concerned about is timely documentation only important at transitions in care?

I mean, let's say somebody's staying on the ICU ward and the doctor has been called for some reason. I'm not a clinician, so, this may not make any sense.

But doesn't that physician need to do timely documentation because two hours later a different physician might, you know, it's a different attending on call. Or whatever it has to go see the --

CO-CHAIR SINGH: So it's still, thanks to ACGME rules, it's still a care transition because we have so many transitions in the hospital. That literally is, right?

MEMBER GRACE: It's still a transition because it's a different provider?

CO-CHAIR SINGH: Yes. We can say that.

MEMBER GRACE: Okay.

CO-CHAIR SINGH: We can say at, you know, at patient or provider transition. And that would address exactly I think what you're saying.

I think Jim did you?

MEMBER RUSSELL: So, just to kind of go more on what Kevin said. There's just not the claims data.

There's pharmacy data and data source. Because not every pharmacy prescription gets done as a claim with all the $4.00 prescriptions out there.

And I know you can get the data because --

MEMBER HAYNES: I respectfully disagree. A pharmacist who doesn't show the insurer that the person is meeting their deductible, they're almost -- even zero dollar copays come through.

MEMBER RUSSELL: It depends on the insurer. So the $4.00 ones don't necessarily

come through because not everybody's on a whole plan.

So I just want to say that there's other data out there that we should take advantage of. And just wanted to -- I'm expanding on you.

And then well, I got a couple more, just kind of say.

CO-CHAIR SINGH: All right.

MEMBER RUSSELL: And then just go -- and to go into more of what Dave was saying. There are measurements for med rec that can be captured just through the technology such as -- and they're not great measures.

But they're at least measures that we know a percent of patients who actually have that done. The number of changes made. Those are all things that are really easily measured.

We measure those all the time. We actually use them as measurements of success when people go live.

The third one on the readmissions

after discharge, there are a lot of tools that we can actually put out there to help people try and identify patients up front.

So, there's tools out there like lace plus scores and things like that that you can actually score against the patient while they're still as an inpatient for instance. So you know that there's somewhere you need to follow on that transition of care.

CO-CHAIR SINGH: Yes. So you need to say prospectively you can predict who might be readmitted? Is that what you mean?

MEMBER RUSSELL: Absolutely.

CO-CHAIR SINGH: So, you know, I think Jim can you just forward those things maybe you use? Unless it's proprietary, to Jesse.

And then we can just put that on there for med rec?

MEMBER RUSSELL: Sure.

CO-CHAIR SINGH: And for the discharge one, I would, you know, if there's anything that you want to say, we can just say proactive

measurement through, you know, last score rec.

MEMBER RUSSELL: We can do proactive measurements and I can send some things.

CO-CHAIR SINGH: Yes.

MEMBER RUSSELL: Like, I will just add that stuff.

CO-CHAIR SINGH: Yes. Perfect. We'll just add that. And that will make it look really robust. Just like I think David was thinking we should do.

Is everybody otherwise happy with those two measures? The third one, it says discharge in transition note quality and completeness.

And I think that could mean a lot of things. And then it goes onto charts with active problems. Allergies, med quoting and free text.

That's a separate issue I think. I don't know whether we want to keep it or not.

MS. ZIMMER: You'll want to include those into documentation in the end.

CO-CHAIR SINGH: Yes. Why don't we

put -- well, that's still not documentation. The third bullet, say charts with active problems, allergies, meds quoting and free text, that's a different issue.

You could either put it in a parking lot or you can put it under documentation quality if we ever get there today. Have we merged it? Did we merge the documentation quality?

Okay. I think that you could put it -- it's useful. But I would put it out of there. Because it doesn't have -- I don't know if it's anything to do with it.

Yes. Make it into a separate.

MS. ZIMMER: At the time I think we were thinking it was a way to -- it was a proxy. If people are supposed to be sharing information in structured fields, it was just another way to change that.

CO-CHAIR SINGH: Yes. I know. But I mean, meaningful use encourages people to code allergies and other stuff. Doesn't it?

MS. ZIMMER: Yes.

CO-CHAIR SINGH: I mean, you've got other things. I mean, they're not doing it. But MU encourages people to do the structured coding. Correct?

The structured use of some of these things. And I'm not sure whether you need a separate measure for that.

MEMBER SCHNEIDER: I would just weigh in that when we tried to implement something like this in a recent study in two Medicaid states, it was almost un-implementable.

CO-CHAIR SINGH: Because they didn't have structured data?

MEMBER SCHNEIDER: Not -- there was not enough structured data.

CO-CHAIR SINGH: Yes.

MEMBER SCHNEIDER: And there was judgement calls about, is this adequate? Not adequate? You have no way of knowing what's missing.

CO-CHAIR SINGH: Yes.

MEMBER SCHNEIDER: It becomes really

a feasibility -- measurement feasibility issue.

CO-CHAIR SINGH: And it's structured differently in different EHRs. The same thing. So, that's another challenge.

MEMBER SCHNEIDER: A lot of labor and the end result is not a reliable measure.

CO-CHAIR SINGH: Do you think from ONC's perspective do we still need to talk about structuring data in this? I mean, we're five years into this now.

Okay. Well, I think this needs to be a separate measure then. Put this structured stuff out. Take all of that.

This whole thing and put it separately. We'll have to visit it at the end if it doesn't get covered elsewhere.

Sorry, Lisa, you're --

MEMBER FREEMAN: It's okay. I was in and out already.

In terms of the idea of transitions versus continuum of care, where does the chronically ill, home care patient fit into this?

Because that's -- there's not transitions, but there is a continuum where we need to have a, you know, accurate timely records.

DR. PINES: Should we -- but we can put back across the continuum.

CO-CHAIR SINGH: Yes. Because the word transition is already there, I think, somewhere in that.

MR. LYZENGA: Just sort of a check, for my own purposes, are we -- can we -- is there any way we can kind of focus these a little more closely around -- on each IT?

I feel like a lot of these have to do with just sort of basic healthcare processes and documentation. And I just want to make sure we are focusing them on the aspects of -- that are related to HIT that, you know, where HIT maybe, you know, inhibiting these things or facilitating better.

CO-CHAIR SINGH: So maybe we could just say technology is used safely and effectively to facilitate medication

reconciliation. That's maybe their concept or something that we're looking at.

And then -- yes, I think that would address what Andrew was --

DR. PINES: And then the same thing for the ones above.

CO-CHAIR SINGH: And then the ones -- yes. Well, the other one we can -- let's just get to that.

But the second one will say something like this again. Technology is used, you know, safely and effectively to prevent all predictory admissions.

I think Jim, you were saying predict as well, right? Not --

DR. PINES: So you're saying move this up the fence?

CO-CHAIR SINGH: No, no, no. No, no, just you could leave it there.

MR. LYZENGA: For the top level of one, should we do something similar?

CO-CHAIR SINGH: Okay. So for the top

level.

MEMBER JONES: It's just that this -- it's about the quality and timeliness of documentation. Lace has nothing to do with quality and timeliness of documentation.

It's a good thing to do. It's clinical decision support. It just doesn't have anything to do with quality and timeliness of documentation. That's all.

So I just worry that we're going to lose that piece. Because if we don't get the quality and timeliness of the documentation correct, then everything else in HIT fails. Right?

CO-CHAIR SINGH: Yes.

MEMBER JONES: So that's like the core upon which we build everything else.

CO-CHAIR SINGH: Can we put readmissions to a parking lot too then? And move it -- see if it fits elsewhere?

MEMBER JONES: It's a specific example of clinical decision support basis.

CO-CHAIR SINGH: Well, we'll just move that into, yes. Move that into a box somewhere else right now. Look at it later.

MEMBER JONES: But then if we focus I think on like where is HIT in quality and timeliness of documentation. If we can find a way to measure that to help systems actually have better core data on which to operate it, so that's a huge deal.

CO-CHAIR SINGH: Is this good -- better now? So, okay, so the first one is probably okay, correct?

Can we put it in the EHR?

DR. PINES: Just to address what Jason said. So, you know, you're saying that we should focus more on the ability of HIT to do -- to facilitate this.

But that the actual clinical action may have fallen under a separate bucket of --

MEMBER JONES: Yes. That would be my suggestion. Which people can disagree with. But yes, that's what I'm suggesting.

CO-CHAIR SINGH: Tell us what to do with the slide. What do you want to do in this slide?

MEMBER JONES: Well I think it's done now.

CO-CHAIR SINGH: Okay.

MEMBER JONES: I think -- I mean, yes. We'll have to figure out how we actually measure these things meaningfully.

So here we say we need to focus on how technology facilitates this.

CO-CHAIR SINGH: So for timely follow up on diagnostic test results, you could say as determined by either manual or electronic review. So there are triggers that we're building to identify missed follow ups.

MEMBER JONES: Yes.

CO-CHAIR SINGH: So you could do it electronically as well.

MR. LYZENGA: And I gather the way these things are enabling safe use of an HIT in terms of clinical decision support. Providing a

foundation that makes those things useful.

I just want to make sure we can capture this in the report.

CO-CHAIR SINGH: And I think what we're getting at is level three. Which is using technology to improve safety related to readmissions or transitions or med recon and things like that.

Did you capture the timing follow up on diagnostic test results as determined by manual or electronic audit?

And the first one says timing clinical documentation and timely transmission. Do we need to have the timely transmission?

Or just say timely transmission of critical information and then there's the transition of care. So, when we admit patients to our hospital, we almost never get records from the prior hospital that they were sent from.

So, is that important enough? Yes? Or do we just say timely clinical documentation and leave it at that?

CO-CHAIR BELMONT: I was concerned about transmission because the example we were talking about last night when there might be a test that the result has not come back yet, and someone has been transferred.

CO-CHAIR SINGH: Kevin?

MEMBER HAYNES: Yes. So I think this came out of our workgroup. Or we had talked pretty extensively about is the data there.

And then is the data available for transmission. And then is somebody at the patient receiving location actually pulling or looking at the data.

So we still felt that this was somewhat important. So for example, if a patient is just simply transferring from the hospital to the long term care facility.

If that long term facility is even within the same health system. So I'm trying to make this a really, really simple example.

If the data at the end of the night goes to some data warehouse and that's when it's

available. Well, then it's not available. It's like negative infinity available. Right?

To the long term care facility. To your point. It's never available. Right?

But there are other upstream issues there that even if it was available instantaneously, is the note closed at the one place? So did the person finish the documentation at the one place?

Even if the second step is instantaneous. It is push-able or pull-able from the receiving.

And then sort of lastly, when they get to the LTCH, do we just always assume, oh, it's never available. I'm not even going to check.

Well, then it was available but nobody ever pulled it or nobody ever looked at it. So, there were a couple of different trigger points in this availability of information in the exchange between two facilities.

And that's when they own one another.

CO-CHAIR SINGH: So Kevin, should we

say timely clinical documentation and timely transmission of available clinical -- I guess it should be clinical information, at the transition of care.

But what you're saying is also clinical, not just available, it's used. That your use concept is not -- oh, I guess the next bullet says information sent/received in view.

Is that good enough? Or?

MEMBER HAYNES: I think so.

CO-CHAIR SINGH: Viewed and then used. Okay.

MEMBER HAYNES: Viewed and used. I mean, I don't know that you can measure could you use it.

CO-CHAIR SINGH: Right.

MEMBER HAYNES: But if you didn't view it, you clearly didn't use it.

CO-CHAIR SINGH: Correct. Okay. Well at least you'll think of people as you develop the numerator and denominator of this information. Okay.

MS. ZIMMER: It poses -- Oh, I'm sorry.

MR. HUNT: Those two bullet points are the definition of interoperability.

MS. ZIMMER: I was just going to say, opposed to my group, could we move that as a subset of the data availability/interoperability? Because I feel like those two points should move up and let this literally be about a quality meaning.

What elements are in the document?

CO-CHAIR SINGH: Yes. We could do that. Where did we -- did we lose a -- okay. It says discharge and transition of quality.

But we're not only focusing on quality, right? On transition and discharge, are we?

MS. ZIMMER: Because -- no. But when we talk about timeliness, and that's why I'm posing it to my group. It just feels like we're trying to fit it here. But we've kind of talked about data availability/system interoperability.

And it just seems like that is a nice subset that fits up in that earlier discussion.

CO-CHAIR SINGH: Yes. I think that bullet one looks like it might have to go to the first one. Does everybody think so?

So, under the interoperability one about the test that we had? Across the interface. But that's sort of going across the interface, which --

DR. PINES: But I think the concept of care transitions is about the, you know, the timely creation of the information. And making sure it's in the system.

And then the interoperability is sort of the viewability across systems. So I'm not sure it's totally the same.

MS. ZIMMER: Then at least if you keep it there, I would then refer people to the other one. Because again, our construct is a little bit different.

Our construct is as we were thinking of it as a workflow process data. You have data.

You transfer data. You read data. You use data.

DR. PINES: Right.

MS. ZIMMER: And then how else are those pieces working. So it's -- we just were thinking of it from a little bit of a different aspect.

CO-CHAIR SINGH: So do we need to have the timely transmission part in here? Can we not just focus on timeliness of clinical documentation that everybody agrees is an issue? And quality of clinical documentation that everybody agrees is an issue?

And we already said at the top, it's across the continuum.

MEMBER SEGAL: And I think the timing as the transmission is important because it's a sender who's not necessarily going to benefit. It's sort of their role as a good citizen and as a key participant in the healthcare system.

But I think it's somewhat of a different role if you're a user in a hospital let's say. And the issue is what information you

have available.

I think it's worth distinguishing whether you timely send the information.

CO-CHAIR SINGH: So, how do we distinguish it from the broader discussion of interoperability on a broader scale that, you know, David and sort of Kevin brought up?

MEMBER SEGAL: It might go with interoperability. I mean, it can fit here because again, its interoperability is only a means to an end.

Right? It's a tool? And this slide here is really focusing closer to the end.

CO-CHAIR SINGH: Yes.

MEMBER SEGAL: Which is good quality. So, I just think it's -- I think it's worth measuring just as meaningful use does, looking at what people are doing.

Not only -- in fact meaningful use started with focusing on whether people were sending the data. And what's proposed in the regulation David can't talk about, is what you do

when you receive it.

So, in any event, I just think that wherever it is, it's worth separating out the transmission piece.

CO-CHAIR SINGH: Eric?

MR. LYZENGA: Do you want to put it in our context of our framework, we can think of these things as sort of the safe use aspect. Are these things being done correctly and appropriately?

Whereas the interoperabilities are the systems themselves enabling that to be done.

MEMBER SCHNEIDER: I'm going to hold my comment. I'm not sure if it will make things better or worse.

(Laughter.)

CO-CHAIR SINGH: It depends. How long you want to be here?

(Laughter.)

CO-CHAIR SINGH: No, no. Go ahead, Eric.

MEMBER SCHNEIDER: Yes. You asked for

it. Okay.

(Laughter.)

MEMBER SCHNEIDER: And maybe it's so basic it's already been said. And then just tell me it's already been said.

But the reason to focus on transition is because different decision makers who may not be communicating with one another, patient information that may be new to the new setting that they're going to. So, it's a time of vulnerability for the patient and risk, safety-related risk.

Is that -- am I understanding that?

CO-CHAIR SINGH: Yes.

MEMBER SCHNEIDER: Which would be the counter -- I think would be the argument for saying yes, this is an aspect of interoperability.

But we're calling it out because of that set of vulnerabilities for the patient. Am I understanding it?

MS. ZIMMER: No. And actually -- for

that reason because I like the work transition to be in the title, to emphasize the importance. I would go back to the quality and timeliness in transition or at transition of care.

And just take out the work continuum.

CO-CHAIR SINGH: Well, it addresses some of the other issues Lisa was bringing up about some home care and all that.

MS. ZIMMER: That's not a transition?

CO-CHAIR SINGH: Long-term care.

MS. ZIMMER: Oh, okay. Got it. All right.

MEMBER SCHNEIDER: Yes. I was posing it more as a question of are we trying to get at the unique -- those unique features I described?

Or are we interested in all types of transmission between decision makers? In which case it seems like there is an argument to put it back with interoperability.

CO-CHAIR SINGH: I think it's the second one. So maybe Eric, you could help us refine some of the language in these bullets to

get to what you are saying.

I think that's where were are getting at. The risk between, you know, when there are different providers and there is vulnerability.

MEMBER SCHNEIDER: Is it -- does the longitudinally and the care transitions capture that?

MS. ZIMMER: It's semantics. I mean, continuum care, most people know about more than a lot do. So, and then it becomes quality and timeliness at transitions and continuum of care.

MEMBER SCHNEIDER: So hold on, you know, maybe it's because we're talking about different settings. Maybe that's what the -- but the -- rather than continuum, continuum kind of implies that -- I mean, continuum can exist where it's the same provider over and over again.

That's not the continuum we mean. We mean different providers. Different settings.

CO-CHAIR SINGH: Across care settings? Or --

MEMBER SCHNEIDER: Across care

settings might fix it.

MS. ZIMMER: Yes.

CO-CHAIR SINGH: Okay. Across care settings. All right.

MR. LYZENGA: Although Erin did mention within a hospital possibly, you know, this being an issue.

CO-CHAIR SINGH: There are settings. And that way it includes everything. Because then home care is a setting as well.

MS. ZIMMER: So, quality and timeliness at transition and across care settings. Because by putting at transitions first, we tend to think of within before we think of without.

MEMBER SCHNEIDER: And then across care transitions captures that the patient maybe in the same place. But the communication is across events.

CO-CHAIR SINGH: Okay. Is it within care settings? Or across?

MEMBER SCHNEIDER: No, I think we mean

across care settings.

CO-CHAIR SINGH: Okay. Anything else you want to change Eric, based on?

MEMBER SCHNEIDER: No.

CO-CHAIR SINGH: All right.

MEMBER SCHNEIDER: I think that works.

CO-CHAIR SINGH: Okay.

(Laughter.)

CO-CHAIR SINGH: You change the title so everybody's in agreement. So -- okay. Should we move to the next slide that we have?

Yes. Okay. All right. Excellent. What was this? Oh, this is the structured -- wasn't that under documentation quality?

MS. ZIMMER: Yes. That's -- first of all it didn't even make it in our top five. So, -- because we thought logistically the feasibility of that was so low.

MEMBER SCHNEIDER: And then I think this -- that one was in something else.

MS. ZIMMER: Yes. That was somewhere else. So, I think we probably can just --

CO-CHAIR SINGH: We put that in the parking lot, right?

MS. ZIMMER: Yes. Yes.

CO-CHAIR SINGH: So, you already moved that? So you can delete that slide.

MS. ZIMMER: Yes.

CO-CHAIR SINGH: Yes. Okay. So we can -- well, you know, the complete correct use comes up. You can copy the title over.

What's the title for the one that you just created? Because that is complete and correct EHR use.

If you're not structuring a data, it's not complete and correct use. Okay. So move bullet one, right?

Yes. Because we've talked about documentation in -- with respect to other stuff.

DR. PINES: So we already have that? Or take that out?

CO-CHAIR SINGH: Right. Because we covered completeness accuracy. And we're going to touch it again on burden, right? When we

discuss burden.

Okay. So this is what people agreed that you all wanted a separate call out for people to not, you know, allergies and things in free text.

So we -- I mean, that is a SAFER Guide item by the way. It can be easily be put as a measure.

MEMBER GRACE: Didn't we already address that in the quality?

CO-CHAIR SINGH: No, we moved it.

MEMBER GRACE: Documentation of quality?

CO-CHAIR SINGH: No, we moved it. We had to move it because it didn't have anything to do with documentation.

I mean, it's not --

MEMBER GRACE: That is documentation.

CO-CHAIR SINGH: You could consider it documentation. But it's, you know, its allergy field, is sort of a different field then --

MEMBER GRACE: Again, I'm going to

defer to our group. But I thought that was an example of a type of quality documentation.

DR. PINES: Right. And I think that was -- yes, I think that was very much about the quality.

CO-CHAIR SINGH: Okay. So you're broadening the definition of documentation. Which is fine.

DR. PINES: So we're throwing it back to where it was.

CO-CHAIR SINGH: Okay. That's a very broad definition of documentation. But that's okay. Kevin, did you have a question? No.

Yes, Karen?

MS. ZIMMER: Just from the wording of that, I don't know where it went now. Is it on this slide? Did you put it back on this slide?

DR. PINES: I think it's in very small text there. Yes, above HIT should be used in facilities with it.

MS. ZIMMER: Oh, okay. So, I think it's -- I think you've got two negatives in

there.

I think you want to say the -- in free text versus in structured designated fields. I think you want to take that not out.

CO-CHAIR SINGH: And the other thing is, this is more like data. I think we're going into data.

Documentation is, you know, I don't know, maybe who's -- who can help us here? I mean, I'm not sure is --

DR. PINES: Well, it's the clinician setting in the active problems and the allergies. And so they're putting it free text versus. I mean that's clinical documentation.

CO-CHAIR SINGH: Okay. I was thinking because you have medications in there too. So, you want to label everything --

MS. ZIMMER: Yes. So, I was again, I --

CO-CHAIR SINGH: Do you all -- so the vendors -- do you all consider all of this to go under documentation? Medications, allergies, any

type of active problem areas?

MS. ZIMMER: For example, people don't update their problem lists.

CO-CHAIR SINGH: That's fine. I think that could be done too.

MS. ZIMMER: But yet, if I go to reencounter I can find all their problems.

CO-CHAIR SINGH: No, that's fine. What about medication? Yes? Broadly you want to put that under documentation?

MEMBER SEGAL: What I wouldn't necessarily consider documentation per se is the timely follow up. Because that's not about the quality of the documentation.

That's sort of about -- that's the use of clinical information. So, again, I like the bullet. I'm just not certain this is the right category. Particularly it's getting overloaded.

CO-CHAIR SINGH: So, we could put that in. Because what providers do when they look at the abnormal, is they first document that, you know, say I followed up and there's the result.

Or I called the patient. So, we could potentially leave it. That's the one I'm least concerned about actually.

MEMBER SEGAL: Okay. Okay.

CO-CHAIR SINGH: Okay. Fine. That's two slides gone. Well, what slide are we on? Okay, three more slides. Maybe four.

So, patient engagement. So this says patients are engaged in HIT safety I think broadly is the measure concept.

And how we sort of --

MR. LYZENGA: And I think HIT enables patient engagement. Safe patient engagement.

CO-CHAIR SINGH: Yes. So, can we say acknowledgment of lab results via patient facing tools? Or we have patient facing technologies?

Yes. Instead of for. Remember Mark reminded us to be broader. Because they could get it on their phone or whatever.

CO-CHAIR BELMONT: And Hardeep, on that point, rather than just lab test results, do we want to say diagnostic test results?

CO-CHAIR SINGH: Yes. All types of diagnostic test results. Yes. And should we start being a little specific in the examples?

We could just say something like percentage of diagnostic test results acknowledged by patients via -- in patient facing technology.

So that way if we send them 100 -- if we send 100 patients their results, and only five look at them, that's five divided by 100. So we can -- the ones that we can clearly come up with measures now, we could just -- and so this would be the same.

So, I think our measure could be percentage of patients who look at their medical record, who suggest corrections because of incorrect data. Or similar to that.

Yes?

MEMBER SEGAL: So is that -- thinking about how you would evaluate a result, if you have a high percentage of patients who suggest corrections, is that positive for patient

engagement? Or is it negative for accuracy?

CO-CHAIR SINGH: So, definitely it's good. The patients are noticing these things.

MEMBER SEGAL: Okay.

CO-CHAIR SINGH: So we know our records have our, you know, some information that's not correct.

MEMBER SEGAL: This one in particular just says we kind of create a record. We might want to indicate that higher is better?

CO-CHAIR SINGH: Yes. As we create the measure, yes.

MEMBER SEGAL: Really? I mean, that's -- I mean, I guess if we start planting fake information and see if they correct it, then we know.

(Laughter.)

CO-CHAIR SINGH: Okay. So, maybe it should be the number of -- or the ratio or something of some kind?

MEMBER SEGAL: Yes.

CO-CHAIR SINGH: If you've got 100

patients looking into their medical records and zero have found anything in five years, that's not a good sign.

MEMBER SEGAL: No.

CO-CHAIR SINGH: There is information there that is incorrect.

MEMBER JONES: No doubt.

CO-CHAIR SINGH: Yes.

MEMBER JONES: But if a -- yes. If 100 do, I'm not sure we say awesome.

CO-CHAIR SINGH: Right. Right. So, I don't know what the right measure is. Eric, do you have a suggestion?

MEMBER JONES: Well, when we were -- I mean, when our group discussed this, I think we were the next bullet point down. Which was the notion that it's -- that it happens.

Some percentage of patients actually do annotate the record. And I don't remember a discussion about the frequency with which that happens being a good or bad indicator in our group.

But if it's not occurring, I guess that's the other way to frame it. If that is not occurring, that patients are never annotating, correcting or entering the record, entering data in the record, then I would consider that a negative.

CO-CHAIR SINGH: Yes. So maybe we can reverse it someway?

MEMBER JONES: That would be fine. Would you want to say the ability to?

MEMBER SCHNEIDER: Well, that's actually the next bullet point below that one. Which says that the system enables that capability.

So, if you thought of that as a facility level measure, you'd say the percent of hospitals that can -- that have that cap -- or percent of EMRs or percent of hospitals that have that capability.

The next measure up from that is the percent of patients who use that capability or don't use that capability. And then the

frequency question I think is a lot harder to get my head around.

CO-CHAIR BELMONT: One of the ways that you can look at the frequency, is the number of patient of complaints that you receive about inaccurate information in the EHR. That might be an appropriate data source too.

MEMBER SCHNEIDER: Well, that might be a positive indicator that they're actually noticing what's in their record. And that's something that we're trying to promote that they do notice.

So, I might like the complaints to go up for a while before we fix the problem.

CO-CHAIR SINGH: Yes. It's like, if you never do a root cause analysis for five years in your hospital because you didn't have a medical error.

MS. ZIMMER: I agree with Mark. I'm starting to wonder, does that fall under quality/accuracy as a -- for documentation?

CO-CHAIR SINGH: No. This is patient

engagement. We want to have a separate measure concept on patient engagement.

And this is the best one. We've got too many measures. Some of them could be consolidated.

I don't think this goes under documentation quality.

DR. PINES: Well, I guess the question is, is the -- so you're saying if it was corrected, it was wrong. But maybe the contribution is here and the correction is in documentation quality?

CO-CHAIR SINGH: I mean, there's an overlap here of sort of the safety issues we're trying to improve. We're trying to improve documentation quality. And we have a separate sort of measure on that.

This is about improving sort of patient engagement. Although it does make some difference to documentation of quality.

Because if I keep telling you, hey doc, you know, you wrote the wrong stuff on my

record again and again, I'm probably going to improve your documentation giving you the feedback.

So, I think they're two different things.

MEMBER SCHNEIDER: Yes. So the logic model here is that the patient -- that if patients go into their records and correct erroneous information, care will be safer.

So what we want to measure is the percent of times where patients that are actually taking advantage of that. I would start with the percent of patients that actually are taking advantage of that opportunity.

Because that's something that's going to vary across facilities. And how friendly the portal is. And those are actionable to enhance this.

Whether we'd ever get to 100 percent of patients annotating the record, I have no idea. I have no idea what the frequency is now.

CO-CHAIR SINGH: So, do we need -- so

annotating, so describe -- I know you guys are viewing mistakes.

Annotating is a little -- it's a little different. That is basic, what are they actually doing there?

They're co-creating the record with the provider? They're entering notes into it? What are they doing?

MEMBER SCHNEIDER: Well, annotation is probably just a broader just category of patients adding or contributing information to the record. Within annotation would be actually, this is erroneous, I want to correct it.

Would be under that umbrella I think. I'm not sure that I've seen a framework for that.

CO-CHAIR SINGH: So could we clarify and say able to access the record and annotate it when the record is incorrect?

MEMBER SCHNEIDER: I don't think you can get there.

MEMBER RUSSELL: Well, it doesn't have to be incorrect. Yes, that's my point.

MEMBER SCHNEIDER: Yes. So, I don't think you can get to it -- to that information was incorrect.

Basically what you've got now is the record says this. The patient says that.

We don't -- if there's a discrepancy, we can't -- we don't have a way of characterizing it. What's the gold standard for deciding who was correct.

MEMBER RUSSELL: Right.

MR. HUNT: It could be there needs to be -- it just could -- the information could be incomplete. Or it could need modification.

CO-CHAIR SINGH: Can we reflect that to say that about annotation? Because people are going to think about different things when they look at annotation if this measure goes through.

Or anything like this goes through.

MEMBER SCHNEIDER: Yes. It can.

CO-CHAIR SINGH: Annotating record when whatever. Well, whatever's comfortable. Incomplete or whatever.

Ambiguous information, incomplete information or information that needs to be annotated.

MEMBER SCHNEIDER: Yes. I don't know if there maybe -- maybe somebody's developed a taxonomy of annotations. That would be really useful.

I don't know that one exists.

MS. ZIMMER: I'm just having a hard time with -- I feel like the goal is we want patients engaged. We want to show that they're involved in their care. Right?

But I'm having a hard time because when you think of a measurement, I won't know how to interpret it as if it's a good or a bad thing without the contest of it.

Like for example, when someone cuts and pastes PE because they went physical exam, and another person thought this person had a, you know, a pulmonary embolism for years, there's an issue there.

Or they put he when it's a she. Or,

you know, and they just keep perpetuating things.

So, on the one hand, it's really hard. Again, I'm having a hard time with this measurement because I won't know if the number is good or bad.

Where all the other ones were so obvious if you want it high or low, this one I'm not sure.

CO-CHAIR SINGH: I think it's Jim and then Lisa. Oh, it's Jim, Laura and Lisa, sorry.

MEMBER RUSSELL: Okay. I'll go. So, as being on the vendor side and also being a patient who actually really uses their portal -- both on my phone and on a laptop -- I think there's three ways we can tease it out.

And I'm actually agreeing with you quite a bit Karen. I think one of the ideas is just acknowledging the fact that you have a certain percent of patients who are actually accessing the records.

That's kind of a really easy thing to measure. We measure that all the time. That's

number one.

I think number two, it's this -- and I correct -- I'm starting with the word corrections. Because it's not necessarily corrections.

It's additions, it's editing, it's -- I take this a little bit differently. So, I think we need to just do that.

And at least the data we're seeing so far is of the percentage of patients who actually access the records, the percent of patients who actually ask to have something changed is very, very low.

And it's usually -- at least anecdotally, it's usually just minor corrections and things. So, I think that's number two.

And then number three on the annotating/editing the medical record. Until you get down to OpenNotes, are you really annotating or editing the medical record?

Because you don't know what it contains except for the things that are

discretely passed off to you like the diagnostic tests. Like your meds, allergies, problem list. Your scheduling information, things like that.

So, I just think this could be again, I think you were right. It could be compressed down. There's a lot of things here.

But we could probably be a little more discrete on what those things are and what you're actually trying to measure.

CO-CHAIR SINGH: I think Laura, you were next. And then Lisa. And then Karen.

MEMBER HEERMANN-LANGFORD: Well I was just -- I mean, I agree there's lots about the whole creating, editing, annotating, et cetera that we need a wordsmith for.

But, I still think we need to step back like Karen was saying. And just what exactly do we want out of this to say patient engagement?

I mean, it may just be that they have interacted in some way. And maybe it's at a level of reading and viewing.

And another is that they are contributing in whatever. And just try to simplify it. Because it seems a little complicated.

CO-CHAIR SINGH: So, you know, maybe we could sort of think about it just a little bit, going back to our framework. Because we haven't sort of applied it to just sort of patients.

So it could be patient engagement in relationship to safe IT, which means my portal is bad. I can't -- you know, the graph is bad. Or my -- there's no display of data. Or something is wrong with my portal.

The second could be patient engagement and safe use of Health IT, which many of these things over here are.

And then the third one would be how patients are using technology to improve their safety. So, I saw my lab results. And I noticed my hemoglobin was five points lower.

And now I'm calling my doc and saying

hey, by the way, I think I need a colonoscopy. So, maybe we could think about having a measure or two.

(Laughter.)

CO-CHAIR SINGH: The amount of anemia's that I've seen missed in my life. So, I had to make that one up.

So, maybe within each of these we could have sort of, you know, one or two measures. And that way, we can clearly link back to what Karen and Laura are trying to get us to do.

Is to getting something out of each of these dimensions for patients.

CO-CHAIR BELMONT: I really like that suggested framework a lot.

DR. PINES: So, can patients see the information?

CO-CHAIR SINGH: So the first is safe techno -- yes. So, if you -- everything with safe technology would be in there.

DR. PINES: And do they use it to

change --

CO-CHAIR SINGH: Yes. We can go through -- I'm being mindful of time. We can go through easily --

DR. PINES: Yes. We can --

CO-CHAIR SINGH: And pick up which one is level one and which one is level two and which one is level three.

And that way we could justify so many measures. Because this is the one that is the longest I think.

DR. PINES: Yes.

CO-CHAIR SINGH: In addition to the documentation and quality one. Which there I refuse to put more data.

All right, is that good? Oh, sorry, Lisa?

MEMBER FREEMAN: I just -- I loved the way you framed it. And I just want to say though, if we're measuring patient engagement, and I'm not, you know, this isn't my forte.

But, it's really about, are they

engaging. So, just counting whether they're viewing and then whether they're adding or notating really measures patient engagement.

Because patients aren't used to engaging at all at that level.

CO-CHAIR SINGH: So do you think we should think about, and I don't mean to say sort of active or passive. But there could be sort of passive engagement.

MEMBER FREEMAN: Um-hum.

CO-CHAIR SINGH: Versus more active engagement. So, if I'm calling you and saying this stuff is wrong. It's more like active.

But passive is, you know, I'm looking at the stuff you're sending me. And I, you know, went through my portal. That's passive.

And are you saying we should separate them out? And do both?

MEMBER FREEMAN: I think it's kind of helpful. Because it will show in the end what we need -- where we need to focus attention.

If that's, you know, and I'm assuming

that's part of this. Is that if we want patients to be more engaged and we see that, you know, okay, well we're making headway in terms of their accessing their records in various ways.

But, we're just not getting them to actively engage yet. We -- there's a safety factor that can be raised the more we engage them actively.

CO-CHAIR SINGH: So maybe we could just say sort of basic patient engagement, and then advanced patient engagement.

So there's two levels of some kind.

MEMBER FREEMAN: Yes. I'm not, you know, I'm not good at dicing the words. But the point is that there's certainly two distinct points.

And I don't know that we have to get that -- I don't think it has to get that complex. Because I think right now, we're at such a very beginning state where patients are just starting to get use to looking at their records.

CO-CHAIR SINGH: Yes.

MEMBER FREEMAN: That we've got such a long way to go. Let's start with something we can just really grab hold of and work with.

CO-CHAIR SINGH: Or maybe the, you know, the concept of aspirational we were thinking of before. Sort of, you know, immediate versus future?

Maybe we could -- we'll have to reorganize this slide a little bit.

MEMBER HEERMANN-LANGFORD: So, just a couple of things come to mind listening to her. Is like we said before, do they view it? Do they actually annotate it?

But it could be, is it a one-time only? Or frequent -- you know, how frequent does each patient come in? Are they coming in and looking at it at a timely after -- a visit after a test is drawn after.

Or is it just a curious perusal because there's no event that happened that they just kind of went in.

I mean, there's different ways that we

could look at how a patient is engaging with their care.

CO-CHAIR SINGH: Um-hum. Okay. Anymore about this slide before we go over to the next one? Slide 13.

DR. PINES: So, we can -- we will do some edits on this then.

CO-CHAIR SINGH: Yes. Well, we can rearrange. Because rather then sort of --

DR. PINES: Rather than do it right now.

CO-CHAIR SINGH: Yes. Yes.

DR. PINES: Yes. Unless you want to just sit.

CO-CHAIR SINGH: So I think everybody's agreeing that these things look good. They just need to be rearranged a little bit.

DR. PINES: Okay.

CO-CHAIR SINGH: Right? Yes. Okay. Burden of data entry. So, this was when -- is Bill gone? Has Bill left? Okay.

So, this was mostly discussed in our

group. And I'd like for our group to sort of just chime in whenever they want to.

But, the burden of data entry is a huge thing when you start talking to anybody. That's what the most important thing they are concerned about.

We want to make this easy, measurable, safe. Because it also distracts. It overlaps a little bit with Eric's group's interaction with, you know, the doctor/patient interaction where the doctor is so busy just looking at the screen versus, you know, and entering data versus talking to patients.

And we thought of ways to identify this measure or creating measures could be workarounds for instance. And that's where the scribes came in.

And say if I'm using scribes to enter my data, there's probably a problem in my data entry skills --- or whatever you want to call it.

So, again, it's an important one where I think maybe some more needs to be discussed as

to what people think should be in here. In terms of a measure.

We had one on scribes. But it didn't go in here. Did we remove that? Or --

DR. PINES: It didn't make it into the prioritized list.

CO-CHAIR SINGH: Okay.

DR. PINES: So, I guess one question is: could this be moved under usability, or is this a separate concept where burden of data entry is just a piece of use?

MEMBER SEGAL: I mean, I think it could go to usability. And again, the other accountability on this one that I would think about adding is government or regulatory.

Because many of the specific requirements --- but I think in terms of how it's going to be perceived by the end user, it's really part and parcel of the usability spectrum I think.

CO-CHAIR SINGH: So the reason to keep it separately I think is, Mark, as I think you

rightly put it. And I mean, this is -- some of this issue is beyond just the EHR screen.

Some of it is, and that falls under usability. But a lot of it is not. Why do I have to document twice? Why do I have to have long notes?

I mean, there's a reason. Why do I use templates? Right? I'm trying to speed up.

So, should we as a group think about having this as a separate measure concept? And I think we're getting ready to sort of even decide very quickly, you know, when we wait.

So, you know, you could say let's merge it with usability and keep it rather then getting rid of it.

MEMBER SCHNEIDER: Well, did we lose the -- did we lose the construct of the way in which technology interferes with the clinician/patient protocol?

CO-CHAIR SINGH: Well, that's why I was saying, this is where I think your stuff falls in. Yes, it --

MEMBER SCHNEIDER: Well, but the burden of data entry is just one potential cause of trouble in -- between patients and clinicians.

CO-CHAIR SINGH: So, do you think we should focus this on the quality of doctor/patient interaction in front of an EHR, or something of that?

MEMBER SCHNEIDER: Well, and again, this is a very ambitious item. I'm not sure how you would measure this exactly.

CO-CHAIR SINGH: Okay.

MEMBER SCHNEIDER: And it probably does fit into the usability domain if I had to guess. But it's usability not just for the clinician, but usability for the clinician and the patient.

CO-CHAIR SINGH: The dyad.

MEMBER SCHNEIDER: And the usability in the dyad or in the encounter, whether that's telephonic or in person.

CO-CHAIR SINGH: I do want to sort of remind everybody that for the usability we were

going to wait for some of the regs coming out of ONC. And I have a feeling that's going to be fairly sort of high level, broad on the sort of the macro level.

We will probably miss out on Eric, what, you know, our concerns here are. That clinicians -- front line clinicians are dying entering data into the EHR.

MEMBER HAYNES: So, I was just going to add for accountability, you could put payers there too. Because --

CO-CHAIR SINGH: Oh, yes. That should be number one there.

MEMBER HAYNES: Throw Anthem under the bus.

CO-CHAIR SINGH: Yes. Put them number one.

MEMBER HAYNES: Put CMS under the bus.

CO-CHAIR SINGH: Yes. And CMS number two.

(Laughter.)

CO-CHAIR BELMONT: In addition to

payer, you should probably already also want to add accrediting agencies.

CO-CHAIR SINGH: You know, and I would say just because of that reason, we should probably have this as a separate measure.

MEMBER SCHNEIDER: So this is a regulatory burden measure? I thought we were in an HIT quality and safety line here?

CO-CHAIR SINGH: Well, it's -- yes, you're getting the point.

MS. ZIMMER: Well, as much as I appreciate that point, going back to what you said, we are a Health IT metric, whatever. I worry about accountability for -- this is going to come out wrong. So I apologize.

For people who can't make that change happen at a -- timely enough. Is that fair?

So, like vendor again at a facility, no offense with policy makers, but like, you know, everybody in this room has been saying, why can't all the government agencies talk together and have one data set that we enter?

We've been asking that since, you know, many of us could talk. But that doesn't exist.

And we're not -- I'm not trying to be a naysayer, but we're not going to make it exist. If they haven't figured that out now, this measure isn't going to necessarily do that.

Not to mention, I don't even know how you'd begin to measure it except do a survey that everyone writes down their frustration. But I think people have been writing that frustration for a very long time, and that change still isn't happening.

So, I don't want to -- we have really good stuff here of things that are concrete and actionable. I don't know that this is exactly actionable except to vent our frustration.

CO-CHAIR SINGH: I'm not sure if it's not completely either measurable or actionable. I mean, I'm not -- yes, maybe the aspirational is a word where we'll put it in there.

But I must -- I mean we can merge it

or we can call it separately. But this is where -- this is where --

MS. ZIMMER: Then maybe -- then I think it's more --

CO-CHAIR SINGH: This is where you lose the docs.

MS. ZIMMER: But then I think it's regulatory burden, and we maybe conduct surveys or something, and send all that paper to Washington to show the frustration.

CO-CHAIR SINGH: Well, I mean, AMA has done that. You know, it's not like we're not the only ones. I mean, AMA is doing all that. They've been talking to people.

I don't know. I mean --

DR. PINES: Just as a place we could potentially put this in the report. We're going to have sort of an overarching issues section where, you know, this could potentially fit there.

Even if there's not a very specific measure that goes there. But I think the --

MS. ZIMMER: It's a data entry piece because it's under usability. Is the data entry piece the difficulty of entering that information?

Or is the burden of the number of fields that we're required, which is a different idea. One's a capability, and one is just the time it takes.

And which one are you trying to get at?

CO-CHAIR SINGH: It's a socio-technical challenge. And that has eight dimensions. And I can name you all those eight dimensions.

MS. ZIMMER: I was waiting for that word to come up in the two days.

CO-CHAIR SINGH: Yes.

MS. ZIMMER: And so thank you.

CO-CHAIR SINGH: So, when you leave out the external regulatory agencies, you leave out a whole dimension of people who could influence the HIT safety.

MS. ZIMMER: Then it's not necessarily burden of data entry, but just data collection in general because of all the regulatory requirements.

CO-CHAIR SINGH: I think this is data entry. No, this is front line clinician data entry.

DR. PINES: Right. So, I think the example is -- you know, a good example is all the information that must be collected from a patient when they show up at triage in the emergency department by the nurse out front.

I mean, it is a list of 25 different things. And everyone's little, you know, domestic violence and everything needs to be collected up front.

And I think that creates a huge burden that, you know, I think is not necessarily a quality metric, but I think it's a consideration or an overarching issue.

MS. ZIMMER: So, I'm going to play devil's advocate. When we come out with

vaccines, it has to be some -- or at least in pediatric, when you come out with something, it has to be something, a criteria.

It has to be something that's measurable, actionable. This feels so --

CO-CHAIR SINGH: I think David's been trying to say something.

MR. HUNT: I sort of -- I hear what you're saying. One question I would ask is, absent Health IT, in the paper world, will we have this problem still?

I think the answer will be yes. I know I really got ticked off, you know, filling out forms.

And so, I agree with you that I think that --- particularly for credibility at the front line clinicians -- they need to at least see that there's some recognition of this problem at multiple levels and including this.

But, I'm not sure if it will -- if we can really affect it.

CO-CHAIR SINGH: Nana and then

Elizabeth.

MEMBER KHUNLERTKIT: So when I read the word burden of data entry, I interpret that as a workload issue. And so I think we are trying to address two things on there.

So, it's a work around and a workload. So which work around can be, you know, the result of workload.

So, it makes me wonder if we should also include the measurement of workload and workarounds in the simulation. Because we can get it on there.

CO-CHAIR SINGH: You mean on the simulation slide, right?

MEMBER KHUNLERTKIT: Right.

CO-CHAIR SINGH: Yes, we can easily add workarounds and workload to that slide. Jesse, could you remember to do that later?

Okay. That's a good idea. I think it was Elizabeth and then Mark and then Eric.

CO-CHAIR BELMONT: So, I have a couple of thoughts. You know, in terms of the burden of

data entry, it is a workload issue.

But I think it's an issue that can affect quality of care was well. Because I have heard a number of physicians complain about the number of hours they're spending at 9:00 and 10:00 at night to doing it.

So I think, you know, it does have an effect on quality. Two in terms of accountability, I think we should add accrediting organizations there.

And then my next comment won't make me popular. But I'll be remiss if I don't mention it.

When we think about burden of data entry, there's also data that's required for medical/legal issues or requirements. For example, workers' comp.

I have a lot of physicians who complain about how much documentation you have to do for a workers' comp case, or if a patient has been in a personal injury, or even just basic medical/legal considerations to defend against a

potential med mal claim or a board complaint.

CO-CHAIR SINGH: Yes. Good point. And I quickly want to move it over. I want to remind everybody, in the Ebola case in Dallas, the physicians spent more time at the computer then they did with the patient.

And they were completely lost in the computer and entering data about all sorts of stuff then just the fever that the patient had.

MEMBER SEGAL: So, I think in part to David's point, yes many of these things came from paper -- I mean, things like CPT E/M documentation guidelines.

But I think they have particular consequences when those paper era requirements are put in a Health IT context. For example, a lot of the copy/paste issues.

Or the kind of the template bullets really are a consequence of that. So, in terms of the practical, clearly providers and vendors have opportunities to do a better or worse job with the reality we all live in.

And so, from that standpoint, taking sort of the hand we're dealt and doing the best is probably worth measuring. But nonetheless, if we think about how we're broadly construing accountability, where sometimes it's going to be who's being measures.

And sometimes it's going to be who kind of in a shared system. I think A, as long as we're clear that ultimately we want measures that can be acted upon by kind of the key actors, I think A, it's worth keeping.

And B, I think it is worth having the accrediting orgs and the payers and policy makers as accountability, even though it's going to be a different kind of accountability.

So, that's kind of how I would view it. But I think again, to me the key point comes back to as you layer these paper era requirements into Health IT, it generates almost a certain pathology that then has to be understood and kind of dealt with.

Again, copy/paste being a notable

example.

CO-CHAIR SINGH: Yes. And you know, Mark, I'm going to add that, you know, we are -- there's a scribe industry proliferating now.

And the discussion we had, you know, yesterday, which made us sort of think about this much more. If you're using a scribe for documentation, great.

If you're using a scribe to enter orders on medications and, you know, other types of things where you get clinical assistance support, not a great idea.

So, getting to concrete things that we could potentially measure, would something to do with scribes -- as Nana also pointed out -- you know, workarounds, could we measure that as a real life thing that we can actually feel, touch? We'll get a lot of that.

Eric?

MEMBER SCHNEIDER: Yes. I think Mark is suggesting this. But it's -- the title burden of data entry has political connotations that

maybe not helpful.

But the consequences of poorly designed and implemented data entry technology might be the category. And then we get at what are the con -- the measures get at what are the consequences that we care about related to IT safety?

CO-CHAIR SINGH: Yes.

MS. ZIMMER: But I'm hearing two different things. Because to be fair, it's not necessarily that it's poorly designed.

But, we have to amp up the number of requirements that they have to put in. So, --

MEMBER SCHNEIDER: Implemented was the other part.

MS. ZIMMER: It sound -- sorry, I'm not even a vendor. But, that sounds too vendor-centric.

(Laughter.)

MS. ZIMMER: And no offense, I argue against you many times too.

(Laughter.)

CO-CHAIR SINGH: So, if we put --

MS. ZIMMER: I go both ways here. So --

CO-CHAIR SINGH: So, could we put design develop -- design implemented and used. And then you could say used, then you could get into the poorly used because --

MS. ZIMMER: Well, I guess maybe I -- maybe -- I like what -- I see where you all are going and I get it.

But, maybe it's not burden of data entry. Maybe it's just general data collection.

So, for example, one other thing that would be interesting is to have physicians dock how many hours after clinic they're working on their records. I mean, they'll be honest.

So I think that would be an interesting thing. Because then you're getting real data saying, look what they're doing outside of work to deal with all this documentation.

So, I mean, I'm just thinking of a measure where --

MEMBER SCHNEIDER: Yes. And if each of those consequences is tied -- because each of those then creates erroneous data. And erroneous data, you know, and other safety problems.

MS. ZIMMER: Right.

MEMBER SCHNEIDER: But tying the logic model to those, not -- right now there's a hypothesis here that burden of data entry is correlated to patient safety issues.

Well, actually there are a number of pathways through which that occurs. And I think the measure should address those pathways, not try to say we can measure burden in this instance.

Because burden -- I mean, I spent a lot of time entering medication lists when we first implemented our EHR.

MS. ZIMMER: Um-hum.

MEMBER SCHNEIDER: That was very burdensome. But the benefits were downstream. And it was time well spent.

So, I think it, you know, there's a

whole timing investment versus return sort of a calculus that comes in.

MS. ZIMMER: So, even though they mean the same thing, maybe labor intensive data collection. I don't know, something just -- just --

MEMBER SCHNEIDER: I would stick with the logic model that ties, you know, clinicians entering notes at 9:00 p.m. You know, that's just not a good practice.

I would try to focus in on the practices that are being caused by -- maybe caused by the burden. I agree.

MS. ZIMMER: And I agree with that. And I see -- I think that would be an interesting measure. Is how getting that type of information.

CO-CHAIR SINGH: So could we --

MS. ZIMMER: So I don't -- poorly designed to me sounds more like a usability.

CO-CHAIR SINGH: So could we say something like measuring safety as related to

data entry, or something like that? To make it more --

MEMBER HEERMANN-LANGFORD: What about something like consequences of EHR use? And then go down your path of the patient safety issues that we know and we could measure.

I mean, the how we're spent.

CO-CHAIR SINGH: Or inventory consequences of data entry?

MEMBER HEERMANN-LANGFORD: Well, I mean, quite frankly, it's consequences of our electronic health records.

MS. ZIMMER: It's like Pandora's box.

MEMBER HEERMANN-LANGFORD: It's increasing our time spent after clinic hours.

CO-CHAIR SINGH: Consequences of data entry. So, what you're saying is intended? Or unintended?

MEMBER HEERMANN-LANGFORD: No. Okay, unintended.

CO-CHAIR SINGH: Unattended consequences of data entry.

MEMBER HEERMANN-LANGFORD: Unintended consequences of --

CO-CHAIR SINGH: Of EHR related data entry?

MEMBER HEERMANN-LANGFORD: Yes. Use though. It might be just --

MS. ZIMMER: Why not just workload of data entry?

MEMBER HEERMANN-LANGFORD: There are 100 messages in your alert box is almost another consequence of this -- or unintended consequence of an EHR. I now can give you 1,000 alerts in a day.

CO-CHAIR SINGH: Wait. You know, I was thinking, do we have information overload related safety measure? We don't?

MS. ZIMMER: Oh, I like that. That's a great one to do this.

CO-CHAIR SINGH: Because it would come under CDS where you get lost. I'm wondering actually if you just create one for information overload and couch all the thoughts, nobody would

argue.

Information overload is a huge safety risk. We've connected it. Then we can put in all of these things. It becomes concrete.

That -- any suggestion?

MS. ZIMMER: As a high level?

CO-CHAIR SINGH: And then it gets put in the in-basket. In-basket alert is one of the number one things clinicians are going to complain about.

MS. ZIMMER: No, no, no. I absolutely disagree.

CO-CHAIR SINGH: They've been complaining about them at the VA ten years. And now ten years later, now it will spill over to the private world.

MS. ZIMMER: No, I like that a lot.

CO-CHAIR BELMONT: I think that's a fabulous idea.

CO-CHAIR SINGH: So I just say -- yes, information overload related to EHR use. And then everything comes under that umbrella. And

nobody would argue with it.

MEMBER HAYNES: Can we still tie it back to Kevin?

COURT REPORTER: You're microphone's not on.

(Laughter.)

MEMBER HAYNES: We don't need these on. Well, we -- obviously we contribute to the overload.

But in one aspect, you know, back in the '80s when you actually had to fill out the UB94, whatever the heck it was -- 492, thank you, to actually get paid, that that stated to generate the, oh, I need to record this.

And I need to record this accurately. And I need to, you know, get -- so, I understand information overload.

But at the same time that the requirements for documentation in some places are burdensome, and in some places are helping. Right?

Being able to have the information is

better than not having the information. So, I'm tenuous on the true word overload.

I get the inbox. I get the CDS. I get that there's too much out there to have to fill out. Anyway.

MEMBER SCHNEIDER: Well, I would just add to overload, IT is the solution to overload as well as it can create overload. And it can be the solution to information overload.

So, I'm not sure how we reconcile that.

MS. ZIMMER: Would you use information, or information and documentation? Because when I think of information, I feel like I'm receiving versus we're talking about the inputting.

CO-CHAIR SINGH: Well, we can just say information and documentation overload, or we can say information and data entry related overload.

I mean, something like that.

CO-CHAIR BELMONT: Or information requirements?

MS. ZIMMER: That's good.

CO-CHAIR SINGH: The thing about information or data overload is everybody understands that and gets it. Because everybody gets email, and they know exactly what that feels like.

That's a good part.

MEMBER SCHNEIDER: Well, there's also big literature that you can point to on human-factors engineering.

CO-CHAIR SINGH: Yes. Exactly. Human factor.

MEMBER KHUNLERTKIT: Yes.

(Laughter.)

MEMBER KHUNLERTKIT: But the word information overload is kind of one of the domains for usability design.

CO-CHAIR SINGH: Yes.

MEMBER KHUNLERTKIT: So, I would avoid using information overload. If --

CO-CHAIR SINGH: But it's not only related to, you know, for design. Because if you

look at the eight dimension socio-technical model, it will remind you of all the other dimensions that are involved in causing information overload.

We actually in one of our papers, it wasn't the number of alerts people were receiving, but it was their perception. So, people who received the same amount of alert, one was overloaded and the other one was not.

Same system.

MEMBER KHUNLERTKIT: So, the word information overload, I think when I interpret it, I would mean something like you get one paragraph of text and you would only need like one sentence of that text.

You know what I mean? That's what I refer to as information overload.

MR. HUNT: Could you say that again? I missed it.

MEMBER KHUNLERTKIT: So, it's like if you get a paragraph of text, only one sentence of those paragraph is important to you. So, that's

information overload.

And that should be identified since usability testing.

CO-CHAIR SINGH: But also it signals the noise ratio, right? So if your signal is buried within a whole lot of noise, if you got 200 alerts out of which, you know, you miss a few criticals because you were trying to get through the 198 that were not, then that was probably related to information overload as well. Right?

DR. PINES: So, how is increased tasks related to information overload? Is that what we're getting at?

That there's so much more stuff to do to get because there is to many -- too much information coming in. You've got to input too much information to capture it.

CO-CHAIR SINGH: The other thing is, you know, I was thinking back, if people are relying there -- you know automation related consequences could be another sort of way to look at this.

These are some of the things that we are talking about all sort of related to automation in EHRs. Which will get to sort of David's point that, I mean, that we not have this problem in paper.

CO-CHAIR BELMONT: And Jesse, is it increased tasks, or increase and more time consuming tasks?

DR. PINES: It's probably both. Yes.

MEMBER HAYNES: So, in one case we're talking about information overload. And most of the rest of the day we've been talking about how I don't have the information that I need to make the decisions that I need.

I don't even think that we've even scratched the surface of information overload. Because on one hand, from a patient safety perspective, all the repeat testing that gets done, all the med rec stuff that can't get done right now, because it's information that's locked in somebody else's health information system -- EHR system -- you don't even have the information

that you need.

You're not even overloaded yet. And yet I know we're still also talking about the information overload.

There's a very important sentence in that one long paragraph that needed to get transmitted over from that other institution. And that was that, you know, I have an adverse reaction to Codeine.

And that's the most important information that's needed. Yes, it's buried. But it's information that you haven't even overloaded yourself with from across the street to know.

And it's not an allergy. It's an intolerance. Or it's not an intolerance; it's a true allergy. Anaphylactic response, something.

And you didn't even get that information. You're not even yet overloaded.

CO-CHAIR SINGH: Okay. Could you suggest any -- do you suggest we make any changes here? Because we've got two more slides to go

through, and we have about 30 minutes.

MS. ZIMMER: I would change unattended safety consequences of data entry requirements. Because then what you're -- we could then ask is physicians, how long are you taking to document after clinic has ended because you don't have time during clinic.

CO-CHAIR SINGH: Okay. Does that get into in-basket alerts, which is going to be killing people very quickly?

MS. ZIMMER: And I would get rid of the information overload task out. Because we might as well be transparent.

This really is more about policy. And in that policy these government regulations are impacting clinicians' time. And so they're not being able to -- they're not able to be as effective as they could be.

I mean, who wants to be up until two in the morning filling out their charts? It's not right.

MR. LYZENGA: But then back to the

question that's sort of posed by David. In the absence of EHRs, that's still an issue.

Do we want to focus this somehow specifically around the impact of EHRs or HIT? Or --

MS. ZIMMER: So, I don't think we have enough data on this, which is why I'm saying I love this. Because I think -- I don't think it's actually --

CO-CHAIR SINGH: No, no. We've got data. Clinicians are getting hundreds of alerts every day. I mean, we've got data on information overload as much as you want.

I mean --

MS. ZIMMER: I don't -- I think you really need to be careful about information overload as opposed to data entry overload.

CO-CHAIR SINGH: That's why I'm saying maybe another different word. Either signaturized ratio or automation related types of, you know, unintended consequence.

Something. I don't think this is just

about data entry. I mean, largely it is.

But we got to -- then we'll forget some of the other things that cause it.

MS. ZIMMER: Well, what it is, is then you can have cut and paste measurements. You can have how many hours people are working beyond clinics or in the hospitals.

CO-CHAIR SINGH: Yes. That's related to unintended consequences of automation.

MR. HUNT: What if we took out the word entry? Because data entry requirement seems to put the burden completely on just typing in, you know, putting in information into the system.

And it doesn't speak to the issue of getting, you know, information bombarding me.

CO-CHAIR SINGH: Yes. That will get to both actually if you remove the word entry. I'm okay with it.

I would put in-basket alerts in there. Everybody okay with this?

All right. Next slide. Okay. Yes, that's good. Oh, so this is the parking -- is it

two more or one more?

MS. ZIMMER: One more.

DR. PINES: I think this is the last one.

CO-CHAIR SINGH: Last? What happened to 14?

DR. PINES: It was completely addressed. And I think we pulled everything out of it.

CO-CHAIR SINGH: We pulled it out? Okay. Beautiful. Oh, man, okay.

Well, so this slide basically just -- we want to make sure that we have a way at the organizational level to do the measurements that we are proposing. Or that people ought to be looking at multiple sources.

Help desk tickets, using trigger tools. Reports, I mean AHRQ.

MS. ZIMMER: We also moved security over to this one.

CO-CHAIR SINGH: I'm sorry?

MS. ZIMMER: We had moved Eric's

security over to here.

CO-CHAIR SINGH: Yes. And then they also will do both retrospective and perspective measurements. As a perspective measurement the example is a security checklist and SAFER Guide.

Retrospective is, you know, safety reporting systems, help desk tickets, lawsuits, trigger tools. So, multiple sources of data.

And then the organization uses that to improve safety. I don't think this concept is covered elsewhere.

And, again, we'll have to think about how do we measure this. But, you know, okay.

CO-CHAIR BELMONT: And we didn't talk about this yesterday, but if we want institutions to take this seriously, could we suggest sharing some of these measures with the governing board?

Because safety starts from the top down. And Health IT safety measures typically are not shared with the governing board.

CO-CHAIR SINGH: Actually, I would put that as a measure. I think she's recommending.

You're saying put that as measure. Do you share your EHR safety metrics with the governing board?

CO-CHAIR BELMONT: With the governing board, yes. Or a subset of those measures.

MR. HUNT: And that helps also speak to the issue of culture.

CO-CHAIR SINGH: Absolutely.

CO-CHAIR BELMONT: Yes. And Jesse and Andrew, if you want, I've got a whole background on suggested governing board metrics that I can share.

CO-CHAIR SINGH: So, accountability will be organization level? Facility level, right?

I think that's what the accountability level is. Okay. Karen?

MS. ZIMMER: Just to clarify, when we're talking about risk management infrastructure, is it targeted just to Health IT? Because you might want to --

CO-CHAIR SINGH: Yes, I think it was

supposed to say it should -- the Health IT stuff should fit within the existing risk management infrastructure.

So, right now the quality and safety people at most organizations are either unaware of these things. They don't know enough about it.

I think Gerry, you should tell us what your experience has been. And what kind of feedback you got once you released the education model on safe Health IT.

Are people sort of doing that? Are they finding it useful? And saying oh, we never knew about these things, and now we do. Or whatever? Any thoughts on that?

MEMBER CASTRO: Well, I think, you know, with the release of the Sentinel level alert and then of course the education module, it gives organizations the tools to approach their leadership with this conversation. And start to develop that infrastructure within the organization.

But, you know, outside of that, we have existing leadership standards --- and I was just looking those up right now --- that says the organization has to have this overall process in place already. But, to make it -- what we're trying to do is make it Health IT specific now.

CO-CHAIR SINGH: Yes.

MEMBER CASTRO: So, and to sensitize the organizations on what specifically to look out for, and what to report up to.

CO-CHAIR SINGH: So can we actually say that as a measure that if you are a risk management program, like 10 people in the OR, or whatever, all of them have to be doing the Joint Commission educational module on safe Health IT?

Can we put that as a measure? I mean, if none of them have done it, it's like a bad sign if they haven't looked at the education model from the Joint Commission.

MEMBER CASTRO: Is that we decided to do?

CO-CHAIR SINGH: Basically the number

of people within the risk management program or risk patient quality, whatever management program at the facility level that have been certified -- is it a -- what is it? Is it a certification or something?

MEMBER CASTRO: It's just continuing education credits.

CO-CHAIR SINGH: Have received continuing education credits from the Joint Commission Safe Health IT education module. Because that will bring awareness up drastically.

Because then they'll, you know.

MR. HUNT: And just to be clear, that module is available free of charge to everyone?

CO-CHAIR SINGH: Um-hum.

MR. HUNT: Okay.

MS. ZIMMER: The first bullet should probably read organizations assess Health IT risks?

CO-CHAIR SINGH: Sure. Any other types of measures we could think about from a local perspective?

Okay. Back to you guys. Because I think we're done with the slides.

DR. PINES: Okay. So, I know so this has been an amazing discussion. We've really covered a lot of ground.

So, I know we have to do the public comment and then comments in the room.

I did want to give everyone a chance for any sort of final comments or sort of any overarching thoughts that you'd want to make at the end. So we can make sure to include that in the report.

I don't want -- we don't necessarily have to go around the room. But any sort of final thoughts? And I don't know, David if you wanted to?

MR. HUNT: I'm just incredibly grateful to everyone who -- it's been a wonderful but, you know, exhausting in some ways, a couple of days.

And I'm just thankful that everyone took the time.

CO-CHAIR SINGH: I must add that this has been a really good exercise working with all of you here. Because you've been, you know, it's been getting everybody's input. And making -- doing such an exercise.

So I really enjoyed this, even though I may have been a little tough sometimes. But I think we really achieved a lot.

So, thank you to all of you. Because without your contributions, nothing would have happened here.

CO-CHAIR BELMONT: And I would second that. And I wish there was some way that this group can stay in touch.

Because things happen so fast. And we all have a little bit different areas of expertise. And it would be great if there was a LISTSERV or some continuing way we could stay in touch and share.

MR. LYZENGA: Yes. I mean, we can try to make sure that happens. And on that note, we will have more work for you yet.

(Laughter.)

MR. LYZENGA: You're not done.

CO-CHAIR SINGH: Did you say we're not done today?

MR. LYZENGA: You're not done. There is more.

CO-CHAIR SINGH: But we're done.

MR. LYZENGA We have in fact yet to -- we're going to have to do a bit of prioritization around these sort of areas that we've identified I think.

And so we're going to follow up with you via email and --

CO-CHAIR SINGH: Yes. And maybe, you know, we could just go around the room since -- just to get people to think if we have time -- are there any ones that you feel extremely strongly about?

This would be a time to sort of, you know, get that in sort of writing or recording, or whatever. Out of the -- we have 14 or 15? What did we actually end up having?

So, we only have three to eliminate if we need to.

MEMBER SCHNEIDER: Hardeep, I just -- I mean, in general, I think it's better to use a process to get to that information than to just take one off comments.

CO-CHAIR SINGH: All right.

MEMBER SCHNEIDER: Because the report should reflect that there was a systematic process of it. That would be my recommendation.

CO-CHAIR SINGH: So, do we have a process in place? Are we going to do this in our own voting?

MR. LYZENGA: Well, maybe we could get some input actually on that. Do -- would you like to, for example, rank order these areas?

Is that something you would think would be appropriate? Do we want to do sort of a rating on a scale of each of these?

Like again, a high, moderate, low priority? Do you have any other suggestions on how we can prioritize them most appropriately?

MEMBER SCHNEIDER: I'll weigh in since I've done this a fair amount. I would give it a -- if it's really just what's the priority, a one to five scale. High priority to low priority.

Let people vote on each one. That will be an analyzable data set.

MR. LYZENGA: And we can do that through a survey instrument online. Did you?

MEMBER SCHNEIDER: Do you plan a full-blown Rand method? I can tell you about that too. But I'm not sure you do.

MEMBER JONES: I like the importance and feasibility split out, and that should be fairly easy to implement electronically with Survey Monkey or something. I don't know, but there's got to be a way to do that.

MR. LYZENGA: Yes. We can do that. And we can maybe do the -- yes, we can do importance, feasibility and then an overall priority rating, one to five. Something like that.

CO-CHAIR SINGH: So then will ONC get

like a top -- like a ranked 13 or a 14?

MR. LYZENGA: I'm not sure we'll do a -- it depends on I guess, how the results come out. But I'm not really sure we'll get a rank.

But we may have a -- end up having a, you know, them fall out into some tiers, yes.

CO-CHAIR SINGH: Okay.

MS. ZIMMER: A quick question. Because we haven't gotten to the exact metrics that would potentially be used.

If we are doing that importance and feasibility, would we, over the phone, discuss any where someone put a one as feasibility versus two or three?

Because I think, at least I saw in our group, feasibility -- someone might think it's a one, but someone knows of something that does exist to help with this.

And so, when there's a real difference, and I'm not saying between two and three. But anything that has a one for feasibility almost deserves a discussion if

anyone else put a two or three where someone put a one.

DR. PINES: What we could also do is actually have a comment. You know, we could allow for some comments in the Survey Monkey.

So, if there's a -- you know, someone knows they think is -- what they have is not common knowledge, they can add that in. Or have the opportunity to do that.

MR. LYZENGA: And in general, it would be really helpful if you could comment when we have these, you know, for your ratings.

All right, well let's ask for public comment at this point. Operator, could you open the lines?

OPERATOR: Yes, sir. At this time if you would like to make a comment, please press star then the number one.

(No response.)

OPERATOR: There are no public comments at this time.

MR. LYZENGA: Anything in the room?

(No response.)

MR. LYZENGA: All right. Well, thanks everyone for your hard work. This has been fantastic.

And we will be following up with again, some prioritization survey of some sort most likely. And yes, some additional work.

So, go ahead, David.

MR. HUNT: One last thing. A debt of thanks to our Co-Chairs who did an absolutely fantastic job.

MR. LYZENGA: Absolutely.

MR. HUNT: As well as the group leaders.

(Applause.)

(Whereupon, the above-entitled matter was concluded at 2:44 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Prioritization of Health IT Patient Safety Measures

Before: NQF

Date: 09-17-15

Place: Washington, DC

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

Neal R Gross

Court Reporter