

HIT Policy Committee Transcript January 14, 2014

Attendance

Members present:

- Madhulika Agarwal
- Christine Bechtel
- Neil Calman
- Arthur Davidson
- Paul Egerman
- Judith Faulkner
- Charles Kennedy
- David Kotz
- David Lansky
- Devin Mann
- Aury Nagy
- Marc Probst
- Joshua Sharfstein
- Robert Tagalicod
- Paul Tang
- Thomas Greig

Members absent:

- David Bates
- Patrick Conway
- Scott Gottlieb
- Gayle Harrell
- Deven McGraw
- Troy Seagondollar
- Alicia Staley

Presenter

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Good morning. This is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Policy Committee. This is actually the 55th meeting of the Policy Committee. Today is a very exciting meeting, it's our first of 2014 and we have a new National Coordinator joining us today, so it's a very exciting meeting. So rather than doing our typical roll call, why don't we go around the room and have everyone introduce themselves, I will start with Judy.

Judy Murphy RN, FACMI, FHIMSS, FAAN – Deputy National Coordinator for Programs & Policy – Office of the National Coordinator for Health Information Technology

Judy Murphy from the Office of the National Coordinator.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Marc Probst with Intermountain Healthcare.

David F. Kotz, PhD – Associate Dean of the Faculty for the Sciences – Dartmouth College
David Kotz, Dartmouth College.

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services
Robert Tagalicod, CMS.

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health
David Lansky, Pacific Business Group on Health.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology
Karen DeSalvo, ONC.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation
Paul Tang, Palo Alto Medical Foundation.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department
Art Davidson, Denver Public Health – Department of Health.

Paul Egerman – Businessman/Software Entrepreneur
Paul Egerman, citizen.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation
Judy Faulkner, EPIC.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care
Aury Nagy, I'm a neurosurgeon from Las Vegas, Nevada.

Lauren Wu, MHS – Policy Analyst – Office of the National Coordinator for Health Information Technology
Lauren Wu, ONC.

Jacob Reider, MD – Chief Medical Officer – Office of the National Coordinator for Health Information Technology
Jacob Reider, ONC.

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology
Doug Fridsma, ONC.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology
Thank you. And are there any members on the line?

Connie White Delaney, PhD, RN, FAAN, FACMI – Professor & Dean – University of Minnesota School of Nursing
Connie Delaney, Dean and Professor, School of Nursing at the University of Minnesota.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families
And this is Christine Bechtel; I'm a consumer representative with the National Partnership for Women & Families.

Madhulika Agarwal, MD, MPH – Department of Veterans Affairs
This is Madhu Agarwal from Department of Veterans Affairs.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Thank you. And so for a reminder for everybody, if you could please state your name before speaking as we go about our activities today for the transcription and the recording. And a reminder, when we open to public comment, it is limited to three minutes. And so with that, I will turn it over to our new National Coordinator to make a few remarks.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Thank you very much, Michelle. Good morning everybody, this is Karen DeSalvo, I'm supposed to announce myself. And I just want to thank everybody, first of all, for the warm welcome. The folks I've been able to meet virtually and in person have just been gracious and I really appreciate that. I thought what I would do is tell you a little bit about myself and why I came here to work with everyone and then we can get on with the agenda of the meeting, because I know it's pretty full. Before I forget though, I do want to thank Jacob for steering the ship so ably for the last few months. He's been, as you all can expect, a really great guide and resource for me as I've been transitioning out of my role in New Orleans into DC and seeing him actually in person is so delightful because we've spent so much time on the phone and via email. So thank you for your really capable leadership, we really appreciate that and I'm so delighted to have you back from California to join us today.

So I am a physician by training. I grew up first in Austin, Texas, was raised by a single parent, and had the chance to experience healthcare as a young person through the public system, getting my care in public clinics that were not as consumer friendly as I think a lot of us would like. But I also had a mother who was really focused on making sure that we always had health insurance, no matter what, and that we also took care of ourselves, and so we took personal responsibility. So that's kind of the foundation for the way I think about health growing up and healthcare. I went on to leave Austin to go to college in Boston at Suffolk University. I put myself through school and while was doing that, I was working at the state laboratory institute, mostly for the Department of Health in Massachusetts. It was a really rich experience; I had a chance to not only work in the laboratory environment, but also in policy around HIV/AIDS in particular.

And then was lucky enough to get to go to medical school at Tulane, which was where I wanted to go, and get to work at charity hospital, which I thought was Mecca, and I would get to see and touch and do and smell and everything; and I did. It was fortunately, or unfortunately, depending on how you look at it, the heyday of charity hospital when it was a city that had really essentially no preventive or primary care. And so we had the "opportunity" as trainees and as attendees to take care of tertiary syphilis in immunocompetent individuals, multiple cases. This was, by the way, not in the 50's for the young people in the room, this was between about 1988 and 1996. We took care of end-stage breast cancer; we took care of adults with congenital heart disease that had never been recognized. And I think that was really formative for me, not only as a trainee, but when I went on to do National Health Service Corps there and had a chance to really see patients in that environment. And I realized that though it was a good learning opportunity, it was really not what we should see for any person on the planet, much less in the richest country in the world. Where people shouldn't walk into the emergency department with entirely preventable disease at the end-stage that actually kills them no matter how rich the clinical experience might be for the trainees. And so I spent a great deal of my career working on finding a way to not let that happen.

While at charity doing national service corps, I was also able to be on the faculty and took over the resident training clinic, which was a little bit of a mess and had to be straightened up. We had some problems, for example, with scheduling, so we instituted electronic scheduling. I chaired the Medical Records Committee for charity, and we were looking at electronic health records in the '90s and it didn't stick until much later, but it has stuck now. Then I went on to more academic roles in the School of Medicine as Chief of General Medicine, taking over a department that had been leaderless for a while and putting structure on it. I got into a period of time when I did a fair amount of research, and that's the direction I thought I was going and then I had a visit from – we all had a visit, from Hurricane Katrina in 2005, and that changed my life, for sure, and the lives of many. It was a catastrophic event that killed about 1800 people and flooded a great American city for as much as 30 days. And what it led to was an unexpected opportunity in disaster for many people, sectors, and institutions. It transformed all of us.

And that launched me into a period of my career, which was about rebuilding the healthcare infrastructure in the city. And we had an approach that was collaborative and because all of our institutions were literally closed, we had a lot of time to sit around tables like this and talk and think while we were also scurrying around on the street, handing out tetanus vaccine. And we had a really rich period of dialogue and collaboration that led us to a new framework for healthcare in Louisiana and central to that was the idea that our new system not only had to be founded on primary care and prevention, because that was the smart thing to do for patients. It matters that you have good primary care so people don't die unnecessarily and so that you reduce cost. We did a lot of really great innovative work in primary care delivery and in payment models, but really foundationally health information technology was central to what we were thinking.

And a lot of this was, because as our patients and doctors went into the diaspora in the catastrophe, pieces of paper didn't go with them. And it was, I use this word when I talk about this and I'm starting to be strong in it, but it was terrifying as a doctor to know that I had patients and my team had patients in the world that were on antiretroviral therapy or therapy for communicable disease like MTB or cancer regimens or Coumadin, etcetera that needed to have timely administration of their regimen and needed to have quick follow up. And we didn't know where they were or what they were on and they were landing all over the country on you all's doorsteps. And so that was a really strong impetus for us to not only have electronic health records come into play as we built the new system, skip over putting paper in. And we lost our legacy systems, so the transition was easier, but to how – a system in a way that we had interoperability so that patients' information could follow them as they went, not just in disaster, but every day.

So, I had the chance along the way of this journey to be one of the founding members and President of Louisiana Healthcare Quality Forum, which is the state's designated HIE and we are the REC in Louisiana. I had the chance to serve on the Steering Committee for our Beacon Project in New Orleans, which has led to a lot of culture change on the ground and a chance for those clinics to deliver good primary care individually, these 100 clinics around the area that now do it together with the focus on population health. And I most recently, well I should say that I am still practicing and so I also get to use the electronic health record in the clinical environment. But most recently had the chance to select a system as we're building a hospital through the city of New Orleans East, and that was a really rich experience as the project executive to have to think about the purchasing decisions.

So finally, I just come here; I leave a job that I loved. I still love it, it's only been two days. I was Health Commissioner at the city of New Orleans, my last official act ended at noon on Saturday. And I went and packed my office, turned in my devices and took my boxes home. The next morning I got on a plane and I came to Washington, I started yesterday and I already love this job. I am not a content expert like you all are, and that's no secret, which the Secretary and I have had a conversation about. It is, I think, really

remarkable that she and Bill Corr recognize that ONC is much more than an area of content expertise that it is an opportunity and there's great promise health information technology to be in the leading mix of delivery reform for this country. That is the major next chapter that we must undertake as part of the President's major initiative, domestic policy initiative. That is to see that the promise of health information technology in the clinical interface, for the health systems and for the population and community at large come to fruition and that we are able to not only making care more effective but valuable and we actually begin to see real improvements and health over time. And then also are able to do much more for people in the event of disaster, so we can enable preparedness.

So that is why I said "yes," because I have had some dabbling of it in Louisiana and I know so many people in this space and I'm so inspired and excited by the work that's happening. I'm really looking forward to being a part of a healthcare reform specifically, or not specifically but definitely around delivery, but also seeing all the other ways that we can apply technology to make peoples' lives better in this country. And so with that long-winded introduction, I thought I would just make sure that you all knew a little bit about me and my motivation and why I'm here. And I just want to thank you all for giving me a moment to share that. Thanks.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Well, thank you Karen. We're thrilled to have you here. I know you said you're not a content expert but clearly from your story, you're an expert of the content we need, which is how can we use this technology to reform the health system, which you faced in New Orleans. I first met Karen when she gave a talk at National Patient Safety Foundation and told this exemplary and exceptional story about how they took the opportunity in the face of this tremendous physical catastrophe, to rebuild both the community as well as the health infrastructure for the community, and putting community back into community health. So that was – it was so impressionable, I remember it to this day. So when they announced your appointment, I was really, really excited. I had a brief chance to meet with her yesterday on her first day, her second day in DC, her first day on the job. And just as – I'm so inspired by your energy and your passion around this. And so I know this is going to be a wonderful year in terms of taking the next step with the programs in ONC and to HITECH and we're just happy to be able to serve your interest and your needs. Thank you.

So for today's inaugural 2014 and Dr. DeSalvo's first meeting, we have a full agenda. This is going to be a big year, I think. It's somewhat of a transition year and we're going to make the most of it. So we're starting out with the data update review from CMS and ONC, as we normally do. It's a reporting of the almost inexorable progress that's made literally every month. The addition will be sharing of some of the findings and updated review on, well, what does this technology do for healthcare and for health. So we'll hear about that. Art Davidson gave us a fantastic presentation at the Meaningful Use Workgroup about public health and the public health infrastructure and the standards in support of that. And we got so much out of it, we wanted to share it with the whole Committee, so Art will do that.

Patient matching update, it's – actually the contract was with Audacious Inquiry, which seemed to pick a name for this, because it's an audacious project yet we all recognize that it's so important to getting the records straight and protecting the safety of the patients we serve. So their findings will be much appreciated, and we'll see if we can't make progress in that area. Helen Burstin and Terry Cullen are going to talk to us about the Quality Measure Workgroup's recommendations. We're trying to shift the direction of quality measures to focus more on the future and what we can do with these tremendous systems rather than only what we've had – only using the data we've had in the past. They'll also be talking about innovative pathway to developing new measures.

After lunch we'll come back to hear from the Accountable Care Workgroup. They're a workgroup that takes a perspective of the new models of care, what do we want – what kind of data, what kind of measures do we need from the point of view of managing populations rather than individual transactions. And then we'll close with an update from ONC, both from the policy front as well as the standards front with both Jodi Daniel and Doug Fridsma. Any questions on the agenda? And you had distributed to you the draft minutes from last meeting. I hope you've had a chance to look at those; I submitted some corrections to Michelle already and open to entertain any further discussion. If not, if there's a motion to approve?

M

So moved.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, second?

M

Second.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Any further discussions? Additions? Okay, all in favor, please?

Multiple speakers

Aye.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

And any abstentions or disapproval? Thank you. Okay. So with that, we'll move on to the data review from CMS and ONC with Rob Anthony and Jennifer King.

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

Good morning, I apologize for DC traffic, I literally just walked in through the door, so, I will try to switch gear from road rage to EHR Incentive Program. We're going to do a quick update on the CMS side. As you know, December begins sort of the high point in attestation for us as EPs towards the end of the year and certainly January, February, we're going to see the bulk of what those attestations are. And you'll see that the numbers haven't moved greatly since last month, but we do expect that as we move into January and February, we're going to see quite a bit. So I'll just do a basic update here and Karen, I'm going to ask you to lean a little bit to one side, sorry.

So at this point in time, we're at a little over 436,000 active registrations – thank you, sorry about that. We're at a little over 436,000 active registrations, oh well that's not – this is out of about 527, 000 EPs, 5011 hospitals, so you've got about 532,000 is sort of the universe of providers who are able to register for program at this point. We do include this total for Medicaid specifically and we've been looking at this number that you see over here – do we have a pointer? Yes. These numbers that you see over here with the Meaningful Use Program to date because we are looking at where eligible professionals are converting from an adopt/implement/upgrade payment to Meaningful Use, and you can see that continues apace. The number of EPs who came in in November is about 1400, you can see here on the second large column, about 1400 EPs who were meaningful users in November.

So at this point in time we're close to about \$18 billion in total EHR incentive payments made, that's through both Medicare and Medicaid and over 330, 000 unique providers who have received an incentive payment under either program, either Medicare or Medicaid. So this is both meaningful use and adopt/implement/upgrade. So we have a little over 93 percent of all eligible hospitals actually registered for the program. We have a little over 86 percent of those hospitals having actually received a payment, and of course, the bulk of these hospitals have received both Medicare and Medicaid payments, they are meaningful users. The numbers for registration for EPs is equally as high, we've got over 80 percent of EPs actually registered, and this is the breakdown of where they are registered under the program. That zero that is hovering there actually represents EPs who are registered through MAOs, and unfortunately, this graph rounds them up, it's a smaller percentage overall. And then you can see the breakdown for total paid. There are not as many that have actually paid certainly as there are hospitals, but we're still looking close to 65 percent of all eligible professionals having been paid, and you can see the bulk of them are actually meaningful users, over 41 percent.

So at this point, we've got about 8 out of 10 eligible hospitals that have made a financial commitment to an EHR. We have 3 out of 5 Medicare EPs that are actually meaningful users; 3 out of every 4 Medicaid EPs are participating in the Medicaid EHR Incentive Program. Of course, the participation in Medicaid does not have to be consecutive, so we haven't seen all of them returning after an AIU payment, but we have seen a little over 17 percent of Medicaid EPs actually becoming meaningful users. So we do have 3 out of every 5 eligible professionals who have made a financial commitment to an EHR and, as I said over 336,000 have actually received an incentive payment.

These are draft estimates for December and they don't necessarily represent new, unique users, but you can see if you recall the previous months and what we had looked at, there were fairly small numbers in both of these columns. We're starting to see numbers pick up as we near the end of the year. These obviously in December would represent new eligible professionals who had come in to do a 90-day period. We're going to see the bulk of EPs come in in January/February who are all returners. But we're also seeing, I can just tell you, having looked at some of the numbers, we're also seeing a fair number of new EPs who have come in in January as well to do attestations. So, holding true with trends from previous years, January and February are the biggest months for both new and returning providers.

A couple of things that we're looking at with attestation, and of course, we – for anybody who wants the complete breakdown of what the average measurement scores are, we do have that on our website where we have a full deck with all of that information. But, we are looking now at hospital objective performance, both core and menu, first, second and third year, so this would be 90 days, your second full year and then your third full year at Stage 1, obviously all of these are at Stage 1. And we do have – when we first started looking at these obviously end of the fiscal year October/November, we didn't have as much of the data in before, now we have most of that data in for hospitals and so we can be fairly confident that those numbers aren't going to fluctuate.

And as you can see, the scores from returning hospitals are comparable and if not slightly higher in most of the core objectives, especially we see this in CPOE and some of the recording objectives, recording demographics, vital signs and smoking status. And then menu objective performance is also comparable from first, second to third year. What we're starting to look at now and we will look at just as we look at this previous slide with first, second to third year hospital, we'll start looking at first, second to third year for EPs. We don't really have – we have a pretty small number of EPs relative to the entire cohort right now, so we haven't started pulling at that data to look at yet for returning EPs. But we do have a fair number of EPs at this point in time, in 2013, who are new eligible professionals, so they would have been doing a 90-day period in 2013, and that's been collecting throughout the year and certainly we're picking up more on that. So, we are a little bit more confident in these numbers.

I think there are about 25,000 eligible professionals who are new who are represented in this 2013 bucket. And we're looking at that 90-day performance from the very earliest attestors in 2011 to folks who are doing it now. And you can see that we're seeing in some of these categories, the later that people are coming on, the more they seem to have learned from the wisdom of people who have gone before them and are scoring slightly higher in some of these categories. Again, especially in areas like electronic prescribing and recording areas, but also I think importantly, in areas like clinical summaries, where there was some initial confusion about what should be passed out, who it should go to, how things should be counted and that seems to have trickled down to folks who are starting anew. We see the same thing on menu side where it's mostly comparable. So again, if there is any questions, please feel free to e-mail me about data, but if you want a fuller breakdown of some of the numbers, we do have that on our website as well.

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

Okay, good morning. On the ONC side, I've included a lot of the slides here that we've been presenting regularly over the past couple of months on progress to meaningful use among EPs and hospitals and on progress to 2014 addition certification on the vendor side. I want to touch on a few highlights there briefly, at first, but want to spend the bulk of the time talking about some newly published evidence on how meaningful use is impacting healthcare outcomes. But, just briefly to start off, wanted to piggyback off of what Rob just presented, so take a look at hospital progress to meaningful use across both the Medicare and Medicaid and Regional Extension Center Programs.

And wanted to point out that we're getting pretty close to a nice milestone here with just about 90 percent of hospital beds at hospitals that have attested to meaningful use and just over 90 percent of Medicare discharges at those hospitals. And again, as we have been tracking of what this looks like over time in terms of different types of hospitals, we see sort of the same rate of progress among all hospital types over the past several months as we gotten towards November attestation data. So about 90 percent or more of large, medium and small rural hospitals have now attested to meaningful use and about three-quarters of critical access hospitals and small urban hospitals. And again, on the EP side, we're close to half of EPs having attested to meaningful use across all of the different programs.

And then briefly switching over to the certification update here, wanted to point out a few things that we've seen some growth in since the last time we met with the usual caveat that these analyses are at the vendor level. So what we're looking at here are sort of leading indicators of whether or not vendors have any 2014 edition certified products. And this doesn't tell us whether or not the product that certified is specifically the product that a given provider is using. And it doesn't tell us anything about the timelines that vendors have in place in terms of product rollout and implementation. But again, it's a leading indicator of what types of products are getting certified.

And on the hospital side, as of the end of December 2013, we were up to 86 percent of hospitals that were using a vendor that had a base EHR certified to the 2014 edition, just a small bit of growth over the past month. And again for reference, just included more detail on what that looks like by vendor and by hospital type. And on the EP side, wanted to highlight that we've seen some pretty good growth of the past month. So a few of the larger vendors got base edition product certified, so we're up to 70 percent of EPs that are using a vendor with a base EHR certified to the 2014 edition. And again for reference, some of the more detailed data on the specific vendors in those categories and how the rates look by provider specialty.

But wanted to move in now to take a look at, as we're seeing this great progress in terms of participation in the meaningful use program and adoption of certified products, what's the state of evidence on how that's impacting healthcare outcomes. So I want to talk about two studies that have recently been published along these lines. The first is a new systematic review of the health IT literature that was published last week in the Annals of Internal Medicine. This is a review that was funded by ONC and conducted by researchers at RAND, and it builds on several previous systematic reviews that have been conducted over the past several years. So this most recent review took a look at about 270 new studies that had been published from 2010-2013 and also aggregated that with information from the most previous review right before that. So they reported out of a total of about 500 studies that had been published between July 2007 and August 2013.

And this was the first of the series of systematic reviews to focus specifically on meaningful use functionalities and look at what the evidence is about how those functionalities are affecting healthcare quality, safety and efficiency. So across these 500 studies, the review found that the studies were drawing predominantly positive conclusions about the impact of meaningful use functionalities on these outcomes. So 84 percent of the studies reviewed had generally positive findings about the impact of health IT on those outcomes. And when the authors looked at this across the specific meaningful use functionalities, you can see that pattern hold across the various specific functionalities that the studies had investigated. So one of the important things here to point out on this graphic is that some of the functionalities over on the left, for example, clinical decision support, CPOE and multifunctional health IT interventions, have quite a large number of studies that had been published over this time period and were able to generate quite a large body of evidence of those functionalities. And some of other functionalities around HIE, patient access to health data and other meaningful use functionalities had much smaller numbers of studies published in those areas, so that represents a real opportunity for future research.

So overall the review concluded that the health IT evidence base is rapidly expanding, so since 1995 we've had over 1000 health IT studies published in peer review. And in some areas the evidence is quite strong, so for CDS, CPOE, these types of functionalities, quite strong evidence that concludes that overall on average these types of interventions have effectively improved healthcare quality and safety. Some of the other functionalities that I mentioned while the studies that have been published have had predominantly positive results, there's more room for studies to examine the effectiveness of these types of interventions overall. And another key point was that across the board, reporting in these studies on the context of these organizations that are implementing these interventions and information about how the interventions have been implemented, really was quite lacking in some of these studies. So it's really hard to understand when a study does – when an intervention does succeed or does fail, what are the reasons why. So this is an important area for future research to understand more about how health IT can be implemented to realize value, not just whether it produces value across the board.

And just as a slight compliment to this sort of overall national systematic review, wanted to also talk about briefly some results from a physician survey – a national physician survey that was also conducted with funding from ONC, by the National Center for Health Statistics. This is the physician workflow survey, which asked physicians quite detailed questions on their perceptions of impacts of EHR use in their practice. These results here are from data collected in 2011 and the key take-away is that the majority of physicians reported that EHR use did lead to various types of benefits in their practices and that these benefits were particularly strong among physicians who were using EHRs that met meaningful use criteria, especially those physicians with longer length of EHR experience.

So these patterns are true when physicians were asked general questions about whether or not their EHR produced clinical benefits for their practice, whether their EHR helped their practice function more efficiently and whether their EHR had produced financial benefits for their practice. So the majority of physicians reporting the EHR did lead to this type of benefit and stronger responses among physicians with EHRs meeting meaningful use criteria or at least two years of EHR experience. And we see the same patterns when physicians are asked about specific types of clinical benefits in their practice.

So here we see that about 8 percent, 8 in 10 physicians who are using an EHR that met meaningful use criteria reported that overall the EHR enhanced patient care. And a strong majority of these physicians reported benefits such as helping them access patient charts remotely, alerting them to potential medication errors or critical lab values. But you can see here at the bottom of the graph that other types of benefits were less commonly reported. So about a third of physicians with meaningful use EHRs reported that their EHR had facilitated direct communication with a patient, helped them identify needed lab tests or order fewer tests. And among physicians using meaningful use EHRs, those with longer EHR experience are likely to report all these types of benefits across the board.

So this here likely highlights sort of a mix of two factors, one being that the actual effect of longer EHR experience. So as physicians use EHRs for longer periods of time, implement them more fully into their practice, more likely to report that the EHR is leading to benefits. But this is also possibly capturing a bit of a selection effect here where physicians who are – have longer EHR experience were those that were adopting EHRs at an earlier point in time, and maybe that group of physicians is the group that will be most likely to report EHR benefits over all in general. So the next thing about the survey is that it's actually a panel survey and we're following these same physicians over a course of three years. So we'll be able to tease that out with future years of data to understand for a given physician, how does their EHR experience change over time with more – longer experience with their EHR.

So across the board, just wanted to summarize that I think these two studies show sort of highlight areas for improvement going forward, both in terms of the research base where more research is needed on specific types of functionalities. And understanding how health IT can be used to create value across various types of settings. And also more work in the field in terms of implementation to help physicians and other providers realize some of those benefits that were realized at lower rate in 2011. But overall, quite positive results from this emerging research showing that meaningful use functionalities, meaningful use EHRs are leading to positive benefits on the healthcare system.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Great, thanks very much, Rob and Jennifer. Comments, questions from the committee? David.

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health

I thank you both. I'm really pleased to see the report, Jennifer, your results from the research summarizing the value that the Meaningful Use Program has brought. Something I think we keep wanting to get to is whether having it's having a difference on patient outcomes. So I just put on the list of things to do or maybe you can tell us where we are in monitoring the linkage between the improvements in process that both the physicians and the researchers identified and – which in some ways is self-fulfilling. We've a technology, which was optimized to improve care process, but we don't yet know whether it's making a difference in the reported outcomes. And I wonder if we can link back to PQRS or even the core measures on a routine basis to see if we're seeing the early adopters showing measurable improvements in outcome compared to those who are non-adopters or later adopters.

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

Yes, definitely. I mean, you've hit on a key point, which is in the systematic review there, some of the quality outcomes that were measured did include both process and outcome measures, but the majority of studies in that area were on the process side. So, it's definitely true that the evidence in terms of the specific patient health outcomes is lower in volume and represents a gray area for future work. And I think your point about matching to a lot of the sort of administrative data at HHS is something that I know CMS has commented there's some ongoing work there, so I can defer to them on some of their activities.

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

So we're in the middle of sort of a long-term look at a small cohort of folks, especially looking at hospitals readmissions with EHR meaningful use and looking at some select billing codes that might be high representation – that might be impacted by folks who are meaningful users. And that's ongoing and it'll probably be ongoing for I think it's another 8 months, 9 months, I'm not exactly positive, Rob might have a better idea of timeline. But that's where we're trying to get a look at where the outcome may be affected, it's the closest we have to I think really try and draw a direct parallel to impact from meaningful use right now.

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health

Can I ask, have there been contacts like the RAND example with outside evaluators to start looking at that data?

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

No, at this point in time, there hasn't for us, I don't know if you've got anything –

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

On the OMC side, we do have some of our HITECH Program evaluations so – which are examining the effectiveness of ONC programs that were implemented through HITECH. And one of them in particular is looking, it's the global HITECH evaluation, so a contract that looks across all of the HITECH programs to try to understand how they were implemented in tandem and what their overall effect has been. And that is an evaluation that we'll be looking at health outcomes and the association with HITECH overall using Medicare claims data. So that runs through 2015, sort of a long-term, overall look across the programs.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

All right, thank you. Paul Egerman?

Paul Egerman – Businessman/Software Entrepreneur

First, let me just say Robert and Jennifer, thank you, it's a great presentation, as usual and always like seeing the colored bar charts because they always seem to be going up and so that's very impressive. I have a couple of questions for you Jennifer. First on the issues certification, I didn't see that you had any numbers about any data about the number of vendors who have successfully been certified for Stage 2 compared to Stage 1. But my understanding is the number of vendors has decreased, which is – and there are fewer vendors who are offering Stage 2 than offered Stage 1. Can you tell me if that's correct and if you perceive that to be a problem?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

So on the number side, I don't have the topline numbers at the tip of my tongue right now, but they are, you're correct that there are a smaller number that have been certified at this point to the 2014 edition. One of the things we showed a couple of months ago that we're in the process of sort of updating is that of the large number of vendors that were certified to 2011 edition, it's actually a fairly small percentage of those that were – or about half of them, I believe, were used to attest in Stage 1. And then an even smaller number of them actually account for a quite large number of providers. So you saw here that although I believe it was 10 vendors that were covering 86 percent of hospitals that had attested to Stage 1 and those 10 vendors have 2014 edition base EHR certified products. So although the number of vendors is smaller than the 2011 edition number of vendors, those vendors that are certified to the 2014 edition are covering a disproportionate number of providers.

Paul Egerman – Businessman/Software Entrepreneur

So, it's – am I correct in interpreting what you just said is that there's a smaller number of vendors with greater market penetration, so there's more market concentration now?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

Um, so there's – the vendors with large market penetration are part of the vendors that have been certified to 2014 edition. So, I don't have data to comment on market concentration at this point, so what we're seeing is that the vendors that had a large market share with the 2011 edition have – are the ones that are part of the group that has certified to the 2014 edition. I am not sure if that's fully clear.

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

But it is also true that there are a smaller number of vendors, we know that there are a number of vendors who were purchased by other vendors, products that were consolidated. So you wouldn't not expect the denominator from Stage 1 to Stage 2 to stay the same. So we are seeing in addition to a disproportionate representation by a small number of vendors, you are also seeing some market concentration that is happening as well.

Paul Egerman – Businessman/Software Entrepreneur

Great. Thanks. And really a comment, which is really an observation. The data that you provided about impact of meaningful use functionalities on these studies, the studies go back to 2007, so that's before the Meaningful Use Program was even a glimmer in our eyes, and so I assume then that this is really a study that shows about the benefits of automation as opposed to the benefits of meaningful use.

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

So the studies that were reviewed here were, although they were published – many of them were published before the Meaningful Use Program began, the authors did limit their review to studies of functionalities that were included in meaningful use. So, a study that was published in 2007, for example, that evaluated the impact of CDS on outcomes, are the types of things that were included here. So it was limited to studies that studied meaningful use functionalities, regardless of when they were published. So things that health IT interventions that were not part of the meaningful use functionalities, would have been excluded from the results that I just showed here.

Paul Egerman – Businessman/Software Entrepreneur

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Judy.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

Just to put that a little bit differently, you focused on the things that were in meaningful use but I think another question is, what were the vendors doing that was in meaningful use, even before meaningful use said it needed to be done? And if you look at slide 13, which shows the number of the vendors and the percent, and then slide 19, which shows the effect, then the question that I have is when I look at those vendors and I think about those attributes, most of those vendors already had those attributes already, before meaningful use. So I think we have the question that comes up to us, if meaningful use is, in many cases, taking something that was done way A, B, C and now saying we need to do it way B, C, A.

So in other words, the key component is there, but maybe some of the variations that are asked for are what the vendors have to do to meet meaningful use, then the question becomes, is the way meaningful use says to do it better? Is it worse? Is it neutral? And then if you look at all these features here that those vendors were for the most part doing, what are the vendors not now doing because of the time spent working on meaningful use, but they were doing those things beforehand. So I do think that's a question we have to ask ourselves. And then I think another interesting question would be, how many new vendors are entering the market since meaningful use compared to the number of vendors who entered the market before meaningful use? And has meaningful use's effect been to stop new vendors from showing up, because it is now – the bar is too hard because they are – they can't get a slower start, they have to do all these things at once.

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

So just one thing that your comments made me realize that I should have mentioned earlier, which is a key point in this most recent review is, actually about the growth in the number of studies that have looked at commercial EHR systems. So in the previous reviews, that had been one of sort of the limitations is that most of the studies had been looking at homegrown systems at some of the health IT lead institutions. But in this most recent review, over half of the studies they found were of commercial systems, which I think speaks to the point that they're becoming much more widely implemented and there are many more opportunities to study their effects and to learn more about how these types of functionalities are influencing care in many different settings.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

But I'll still comment that, and I think you're right on that, and we do see that happening. But is meaningful use the time that the vendors have to spend on that, keeping the vendors from being able to be innovative in new areas, which would be good as well?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

I mean, I don't think that's – excuse me. I don't think the answer to your question is known. In previous studies that predate HITECH, only 3 percent were what were called at that time, comprehensive EHRs, that's the closest we have to a meaningful use surrogate. So it's – your point is that some vendors had functions that covered some of meaningful use, but not all and was that good enough? I mean, that's some of the implication of your comment –

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

(Indiscernible)

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

– Really. My point was that every vendor I can see on this list, who is one of the larger percentages, had those or almost all those attributes and is it good enough and – how do you figure out the value of meaningful use if they had them already?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Well I think one of their points is – one of their points is there are more vendors that have the meaningful use functionality and there are more people consum – providers that are using products with that functionality. And so they showed the difference between not fulfilling meaningful use, not necessarily even with meaningful use being around, but the meaningful use functionality, meaningful use functionality plus, meaningful use functionally plus two years and there was this step-wise increase.

Paul Egerman – Businessman/Software Entrepreneur

This is the other Paul and I just want to say, I didn't quite understand that last comment because if I understood Robert's answer to my question, the number of vendors is shrinking from Stage 1 to Stage 2. So the number of vendors offering the meaningful use functionality is shrinking.

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

So I want to say that it is certainly true and we saw at the beginning of the program that a large number of vendors came into the program and came onto the market. So, when you incentivize such a large amount of money and a large number of people participating, we saw a lot of people sort of come out of the woodwork that we had not been familiar with before. And as we are looking at a progress and as the numbers point to, a lot of those vendors simply didn't achieve any market penetration and are, either they've been bought out or they have closed up shop or they are pulling out of the program entirely because the ROI really isn't there for them. So I think we added a lot of people who really had not participated in the EHR arena before, who had come in and then didn't find that their products were used.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Marc, please.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Thanks and this is really – I go with what Paul said, it's nice to see the charts and the charts continue to go up and in aggregate the things that are happening in here seem to be pretty helpful. I guess one point on what Judy was talking about it and Paul, it wouldn't hurt though for us to understand better some of these implications around the company and what's really happening in the market. Are we making it more or less competitive? Is it harder get into it? I think it probably is, that may have been an intended or unintended consequence, but, anyway, as we look forward, it would be nice to start gathering some of that data, but that really wasn't my point, and you're going to know what my point it Rob. It would really be helpful – I mean, we are in 2014, Meaningful Use Stage 2 is going to hit and are we getting any glimpses? I mean we've got lots of anecdotal information that suggests, there's a pretty high bar and people are going to struggle. Are we doing anything to gather any information so that maybe we can get ahead of that game and understand it, from either ONC or CMS or elsewhere? Because it still seems to be a looming challenge that exists out there, even with all the success we've had with Meaningful Use Stage 1. I don't know, so my question is, can we get a glimpse? Is there anything we should be doing or can be doing to really understand what the impact of Meaningful Use Stage 2 is going to be on providers?

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

So we've certainly heard a number of concerns from provider associations, vendors, HIMSS, American Hospital Association, AMA, AFP have all sent letters, it's no secret, to the Secretary with concerns over timeline with Stage 2. So we have certainly been talking with a number of those groups and asking them to give us some information about how it impacts their providers so that we can try and aggregate some of that information and look at what it is. I think there are number of different concerns and actually the issue of it being a particularly high bar to hit doesn't seem to come up as often on the list of concerns or perhaps not as highly ranked on the list of concerns as the question of implementation and timeline. So, I think, and Jennifer can certainly speak to this as well, but the question of what certified products are available? When they become certified, what the implementation timeline is from vendor to provider, so that it allows them to actually plan that into their work flow and achieve a quarter reporting period for 2014 are really the primary concerns that we're hearing right now.

And I think that we're both, CMS and ONC, in something of an information-gathering mode to try and look at that. We're certainly keeping an eye on that, as we're moving forward. But the leading indicators are at least are pointing to a fair amount of availability of product at this point in time. We are starting to get I think on the meaningful use side as people are implementing, more of the direct questions regarding counting an implementation that we would expect when people start going through making this part of workflow. We went through this in Stage 1 where initially there were people who were just sort of, what are the objectives, what are the measures? And then as they actually get into implementing that as part of workflow, they're really starting to get into more detailed questions about specific objectives. So, I at least have that as a leading indicator that people have embarked on the implementation path and we're getting more of that. I don't know if you want to speak to –

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Well but if we assume that AHA and CHIME and you went through the list, I've seen the letters as well, are at least based in some level of fact. I mean, and you're right, I mean, I think the vendors are there, primarily the big ones, in getting the product there. But you talked about the issues, the issues are implementation, the issues are ICD-10, I mean, they're real. And the potential of the charts that we just saw up there being a completely different color if we just measure Meaningful Use Stage 2, I think it's pretty high. I'm wondering how we get any real fact data, because most of this is anecdotal, I mean it's coming from, I think they did a factual survey of their people, these organizations, but how do we get ahead of this to understand what the implications of MU2 might be? And should we do anything from a Policy Committee, to help with that?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

So a couple of data points that will be forthcoming in – at the end of this week. The National Center for Health Statistics will be publishing updated EHR adoption rates on the physician side from their National Physicians Survey, including some information on adoption of Stage 2 related functionalities. So this is a survey that was conducted in early 2013, so it doesn't necessarily capture the current state of the landscape now, but it's one data point that we'll have to inform some of these conversations. And on the hospital side, the American Hospital Association Annual Survey in their Health IT Supplement will have similar data that will be coming available probably February-March timeframe. So that will offer some sort of national picture on sort of hard data in terms of current adoption rates of those types of functionalities. And another thing, in terms of more information on the barriers facing folks on the ground, at ONC we've been working closely with the Regional Extension Centers to try to get a more systematic understanding of some of those concerns as well, and the providers are working with those groups. So we'll have some of that forthcoming as well.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Yeah, that will be great, thanks.

Robert Anthony – Health Insurance Specialist – Centers for Medicare & Medicaid Services

And then we're doing – we do some physician readiness qualitative work that we have generally used to plan for messaging in sort of an estimate of the landscape, if you will. It is not quantitative, that obviously requires going through an entirely different process as a government agency, but that'll at least give us some sense to preparedness for people as well.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Okay, thank you both.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Thank you. Rob Tagalicod, then Christine and then Devin.

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Just a real quick comment. I won't repeat what Rob, the other Rob, and Jennifer have mentioned, but I think what we've moved clearly into is getting real – close to real-time intelligence in order to do a kind of agile move here and there as to timeline readiness. And this is not simply done in a vacuum, it's just about meaningful use. I mean, we work together on looking at ICD-10, as someone mentioned, all the quality initiatives and innovation initiatives out of CMS and then some, and they all have different timelines and all involve HIT with all their statutory requirements. And so the question for us is, as we gather the intelligence, how does that really impact the provider, large and small? Because one of the things that we are also needing to tend to and what we promised at the HIMSS 13 was, we would not – the phrase was, we would leave no provider behind, that meaning largely the rural and smaller providers. So that weaning, and that's my word, the weaning of vendors, what is that effect as well? So I think all this comes to the policy discussion that I think begs to be answered and discussed in this forum and other forums, but primarily in this forum.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Thank you. Um, Christine?

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Thanks Paul. So Jennifer, I had a question about your last two slides and want to start by saying thank you very much for giving us an overview of the research, it was helpful. So I'm perhaps not surprised that the last you know benefit on the list is the facilitating the direct communication with the patient. And I wanted to know if you could speak a little more to what that means, I wasn't sure if it's online access or you can imagine reminders or secure messaging, lots of different functions in there, including potentially just turning your screen around to show a bar chart or something. So, I wasn't sure exactly what that meant and why it's last on the list? I could imagine a couple of scenarios like it was online access in Stage 1 was a menu item or maybe it's an implementation issue, which we see commonly. So I just was wondering if you could shed some light?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

So in terms of this data point specifically, this was the survey question, unfortunately, so we don't have a lot more specificity on what's – for the physicians who answered yes, what types of functionalities they were using to facilitate that communication. And for the physicians who answered no, why not? But that is something that will be also in the new data that will be coming out at the end of this week is information on the latest adoption rates of some of those types of functionalities that you just mentioned, so secure messaging, online access for patients. So that will shed some more light on sort of the number of physicians who have those technologies in place at this point, which might provide some context around these types of answers here. But unfortunately the survey question wasn't any deeper than what's shown here, to your specific question.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Thank you. Can you remind me again the study period would have covered most of Stage 1 or was it also including some pre-Stage 1 or – ?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

Conducted in 2011, so would have been early in the game and adoption of those types of functionalities would have been lower at that point in time than it is now.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Great, thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Devin.

Devin M. Mann, MD, MS – Assistant Professor – Boston University School of Medicine; Attending Physician – Boston Medical Center

First, it's really wonderful to see CDS research being used in this forum, having conducted some of it, it's really nice to see it being used to frame this conversation. My only kind of caution note is that I'm cautious in making associations for MU2 and MU1 with that type of research, having par – for example, we did a series of clinical decision supports for upper respiratory infections. And a couple of colleagues did similar ones within that time frame and some got essentially zero percent uptake and others had 75 or higher and really came down to what you had noted about the lack of understanding of the implementation. So the functionality was there in all these systems and it really wasn't that different, what we could do, it's how we chose to do it.

And so that 50 percent number you have about positive outcomes is, I guess, a good signal, but I really caution us over-interpreting what that means because the functionality itself had very little to do with that summary number. And I guess when you're thinking about this next stage, if you are hire RAND or whoever to do it, I mean that's really what we have to understand is how are people doing it and what's the difference between why it works in one place and not the other.

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

I mean I would definitely agree with that last statement there and would encourage all folks out there who are doing research on this. So this review focus on quantitative studies, so ones that tested hypotheses about the effect of these types of interventions. There are many of qualitative studies out there that do collect a lot of really rich information on the implementation factors, but there tends to be a disconnect between incorporating that information into the types of studies that we can really draw a generalizable conclusions about how effective the technology is. So really important to incorporate that into those quantitative studies going forward.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Judy?

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

Just real quick, I think that's a very, very interesting chart you have up there, the percent improvement if they didn't have a meaningful use EHR is 69 and it's 79 if they do. And what it brings us to then is the question – and then if you add in there in that 10 percent – in that 10-point difference, the things that the meaningful use EHRs already had, even before meaningful use required it? The question is to spend the money wisely and the time wisely, what are the things that make the most benefit in that improvement so as we do things we can make sure that we're doing those things that are in fact truly the most valuable.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

It's something we certainly strive for.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

And is it more standardization of vocabulary and interoperability and the things that cross vendors?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

So I want to express the appreciation of the Committee for both of your reports. You can tell in this data-hungry Committee that they – that that information is warmly received but also thank you for your answers in the sense they we – I think were very true to the study and what they say and what they don't say. Some of the questions that are being asked I don't think are answered, and you accurately answered that. So we appreciate it, we appreciate the fact that there are still going to be annual reports, like you talked about the AHA and the NCHS information will keep providing more insight. You did mention, and the implementation question came up, is ONC or CMS funding any studies or you're basically trying to encourage people to work in that area?

Jennifer King – Research & Evaluation Branch Chief – Office of the National Coordinator for Health Information Technology

I mean at this point yes, encouraging, and there are other federal agencies who are funding health IT research and certainly interested in that type of question as well.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

And you have the work of RECs and the experience there that you've reported on in the past. So thank you very much and look forward to hearing from you next month. Okay, next on the agenda is Art Davidson and Jim Daniel to update us on work going on in the public health sector and the data support of that.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Good morning again, I just want to thank you for the opportunity to present where we are in public health and how it relates to our efforts here in the Committee. I want to thank members of ONC and CDC and the Council of State and Territorial Epidemiologists, because they've contributed a lot to this presentation today. Here we go – so the agenda today, what I'd like to cover are three areas, want to just give you a little background of where we are in Stage 1 and population/public health, meaningful use measures and talk a little bit about the public health efforts regarding Standards and Interoperability Framework components and how we're relating to that. And then finally just give a glimpse of the readiness of public health for Stage 3 Meaningful Use.

So, this is a slide that I prepared with data from last month that Rob had presented, and I think this is a more accurate representation, this right hand side here, is that being a meaningful use menu objective, the hospitals and eligible providers can do any of the three. And it looks like we're not really achieving very high levels if you look at any one of the three. But if you look at all that have met at least one of these measures, you see that measure – that sum is nearly 80 percent and I'll show you a map of that across the country. So we're doing quite well, I think, in terms of the meaningful use menu objective in public and population health. Those three items that were on Stage 1 were immunization, electronic laboratory reporting and syndromic surveillance. And I'm just going to give a little background on where we are with those.

So immunization, there's been a new implementation guide provided that moves us to now to version 2.51 that was published back in August of last year. And that has allowed the providers to really make much better progress in meeting this menu objective. There's a test criteria available for improving interoperability that ONC has provided, public health is now accepting certified product data using HL7 and in 2011, it was only 58 percent, it's moved up to 77 percent in 2012 and it's even higher yet in preliminary results for 2013. And then the next version of the implementation guide for immunization is about to come out next month and that will include items such as bidirectional exchange of information, including the history of immunizations provided, and to give the forecasting, what is recommended for someone to be giving to a patient when they see them. So, the immunization program has moved along quite well.

Electronic laboratory reporting I think has also moved along quite well and it has a new implementation guide that's to be published also next month. Its available now to HL7 members, but that will be available to the broad public next month. And finally in syndromic surveillance, CDC has set up, with the Association of State and Territorial Health officials, a site where many hospitals around the country are now sending their data, called BioSense 2.0. So there's a central site where you can send your data and not have each of the states have to develop this infrastructure or each of the cities as well, develop this infrastructure. And I can say that my organization is participating in this and the Public Health Department in Denver and several, as a matter of fact 35 across the country have been promoting this through grants from the CDC. So, we've made a lot of progress in all three of these areas. You can see in this map that it's mostly dark, dark's good; that means that mostly eligible hospitals have been able to provide at least one public health measure, just as I showed in that earlier slide. You can see a few gaps across the country but generally, I think the trend is quite good.

For electronic laboratory reporting, I think this is a good example of how public health has been adhering to standards. They've consistently made efforts to abide by the standards and in turn minimize the impact on clinical partners. Some evidence of that has been that the ELR release 1, this first version that was provided was based on HITSP standards. The release 2 is currently based – which is addressing Meaningful Use 1&2, is also something that is based on standards. And I think that this pattern of adherence to standards is something that bodes well for Stage 3, the items that we'll be talking about as we move forward.

This is the portfolio snapshot that Doug's team prepares and sends out monthly. And I just wanted to point out there are five green arrows on the left-hand column pointing to five areas within the portfolio that ONC is developing, that public health is trying to leverage for public health. Many of these are working for clinical activities, but here we're trying to use them in our public health approach, and I'll go through them on the next slide; I know it's a little bit small to read. So a key principle for public health in Stage 3 is that we want to adhere to these Standards and Interoperability Framework components wherever feasible.

So the five that I pointed to there were Consolidated CDA, that's a way to send a standard message; query health, a way to perform population-based queries; structured data capture, a way to have a standardized form that would then allow the clinician or the hospital prepare standard data back to public health. Health eDecisions, a clinical decision support system that allows us to set triggers for public health screening or to collect data. And finally the data access framework, which allows us to query data, one at a local level, two to target at organizations, and three a distributed query across multiple organizations, and I'll give some examples of that toward the end.

So, in Stage 2, one of the new things for Stage 2 is that there'll be cancer reporting. And I think that this is something that the cancer registries were ready to do, but one – now that cancer reporting is available, they're thinking about Stage 3 and what would be appropriate for Stage 3. And there's a new implementation guide for cancer reporting, preparing us for Stage 3 where we would then use that transitions of care document, the structured document, the consolidated clinical document architecture to allow us to prepare documents for cancer reporting. EHR vendors are required to prepare this document in Stage 2 Meaningful Use, that would – by using this, it would eliminate – or moving to this standard allows us to eliminate any burden of reporting in several different formats. And the CCDA is now being harmonized to improve the templates that will allow us to collect data from multiple sources. And the program itself is saying that it's ready to move forward with this new standard.

So, given all that the cancer programs are working toward a Consolidated CDA and they will be aligning their implementation guides with the CCDA sections that has not been done already. They're now preparing a new document level template called the ambulatory healthcare provider cancer event report. They're now answer – adding a cancer diagnosis to the CCDA. They're going to be performing a gap and overlap analysis in the near future and then finally getting to an HL7 balloting process, and the timeline I've provided there at the bottom of the slide. So that's for the cancer group.

Here's just a general summary of what's been going on from Consolidated CDA within public health. There have been several pilots that have been conducted, we don't expect that all programs will move to the Consolidated-CDA. The programs that I mentioned already, the immunization program, the electronic laboratory reporting and syndromic surveillance will stay at the level that they're at, but moving forward, several other programs are already anticipating a move to this new structure, leveraging what's going on within the S&I framework. So there have been three pilots, in New York State, San Diego and Delaware testing messages around pertussis and tuberculosis, that was in 2012. In 2013, early hearing detection and intervention, two tests were done in North Dakota and Oregon, and as I mentioned, the cancer program is going to be happening, their work is going to be happening in 2014.

So just to give you an idea about how some of this is working with the CDC colleagues in the Health Quality Program. CDC is the owner of knowledge. That knowledge sits in the upper box on this slide and then the users of that knowledge are those that reside in the lower box in this slide, the healthcare facilities. And what CDC has done in this healthcare associated infection example is that they are providing data, knowledge, to an EMR, EHR that allows the healthcare facility to prepare a report to be sent on in a standard format, back to the National Healthcare Safety Network. NHSN. Currently, there are, I think there is 12,000 reporters to this system, this network. About 1000 of them are hospitals that are using CDA documents currently. So we have about 300,000 reports being sent to the CDC every month and about a third of them are being sent in the CDA format. So that I think the public health community has embraced these standards, the way that we can send information in a common format. But we've also begun to embrace this idea that the CDC can send knowledge that the EMR can use, triggers that say, here's this type of event, we should prepare a report and begin the process of preparing that report. Where in the lower left-hand side they're using the EHR, using the pharmacy, using the registration system, the ADT system and the laboratory, to prepare information that would then go into this clinical document architecture report that is then sent on to the NHSN.

Here's a little recap of what happened in those other CDA experiments, or pilots, that I described, using clinical document architecture and structured data capture. In this example, the provider sits on the left-hand side and the public health department sits all the way on the right. And what happens is that there is a service that sits in the middle, it could be the public health department, it could be a health information exchange, it doesn't matter. It's a service that's providing information in the lower left-hand side where the EHR knows that a pertussis case occurred, it requests a structured data capture form from a form manager in the middle there. It also sends over some population – some data from the EHR that prepopulates the form.

That form is then retrieved, it comes back to the provider, it may come back in the form of actually a form being represented in the EHR, it may be a URL that goes to the provider that then can click on the URL and fill out the form in the health information exchange or in the public health infrastructure. But the form is then populated with additional information, was the patient treated, who were the contacts, etcetera, that would be pertinent to a pertussis case or tuberculosis case, as I mentioned these several pilots. But in the center there, the important thing is that once that report is now completed, a CDA is then sent on to the public health department, so the public health department is ready to receive that information. I think that's our goal is to get public health departments prepared to receive that. And as you can see, there were five health departments that were able to do that in these several examples. But the community is definitely getting itself prepared, following up on these pilots.

Another set of pilots that have gone on have been these that occurred in New York City and Wisconsin where using an electronic medical record, in this case it was EPIC, where they were using a testing environment that EPIC prepared. They were able to do the same thing directly with the EMR. So here we've – the key outcomes of these studies, as pointing out on the upper right is that we're shifting again to use this public health case report in a standard format. This is very lightweight, it's – the belief is that this will be something that many EMR vendors may be able to leverage in this standardized method of retrieving knowledge from a source that maintains it, and then allows the EHR to leverage it within its own environment. Or for the provider to access this middle environment as I showed on the last slide and then it's extensible and portable. And the key thing here is that that form service that we described earlier is something that each health department can manage and provide that form service. Either in its own jurisdiction or it could be managed on a national level where each jurisdiction would go to a central site, a web service that you could say, these are the forms that I use in my jurisdiction, these are the forms that you should use for these reportable cases. So it's creating an environment where EHRs may access knowledge and then use it and provide it back to the provider to complete case reporting.

So there's a structured data capture group that's working this public health tiger team that is convening to work within the public health community to continue these structured data capture pilots. Some of them that are proposed are around cancer reporting, notifiable disease case reporting and early hearing detection and intervention and we hope that this will proceed swiftly in the next year. Just to show you how that works, again just to recap. There is this forms repository, lives in the lower right-hand side of this slide, where clinical data elements are defined, a form is created, an EHR requests the form using C-DISC methods that have been described for several years now. It would then provide that back to EHR and send the information through several mechanisms, we see case reporting at the top, electronic laboratory reporting, cancer, CDA, others that might be developed sending it off to public health.

So, moving onto one of the other S&I Framework components is Healthy eDecisions. And here there are several use cases that had been defined, but up to now they've only really worked on one, which is a standard format for sharing this clinical decision support knowledge. And that could be in rules, and that's what I'll focus mostly on; it could be order sets or it could be documentation templates. And the goal here is to have the clinical support knowledge authored in a standard format that can be imported and used in any EHR system. So in this example here, it's the middle section that we're focused on, we're not trying to do what was on the upper left or upper right, it's that middle section is about consuming this knowledge artifact and that will be the – to establish when an event has happened to send in a report, like a positive lab test.

So here's just a summary of some of the pilots with have gone with use case 1. And the main one that I want to focus on is that – the one that's circled there, this reportable condition knowledge management system that was used in San Diego in the pertussis case that was described earlier, with a different vendor this time. This time it was Allscripts. And just to give you an idea of where we're headed with this reportable condition knowledge management system. CSTE, the Council of State and Territorial Epidemiologists and CDC have gotten together and defined what are the tests associated with any one of the 60 + reportable conditions that are – there's a variation between jurisdictions, but generally there are about 60 conditions that are reportable. And those have been established and now are in a table and in a knowledge management system that would be in that orange box in the upper right. And there's a way to use that information and provide it to – there are three ways actually to provide that back to the clinicians or laboratories or hospitals on the left hand side of this slide. And I am sorry, I'm going to have to read it here, excuse me.

So, you could download the file, you could open the file and see it in the cloud or you could open the file and have it locally deployed. There were those three options represented on this, so we're not saying how that needs to be used, we're saying there are a variety of ways that EHR vendors could use it. But the main thing is that there's one common place where public health has decided that all of the information and knowledge be stored and could be accessible to the providers. And that information, in the upper central section, is maintained by public health at the state and local and territorial level. So all of that is contained in that reportable condition knowledge management system, where this system provides feedback to the end user and allows them to complete these case reports using Health eDecisions or a version for public health.

So regarding the meaningful use registry participation in Stage 3 that we are proposing, we now have one of three potential methods that any registry participant might use. You could use the standard message, a standard Consolidated CDA for early hearing detection intervention, for cancer or healthcare associated infections, as I described. A second method would be a more population-based approach to this registry, so it's not about a specific event where we're just trying to report, here was an HAI and here's what we're trying to let you know about HAIs. We're reporting on a more broad level about high priority conditions.

So, obesity; for instance, in Denver we're trying to create a BMI registry, we don't only want to know who are the obese people, we want to know who the people who are obese among all the population, and we need to know everybody's BMI to be able to say, where are the spots where that's highest. Or, where is hypertension more prevalent or where is hypertension controlled less prevalent, things like that. So that would be a modified Consolidated CDA that limits the amount of information to just the amount of information to allow me, as a public health official, or my community organizations to look at this and say, here's where we have a problem. I don't really care your name, I just want to know where's the area that we might be able to do some intervention more effectively on a population level.

And finally the last method is this – there are some national networks, for instance, the FDA Mini-sentinel or DARTNet Institute, both of those have these federated query tools that allow us to ask questions, conduct postmarketing surveillance for drugs and adverse events that might occur from those. And then there are a couple of other local networks that I want to just focus on at this moment, is the Primary Care Information Project in New York City and a couple other federated query efforts going on in Massachusetts. So before I do that, just to give you an idea, here's the – once again back to that S&I Framework components. The data access framework on the left hand side is looking at a local physician or provider, clinician, asking a question of their own organization. In the middle it's asking a question of another organization from one official, one provider to another provider. And lastly is this distributed query where a public health department might ask of information from several or multiple organizations in a community.

In this example here, these two examples on this slide, in the upper left is an obesity prevalence in New York City. Here, using that Primary Care Information Project, they were able to establish that there was from about 2500 providers in New York City, this project is called the HUB, they're able to aggregate data across the city for, I think it's over two and a half million individuals, and then ask a question like where is obesity prevalence highest. You can see in northern Manhattan, there is a section there that's red that describes an area of increased obesity prevalence in this pilot. In the second example here, this is Atrius Health with about I think it's 16 or 17 community health centers across Massachusetts, they're able to collect information on the number of flu vaccinations given and the number of ILI visits in this several year, I think it's 3 or 4 year interval that are represented on the slide. These are the types of population-based studies that you could only get by aggregating data across multiple providers, you wouldn't be able to get the image from one provider alone. It's really looking at this population perspective that we're trying to achieve in some of this registry work that we're looking to have in Stage 3 Meaningful Use.

So, a few conclusions here; in terms of Stage 1 population/public health meaningful use measures, I think 80 percent is advancing pretty well, and I mentioned that there is lots of progress being made still in those three primary areas – target areas. The public health efforts regarding Standards and Interoperability Framework components, I think you can see from the presentation I made that we are adopting them, we are testing them and there's been significant progress and I think we can expect that that will continue in the next year or years.

And then finally I think that in Stage 3 Meaningful Use measure readiness, given that those S&I Framework components and how S&I Framework components are key to clinical care as well as population health, I think that bodes well for our ability to make public health both ready and capable of using the information that would be received. I do want to state that I have presented pilots, this is not a complete end-to-end testing and we have some work to do yet. But I think the time is sufficient for us to complete those in the next year and hopefully before the time that any vendor would have to begin to build to the standards that CMS might promulgate as part of the Stage 3 Meaningful Use rulemaking. So, I don't know Jim, do you have anything you want to add?

James Daniel – Public Health Coordinator – Office of the National Coordinator

I think that was great, we can move to the discussion.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Okay. Well thank you for your time.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

We're good. Thank you Art. Questions from the Committee? Maybe I'll kick off with one. So you talked a lot about the fact that we can, should and have done some of these transmissions in what you acknowledge to be pilots. What are the barriers between pilots or 35 states and 50 states and territories and getting there? And how do you think we'll overcome those barriers?

James Daniel – Public Health Coordinator – Office of the National Coordinator

Sure. I think some of those barriers are really making sure that we have completely defined the standards. Some of these – the work that was done around structured data capture in the pilots that we saw in Wisconsin and New York City, for example, were based on an IAG profile, while we're waiting for the structured data capture S&I Framework to come up with its final implementation guide for how we would do it with structured data capture. So I think as long as we can all get to the point where we agree on the standards that we'll be in good shape. And we're building on these standards that will work not only for public health for structured data capture, but for all of the other use cases for structured data capture as well, like clinical research. So I think the S&I Framework for SDC is moving forward quickly with implementing those implementation guides and as we all agreed to follow them, I think that's going to be what gets us from having this work in a few select pilots to working across the country.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Karen?

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Thank you, Paul. Well Art raised this issue earlier about the ability of the state and local health departments to receive the data and I suspect that's going to be a pretty big barrier as you rollout. States I think will have a much easier time, but in – if it's centralized, but in states where they have a very federated type of public health model, where local health departments have principal responsibility for surveillance, I'm imagining their data infrastructure and their capabilities will need some support in order to make that happen. And just a comment if I could. Obviously I think this is really exciting and I have a question about how going back you made determinations of what you would focus on. So I see some important surveillance opportunities for outbreaks, I see starting to think about winnable battles like obesity. When you sat down the CDC and – did you take a look at the cost impact of what you would address in the public health framework? And my second part of the question is, is preparedness on your agenda in any way?

Oh, and I have a third comment, if I might. What you mentioned Art was just that for public health it's not a population that they serve, it's actually the public, which is everyone. The population, you could say and define it, those being cared for by an ACO. So they might users of a system and identifiable if they came to care for any of these litany of issues. But if they don't come to care, as you mentioned, we also still need to know about them for a variety of reasons. But if you're going to promote and protect the public's health and overall reduce the cost of healthcare, I think finding folks earlier really matters. So encourage us to think as you are already, more about how we bring the entire public into the information in the HIE, not just those who are using the healthcare system; so leveraging schools, leveraging social services infrastructure, etcetera, to find all of the populations.

James Daniel – Public Health Coordinator – Office of the National Coordinator

I can answer some –

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Yeah, sure.

James Daniel – Public Health Coordinator – Office of the National Coordinator

So one of the things that we realized as we talk to CDC is exactly what we brought up, making sure that we're addressing the right questions. And one of the things that we're moving forward with is developing a sort of an overall S&I Framework specifically for public health that doesn't focus just on the specific initiative, doesn't focus on the functionality. But having a Tiger Team that brings together public health to really focus on the business problems and then apply the appropriate technology back to the business problem. So that's something that we'll be kicking off within the next month, because after our first few conversations that we had with CDC, we came to that same conclusion that you came to, that we want to make sure that we're addressing the right issues. So that is a Tiger Team that is currently being developed.

I'll answer the preparedness question, too and then I'll turn it over to you. We actually have recently had some discussions with ASPR, the Assistant Secretary for Preparedness Response, who brought to get us some use cases that actually fit very nicely within some of the S&I Framework initiatives as well. The data access framework for some of the mobility of data, clinical decision support around influenza, making sure that people understand what's going on in their community as well for influenza. So we have some really great use cases that we're excited about working with ASPR around preparedness as well.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Can I just do a quick follow up and the Chair's prerogative. We – I knew that and so I wanted you to make mention of it. I've had the chance to work with Dr. Lurie in New Orleans using claims data to identify those at high risk from power outage, and we did a pilot last summer. I know there are some states like Washington that are already using their information in their multi-payer database to identify those at high risk. So it's really powerful and important and one of our big responsibilities to make sure we can find those who are going to most need help in the event of disaster.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

I totally agree with the intent that you are describing about looking at people who are out of care and not currently accessing the healthcare system but need to. Unfortunately most of the effort of this Committee has been, or maybe it's fortunate, I don't – our focus is on the HER, that's the lever that we have. In our community, we definitely would like to be able to look at linking with schools, social services, but that's out of the purview of this. And I don't know anything more than trying to get the standards established, so that we can have communication with schools, we can have communication with community partners like Quitlines that we can communicate in a way that allows the EHR to consume data from outside. That's been something that we've discussed as a Committee informally, but not really been something that we've been able to target as part of our mission. Because we're so much about HITECH and not the other members of the community that would definitely influence the status of the health of the population.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

I'm sorry, I'm new to this, but you are able to look at the HIE in addition to the EHR, right? So –

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Sure.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

(Indiscernible)

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

I'm sorry, yeah but –

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Rob did you have a comment on this?

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

A real quick comment. So I used to work at HRSA and the National Health Service Corps so I think HRSA has also, not only just CDC and CMS, an ability to work with some of the other community members that I think you're talking about. So that's a direction that we as feds, and the industry are going to take. I think we can leverage those partners as well, so just as a thought.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

David Lansky?

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health

Thank you, Paul. Art, really very interesting for me and I'm thinking about it less in the public health lens and more in the quality measurement lens, and I just have two questions that maybe you can answer. There's a parallel between quality reporting and public health and they're both trying to serve the overall public and look at overall patterns of quality of care and make data available for general use. And the quality measurement system tends to be a free rider on the back of the infrastructure that has been built by – for other purposes. And I'm wondering if you've thought about whether the quality measurement activities could leverage the developments you described today. I was thinking particularly about the cancer example and whether the movement towards standardization that you described in cancer reporting could be considered an input to the quality measurement generation that Helen's going to be talking about shortly. And we could work on a new measure – new set of e-measures building upon that data, that's one question.

The corollary is, back to the universality or the implementation question Paul raised, in both cases ideally you'd like to have universal availability of data across the whole population. And I wonder is it realistic in any – in the timeframe, take cancer example, what's the likely pace of adoption of the cancer standard in certified EHRs that would then be generating enough data to service a quality measurement activity?

James Daniel – Public Health Coordinator – Office of the National Coordinator

I think I can answer more generally and then you can answer for cancer.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Sure.

James Daniel – Public Health Coordinator – Office of the National Coordinator

I'm really excited that you brought up the issue of quality measures and population health or public health because we do see some really nice synergies there. And New York City is actually moving towards a model where they're using the data warehouse that they've developed for quality measures to really help with their population health measures as well. And one of the things that that's allowed them to do is bring in a much larger provider network, not just limiting the data to the PCIP providers, but working through the HIEs and being able to aggregate quality measures. They've actually been able to bring in much more of the population. Michigan has a very similar model where they have a data warehouse for quality measures that they're very interested in making available to public health as well. So as we look at these potentials for getting population health measures for public health, alignment with the quality measures is a really great idea and it's definitely one that we're exploring. But for cancer, I'll let Art –

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

So my understanding is that this cancer CCDA work is pretty far along and that the opportunity would be there for us to consider a quality measure along that line. I mean, we'd need to speak with the cancer community and make sure that they know what that quality measure is they contribute to it. But I think that the feeling is that the cancer registry has – its decades of experience in building registries, I think they know what they're quality measures are, now to see is it possible for us to measure that through the EHR itself.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Thanks. Neil? Last question.

Neil S. Calman, MD – The Institute for Family Health – President and Cofounder

This is more a comment than a question, but, we're always talking – we always start by talking about standards in collecting data, but I think it's really important to get the stories out there about where the data has been useful and actually has changed outcomes somewhere. Some things that have been done with it, because especially I think we're all sensitive to the fact that the public health departments need additional resources in order to be able to do the work that they're going to be asked to do. And I think in order to do that, in order to get that kind of motion going that we need to start telling the stories about where all of this information that we're collecting has actually made a difference in people's lives.

And, so that's one point I wanted to make, and I think if we can start getting some of the stories out, it would both help us focus on where we need to put a lot of energy. Because we collect tons of information and then people say, so what do you do with all this information? What are you doing with all this cancer information? What are you doing with all this information about influenza? I mean we get charts all the time showing that it goes up and it goes down and when it went up and when it went down. And I look at them and I say, that's interesting. So where's the – we need to get the stories out about how that information actually impacts something in order, I think, to get the resources into this. And the second piece I just want to throw out is that we're thinking about the feedback to the provider community but through patient portals the question sort of comes up about how we can sort of move the information all the way back to the patient? Through either HIEs or through the electronic health record, through portals, how do we get the public health information back directly to the patients?

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

So let me give you a little glimpse of what we're trying to do with the BMI data in Denver, and we're not there yet, but this is where we're headed. We'd like to prepare reports for three audiences; one is to a public health official, another is to community organization, the last is to the individual. So at the population level that report that we saw of New York City is something of interest to a public health official or to a community organization. We're now trying to figure out, okay now I know a person who has obesity in this community, what are the resources that I could give an example to the provider? Right now the provider sits with an obese patient and says, you should exercise; doesn't really put it in the context for the patient. The patient should know more than just say, I should go out and exercise. Could I provide a map that says if you walk this distance at this rate you'll burn this many calories, a map around their house, a map that describes where the rec centers in their community, where the Zumba classes they can take in their community. How can we contextualize it to be valuable at the point of care where the provider can then reinforce that message, I think that's what you're talking about Neil. And that's where we're trying to look at this.

I think there are other stories that we could tell about all these data, going back to the question that Dr. DeSalvo had about preparedness. In New York City I know they've used their syndromic surveillance system to identify areas where people are at risk for heat stroke and where there are increased incidence of presentations of emergency rooms with that. We recently had, in my community, a concern about a synthetic marijuana – tainted synthetic marijuana that caused about 300 admissions to hospitals in our community recently. We're trying to look at that through the preparedness syndromic surveillance system. So, I think you're right, we need to tell the stories, we can't just keep collecting them, but this group here is about how to collect the data so that we can tell the stories.

James Daniel – Public Health Coordinator – Office of the National Coordinator

I'll just reiterate what Art said and I will let you know that I am working very closely with all the professional organizations, the Council of State and Territorial Epidemiologists, the National Association of Cancer Registries. I pose that question to them every time I talk to them, so that is very much on their mind, they're very much thinking about that. We've been very focused on process measures but we really need to make that leap, I think, and start thinking about the outcomes and the stories that we can tell. So, those communities are thinking about that.

And for the consumer engagement piece that you brought up, I did want to mention that we do have some pilots actually going on this year that are very exciting and around immunization, where we are funding about five states to have consumer access to immunization registries. So the parents and adults as well, I mean, healthcare professionals need access to their immunization records as well to go and work. So that's a pilot that's getting started. It's based on a lot of successful work that we actually funded through our HIEs in Indiana and that Louisiana has actually done as well, around consumer engagement for immunization registries. And along with that we're actually developing a way to provide all of that immunization clinical decision support as a service through our Health eDecisions. So, I don't know, everyone's probably aware of how complicated the forecasting rules are and in Jacob's shop we're actually – we have a project with immunization registry to move all those rules into an XML format for Health eDecisions.

Neil S. Calman, MD – The Institute for Family Health – President and Cofounder

That's great. Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Well thank you both. I think it's a very important topic and I especially like the metaphor that Art talked about in terms of personalizing public health and makes it actionable and Neil's request for stories to help people understand how we could eventually use this information. Thanks very much. Okay, we're next going to go to the Audacious Inquiry results and Lee Stevens and Kate Black are going to talk to us about that.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Audacious is, of course, the right word for this area of work. Just for clarification, both Kate and I are ONC folks and we did contract with Audacious. But, I'm going to let Kate start and just give a little background on how we did this and then I'll walk through some of the findings.

Kate Black – Office of Policy and Planning – Office of the National Coordinator for Health Information Technology

So good morning, I'm Kate Black. I work with the Office of Policy and Planning. I did want to do a little bit of level setting and let everyone know where this project fits into our broader and larger patient matching work and the trajectory of work that's been really ongoing since 2009. So we started this work in 2009 with a white paper from Regenstrief, as a result of that, we talked internally about what we were doing and really tried to get this work going forward. In 2011, we had recommendations from this fine committee that included five large pinpoints; they were standardizing data in terms of demographic information, internally evaluating patient matching accuracy, improving the accountability, creating best practices and supporting the patient's role in better patient matching.

There was a Standards Committee set of recommendations that implemented specifically the first of those, and with that, we really began to ramp up. The industry kind of took this as a call to arms and has been doing some very important work. In 2012 and 2013, CHIME, HIMSS, HealtheWay, the Care Connectivity Consortium and CommonWell all wrote letters to their congressmen, began meeting with us pretty aggressively and put out their own white papers, industry briefs on this issue and how important it was to everyone. As a result, in 2013 ONC launched this specific project. We, as Lee mentioned, contracted with AI and worked with our federal partners as well as several offices within ONC to make sure that we were doing our part for an incremental, clinically focused and really kind of narrowly defined set of goals to make improvement in this area.

As a result we have this fabulous project, which Lee will tell you more about, and we hope to really envelop this in an entire policy portfolio going forward. Again, this is but one aspect of our work, we're considering every facet of policy initiatives at this point including Meaningful Use Stage 3 and the certification criteria that go along with this. We just launched a Patient at the Center Initiative that we hope will engage patients in the importance of their own patient matching. There are SAFER guides that we regularly utilize to set safety protocols and best practices in the industry, as well as governance and state HIE grants. That said, we haven't defined what those paths will be specifically and we look to all of you to continue to engage with us and help us through this process.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Great. Thanks Kate. When we started thinking about doing this work, we realized we don't need to take two years to do this because there has been so much work done on patient matching over the past 15, 20 years that we should really look at what has already been done. And we should do a thorough literature review, we should go out and do an environmental scan, find out exactly what is working. We know that there are a lot of places in this country where matching is working really well and let's find out from those people that are doing it practically, how it works.

We wanted to – because we had a three-month window to do this project, we wanted to really focus it on patient safety and in thinking about Meaningful Use Stage 2 particularly and as we start to get into things like transitions of care, patient safety is obviously critical in that work. And we really wanted to look across at the real-world impacts, how this was going to impact inside a practice, the administrative and clinical personnel, how they would deal with those things. We recognize, of course, that this is a complex problem that as technology improves and becomes more affordable, this isn't the final word. There will undoubtedly in the future be incredible breakthroughs, biometrics work very well in certain places, down in Houston. But that's not something that we can implement everywhere in this country right away. So, we wanted to impact them broadly, we did not use a specific use case, we really just wanted to build a solid foundation that we could do additional work on and be very practical in our approach.

So the goals of the project were to improve patient matching based on the current best outcomes. That would really be identifying the key attributes, which can be standardized in matching, to really look across and understand what the best practices are. This is something that obviously data quality comes into, that is a very serious consideration for this work. And we really wanted to, of course, pursue those improvements that will have the broadest impact. We wanted this to make a difference for the smallest rural clinic equally as it will for the largest and richest for-profit entity in this country. This project was intended to democratize patient matching and to make everybody get on a better playing field.

So what we did, we of course did the literature review, the environmental scan and we came up with some initial draft findings. We've worked through a lot of review, we've had a large stakeholder meeting on December 16th that very pleasingly for anyone who participated, we felt like it went really well. This can be a controversial topic and a lot of opinions, but we felt like the December 16th meeting showed true cohesiveness in the thinking around matching, which led us to feel like we were very much on the right track. We worked with over 50 organizations during the environmental scan, we worked with EHR vendors, we of course worked with our federal partners, we worked with many trade associations, CHIME, HIMSS and many others. We worked with many of the HIOs, some of our HIEs across the country from the state HIE program. We looked at some of the states where matching was producing very high, positive match rates and we found some really great information that very much aligned with the work from this committee.

We found a few barriers to accurate patient matching and that is inconsistent formatting. And it can even be on the most obvious things, name, first name, last name, address, date of birth, and those are really the obvious ones, that's what we really wanted to find out about, where we really could make an immediate impact here. We also recognized that the smaller practices, a lot of the rural clinics, might not be able to afford to purchase the expensive systems for matching. They may not be able to customize algorithms that would be able to improve matching as it is done in some of the very the high performing systems, and so we wanted to take that into consideration. And we also recognized that patient engagement is critical here patient engagement, not just for matching, but on all aspects of health information exchange and technology is really going to be a critical component of improvement in the future. So the recurring themes; again, improving patient safety, care coordination, empowering patients and their caregivers, it's really about confidence in the system. The recognition that we are going to do this incrementally, that we can make important steps immediately and that there's more work to be done. And improving data quality is obviously a very critical component to this.

So our initial findings, there were really eight that we came up with and that is to standardize patient identifying attributes in the relevant exchange transactions; to consider certification criteria to require that those standardized attributes be used inside the system. Studying the ability of additional and non-traditional attributes to improve matching, I'll touch on those in a minute, but some of the nontraditional attributes are doing – are working really well in some systems and that's something we need to look at more broadly. And we really wanted to think about developing an open-source algorithm that anyone could use it to test against to see how their system is performing or that it could be actually used by smaller clinics and rural providers who may not have the money to purchase one of the big systems.

Again, of course, certification criteria is something that we wanted to consider. We really wanted to build on best practices, consider how we can really formalize that, formalize a governance structure around some of these best practices. And really to look at the consumer side of this, how do we engage the consumer to take a more active role, whether it's through a PHR or whether it's in the initial encounter in a doctor's office, making sure that their address is correct, that their e-mail address is correct, those types of things. And, of course, working with our associations and the SAFER Guide Initiative to really make all of this information known broadly.

So, a little bit more detail. On initial finding one, standardization of data attributes, we really were looking at the standardization across the HL7 transactions, CCD specification and we've got a little bit more detail. I'm not going to read every word on these slides because everybody will be asleep before I get to the end. But really around first and given name, last and family name, middle initial, suffix, date of birth, current address, historical address, phone number, and gender. And working with Doug and his team, we've already started to insert some of the more obvious standards that could be used in these cases. One of the things that we heard a lot at our meeting on December 16th is that it might be important to include previous name. There tended to be – it was interesting that there was broad agreement in the group that we needed to include fields that allowed people to input their previous names they may have used.

Capturing data attributes. This is really talking about certification criteria that would really allow us to standardize the identifier content within the system. This would be in some of the more discrete elements and this is something that we're looking at on a more detailed level right now within ONC. We really wanted to – this is particularly interesting, nontraditional data attributes that can improve patient matching. We heard some really interesting and what I thought were kind of cool ideas like eye color that tended to have some impact in some locations. Obviously mother's first and maiden name, some people are using father's first and last name; driver's license number, passport number comes up a lot because they use that in Canada. I'm not that confident, I don't know that – I think less than 10 percent of Americans actually have a passport, so I'm not sure how that might impact in this country. But we need to really do the statistical analysis and really look at the privacy and security implications and evaluate those for these new potential attributes. And to take a look and possibly do some pilots to find out if they do, indeed, improve patient matching at a large enough – by a large enough measure that we would want to consider taking some action on those.

Patient matching algorithms. Developing an open-source algorithm is something that could be very useful for testing. As I said earlier, it is something that could be adopted within systems that can't afford the larger patient matching technology. This is of particular interest to Bryan Sivak at HHS and something that we're going to be looking at moving forward. He is bringing in innovation fellow into his office; they will be working with ONC to really look at this and so, it's a pretty interesting area.

Identifying duplicates. This is something that most EHR systems currently have the capability to do. We heard this a lot during the environmental scans, but it's something that the customers are not necessarily aware of. It's not something they're actually using today with any frequency and it's an area that we really wanted to take a look, because if it is indeed available within the system we would certainly want to encourage everyone to use that.

Data governance policies and best practices. Really we're thinking here about how to establish a formal framework. This is obviously a little further out on our thinking. I think the first five are the most immediate things that we can do at ONC to truly impact on patient matching and thinking about how we would make a more formalized process for governance and best practices would be an important next step for us to consider.

Consumer engagement. In consumer engagement, obviously we've been working a lot at ONC in the consumer engagement field and really I think one of the tricks here is helping the consumer to understand the benefit to them of being engaged. Not that it's an additional task for them to make sure their address, their name and their birthdate are correct, but that there's a true benefit to them for having those correct in the system. That would go a long way and I think it's something that we definitely want to take a look at in that suite of activities that we're working on.

Data quality policies and best practices. The data quality issue is something that we have to figure out a way to improve on. Doug and I have talked quite a bit about it. No matter what we do from a federal perspective on standardization, it will not make any difference if the data is entered incorrectly. We really need to focus deeply in this area and understand better how to improve the input and the quality that's existing.

So with that, I know I went through these relatively quickly but I'm sure a lot of this looks familiar since we based this work on the work of this committee. So, happy to take any questions.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Good, thanks very much – .raise your –

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

I did but I'm going to wait and give this committee an opportunity, because I'll get – later.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Paul Egerman.

Paul Egerman – Businessman/Software Entrepreneur

Yes, thank you Lee and Kate, it was a – it's a good presentation on a topic that I think everybody here has spent time on and it's perhaps a topic that people would say they have painfully spent time on it, spent a lot of time on it. And I appreciate your comments about the recommendations that we made a few years ago, I was involved in that and so I very much appreciate that. Both observation and a question, one is on your slide initial finding one where at the bottom you show gender and you show the HL7 version 3 it shows male, female, unknown. I would just point out there are some practices where that is not enough genders –

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Right.

Paul Egerman – Businessman/Software Entrepreneur

– You need to keep track of females formerly males and vice versa and people who have some characteristics of both. And I simply point that out as an example as to why this is a hard problem.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Sure.

Paul Egerman – Businessman/Software Entrepreneur

Basically for some practices that would be very, very important and other practices they'd almost be mystified by having those choices as to why that would necessarily be of any applicability to them at all.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Sure.

Paul Egerman – Businessman/Software Entrepreneur

And so I just wanted to make that comment. I also wanted to make a comment and ask a question about the issue of algorithms, which in the work that the workgroup did, the Policy Committee approved, one of the comments we made was we thought it was not possible to have a one-size-fits-all algorithm. And we also made a comment that some of the smaller settings that you referenced truly have very different needs than say, I'm looking at Marc Probst at Intermountain Healthcare which has literally millions of patients, multiple sites. It's very different where you might have a small practice, a rural practice where the people know everybody's name when they walk in, they don't even have to identify themselves. And so it's a very different environment and you said that the algorithms were outside of your scope, so I was a little surprised by this initial finding about developing this open-source algorithm that you say vendors will test the accuracy of their patient matching against. And it seems to me what you're implying with that is if people are going to test accuracy of what they have that somehow the government is going to come up with the gold standard for patient matching algorithms and that's going to be the determination of what's accurate? Is that what – am I understanding that right?

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

I would – no. I would not go that far. I would say that in thinking about this algorithm, there are particular cases where we recognize that we would never be able to say everyone in this country must use this algorithm that just would be impossible. What we did think about was making available an algorithm that people could choose to test against. This would be completely – this is a voluntary activity if people wanted to test against it just to see how they were performing or if smaller rural clinics that don't typically have these needs, they may actually want to implement it. Because of the health information exchange, as it evolves.

And one of the areas that I work on a lot and that our new National Coordinator has referenced several times today, is disaster preparedness and response. And we've – on my team we have spent a lot of time working in that area. And the ability to accurately match a patient in unexpected situations is pretty important and for clinics that may not have the volume of millions or tens of thousands of people, they still need to have that capacity to accurately match a patient if they become a triage center. One of the most recent areas of work that I've been doing is working with the State of California and really thinking about evacuation of Southern California cities, particularly Los Angeles. People have to leave on foot, there's no way to transport the tens of millions of people in Southern California with no infrastructure to get them out, and they can only go one way and that's in the desert basically. And so people are going to be showing up in small clinics. And I know this sounds like we're just trying to imagine this scenarios there and having patient matching capabilities being just as accurate in those smaller clinics as they are at Cedars-Sinai would be important, possibly.

Paul Egerman – Businessman/Software Entrepreneur

And those are good comments, I'm not trying to argue about the importance of the issue. And I think an open-source approach is always a good thing with the concept of making software available to others. So as it relates to health information exchanges, that could be very valuable and could save a lot of money. It could also be valuable with this other thing that has the same initials, the Health Insurance Exchanges, it could be helpful with that also. So I see the utility, I just don't see the example that you gave of a small clinic testing themselves against it. It just seems like that's a hard thing to do –

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

And it may –

Paul Egerman – Businessman/Software Entrepreneur

– technologically and it just seems like there are a lot of obstacles. I mean, the availability for the testing purpose is the part I'm questioning.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Sure.

Paul Egerman – Businessman/Software Entrepreneur

But, those are my comments. Thank you for your presentation.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Marc and then Karen and that's it, I think, because we're out of time.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

And this is probably pretty simple. Do we know and those that need to plug their ears, plug their ears, but do we know what the impact would be of the national ID on the requirements for these algorithms? I mean is it – it may be very little, I don't know, because you've got so many data items you're dealing with, do we know that it's a positive impact?

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

I can tell you some of the findings, because I'm prohibited from speaking –

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Right, you don't have to use those words. George, just use George

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

So I will say that a single identifier in some of the federal systems produces a very poor match.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Okay.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

It is – I was shocked at how low that the match is on Social Security number quite frankly. We do know that from our environmental scan, everybody wants one. That was something that we heard everywhere, everybody said, why don't we have one? But that was just what we heard in the findings.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

No, and that's very helpful. I mean, as you were presenting though, I kept thinking I can use my credit card in the smallest city in Utah or the largest city or I can go overseas and for some reason they always figure out who I am, because that shows up, that bill. I mean there's got to be something to that common number.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Sure.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

So Social Security number is not the same as George, just pointing that out. Next is Karen.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

We're going to use your kind of card Marc. My question relates back to something, a couple of things Paul said actually, but I'm going to follow up on the one about the insurance exchange. Is that an opportunity now that more people are getting enrolled and might be using the healthcare system or at least be identifiable in some other way to start thinking of other nonstandard or standard identifiers?

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Do you mean a Direct address or –

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Whatever. For the first time, millions of Americans are going to enroll in a program where many of them have probably been uninsured and showing up ad hoc to systems, so they're going to have to identify themselves in a very standard way –

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

Right.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

– to insurance programs.

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

We do think that is a very promising route. There are – the identifier that's used in the health insurance exchange, we were a little reluctant to go too far into that because Congress might see it as us adopting a national patient identifier or trying to recommend one and through a back door way. I think it is a possibility, it is certainly something that we should consider. Also I do think that e-mail addresses, Direct addresses, depending on the volume of consumer engagement we can get, would be an incredibly useful attribute, especially as people – that would be built into a system as people get PHRs where information is sent to them via Direct that would be a very obvious attribute that would be very useful.

Paul Egerman – Businessman/Software Entrepreneur

Yeah, I was just going to point out, as it relates to the health insurance exchanges, there are other identifiers that could possibly be used like driver's license number, that is just at a state level. And depending on state laws could be used to help – health insurance exchange ultimately could end up having a database on every citizen within a single state, and that could have an impact on its entire issue.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, Doug, final comment?

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

Lee, just thanks again for a nice presentation. There's a couple of things that we may want to consider. Certainly the White House has issued the National Strategy for Trusted Identity in Cyberspace, which really talks about a federation of identity. So again, not a one-size-fits-all single, but using a federation of different ways of in some sense triangulating a person's identity by using multiple sources. So there may be some opportunities there to consider how that might help.

I think the other thing that we have to be very careful about as well is that we often times frame the problem as being beneficial to providers and being helpful for researchers or being good for insurance companies, but the real person who benefits from being identified and their information linked is the patient. And I think until we are able to demonstrate to patients the value of making sure their information is properly linked and available for decision-making, we'll constantly have the battle to say this doesn't seem to help me, it seems to be helping lots of other people. And so I think as we think about this, the notion a federation and really framing the question or framing the solution in terms of the value it provides to patients. To secure their information to provide – your example of the credit card, the convenience that it provides, I think that's the way we're going to really begin having a conversation that will move us forward around how to get all these pieces to fit together.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

So thank you Lee and Kate for a very informative discussion. Are you going to be coming – is there going to be further activities in ONC on this matter and you'll come back and let us know?

Lee Stevens – Policy Director, State Health Information Exchange Program – Office of the National Coordinator for Health Information Technology

We will. Thanks.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay. Next we're going to, for the final session of the morning, hear from the Quality Measure Workgroup led by Helen Burstin and Terry Cullen.

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

And Helen, just wanted you to know I'm on.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Oh great Terry, that's great news. Do you want me to just do the slides, Terry or do you want to –

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

Yeah, that would be great. Thanks.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Sure. Okay. Hi everybody, Helen Burstin. I Co-Chair the Quality Measures Workgroup with Terry, who couldn't be here in person this morning, we're delighted she's with us. So I'll just start out with the preface that we're really excited to kind of give you, I guess this is a bit of a summative recommendation and welcome to Karen, in her new role. And we're really pleased that I think it pulls together a lot of the different strands that we've been talking around about quality measures. So, do I – I click, okay, gotcha. So what we're going to do today is give you a sense of what we've done to date in terms of developing recommendations for the next generation of e-measures. And we really do mean next generation quite intentionally, it really is, I think, a big leap from where we are now to where we're proposing that we need to go to have measures that really have impact. You'll see they're both patient and population centered, very strong emphasis on longitudinality, the importance of interoperability will come up again and again as you'll hear from the ACO group this afternoon, in addition. Across settings of care where appropriate and addressing efficiency of care delivery as well. We'll talk a little bit today about both the domains, the concepts and the infrastructure required to make that real.

So this is a slide we've shared with you before and just to put it out there, this is sort of the overall framework that we've been looking at in terms of measurement. Terry and I are both inherently lumpers and felt very comfortably ultimately that really what was emerging out of the ACO subgroup really was becoming in essence very heavily aligned to what the Quality Measures Workgroup was already recommending, but perhaps taking it a little bit further. So with Lauren's help, we actually did manage to pull this together into a single framework. But you'll see here it's really a patient-centered value of health with both public health emphasis, healthcare emphasis including issues of disparities, outcomes, as well as expenditures. So really broad-based domain framework here.

Here are an actual visual of the next two slides of what the domain framework would look like with the idea that certain domains would fit into certain levels of the hierarchy. And it may be a bit difficult to see that it goes from generic health outcomes, healthcare outcomes and generic intermediate outcomes. And we're generally still heavily in the current state around intermediate outcomes and processes, but moving further up the chain there towards generic – more generic health outcomes, with the idea that we would be able to capture some of those key domains listed in white on both of those diagrams, so really beginning to think about subpopulations and the kind of measures that may be directly relevant for some populations. And examples here of the frail elders and disabled under 65, and a very broad-based view, for example, at procedural level, for example, after a joint replacement or depression and bringing in some of the important social issues around, for example, housing status. This next one just gives you, again just a more general view, a little easier to read but I just – in a sense of time, won't repeat it.

So, moving forward. We also specifically wanted to develop a set of recommendations, and I mentioned this before, where further work is needed clearly. And we also ultimately decided to crosswalk the recommendations with the Quality Measures Workgroup and the ACO Measurement Workgroup to really get at the set of measurement and infrastructure needs that are going to be required to make this happen. So here's what we're calling the key measurement dependencies; to get this next level of measurement, what will we need. So as a starting point, obviously and something we hear a lot about at these meetings, interoperable systems. And in particular was a recommendation, actually Terry can talk about further, that if nothing else, can we start with a subset of the key data that we know we need and work on getting that interoperable before trying to make everything interoperable. Just again a more incremental approach, but trying to get the data we know we need to do some of this work around measurement and improvement out there.

Data sharing across providers was critical. Thinking again prospectively about how we're going to need tools not just for patient care but for population health as well. Measures that are built across multiple data sources, if you really begin thinking about patient reported outcomes or value measures, you're going to need to pull in both patient self-reports as well as claims data to get at expenditures. So we need to start thinking really thoughtfully about the methodological issues of some of those hybrid approaches. These measures should be, and actually the data should be accessible by all providers and ultimately you want to consistently capture the variables we know we will need to get to stratification, for example, to get at critical issues around disparities.

So on the next few slides, we'll go through each of the major measure domains with our sets of recommendations. And as you'll see on this first run around safety, we'll give you the recommendation, the broader recommendation from the Quality Measures Workgroup, a couple of examples, measures that might be things that would fit that recommendation and then some specific ACO subgroup recommendations that got into some level of specificity. And finally, when there were clear HIT infrastructure needs required to make this on a reality, we listed those out as well.

So safety, obviously hard to imagine going forward without having a really robust set of safety measures as part of this program. And specifically thinking about some of the high profile areas where we don't currently have measures, around falls for example, healthcare associated infections, conditions and EHR safety, to name a few. The ACO subgroup, for example, specifically mentions measures that would pull together different data sources around claims, EHRs, ADTs that would help reduce medical errors. Examples, avoidable hospital readmission rates, drug-drug interaction rates, fall rates, all things we think we could get out of EHRs with some work, but ones that would be really important to driving safety going forward. And some key infrastructure needs listed out below around EHR decision tools to help prevent errors, being able to proactively notify clinicians with our high-risk patients. Again, this mantra you'll see over and over again about interoperable systems across settings of care and data availability across electronic and claims-based systems, since we know it won't all be in the EHR to really get to this next set of measures.

The next recommendation for the workgroup is specifically around population health and equity, quite a broad category, but the need to develop measures that address these two categories in particular. Thinking about how we begin combining EHR data and patient-reported data to improve the health of communities and populations, some examples here around prevention, for example, of pre-diabetics progressing to diabetes, as an example. HIT infrastructure needs specifically for the disparity focus would be the importance of having consistent data availability around race, ethnicity and language to be able to do the stratification.

The next recommendation is around effective use of resources, which is around efficiency and value. And thinking about measures that can also begin looking at issues around appropriateness of care and efficient use of facilities. In this instance data sources are quite broad, it's not just the EHR again, but the electronic pharmacy data, for example, as well as claims. A few example measures here getting at, for example, the issue of duplicate testing, how often that is happening, a significant cost issue; avoidable ED visits, that's another example. And important HIT infrastructure needs here, being able to get the complete expense data that we need for an aligned population, for example, and again the mantra around interoperability and the ability to have hybrid measures across electronic and claims systems.

Next, I think – opportunity going forward is around patient and family engagement and thinking about measures that really begin to address patient health outcomes, self-activation, patient preferences and shared decision making. And in this instance, it's more an issue of combining EHR data with patient reported data, how do we improve that patient decision-making and collaborative experience. Some specific examples listed here, and we've seen some of this work already beginning as part of the current contracts that are out there around measure development from CMS and ONC around health status. And it's interesting how much there's also a lack of a science base here that we also need to not forget about, in terms of building on what is the baseline functional status with which we compare things to and beginning to understand how patients even assess goals in a way that we can capture and reflect that shared decision-making. Importance here of some HIT infrastructure needs, having an electronic shared care plan, patient portals and other sort of mobile devices and ways of capturing patient generated health data.

A heavily related area is specifically around functional status and well-being, for example being able to get at measures that look at post-procedure functional status, recovery time. Some specific recommendations here from the ACO subgroup, again around how do we optimize wellness and functional status. For example, on that hierarchy of the framework I showed you, things like healthy days using the PROMIS 10, for example, of really beginning to get at health and wellness and very similar infrastructure needs to the prior slides, so I'll just keep going.

Care coordination here, again the importance of developing measures that get at longitudinality, care coordination, care transitions. This is specifically after hospital discharge, but that's just an example, we know there's just as much coordination needs that go beyond the hospital discharge environment from clinician to clinician, patients and others. So data sources here are quite broad. Again, some example measures, contact after discharge, effective partnering with the community resources who are so critical in ensuring that readmissions don't happen, shared care plan across providers and patients. And in this instance, an example of an HIT infrastructure need from the ACO subgroup around for example a case management registry for discharged patients, really being able to capture discharge diagnosis, for example, and patient disposition.

So that's the broad view of the domains that we believe are really important going forward for the sort of future state of measurement. And what we then did was work through our measure criteria recommendations around how ONC would – and CMS and others, would help think through what measures would likely be appropriate. So we've been working on various sets of this, I think Paul and I go back working on things like this for at least four years or so. But the idea would be that we want to make sure there are a set of criteria that help us all collectively help choose the next set of measures we want to help get developed. So for example, we want to have this next set of ECQMs or measures with leveraged data that come out of the health IT systems that are being so heavily incentivized right now. For example, clinical decision support, so a term Paul and I talked a lot about over the years or an HIT sensitivity, for example, can we get at measures that pull in information from EHR systems specifically that would help improve quality of care and some examples there.

You would want to ensure the measures that are selected for development and use would enable a patient focus and a patient centered longitudinal care view across EPs and EHRs, for example, across groups of providers rather than individuals. And the importance of including non-eligible providers, for example, behavioral health, long-term care, of being very critical pieces of this, even though they're not part of the current eligibility for the program. And the broadest possible experience of the patient and population reflected in the measurement to get that continuum of care across again, inoperable systems comes up one more time – several more times.

The next one is about supporting health risk status assessment and outcomes, so making sure that we've got the information we need both for risk adjusting other outcomes, but also to have information and to look at the change in outcomes to get at some of the questions you were asking this morning about really what's the impact out there of using these measures. And then finally on this page, a preference for being able to report once across programs that aggregate data reporting, something we hear about constantly from providers, something CMS has clearly put this forward as an important aim and something certainly at NQF we worked hard on in terms of alignment across these programs. If you report a measure once, get credit across all of them.

Continuing on the next slide here, just to finish this out, some way of being able to assess that the measures benefit ultimately in terms of measuring and improving population – patient and population health outweighs the burden. And we know there's real burden out there of collecting these data and implementing these measures so again, more work to think through that piece, but we thought it was important to point out a sense of being able to promote shared responsibility. That we really want to make sure that the measures that's designed really require collaboration or interoperability to ensure that there's that communication piece that they're built, hardwired into those measures going forward to make sure we're getting at that next generation of EHRs that can accomplish these set of measures.

Promoting efficiency, not wanting to lose sense of the Triple Aim here and making sure we are, in fact examining issues around high-cost, overuse and appropriateness and utilization. And then finally the last one of really again thinking broadly about can those measures also be used to give us a sense of population health level reporting. And certainly Karen has a lot of experience here that she can help us think through around the population piece, but how do we use existing measures or build measures where that denominator can be adjusted to help us get to a more population level of reporting and potentially supporting group reporting options, for example, on the CMS reporting programs.

So, last couple of slides here, the innovation pathway is something we've talked about with this group before. We just wanted to give you one more recommendation is a need to start moving forward on writing the rules go forward. So we would again recommend that ONC and CMS should consider an optional, and we wanted to emphasize the word optional here, not something required. But an optional innovation pathway where MU participants could potentially wave one or more of the objectives by demonstrating they're collecting data that they're already using for internal QI or integrating, for example, with a registry. And in particular, as we mentioned at the last meeting, we would very much want that innovation pathway to help narrow some of those measured gaps we already have.

So if you're going in this innovation pathway direction, use it as a way to fill gaps rather than having something we affectionately or not so affectionately refer to it, "look-alike measures" at NQF. Please don't use this pathway to bring a slight twist on a measure that already exists, but in fact really use it as a way to drive innovation and bring forward the measures that we need. And also just, I guess that's on the next slide, sorry. And two possible approaches here, there are different potentially ways, a more conservative approach might be to have certified development organizations who would help develop, release and report these measures for MU. There may be a way to actually have it be a much more open pathway where people could use available tools like the measure-authoring tool and bring them forward.

But I think very importantly, this information has got to be transparent and available to all, so if one person's got an innovation, it becomes a real laboratory for others to see what's out there.

We also wanted to point out again in our lumping approach, we've been inviting the Vendor Tiger Team to join us as part of these discussions and we'll continue to do so because it was very, very useful having them on our calls. Just a reality comment I think that this innovation pathway is not without significant cost, in particular for the vendors in terms of creating and maintaining and building innovative measures into their systems that may not have the broad pick up that some of the others do. And they recommended again this approach not be required for certification to add to the mix.

And I think lastly there was a specific request for us to talk about patient reported outcomes. And we do continue – ONC and CMS, we recommend would continue to include patient reported outcomes as meaningful use objectives as discussed by the other workgroups and the Policy Committee. There is clearly a need, as we've emphasized, I think, all through this presentation for the HIT infrastructure and guidance to make this real and get those data available. And we support the recommendations of the patient data – patient-generated health data from the Consumer Empowerment Workgroup and endorse the expansion of the standards into additional domains that include nontraditional determinants of health.

So, with that I'm going to close and just give the last word to Terry. If there's anything I have left out, particularly from the perspective of the ACO subgroup.

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

No, I think that hopefully that that reveals for you the amount of work that has been done, the amount of work that still needs to be done. The one thing I would point out is, if you go to the measure domain recommendations, whichever one you look at, we did do a lot more work than is revealed in this deck and what we tried to do was develop a rubric that could be applied to any measure. And Paul, that may sound familiar to you, because you helped us do that along with Joe Kimura. But it was really, what would be the measure and then what would be the data source? What would be the data standard that might be needed? And then what would be the health IT need from an infrastructure perspective? We focused on that last part with the recognition that if the infrastructure isn't going to be there, as we all know it will be very difficult to ensure we can get to the measurement. So I just want to let you know that there is a lot more work under what you're seeing here in a cursory fashion about where we've gone. Thanks.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Well, thank you both, Helen and Terry. It really does describe, starts to lay out the vision for the next generation measure. The end is not the measure, but if we don't have a system that we're going to be evaluated against, then we'll be chasing an old – the old way. So I think this may be a very – this is the leading edge of important work that I think we're going to be doing in 2014 going forward. Comments, questions from the group? Marc?

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

Has there been any work done on the consumers of quality measures? It seems to me the patients themselves are going to become more interested in the quality measures and that might play into what we should be capturing and how we should be presenting it.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

That's a great question. There's actually been a fair amount of research on what patients use and don't use and traditionally to date they haven't actually used data quality information very much, although interestingly, those who act on their behalf, like purchases, are heavy consumers of these data. So I think over time, I think we will hopefully get a better sense of what patients will use. The new exchanges that you just talked about present another opportunity where patients will be looking at quality data and making some of those selections. We've actually got our annual conference focused specifically on this issue next month around what do consumers want and need around information. I think it is the next frontier, particularly if we see the transparency of these measure results going up.

Marc Probst – Vice President & Chief Information Officer – Intermountain Healthcare

And it might modify somewhat what we're doing with the quality measures, what we are collecting there.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Thanks. Christine?

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Thanks. I had a couple questions for you Helen, but I first want to say, this is a really great piece of work you guys have done here and that's like an understatement. So I really appreciate it. I had just a couple of issues. One is, and I'm not sure this is a question for you or maybe Paul but, you talked about early in your slide deck measure dependencies, and I think those were right on. I think the question is where do we stand with respect to those measure dependencies? Because as I think across the workgroups of the Policy Committee, I think it would be very helpful for us to look at those dependencies, this is slide 6, and think about well what do we have in meaningful use policy that's promoting these and addressing these dependencies and what are we missing? So I don't know if you guys did some work on that or if the Meaningful Use Workgroup needs to do work on that, but that's my question is how do we begin to assess where we're at so we can keep the ball moving forward in those areas?

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Terry, do you want to respond to that? I think this is very much driven by your thinking here. So we did specifically –

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

Can you hear me?

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Yes, now we can Terry. Yes, go ahead.

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

Okay. Sorry. So I think there are a multitude of issues, the one is, did we highlight all the dependencies or are there more that we didn't get to? And secondly, where are we with moving ahead with these dependencies? And Helen's right, this first one seems to be the gotcha, what is the subset of key data and is that interoperable at the current time? I think that many of the other things are IT infrastructure tools for population health, the dependency of the measures built upon the data sources that actually reflects, do we have the key data? Do we have it in a way that we can get at? And is it standardized? So, I think you're right to highlight this slide, it's a really important delineation of what we know are dependencies. I think that they're at different places depending upon what system you're in.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Just one other thing to add is, we specifically wanted – to put this forward to the Policy Committee to think about whether you might have some levers to actually help push some of these forward.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Yeah, I agree. Paul, I think it would be a great piece to start working through this and get a little more clarity. Because, for example, I'm not sure that you have to have fully interoperable systems as much as maybe what you guys mean here is data and the ability to share the data.

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

Well, I think – and I think – this is Terry. I think that last thing perhaps we weren't explicit about that that, but consistently capture the variables means capture them in a standardized fashion with the data set that then they can be shared. You're right.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Yeah. So I wanted to turn quickly to the measure criteria that you guys have and address two. One is the benefit versus burden piece. And Helen, you know we've been in this discussion for a long time and I think everybody understands the concept here, but where we get into trouble is the burden to who, right? And so how you bring from one view, which would be the provider view or the organizational view, compared to the purchaser view or the patients view. And I just wanted to suggest that maybe some reframing might happen with respect to this particular criteria that focuses maybe a little more objectively or a little more balanced and perhaps talks about the importance of data collection fitting into the workflow for both patients, providers and organizations. Because I can imagine that you have a lot of potential measures that would rely on patient generated health data. So at the same time we don't want to overly burden provider groups, we also don't want to overly burden patients, but then again a lot of these measurements may be "burdensome" to do data collection yet their benefit really is there. So I, again, I agree with the concept for sure I just might suggest a little rethinking of the frame.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

I think we could work on that.

Theresa Cullen, MD, MS – Director, Health Informatics – Veterans Health Administration

(Indiscernible)

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

And then I've got just one other piece that I think is in response to the question that Marc just raised, which is, that there is a missing piece in the criteria around usable by consumers or purchasers as well. But I think it's a really important thing because one of the reasons we know that consumers don't use quality data is that a lot of the measures aren't particularly meaningful or understandable and when they become more meaningful and understandable, consumers and purchasers, but especially consumers will use them. And we've seen that a lot in terms of patient experience data and even online reviews, which everybody knows aren't a quality measure, but they're really easy to use. So patients are really using those more and more these days to assess a provider that they're considering seeing, etcetera. So we might think about adding a criteria around usability and meaningfulness here.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Or potentially even reframe benefit outweighs burden to make sure it reflects that, since that one needs to be worked on a bit anyway.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

That would be great –

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

And Christine – oh.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Go ahead, Paul.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

I was going to respond to your first question, the implication about the multiple data sources and whether we're limited or not. And the statute that is set up ONC did not limit it to, for example, EHRs, it was really broad in electronic information and HIT support. And similarly the HIT Policy Committee is not limited, too, it talks really generically across the whole spectrum of use.

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

But we couldn't do lab systems, for example. Are you saying we could?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

It's not covered in meaningful use, they don't get money for it –

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

Oh okay.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

– but, both the HIT policies that ONC administers and the recommendations that – and advice that HIT Policy Committee might offer, covers the whole spectrum.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

I think that's – the point and it's central to the job description of the National Coordinator, which was not limited only to ONC, but to really coordinating health IT policy across the federal government, so I think that's a great point. My last comment just briefly, because I can tell there's a delay between when I talk and you guys hear me, is around the innovation pathway and it's a very simple one. It's on slide 18. I think the first bullet is a little confusing because it almost reads as though if you just collect data for any measuring, use it for internal quality improvement you could get some credit. And I don't think there's any innovation in that, but I also don't think that's what you meant and so I think you have better language on the next slide, on 19, that seems to indicate that this is really about developing ECQMs that are new and where there is a gap, etcetera. So I just wanted to suggest some language clarification there.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Let me kind of add, the original language came from Meaningful Use Workgroup is the – in order to get qualified for this “waiver,” then you'd submit something plus a mini-NQF submission. In other words, state the rationale and what you did to test it and what your affect was, so that that could be shared with the general community. So, I think Christine was right and you – a little extra, yeah. Other comments?

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Next to you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Oh, sorry.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Just a quick clarification. Thank you for the presentation. On this innovation slide you point out that the Vendor Tiger Team says that this is costly and will be difficult for them to achieve. On the subsequent recommendation, the fourth one around PROs how did the vendor community or the Vendor Tiger Team respond to that? You didn't make any comment. Is it no issue at all? Do they feel that this is relatively easy for them to include patient generated?

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

I'm going to ask Kevin to take that.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Okay.

Kevin Larsen, MD – Medical Director for Meaningful Use – Office of the National Coordinator for Health Information Technology

This is Kevin Larson. I don't think that we – I don't think the workgroup asked the Tiger Team to specifically focus on that. We certainly could have the workgroup really have the Tiger Team dive into that, but it was not something they gave a particular response to yet.

Christine Bechtel, MA – Vice President – National Partnership for Women & Families

Paul this Christine, if I can weigh in. We did actually ask EHRA to weigh in on that in the meaningful use context with respect to the patient-generated health data criterion. And the recommendation that came from Consumer Empowerment Workgroup was focused on different mechanisms for data collection. So, I think the answer to your question, Art, depends on which mechanism is used. One might be secure messaging which is already in Stage 2. Another would be structured or semi-structured survey instruments and I believe they said that was not a huge lift, we can go back and check. And then the third, though, was provider-selected devices and that is potentially much harder. And the Health IT Standards Committee is working through what that might look like based on the Continua standards and some other information. So I don't think we have a great answer on that yet, but that would definitely be the more challenging channel for patient-generated health data.

Arthur Davidson, MD, MSPH – Director – Denver Public Health Department

Thank you, Christine.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay. Aury?

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

Is there any coordination with CMS to make acquisition of outcomes data reimbursable to the primary care physicians?

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

CMS has been a part of the workgroup, we've gotten their input as part of this. This is a strong focus for the work they're doing as well, in terms of moving towards PROs and in fact, the measures under development, again, I think are intended to be used for multiple purposes. I don't want to speak for CMS, but across PQRS or across meaningful use, so, there should be some inherent reimbursement there for being able to submit those measures across multiple programs.

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

You have to align all our efforts across the entire federal space, across our programs, so the ideal is to simplify it for all programs but attending to some of the statutory requirements of each of the programs, whether it's PQRS, whether it's IQR or whether it's meaningful use. And so I think some of the policy work that has to be done is looking at the statutory limitations and what we need to look beyond those in order to align them better. So it's more than just a technical fix or standards, which is a big part of it, but how do we align them in terms of rulemaking going forward and then the reimbursements related to that rulemaking. So the answer is essentially, yes.

Helen Burstin, MPH, MD, FACP – Senior Vice President for Performance Measures – National Quality Forum

Oh good, that's what I said.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

Can you give an example of where that's been implemented?

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Well I mean, very clearly is looking at PQRS and the alignment with meaningful use and with IQR and trying to simplify it. Are we there yet? No. Are we getting there? Yes. So that's a practical example of all the partners around this table and the federal space in order to say what is common to all of those. I think –

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

So, I had meant, there's a separate reimbursable code for depression screening now –

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Right.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

– and so that allows people to add on to their patient evaluation, a depression screen and you can give a patient a PHQ9 form and it takes 5 minutes for them to fill out –

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Right.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

– and all of a sudden you know if the patient scores 12 or higher they have depression and they should seek treatment.

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

That's right.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

And people are starting to do this now, because they have a code for it. And it's an easy form to quantify and include in any kind of data acquisition and am wondering if there are plans to implement other things. For instance, so I do a lot of spine surgery –

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Right.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

– and so we do all – disability outcomes on all of our patients, just so that we have an internal measure of outcomes performance with the intent we take this to insurance companies later on to demonstrate our value in comparison to our competitors.

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

Right. And if the question is on the payment side, that's where we align it with our rulemaking related to our payment schedules. So, payment schedules, the authoring of quality measures, that's where we try to align them. And so when CMS definitely will talk to this body and other bodies when we go out with a rulemaking regarding reimbursement schedules.

Aury N. Nagy, MD, FAANS – Las Vegas Neurosurgery & Spine Care

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, any final comments or questions? Thank you very much. Let's see, is this a request for approval? Okay. I'll entertain a motion to approve with the – a few of the comments in terms of tweaking the wording.

Neil S. Calman, MD – The Institute for Family Health – President and Cofounder

So moved.

M

Second.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, any further discussion? All approve?

Multiple speakers

Aye.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

And any abstain or reject? Thank you very much. Thanks Helen, thanks Terry. Okay, that brings us pretty much right on time for public comment.

Public Comment

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

I first want to note for the record that Josh Sharfstein has joined us for the vote, that's important. So I would like to let everyone in the room who would like to make a public comment please come up to the table. As a reminder, you have 3 minutes and I will also give the opportunity for the operator to open the lines while you get ready.

Alan Merritt – Web Specialist, Digital Communications Services – Altarum Institute

And if you'd like to make a public comment and you're listening via your computer speakers, please dial 1-877-705-6006 and press *1. Or if you're listening via your telephone you may press *1 at this time to be entered into the queue.

Darryl W. Roberts, RN, MS, PhD – Senior Policy Fellow, Health IT and Quality - American Nurses Association

I am a Senior Policy Fellow responsible for health IT and quality at the American Nurses Association. On behalf of the ANA, I'd like to welcome you Dr. DeSalvo to the ONC, look forward to having a great relationship between the American Nurses Association and your office, which has actually continued for some time and is very much indebted to both Judy Murphy and Kevin Larson, who have been very, very great supporters of nursing and the ANA. I'm actually commenting on something that has been kind of an undercurrent of today but hadn't actually been mentioned and that is the Blue Button Technology, which is going to actually underpin a great deal of the patient engagement and ultimately the patient governance of their own healthcare.

One of what I believe to be the rate limiting factors for the advancement of the Blue Button Technology into something that could actually be very much used by patients in the future is the Direct address. The Direct address, which was mentioned today, is in many ways very similar to e-mail addresses. E-mail addresses, you have different servers, you have different e-mail addresses. You have different providers, you're going to have different Direct addresses. In fact, if a patient has a PHR provided through his or her hospital, a PHR provided through his or her chosen PHR vendor and a PHR provided through his or her insurance company, there are three Direct addresses. Now you compound that with multiple providers having multiple payment systems, perhaps there could be multiple Direct addresses there.

For you and I, for those of us at the table, we're probably accustomed to having 2, 3, 4, as many as 9 e-mail addresses, it's not a big problem for us. For my late father-in-law who just passed away last week, he never even signed into e-mail once in his life, and at the age of 80 on 31st of December, he passed away. My mother-in-law, his surviving spouse, now wants to get access to his information. She's going to have to get it all on paper. Two years from now, we're hoping she'll be able to get that through a Direct address, which I counted up how many providers and others, there would be a total of 13 direct addresses and she would have to access all of that.

Direct addressed, I think, are something that we should focus on simplifying. A provider should have a Direct address. A patient should have a Direct address. It is something that I think is doable, I think it's practicable, I think it is realistic and I think it is something that will help us to get patient engagement at a higher scale. And if in any way you'd like to respond please do so at any one of my 9 e-mail addresses. Thank you.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Are there others in the room who would like to make a comment? Is there anyone on the phone that would like to make a comment?

Alan Merritt – Web Specialist, Digital Communications Services – Altarum Institute

There are no further comments at this time.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, well thank you very much. I think most of us took advantage of this sign up for lunch deal, so because of that, why don't we stick with the 45-minute lunch and then resume at 12:45 p.m. then. Thank you.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

All right. We're going to get started in a minute. Operator, can you please open the lines?

Operator

All lines are open.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Just a reminder to everyone on the phone, if you aren't the one speaking, if you could please mute your lines. Do we have Charles and Grace?

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Yes. I'm here.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

Yes, I'm here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Can you say that again? I'm sorry, I just want to make sure; I didn't hear both of you.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

This is Grace. I'm here.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Charles Kennedy is here, also.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

Okay. Thank you. Paul, do you want to kick us off or just want to open it up – ?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay. Well welcomed Charles and Grace and welcome back to the Committee. So on tap for this afternoon is an update from the Accountable Care Workgroup, partly about the accountable care hearing, because they're going to come back with recommendations later in March. And then we'll hear an update from ONC both in the policy sphere and standards sphere. And Karen, did have anything you wanted to – ?

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

No, I'm good.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay. Great. Okay, Charles and Grace, take it away.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Okay, very good. Good afternoon everyone and apologies for not being there in person, my schedule just wouldn't permit. As you all know, accountable care change is how physicians and hospitals provide care by changing how they are rewarded financially for care. Financial and clinical services are both measured and rewarded on a population basis and what this implies is a shift, a shift toward population-based medicine, which implies looking at a population of individuals, anticipating their preventive health and wellness needs and when an episode of care is required, that the care is provided efficiently and effectively. Further outreach to the patient and engaging with that patient, specifically around prevention, wellness and most importantly management of chronic disease, also becomes critical to financial success.

If I could have the first slide. In linking – in looking at the needs of ACOs for technology and the ability of meaningful use to support population health. If you look at our workgroup charge, what we are trying to do is assess the performance and the ability of meaningful use, in both its current form as well as any changes we might make, in supporting the transition to population-based health care. And I think within the workgroup, Grace and I have found strong alignment with many of the objectives and critical success factors for meaningful use. However, there are substantial challenges in the current technology solutions that meaningful use is largely silent on, such as the role of claim data in population health management. Other issues such as vendor performance takes on an even higher level of urgency because now financial – larger financial sums may in fact be linked to the underlying effective use of the technology. Therefore, to get feedback from the field, we held an accountable care off-site – an accountable care hearing and Grace will walk you through the hearing objectives and what we hoped to achieve that day. Grace?

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

So thank you, Charles and good afternoon. And like Charles, I apologize that I have not been able to make it to Washington today from a travel schedule standpoint. So I am hopeful that what we're able to communicate to you in this – through our teleconferencing here will be useful for you as you can continue to work on policy issues. My experience with the working group is that we've had a very robust conversation that's been going on nearly a year now involving those of us in the working group. But we felt like that we wanted a broader number of stakeholders to be able to impact what we were doing with our approach to this, so that we could learn more from it and make more substantive recommendations to you all. So that was the point of the hearing, was to invite a broad number of stakeholders out there.

We had four specific objectives that we wanted to get out of the hearing. The first was to understand and consider the input on health IT capabilities that we're going to, essentially be able to drive payment reform from various sources. Not only the workgroup, but folks from the ONC, the IT framework, developed by the certifying commission of health information technology, etcetera, and bring that into – bring those input into that broader group that's going to look at working on the policy and the report.

The second was to understand, as Charles alluded to earlier, how the current ONC EHR certification program is addressing these capabilities necessary for accountable care and where the gaps remain, and to identify priority capabilities that might drive this forward. Because we all are under the operating assumption that accountable care arrangements where you're basically looking at both the value equation of cost and quality as where the healthcare payment system needs to go, but it's not there yet. And finally, the objective was to develop recommendations to advance these capabilities. And so part of what we've done now, is we've been having our conversation for a year, we've had the hearing and we're preparing the report.

If I could go to the next slide, slide 3, slide 2 was showing the objectives. Slide 3 essentially describes how we spent the day in Washington. And we started with an overview of the landscape for accountable care, to make sure we were all on the same page from Cliff Gaus, who is from a trade group that's formed for a National Association of Accountable Care Organizations, such that we can all learn from one another. And this was quite a good, broad overview and elicited some conversations. And then we essentially had four panels.

The first panel consisted of physician led accountable care arrangements. And it was a broad arrangement of about five or six, if I'm recalling correctly, physicians from various types of settings who gave very robust input. We followed that with a panel that was consisting of hospital and health system let accountable care arrangements. And subsequently, had a state community-based accountable care arrangements panel. And finally we ended the day with testimony from a panel that consisted of vendors and service providers that were enabling uncountable accountable care. So within the context of what we were wanting to accomplish from our objectives, I believe we had broad input from all the stakeholders that were out there, both from a provider standpoint, community standpoint and vendor standpoint, that we hope will be able allow us to report to you both in what Charles is getting ready to deliver orally as well as a written report. Something that can help us have meaningful change to policy, when it is that's appropriate and necessary. So with that, I'm going to turn this back over to Charles, who will want you to go to slide 4, where he can start and describe some of the key messages and challenges that we identified.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Thank you, Grace. The first point here is one that I'm sure that's not surprise anyone on the panel, but it came across with a new level of urgency and attention. And that is, when you build an accountable care organization, in many ways, the financial system is now working with the objectives of meaningful use. You get paid for efficient and effective healthcare that tie in quality, and you are motivated to make that care conveniently accessed, because you are trying to keep people within your delivery system for financial and payment and care coordination reasons. And so on the one hand, I look at ACOs as kind of the ultimate manifestation of what we're trying to achieve through meaningful use from the financial reimbursement perspective. However, it also highlights some of the challenges that we have within the existing technologies and their applicability to population-based health management.

The first issue that came across, and I would say this was probably the one that came across loudest and most urgently, was data integration. And the need for data integration took multiple forms. Some of the ACOs who came were integrated delivery systems, and they might all be on a single platform and they might all have a lower level of urgency around this. But some of the ACOs had a certain number of physicians who were on staff but many physicians who practice out in the community and they may have had as many as 30 different EMRs to have to connect to and integrate with, in order to create a coherent whole. And that has proved to be a severe challenge per the testimony of many of the ACO participants.

The other thing they emphasized was not just document integration, but data integration. And I think the data term came up quite a bit, because many of the accountable care contracts, be they federal or commercial, have requirements that are pretty aggressive around quality reporting. Other – and obviously those require data. Other components, such as business critical success factors, such as managing leakage, you have to – your business intent is to keep all of the patients within your system. But the benefit design of a health plan for a Medicare product really continues to allow the participant, the member, to go to a wide variety of healthcare facilities. And so the importance of data integration, painting a picture and an understanding of what's going on with the patient from both a clinical as well as a financial perspective was, I think, probably the loudest message we heard.

And there was a fair amount of frustration expressed, and it was expressed across multiple axes, cross vendor integration was a problem where very, very large systems interested in taking on risk that might have only two EMRs and are very important clients to those EMR vendors, were unable to get those vendors, by report, to collaborate and exchange information. And I think the other big – point we heard is the importance of new payment models and that these new payment models also require a greater focus on clinical care coordination and the resulting sharing of information across multiple EMRs and across multiple deployments. So again, I think this theme of data integration with an emphasis on data and making health information exchange real, was probably the dominant theme of the day.

The second strong theme we heard was challenges around technical, strategic and financial considerations in supporting the exchange of information. On the one hand, one would argue that ACOs should promote the exchange of information across physicians because there's a financial incentive to do so. It also has potentially negative incentives for physicians and care systems to exchange information across systems. And so what we found was some organizations reporting that they weren't sure they wanted to include other providers from potentially competing systems into their ACO and, by extension, HIE. Because there's now a commercial interest in keeping the people who are within your system financially connected and not necessarily connecting people who are outside of your system, because you're trying to maximize "keepage," and technology, data and information may in fact be a way to keep people within your system.

Another thing we heard was that a sense of powerless is too strong a word, but a sense of a lack of leverage. Many of these organizations were focused on accountable care, they were absolutely embracing the strategy of achieving the Triple Aim but felt challenged in having enough leverage to drive these solu – to make the necessary solutions that will drive success in an ACO, deployed within their larger community and effectively configured either within or across vendors. And this was kind of – there was a particular exchange between a delivery system and a health information exchange – and the exchange went something along the lines of, I'm not getting the kinds of information I need from my HIE to support my ACO. And there was some comments made about an HIE not providing the needs of an ACO and the retort from the HIE was, "you joined the wrong HIE." And I think that kind of exchange really crystallized the challenges we face, that ACOs face, which is that there's still a lack of cross-HIE integration. And if you're a part of one, because perhaps of competitive dynamics with another HIE, I'm not sure, but for a variety of reasons, we're unable to access the information that was being exchanged within the other.

The next issue I'd like to present is around quality measures. As you all know, in order to be successful and reimbursed effectively within an ACO construct, in both commercial and federal ACO relationships, quality measures are commonly a component of the overall relationship. But there was reported a lack of clarity and consensus around the key quality measures, not so much from the perspective of measure A or measure B is defined differently or inappropriately, but rather, the intersection of the measurement, the data, and putting it in the hands of a doctor who can use it in an actionable way. And I think we heard a lot of information about, we can get reports, we can get an aggregate understanding of what might be going on with a patient, but translating – what might be going on with the population. But translating that aggregate qualities for, or that aggregate assessment of a population into individualized, actionable information that's presented at the point of care, so that something can actually be done about the patient, remained a significant challenge for the provider panel.

I'm going to pause there and, Grace, I don't know if on items one through five, if you have anything you wanted to add as we move forward.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

I think you did a great job summarizing, Charles, in great detail what we heard. I do think that the message that was the loudest was one, as you articulated well, is frustration, which is, particularly on the provider side. People want to do the right thing, they've bought into the concept of the Triple Aim. These are the ones that are moving forward with the idea of accountable care and they feel absolutely powerless once they've chosen a vendor to be able to impact improvements in utility and moving forward with population health services. As well as frustration that the tools are just simply not developed in ways that make it easy to get to where everybody, obviously, wants us to go.

So I felt there was a fair amount of passion and emotion in what was provided in testimony throughout the day. And interestingly to me, the ones that were from the community-based accountable care organizations, in many respects, seemed to have the least amount of frustration. Perhaps, because they're in sort of alternative systems, as it were, anyway.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Great. Thank you, Grace. Moving on to the next slide, topic number 6. We got into a further discussion around as you look at meaningful use, as an enabler, we asked them to give us comments on what is your real world experience on meaningful use as an enabler of ACO? And what we got back was two sets of responses. There were certain physicians, delivery systems that seemed to be doing a decent job of taking the various requirements of meaningful use, taking the quality measures and embedding them into their practices. So that those components of meaningful use, many of which align quite strongly with what an ACO needs for success, care coordination, health information exchange, etcetera, were actually realized. And there were some panelists who told a positive story around leveraging meaningful use for success in ACOs.

There was also another group, another perspective, which used the requirements of meaningful use, the quality measures and other components associated with the ACO, in more of a "check the box mentality." Meaning they hadn't found ways to successfully integrate the objectives and requirements of either meaningful use and/or quality reporting and so what they were simply doing, was setting up a separate process that would simply check the box, deliver a report, so they could be compliant with – reporting of requirements of the program. And there was a fair amount of debate around whether there is a path forward to success around embracing some of the meaningful use requirements, the quality requirements and using those within the routine of support of patient care. Versus those who felt that there wasn't a path forward and simply it was something that was going to be over there, called compliant and we'll create the reports necessary to be compliant. So there was a fairly robust debate around those components.

Patient-centered approaches to care was another thing that came up quite strongly. And one of the physicians, or maybe it was a hospital representative, described a scenario where we have, literally, an explosion of portals. The hospital has a portal, the medical group has a portal, the health plan has a portal, all of which have some amount of information, any one of which may be relevant and actionable to the patient. But in general, which is creating substantial amounts of confusion for patients trying to access some of the new tools and capabilities that are being deployed on a broad basis. So, patient engagement, especially in the context of chronic disease, remains an important focus for many of these ACOs. And so the importance of getting a consistent way to engage the patient across the multiple siloed components of the delivery system, the hospital, the medical group, the health plan, was something they felt needed to be addressed. And if it could be effectively addressed, would be an important step forward in getting more patients to embrace technology tools in managing their health status and any disease burden that they might have.

Number 8, this is now a business model associated with ACOs and this business model does have the potential for causing untoward side effects – unanticipated side effects. And many of our panel participants believe that there's going to be a significant number of smaller systems that simply can't make the jump to accountable care technology enabled and performance-based and worry that these requirements may, in fact, cause some of these organizations to either fold or forced to be merged.

And then finally, I think the last kind of theme we heard, was barriers and challenges in getting access to behavioral health and other sensitive information to inform care. There are, they felt variability in understanding the regulations around sensitive data and that that variability and lack of clarity of understanding was causing a continuing challenge for ACOs seeking to drive on value-based care and getting the necessary behavioral health data, such that they can use it in managing the patient effectively.

So, I think at a conclusion, it was a very robust meeting. I walked away and reflected on what we had heard, and some of the comments I anticipated. Because in and ACO by definition, you are linking financial performance of the organization, the financial performance that will sustain the organization, directly to the care management and technology programs that are going to be deployed and simply creates a higher level of scrutiny. And I think that higher level of scrutiny explains some of the responses that we heard. That said, I think I walked away also with the impression that we continue to see a pretty significant gap between the technology, the functionality, the capabilities that meaningful use proposes, and the ability to use all of that within the clinical care delivery settings and in an ACO construct. And so, as we move forward in our subcommittee, I think these perspectives will help us shape our work as we move forward and deliver an effective set of recommendations to the HIT Policy Committee. Grace or Paul, Paul was also at the hearing, I didn't know if you all had any comments you wanted to close with, as well.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

One thing I was just thinking about, Charles, that I'm not sure that we articulated yet is, there was a fair amount of emotion around the concern that some people had, that one of the things that was preventing the free flow of information was that information hoarding was a market share strategic advantage for some systems. Whether that's true or not is another matter, entirely. But I think that there was a fair amount of discussion about whether, as we move forward with accountability, how do we approach aspects of it that have to do with the ability to share information across systems in a way that's patient centered and focused on what's best for the patient, as opposed to how accountable care organizations might be construed. And there was a fair amount of complexity with that. There's a substantial amount of work that I believe we'll be able to bring forward with our written report for potential recommendations, including aspects related for how you would get a certified EHR to be more effective. And how you would actually have more seamless integration between EHRs and other applications across a population, as opposed to across a system and how information exchange can be focus of policy.

So, we've got a fair amount of work still to do to sort of bring forward some things that we think will be of help. We need some discussion, I think, at the policy level on how you bring others into the discussion. The safety net, behavioral health, social and community services are something we only touched upon at the hearing and didn't get into a great deal detail about. And also understanding how to basically also focus on populations that might be of high risk. And so, those were the sort of final points of where I think we're going to be going forward with the rest of our discussion. Paul, do you have any thoughts on that?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

I think the nine points were really well explained and they covered the sentiment that was expressed during the hearing. I think we, at this group and the ACOs, understand how much people are dependent on the access and sharing of information. I think the Policy Committee and ONC and the HITECH Program has focused a lot on whether information could be shared. We seemed to hear a lot about whether they are willing to share in all dimensions. And so we'll look forward to this workgroup in coming up with some recommendations on what things to consider on the will – would share points. Because we didn't hear a whole lot on what couldn't be shared from a technical and an infrastructure point of view, but need to understand the levers that would cause this to happen more. Karen?

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Thank you guys for the presentation. I'm sorry that I didn't get to meet you in person yet, but I'm looking forward to it. To follow-up on what Paul said, the culture change element is relevant. I think what's really fascinating to me, is that given the financial stakes, that there wasn't as much willingness on the part of the various providers engaged in the ACOs that spoke that particular day or that you're familiar with, to share information after the goal of improving the value of care. I guess what I'm wondering is, is there a back document to what you have that might give some case studies of a really fine example of how it is working? Maybe we don't want to give a negative example, but certainly to try to understand what the conditions of the environment are that perhaps make such sharing possible?

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

There's quite a lot of documentation, including written testimony from the people that were on the panels, where they gave various anecdotes of their own experience. In terms of the case study where it works, I think we heard some snippets of that in the hearing itself, although obviously what we were mostly focused on was the problems and how to get things better as opposed to what was working, to the point that you're making. We've got a fair amount of material that I believe we're going to be providing to you all and we can certainly have more focus on analyzing places where things are working well. We did hear some of that.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Right, thank you.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Yes and I think what I would add is, what I was trying to articulate was that the commercial interest of the ACO became a new influencer in the dynamic around sharing information. So within an ACO, we heard some challenges, we also heard some successes. But again, that was within the economic unit of an ACO. The challenges became when you go outside of that unit and then have commercial interest as a provider working against the sharing of information, and that was the point I was trying to articulate there. And that's where we ran into some challenges that on the one hand, it might be a defensive strategy not to share information. On the other hand, they did miss out on some of the potential care information that was happening outside of their four walls and was still necessary for optimal care of the patient.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology – Department of Health & Human Services

Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Neil?

Neil S. Calman, MD – The Institute for Family Health – President and Cofounder

So this is really of interest to me and I think, probably to lots of people. Our organization led an effort and we were just in the new round of organizations that were qualified to become an ACO. So, I thought I'd share an anecdote and then make a couple of suggestions. The anecdote is, since that announcement, I've probably had 40 e-mails from 40 different companies, all of whom absolutely guarantee that they can do all of that reporting that's essential for us as an ACO. And I forwarded them all on to somebody to say, could you please investigate all of these companies. No, but really, none of them talked about integration with electronic health records, they're all sort of standalone. We'll take the data, we'll try to figure out who's in it and we'll grab it from wherever we can, put together the requirements and I guess and process that stuff for you. So, you know, it's quite overwhelming.

The two comments that I wanted to make, two sort of features that I – two sort of types of information that I think are sort of critical, and they can flow from an electronic health record, but they're not really part of what we are talking about now. One of them is the ability for an electronic health record to generate an alert that uses technology that's outside of the EHR. So for example, if one of our patients shows up in an emergency room at night and you don't happen to be logged into your electronic health record, how do you know to alert the providers who are on call to be able to do something? There's a process now that's working through the health information exchange that we're a part of that creates an alerting function. So basically, they know who all of the patients are, not just in the ACO, but in our entire systems and basically can generate alerts. And we're now in the process of moving that into an alert that can happen through cell phones or beepers or whatever devices there are. Because we have to be – is it something I said? We have to be able to generate this information, even when people aren't on the systems and I think we should think about that.

The other piece of information, that I think runs partially from the quality reporting system is, one of the things our primary care providers want to know are for various episodes of illness, what the costs of care are for different cardiologists, for different urologists, for different folks. Because they want to be able to refer to people who have good outcomes and practice in a cost-effective manner, so some of that information, not so much on cost but at least on quality, could come out, potentially be something that we could think about coming out of the electronic health record. But that's going to be a type of information that I think everybody is going to be looking for because even if you're in a fairly closed system, there could be 30 cardiologists there who have very different styles of practice and we're going to want to use the ones who are most cost-effective.

We started to ask some of those questions to some of those institutions that we work with, but nobody really has that data in a way that's useful, yet. But I think we should start thinking about, as we're dealing with the cost side of this, start thinking about how some of the requirements that we're putting on for quality reporting can be built in to that and would help to at least generate maybe some of the quality outcomes, if not connect that with some of the cost information as well.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Neil, this is Charles, couldn't agree more with your comments and in fact, when we started out with this particular workgroup, we specifically took the perspective that we need to think beyond the EMR and beyond the HIE, specifically, for many of the reasons you just articulated. And so we have taken that broader perspective within the workgroup and I would hope and expect our recommendation to include functionality examples such as what you just explained.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

David Lansky?

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health

Thanks Paul. Thank you Charles and Grace. Charles, did you mention if there were purchasers who provided testimony at the hearing, who were sponsoring ACOs?

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

We had several panels and if you go back on the slide – a few slides, you'll see that we had physicians, hospital and health systems. So some of the health systems own a health plan, but we didn't have health plans as a specific breakout.

David Lansky, MD, PhD – President & Chief Executive Officer – Pacific Business Group on Health

So let me just give a comment or two from the purchaser point of view, because a number of our members are sponsoring ACOs or contracting with them. And I think everything you said here is definitely relevant. But I guess I want to raise a couple questions about our role as the Policy Committee in this space.

Our members who've could sponsoring ACOs or contracting with them, have had a struggle themselves and they found that they have to be very intrusive in the management and information flows of the ACO in order to get what they want as purchasers. And to the extent the entire ACO concept and movement is driven by the accountability requirements of the buyers, whether public sector or private, I think having an opportunity to listen to their requirements and fold that into your deliberations would be really valuable. Because I think they're – and the second thing about that is it's a moving target. I think everyone is learning how to make these models work and we have to be very careful not to look in the rearview mirror or build – teach to test or whatever the metaphor is, and assume that we know what the information requirements for an effective ACO will be in two or five years. So I think the learnings from the process are very important. And to that end, I think it's important for us to think about the IT capabilities that we want to enable that we believe will be of durable value, regardless of whether the ACO model survives the next five years are not. So – and I think you've highlighted a lot of those in the slides. But I hope we are careful not to get too close to the ACO business model as an IT prerequisite, in order to accommodate other emerging business models with the same or other capabilities.

And the last thing is the caution that I mention here a lot, that we should figure out where are the public policy issues here that we really want to speak to and facilitate, ACO formation and data flow, and which are really the opportunities for private organizations to innovate. And I always get nervous when I hear, for example the point you made that physicians feel they're not getting actionable data, that the quality measures are disconnected from the operational activity of the clinical care and so the data they get is not actionable. I think that's a real problem, it's a real failure of our infrastructure, but I don't think it's one that's a public policy problem, I think that's where ACOs should demonstrate their innovative ideas and capabilities. And that the vendors who – the products will be driven by the need to support clinical improvement and in turn, improve on performance at publicly reported measures. So there's a virtuous chain here, but I think we should be careful to focus on what are those publically reported measures and what are the capabilities needed to support them, but not try to prescribe the capabilities the products need to support clinical improvement, if that makes sense.

Charles Kennedy, MD, MBA – Chief Executive Officer – Accountable Care Solutions – Aetna

Yes, David, I couldn't agree more and that is the perspective we've taken, is to try to and be respectful of the difference between what the government can do as a public policy arm and what the private sector needs to do. Most of what you heard today and what we presented today was simply, for lack of a better word, a raw report out of what the field was telling us. How much of that can be acted upon or should be acted upon from a public policy perspective, is certainly something we'll keep in mind.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA

And Charles you might remember that the other thing I believe we did was actually to survey our committee members several months ago. And asked those very questions is of the things that we were looking at, as needs within this space, how much we felt could be accomplished at the policy level and how much ought to be accomplished through the market or private sector efforts. And there was certainly not a consensus that was focusing most of our efforts and discussion around, at least at the level of the committee, not the hearing. There was certainly not a consensus that there should be an excessive amount of government policy. The majority of it was relating to adjusting regulation that would support appropriate free flow of information and interoperability, would be my sort of broad-brush approach to what that conversation has been.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Also, to add a little context to this David is, there was a subgroup with some members of this accountable care – ACO workgroup that worked on quality measures. And that actually got reported up through Helen's report, Helen and Terry's report in quality measures, and that is much more outcomes focused and looking at the deliverables, rather than the model, the business model, according to what you were saying. Rob?

Robert Tagalicod – Director, Office of eHealth Standards & Services – Centers for Medicare & Medicaid Services

So, regarding the comment, and I'll paraphrase, the liquidity or the availability, the transparency of certain kinds of data, particularly reimbursement data or financial data. And I just saw in Modern Healthcare that Medicare has decided they they're going to make available, today, I mean or assuming there – announcement was today, that they would be making it available. I don't know what that means because I'll need to read what the actual thing is that's being reported – but we need to see what is also happening in the policy – other policy areas and realms. A decision has been made at the HHS level and so, how does that affect our business, going forward? So, it'll probably be a new day, but I'm sure there will be many things that will happen along these lines that will make that data and SCAD data available.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Thank you. Any other comments or questions? Well thank you Charles and Grace and we look forward to your recommendations on how to overcome some of these barriers, in a couple of months.

Grace Terrell, MD, MMM – President and Chief Executive Officer – Cornerstone Health Care, PA
– thank you very much.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, so now, we'll move to the ONC update. Jodi Daniel on policy update and Doug Fridsma on the standards update.

Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology

Good afternoon everyone, you've got our policy and standards tag team to give our monthly updates. Policy and standards are always aligned. So I just wanted – a whole bunch of things that have either been published or that have been going on that I want to draw your attention to and some things that are coming up. So, I have a lot of topics to cover today and I'll try to go through them quickly so I don't take up all of Doug's time. But, we'll just get started.

So on the safety side, so as you all remember, last summer we came up with the health IT safety plan that was an HHS-wide plan focusing on a lot of things, but looking at safety from a variety of perspectives, things that we can do in working with providers, vendors, how to get more data. A whole lot of different activities, things we could build into our policies and the like. Two things I just want to draw your attention to that we had recently – we're about to put out. One of the things that we talked about is that it's not just about whether or not products are safe, but how they're implemented in an environment. And so one thing we've been working on for quite some time are SAFER guides that are going to be released later this month. They are designed to be risk assessment tools that providers can use to help assess any safety or safe use issues with EHRs, as folks are implementing EHRs and on an ongoing basis.

So it's really designed as a tool to help folks in thinking about where there might be opportunities for them to improve on safety, as well as safe implementation of the EHRs. This is something we put a lot of effort into, looking at some of the latest evidence and bringing in a couple of experts to help us with this and I hope that they will be useful for the community and like I said, they will be out later this month. We also released a guide to identifying and addressing unsafe conditions associated with health IT and this is really focused on improving reporting of unsafe conditions by healthcare organizations and reporting to PSOs. So again, two things to help, mainly providers, to address some safety issues and to understand some safety risks within their organization as they're implementing the technology.

As you may also recall, in July of last year, we issued guidance to our ONC authorized certification bodies regarding surveillance of certified EHR technology. I wanted to give you an update on this. The ACBs just submitted their annual surveillance plan for calendar year of 2014 and have begun conducting surveillance in accordance with those plans this month, so, stay tuned, we'll have some more updates for you as we get more of that input from the ACBs. We also worked with our friends at the Office for Civil Rights, to issue guidance in the form of an FAQ clarifying that ONC's – the authorized certification body's surveillance of Certified EHR Technology is a health oversight activity under the HIPAA Privacy Rule. This is a question that had come up about – by healthcare providers in making available information and how that comports with the HIPAA Privacy Rule. So, please take a look at that if you have questions.

We had two activities that we had done in collaboration with the National eHealth Collaborative, one on patient-generated health data that I want to talk about and one on HIE governance. So when Meaningful Use Workgroup had had some – had a hearing on patient-generated health data and had had a lot of discussions about patient-generated health data and meaningful use. And we had asked NeHC to work with us and to bring together a technical expert panel to identify what is going on with respect to patient-generated health data and where there are some good practices to enhance the use of patient input with their care. We did get a report from them, they did environmental scan, as well as a report. The first part of their report focused on Meaningful Use Stage 3 and then they also, in the second phase of their report, looked beyond Stage 3 and where there might be opportunities in the future. They have worked with Meaningful Use Workgroup and made presentations to the Meaningful Use Workgroup and so their recommendations are incorporated into the thinking of that group and their recommendations. Some of the – but we do have the reports available if folks want to look at them in more detail, as well.

Some of the conclusions that they came up with, a lot of high-level recommendations. One, that patient-generated health data is an opportunity to capture needed information for use during care and can lead to improved quality care and patient engagement. They identified that while it's patient-generated health data be incorporated into practice is still in the early stages, but there were some really good examples where it has been working, in particular contexts. But there are a lot of work that had to go into – with respect to workflows, some of the policies around accepting patient-generated health data and what kind of data they could accept. We are looking at this in ONC to see if we could put out some helpful guidance or tools that can help providers who are considering incorporating patient-generated health data based on the experience of those technical experts who had experience in doing this in their own facilities.

Next, the exception – the EHR exception under Stark and the safe harbor under the Anti-Kickback Statute has been extended. I'll give a quick history lesson for those who don't know the history of this. So under the Stark and Anti-Kickback Statutes, there are prohibitions on making donations of value to healthcare providers and we need to have exceptions or safe harbors in order to make those donations permissible under the Fraud and Abuse Laws. We had had an exception and a safe harbor for electronic health records that was put into place in 2006 to enable donations, typically by hospitals, to healthcare providers, as well as some services related to the technology.

Those exceptions and safe harbors were due to expire at the end of 2013. So we worked with our colleagues at CMS and OIG and they did, in fact, get a final rule that extended the deadline to December of 2021, which connects timing with the Medicaid Meaningful Use timeline. It also, importantly connects those exceptions and safe harbors with our regulatory scheme. So in 2006, we didn't have regulatory authority, we didn't have a Meaningful Use Program, we didn't have certified EHR technology. And so we worked with them to make sure that the conditions for interoperability were connected with our ONC certification program so there is better alignment with those rules and with our rules.

So, I mentioned that there were two things we had worked with NeHC on, the second one was the National HIE Governance Forum. This work has concluded, we do have some reports that are available. The HIE Governance Forum was a group of, it was like 30 some odd governance entities across the country. They worked on a couple of areas where there were some assistance in both understanding the landscape, as well as some common consensus on approach for dealing with certain issues. There are reports on identity management, trust framework and one that I thought was particularly interesting, they dug in just a little bit at the end of the forum on HIE certification and accreditation landscape, looking at all the certification and accreditation activities that are currently going on and some of the competing and complimentary requirements that are out there. This is something we were very interested in ONC as we think ahead of our next steps on HIE governance. And I think will serve as a good starting point for us to look at the next step of governance, assess how our current approach is working, how current activities and governance are working on the ground and whether or not there is a next step for ONC. They also issued a final report and all of these – are available on our website.

Okay. So, the news of last month about the extension of Stage 2 and the start of Stage 3 in 2017, or the end of 2016 for eligible hospitals, also came with the announcement that we would be putting out a 2015 edition of certified EHR technology. This really represents a new approach for ONC to certification. So, to date, we've only done certification tied with the meaningful use rules. And we had heard that it would be helpful to be more responsive as the technology is developing, that it is developing sometimes more quickly than we regulate. And that it would be a good opportunity for us to be able to be responsive to stakeholder input, address issues that we may have put forward in adopting our prior certification requirements and reference updated standards and implementation guides.

This, I want to emphasize this next point; this is voluntary. So we will put out a proposed rule, a 2015 edition is not required for any products at this time, 2014 edition certified technology is what is needed for Stage 2, 2015 is optional. It is – it provides – our expectation is that it will provide additional options and give folks an opportunity to address some things that may have – that maybe – that the vendors may want to address and still be in compliance with our rules. So people can have 2014 edition or 2015 edition and still comply with the meaningful use requirements. So voluntary, nobody needs to make the upgrades, but it is an option to folks to do so. And we're looking at it as a way of getting feedback as well as some things we may want to consider in the conversations we're hearing from the Policy Committee and Standards Committee about products for 2017.

And lastly, just quickly a couple of issue briefs that our policy shop has posted on medication adherence and sort of a vision for person at the center, kind of building on Consumer eHealth Program. There are two things that I wanted to put on the radar screen for upcoming for this committee, one is that we are working on an update of our Federal Health IT Strategic Plan. And we plan to present preliminary – do a preliminary presentation about our Strategic Plan at the next committee meeting, to get input from you all before we actually put forward an updated Strategic Plan. Our plan with that is that we will do exactly what we did last time, we'll put out a plan in draft for folks to comment on in the public and then we will finalize the plan. Before we put out a draft though, we wanted to get your input, because you always have such great wisdom and I'm sure there is something that either we can do a better job of that may be missing, or that we can improve upon that you all bring our attention to, before we put out the draft. We are also working on our work plan for this committee and we will present that in February, as well.

So, a lot of stuff in a nutshell and I will – should we turn it over to Doug and then do questions for both of us? What would you prefer Paul?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Yeah, let's just go –

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

Right on to technology?

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay.

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

So I'll try to go very quickly, there's a lot of dense material and much of that is just notes to myself so that I can make sure that I can update you. So the first is, that this month we pass a milestone, we're three years into the work of the Standards and Interoperability Framework. This represents collectively about 2800 individuals who have signed on to our Wiki at this point. And of those, there's about 750 that are what we would consider committed members, those are the folks who show up every week to participate in some of our standards activities. We've now past 2100 meetings since we started the Standards and Interoperability Framework and it represents the collective work of about 580 organizations that have come together to sort of participate and accelerate our standards activities.

With regard to ballots, we are close to 5000 ballot comments. What's important to recognize there is that every ballot comment we get that is negative has to be resolved; all ballots are unanimous. And so, we are currently slogging through a lot of those and I'll update you with some of those, but we're about 4000 ballots have been resolved in the affirmative. We've got about 1000 to go across a series of different initiatives. But I think it's important to note that we've actually taken a number of our standards now through a second set of ballots and we've actually advanced them from testing standards to ones that are really considered what are called normative, which means they've sort of passed a higher bar with those activities. I can't take any credit for any of this, this is all really the collective action of the community that's come together to accelerate these activities.

When it comes to the portfolio, we had a total of about 17 initiatives, there are about 15 that are active at this point and we're beginning to consolidate them because clearly there's a lot of activity and it's hard sometimes for the industry to just keep track of what's going on. So very briefly I'll run through our kind of snapshot of activities. Obviously, Direct is one of those archetypes that we started out as a model for how we did the acceleration of the standards. We're working right now on the implementation phase, working through to make sure that our federal partners and others have the appropriate trust arrangements, that we've got the right technology and that we are continuing to support those pilots.

With regard to the transitions of care, this is really a standard that is core to the way in which we exchange that document-based information across all of the different care environments. We're going through our second round of balloting right now, we got over 1000 ballots, comments on the last round, it's the most that HL7 has ever had on any of their ballots. Which I think goes to show that people are paying attention and they're trying to make it right and that they see this as an important part of the portfolio of activities. We are about 60 to 70 percent through those ballot reconciliations, we figure it will take us another couple weeks to get through the remainder. But the HL7 meeting is next week and we'll use that as an opportunity to accelerate the work that we're doing.

I'm going to lump the next one together with the laboratory-ordering interface and the laboratory results interface was a standard that was set up and it was part of Meaningful Use Stage 2. We've continued to work on that and now have essentially completed what we call the laboratory-ordering interface. So this allows you to electronically order the test and electronically get the test result back. So those ballots are nearly complete, they're now working on a compendium of orderables. So each lab and each institution have different kinds of things they might want to order. So now there's a standard for how to represent that, and the communities are now trying to identify what are the most common codes for laboratory tests to be ordered, so that we can start to accelerate and make it simpler for people to sort of interact with these emerging standards. When it comes to the query health projects, we've had a brief introduction of that when we talked about the Data Access Framework with Art's presentation. We'll talk a little bit more about where that is, as well, so I'll just move on.

Data segmentation is an important aspect. That's one that has moved from being a testing standard to one that is accepted as normative. It's really there to support the ability to protect behavioral information or protect a diagnoses and to be able to make sure that in the electronic era that we still observe the policies about how that information can be shared. So if you share information electronically and you've authorized one doctor to get it, it gets incorporated into the electronic record, you don't have the authority then to take that information and forward it on to someone else, you've only been authorized for that first jump but not the second one. So what data segmentation does is, it provides metadata so that that gets incorporated with the information, so that if somebody goes and tries to forward that to the next organization or next folks, inadvertently perhaps, it keeps track of that information and can help make sure that that information is maintained as being private and protected.

With regard to the public health activities, we've incorporated that in the structured data capture. Again,

Art stole a lot of my thunder when he talked about the work that the CDC is doing there as well. ESMD as a project that we're working on with CMS. And one of the things that has limited the ability to exchange information is you need to have some – if you're committed to having wet signatures on things, because those are the things that people can kind of hang on to. If you want to move to an electronic era, you need some way of substituting wet signatures for digital signatures. And so working with Melanie Combs-Dyer and some of the others at CMS, we've actually established two digital signature standards, one for the package of documents, if you're submitting a claim or with a series of supporting documentation there's a signature for that. As well as the signature that will help support just signing a particular document, as well. And so now, we're starting to complete the loop so that even as we incorporate the work that CMS is doing on transactions and billing, we've got now kind of the ecosystem where we can move to a fully digital way of doing things using this electronic signature standard that we've got.

Long-term care is an important aspect. We actually started some – I always say they're my favorite community, because they've come together, we didn't support them, we didn't give them any money, we just gave them a bunch of teleconferences and they said we don't want to be left out even though we don't actually qualify for the incentives. And in fact, this group has been tremendously dedicated, they've gone now to their first set of ballots within the suite of transition of care standards. They've added the elements that are necessary for long-term care facilities and the like, and I think this update to the Consolidated CDA will be really important as we begin expanding beyond just hospitals and providers but to other kinds of care settings as well.

Health eDecisions, this is Jacob Reider's favorite project. He likes it when other people can sort of talk about his projects and so I'm going to talk about it, because it's really cool. But I think one of the things that's really important is as we think about quality measurement, if quality measurement is not actionable, it's really challenging then to be able to sort of complete the loop. And so what Jacob and his team are working on is to try to make sure that the kinds of standards we use for measuring quality are similar to the kinds of standards we use for improving quality. And so, we're working very closely with HL7 to harmonize the ways in which we look at clinical decision support and making sure that they match up to the kinds of standards we use for quality measurements. And that's brought together two communities that haven't always talked with one another and I think it's really beginning to change the conversation in terms of not measurement and clinical decision support, but really paired together around quality improvement.

The Blue Button activities, somebody mentioned that a little bit earlier. We have to think about Blue Button at the portfolio of standards, and we're working very closely right now with WEDI and some of the payer organizations to create a standard so that patients not only get access to clinical information, but they get access to explanation of benefit kinds of information as well. Because we think pairing those things together can empower providers or can empower consumers to really make intelligent choices about the care that they receive. And so we're working to expand more consumer friendly ways of sending that information around, using not only Direct, but other kinds of transport mechanisms that are very friendly to mobile and cell phones and things like that. And we've gotten good participation there as well.

There is – the S&I Framework this past year has gone international, so we have a series of activities between the EU, the US and the UK, to make sure that we don't create silos in the activities that we do around standards, but in fact, we have an international input into the activities that we do. And so we're working very, very hard to make sure that we have an internationally compatible transitions of care or summary of care document to work on vocabularies and terminology, so that there's some consistency internationally with that. And then we're also trying to make sure that patients are empowered to get access to their own information, because that's a way for us to get the information electronically and avoiding all of the treaties and other things that might be necessary to share information across borders.

Finally, one of the most recent one that we've launched is something called PDMP, and as you know, prescription drug abuse and monitoring that is a significant public health problem and that there are mechanisms to try to monitor that. And so what we're trying to do is make sure that the standards that are used between states to share information around Prescription Drug Monitoring Programs, can be transformed into those kinds of standards that EHRs know about, so that prescription standards and electronic prescribing can be integrated into these monitoring activities as well.

We've got a series of pilots. I always like to put this up just to say that we're not playing favorites across the country, but we've got literally all dif – pilots running all over the country. We work very, very closely with Regional Extension Centers, the state HIEs and others to make sure that we can integrate these pilots and they can test out and tell us where we're doing a good job and where we need to do some extra work. Now when it comes to these slides, this is very small, and I apologize for that, I can't even read it without my glasses, so, but I think that the important thing is that, as already Art and Jim already sort of talked a bit about what's going on with the structure data capture activities.

I think the thing to recognize here is that we can't have the electronic health record certified to capture every possible kind of information that might possibly be out there. When people start adding to the scope of things that they want to use the electronic health record to do, it becomes really, really hard. And so the structured data capture is intended to extend the functionality of an electronic health record to capture in a consistent and standardized way, more granular data elements. And that becomes a fundamental building block that lots of folks can use to collect information, and to use the EHR to be able to collect that information.

So the three, or actually four principal use cases are around patient safety reporting, to collect additional information may not always be present in an EHR, but that's important for patient safety. Patient-centered outcomes research, so that you can actually create clinical case report forms and gather additional data to help support clinical research activities. Public health reporting, case reporting, that Jim and Art have already talked about. And then CMS would like to develop templates that help with mobility devices and other things that are high cost that with just a little bit of additional information, you can provide pre-authorization for that.

We are on the stage where we're moving to some pilots with AHRQ and FDA. We've got two implementation guides, ones that are sort of business-to-business friendly transports, as well as ones that are more friendly to consumers and the like. We've got work that's going on with the CDC on cancer, case reporting for public health, as well as early hearing detection and intervention, so a broad swathe of different kinds of additional information, all of which will be supported by a sort of single suite of standards to support structured data capture.

The data access framework, if you think about structured data capture as a way of getting additional information into the electronic health record, the data access framework is a way of kind of – of creating more – easier ways of getting data out. And I think the principal things that we're looking at there in the use cases is for patients, so that patients can have patient portability, they get their information out of one system and be able to move it electronically to another system. As well as to providers who may want to do additional analytics based on quality measures that they're tracking or things they want to improve. We also are working on this notion of targeted data access, and the use case there is, you are seeing a patient on a Monday morning who was seen in the emergency room the night before and you just need to figure out what the CT scan said, it hadn't been finalized. That access framework allows a way of kind of asking that question and getting the response back. So we're working very closely with HL7 and IHE, one of the other standard organizations to get that. The next time the data access framework is going to be worked on is in Vienna, Austria. I won't be able to go, but if anybody else here can represent us, that would be a nice trip, I think, if you want to spend it all talking about standards.

So with that, I'll sort of end and we can go to questions for Jodi or I.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Great, thank you. Questions for the ONC crowd? Paul Egerman?

Paul Egerman – Businessman/Software Entrepreneur

So thanks Jodi and Doug, this was really a very helpful presentation. It's very helpful to get some information from ONC about the things that we've read about in the press and it's very helpful Doug to see the numbers and to contemplate what it must mean to have gone through like whatever you said, 2000 meetings. I've felt like I've gone through that many meetings, but you actually apparently did that. I have a question, Jodi, about your slide where you talk about the 2015 edition of certified EHR technology and I'm wondering if you could just explain a bit more about that, because when you were talking you said you heard from some source, I wasn't sure that there needed to be some changes to certification. So I was just trying to understand where we got the – where ONC got the feedback to introduce this. But I also was trying to understand how that 2015 edition relates to Stage 2 or Stage 3. In other words, if you're – if you get certified as the 2015 edition, is that like a running step towards Stage 3 or does it only relate to Stage 2, I didn't understand that.

Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology

Yeah, that's a great question. And so first off, I just want to say we are in the process of putting out a proposed rule, so I can't really say what is going to be in there. But – and there will be an opportunity for comment. That said, the way I would think about this, it enables folks who want – where there has been some movement on a pure standard implementation specification to – for a vendor to actually keep pace with the agreed on consensus on a particular standard or implementation guide, and still be able to use that product for – that providers can use that product for Stage 2. So, if there is a, kind of in certain cases where there might be an upgrade in the implementation guide, you can use old guide or the new guide, either would be fine for a provider who's trying to comply with Stage 2. The way I think of the 2015 edition is, it is voluntary for – it would be voluntary for Stage 2 and would be sort of an indicator of things that might be in Stage 3 requirements. So it would be kind of putting people on the glide path so there are not quite as many criteria that are new when we put out a 2017 edition product.

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

So, Jodi's trying to be very nice. Sometimes we make mistakes in our implementation guides, despite the fact of trying to get them all out there. The problem is once you put it into the certification criteria, you have to follow what was in the regulation, even if the community says, wait a minute we need to do this differently, this is not the correct way to do things. So rather than wait two years, where we certify people to things we know are not right, accelerating this, actually I think, we hope, will be beneficial to the vendors, because they'll be able to say, you know what, we know we're going to have to update this, we know it doesn't quite work the way we expect. This gives people an opportunity to sort of feed that into the software development cycle a little bit earlier with things.

We're not going to get to kind of the standards groups and the folks that are working in the S&I Framework, they do their very best to get it right in committee, but you can't get to interoperability in a committee. It's going to have to happen out there in the field and sometimes we learn things as a result of that. And this is a way really to kind of provide the vendors an opportunity to incorporate those things into their products, knowing they're going to have to be there anyway, as opposed to waiting – certifying to the 2014, which we know has an error in it and then having to wait until 2017 before they can fix it.

Paul Egerman – Businessman/Software Entrepreneur

That's a helpful explanation, so I guess my comments are, if it's to correct errors and these kinds of problems, if that's the only vehicle that's available to you, I guess I can understand that. But if it starts to be like we want to get a running start on Stage 3, but there's no guarantee that these things really will be part of Stage 3, and we start to add like functionality to it, then I think it becomes really problematic. And it does strike me, Doug, in what you said about even doing the errors, the way I suspect this works is a vendor – if a vendor already got themselves certified for the 2014 edition, they would have to repeat the entire certification process. Is that not right?

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

No. I mean, if there are changes that are made to the product, oftentimes they can then work with the testing bodies to say, we've made this change to the product. And they then can make an assessment as to whether you need to go back through that certification process, or what you've done has just improved a bug fix, made some minor changes, in which case you don't have to go back and recertify.

Paul Egerman – Businessman/Software Entrepreneur

So even if you issue this new 2015 process, certification rule, somebody who got certified under the 2014, if you're going to have to repeat the entire certification process again, they only have to do what might be bug fixes? Is that right?

Doug Fridsma, MD, PhD, FACP, FACMI – Chief Science Officer & Director, Office of Science & Technology – Office of the National Coordinator for Health Information Technology

Go ahead.

Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology

Yeah, I was going to say this, but Steve, do you want – all right. So there is gap certification, so you can just get certified to those things that have changed as opposed to having the whole product recertified.

Paul Egerman – Businessman/Software Entrepreneur

Okay. Thank you.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Judy?

Judy Faulkner, MS – Founder and Chief Executive Officer – EPIC Systems Corporation

I think it's a good thing that you're doing there with allowing people to know ahead of time – as we're going. I just wanted to give an analogy that might help because I've heard the vendors also say that if they think they're going this direction, and I don't know that there's a cure for it, I just wanted to explain the problem. If they think they're going this direction and they program to that, and then there's a change later on, it may take an enormous amount of reprogramming. So maybe they put in 8000 hours to do it the first way. There was a change, it may seem minor but from a programming point of view, there goes 5000 more hours, now.

And the only analogy I can really think of, it's a lot constructing a large building. And so if you say, we want all the walls to be – the ceilings to be 8 foot-high and then they start constructing it and then, no we changed it, now it's 8.5 feet high, it's a huge thing, but it may not be realized what a huge thing it may be. Or, we want this many rooms, now we want that many rooms. We want plumbing, now we want it over there. So just to allow people to understand what the vendors go through, they do have to look at those. But if they program it and they change it, it could be massive duplicate work and yet I still think it's the best thing to do, to let them know what we're thinking.

Jodi Daniel, JD, MPH – Director, Office of Policy and Planning – Office of the National Coordinator for Health Information Technology

So I just want to also remind folks, so we struggle with setting standards to regulations, it's not – it's challenging to set standards to regulation, because you're doing something that's going to apply a few years out, it sets things in stone, it's hard to make minor changes without going through a full regulatory process. So, we're trying to address that and be a little bit more nimble. And I also just want to remind folks, when we do put something out, it will be a proposed rule for comment and so if there are things that we put in there that you think are much more significant than we realize, then we want to hear that and we will weight that in. So, please respond and give us some feedback on that.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay, any other questions or comments? Thank you, Jodi and Doug. For public comment from the afternoon session.

Public Comment

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

If there's anyone in the room that would like to make a public comment, please come up to the table. As a reminder, you have 3 minutes. While we wait for people to come to the table, operator, can you please open the lines for public comment?

Alan Merritt – Web Specialist, Digital Communications Services – Altarum Institute

If you'd like to make a public comment and you're listening via your computer speakers, please dial 1-877-705-6006 and press *1. Or if you're listening via your telephone, you may press *1 at this time to be entered into the queue.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator for Health Information Technology

There's no public comment at this time.

Paul Tang, MD, MS – Vice President, Chief Innovation and Technology Officer – Palo Alto Medical Foundation

Okay. Well once again, I want to thank the committee members for participating again in this new year and a hearty and warm welcome to Dr. DeSalvo for joining as the National Coordinator. We're thrilled to have you here and you want to make some further comments.

Karen DeSalvo, MD, MPH, MSc – National Coordinator – Office of the National Coordinator for Health Information Technology

Thank you, Paul. I'm delighted to be here. I'm delighted to have Paul as the Chair of this group. Vice-Chair I guess. It's really been -- it's been great, I know, for this committee to have his leadership and I had a really nice conversation with him yesterday about important policy areas in the field so look forward to working with him and the entire committee. I just want to thank all the presenters today. It's a really nicely done job and very rich policy discussion on the part of the committee members. So, thank you guys for paying attention and coming prepared, being informed and helping us to guide our work. And, I want to thank Michelle, because I know she does hard work to see that this comes together. We appreciate that and look forward to seeing you all in February.

Public Comment Received During the Meeting

1. Regarding Neil Calmans's question regarding examples of the benefits of Health IT, this is being done: please check the HIMSS Value Suite at: <http://www.himss.org/ValueSuite>
2. There are many examples of how Health IT has benefited our patients and the community in the HIMSS Value Suite.
3. I would like to hear how the MU CQM program is being aligned with all other CMS Quality Measure programs. Thank you.
4. Members of the HITPC, Please recognize that while the work of the S & I Framework is good work, it is not possible for vendor or patient care organizations to stay informed, implement and use the functionality of all of these initiatives. There should be a focus on the top 5, next 5 and beyond. Having priorities defined among these initiatives will assist in assigning scarce resources. Thank you.