AMERICAN HEALTH INFORMATION

COMMUNITY MEETING

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Hubert H. Humphrey Building
200 Independence Avenue, SW, Room 800
Washington, DC 20201

List of Participants:

- Secretary Michael Leavitt, Chair
- David Brailer, Ph.D., Vice Chair
- Craig R. Barrett, Ph.D. (*also represented by Tony Trenkle*)
- Robert Cresanti
- Nancy Davenport-Ennis
- Nada Eissa (*representing Mark Warshawsky, Ph.D.*)
- Lillee Smith Gelinas, R.N., MSN
- Julie Gerberding (*also represented by Edward Sondik*)
- Douglas E. Henley, M.D.
- Kevin Hutchinson
- Steve Jones (*representing William Winkenwerder, Jr., M.D.*)
- Charles N. Kahn, III
- Mark McClellan, M.D., Ph.D.
- Jonathan Perlin, M.D., Ph.D, (*also represented by Robert Kolodner*)
- Steve Reinemund
- E. Mitch Roob
- Scott Serota
- Linda Springer (*also represented by Daniel Green*)

Presenters

- Kristine Martin Anderson
- Karen Bell, M.D.
- Carolyn Clancy, M.D.
- Robert Cothren
- Kelly Cronin
- Jodi Daniel
- George Isham, M.D.
- Randall M. Johnson
- John Loonsk, M.D.
- J. Marc Overhage
- Wes Rishel
- Carey Webster
- Garret Wu

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SECRETARY LEAVITT: Good morning to everyone. I want to thank you for being here. Before we get down to our formal agenda today, I'd like to take a moment and recognize Dr. Robert Wah, who most of you know. In recognition of his work I'd like to present him today with an award for outstanding service in Public Health. Dr. Wah has been -- was on loan to us from the military and I want to acknowledge the generosity that the Department of Defense has provided as well as many others who have assisted us there in technical ways and also being so supportive in our overall effort.

I also want to acknowledge in recognizing Dr. Wah, the entire office of National Coordinator and their on-going good work. This is a heavy lift in an important time. With that I'd like to begin today by asking Captain Robert Wah to come forward, and I'd like to present him with this citation for outstanding service in Public Health. Dr. Wah, congratulations. Yes, turn around please.

[applause]

DR. WAH: Thank you very much, sir. I must say it's always great to be recognized for your work by your peers. It's even better to be recognized by your bosses. [laughter] I've got to tell you, I couldn't have had two better bosses than Dr. Brailer and Secretary Michael Leavitt. This has been a great time and their zeal and energy in making all this work. And this is so important for all of us in the country and you all here in the Community as well, with the companies and the organizations that you run, but more importantly the sectors that you represent here are really what's going to push this through and I appreciate being able to be a part of it. So, it's been an honor and a privilege to work with all of you. Thank you very much.

[applause]

DR JONES: Captain Wah, those examples of dedicated and talented people, Americans who are willing to serve our country in uniform and we're fortunate to have a great many others like Captain Wah and we wish you all the best as you move forward.

SECRETARY LEAVITT: Thank you for those comments. I'm sure that there are thoughts being echoed like that all over this room and in the hearts and minds of many others. So, Dr. Wah, we're proud of you and appreciate it. I'd also like to thank Dr. Jonathon Perlin for his service as a member of the Community. Dr. Perlin has contributed considerably to the work taking place here during the past year and I'd like to wish him our very best as he leaves the Veterans Administration and heads off to the private sector.

Dr. Perlin and I have had a chance to talk some. I've told him that I feel confident his public service gene is still all lighted up [laughter] and that we're going to exploit that in every way that we can. Dr. Perlin has not only been extraordinary in his capacity here at AHIC, but I have drawn on his goodness and capability many times and he's been a strength to our relationship between VA and HHS. It's evident to me that he'll continue to contribute in many ways to our effort and to many others. So, Dr. Perlin, our great appreciation for your service today and until the final day of your liberation, but once it occurs we expect to find other ways to deploy you.

[applause]

Yes, please, Jon.

DR. PERLIN: Let me just say how much I appreciate your leadership, Dr. David Brailer, not only on the AHIC but in terms of advancing health care for all Americans. I think your zeal, as Dr. Wah said, and your passion for assuring that Americans will some day be able to go to the hospitals, doctors' offices, and not have to fill out that clip board is probably the number one thing we can do to make health care safe, effective, efficient and compassionate. And for that on behalf of VA and myself we are very, very grateful. Thank you, sir.

SECRETARY LEAVITT: Thank you, Dr. Perlin. We are at an exciting and very pivotal time in my judgment in our march toward health information technology and the vision we all have of interoperable electronic medical records in a system that is driven by the capacity for people to measure quality and cost and to create value. Today we'll talk some about that.

There are many gifted and dedicated people that are working hard to improve healthcare in the lives of people all over the country and I think it's important that we recognize them as we have today. I think it's also important that we remain mindful of just how the work that we're doing is impacting people's lives.

Earlier this month the Institute of Medicine released their report with some statistics that really begin to drive that point home. More than a million and a half Americans are injured every year by drug errors in hospitals and nursing homes and doctors' offices. On average, a hospitalized patient is subject to at least one medication error every day. The Institute of Medicine recommended that all healthcare providers use electronic systems to provide prescription drugs, to provide safer care at lower cost and I've talked to a lot of you about the feeling of urgency that I have to drive this work forward while we're all here together. I hope this report will serve as a reminder to every one of us who are here and all those that listening today about why what we're doing here matters so much.

And with that in mind, I'd like to mention some progress we're making on the work as we go forward. As you know, two weeks ago, we had a big day for the advancement of Health IT. The Certification Commission for Healthcare Information Technology, or CCHIT as we know it, which was recommended, I might add, by our action here, announced the first electronic healthcare records to be certified. Each of you at a table understands what a monumental thing that is. When doctors shop for electronic health record products, they now face a major barrier. Now they will know that their electronic health record will be able to provide them with higher quality care at lower cost and less hassle and that the EHR will connect them with the rest of the healthcare community.

I think I've told all of you about an experience I had while I was at Stanford. Recently, I was wondering around the hospital actually with my brother who is a physician there and we walked up to the pathologist bench and there were a group of pathology students working over a sample and a fellow said to me, "Mr. Secretary, I heard your speech about Health IT and I want you to know I believe what you said. I'm about ready to leave the school here and go out and practice and I just have one question. Which system should I buy?" [laughter]

He said. "I want to be part of the electronic medical record world. I want to start my practice with that in mind but I can only afford to do this once. I can't afford to be wrong. What would you propose I do?" Well, I told him about what we're doing in terms of our efforts to bring certification to systems in a very short period of time from then. There would be systems that would begin to earn the CCHIT Certification and my suggestion would be he begin to look for systems that bore that brand.

And today there are 18 systems and soon to be more who have achieved that, and I believe that number will increase rapidly particularly as we begin to make clear that many of the large buyers who sit around this table in the public sector and many like them who are in the private sector will begin using that as a criteria for their work.

Certification's an important step in helping doctors adopt Health IT. Another important step is making sure that are rules and our regulations are keeping pace with this rapidly changing landscape. I'm very pleased to announce today that HHS will publish rules creating anti-kickback safe harbors and physicians self-referral [inaudible] exceptions. Many of you are aware this was made available to us through the Medicare Modernization Act of 2003, and we've been working to make certain we do these right.

These regulations will allow certain donations of health information technology that may have been, not been permitted before. There's things that hospitals and health care providers and health plans will be able to take an active role in putting electronic health records in the hands of physicians. And it means that physicians who are willing to use these new systems have a better chance of getting them much sooner.

As I talked to that pathologist at Stanford, I suggested to him that one of the things he might want to look at are the hospitals that he would be interacting with, and to make certain that his system was compatible with theirs. But I also added it's important that their system is compatible with the rest of the world, and that having a brand of knowing that CCHIT has certified that that system is at least technically capable of interoperability in limited ways now, but in expanding ways in the future will be a very important thing.

As you know, the House of Representatives has been working on this issue and has passed the Health IT Bill that will now go to conference with the Senate's bill. This puts us within reach of a real opportunity to advance this work further.

Unfortunately, the House bill contains a serious flaw treating the health IT as if it doesn't matter if it's interoperable. That's like having a cell phone that can't talk to other cell phones unless it's -- from another network. Let me restate that; that's like having a cell phone that can't talk with other cell phones from another network.

There are some who would welcome this, and who would like to promote a closed network precisely for the anti-competitive reasons that Stark was put into place. As drafted, the House bill allows this type of ineffective, closed communication and anti-competitive behavior to occur.

I would urge the conferees to re-examine the bills and to make interoperability a specific requirement. Further, I'd invite the conferees to review today's regulation and to use it as a road map for their own deliberation.

The HHS regulation was a product of listening to many voices, including those of the law enforcement community, and balances the competing influences of rapid adoption and interoperability. By making the statute consistent with HHS regulation, we'll be able to advance the cause of health IT in a way that ensures that we're truly making progress and not memorializing future obstacles to all that would benefit information sharing.

By advancing today's rule we'll give more doctors access to electronic health records and electronic medical systems. This will help them deliver on the promise of health IT to more patients. That's higher quality patient care at lower cost and with less hassle.

To consumers of health care that means that we have, we're another step closer to the day when we can walk into a doctor's office, whether they're at the same doctor they saw a year ago or new ones, and they'll be able to recreate an entire medical history by filling it, without having to fill out endless forms.

We're now steps closer to the day that we can travel the country and the world and know that our health information can travel with us. We're also closer to the day that we can rest assured that the prescriptions we are getting are the ones that were intended by our doctors, and not simply a mistake that's been deciphered, mis-deciphered from their handwriting.

I want to thank all of you again for your tireless and dedicated work to this, to this effort, and I am looking forward to continuing to make progress together. I've had occasion over the last several weeks to be traveling throughout the country to visit those who are working in specific communities with pilots on health IT. We are closer than most people think to the vision that we have of interoperable records, and what we're doing here today is of enormous importance, and I'd like to thank Dr. Brailer for his continued willingness to serve as we work through the transition of his liberation.

[laughter]

Not so fast, Dr. Brailer. And like to ask you to now move us forward on our agenda.

DR. BRAILER: Thank you, Mr. Secretary. I should say on a personal note that I questioned my liberation when I woke up this morning to 100 degree temperatures in Washington. But it is good to be here with you, and our --

SECRETARY LEAVITT: Stay inside and work, David.

[laughter]

DR. BRAILER: That's what you told me a year ago, too. [laughter] It's still good advice.

[laughter]

This is our seventh American Health Information Community meeting, and I would like to add just on a personal note that this has been a momentous month. As the Secretary already said, the emergence of certification, the House bill, and the secretary's announcement today for the anti-kickback, safe harbor, and Stark exception, I think are momentous and fulfillment of things that I'd identified as top priorities for my work when I came to government.

And I'd just like to note, as well, that our permanent movement towards interoperability and data portability is a step closer than we've ever seen, and I appreciate very much, Mr.

Secretary, your leadership, and your continued ability to take us all in a direction where we've wanted to go for 30 years.

I would like to note that this meeting will be a critical end point of a lot of background investigation by the American Health Information Community. As you remember, three meetings ago we had a substantial number of recommendations that were discussed and approved, and since then we've been digging very much back into the core issues that support data portability and interoperability. And the issues that are before us today, in terms of emergency response, EHR recommendations, the NHIN quality measurement, and finally the strategic direction for government plans and policies in health IT are all core issues at this meeting, and we have a lot of work to do.

Before I turn to those topics, I would like to, in addition to adding my personal thanks to Robert Wah for coming with us at a very critical time, to also thank Mark Warshawsky, who recently left the Treasury, and therefore the AHIC, who's now replaced by Robert Cresanti, and we're very glad to have you with us, and we appreciate Mark's service.

And also I'd like to thank the more than 1,000 volunteers who have worked on AHIC Workgroups, NHIN collaborations and consortia, Workgroups for the Certification Commission for Health IT, and the Health IT Standards Panel. It's been an enormous effort from a large number of people, bringing us to this point.

Also by way of introduction I'll just introduce to you the new executive director of the AHIC, Judy Sparrow. Judy, please stand. Judy's available to you 24 hours a day. Sorry, Judy, just kidding.

[laughter]

Judy comes to us with a substantial depth of experience in healthcare, in organization, in government, will bring a level of maturity and leadership that you will see help us go to the next level as we begin to even deeper issues.

I'd like to thank the ONC staff for helping me move through this transition, for having us come to a point where we do have these major events to begin dealing with.

At this point let me begin the meeting and turn to Lillee Gelinas for the EHR Workgroup recommendations on Emergency Responder Use Cases.

MS. GELINAS: Thank you Dr. Brailer, and good morning everyone, Secretary Leavitt. This discussion will contain one recommendation addressing the issue of emergency responder EHR needs, and use case development.

So to get us centered on how important this recommendation is, I'm going to give you some background. Some of the needs for interoperable electronic health records were prominent in the Katrina response efforts. Triage systems needed to communicate with temporary care systems, and temporary care facilities with longer term care facilities. Providers in evacuation centers needed access to the medical histories of evacuees. Evacuees needed to have records of the care provided to them in transient facilities. People who were permanently displaced needed to have their new permanent care providers have access to all of the medical history.

In the federal response to Katrina Lessons Learned Report, Recommendation 62 of the report states, "Foster widespread use of interoperable electronic health record systems to achieve development and certification of systems for emergency responders within the next twelve months." There are a number of initiatives already underway to begin to address the needs for an emergency response EHR. There are several federal agencies already engaged in this work.

To truly make these efforts interoperable and mutually supportive there is a need to harmonize the standards for key healthcare data elements. These harmonized standards will be central to many of these emergency response activities, but will also play important roles in routine care and routine care systems.

The federal efforts in this area need the support of the community. To prioritize the development of a use case for an emergency response EHR, so as to set into motion the full spectrum of the Health Information Technology Standards Panel, the nationwide Health Information Network efforts, the Certification Commission for Health Information Technology, and others.

HHS has committed to using the federal health architecture program to help develop a use case for emergency response EHR's. The FHA will invite participation from the organizations listed above and others. We ask the AHIC to prioritize the development of an emergency responder EHR use case with the following recommendation.

Under the leadership of the Office of the National Coordinator for Health Information Technology, an emergency responder use case should be developed and prioritized for the attention of the Health Information Technology Standards Panel and other ONC-led initiatives.

The use case should describe the role that an emergency responder electronic health record will provide, comprising at a minimum, demographic, medication, allergy and problem list information that can be used to support emergency and routine healthcare initiatives. The use case should leverage the work in related activities from the AHIC EHR Working group and elsewhere. In order to meet the needs in a variety of follow up activities, this use case should be available in October of 2006.

I'd like to add that this recommendation is supported by information obtained through research and much testimony to the Electronic Health Records Workgroup. Dr. Perlin, I also want to acknowledge his tremendous leadership of our work group. Our Workgroup spent many hours behind the scenes formalizing this recommendation. I'd like to point out Recommendation 62 in the Katrina report also strengthens the background and the basis for this recommendation. So, Dr. Brailer, I turn it back to you.

DR. BRAILER: Okay, thank you, Lillee. I'll first turn to the Secretary for any introductory comments about this issue given the importance of his leadership in the emergency response in Katrina and the discussions about this ensuing.

SECRETARY LEAVITT: Well, I want to thank the group for their work and I will just add we all saw first hand why this is important. We're in hurricane season again and we wake up every morning, at least those of us involved in this part of the business go to the weather channel first

to make certain there's no large spinning going off the coast of Florida or east of there. We never know when it will be needed again. We need to be ready and I'm anxious to drive this forward to that at the end of the year, we could meet the recommendation. I want to thank you for your work.

DR. BRAILER: Discussions among members of the Community. Anyone? Okay.

MR. GREEN: I have a question. It lists the records should comprise at minimum among other things a problem list information. Is that diseases or --

DR. BRAILER: It's a term of art, Dan, in healthcare that refers to a collection of systems or diseases or on-going problems, if you would, that the patient has under management. It's meant to be a looser definition that just a set of diagnosis and obviously from a technical perspective, harder to be able to compile that data because it's not just diagnosis. So, one of the standards discussions that will be held and has been held is the diagnosis from claims or from other sources sufficient for that or does it have to go further.

MR. GREEN: Thank you.

DR. PERLIN: I might add to that. Lillee mentioned that we heard a great deal of testimony. In fact, maybe it'd be useful to identify some of the sources of the testimony. In addition to the American College of Emergency Physicians we also heard from direct front line emergency responders, EMS services, as well as individuals and organizations that served in Katrina.

In fact, the AHIC heard testimony of aSouthern Governors' Workgroup that found certain essential information and what was really remarkable and frankly convergent with our experience in Veterans Health Administration was that these characteristics, these data elements, were they universally necessary and in a sense the minimum set, and I think we were frankly taken aback by the degree of consistency convergence that identified these specific elements repeatedly.

DR. BRAILER: Steve?

DR. JONES: We, of course, concur with the recommendations met as you move forward. I would ask you maybe to look. And we've captured about 500,000 electronic health records over in the combat zone. And there may be some applicability there as we move forward because you know that's tough to read in an emergency situation. So, it is as we would offer to, if it's applicable, we would ask that you look at that system.

DR. BRAILER: I'm sure this will be taken up under advisement and I would just note the very strong support that both DOD and VA have given to the Federal Health Architecture Project in conjunction with HHS, where a lot of these more technical discussions have occurred and certainly where the sharing of different ideas from the field of battle or just from day to day healthcare in the states has come forward. So, thank you and I'll make sure that's passed on. Any other comments or thoughts? Kevin.

MR. HUTCHINSON: Just a comment from a pharmacy perspective we would whole heartedly support the recommendation, and just note that over the past 90 days there's actually been collaboration amongst the pharmacy industries for preparation for an emergency response plan. Also working with the Southern Governors' Association and others in that environment and are

very close to be able to deploy that plan for delivering medication history from the pharmacies to electronic healthcare record systems as well. So, we stand ready to support the recommendations.

SECRETARY LEAVITT: That's terrific.

DR. BRAILER: Ed.

MR. SONDIK: From a bio-surveillance point of view, I can't think of anything actually more critical than having information from the front line that can get directly into the pipeline and I think this is important for that purpose.

DR. BRAILER: Okay. Any other discussion on this recommendation? Anyone opposed to its acceptance? It's accepted, it will be transferred under a letter to the Office of the National Coordinator and the Secretary in his other role as Secretary. And with that thank you Lillee and John and thank you to your Workgroup for working on this critical recommendation.

With this, let me turn to the next stage of the agenda, which is a discussion about quality and transparency which will be lead first by Carolyn Clancy and with a variety of other people including members of the Community from across different spectra of the healthcare industry.

Just in terms of setting up this discussion, while this group goes to the table, I would say that to remind you this will now be the fourth discussion about quality and quality measurement in the American Health Information Community since its inception. These discussions have come forward because of the critical nature of quality, as we know, the critical role that Health IT plays in as much the recent push and interest in the healthcare industry and the administration for transparency.

I would just comment that this discussion has been set up by a substantial amount of background investigation by the Office of the National Coordinator, by AHRQ, by CMS and other agencies along with the other parties you're going hear about and is intended to be a critical decision point for the community as it moves forward in this agenda.

SECRETARY LEAVITT: I would just add this. I alluded to, in the last two weeks most of my travel has been devoted to this subject. I've been visiting the pilot sites. I've been in Wisconsin, I've been in Boston. I've been in Indianapolis. This next week I'll be in Minnesota and Phoenix and California. I will have visited all six of the pilots that have been set up.

The urgency I'm feeling is I can see the confluence of events very soon leading us to discussion in Congress over physician and hospital rate reimbursement issues. And there is an obvious collision coming, because in order to solve the physician reimbursement, for example, something dramatic has to happen, like either Congress has to put 180 billion dollars into the Medicare pot or we're going to see changes in reimbursement rates. And I think ultimately this is going to get down to a discussion we've got to find a third alternative.

And the third alternative seems quite clear that it's going to have something to do with quality measurement and as it's termed in the business, pay for performance. That capacity is so -- our capacity to actually deliver on that promise is so limited right now that we're all talking a good game but we don't have the capacity in large scale to actually measure and do it in an efficient way. And I think the world's very quickly going to turn to us and say, "How can we move this

along faster?" And so this conversation is worthy of our focus and I'll look forward to more discussion when we're done.

DR. CLANCY: Good morning, everyone. I'm delighted to be here. In case you might be daunted by seeing a large group of terrific people up here, let me assure you that each presenter will be crisp but quite brilliant. They've already assured me of that. And underneath each chair is a trap door so that if they exceed their time I have a button to make sure that they'll do that. I'm going to set up the conversation here. But I think the theme the Secretary articulated very clearly is one of urgency.

So, let me just get started. At the end of all of the presentations we'll have time for questions and discussion and then present some possible options for next steps. A repeated theme through our discussions of quality, even when it's not formally on the agenda in this form, has been that numerous reports confirm a substantial gap between best possible and actual care.

So our annual report on quality for the past two years has shown annual improvement across all populations and settings of 2.8 percent. Now, given a base line that was published several years ago saying that Americans receive recommended care 54.9 percent of the time, I'd celebrate any momentum forward but as Randy Johnson will tell you a little later in his presentation, and I think all of us are aware, expenditures are going up much, much more rapidly than that. So that creates sort of a value disconnect if you will.

And purchasers are feeling the pressure in a very big way, and they're increasingly demanding from providers that they demonstrate the quality of care that they deliver. And they're doing this for two reasons. One, in many of their own industries, they know that as they improve quality they can often cut cost from the system. And the second is just this failure disconnect. We're spending -- our expenditures keep going up at a very rapid rate. Quality is not.

Over the past several years we've seen numerous examples where public reporting of performance has been associated with significant improvements in care. We've see this in our report. We've see this as a result of the CMS led efforts in hospital reporting and nursing home reporting and so forth. In fact, public reporting has become so popular that there's also been a clear recognition of the need to align sometimes disparate efforts. So states sometimes are making different requirements or requests or suggestions depending on the context of hospitals and others than the Joint Commission is and so forth. So this issue of alignment has become quite critical to providers, because they recognize if they use all of their time in reporting on quality they're not going to have a whole lot of time or resources left to actually improve quality, which I think is their shared goal.

Moreover, there has been a great deal of innovation in the private sector linking payment with performance and a lot of signals from the Congress that they would like to see this applied to the public sector as well. To date, many of those private sector efforts have not had the critical mass to have a huge impact or certainly not consistently in every community in which they've been rolled out. And I think most importantly, and if there's one consistent theme that cuts across all of the discussions in this Community, it's that we should be focusing on a consumer focused healthcare system and that can't work unless consumers have valid and reliable information about the quality and cost of care.

So, where are we in terms of quality assessment? Well, in many areas we have a lot of measures. However, the measures tend to be somewhat siloed by site of care or what can be attributed to

the care provider by an individual clinician. We have not done quite as well in episode based or integrated measures that follow the patient across settings. In addition to that we don't yet have robust measures for all physician specialties, although the good news is they are actively under development at this time.

Over the past several years, and you'll hear more about this in detail from Chip Kahn and then from Doug Henley and George Isham. We've seen the emergence of quality alliances. These are collaborations between providers, purchasers, consumers and accreditors that have focused on a single premise. If we had one uniform set of metrics we could come to uniformity in reporting so the consumers have comparable information regardless of where they live. That would reduce the burden on providers and, in theory, get everyone more focused on actually improving the care. And the work that they've done is quite remarkable and again I don't want to steal thunder from Chip, Doug and George but you'll be hearing more about that.

More to the point, very recently the two alliances have come together to create a sort of coordinating steering committee so that they can begin to continue addressing gaps and existing measures that particularly those that span settings of care. It is the same patient that's supposed to be getting beta blockers in the outpatient setting who's also supposed to continue receiving them in the hospital and then when they're discharged home and so forth. So, I think that's a very exciting development.

However, in the point of our discussion today is that efficient data capture remains an aspiration. Current electronic health care records do not support easy reporting of quality information. So the little joke that happens at quality meetings is periodically someone will say, "We're not quite at the point where you can simply hit F7 and the measures will be uploaded and the reports sent to all the right parties."

This creates something of a tension. On the one hand many hospitals and individual providers are beginning to make investments in electronic health records and you would expect that to increase after the recent report from the Certification Commission. On the other hand, that's not really helping them with reporting on quality. So, that's really the reason we're bring this issue before you today.

So, just to present some high level opportunities to advance automation before I turn to my colleagues, one strategy would certainly be to examine options for and the feasibility of accelerating the use of clinical electronic data as a substitute for the manual abstraction of charts which is very labor intensive. And in addition to the use of administrative data, a related strategy would be to examine effective approaches used to capture clinical data electronically and some of the successful private sector initiatives, those of you who follow the work of the Bridges to Excellence Initiative will know that the use of electronic health records was a very key part of this.

We also think it would be important to review the challenges encountered by healthcare organizations with full electronic health records and reporting on quality of care. I'm guessing that, like myself, many of you have gotten sort of panicked phone calls from people saying, "I don't know what to do. We just got our electronic health records. Everything is actually working pretty well. But I don't know how to report now to the accreditors. Where is that functionality?" And Kristine Anderson is going to talk more about that.

And then, finally, to identify some emerging best practices that link quality assessment and clinical decision support. At the end of the day, the game is not about reporting, it's really about improving quality and giving consumers good information on which to base their decisions.

So, with that, I would like to turn to my colleagues and just give you a overview of what you'll be hearing from. First, we'll hear from Chip Kahn who's going to discuss what's been happening with the hospital quality lines in a bit more detail. Second, where going to hear from Kristine Martin Anderson from Booz Allen, who's done a terrific case study demonstrating for us what are some of the disconnects between current electronic health records and reporting on the quality of care.

She will be followed by Doug Henley describing the work of the Ambulatory Quality Alliance, or AQA, followed again by George Isham who's going to discuss a very specific set of issues taken up by the AQA focused on data aggregation and then last but by no means least, we're going to hear from Randy Johnson who chairs direct strategic initiatives for Motorola and his long career in HR initiatives. And then we'll come back at the end. I'll make a few comments and we'll tee it up with questions and answers. So, with that, I turn to another member of the Community, Chip Kahn.

MR. KAHN, III: Well, thank you and good morning. First let me say, let me sort of step out of my hat here and say to the Secretary that the hospital community was partly responsible for the way the Stark language was worded and we'd be happy to work with you. There were some reasons and concerns we had but I think if we can work through those concerns, we'd be happy to sort of see Congress in the conference, make some progress on making that language more interoperable for the Stark. So, we're ready to work with you and happy to. So I'll start with that.

Second, I'd like to thank Secretary and David for recognizing the importance of the convergence of these issues of developing EHR in all its various forms and measurement and reporting. We at the Federation have been very concerned about this and I've brought it up a number of times and I appreciate it getting recognized by the Community.

And one of the things we did was join with Booz Allen and began to look at the issue and get some work done. And Kristine will address that work. I'm going to talk about the HQA for a few minutes and give the background there. Because obviously HQA and AQA are part of this process of trying to improve measurement reporting of quality for the public.

First, the purpose of HQA is to improve healthcare for Americans and inform patients through measurement and reporting. Our objective has been two fold. One, over time to try to develop one-stop shopping so that the consumer, they paye, and the policy maker sort of has one place to go to find the information available about the quality of services in hospitals, to get that measurement and reporting on a single platform. And also to expand that the scope of that measurement so that all aspects of the hospital experience would be available for the consumer, for the payer and policy maker.

HQA is a public/private partnership. CMS, AHRQ, other parts of the government play a role in it. Employers, labor, consumer, providers, regulators, and accreditors are a part of HQA and have been from its start. We have a hospital compare website which HHS operates where our 21 measures are made public for each hospital in the country. Let me say that this issue of measures and trying to expand the number is our top priority. But we have to take into account as we think

about expanding measures the issue of how you get a measure out of a hospital. And that's where, and Carolyn began to refer to it, that's where we have the sources of information.

For most hospitals, it's still the paper record. And a nurse or a clerk has to go through a record to come up with the information for the measures. Sometimes the hospital may have various components, electronics. So, there will be someone sitting at a monitor. We are not at a point where there is anything like the F7 function, the function 7 that Carolyn referred to and I should note in my conversations particularly with the IT people, with the hospitals, that I represent is we're very far from even thinking of how to make that work. So, making this climbing over this wall and bringing about the convergence is a key issue.

It's particularly a key issue for us in the industry because the DRA is going to make a lot more demands of us, justified demands, in terms of expanding the number of measures. I think when the reg [spelled phonetically] comes out today or tomorrow for this year, for the prospective payment system there's going to be a mandate for more measures. Next year, there'll be more measures brought October 1 of '07. And finally in October 1 of '08 we'll be expected to meet some kind of pay for performance based on those measures. So, there's a big agenda we need to meet, a lot of demands on hospitals. We want to meet those demands but at least in the short run the current possibilities of EHR are not going to help us very much through that.

Let me say that HQA formed a number of years ago. It's worked informally through a consensus processes lead by Dick Davidson at the AHA. And it's worked fairly well to get a website, to get real reporting, to get expansion of measures. But we need to go through a process of formalizing our processes, our priority setting, our governance, expanding our model. And that's something we're going to go through in the fall, which I think will give us really a boost in terms of being able to produce more possibility of information from proving care and for consumers.

Let me just conclude with two thoughts. One, there are tremendous expectations for the possibilities of measurement reporting. Policy makers, employers, we're going to hear that this morning, consumers have a lot of possibilities. That can't be met on the current trajectory of HIT. There's a false impression that the current direction of HIT and EHR proliferation hospitals will make measurement seamless. At least on the current path we're not heading there. So, I would encourage a strategy to develop HIT and EHR's that materially can contribute to measurement, which obviously plays out in the agenda of the Community, if you choose to make it so. And I'll end on that note.

DR. CLANCY: Thank you, Chip. Kristine.

MS. MARTIN ANDERSON: I'm going to attempt to make some of Chip's comments come to life about data collection. So, today, as Chip mentioned, hospitals are deploying very highly skilled nurses and medical records personnel to look through both paper and electronic charts using complicated algorithms to come up with the quality metrics.

But that's not that easily understood because I think when you look at the face of it, particularly medication measures, this is one of the measures that's included in the HQA measures today, the percent of acute myocardial infarction, or heart attack patients, who have received a beta blocker within 24 hours of arrival at the hospital, it seems relatively straight forward with an EHR, that once a patient is identified as a heart attack patient that there would be, through the computerized physician order entry, an order set that would prompt the physician to order the necessary therapies including the drugs that are due on arrival, like a beta blocker. And that that record

would then go electronically to the pharmacy where the pharmacists would verify the prescription and fill the drug. And then that would go, again electronically, and then the medication would come to the nurse to administer it and then she would document, or he, the event in an electronic medication administration record. And this is all true. This happens and it happens today.

But the challenge is not in knowing was the drug given into a patient. The real challenge is in knowing whether or not every patient that should have received the drug received the drug. And that patients that should not have received that drug did not receive it. So, it's about appropriateness of giving therapy. And that raises issues around contraindications. And this is where the challenge really lies.

You need to know if the patient was allergic to a beta blocker. You need to know whether their heart rate was less than 60 beats per minute because that would be a contraindication, whether or not they had heart failure on arrival or 24 hours after arrival, whether or not they were in shock on arrival or 24 hours after arrival and a longer list than that. In fact, most of the algorithms end with a statement that says, "or any other reason documented by the physician in the record" for why they did not receive that particular therapy.

And so what happens is a highly skilled clinician or medical records person does an investigation through the chart looking through the history and physical, the nursing notes, the physician notes, the progress notes, looking at electrocardiogram reports, looking at vital signs, often graphic records, to look to see if there's any indication of a contraindication that would say the patient should not have received the therapy.

And that's where we're mostly looking at clinical documentation. There are not standards in the medical record for where you would find individual pieces of information. It can be anywhere in the record. In addition, clinicians who document in the record, some are very prolific and would write paragraphs about why they made the decision they made and others used short abbreviations that are to be interpreted by whoever is looking at that record. And there's no standard nomenclature for how they might denote that contraindication.

That clinical documentation effort is a cultural challenge, trying to take away the pen and the paper from the physician and get more structured documentation is a very large challenge that can come at the expense of adoption if you're not careful with it, as the physicians are already feeling burdened with using the computer for their order entry. And so even if there are templates that would have the clinician fill out, to note whether the contraindications are present, the current systems are rather passive in their encouragement of the use of that template, in the sense that there's no way to force a clinician to document specific information in a record that you can then extract out even if you had sophisticated free text searching and could look through the whole record and pull it back out.

So, as it stands today, even if you have an electronic health record, you can't take the chance that there would be error in your reporting. So, most hospitals, or all hospitals, would use clinicians to review the record and make sure that they agree with whether or not the patient was appropriate to receive a particular therapy.

In addition to that as we think about even current measures or cross continuum measures, we need interoperability with the ambulatory record, even using the current example, not all the contraindications would be in the in-patient record if it's the first time, in particularly, a patient

came to that hospital, or if the history and physical was incomplete because of the patient's condition on arrival, that it would be useful to have longitudinal data for that patient.

And sometimes it's not just good enough to give the right care to the right patient but you have to do it at the right time. And so there's a timeliness issue where, for example, you might need information about a therapy or a test that happened in an ambulance in order to meet the time requirements once the patient's admitted.

So, what that brings for us is that we have to think about parallel processes. We don't want to slow down electronic health record adoption in their current iteration. Nor do we want to slow down the focus on decisions at the point of care so that you can ensure the right therapies are given. We want to have some connection between that current evolution that's occurring and this need to document whether or not the right care was given in the sense that we know there's variability in delivery of care and we know we want transparency into that variability. And therefore -- and we need to use that to improve and also to promote choice. But we also need more efficient reporting so that we can expand the number of conditions that are considered. And so this is worthwhile and difficult work for providers, vendors, standards organizations and measure developers to work together and think about how you can link these two efforts.

DR. CLANCY: Thank you. Doug.

DR. HENLEY: Well, thank you and good morning, Mr. Secretary and fellow commissioners. Let me first say that I, too, want to express our thanks for allowing us to present this information today about the intersection about quality improvement and the work of the community in HIT.

I would also say its pretty heady stuff when you are a former country doctor from southeastern North Carolina and Dr. Clancy refers to you as being brilliant. [laughter] And all I can say, Carolyn, is bless your heart. [laughter]

The focus of my comments this morning are to indicate to you the role and purpose of the Ambulatory Quality Care Alliance, now called the AQA. And the importance of that Alliance, that coalition, in moving to quality agenda forward in this country, particularly as it relates to the ambulatory environment, but as Carolyn as indicated, we are now intersecting very much with the Hospital Quality Alliance so it's all seamless for the individual patient.

As you can see, the Alliance does represent a broad spectrum of important stakeholders, not just physicians but consumers, employers, all payers, etc. And the purpose and function of the Alliance is to be very transparent, and I underline that word transparent. In terms of how we manage three important processes.

First is, how do we apply performance measures for implementation across all payers? How do we then take that data and report that both publicly and to the physician and other clinician community? And thirdly, not on here, but George will go into more detail about that, but thirdly how so we aggregate such performance data, again, across payers, so that the individual patient level or physician level, it's not the number of patients with diabetes of one health plan, but all the patients with diabetes being taken care of in a practice or in an institution across all payers. So that the end, the number of patients is statistically valid, upon which to make important quality decisions.

Now, the AQA steering group is made up of very important stakeholders as listed on this slide and I would add to that this the Center for Medicaid/Medicare Services is a very component of this steering committee, Dr. McClellan, Barry Straube, Trent Haywood and others are very important engagers in that process and we appreciate them being there very much.

As others have said already today, in today's environment, both ambulatory and institutional electronic health records are not robust at this time in their ability to seamlessly to collect and aggregate and report quality data in an automated fashion. That is a huge challenge to us and I believe the Community can play a very important role in that which I will mention shortly.

It does, for this process to move forward, I am convinced that this requires the consistent use of the same performance measures across all payers and all sights of care, etc. That is necessary for, if we are thinking about automation of this process, that is necessary so that we can develop the important technical specifications behind those performance measures that can be programmed into electronic records software.

One would think that that is an easy task. But it's not, because as Kristine has already said, into that programming, you have to include the opportunities where deviation from a performance measure is appropriate and necessary for clinical reasons. Kristine mentioned the issue of contraindication, allergies and side effects. But let us now also understand the importance of patient choice in this process. And that needs to be considered as well, and that needs to be documented in the context of that decision-making between patient and physician or patient and other clinicians.

And, again, the goal and purpose of all this is ultimately to get away from the current use of administrative data to use imported clinical data, not abstracted in a human process, but abstracted in an automated process very efficiently.

Now I do believe that as the Community we have some short-term opportunities that we can relate to in a very important way. One is we can consider the development of use cases around quality reporting that may then lead to recommendations or direction criteria to the HIT standards panel for the development of appropriate standards that relate to quality reporting, both in terms of how we aggregate the data and how it's reported and how it's collected.

And finally, those standards, those criteria can be moved on to the certification commission so that they become part of the certification process for electronic health records now, for ambulatory based next year, as the CCHIT begins to address inpatient electronic health records.

I will conclude my comments, Mr. Secretary, by adding the following point. The process of measure development, measure approval and measure implementation is very important. And there is coalescence now in this country that I think the Community, and I hope you personally will continue to endorse. And that is that the measure development process primarily occurs by the NCQA or the Physician Consortium for Performance Improvement. Others, such as RAN, and others that develop important evidence based performance measures.

But they all then go to the National Quality Forum for validation and approval. And then they come to the HQA or AQA for implementation. That lends trust to they system, both for consumers as well as payers, employers and physicians. And that process is very important to this. It's also very important that we use that process for the consistent use of measures, which

again can then lead to the development of technical specifications for automation of this process through EHR's. Thank you.

DR. CLANCY: George.

DR. ISHAM: Thank you. So it's a pleasure to follow Doug Henley and appreciate the value of a good 'Bless your Heart'. [laughter] Secretary Leavitt and Dr. Brailer and members of the Community, I want to thank you for giving me the opportunity to speak to you today about the important work undertaken by AQA to use health information to improve the quality of health care delivery. I want to congratulate you on your work to promote President Bush's goal by providing all Americans with access to electronic health record that can be used by employer to empower consumers and their caregivers to make better health care decision and help improve quality value and efficiency throughout the US healthcare system.

We believe that AQA's initiative to provide to provide patients and clinicians with quality information is an important part of this process. I'd like to cover briefly, then, three things. One, the work of the AQA data sharing and aggregation Workgroup, which I co-chair and how it relates to AHIC's work. What's needed to enable quality reporting and then short-term opportunities to advance automation.

Before I speak about the work about the Data Share and Aggregation Workgroup, I'd like to make some comments about AQA itself. First, it was established in the fall of 2004 to determine how to most effectively and efficiently improve physician level of performance measurement reporting. Multiple measurement systems currently in the market divert limited resources and focus away from clear priorities to improve care. And clear priorities are absolutely important if we're get this work done in an orderly way. Multiple measurements systems also create an unnecessary burden for physicians and crate confusion among consumers.

Over 135 organizations, as mentioned by Doug, are now participating in AQA and represent all the various stakeholders' communities. This is absolutely critical if we're to get buy-in and commitment to the use of this information to actually improve care.

As noted in its mission, a primary area which AQA agreed needed attention, is data sharing and aggregation, recognizing the uniform operating rules and standards, the measurement of healthcare quality are essential to enable providers to continuously improve quality and understand how they are being evaluated for quality information to be useful to consumers.

And I want to make a comment here about operating rules and standards because I think they may have a different meaning than is customarily used around this table. They apply in AQA conversations to issue such as attribution, sample size, risk-adjustment methodologies, measure weights, data analysis rules, validation of the data and the use of the data itself by various parties. I understand that term has other more technical meanings in other conversations of the Community.

David Kibia [spelled phonetically] of the American Academy of Family Physicians and I co-chair a Workgroup which addresses these issues. Earlier on the Workgroup recognized stakeholders had a mutual interest in the common responsibility to promote standard data stewardship activities. This led our Workgroup to do four things all of which has been endorsed by the full AQA.

First, develop data sharing in aggregation principles. Second, develop a white paper promoting a national health data stewardship entity. Thirdly, establishing a health information technology subgroup to align and apply modern health information technology with the mission goals of AQA. And lastly, propose the AQA pilots.

A central theme to AQA and the data sharing and aggregation Workgroup's work has been the need for uniform approach to measure collection in aggregation and sharing of data. With the advancement and increase use of Health Information Technology Systems, uniformity is especially critical to reduce burdens and confusion and ensure that limited resources are optimized.

At a minimum, three things are needed to promote uniformity which will lead to effective and efficient quality reporting. First, principles that guide and development and the use health information technology systems and components that support quality reporting. And last April the AQA endorsed principles in this area.

Secondly, standard approaches for electronic health records to routinely produce quality data based on measures such as the AQA and the HQA approved measures. And thirdly, uniform operating rules and standards that I referenced earlier for sharing and aggregating health data, implementation guidance, and establishing framework for collecting and analyzing data.

The AQA proposes a National Data Health Stewardship entity, could establish these rules and standards which would address a number of issues such as sample size, attribution and outliers that I mentioned earlier.

There's some short term opportunities to advance automation and the AQA pilot projects are one mechanism to advance that objective. The pilots leverage the experience of existing aggregation efforts across the country to evaluate the most effective process for measuring performance and aggregating and reporting this information. All of the sites chosen, which are listed here on the slide, have an existing infrastructure, key leaders, and a commitment of local stakeholders. They are part of a number of diverse approaches of the same problem across the country from which important lessons can be learned about structuring a national effort.

However, to ensure a more comprehensive view of physician practices, each of these sites will combine public and private information on quality, cost of care, and patient experience to measure and report on a physician practice against our starter show of measures. So, we're beginning the processes of that conversion through this pilot process.

They will serve as learning laboratories for collecting, linking, aggregating, and sharing data from various sources. And, for example, will test different uses of information technology systems and new technologies, and consider the impact of information technology systems on quality outcomes, cost, and value. We expect the pilots, including key leadership from the sites, will provide a national framework for effective and efficient approaches to measure, share and report the data.

I will close with a comment from Minnesota. I know, Secretary Leavitt, you're going to be visiting there shortly, as you mentioned earlier, and we're very much looking forward to your visit in Minnesota. I was with Governor Tim Pawlenty yesterday as he announced an initiative in Minnesota called Q-Care which establishes a set of quality standards, performance standards,

for diabetes, heart disease, hospital care and prevention based on the current work of the Minnesota Community Measurement Pilot.

I was also in his office as he signed the executive order which directed state agencies to use that standard to reward performance going forward and as a Workgroup now formed for that purpose. The estimates that if those standards are met in Minnesota, our small population of five million, that up to 153 million may be saved for Minnesotans.

I think it's important that this initiative by the state government also uses the same structure and framework that the Bridges of Excellences uses in Minnesota, and that all private payers use in Minnesota to reward quality of care. It gives a consistent and strong message to the provider community which have been brought in to these cooperative community structures, about focusing their effort on these focus priorities to achieve improved care in Minnesota.

I look forward to the day when there's a national system that's based upon the work of the AQA, under this national data stewardship entity, once we figure out what it is and how it should be put together, and then secondly against the standards that we've begun to adopt that gives context and community to our effort in Minnesota.

And then lastly I look forward to the day when the federal system will participate in those standards in Minnesota and that it's based upon the enabling factors that you're working on here at the America's Health Information Community. So, with that, I'll close and look forward to your visit to Minnesota.

MR. JOHNSON: Well good morning, Secretary Leavitt, Dr. Brailer, thank you for allowing us to participate in your meeting as well. I serve as the Director of HR Strategic Initiatives for Motorola, and also have joined Nancy Neilson from the AMA in serving as a Working group co-chair for reporting initiatives with AQA.

Craig Barrett, Ed Zander, who is my CEO, and other technology CEO council members indicated in the report that you have with you today a healthy system. If there's one thing that everyone agrees on about the US healthcare system, it's that it isn't a system. I think we've reached the tipping point in understanding that we must change. The issues are real. $6300 average cost per person today for healthcare. Per person, not per family. $12,000 expected to be the average cost in 2015. You've seen the other numbers, 54% of recommended care, 98,000 lives lost annually due to medical errors in the hospital. 46 million people not covered.

I've listed Medicare as a significant issue. Now, Mark McClellan has done a stellar job in leading us to change Medicare and move us forward, and that's part of the tipping point. We understand that we can improve quality by 40% and efficiency, take 30% of the cost out over a 10-year period, if we do the three things that are indicated on your slide.

We're making progress. Private organizations have been leaders in moving forward. George mentioned Bridges to Excellence. You can see some of the others who are initiators years ago in moving forward with quality and disclosure, but more recently we've come together as physicians in hospitals and I am privileged to serve with George and Doug and Carolyn and others in the AQA. We are making progress and now we're focusing on the National Quality Forum, and AHIC is a welcome entity in working with us.

We have some barriers; I'm not going to focus on these barriers too much except to say that we have a difference in desire to move forward. Some would like to move slower, and make it perfect. Our objective as purchasers is to move forward early. And make sure that we're moving forward quickly, and developing to perfect as we move along. If I were to have titled my presentation, it would have been Quality and Efficiency Now.

We have differences -- we have the desire by some to move slower to make it perfect as I mentioned, because there's a difference in perception of crisis. Physicians, you know that we have -- and better than I -- a definition of pain, is that a 10, is that an 8, is it a 7. Well, in the employer community, the perception of the issues, we have a pain of 10. My guess is that Mark McClellan would say in Medicare we have a pain of 10. Dave Walker, who sits as controller general of the United States would say we have a pain of 10 in the United States in healthcare. Others won't necessarily -- they'd say it's a five, it's a seven, it's an eight. But from our perspective it's a 10, and we need to move forward now.

So that's why we're pleased with the progress we've made. We've pleased with the NQF and its movement forward and the collaboration that we've had with CMS, with Carolyn who leads the AHRQ. We're pleased to have the collaboration with the medical community, and we think that there are some opportunities to move forward. I've shared with you at the top of this next page some values that we believe are important. Directionally correct, but imperfect now, is better than perfect later.

Outcome measures are better than process measures, and I'm going to get to that and explain that a little bit more. We need to reduce the tower of Babel with NQF and national uniformity. And I would agree with Doug Henley in his comments regarding movement forward as best we can uniformly. We need to focus on process that improve efficiencies and reduce misdiagnosis. Other errors in careless work.

The big one from our perspective is we need to establish an EHR in other health information capacities, to collect data, number one, disclose performance, number two, proficiency and quality performance, based on outcomes. And the health information technology in the employee health record can move forward with measuring and disclosing efficiency. The cost over the total episode of care.

We think that there is an opportunity or capacity for innovative care delivery, and payment, such as online visits, group visits and other type of connections, telemedicine for example. We think there's an opportunity for care coordination of chronic conditions, with health information technology in the electronic health record. We think that there should be simultaneous access to the electronic health record, and the systems with diagnosis in appropriate evidence-based care, as we move forward with health information technology and the electronic health record.

Finally, our request for process. We would urge that we move forward with implementing health information technology using private demonstrations, as well as some private/public demonstrations and collaborations such as the AQA projects. Earlier, we found that Leapfrog and Bridges to Excellence, which were employer initiatives, have led the way from our perspective in moving forward with quality initiatives. The employer community is dedicated to making this happen because of the pain tolerance, because of the pain of 10. And we urge that you consider those options as well. Thank you.

DR. CLANCY: Well, Mr. Secretary, you led this discussion off with a key theme that I think you've heard reiterated here in slightly different ways, and that is of urgency, and I think Randy Johnson just emphasized that very, very clearly. I think that we also heard about a great deal of progress and momentum coming out of the AQA and the HQA, both momentum in terms of assessing and improving quality of care, and very importantly for those who don't live every day in the clinical world, physician leadership at the table, at the first time in a very concerted way over the past year and a half, I think that's been a very, very important development.

We've also heard, some, I think, serious and important questions raised about the misalignments, if you will, or lack of direct alignment, parallel processing between the adoption of health IT and electronic health records and the capacity to make reporting and improving quality of care much more efficient.

What no one said, but I think needs to be considered, is that the failure to act may actually make things a little bit worse as the alliances are coming together around quality measures and understanding the need for uniformity. Lacking some direction, vendors are likely to try to attempt some solutions on their own, which may then in turn create another path for lack of consistent information.

Clearly any directions that we take moving forward could be framed in a variety of sizes. This issue has many parts, from the cultural issue that Kristine called our attention to in terms of how clinicians actually document in records -- it's really an adventure to review charts for those of you who've not had the opportunity -- to the very, very important issue of trying to make this information available, actionable, and useful for consumers so that they can make their decisions. But I think those are the high points from our discussion, and if you want to make some comments that would be great, otherwise I think it would be a good time for people to -- from the Community to ask questions.

SECRETARY LEAVITT: Dr. Clancy, I have a lot to say about this. And I think it might be well for me to constrain those comments until the members of the Community have had the chance, but I would like to reserve some time to respond to this. It's been a very helpful panel to me, and I think I have some thoughts that might begin to bring some of this together, and I'll reserve until the end. So Dr. Brailer, why don't we conduct a conversation, and then I would like to reserve some time to talk at the end.

DR. BRAILER: The floor is open. First, Lillee.

MS. GELINAS: Congratulations on a great job. You really teed up some things that I'm just curious. Three points you may have considered as you were preparing, but I didn't hear robustly. The first is when you look at our existing IT systems, especially in the private sector, I don't want to comment about the DOD and the VA sector, which I think really has more clinical capability than the private sector, but it seems that the reason for that is the financial rigor has trumped the need for clinical rigor in the past. The need for financial rigor has trumped the need for clinical rigor, and you did comment that the clinical documentation system is the last to be implemented for the most part in the private sector, which is very, very true. And so that reality is something that will be important to these discussions.

The second is the glaring reality of the nursing shortage, and I didn't hear anyone discuss that. I was making rounds recently in one of our hospitals, and saw a very tired nurse sitting at the nurses' station with a group of chart up like this. So I walked over to her and sat down and I

said, my goodness, what are you doing? Are you catching up with your nurses' notes after the shift? And she said, no actually, this is my day off, and hospital administration asked me to do chart extraction because our quality report's due tomorrow, and it's a manual process, and no one of medical records could do it. And I thought about the overtime, the financial issue there, but I thought about the compassion fatigue that that nurse must have because of what's being required to chart extract.

We, in many sectors, are not going to have the luxury of asking a highly experienced nurse to do chart extraction as the nursing shortage gets worse and worse, so I would just put that on the table as well.

And third is this new reality, if we don't get our hands around the cost and quality, is this whole issue of private pay patients going overseas for their care. And losing large segments of the private pay population going to hospitals overseas because it's a lot cheaper and the care quality is perceived to be better, and I know in the hospital community that is of great concern right now because I don't know if you've seen the articles in the paper just in the last 24 hours about that, how the difference in cost is dramatic but the payers and employers are supporting that.

So those three things, the issue of making the clinical case now trump the financial case, the nursing shortage, and the issue of care moving overseas would seem to be three other issues that we really need to have on the table related to this. So was that discussed at all, any of those issues?

DR. CLANCY: I would guess from my colleagues and others here, up here, as well as many that we interact with, the nursing shortage is so self evident that the concept of seeing what you just described to us is pretty serious in and of its own self. I was aware of reports popping up in the last 24 hours about potentially having patients go overseas. The issue about clinical and financial documentation I think is well known that the financial world, in essence, got its act together long before the clinicians do. How to make those two streams synergistic I think is going to be a real challenge but not un-doable.

DR. BRAILER: Kevin Hutchinson.

MR. HUTCHINSON: Well, first let me commend the panel. Each time I would write down a note about, does it -- where does CCHIT fit in this and HITSP fit in this and you would answer the question, and I would write, are we looking for perfection or progress, and Randy would answer that question, so obviously this was a well thought out panel and very helpful.

My question's going to target toward electronic health records from a technology perspective. Prior to taking on the [inaudible] role, I spent a number of years doing nothing but electronic health records software and focused on it, and I heard a lot about the lack of readiness of electronic health record technology to be able to do some of these things, and I guess what I'm trying to struggle with is some of the wording of -- we heard a lot of programming is required to be able to pull reports or do these things, are we really talking about programming or are we talking report generation, which is a little different than actually coding software, but in looking at the readiness of the technology, there are no standards.

If you look at the super bill process, there's a standard super bill. Physicians know how to get paid. There's this thing that they fill out. If we had those templates of some standardization, I guess my position would be -- and I'd like to hear the panel's opinion of this -- the technology is

not the limiting factor here, because implementing those templates and being able to have a quality template that can be filled out at the end of a visit is possible. The data elements can be stored. The reporting can be pulled, but to your points, there's a lack of consistency, lack of standards and you're not going to build 150 templates for 150 different pay for performance programs that would be not successful for physicians on a workflow basis. But I'd just like to hear the panel's opinion.

DR. CLANCY: Chip.

MR. KAHN, III: Yeah, I think it's really a double problem. I mean first I think you could solve probably technological issues, but there is a constant issue of updating and change, and so you're going to have to have a system to do that for a lot of different vendors and venues. So I think that even on the technical side, you could probably figure out a set of algorithms, but they're going to be changing -- they're going to be changing all the time. That can be done.

I think the more difficult issue is probably the one that Kristine raised, which is the one you've been sort of hinting at, which is adoption, and do we want to make -- you know, it's one thing to have the EHR serve basic functions as it does now, and in getting physicians and nurses and others to use it, it's another thing to actually get them to -- in terms of basic practice, begin a uniformity they're not used to.

And if we look at the experience with computerized prescription order entry, which is a hell of a lot simpler than what we're talking about here, we can see that it's no coincidence that, I don't know, we're at 15 or 20 percent, if that, in the country, of a technology that, I mean is a no-brainer, because of this culture -- these cultural issues. So there are really two hurdles here. And I think if AHIC looks at this, we've got to look at the technical issues, and we also have to look at sort of the human cultural medical practice issues of how you get the sort of mindset to a point where clinical practice matches whatever technological advances you can make.

MS. ANDERSON: I would largely agree with Chip's comments in the sense that there are definitely cultural issues that are huge. The technology issues we'll run into if we could solve some of the cultural issues around the fact that -- and you'll hear a lot of folks who focus on electronic medical record adoption and evolution talking about the conflict between trying to have a transaction system that's going to be very speedy and allow care to be improved at the point of care and the need to aggregate data for population-type measures like quality measures or biosurveillance or research, et cetera.

And so I think there are some technology issues that go beyond just the adoption issue and the issue of workflow, but I think where we need to start is the connection between -- as we're building clinical decision support, to encourage the right care to be given at the right time, we can also think about how do we capture that data so that we can then have solutions either part of the electronic health record or even in addition to the electronic health record that will allow us to do the detailed quality reporting.

DR. BRAILER: Kristine, just to drill down before we turn it to George. Have you or anyone done an assessment of the existing or proposed quality measures to determine how big the cliff is? Are some of them ready to, if you would, be measured automatically and others aren't or how far is it?

MS. ANDERSON: I personally have worked with a large health system in the Midwest to try to figure out if they implemented the state of the art of electronic health record, could they automate the 21 measures and then we went beyond that into skip and future measures and found that with existing electronic health records tied to a financial system, in this case, you know like a -- where you have to get your diagnosis data still, we could lower the chart abstraction time by getting individual data elements out at a much higher level than we could with paper records, however, zero measures at the current process measures could be automated in full, and so while there was a reduction in burden, there is an issue around the kinds -- the compatibility of the types of metrics we're choosing and what can be automated with electronic health records, and I think there's a two-way dialogue that needs to go back and forth around creating the kinds of measures that can be automated and then also automating what you can of what's already there.

DR. BRAILER: Thank you. George.

DR. HENLEY: Well I want to just add to what others have said, that the -- perhaps the big -- and I say this representing the physician community, and I may get battered for this -- but the challenge to the physician community is indeed a cultural issue and it comes down to, particularly in electronic health records, how much data do we want to enter in a text format, free text format, versus, as others have said, template-driven entry of data. Maybe that's -- some of us have had the conversation, maybe that's the third rail here but it's a necessary issue that we have to address, and frankly talking to my colleagues, at least in primary care, I think we will welcome that challenge to move from the free text format into a template driven format, because that, too, can be functional at the point of care and not obstructive to the patient-physician interaction if done correctly, and there's evidence of that already.

DR. ISHAM: In terms of this issue, the capability, EHR's technical capability, I think those issues are only the first kind of generation of issues that need to be addressed, and there are others who can judge whether the systems are technically capable to do those. But the more important issues from my standpoint are making sure that these capabilities are focused on actually achieving better care. And in order to do that, one has to have a change of work process within the organizations that are implementing them, which is absolutely critical. And our experience in automating our own medical group of 550 physicians, which is now complete over a multiple year process indicates that that's the biggest challenge after you find the money to pay for it.

The second thing, now that we've used them for a couple years for quality reporting internally in the medical group, we are now learning some of the issues that really highlight the interface between the AQA effort and the -- I think the American Health Information Community's effort. So for example, using the record to look at prescription data, which may be useful in some quality measures. The record tells you what was prescribed but not actually what was used or filled, and so that's one sort of issue.

There are other issues that we're beginning to learn in terms of this is certainly going to be a huge advantage once we work out these issues, but largely today, the automated medical record in our hands and in the hands of others in Minnesota is not yet quite developed to the point where it's automatically generating advantages with respect to quality measurement and quality improvement.

I think those lessons need to be learned. They need to be fed back to records developers and implementers, and then they need to be baked in, you know, to subsequent releases of the

software, which is, I think the way that these things have progressed in many other industries, at least as I as a non-expert in this area have observed. But it needs to be informed by good, solid, operational experience in terms of how to deploy this, and there's a whole body of work that arises from the quality movement which must inform and drive the technical capabilities and interoperability capabilities.

DR. BRAILER: Robert Cresanti.

MR. CRESANTI: Thank you, Dr. Brailer. Thank you to the panel. This is a very important and helpful discussion, and thank you for your insight. I have a quick question for you. We've talked a lot about questions of robustness, and the quality of the information as we go through, here. As I'm becoming more steeped in some of the different areas here, I wondered if I could get the opinion of the panel and particularly of Kristine and Doug on this question.

I've recently been made aware of a project that's going on that has fairly sophisticated text-searching capability. One of the profound benefits I think that it has is that it allows the doctors who don't want to switch to sitting at a computer terminal, their primary interest is patient care, it allows capture of information from almost 300 different data formats into a system, and I think some of the insurance companies and some of the hospitals around the country are beginning to look at this. There's no wide penetration.

But what are quality measurements. What should be looking for in a system like this that does sophisticated text searching, and Kristine, I'm aware, as you pointed out, you know there are contraindications that I wasn't attuned to when I first heard about this, but I'll certainly, when I go out to do a visit, ask and follow up on that. What are the other indications that I should be looking for in examining this and do you think that ultimately it's the right decision for us to lock in on the standard template or text searching, or is the end result the outcomes, things that we're looking for.

MS. ANDERSON: I don't claim to be an expert on text searching, but I'll tell you when I've talked to colleagues about this what I've heard, which is that the technology for text searching is hampered by the other issues on documentation that I raised around no standard place, at least in the record, to look for something, so it's a large amount of text searching. That there's no standard nomenclature for how to express individual -- either contraindications or findings or symptoms that also challenge text searching, and also that there is a general lack of standards that text searching alone cannot overcome. With the kind of accuracy that we need to rely on that result for quality reporting that would then be tied to payment. And so what I've heard is that whole natural language processing is a good direction, but it's not sufficient currently to overcome the challenges that have been raised.

DR. HENLEY: I would agree with Kristine and simply add that perhaps that technology that you highlighted might make the cultural gap a bit more narrow in terms of the amount of change required. I would hope that the technology continues to be investigated but at the same time I think we also need to accept the challenge of trying to limit to a reasonable extent free text entry of data as well.

DR. BRAILER: We have a number of Community members who want to make comments, so I'll just ask that you focus in on your comment so the interchange can be as efficient as possible. Jon Perlin.

DR. PERLIN: I think, want to get at the question of incentives in two dimensions. You've alluded to the financial aspect of that in terms of pay for performance, and Kristine, your last comment spoke directly to that. But I would believe the incentives operate in really two ways.

There's the obvious relationship to quality and pay for performance, but there's also a cultural aspect of incentivization. And this is one I think is very tricky, because at the end of the day, I think all would agree that people, clinicians of all, and the administrators of health systems go to work to do a good job, give good care, yet we have the outcome, Randy, that you alluded to, which is that we're far from where we need to be, or that Dr. Clancy had identified. 54%, 54.9% of using the evidence for some fairly basic principles even today.

So if one accepts that there is some cultural incentive motivation to do the right thing and financial incentive to be reimbursed for work that's provided, how do you mitigate the cultural burden of adoption, and this gets at an issue that I think Robert had alluded to, and I think is one that is empowering if we do it correctly, and that is the cultural divide between where we are today and actual adoption of these systems.

So how do we actually create a use transparency for this system, changing the word transparency a little bit. How do we make the quality data [inaudible] to the clinical process of care delivery, but a transparent by product of the care delivery process?

And our experience in VA, no one minds taking care of patients, that's what they'd love to do, what they do mind, what they resist, resent, is actually taking care of the patient and then going back in a separate subordinate system to report on what they just did. So that has to be fundamentally integrated into the health record, and this is where I think we're perhaps underselling what the technologies might do. Some of the meta-indexing that's available now actually is sufficiently advanced to distinguish between stabbing chest pain and stabbed in the chest to very, very different contexts in the clinical circumstance.

And so I make this point, and the example, that kind of gets you thinking about it in a humorous way, but in terms of reducing the cultural barrier to incentives, I think we have to think about how the technology really fosters the adoption and provides the desired by-product which is the ability to measure and to promote the quality.

DR. CLANCY: First of all, I think you said it much more eloquently than I could have, but perhaps a more succinct way of saying that is adoption is likely to increase if people see that it's solving daily problems that they have in front of them right now. I think we're in the midst of something of a transformation among physicians, although I think it's in the early phases, where physicians are shifting from thinking about care as one at a time, to being able to look at patterns of care across a population.

This is a point that Dr. Brailer has made, I think in many occasions, that the transformation, or transition, if you will, from scribbling things on a piece of paper that even colleagues may not be able to decipher to working with drop down menus and all of that, is one that some communities like the thoracic surgeons have done very, very well

at, and others are still struggling. But at the end of the day, I'm not sure that I think financial incentives will be enough.

On the other hand, it is a burden in terms of paying rent, minimizing overhead and so forth that clinicians can see before them right now, but -- George.

DR. ISHAM: If I can get your question about this cultural change, then certainly the transparency around the use is absolutely important for physicians, and making data a by product of operations by using the technology is a critical success factor. But I don't think that physicians can wake up one day and find they have this information, and not have thought about what it means in terms of the overall practice of medicine.

Therefore, I think that the process that the AQA uses, which is the engagement of the profession right at its heart, in terms of the design and building of this process is absolutely critical as physicians through their professional societies use that relationship and that affiliation to become aware of the cultural change and the advantages of a system that points in the direction of better quality of care.

We've learned that lesson very, very clearly in Minnesota where we've been able to make a lot of progress using collaborative structures that engage Minnesota Medical Association, more than 70% of physicians in the design of the standards, the clinical standards, not the IT standards, but also the IT standards, but then also the measurement and the performance. And also the reward part of this in terms of the pay for performance is not simply payment, but it's also public recognition and acknowledgement by colleagues. Again, the governor, with his lead, commissioners were part of a recognition of these achievements in Minnesota based on these sorts of things.

And then lastly, the cultural force of the peer relationships, of sharing and making it part of the profession, sort of imperative to improve care, is absolutely critical to this. And I would certainly agree that this is not at all about pay for performance, only in the sense of just the financial sense, but it is important for government, federal, state, and private payers, to align these pay for performance programs so that they reinforce the inherent clinical values that the profession needs to try and achieve. So that would be the way I'd answer your question. I don't know if that's how you intended it.

DR. BRAILER: Thanks. One note I would make as we move on is that I think an implication of what's been raised is, is that it's not a one way street between the quality community and the technology community, but it's an interactive dialogue about both what needs to be measured technically, but technically what can be measured and how can we apply state of the art technology. Mitch Roob.

MR. ROOB: Thank you. I have two quick points. The first is a somewhat cautionary point because Chip Kahn has been somewhat less prolific of late in health affairs that he usually is. I've taken to reading other things on my way out here, and I read -- picked up a copy of the new England Journal of Medicine, and there's a discussion in last week's article of 146 quality indicators for family practice, didn't work quite -- wouldn't work out quite so well for them. So you might take a look at that and learn a bit from our cousins across the ocean.

But more to the point here, we -- I manage, and Mark funds, the care for the mentally ill and disabled populations in our state. And frankly, the care for the elderly, who are in nursing homes. We have, in Indiana alone, 25,000 people in nursing homes, and Mark funds it, we provide it, or manage it. And these are very difficult, extraordinarily expensive populations to deal with.

Your population of $6,000 a day, a year, that's what we spend a month, and so very difficult to integrate with care delivery throughout the continuum and we see an enormous disconnect between physicians and where individuals are receiving their custodial care, and I would encourage this group once you -- to put that on your agenda because that care cost and because those folks are going to be on the public payroll for the remaining portion of their lives, either the state's, Medicaid's or Medicare's.

There's an enormous cost savings opportunity for the state and federal governments in that area, and I think we should look at that both from a quality standpoint and a cost standpoint.

DR. BRAILER: Thanks. Nancy Davenport-Ennis.

MS. DAVENPORT-ENNIS: Yes. Thank you, Dr. Brailer, and thank you Secretary Leavitt. I think the panel is outstanding, and the remarks that you have made today certainly reflect remarks of collaboration and concern for the patients of the United States of America, and for the consumers who will ultimately drive the adoption of health information technology for the United States of America.

There are three points that I would like to share, only for consideration as we move forward, and part of these are based on the hearing that we actually had this past week in which we had over 30 presenters come in, present to the consumer empowerment working group.

Number one is we are defining quality, and defining those tools that will avoid redundancy and enhance efficiency and reporting of quality. Patients want to be your partner in that process. Patients will have valuable information to supply, whether to the health plan, to the employer, to the providers, to the hospital systems, of what is indeed important to them in capturing quality.

Mr. Johnson, I could not agree with you more. Consumers in the United States of America are also at a pain of 10. And as we move forward in looking for solutions, I would simply ask the panel to, number one, be mindful of redundancy. Create a quality capture system that will not be independent of electronic health record, but rather, as you demonstrated in your presentation today, will be universally parallel in all that we are trying to capture.

I, too, have spent the last several weeks visiting hospitals across the United States of America, and it doesn't matter whether you're in the heartland, or whether you're in Florida, or whether you're in California. The comment is being made routinely to me with every meeting with CIO's is: deliver to us a system that will show us every field of information you want captured for the health information technology system of America to work well.

And what we, I feel, at AHIC are charged with doing is indeed trying to be certain that if we want quality, we ask for it now, and we show them how to deliver that report to us. So, thank you very much for the work you're doing.

DR. BRAILER: Chip.

MR. KAHN, III: Yeah, I just want to comment that I think this awareness of the needs of the consumers is obviously very present in all the work that HQA and AQA have done. And one of the things that I think will be mentioned, probably in the rag [spelled phonetically], or at least mentioned soon, is that HQA wants to see the Hcaps [spelled phonetically], which is the consumer expectation survey, by next year sometime when it's online, become, just part of the thing that every hospital does.

And I should add that with all the discussion we're having about EHRs, and the collection of information, there really are going to be other sources of information. I mean, one, Hcaps in terms of consumer expectation will be a source of information. These are going to be surveys that obviously will be electronic once they're sort of collected from individual consumers.

And also, and I say this with some reticence because you got to be a little nervous about it, obviously, but there is, in the administrative data, a great deal of information, and ultimately there will be a combination of use of administrative data which, by definition, is electronic now, at least for hospitals, and mostly for physicians. That will be used in this process, too. So we ultimately will not be isolated just to the use of the record; there are other pieces of information that will be important for helping consumers and helping improve care.

DR. BRAILER: Scott Serota.

MR. SEROTA: I would, again, compliment, like everyone else has, the work that's been done. I think there's general consensus that the highest priority things we can do are those things which are going to improve the quality of the care that are rendered, and it's resultant impact of reducing the cost.

But the concern that I have, as we move forward, is I keep hearing a series of what appears to me to be random events. And we keep talking about system, and we keep talking about the need for a health care system, and a system. But we're not taking a systematic approach to quality. What we're doing is we're saying "That's a good idea, and that's a good idea," and then one day we turn to the physicians and say "Here's 575,000 good ideas; go implement." And we haven't stepped back and said, '"What are the core building blocks? What do we need to do first?" and get a consensus amongst professionals, amongst regulators, amongst legislators, so that we don't have this randomness.

I mean, here we're talking about quality, really core things, and there's a conference committee going on on the health IT bill that bears very little resemblance, potentially, to what we're doing today, and may take important resources that we need to do these things away, so we do other things. Maybe the other things are more important, maybe they're not.

But we're not sitting collectively saying "What are the things we need to do first? And then how do we build upon those things?" Because we can't do it all. There are limited resources, whether it's payer resources, whether it's purchaser resources, whether it's provider resources; there are limited resources to implement these things.

And the pain is 10, but the pain will be 20 if we try to implement all these things, and I turn to a Motorola and say "That 6,000 is now 15,000. But don't worry, in the future it will be, it will go back to 6,000 sometime in the future, but for the next four years it's going to be 15,000 because I got to implement all these mandated events which may or may not generate the outcome we're wanted."

So my concern is we need to, at some point, try to integrate all these activities, identify the building blocks, what needs to be done first, get those things implemented, kind of timeline these things and say, "If we build them along these lines, we will get to where we want to be." And I think then we'll get provider confidence to say, "Okay. I'll embark on this journey because I see where it's headed," as opposed to, "We'll go left today, we'll go right tomorrow," which is what worries me about the process that we're taking. All with good intentions to get the right endpoint.

DR. BRAILER: Let me turn to Craig first.

DR. BARRETT: Well, let me try and, first off, very important points. At least speaking for the AQA, I would say that the value of the AQA, I think, has been a focus on prioritizing in a important way. What are the measures that matter for the conditions that matter, both in terms of the need for quality improvement and the improvement of efficiency of care and cost of care. So, and that led to the initial 26 measure starter set that AQA announced a year, a little over a year ago.

So I think we have tried to, at the implementation level, we have logically tried to prioritize the measures that matter in important ways, be it by condition, efficiency, cost, etc. And I think that consumers, and providers, and others have responded to the importance of that prioritization knowing that we need to go forward in a step-wise fashion to make it meaningful and implementable in a very important way.

MR. SEROTA: And I think each entity is doing that within its own entity. My concern is where are we putting all these pieces together to say, "Okay. Are we going to do those things first? Are we going to do some underlying other source work that needs to be done?" I mean, what needs to happen in what order to get the right outcome? That's my concern, that we're not really stepping back and looking at all those pieces together.

MR. KAHN: I think both AQA and HQA have gone through these processes of a priority setting. We now have a steering committee, and I think there's a structure that's developing, and I think over the next six to eight months you're going to see that developing sort of from both, and the final role of the National Quality Forum, and you'll see that sort of my systematic approach.

Let me say though, that has to be done, and I think everyone is working towards having it done. But I think that the HQA and the AQA, but particularly the HQA from our start three years ago, has done something else. It helped the hospitals along, and I think the physician community too, indirectly, in getting the message that accountability for

clinical services is here, and you got to play and even though you can argue that our first measures were process measures primarily, they served a purpose.

Well first, they dealt with heart stuff and pneumonia which are two big hospital activities by anybody's definition of priority. But second, they got a message across that we're going to have an accountability, and it's to improve care, and inform the consumer, but we're going to have it. And I don't think you can belittle that part of what we've been going through to get the message across. That message is now heard, and I think we're now moving to a point where we don't just -- won't just go measure wise to low hanging fruit, but we'll begin to deal with it systematically.

But I think we had to overcome a hurdle, which I think we've overcome, but it wasn't a small hurdle, and it's the hurdle with EHR of adoption. Well here, it was the hurdle of accountability with adoption, and I think with adoption, and I think we're getting there with the clinical community.

MR. SEROTA: Yeah, I think maybe my remarks were misinterpreted. I wasn't a, belittling anyone's activities, because I think they're all very positive. Nor b, was I indicating that maybe we're picking the wrong measures.

What my concern is is the building blocks that are required to go in a physician's office and in a hospital practice to get those end points, and the fact that, that we, we're really not looking at what we need to do, at least I don't see the piece we're looking at. What needs to happen in the practice to accomplish these objectives, and to make sure that we're making, we're empowering the physicians and incenting them to do the right things first.

MR. KAHN: At least on a hospital side that's one of the reasons we want to go through this process of building a cross model so we can begin to look at these issues.

DR. BRAILER: I would just note, chair's prerogative, that we are running over time, and so I would just ask for any final comments on this topic. I think it's noted whatever future actions we take can consider this, but any other final comments on this before we move on to other topics. Mark, did you want to make a quick comment?

DR. MCCLELLAN: Just very quickly picking up on the same issue, I think the ultimate goal here is making sure that each patient and the health care providers that support them can get that patient the best quality care at the lowest possible cost, and you have to start somewhere, but I do think we need to make clear, I think AQA and HQA have been increasingly making clear in their work together that the focus is on the overall patient's well-being.

Inpatient services, outpatient services coming together for an overall episode of care and for the overall well-being of the patient in managing their chronic condition, or as Mitch was saying, some combination of chronic conditions, the measures that are going to be reported through, thanks to HQA's leadership, through Medicare's financial support, are increasingly moving to overall outcomes and patient satisfaction. And I know that the AQA/HQA joint work is increasingly focusing on cost and quality measures in integrated level for episodes of care as well.

A lot of this has had to happen, though, without the integration of supporting electronic medical records, and I think some of the points that you all made about how we can start developing better support through EHRs for the automatic collection of this information would really help address this concern. If we had a more systematic way of capturing data at a low cost for these overall quality measures, we're going to make it much easier to get to that patient focus goal of quality and cost, quality maximization, cost minimization at the level of an overall episode of care. And so that's what we're going to continue to support in Medicare through these privately led consensus efforts.

DR. BRAILER: Okay. Thanks. Craig Barrett.

DR. BARRETT: Very interesting discussion. It takes me back to an earlier discussion we had on electronic prescriptions. If I compared the two, the electronic prescription implementation is a one-electron problem solution; you guys are a multi-electron problem solution, which probably means we have to put the Heizenburg uncertainty principle into anything you come up with.

Given that, and given how difficult it has been to get electronic prescription implemented, given the number of prescriptions which are electronically entered today, I'm just questioning how difficult it's going to be to have an electronic system to collect data from a wide variety of quality indicators seamlessly.

And back to Scott's question about prioritization, Randy's issue about don't do it perfectly, why isn't it possible to just have a subset that are uniformly collected, and get the whole system marching in the direction of a few indicators, as opposed to proliferating each year another set which, by its very definition, means you're never going to have an automatically collate-able database, because you're always going to be adding things to it.

So I guess my question is: are we trying to be too perfect? And therefore, what we're going to do is end up getting nowhere. If your implementation rate is like electronic prescriptions, sizing the problem for its difficulty, you know how far you're going to get how fast.

DR. CLANCY: Just in the interest of time, let me just offer one brief comment which is that I think there's great reason to be optimistic given the recent announcement from the Certification Commission that a lot of clinicians and the future hospitals that we're sort of at the edge of making this investment will now move forward.

And I think that's, certainly my email filled up with people who were lots, who were very, very excited, and I would guess that David's probably, you know, threatened to blow up our electronic, our email system. So I do think that there's a great deal of interest, particularly among more junior physicians, speaking age-wise.

And I think the question is: if not now, when? in terms of thinking about some of these issues. A key part of the Alliance's work has been to try to get to that priority setting. Having said that, as science changes, some of these measures are going to have to change as well, which I do think adds another degree of complexity.

DR. BRAILER: Mr. Secretary.

SECRETARY LEAVITT: The robustness of this conversation, and the fact that we are now somewhat over time I suspect is a grand metaphor on our circumstance, but I do, I do want, despite that, to take a few minutes and try to pull together some things that I have been thinking about, and to, to create what I believe is a path forward.

I have observed, not only in this discussion but as I travel throughout the country the fact that there is a lot of common pain here. Everyone's feeling pain for a different reason and a different manifestation.

Employers have their hair on fire because they're feeling wages growing at one-third the rate of their, of their health care costs, and they're feeling the pressure of that, they're feeling the pressure of their competitiveness. The physicians and doctors are feeling the collision that's coming on their reimbursement rates, and as well the pressure they feel to create better quality, and frankly, a lot of worry about alternatives they think could be out there if they don't come up with a system.

Consumers are clearly feeling the pressure of this. They're worried about whether or not their health care will continue, given the price. They're feeling the pressure of their co-pays, they're feeling all of those things that all of you have referenced. There is a lot of pain here that needs to be responded to.

There's nothing unusual, we all know that various groups have begun to form to respond to this. I've confessed in the past, I think that many of them have been extremely helpful, but none have been overwhelmingly successful, and I think some piece of that, frankly, is because the federal government, the payers, have not been a major part of, particularly, a lot of the employer groups. And we have now announced that we're going to change that. And we view ourselves having a very important role and being able to create a pathway forward.

I resonate with what Scott talked about is a group of random events, and the need for a clear pathway forward that will give us a careful, clear, forward-moving process.

The one, it's evident to me that we're going to be a lot faster at pulling together methods of being able to create cost transparency than we are at the ability to create quality transparency, because quality is just so much more complicated, and it requires so many more people to have systems, to have implemented standards, but we have to move forward.

I think it's very important that we are, that we, this collision of vision. I, too, share the worry that we're developing so many standards in so many areas that our capacity, as Craig suggests, to be able to manage that will not materialize. I think if you were to ask me about the 11 years I served as Governor, the most significant mistake I made during that period of time was agreeing to a standard, to a measurement process on, of quality that had 112 different measures to it.

We spent millions of dollars, and years and years trying to meet, to create a process that would measure that many quality measures, and never got to the point of really creating quality until we could simplify it down to 12 or 14 or 15 things that were, in essence, surrogate measures for a lot of other things.

And I say that, and I'd like to have more conversation about it, this idea of a starter set is a very important one, because in my judgment, to use a transportation analogy, what we are building is a go-kart, not a race car. And what we have right now, Scott, I think, are a series of parts that are being worked on independently.

We've got a set of wheels, we've got, somebody's built a chassis, someone has created a motor, someone's got a steering wheel, and now our job is to collectively organize this into some kind of vehicle we can demonstrate can be driven forward. My observation is people are prepared to get into a go-kart and try it out, because you can get scraped up in a golf, in a go-kart, but you're not likely to be killed.

And I think as people begin to envision this system, what they have in their mind is this Formula One race car that we're creating; well, we're a long ways from that, and people are expressing their fears, and I think that's where a lot of this cultural collision comes, just what that race car is going to mean for them.

So I think we've got to keep a clear perspective that we're building the most rudimentary system of measuring quality, and cost, and comparing them to create value, and we're going to try to move that forward, and as we do, people will gain confidence, and we'll gain ability, and our capacity to navigate that will increase, and over time we'll get a race car.

Now, I'd like to talk about what I think is the critical path forward. I indicated earlier that I, my sense is that a lot of the things that have happened around the country have been helpful, but not uniformly successful, and that a large part of that is because the major payer in the country hasn't been part of them. We're clearly now prepared to do so, and we are being, we're involving in many ways, but one of them is in these six pilots.

As I visited three of them, and I'll be in Minnesota and, as I mentioned, Phoenix and California again next week, it's clear that brilliant things are happening there. People are pursuing measures of quality, and they're pursuing ways of measuring them, but all in separate ways. And doing them, they're measuring different things in some cases, and they're doing them in different ways, but all brilliantly. We now need to begin to bring that together.

I thought the discussion, George, your suggestion of a National Health Data Stewardship entity, one of the, one of you mentioned that there is no such thing as a national health system. I believe that. I think what we have is a network of local health markets, and we got to bring them in to, we got to bring them in to a network. We've got a whole bunch of nodes that are operating independently as mainframes, and we now need to bring them into a, they've got to operate more like a networked PC. And I believe the way, the path forward is basically as follows.

This fall, in a quite formal way, the national government will declare that we're prepared to make three very important changes in our behavior. The first is that we will adopt the standards that flow from this body to CCHIT as a pre-requisite of doing, as doing business with federal entities. Now, will that make a difference? I suspect it will,

because of the 250 million lives in this country, the federal government pays for, in some fashion, 125 million of them.

We're clearly not desirous of adopting standards that haven't been fully developed on a collaborative basis, and that's what this effort is about. And we fully recognize as well that if interoperability is this big, that what we have now at CCHIT is only about this much, and that each year it'll have to get better. But we need to be on a deliberate track, and so that's the first thing we'll commit ourselves to. And I'm not talking just about HHS. I'm talking about the other federal entities who sit at this, at this table.

The second change in our behavior is that we do intend to adopt a series of quality standards, and we, as a condition of doing business with us, and in our work, and we're very optimistic about what's happening at AQA and at HQA, and interested in continuing our support of that. Much has been discussed about it today; I will tell you that I believe that there are things that we need to do to consolidate the governance process of those and let those organizations mature some to make certain that they are, as what we think they will be. But I think that's the second thing that we'll commit ourselves to.

The third thing is that all of us recognize the need for incentives, both for consumers and for providers. And I've alluded to the fact that some of that discussion on incentives will occur on Capitol Hill, some of it will happen over at CMS, but we are committed to using the health IT standards that I've alluded, that we're going to adopt, and secondly, the quality standards that we've referred to. We'll advocate the relatively simple, and that we get the starter set first, and then we'll, because we're building a small vehicle here, not a race car. And then we'll also, with federal employees, continue to try to find vehicles that can provide incentives for people to make good choices.

Now, if the federal government does this on our own, it will be viewed, I fear, as being some large mandate, and for that reason we're reaching out. I have now had meetings with 19 of the 100 largest employers in the country, and I intend to have meetings with the other 81, and beyond, where we ask them, in a similar way, to make the same three commitments this year.

Now, the way we want those to be manifest is in our agreements with providers and with plans. We've been working with the health plans, we've been working with the providers. If there's anything that becomes clear to me is is that this has to be a collaborative process. It can't, it can't simply be a, a payer-driven process alone.

So what that tells me is that by the end of this year we could have the 125 million lives that the federal government pays for, plus tens of millions of other lives that the private sector pays for, essentially committed, which would be 60 or more percent of the health care market, committed to begin doing three things: adopting the standards we're talking about; second, adopting the quality standards that we've been talking about; and third, to being using those very standards in the development of the proper incentives.

Now, back to what makes up the national market. I am also inclined to believe that we will not succeed at this unless these efforts to create quality are done at the local basis. Frankly, the reason I see physicians cooperating in Indianapolis is because they have a lot of confidence in the people who are there. The reason that the hospitals are working with the plans in Boston is because they've got working relationship that work and that are

willing to trust each other in ways that they wouldn't if this were all happening here in Washington. The reason that they're willing in Wisconsin to do the kinds of things they're doing is because they're dealing locally.

We have to build on that, not do anything but, and do nothing to discourage the progress they're making. I have invited all three of the ones I've met, and I will invite next week all three of those I will visit, to visit with me in my office on the, in the middle of August, and I'm going to invite AQA, and I'm going to invite HQA, and I'm also going to invite the National Quality Forum, and the insurance plans, and a number of others, to explore the creation of an entity that could begin to bring this network together. It would essentially be a federation, if you will, of these local pilots.

You referred to it as a national health data stewardship entity; I don't know if that's exactly what this would, will evolve to, but I see it having at least three different purposes. The first purpose would be the cross-pollination of ideas. There is some discussion going on, but it's not deep enough. That we need to formalize what's going on, the discussion between what's going on in Minnesota and what's happening in Boston. So that's the first thing.

The second thing would be the harmonization of what they're doing. Yes, they are all looking at AQA standards, but they're not all using them exactly the same, so we need to begin to harmonize the way these, these various pilots are utilizing the standards, and so they're adopting the same standards. And the third thing is to become a chartering entity, if you will, to provide to other cities and other metropolitan areas.

There are, maybe 20 of these, that I have visited now that aren't part of the six, who would like to be. And I think a big part of the responsibility here is for the six pilots to, and for this entity to create a chartering process where if an organization in XYZ wants to become part of that discussion they have a formal way of doing so and make a commitment that they will begin to harmonize what they're doing.

So here's, the path forward, Scott, in my mind, is as follows. The largest, the federal government and largest private employers agree to make three changes in the way they behave. And that we bring into that agreement those who are forming quality at AQA and HQA and National Quality Forum and others, and that we agree to go down this path together. And that by the end of '06 we've committed ourselves to adopt AHIC standards of health care, we've committed ourselves to a group of quality standards that we're all going to pursue in harmony -- and it's a limited number of them -- and third, we begin to commit ourselves that as we create incentives, either in Congress or between plans and hospitals, that we begin using these same standards, and that we also acknowledge that we're not going to try and build this race car all at the same time. We're going to do our best to create a simple vehicle that we can make work, and then we'll expand it from there.

So what I'm arguing today is that we've been building the parts for this go-kart, and everything that's been happening is important, but now is the critical moment for us to assemble it and to begin drive it in its simplest form. I have great optimism, frankly, that the time has never been right, never been better for us to move this forward, and it's built on common pain.

Everybody has a reason to be at this table, and I just want to thank the panel. I think you have highlighted the complexities of this, but you've also demonstrated the fact that we can succeed. And this is the subject that I'm going to be devoting most of my time, short of some diverting event that I can't foresee at this moment on this subject, because I'm prepared to venture that by the end of this year we can have a path forward that's very clear.

Now I want to say this, as far as AHIC's work is concerned: we have finished our first batch of low-hanging fruit standards, and we did a good job. And that's now reflected in the fact that we have systems that are being certified with those standards. Small piece, but it's clearly the first step.

We very clearly need, now, as we begin contemplating our second batch of standards, to be -- a big part of this needs to be quality standards. We need to have, we need to devote some effort, substantial effort to taking those, that starter kit and beginning to create the electronic standards necessary to, to extract them electronically. Because the scene that Lillee described simply cannot be replicated and scaled up, it simply can't. And we will fail.

All the things we've talked about aside, until we can create some means in combination of simplicity of our standard, the breadth of our scope, and then electronic standards. And so Mr. Vice Chairman, I would, as we now begin to talk, I would like to conclude our conversation with some effort, or some discussion of how AHIC can empower the creation of standards for the collection of at least that starter, that starter kit.

DR. BRAILER: Thanks, Mr. Secretary. Appreciate your comments very much. And to that end, there's been a substantial amount of discussion in the background about what next steps the AHIC can take, and with that I'll turn it back to Carolyn Clancy.

DR. CLANCY: Thank you, David. In a lot of conversations between this group and many others, Kelly Cronin and Dr. Brailer, just in terms of teeing up some next options for your consideration, just in terms of framing the Universe of possibilities here, we came up with three. One was to form a Workgroup to address the barriers and enablers in the short and long term that you heard so much discussion about this morning.

A second option would not be to actually create a Workgroup but to prioritize quality measurement and reporting through the contractors alone, and that we would report back periodically. And a third option would be to defer to AQA and HQA, and that they would regularly keep you apprised of their progress. So with that, David, I'll turn in back to you in terms of further discussion.

DR. BRAILER: Sure. We, if there is discussion on these options I would like to hear it. In the interest of time, I'd like to be very specific about whether or not there's something that's objectionable among these, or something that seems to be preferred. And some of you know there's been a lot of discussion about this in the background. So any initial thoughts here? Lillee?

MS. GELINAS: David, you know, I love the idea of a Workgroup, perhaps, but I know what it takes to make these Workgroups happen, and I know you do, too. I hope that's transparent to you, Mr. Secretary. There's a lot that happens behind the scenes. And so

rather than a separate Workgroup, I'm wondering if this shouldn't be a new charge or revised charge for one of the existing Workgroups.

Because I agree with the Secretary; we've dealt with the low-hanging fruit in our Workgroups. And I think because of the energy and passion in these Workgroups we're in the position to take something big on, and we should be challenged to take something big on.

To number three, this, I'm not so sure that's the right approach, simply to the point that Scott talks about as the silo-ing effect. We need some national glue to all of it. And then number two should just be a no-brainer in terms of how we operate going forward.

DR. BRAILER: Great. Any other thoughts here?

SECRETARY LEAVITT: Kevin had some thoughts.

MR. HUTCHINSON: Actually Lillee addressed my number one concern on the additional Workgroup; I wasn't sure the charter or mission of that additional Workgroup.

DR. BRAILER: With that, let me ask Helen to turn to the next slide and review a proposed charter. I think this can inform us about should one be created and should one be lumped, or split, if you would. It is a lot of work to Lillee's point, and I think the ONC staff would recognize just how much goes on in the background.

But I think that also could indicate that it might be too much for an existing Workgroup to take on without displacing their other agenda. But let's look at the substance of what's been considered and proposed. Carolyn?

DR. CLANCY: Sure. The broad charge for your consideration, and let me also just say as an enthusiastic participant in the electronic health record Workgroup, Lillee, if anything, is being modest. She and Jonathan have really done incredible work.

The broad charge would be to make recommendations to the American Health Information Community so that health IT can provide the data needed for the development of quality measures that are useful to patients and others in the health care industry, automate the measurement and reporting of a comprehensive current and future set of quality measures, and accelerate the use of clinical decision support that can improve performance on those quality measures. Also, make recommendations for how performance measures should align with the capabilities and limitations of health IT.

This last sentence, I think, is getting at the bi-directional interaction that both Dr. Brailer and Kristine keyed on. Now if you recall the broad and specific charges for the other Workgroups, the broad one is the very, very ambitious horizon-setting statement. The specific charge would be to make recommendations to the American Health Information Community that specify how certified health information technology should capture, aggregate, and report data for a core set of ambulatory and inpatient quality measures. And again, I think this gets back to both the go-kart analogy and speaks to the points that Scott Serota raised very clearly.

DR. BRAILER: Let's open up floor for discussion on this. Jon Perlin then Dan Green.

DR. PERLIN: Going back to the Secretary's comments that, I think this is very empowering. The two phones here, the value is they talk to each other, and not just that you can be in one network. You know, what's pretty remarkable is that cost of phones is far less expensive than if there were [inaudible], and when I go to buy a new phone I don't worry whether I can plug into the network. And so I think this is absolutely empowering in terms of moving forward to the next step. This is a large plate of work, so I think a discreet Workgroup is important, and I think it begins to harmonize it in a very public and open forum that creates the harmony with the capacity for the inputs and results, and a network that can really operate.

DR. BRAILER: Dan Green.

MR. GREEN: I would just like to echo those comments to say that, first of all, if this is going to happen by the end of the year it needs to, this group needs to take a more aggressive position, than waiting for others to act and hear what they're doing. So I support a Workgroup.

On the idea of whether or not it should be an additional charge to an exiting work group, in addition to the amount of work involved I think there's also a concern that I have that the constitution of a particular Workgroup might not be the same group of people that should be charged with this group.

DR. BRAILER: Okay. Thanks. Mark?

Sorry, Doug's next. Go ahead, Mark.

DR. MCCLELLAN: Well, I think on the point, clearly there's some important overlap with some of the existing Workgroups, whether it's on electronic messaging or other aspects of health IT. There does seem to be enough work here, though, that I'd really like to see some input from the HQA and AQA efforts, and the starter measures brought into this AHIC effort more clearly, as the Secretary was saying, so that we can get much more electronic support for the quality measures that are starting to be adopted pretty widely, and that need to be done even more consistently, and gets you into a, you know, a virtuous circle where if it is easier to report on these key consensus measures that are under development and in adoption right now, then you're going to see, getting to the Secretary's goal of a more consistent widespread use of these measures and incentives much sooner. So this is right time for this effort, and I think there's enough there that really need to bring in and integrate the AQA, HQA perspectives more. And I think a Workgroup could help do that.

DR. BRAILER: Doug.

DR. HENLEY: Well, building on Mark's comments, I agree entirely. I like the idea of a Workgroup. I like the broad charge, but I really like the specific charge that's up here on the screen. And if we do a Workgroup I, again, I agree with Mark that the principles from the AQA and HQA need to be an integral part participating in the Workgroup, I would hope.

DR. BRAILER: Okay. Kevin?

MR. HUTCHINSON: I'm okay with the Workgroup. I would support Dan's comment about it, maybe that these are a different set of individuals to focus on this particular topic.

My major concern is I read a lot of overlap with CCHIT in this effort, because if you look at what CCHIT is doing in requiring certain functionality and features in products, you have to look at work flow and you have to look at capabilities of the technology, and much of this is talking about specifically how the HIT, or technology would capture, aggregate, and report data which, to me, would be a lot of what CCHIT would dig deep into. So I guess I would just say, from a Workgroup standpoint, make sure that it's tightly aligned with efforts that are going on in CCHIT.

DR. BRAILER: I think we have just a comment on that, a precedent and a model under the last round of recommendations, where CCHIT or HITSP were quite involved with the substantial dialogues of the work group, but then stepped back when votes and decisions were made, came here, and then it was re-assigned back to them, and I think we could follow that in this instance. I think the separate question is could they just do it alone? And I think the sense is we need this cap stone to bring all the parties together, because they're not at CCHIT either. Ok, thanks. Other comments? Nancy?

MS. DAVENPORT-ENNIS: Yes. I would certainly like to echo and support what Dan Green had to say in terms of the fact, and I do think, and agree that it would take a different set of people to handle both this broad charge and specific charge than perhaps we've had working on the other issues discussed this morning.

And I think, number two, from the perspective of the consumer, that if indeed we are trying to move to quality measures and reporting of same, in order to improve health outcomes, and health care in the United States of America, consumers will ultimately be challenged to accept what is produced through this broad charge and the specific charge if indeed they look at specialists in the world of quality as those who helped to author those very steps that will influence their life so directly. So.

DR. BRAILER: Yes, Mitch.

DR. ROOB: I wondered if I might ask just to define ambulatory, and whether or not it included in your opinion the nursing homes, and whether or not it included waiver facilities for the developmentally disabled, and mental health facilities. And if it doesn't, I'm okay with that, but I'd like to be explicit that it doesn't, and then we'll get to that set of individual, that set of providers later. That's fine, but I think we need to be explicit.

DR. CLANCY: I think in the spirit of building the go-kart, ultimately most people would include nursing home and other long-term care facilities as part of ambulatory. I don't see that, I wouldn't see that as being part of the initial or specific charge.

DR. MCCLELLAN: Just, if I could make a comment on that. Some of the initial starter measures, and some of the measures that we're working on are designed to assist with the care of frail patients, it's a go-kart stage on the way to a more comprehensive set of measures for these chronically ill, very frail, complex patients. But between initial efforts

starting here, and there's similar efforts underway for nursing home quality improvement. As you know, I think that we will get there. It's a very high priority for us.

SECRETARY LEAVITT: The place where I see the AQA and HQA standards taking real route fastest are in these pilots. And it would seem to me there'd be value in taking the starter kit and saying, "Make this work." And once you have made the ones we've agreed upon work, and we started these pilots, and then we proliferate the pilots. I mean I, in my mind I see us going from six to 60 relatively quickly.

Now I'm not putting a time frame on relatively quickly, but once we have figured out how to do this in the, on the starter set in a limited number of areas, it will proliferate fast, and it will broaden fast. And we'll go from go-kart to race car much faster than if we try to build it all at one time. So I'd be good at, I'd feel good about even talking about the starter set as a, and then, both on hospital and AQA.

DR. BRAILER: Any final comments on this topic? We have before us a proposed Workgroup, it would be a new Workgroup with the broad charge and specific charge that's before you. I'll ask now for any dissent on the formation of this group, anyone that's objecting to it.

With that, Mr. Secretary, we do have consensus that we've formed this new Workgroup, and we'll go to work immediately looking at leadership and staffing of this group, and it's relationships with the other entities that have been discussed here.

SECRETARY LEAVITT: And I'll bet we could get a consensus on a break [laughter]. [Inaudible] for conversation.

DR. BRAILER: We'll start sharply at 11:15. Thanks.

[break]

DR. BRAILER: Thank you. Let's go ahead and continue. I'll ask everyone to take their seats, please. We are a little bit behind and we have a substantial amount of work to do before the end of the day.

I have two action items before we turn to the next panel. First, I misspoke in the introduction this morning that the representative from Treasury, who is replacing Mark Warshawsky is Nada Eissa, who was here this morning and is away briefly, and obviously Robert Cresanti is here from Commerce Department. So I apologize for that error.

Secondly, we have minutes in the book from the June 13 meeting of the AHIC that I would ask for comments on, and in the absence of comments, a move to approve and accept those minutes.

Second.

Any opposition to those minutes being received? They stand received.

With that I'd like to then turn to the next item of business, which is the Nationwide Health Information Network panel discussion, Tab Four for members of the Community. There's been a substantial amount of work in the NIHN over the past two months, aimed at really beginning to learn from the experiments that are underway in various market areas, and be able to begin assembling that towards the capacity to have certified, measurable, managed networks for information sharing.

And with that, let me turn it to John Loonsk, and I would say there's not an action item that will flow from this today, but we do expect this to set up action items over the course of the next meeting or two meetings, as substantial issues and recommendations come to the AHIC. With that, John?

DR. LOONSK: Thank you, David. We're here to talk about the Nationwide Health Information Network, which, if you'll remember, is an initiative with the intent of fostering widely available services that facilitate the accurate, appropriate, timely, and secure exchange of health information.

As David has suggested, we have been working in a variety of different groups on this initiative. Those groups include four main consortia that have been working on architectures, as well as on prototypes that will validate those architectures and demonstrate activities in these areas. The consortia have also worked on several different architecture products, which will be necessary for the next steps of the Nationwide Health Information Network, as well as will serve for purposes of the Health Information Technology Standards Panel (HITSP), and in turn, the work of the Certification Commission on Health Information Technology (CCHIT).

Some of those products include standards needed to advance the Nationwide Health Information Network. What are the services, the systems that need to be in place? And one of these products has been the development of functional requirements.

Functional requirements are statements about what the systems need to do to accomplish this mission. They are frequently used in the context of software development. In this case, we're using them in a somewhat abstracted level to crystallize discussion around what can otherwise be a fairly nebulous subject.

We have scheduled three public fora on the Nationwide Health Information network. We had the first forum in June, at the end of June. That was on these functional requirements. We are planning a second forum on the topic of security services and systems for October, and then we're planning a forum in January that will actually have demonstration of the prototypes that have been developed, as well as discussion of business models and other steps necessary to move forward.

So the immediate focus of a lot of the consortia's activity has been on moving forward with software development, but also in specifying, in the form of functional requirements, necessary behaviors of the system or systems that need to participate. An example of functional requirement would be something like "The record locator shall return the location of data in health care provider systems." It is a simple statement. It is intended to not be a policy statement, but to be a statement of fact that can be agreed on in the context of establishing and implementing systems and services in these areas.

In the context of a forum, and in the context of the other Nationwide Health Information Network activities, we are very interested in the policy implications, but we're also pursuing this in a step-wise fashion from the context of the public forum, from the context of the work that the consortia have done on identifying functional requirements, we have asked them to note policy implications, and we will be advancing those policy implications through a variety of other Working groups, many of which you are aware of.

The HITSP C-project under the Privacy and Security Solutions contract, the work of a Community overall, the developing confidentiality and security working group of the community, now the National Committee on Vital and Health Statistics (NCVHS) and others will be working on policy implications and policy issues at the same time that, when parallel, we're working on technical implementations. They have to go hand in hand, but we also have to work on them somewhat incrementally.

Also in the context of this discussion, we're not immediately talking about network boundaries. There's a lot of discussion about what a regional health information exchange could be, or should be. What kinds of activities should exist at the state level, or at a local level? What kinds of activities should be part of the named NHIN and what should not? And a lot of people have expressed opinions about what should be in and what should be out.

From the standpoint of the maturity of the, this developing activity, and from the standpoint of moving forward, we are talking about the totality of requirements. The requirements all the way from an electronic health record, to a regional network, to a national network, in the context of trying to be concrete in functional requirements about what needs to be specified so that we can move forward with this activity. We're not at the point of drawing network boundaries.

The first NHIN forum was, I think, very successful at getting a very broad spectrum of input. The intent was to review the functional requirements. We have over 1,100 that have been accumulated to date by the four different consortia. We had input of additional functional requirements during the forum, and before the forum. We have elevated the awareness of challenges in advancing the NHIN, and we've identified places where there are gaps, and where there need to be refinements and issues that need to be advanced, such as policy issues in the context of moving forward.

The Nationwide Health Information Network forum, the requirements that were developed beforehand, and all the comments and presentations in this area have been handed over to a special working group of the National Committee on Vital and Health Statistics which, under the leadership of Simon Cohen, will identify the common requirements, describe the architectural variations -- not, again, make determinations about which architecture is appropriate at this time -- we have work to do to get to that point. But indeed, define them, describe them, give us a nomenclature so that we can talk about them as we continue to advance forward in this effort.

And we anticipate that the National Committee on Vital and Health Statistics will produce an initial set of functional requirements that will be available in September.

So if you think about this as steps to what is going to be an organically developing initiative, which is the Nationwide Health Information Network, and this broader vision

of interoperable systems that can exchange health information, we are taking some initial steps. We are taking initial steps in the architecture, we're going to have prototypes at the end of this year that will demonstrate those architectures. We've identified some of the standards needed, we've talked about policy implications.

We will take a second step in the next round of the Nationwide Health Information Network process that will circle back around, having gotten input from the Health Information Technology Standards Panel, from the Working groups that discussed the policy issues that have been teased out, and others. And from other activities, and feed back into the process as we incrementally and organically move to next steps in what can be a very promising, but also complicated endeavor in terms of moving forward with a new world of interconnected health systems that can offer great promise, some of which we recognize now, some of which we will only recognize after we make initial steps in moving toward implementation.

The first step of the Nationwide Health Information Network forum that was held in June, the materials from it are available on the web. We had a very positive response from the community, in terms of people -- the broader community, that is -- who are interested in expressing their needs and their desires for what the NHIN can be.

In many ways the NHIN, in some respects, is a touchstone for many of the different activities we have been talking about. Perhaps in conjunction with electronic health records, people think about the NHIN in many different ways at this point, many have expectations, many have hopes for what it can be.

Part of what we did at the forum, and part of what we're going to do now, replicate for you in a small way, is try to reconcile some of the great expectations that people have for what the NHIN can do with some of the practical aspects that are being faced by the four consortia as they work toward initial prototypes. We know that the initial prototypes are going to focus on specifically three use cases that have been provided to them as they have been provided to the other parts of the National Health IT agenda, and we know that those are perhaps the best fleshed out of these activities.

There are many other hopes and desires people have, and through the forum, and through this presentation, and through next steps, we are trying to bring together some of those competing expectations, and lay a practical ground work for how this can proceed organically.

So today with us we have representatives from each of the different consortia. Garret Wu is going to speak for Accenture. Marc Overhage is going to speak for Computer Sciences Corporation. Casey Webster for IBM, and Tim Cothren for Northrop Grumman. Wes Rishel has joined us to also talk about the various issues that have come up in the context of the forum. We have the discussion, the public discussion and the questions and issues that arose, and we have the practical aspects of moving forward with software solutions that begin to implement some of these arrayed in front of you. And we're going to proceed through a series of questions, and have discussion around these different issues to hopefully explicate some of the complexity here, but also to show some of the value in terms of why we're thinking about these issues.

The different consortia have been provided with these questions ahead of time, but we will try to have an interactive discussion where we can tease out additional depth as we proceed, and would encourage the members of this community to also ask questions if the questions we have asked are not clear, or if the answers that are provided need additional detailing. So with that introduction, I'm going to turn it over to Wes to ask the first question.

This question will be asked of CSC.

MR. RISHEL: Mark, the [inaudible] services won't spring full blown everywhere at the same time. We have some go-karts and we're trying to get them to run around the track together, I think would be the right way to describe it. In addition we're learning where the real values lie in the process.

Given the sort of organic development in the, and particularly the fact that these are different entities connected together, so a change creates an interdependency among them, what are the architectural considerations necessary to deal with, with the fact that individual markets may have different emphases and capabilities, and that there will a mix of providers who have an EHR system and providers who are really not yet to the level of EHR. How do you design an architecture to support all of those characteristics?

MR. OVERHAGE: Well, I think as the committee has identified this morning, the complexity of our health care non-system really creates these challenges. It's a complex, adaptive system that you have to accommodate in the architecture. And while, as Dr. Loonsk pointed out, you have to accommodate all these different aspects and functions of the system, at the end of the day the question is about how you put the different components together, whether those are user applications, programs that a doctor, or nurse, or others might operate with, services that are available, which might be programs that are out there that don't necessarily have a person interoperating with them, but accomplish certain functions, and then how those interconnect. And creating the data standards and message standards and authentication authorization standards that allow those difference pieces of the infrastructure to interact is the critical architectural component.

So for a concrete example, the NCPDP standards and drug code standards that have been leveraged very extensively, along with encryption and authorization authentication standards have enabled a whole variety of e-prescribing applications not only to be adapted, those that were created before those standards existed, but also create the opportunity for innovation at the edges, and allow for incremental deployment so that you don't have to take existing, for example, hospital information systems, and rip them out and put in something new, but rather can adapt those to interoperate to work inside of this more complicated system, achieving that overall aim of creating the functions that the environment needs to provide, but not necessarily by creating them all anew from the ground up.

MR. RISHEL: Given some heterogeneity in regional access, how do you get the network effect? How do you get the value that comes from the investment in the network?

MR. OVERHAGE: I think the value of the network comes because of the data, and that we had the discussion, for example, earlier about enabling quality, about enabling bio

surveillance, about enabling clinical care, all of those take the same data. So it's really primarily about moving the data around in a way that is interpretable and usable that unlocks the value of these different services and so on that exist within the environment.

And so when different markets, or different communities evolve in different directions, e-prescribing in one community, perhaps, and electronic laboratory reporting and availability, historical laboratory result availability in another, those aren't incongruous. They can be synergistic, in fact, as long as you've laid the foundation in a way that doesn't worry so much about what is the data that's been moved, but how is it being moved, how are the wrappers in place to authenticate and authorize the movement of that data?

DR. LOONSK: I guess just a follow-up on that a little bit, if, it sounds like, Marc, you're expressing value at a regional level, which we all know is very important in terms of moving forward. One of the challenges we face with the NHIN is how we express values between regions and at a national level, and if there is that heterogeneity between regions that does that not challenge the business model for the NHIN?

MR. OVERHAGE: Well, I think the business model discussion as you say we're approaching at a step wise fashion and we'll be spending more time on over the coming months. But I think that there are local values that are large, at a national level there are again, when you think about it from a data perspective, only so many kind of data. There's laboratory data, pharmacy data, allergy data. It's really a modest number of data types, and they come from the same sources in different regions, and so while you may see some incongruity, I think, in markets, that the basic sets of data, the basic kinds of data that are available are not that broad that you won't see, over a modest amount of time, I think the consistency emerge that will achieve those national values.

DR. BRAILER: Any comments or questions from the members of the Community about this issue of incremental development? Again, just to remind you of where we are in this, this feedback is being taken here and at NCVHS and they are going to result as recommendations that will ultimately come back. So this is a chance to clarify your thinking or to provide any high-level input that you think would be useful at this point.

SECRETARY LEAVITT: I'd just like to, it appears to me that the phenomenon we have spoken of a number of times plays out here, where you have the pure vision, and then you have the immediately available. And that, what I hear you saying is we're trying to capture the immediately available, but I guess the question I want to ask is: does everything that's being done in the immediately available lead you to the pure vision? I mean, as we, to torture my earlier, if, are the same principles involved in the development of the go-kart ultimately going to hit, merge with the larger vision?

DR, OVERHAGE: I believe that's true, and the reason I believe that's true is, number one, we tend to take the path of least resistance, so the things like laboratory results, which are so important for so many of these functions, are some of the most readily available data, because they're already captured in structured form in most places, in organizations that have extensive support infrastructure, therefore it's a natural focus for many markets is to work with laboratory data early on. So I think that we will see that commonality emerge, and again, at the end of the day there's only dozens of those types of data to chase down, and so it won't take that long for us all to get to the same place.

DR. BRAILER: Julie?

DR. GERBERDING: I was thinking about a metaphor the Secretary used before the go-kart and the pure vision and that was of the jigsaw puzzle, by filling in the edges, it becomes easier, and easier to fill in the rest of the puzzle and the middle, and that was something I think you said a long time ago.

But in listening to this incremental development concept, I just wonder at how much of the puzzle has to be filled in before we really can have confidence that the value will be demonstrated? If we have to get the entire puzzle done, that's probably going to be very difficult. Do we have a sense of where we go first to get the most early win on value and how complete do we need to be before we can reassure everyone that, yes, this is really going to pay off?

DR. OVERHAGE: Again, there's work on going in the business case that hopefully will answer that question more explicitly in all four of the consortia. I think from my perspective, and I think our consortia's perspective, there's two answers to that. One is, is that you don't have to do it nationwide to understand the value that might be derived, you can do it in narrower geographies and ask the questions about where is the value, but the other is the comments that the Community was making earlier, that we have to be very careful not to let perfection be the enemy of the good in this, and getting definitive answers may take too long and be too big a task, and as long as we're of a mind that we're headed in the proper trajectory, the proper direction, and the evidence continues to be supportive that we ought to keep going in that direction, even absent 100% certainty that that's the right direction to land.

DR. BRAILER: Kevin Hutchinson.

MR. HUTCHINSON: One question for the whole panel, and Marc as well. This evolution, have you found common elements among the consortia, whether it's certain data elements that are important for the exchange, or certain functions as kind of a starter kit of a local information exchange that seem to be easier to deploy, or most important to the users in those areas to get started, are there---, and does those map with the use cases that we passed down to be able to implement?

DR. LOONSK: I think in some respects the use cases have provided that focus and that's where this conflict, potential conflict between regional variation and national consensus or coordination around a particular area perhaps, comes into focus. It is also a good lead into the next question, I think because one of the core functions that most of the consortia have addressed, and I can pause before getting into this in great detail, is around looking up data, and this a common function for all of the different consortia and one yet where there are some architectural differences. Before moving on does anyone want to comment on the question?

MR. WEBSTER: I would just add a comment I made last week at the NCVHS hearings. I do believe that the focus early on should be capturing the data that can most quickly be used by the vast majority, and what I recommend at that point was very similar to a list I saw this morning, the [inaudible] type of data, meds, allergy, immunizations, recent labs, that's pretty much it, a problem sheet if you have that capability, that's the 80/20 rule, get that information out and available and practice can be done kind of across the board, then build on top of that.

SECRETARY LEAVITT: How do those line up with the basic tool kit that we talked about with respect to quality measures? How much overlap would there be in the readily available in those basic majors?

DR. OVERHAGE: I can comment on that a little bit, being one of the AQA pilots, we've looked explicitly at that question, and it's almost 80/20 role as Casey said, there are a few of the AQA measures, for example, around smoking, that are not typically available in those modes, but other things like, was the beta blocker prescribing the patient, sometimes you miss some of the contraindications, but particularly as you build a longitudinal record that becomes less of an issue. So out of the AQA measure, there's about three that we find that we have trouble doing with existing data capture.

SECRETARY LEAVITT: In the spirit of the go-kart why wouldn't we begin to focus our efforts, if we're going to create some specificity in terms of the quality measure that we're going to take on with AHIC, and at the same time those ought to line up with the development of the network, what -- doesn't that make sense?

DR. OVERHAGE: If I understand your question Mr. Secretary, if you take the data elements that you need to support the AQA quality measures as one example, and make a list of those, and you categorize those, there are laboratory measures, there are pharmacy dispensing measures, there are problem list information, there are personal vital signs, for example, whether to process things like, whether the clinician counseled the patient about smoking, and so they do indeed start to line up and those laboratory data are a large chunk of the things that are need proportionally, I don't know the number, but it's 25 or 30%, the problems are another 50% or 40%, the medication's another 25%. So there are indeed those categorizes of data that underpin almost all of the quality measures, and then there's the other category that are the more challenging things to capture in most settings, either because the clinician captures them as free tax that they've dictated, or because they simply don't record it because it takes too much time and trouble, or other challenges like that.

SECRETARY LEAVITT: If---, I'm trying to think out loud here. First step is to decide what you're going to measure, and that's been done on the starter kit. The second, is to set a standard on how you define quality in that area, the third step is to figure out how you're going to gather it and measure it, the next step is to determine how you're going to automate that process so that you don't have to do it so Lillee's friend doesn't have to stay on her day off to gather it, all of those things are working.

What I think you're working on then is once you've done all of that, how do you communicate that between the hospitals, and how do you communicate it between regions. And it would seem to me important that we have some symmetry on what we're placing priority on, if we can't do it all, let's figure out what we're going to do this part on, what I'm hearing you say is, we're about 80% there and 20% doing other things, based on what you're currently moving on. David, bail me out here.

DR. BRAILER: I think you're heading in the right direction, I think the question here, I might dig the hole deeper for us. Is where to slice the 80% of value from the 20% that has all the hard work, and if I could combine the earlier panel with this, I think the punch line is, it's pretty easy to measure whether or not somebody got a drug, or whether or not they had a certain lab result, the question is, getting down to the question that Kristine called appropriateness, should they have if they didn't, and shouldn't they have if they did.

And so, maybe the way to begin going from what we can do to perfection is by graduating the level of exclusions, the level of precision about those appropriatenesses as we being measuring a certain lab test or a certain drug, to begin saying, "Yes, you did it 80% of the time, and yes if we can measure the exclusions we would have more precision," but that requires a huge amount of data computational work that we don't have, and that might be another way to approach this I think, I turn that to Marc, is that a feasible way of thinking about how to go from what we can do today to a more precise future.

MR. OVERHAGE: I think that certainly is a viable strategy in the capturing the data is often the hardest part, I mean that is the most challenging, especially for some of these nuanced aspects of care, so I think being intelligent about how far we drive that and it depends on how we use the data, of course. And if we're going to use the data, for example, to determine compensation, physicians get very nervous when you start messing with their pocketbook, and so they get anxious, but I think that general approach that you outlined, Dr. Brailer, of trying to approach in a graduated fashion, makes a lot of sense and begins to tie those -- the practicalities of the IT with the pragmatism of the quality improvement.

DR. OVERHAGE: I would also point out in terms of moving on that there's a fair amount of overlap between the emergency EHR data that were talked about in the recommendation earlier on with the kinds of data being talked about here as a core set also.

The next question is really core to some of the architectural differences, and some of the architectural commonalities that the four consortia are working through. Essentially, what this is about is about looking up data that exists in -- at care provider sites, and that there were largely three models that have been, there are others, but many of them fall into three large categories of lookup, including, one where that lookup would occur when you're looking for patient data, would occur by querying a regional repository that might have some summary information that might be similar to the data that we just talked about.

Another model is where that lookup identifies documents that may exist at care provider sites, and that lookup capability has some knowledge of what those documents are and can help retrieve them in the process of doing that lookup. And then the third model again sort of grossly described is where the lookup capability simply knows that data exists out there and can be a lead in to helping to find the data by going to that care provider site, so if I didn't butcher those too badly, Casey perhaps you could speak to this from the IBM consortia perspective in terms of the different functional, and performance, and sensitivity issues that are associated with those different approaches.

MR. WEBSTER: I'll actually try to speak to it from a neutral perspective, looking at all of them. One of the common things across all the architectures, is largely we didn't want to take the data out of its point of origin and that's for good security reasons, as well as, avoiding unnecessary redundancy and the sheer magnitude of data. So, largely what we have is the ability within our connected communities to search for and retrieve data, and in that there's these three different approaches that can be taken and other flavors thereof.

One is the idea of taking summary data extracted on the fly and moved up and associated with each patient, and the advantage to that is, as I go out and I bring up data, I immediately get that data; it's very quick, it's there and it's the type of data I was talking about a minute ago. That's sufficient to do immediate care, emergent care, or ongoing care, basic face sheet.

Another advantage to that is it does provide some level of redundancy which would help in a case of a Katrina or another type of disaster, there would at least be some data available. The downside to that approach is, it does move substantially, a substantial amount of sensitive clinical data up and out of the point of origin and into another location controlled by some other entity.

Another approach to that, or one that's actually work in parallel is to have pointers to all of the data documents and to scripture those pointers, and it's a google approach where I could go out and I could say, I want to find all the lab results for a particular patient, and it would look at those descriptors and say here are the pointers to the documents, based on your authorization, authentication are allowed to look at, and I would go and retrieve the ones that were pertinent to me. And the more of those tags you have, the finer grain you can do those types of queries, so I might say I only want the most recent A1C for this patient, or even get away from the patient centric view, or the longitudinal view, and say I'd like for all of my diabetics, the most recent A1C, and create an on the fly registry for diabetic treatment.

So there's some real advantages to that in terms of performance and flexibility, but again, even those tags start to move sensitive data out of the point of origin and up into that locator, because I might have a flag that says there's an HIV result out there on this patient ID, or even the fact that there's results at all or clinical notes from the Betty Ford clinic, associated with that patient ID, if it were to get out, would expose sensitive data.

So, the third approach is really a err on the side of caution approach and that is, nothing that exposes sensitive data should be moved up and out of the point of origin. The only data that would be searched on is really the patient ID and a date, so really nothing sensitive is associated up at that point. And across the spectrum we're actually implementing all three variants of that, and the feedback we're getting is pretty much across the board. Strong advocates across all of it.

DR. LOONSK: So we anticipate that this is one of the issues that the prototypes will attempt to reflect, and that we will have ongoing discussion about these different architectures throughout the year, and for some time to come. I guess that there are issues about performance and data accessibility, and physicians willingness to wait for data to come in association with a patient that are prominent in that consideration as well as others.

MR. OVERHAGE: Certainly performance and usability are key towards the desire to use some of those, but then willingness again to expose data is the counter to that, and the people who do counter that understand what it is they're trading off, it's really a philosophical as to technical difference and the technical implementations are not particularly difficult, we all understand what it would take to do all of them.

DR. LOONSK: Do you want to comment at all about the issues associated with matching at that level, relative to -- you mentioned issues about at times the sensitivity of knowing that a test exists, whether you know the result or not, that can be highly sensitive, but in terms of looking for patients when you're looking to match a patient's data unambiguously in that context, this is also an issue that we face in the context in these lookups isn't it?

MR. OVERHAGE: Perhaps you could rephrase the question, in this context I'm not totally following the question, to be honest.

DR. LOONSK: One of the, some of the approaches for patient lookup express the desire to have one match or no matches, and some of them perhaps have an ability to have a fuzzier match where then a decision has to be made is whether that's the right patient or not when you're retrieving data.

MR. WEBSTER: Here we're talking about what's more commonly referred to as the end PI, the master patient index kind of lookups. And really the question is, if I don't have something such as a unique patient identifier, which we can't have, or social security number which we can't use, how do I identify positively that this patient is in fact the patient represented in our database as they get checked in other clinics around there.

And we all use some variance of MPI capability with matching based on name, date of birth, gender, address, phone number, all the types of things that would help to identify us as well as other identifiers we have that we can use such as Blue Cross Blue Shield number, or other types of insurance numbers, so the more of those you can match, the better.

The real question is at what point does it become a positive match? And it is all a percentage game, but at some point you reach that threshold, and I think early on when we are all implementing is a pretty conservative threshold that says we have to be pretty darn certain if we are doing a guaranteed match that it's there, we want no false negatives, but if we are searching manually to identify a patient the rules are a little bit different, we might go out and say I have a patient sitting here who just moved from Boulder, Colorado, and I've got some basic demographics, well I can bring up a list of possible matches, and fine grain that by querying the person saying, "Did you live at this address, or was this your phone number" to get to a more positive match, but it always ends up being a certain threshold to which we say a match has been made.

DR. LOONSK: Thanks Casey. The next question is about emergency response and Wes is going to ask it of Accenture.

MR. RISHEL: Garrett gets the award for having the most timely question, based on this morning discussion. In the Gulf Coast aftermath, when an entire region was essentially down, the ability of electronic prescribing networks and the VHA systems to retrieve data about evacuees who was put on display. Characteristic of those systems is that a great deal of patient data was aggregated somewhere other than the region that was down. Could the existing NHIN prototype architectures have responded to the crisis in the same way, in other words, could we have got to more data if we had the NHIN in place and we did now, and what architectural approaches couldn't enhance the ability of the NHIN to be supportive in those cases?

MR. WU: The requirements in design for the prototype architectures could certainly have supported the response to the crisis, such as the one that we had in the Gulf Coast. We've got designs for an NHIN that's internet based, it requires high availability and redundancy for disaster recovery and tail over.

The definition of the NHIN is that you would link disparate healthcare information systems together to allow authorized user access across the nation, so that includes patients, providers, hospitals and other public health agencies, to share clinical information that's appropriate and that's secure.

But, in the answer to the question, the NHIN is only part of the solution. We're talking about a NHIN that's in a federated model, the data isn't centralized in other locations, such as something with the VHA, so from an architectural standpoint we need to consider provider organizations capabilities, their business continuity and disaster recovery plans. So this information is readily available in emergency situations.

I think the key to all of this is the harmonized standards so that what provider organizations have as far as their data, and what are their availabilities, and what is their ability to store the data, is standard across all of those organizations, so the information is useful as the information is transported throughout the NHIN, and as it's required for an emergency response situation.

MR. RISHEL: Thanks. Part of what you said is that the availability of the data depends on how good the data source takes care of it, in terms of hot backups and backups offsite and things like that, they're accessible. Given the discussion this morning about a first responder data set, is there anything that strikes you about the architectural options and the NHIN that would make that first responder data set more or less available in the case of a catastrophe?

MR. WU: Well I think it runs the spectrum of really where, how do you want to store that data, and where do you want to store that data. So, there's a whole series of questions that arise based on what those decisions are, I think as Casey was saying, the technical aspects of what are things we all understand and can build to, but it's really what are the policies and the business decisions that you want to make around, do you retain the data in a federated model, do you have it in a centralized model, or do you have some hybrid of the two.

MALE SPEAKER: I wonder if we would want to explain the confederated and centralized model for the Community or have they heard that often enough now that they're familiar with it.

DR. BRAILER: I think it's worth a brief explanation about what it is, and probably more importantly what the implications of the models would be, I ask Rob perhaps to chip in on this as well.

MR. RISHEL: Just a quick definition, the data that is collected, which is very sensitive and aggregate, in terms of privacy can be literally put into a single database for a market, or it can be indexed in a way that it can be retrieved, but you go back to the original sources for the database. That second approach is called the confederated model, versus the centralized model. Rob, did you want to…?

DR. KOLODNER: The key is how much is exposed from a given organization and for, depending on the organization, I think the model may have to accommodate different types of organizations with different capabilities so an individual provider who isn't buying from a service may want to take advantage of essentially a backup plan that the NHIN and might offer, whereas a large healthcare organization may choose not to. VHA for example, is in multiple regions, so which region would we choose, as opposed to providing our own solution and I would expect other large entities, Kaiser, or others would have it similar. So, most likely there will either be a service that will offer it for the smaller providers or the NHIN itself will, but it won't necessarily require it from all of the participants.

DR. LOONSK: In the context of the limited time that we have today, we're going to have one more issue to tease out in discussion, and this one is fairly central to the functionality that can be achieved from NHIN-like services. Many of the discussions that have occurred in regard to the NHIN, involve the scenario of a clinician when needing information, retrieving it from a network service, so they can associate with a patient that to which they're giving care. That we would just, from a simplicity standpoint call a pole model, they're reaching out to get the data at the time to meet a particular need.

There are other needs in terms of information flow that one can describe as related to data being pushed, data being moved when initiated in association with a lab result that comes available with a referral that is being initiated or with a data update of some kind. Much of the public health functionality focuses in this way, the data are indeed routed and made available to the appropriate person at the time, initiated by an event that is occurring somewhere else. And these are important value statements, in terms of what we seek from this type of networking, and they also have important technical considerations in terms of how they are implemented, and Rim I wondered if you could speak a little bit to the issues associated with the push versus pull models.

DR. COTHREN: Sure, thanks John. I think this is an important issue, because it really gets at the mechanism that in NHIN, or regional exchange or a local exchange uses for actually exchanging health information. And I'd start off by saying that one can easily imagine a world, or at least an NIHN world in which you really can achieve all of your functionality through a pull, that you can very simply say that I want to know information on John Smith, get me that information. To a certain extent that may be somewhat naïve approach that there are several issues in used cases that are very compelling to suggest that a pull model is not sufficient and that a push model makes a lot more sense. We'll talk about both of these models very briefly and perhaps look at an example of some of those complexities.

First of all, if we look at a pull model I claim that that's somewhat simpler and that's not withstanding everything that Casey has already said about the complexity of a pull model. He was essentially describing a pull model. But, it is somewhat simpler because what you need to do, is you need to ask a question and you need systems that can respond to that question. So, the requirements that you're putting on the systems that are participating in health information exchange are relatively straightforward. Answer a question for me.

On the other hand, if you look at a push model, in that case you're looking at something that is more complex. First of all, you need to locate the physician that needs to receive the information, and that happens in a world that currently we don't have a national identifier for positions. Second of all, you need to not only locate that position, but you need to understand where they want to receive that information, do they want to receive it at the hospital where they're admitting patients, do they want to get it at their office where they normally see ambulatory patients, etc. Make sure that it gets to the right location, so there's a very complex addressing issue that needs to be addressed.

The second issue is the requirements it puts on the receiving systems, now not only are you just asking a question and receiving an answer, but you need to be ready to receive answers that you're not asking the question yet. You need to get unsolicited information in, you need to be able to manage that information, you need to be able to respond to it, manage cues like an inbox, etc. So, it does put requirements on the receiving systems that they may not yet be ready to deal with today. So there are complexities associated with that.

I said I would get to an example, and John brought up the example of public health, you can think of these two models in a pull model, the regional, or state public health department at 2am every night, says, tell me all of the lab results that you got today, and that would be a pull model, on the other hand, a push model would be where all of the responding systems send to public health things that you said you were interested in, so that's the trade off that we're looking at.

And in closing, one thing that I think is important is that when we look at push and pull models, we're also starting to deal with the workflow issues of the clinicians, so although I've really talked about the technical issues, there are workflow issues that can be facilitated or might need to be changed, depending on what model you implement and where. Thanks, John.

DR. BRAILER: Dan Green?

MR. GREEN: On the push, pull idea, it sounds to me like what you described really isn't pure push or pull, it sounds more like some of these subscription services you know. I want to find out all about, from ESPN, about my favorite baseball hitters. You've got to subscribe first, a particular physician needs to subscribe and say, when there's information tell me about it. Is that correct?

Or is there a pure push model where somehow the system itself knows who to send the information to and no one has to set up previous query for it?

DR. COTHREN: I would say that there is a pure push model and the public health example is one example of that. You do know what the local public health department is interested in receiving. You know who you're responsible to report public health information to, so you know already where it needs to go. On the other hand, I would say that the published subscribe approach is a version of a pull model that, again if we were going to get into the complexities of push and pull models, I'm sorry it's an example of a push model that you might also adopt, it's merely an example of a different type.

DR. BRAILER: Other discussion, questions, comments, from the Community? I think you can see this is very thick, and very substantial information that is going to be coming to us over a variety of time and I'm going to ask John as we close to talk about what the process will be from here out. But, let me open it for discussion, I see a Nancy and then Rob.

MS. DAVENPORT-ENNIS: Certainly, I think the discussion is compelling and of great interest to patients and the United States. There are two points that I'd like to share as we look at the issue of patterns of information exchange, and that is that as we're developing those systems that will allow the exchange to be functional for physicians through EHR's and EMR's, that we also keep in mind that we are at the same time trying to have PHR's developed for the consumer, as a consumer driven and led initiative.

And as one that deals with patients facing very complex therapies, and diseases that require complex care teams in order to manage that disease, the timing of who that data is going to be delivered, and in what process is always part of that. I think you're discussion around the relo and the need to harmonize the standards for relocation is critical to this whole initiative particularly in emergency use in resurrection of records after national events. I think from the consumers point of view that is facing a complex and often life threatening illness, but if they could sit in this chair today about push versus pull, they would always want to know that there would be a system of enrollment, for lack of a better term, that would allow them to

automatically through a push process to receive the data that would allow them to move to their next step, and their standard of care, thank you.

DR. BRAILER: Thank you. Rob Kolodner.

MR. KOLODNER: Continuing really on the patient focus for all of this and the network being there as an infrastructure that facilitates it, whether it be from a laboratory service or from an electronic health record or a personal health record, this issue of how we identify the patient and whether it's push or pull model will play into some of the privacy and security concerns that the new Workgroup will begin addressing and then help to shape as well.

And the idea of how do you support a patient opt out, where can they block information, or some of their information, so I might not release information from oncology, a center that only does oncology care, or psychiatric care, because just registering that, knowing that there is data there already reveals information without even saying what kind of data.

The other is the possibility of patients saying I really want to make sure my data is available and having a voluntary ID type that could be added in without any requirement and ensuring that my data has a better chance of matching up because I choose voluntarily to add that in. Those also would be pieces I think could be accommodated from what you've laid out so far. And I want to commend you for taking what is a very technical, and sometimes complex area and teasing it apart into something that highlights, I think, the critical areas that we need to be wrestling with and resolving, thank you.

DR. BRAILER: Thanks Rob. Other comments from the Community?

SECRETARY LEAVITT: I just want to ask --

DR. BRAILER: Mr. Secretary.

SECRETARY LEAVITT: I would be -- without creating a kind of procurement problem. [laughter] My lawyers are nervous already. I'm just interested to get a sense of your general optimism about this. This is a highly complex, you're all approaching it in slightly different ways. I would just be curious to get an overview from each of you on how you feel like your consortium working, do you sense there's momentum, have we asked you to do something that's unachievable, or can you see light?

MR. WU: We're extremely optimistic about this, we're excited about the opportunity, we're optimistic that we can achieve the goals that have been established here, we're working very closely with our distinct health markets, with Dr. Loonsk and ONC and with the other consortia, so it's definitely been a very collegial environment, and I think one in which we're cooperating for the good of the nation, basically.

DR. COTHREN: I guess I would add to that, make no mistake this is really hard. I think that's one of the reasons we're excited about it is that we're really starting to digress some of the really hard problems that face us now, you bring the best minds together to try to address those things, and you end up producing a certain amount of collegiality that's nice to see, and it's actually fun to be a big part of.

I'd also say that I just, I've truly been amazed at the amount of excitement that we see out in the community, and I wouldn't say that that's just among the healthcare markets that make up our own consortia, but people looking at this effort and saying, you know, we've been talking about doing this for a long time, we actually see action now, there's really something that's moving forward, and that given those circumstances I don't know how we could keep from being successful, I really don't.

MR. WEBSTER: Certainly on behalf of IBM and our communities, we're extremely optimistic, I've been in healthcare technology for 20 years now and we've looked at this several times. This one really looks like we're on the verge of doing it, the electronic health record has been kind of -- that chalice we've been searching for since the 60's actually I think the first book I read was on that, and now we're starting to see it occur. What I really enjoy is that I'm going down to our community partners, Duke, [inaudible] and they're absolutely excited about his, these are groups that, whose IT plans are three to five years out. They don't plan anything less than that. And they're dropping their current IT plans aside. We want to participate in this prototype knowing that the prototype is exactly that, that at the end of the prototype we don't know what we'll be left with or where we'll go, but the sheer excitement of being able to achieve this, or have the chance to achieve this, and be a part of it, is a big driver for everybody.

DR. OVERHAGWE: I think the connecting for health collaboration shares that optimism, but with a note of caution that we do have not only the hard technical work, but I think some other hard work as far as policies and processes and so on to develop over the coming months and years that will enable that technology to really reach its promise.

SECRETARY LEAVITT: What can the Community do that we're not doing, that would further enable, and perhaps speed, increase the likelihood of your complete success?

MR. WEBSTER I guess from my perspective, the most important thing that could happen, I think, [inaudible] addressing it, it's a matter of how far they address it, is establishing standards, and taking a very hard approach to say, "We're going to be prescriptive on some of these standards, and associate, you know, carrots and sticks with that." Because until we get to standards, the data that we start to collect really isn't going to be as useful as we'd like it to be.

But as we start to establish the standards, a lot of them are already out there, and we just need to, to drive acceptance of them. Certainly, standards like HL7, Dicom [spelled phonetically], LOINC could easily be almost dictated and there wouldn't be a lot of push back. And then drive from there to get to the point where we can start to really leverage the data that we're collecting as part of EHR, and use it in much better ways for quality, for outcomes analysis, for trials, all of those capabilities.

DR. BRAILER: Other discussion, comments from the members of the Community?

John, could you tell us what, where we will go from here and what the Community will see, particularly which key briefing points, or discussion points, or decision points?

DR. LOONSK: In September we're going to have common requirements coming from NCVHS that will be recommended to the Secretary around the common aspects of all this work, as well as some description of some of the architectural differences. We're also

going to see from the Health Information Technology Standards Panel some of the first specific standards that I think are being referenced here in the context of really putting some specificity to the ways in which these networks can work together.

We, in October, we're going to have the second forum, and that will focus on security and on systems issues. It will have a technical nature to it, but we're also going to try to get at a lot of the core security and confidentiality issues from a system standpoint that need to be put in place to ensure that this is done in keeping with people's expectations in that regard. And we anticipate having output from that forum as well.

And then the different consortia are also working on cost and revenue models -- key components to thinking about how is this sustainable, how is this sustainable, we're going to, at a national level. We're going to tie that into some of the work that's going on at regional and state levels in terms of trying to coordinate so that we have coming out of this overall, some costs and revenue models that can suggest how overall networking can be advanced.

And then in January, as I indicated before, we're going to have tangible software that is demonstrable, that demonstrates the kind of concepts here, recognizing that it will be a first implementation, prototypes, if you will, but of connecting live systems and showing the ways in which these different capabilities can be brought to bear to move health information to support those goals.

DR. BRAILER: Any further questions or discussion on this topic? You'll certainly hear more. Thank you all very much. I know it's been very hard work, and I appreciate your coming and updating us today.

The last item of business is tab five for the members of the community, and this is a discussion of the Health Information Technology Strategic Plan that has been authored and maintained by the Office of the National Coordinator. This was in your packet at the last meeting, as you recall we ran short of time for its discussion, and so today we will delve into this in more depth.

And at the last meeting I reviewed the strategies that were classified as "initiated," meaning that they're underway, meaning that there are specific, tangible actions that are being pursued under those strategies, thus, putting them in a mode of active management in the Office of the National Coordinator. Today we're going to focus on six strategies that are classified as "active consideration," meaning that there's not a specific set of tasks that are underway, but these are seen as being the next round of big areas for the office to focus on. And with that, I'll turn you to slide, slide eight -- thank you -- on page four of your materials, if you have the [inaudible] in your book, and we'll turn it to Karen Bell to start with the first one.

DR. BELL: Thank you very much, Dr. Brailer, and thank you very much, Mr. Secretary, for affording us this opportunity to continue this very important discussion.

As Dr. Brailer indicated, we have re-visited the goals from the original strategic framework of July 2004 and created 14 new objectives, and within those objectives we have some new strategies. I would like to underline the fact that these strategies represent a work in progress. This is an evolving, dynamic document; this is a draft.

And we are here today to elicit your feedback on these strategies, but also to engage particularly private input.

As was indicated last month, we are very much engaged in the private-public nature that this Community represents. So as we think about these strategies, or you think about the strategies, please think of them from the perspective of not only providing feedback about them, but what can the private sector do to help us move them forward.

And I think this very first one that's here, and again, it's slide eight in your packet, strategy 121 refers to the fact that it is the first strategy under the objective of low cost and low-risk EHR's within the first goal, is to foster economic collaboration for EHR adoption. Now clearly, the Secretary made a big step in that direction this morning in announcing Stock release in the anti-kickback safe harbor.

In addition to that, removing that barrier, the certification process does enable clinicians the ability to assure that what is purchased does have a certain set of functionalities and leads to interoperability. However, I think that there are many other, many other steps that can be taken within the private sector to support taking advantage of the removal of this barrier and the processes that have already been put in place. So I would ask you to think a little bit about what, again, the private sector can do to move forward with that type of support.

And secondly there is another approach that has been defined in a number of different areas. And that is, is collaboration within the provider community. We know of several medical societies that came together to negotiate certain types of software for their members. We know of, actually, a 5013C entity in Rhode Island, EHR Rhode Island, that has formed a collaboration that not only is able to purchase a certified, or has purchased a certified EHR system for its members, but also is working with entities that can help with the implementation and the workflow change.

These are fairly unique situations, however, and so I look to the provider members around the table to think through with us, how can we move forward with these strategies? What actions can be taken, particularly from the private sector? Thank you, David.

DR. BRAILER: Discussion on this item? This is clearly an area that has had a lot of attention. And the question here is focused, remember, on actions, on thoughts, on priorities for the direction of the Office of the National Coordinator for government policy, etc. Floor is open.

Doug Henley.

DR. HENLEY: Karen, if I'm, if I'm understanding you correctly I would say that, as the Secretary has said, that the relaxing, or modification of the current barriers that exist, the Stark laws and so forth would be helpful to facilitate this.

But let's assume for the moment that that was no longer a barrier. What the physician community tells us, not infrequently, is that as, especially the hospital side of the equation, looks to be the good Samaritan here and take technology from the central core of the hospital out to the ambulatory community is that they want to do it their way and

with their systems. And their systems being institutional-based do not fit well in the ambulatory care arena in terms of their functionality and so forth.

So perhaps the second phase of CCHIT is going to help a great deal with that, in terms of certifying inpatient systems as well as the ambulatory environment. But that is a bit of an obstacle now, even absent the Stark laws in that sense.

So the, the challenge would be for these groups -- hospitals, public health agencies, and health plans -- to work in concert with the ambulatory physician community and other ambulatory providers to determine what fits best at the interface of patient-physician connection at the point of care, and let's determine what the best system is for that environment versus one system fits all.

DR. BRAILER: Lillee.

MS. GELINAS: I'm supportive of the thought, and I know your recommendation 1.2, maybe I'm just speeding ahead for the sake of time, around lowering the cost. But this is clearly the need for a business case. We've talked about the need for a business case in the past, and want to just make sure we have that language in here.

But the concept of competition, it's amazing to me to see now hospitals beginning to compete on having IT systems in place, and I just wonder if we'll be able to work through that issue. But I don't think we should be competing on saving lives, you know, at the end of the day. So, just that notion of business case and competition, having you address some of that would be really helpful.

DR. BRAILER: Lillee, are there models that you're thinking of, or you've seen this happen, or is this really more of a normative statement about what we should look into?

MS. GELINAS: In terms of the business case?

DR. BRAILER: The business case, competition, the way it's being used.

MS. GELINAS: I've seen it both. You know, we could probably do a use case around it and make it more clear, case studies, that type of thing, but yes, you know, I forgot which meeting I passed out the HFMA guide to adoption, you know, maybe we pull that back out and dust it off, but that was great work.

DR. BRAILER: Great. Thanks. Chip?

MR. KAHN, III: We've determined by talking with some of the IT people at the groups at the hospital systems I represent, at this point in time, where the more sophisticated ones have the capacity to give a physician who has a, someone in the hospital a password, and they can get in and get the labs, and get the images, and get whatever's online, and they don't really have any interest in providing the system to the doctors. And at some point when you get to interoperability, then those, what they offer obviously will change.

But I, and I know the position the hospital's taken on the, the hospital's generally taken on the Stark exceptions. But I think there's a business issue here of both complexity, and even if they're in the medical arts building across the street, why am I giving this to them,

I mean, when you get down to it? And so I think there's got to be more thinking about answering that question, which I thought was a no-brainer, just conceptually, but when I started talking to hospital people who were actually on the ground, their answer was, "Now, tell me that again?" So I just want to throw that out.

DR. BRAILER: Great. Kevin Hutchinson.

MR. HUTCHINSON: From a policy perspective, and I'm very excited to see the details of the Stark final language as it comes out, but I don't know if, what entities were included in that. I know there was also a big push to make sure that we're looking at all entities that could provide low cost, low-risk EHR's, and one of those being labs, in the sense that they already have connectivity to physicians today, they have relationships with physicians today. I don't know if that ended up in the final Stark wording, but if not, we should be looking at entities that have relationships, especially electronic relationships today, that could provide these low cost, low-risk EHR's, assuming low-risk means they're looking at certified EHR's that have gone through the process.

DR. BRAILER: Okay. Any other thoughts on this? Okay, let's move on, Karen.

DR. BELL: We'll move on to the next strategy which is 122, also under the objective of low-cost, low-risk EHR's. Lowering the total cost of purchase and implementation basically gives us an opportunity to really think about all of the issues involved with workflow change. The reality of it is that simply purchasing an EHR without changing how you practice, and without re-educating your staff, or re-orienting them to other particular pieces of work, is not likely to get anyone to the outcomes that they would benefit from.

So the types of, in many ways, consulting services, that could be available to help clinicians make this transition are actually quite expensive. Someone has costed them out to be about $10,000 just to, really, in order, just to really move forward with a very effective and efficient implementation and workflow change. Now I do know that CMS, through its docket program, is offering these types of services around the country, but only to a very small percent of physician's offices, about five percent. So again, I turn to all of you, but particularly the provider community, to help us think through what can be done to really make this step far more efficient for clinicians and remove what we perceive to be a fairly large barrier. Implementation is almost as difficult and onerous financially and from a practical point of view as the actual purchase itself. Comments?

DR. BRAILER: Any additional comments that weren't raised in the prior strategy? Doug?

DR. HENLEY: Well, just to say that a better selection process on the front end is extremely helpful to the process. We have found that going through a practice readiness assessment, in terms of what electronic health record might be best for your practice so that you can kind of decrease the potential market from, say, 10 vendors to the two that you might really want to spend time with, before you make the final selection has gone a long way to at least eliminating some of the upfront costs that might have been both in terms of time as well as trying to determine which vendor is best. So, and medical associations can certainly do that, it's an online process that we've created at the academy that our members give us a lot of positive feedback on in terms of doing that.

The other part of the equation is the ability to allow physicians to provide comment on the system they have installed, so that others who wish to get into the market can see those comments in terms of is the system performing as it should have performed. Is it, what are the pitfalls of implementation that I've experienced that you can learn from by seeing my remarks? Kind of a Consumer Reports type process. So looking at the front end process as well as providing some post-implementation feedback that others can see before they write the check can be very powerful.

DR. BRAILER: Other thoughts on this? Kevin.

MR. HUTCHINSON: Just adding to Doug's comments, I spent seven years of my life doing electronic health record implementation, so I speak from experience on, when you get into a six-physician practice, in many instances you are actually automating six different workflows within that same practice, and what, where a lot of money is spent, and time and energy is spent in that implementation is educating the practice and the physicians, not to try to take the workflow you're used to today and simply automate it, but improve the workflow and do some standardization to that workflow.

Adding to Doug's comment on if we have an education and awareness with some best practices or examples, whether it be family practitioners, or OB-GYN, or, there are definitely some patterns by specialty of workflow that could work, but we do spend a lot of time, money, and effort trying to customize these systems to meet existing workflow patterns, and that's where a lot of money is being spent.

DR. BRAILER: Okay. Let's move on to 221.

DR. LOONSK: So strategy 221 to stimulate private investment to develop the capability for efficient sharing of health information. And we just heard a fair amount about some of the complexities, some of the early stages that the consortia are in the context of developing capacity. We know that the demand side of sustainable health information exchange is going to take time to develop. This strategy is really about, more about the supply side, and what can be done in the context of trying to ensure that private investment invests in the kinds of capabilities necessary for health information exchange in this context and regional context, and more functionally specific context as well.

DR. BRAILER: Discussion on this item. Any ideas, comments, or examples that could be thrown out? I would comment as you're considering that that the panoply of actions that you've seen happen recently with respect to health IT all emerged from a set of strategic planning that occurred about two-and-a-half years ago. So this process of reloading the gun and beginning to true up these next ones with themselves result, hopefully in a set of very specific actions, hopefully less than two years from now. But this process is really the key steering wheel in the directly that policies will go.

Any thoughts here about where the ONC staff should look for examples of this, where, what is being done, or what could be done to achieve this strategic objective? Sounds like a, Robert.

MR. CRESANTI: Thanks, David. One thing I would commend for at least your examination or review is the situation that we've faced in the housing, home ownership

area, and student loans, so we had Sallie Mae at one point, and Freddie Mac and Fannie Mae, so there were federal government, you know, there was a public interest that was deemed to be large enough at the time by the members of Congress to help facilitate some lending under the government purse to activate, you know, stimulate market entrance, and to drive down interest rates. So there are other models out there, but that's not a clean fit, but it's at least something to consider.

DR. BRAILER: Rob?

MR. KOLODNER: I think at least the wording here describes what might be a public utility type of approach that might or might not be regulated. Another approach that sounds like it might be what the Secretary was talking about at the beginning would be an organization where the entities come together and collaborate to share that infrastructure, I mean, the model of that is Visa, where the bank owns something and the, that infrastructure is not a source of profit. So you're not draining dollars away, but you're actually cutting the cost of that, and that might be something that, in health care, we might be more attracted to.

DR. BRAILER: Yeah, both of these issues you've raised are really manifestations of a lot of what you heard in the last panel. The degree to which there is synergy, there's common and shared infrastructure versus proprietary investment, where the business models are that validate value of that data moving, either for quality purposes or other things. So there's a lot of spade work to do just to discover the issues, but this is clearly one of the fundamentals of achieving sustainable result. Other thoughts here?

Okay, let's move on.

MS. DANIEL: Again, with an goal to to interconnect health care, that's okay, we're looking at strategy 2.2.4 to support state and local governments and organizations to foster electronic health information exchange. There's really an important role, not only of the state and local governments, but also state, regional, and local organizations in electronic health information exchange. And because health care is primarily delivered locally, it's really important that we look to those organizations and to those governmental entities to think through some of the issues and solutions in order to interconnect health care.

There are a couple of different roles that we see both state and local governments having, as well as state, regional, or local organizations having. In both categories they can act as conveners. And then state and local governments have the unique situation to act as legislators and regulators as well as funders of health care. So there are lots of different places where these various governmental entities and other organizations have important roles to play in fostering the interconnection of health care information.

With respect to convening, the convening role, we've done a couple of things at HHS, again, we're looking for some input as far as what more we can be doing, and what, where we can get some help from private sector efforts. We have the privacy and security solutions contract, where we have engaged state, either state entities or entities that are representing the state or that have been appointed by the state to get contracts to look at privacy and security issues within that state, bringing together all the stake holders in the state to think through some of the privacy and security issues, and some

best practices and solutions in that area. So they're acting in a role as convener, but also looking at possibilities where there may be opportunities in their role as regulator to address some of those issues.

We also a have a study looking at guiding principles and best practices for health information exchange at a regional and state level, and there will be a report the next meeting on some of those guiding principles and best practices, so you should hear more about that, but again, looking at these organizations or governments as, in a convening role.

In addition, ARC has, has looked to states in their role for electronic health information exchange and has contracts with some state governments, specifically in the area of health information exchange. So there are a couple of different ways that the federal government has been trying to engage states.

And then finally, I know there have been recommendations from the community to engage states and the National Governor's Association to look at some of the legal issues that have come up in the context of the breakthroughs, and we're looking at ways to do that. So again, we look for your input and thoughts on this particular strategy.

DR. BRAILER: Robert?

MR. CRESANTI: [inaudible] question you mentioned last time here on the issue of privacy and security that there would be a meeting later of the NHIN contractors that would be a public meeting. What's that, what's the schedule for that, out of curiosity?

MS. DANIEL: John can talk a little bit, too, but it's October of this year. There will be a forum focused on security issues, and we will just be getting in some interim reports from those state contracts from the health information security and privacy collaboration contracts at the state level, so hopefully we'll be able to take some of the learnings from those interim reports and be able to share them at that forum. So there will hopefully be a connection between the NHIN folks and the privacy and security folks.

MR. CRESANTI: That'd be great. Thank you.

DR. BRAILER: Julie?

DR. GERBERDING: So much support and work that the states can do to support this, and I think, kind of looking at this from the standpoint of the CDC experience, where we had basically no sticks and all carrots for many, many years to get 50 states to have minimum standardization of certain public health data collection, utilities and certain other public health activities. We've learned a lot, and I think one of the real important things going into this recognition that states are accountable for these issues is that we need to really much more proactively engage them, I like the word guided in the new role, because I could just imagine what it would feel like in a health agency that crossed state boundaries, if you were in 12 states and they had different privacy rules and different, different issues here it would just be a complete nightmare to try to get your systems to work within all of those jurisdictions. So some of the, you know, having more representation here, perhaps, at the Community, or inclusion in the Workgroups, really all

of the Workgroups really will touch on issues that are within state authorities and state accountabilities, so the sooner we try to do this.

One experience that we've had that's been particularly helpful in really tough issues around statutes and tough laws in the states where the emotional level can be very high has been in the public health preparedness law arena, and one of the things we did was to create a center of excellence in public health preparedness law that was in an academic environment, but it went to every state and analyzed where are you now in the continuum of relevant regulations and statutes. What the model program really, you know, likely to look like, develop some consensus around that so that people could use that as an opportunity to shape the legislation and guide that process in a somewhat objective way. It's been very successful in issues of quarantine, and isolation, and other areas where some of the similar citizen concerns would be prevalent.

DR. BRAILER: You know, it's a very good comment, Julie, because one of the reasons this strategy is being cued up now is it's becoming apparent that we've lacked the vehicle to convene states or local entities on a broader basis with Health IT; it's subject matter dependent, and the examples you raised are quite strong and rich and historical and the other areas, like privacy and security, we've had to build the dialogue to have it and it has incredible lead time to be able to have anything substantive come out.

So one of the questions that's being explored in the background is "Where are those vehicles," and "How could they be constructed," and "How could they be borrowed or built," so that's very, very helpful because I think there has been a lot of look at what public health has done as probably the pacesetter in terms of state collaboration.

DR. GERBERDING: [inaudible] very helpful as well.

DR. BRAILER: Right. Doug Henley then Mitch.

DR. HENLEY: Well I share Julie's enthusiasm for state involvement here and the positive outcome that could create. Having said that, I also share a concern -- or would posit a concern that that has to include states recognizing and agreeing to the HIT Standards Panel work, the Certification Commission work etc., etc. because as we know states, at times, can be very parochial. I mean look at physician credentialing and all those issues that can get very parochial as state legislative action approach and we have to avoid that in this realm because if that becomes a process that moves forward, it can really slow this train substantially.

Now we heard a very positive comment from George Isham this morning about quality improvement in Minnesota and the fact that they were going to adopt the AQA Measures for the pilots and so forth so that's the type of thing we need to encourage states to do.

DR. BRAILER: And Doug, just as a side comment, even though the secretary didn't describe it today, in prior settings he's discussed the convening that's been going on around the transparency agenda with states, in addition to, private employers and the states have been quite receptive to that and perhaps, that again, the spirit of it providing a vehicle for doing things that it could help provide that level of conformance to these plans as well.

DR. HENLEY: Good.

DR. BRAILER: Mitch.

MR. ROOB: To the degree -- first of all just let me comment on one of the comments you made. To the degree to which states tend to be parochial, regarding the issues that you referenced, they're doing so in response to their physicians, so very frankly they -- so if you can convince your membership, nationally, not to ask for parochial interventions, the legislatures and executive branch would be happy to comply.

The national -- Secretary talked about 125 million covered lives, some of which are covered by -- good portion of which are covered by Medicaid and I'm anxious to see, as I'm sure other people who run Medicaid programs are anxious to see, what CMS says I can and can't do as essentially the administrator of those programs and that will have an enormous impact on -- in terms of states' willingness and ability to be your partner on this. Ultimately you guys will decide now, I take it, from the Secretary's comments and I would hope that he does -- basically tell states 'you shall do this,' but in practice you'll get some degree of pushback on that or may from other states, not from my state, but other states may pushback a bit on that issue.

The other point I would make is, in terms of the Medicaid infrastructure, most of the time when governors look at health, they're concerned about public health but they were more concerned about their budgets and they're going to think about Medicaid and the Medicaid managed care infrastructure and how that ties into this. The new MMS architecture, I think Tony, I've mentioned this to you on a couple of occasions, in term of how that comes out and what it says and how the patient record gets in there, how it's integrated inside the MMIS systems with the electronic medical record will have an enormous impact into how states can partner with the federal government in this respect and, particularly, in pediatric and obstetrical and in the -- in chronic care, we are the through, because of your funding, we are 50 to 80 percent of the market share in those areas.

DR. BRAILER: Right, right, point well taken. Nancy.

MS. DAVENPORT-ENNIS: There are several comments that I'd like to share as ideas that could be used. Number one, I think integrating the state Secretaries of Health into the decisions. State Secretaries of Health are usually charged with oversight and bringing forth to the governor those ideas that are going to be used to improve the healthcare delivery system for the entire state.

I certainly agree with what Mitch had to say, in terms of, looking at the budgets of the Medicaid programs in the states and trying to approach the states with this particular opportunity as a way to help manage shrinking dollars for healthcare delivery that they are charged with.

I think involving the National Governors Association, National Association of Insurance Commissioners and then working with each of them at the state level is also another favorable process. National Council of State Legislators is yet another outreach that can be made in this regard, which can begin to lend support to governors who really do want to move forward in this area in public/private partnerships.

I think, in closing, I would certainly encourage that we reach out to mayors of major cities in this United States and look at the models that they've already established around public, private, nonprofit partnerships such as those, I would just cite one in St. Louis, Missouri, but the mayors have been very creative in trying to find ways to work with this issue.

DR. BRAILER: Thank you. Other comments on this strategy? Okay, lets move on. I think Kelly you're next with 311.

MS. CRONIN: Right, 311 is to establish the value of personal health records, including consumer trust, and I think as Nancy already mentioned, earlier in the day we did have an all day hearing with the Consumer Empowerment Workgroup that in part addressed this issue, in addition to many other issues, we're looking at as we move to the broad charge of trying to have a widespread option of longitudinal, affordable, user friendly, and interoperable personal health records.

We have received a lot of testimony we also did a literature review to try to get a better handle on what are the most valuable features and functions of a personal health record, and also identify who are the trusted sources or what entities that are offering personal health records are trusted by consumers. So I think there's a growing body of evidence that supports both these areas. We recognize that the market is still innovating, it's still relatively immature but it's an exciting time because there's so much progress.

But I think the Consumer Empowerment Workgroup is actively considering on ways how we could better establish -- or make recommendations so that the value could be more definitive with personal health records and we are, in addition, going to be working in coordination with this new Confidentiality and Security Workgroup to be looking more in depth into the trust issues as well. So with that, I open it up for any comments but we'll certainly be continuing to look into these issues over the next few months and will be reporting back to you.

DR. BRAILER: This is a topic that has gained substantial attention, that we know, since even we began our work two and a half years ago and so it's really very timely but again any comments for steering our directionality here? Dan.

MR. GREEN: I just think that there's -- we don't want to be too prescriptive, I think. I know that it's like steering a very large ocean liner, it takes a long time, and there's so much innovation out there in the marketplace and there are so many different groups that are interested in this and have some interest in this that it would be, I think, a disadvantage to try to force the structure too much in one direction this early in the process, I mean it still is early.

One example of my concern is there is a feeling -- this idea of trust, that's absolutely true, there are folks and there's a lot of people looking at what entity would be most trusted to house a PHR. That's a question that's not truly answerable because what I trust, an entity I trust, is possibly different from an entity that you would trust and I think if we let the consumer choose based on information, let the marketplace offer these items and within guidelines of the standards, that we're more likely to get there quicker and let the market decide than we would be if we tried to take some polls and then say, "Well this is where most people want to go, let's steer them that way." I realize it's a little messy but I think really that's the faster way to get there with more people, more adoption, quicker, because that's what we're talking about really is adoption.

DR. BRAILER: Tony?

MR. TRENKLE: Yeah, I would second what Dan has said and also, I think a lot of the infrastructure's still being built with the personal health records. I think the one comment you have in the chart on the slide there, Kelly, about the fact that they're not linked to the clinical

information, I think there's a lot of privacy issues that need to be discussed, particularly since the number of the PHR vendors are not covered entities, and I'd be concerned about establishing the value before a lot of the infrastructure is built, because I agree with what Dan -- once you get to a certain point it will help sell itself to some extent, but if you establish a value and promote it more quickly than the infrastructures there, you could create some additional problems that'll set it back a number of years.

DR. BRAILER: Rob Kolodner.

MR. KOLODNER: To reiterate though, something that we were discussing before with the NHINs, at least to have PHRs be considered within that infrastructure that they might be able to connect, so you don't have to create yet another infrastructure if you do get exchange, I think would be very important so that at least in the early stages to make sure that we leave open that possibility, and that they be adequately represented in the discussions.

DR. BRAILER: Julie, then Nancy.

DR. GERBERDING: This is not meant to be tangential, but I don't know where else to bring it up, since this is the only goal that really deals with consumers, and I think that somewhere in here, whether it's an objective, a strategy, or a goal, we need to deal with the overall communication strategy about what we're doing, as it is relevant to consumers and probably health professionals as well. I'm finding it very difficult to talk about this outside of people who are very intimately engaged in these issues, and yet I think this is so exciting, and so important that we bring consumers along with us as we go in a more transparent way that -- I'd like to see that reflected in our strategic plan.

DR. BRAILER: Yeah, there's been a substantial amount of investigation into consumer communication around health IT, and I think it's fair to say that the composite of that is, that it's very early to take messages out to consumers, but I don't think it shouldn't try -- we shouldn't try. In fact, if you look in the latter section of the so-called 'Strategies for Future Discussion', our strategies that are aimed at some of the broader education because they're not actively being teed up for action, or funding, or policy objectives in the next two years. So, that's clearly out there, but I think a point taken is to go back and look, particularly with some targeted communities that I know that you're focused on that might be helpful.

DR. BRAILER: Mitch, counterpoint?

MR. ROOB: Not a counterpoint, I'm just -- were -- on January 1st, 2007, 630,000 Medicaid recipients in Indiana will have an opportunity to have a PHR. So, we'll be talking a lot about it in the next couple months, at least in our state, and then I think you'll see in some other states with their moms and kids go down this path, cause it's pretty -- it's fairly frankly -- fairly easy to do.

DR. BRAILER: When do you think that you would be in a position, Mitch, to come back and share early lessons' experiences? Is that months, quarters, years?

MR. ROOB: Well, assuming I still have a job -- if it fails I may not be back.

[laughter]

MR. ROOB: But we would be -- we'll tell you how it goes in February.

DR. BRAILER: Okay, great. Good. Kevin?

MR. HUTCHINSON: Getting to the point about consumer trust, I still am a big believer that the PHRs could follow a very similar path as electronic banking followed. You know, there wasn't really a certification process for electronic banking applications, but there sort of was because your own bank, which you would trust, worked with various, different vendors. So, you know, into it with their Quicken application, and Microsoft Money, and consumers began to feel, "Well, these applications must work well, because my bank is working with this application, or I can use the banking site."

I think in getting to the consumer trust piece of the PHR, obviously the providers of care in that point are this equivalent to banking entities in the electronic banking world, where a provider, whether it be a physician, or a pharmacist, or a hospital basically says, "I work with the following, you know, PHR systems." Now, whether that went through our official CCHIT process, where there is a certification that's been made, or whether that goes through an effort within the industry of the standards to be used for exchange of information within those entities. I think we have to really test, is it the providers? Is it the employers? Is it payers? Where are the consumer trust points for access to PHR systems?

DR. BRAILER: Okay, very good. Other thoughts here? Very good, lets turn to 421.

MS. CRONIN: 421 has to do with the overall goal of improving population health, and more specifically efficient collection of quality information, and I think in part we covered this earlier in the broad charge for this new quality Workgroup, but what we're trying to specify here is that, development of patient-centric quality measures based on clinically relevant information available for interoperable longitudinal health records.

The idea here is to get away from just the process measures that were discussed this morning that are really more provider-oriented, and move to a system where we can actually be capturing data that is at the patient level, that would allow for the measurement, and the reporting of measures that would represent the continuum of care. So, not just one episode at one hospital, or one visit in an ambulatory care setting, but what is meaningful to a patient as they experience care across clinical settings? I think we have an opportunity in the Workgroup, and outside of HHS in organizations that develop quality measures to be thinking about what are the data requirements, what do they need to be developing these measures that, in the end, will be more meaningful to patients.

DR. BRAILER: Chip?

MR. KAHN, III: Well, it seems to me this is -- I mean this should be a subset of the Workgroup, which I think you mentioned [inaudible], seems to me that would be --

DR. BRAILER: Yeah, I think the implicit question here, and it probably isn't worth new discussion, is ONC will be taking parallel actions to the Workgroup. The Workgroup's not the only task that'll be pursued in this area of quality and health IT, and so to some degree it's a little bit of a non sequitur that this topic is here after we just had the discussion, but if there's anything that would be different, exceptional, contradictory, I think it's worth raising here.

MR. KAHN I think it's got to -- you have to proceed with care here is, that here is a potential for overlap with AQA and HQA as they proceed, because your -- here you're really looking not just at the process, but at actual measures -- or future measures, that might come, if I read this right, from I guess farming of data that would available at some point in the future, right?

DR. BRAILER: Yeah, I think this is the other side of that bi-directional loop, which is you know, how do we start priming the pump for beginning to measure -- make use of the data that is available on electronic systems whether it's because of natural language processing, or because of the ability to use decision support to begin helping us prompt through more structured data. It's really maybe opportunity assessment here, that dovetails back into that effort of, how do we measure what's clinically meaningful?

MR. KAHN The other factor is that, I think the providers are sensitive about this, but I've seen it argued that you can already do what you have in mind here, to some extent, with administrative data, and there's going to be a movement, I think over time, and you've got to think about how that works, versus how this works, I think as you proceed, and I can suggest some people you talk to about that.

DR. BRAILER: Good, that'll be very helpful. Any other thoughts here? Craig?

DR. BARRETT: I would just go back to the mini-electron problem I described earlier, you just not have hundreds of electrons put in the system. Isn't our challenge to do something, which we could do in a finite period of time, and talking about spanning different systems for the individual, as opposed to having a small number of measures across the total system? You had to kind of decide which one of those you're going to look at.

DR. BRAILER: Yeah.

DR. BARRETT: So, in the basis of prioritization and focus, doesn't this objective have to be pretty far down on the priority list?

DR. BRAILER: Yeah, I think there's two points to this, Craig, one is that issue of continuum of care measurement, as Kelly raised, the other one is, this idea of the opportunity assessment of making sure that the IT community itself, and those who are installing these systems begin thinking about what we can do with the data that's made available from a quality perspective. I think there's a sense of dependency, that the quality community, the clinical standards community, will just tell us what to measure, and I think the discussion here is more along the lines of how do we motivate more entrepreneurialism in that community to begin innovating things that are data-based outwards? And again, the example I'll raise is the one we had about natural language processing of text, it's been a lot of discussion about that, some experimentation, but nothing that's really tried to orchestrate the feasibility assessment of it.

DR. BARRETT: It's -- I concur with that, but it's back to the financial analysis, so we always look at -- as soon as you get standard or open interfaces and common communication protocol, then you can do all sorts of good stuff. We are so far from having common interfaces and communication protocol that -- you know, the stagecoach is way ahead of the horse on this one.

DR. BRAILER: Yeah. I think that's a point taken. We'll take that back and take a look at that and make sure that this is still something that given the Workgroup formation, et cetera, is worth keeping on this list. Lillee?

MS. GELINAS: I think one key resource for the staff, the new Institute of Medicine report that just came out on performance measurement. It has some really good work in here on starter sets, design principles, how to go about achieving this. We found it very helpful in the private sector and just wanted to make sure that came to your attention.

DR. BRAILER: Very good. Thank you all. Let me thank the panel and the staff of the national coordinator. It's really an outstanding group of people who are leading that office and as a private citizen, I'm very proud to have you there leading this effort for us, particularly in that order. [laughs]

With this, it's time for public input. The microphones are open for anyone that has a comment to share with us. I would just ask that no commercial content be conveyed, and I would comment also that in the spirit of public input that the Workgroups have begun having hearings and will continue to do this -- that are much more broadly available to those who want to give input. So now that we have the basic operations in place, we're able to collect a lot of very specialized input from the public. With that, please.

MS. BICKFORD: Carol Bickford, American Nurses Association. I have two comments. One, I would ask that you be more broad in your interpretation in 1.2.1 and also 2.2.1 to change positions to clinicians to create a more open perspective. And then in strategy 2.2.4, where you're talking about support state and local governments and organizations, I would invite you to consider reaching out to the National Foundation for Women Legislators, which is a bipartisan, all-government levels group, and since women constitute 51% of the population, they might have new perspectives, specifically since this year's strategy is action. So you may take a look at them as being another resource to help move the agenda.

DR. BRAILER: Thank you very much. Any other comments or input from anyone in attendance today?

With that, let me thank all the members of the Community and those that have been on panels for a very successful seventh meeting. We will see you on September 12th here in the same room, 8:30 a.m. sharp. Thank you. We stand adjourned.

[end of transcript]