Please standby for realtime captions.

Good morning.

I am Don Goldmann, the chair and welcome . We are going to try to pay attention today and not be on our devices all the time. I have three devices and fortunately the iPad will not connect and that his telephone is too small for me to read without being obvious in the big computer will hide my face. We're going to have a really great day today and welcome to especially the NAC members and we have a lot of new members , some who have not arrived yet so welcome to go. -- You. We will have a chance to go we'll go round. I know that at least the new members yesterday had a chance to have a really in-depth orientation. I reviewed the slides and I can testify as an independent person, advisor that they are accurate and they don't sugarcoat anything. They are very good slate so I hope that was valuable. I apologize for missing the dinner last night. There was a record one hour rainfall at national Airport of 2.54 inches in one hour ago my plane had a broken -- anyway, I speak with some force, thank you. Barbara is here it is a great advocate for patient safety and I was questioning whether the airline puts call for a broken windshield was really reason to keep me from flying, not the windshield, the wiper. But if you go fast in your Ferrari the rain wipes away. I was little worried about that decision. We are going to have a very stimulating day today and got Paul has made it clear that you would like to hear really new thinking about the future of health services research and the future of AHRQ . And they are intertwined so sometimes I think we tend to talk about an agency being at NIH or CDC or AHRQ as its own entity but really those agencies are really knitted together with discipline that they support. For example, talk about the CDC with without talking epidemiology is ridiculous and talk about AHRQ without talking what health research is also misguided. We've got to bring them together, the future of the field and the future of the agency in a very creative way. The one thing I noted immediately looking through the new membership as well as our current members, this is an incredibly eclectic group of people from many different perspectives. You sometimes don't see that at meetings like 02 where everybody is from the same point of view and it's a little bit of an echo chamber. Here I think we've got enormous diversity and opportunity for creativity. That is a really good thing.

I thought I would start with the permission of my friends on either side with a personal anecdote which I think I found quite meaningful. Some of you know the history of surviving sepsis campaign and the guidelines for decreasing the consequences and mortality of sepsis. This is an incredibly worthy goal. The -- has been heavily involved in that and that there's been a lot of effort put into creating guidelines around sepsis and mounting campaigns to do something about it. The ability to end close to actual time critically assess the evidence behind guidelines is no better place manifested is an surviving sepsis and the new one hour bundle. There still a lot of debate about this, but if you look at all of the promising additions to that management guideline, goal directed therapy, use of steroids, I could go through five or 10 of these, none of them through sound health services research and clinical trial were shown to be effective. And what we are left with now come look at the essence of the current bundle and that's exactly what I did when I was at Mass General Hospital as a resident. Norepinephrine -- low pressure, Crystal Lloyd Bullis to rehydrate and support the vascular system and antibiotics as soon as you can get them in. You can look at that in a nihilistic way in to say nothing works and feel despair or you can say isn't it great that we have a society that in the face of great enthusiasm critically assess what we are doing so that we don't inadvertently either waste resource or even worse, patients. Is to kind of spirit I find myself coming to this with, answers are not easy, but we need to keep at it and keep at it quickly so that we don't waste years doing the wrong thing for the wrong reasons. I hope you didn't mind that digression. Let's get on with the housekeeping notes.

This is really important. If you need transportation during the lunch break sign up at the registration desk and that's really key unless you are a fan of the redlined which is okay. It takes an hour and three minutes, but you may want to take some other form. The new members have to have individual photos. I guarantee you that these will be flattering.

[Laughter]

I'm still trying to get -- I never did -- I never got the flattering photo that takes 10 years of my age, they are really good. You definitely want to do that. Although I have been for all the new members of went to your website because the photos were not in the bios and you all have flattering photos. Maybe you don't need another flattering photo. The cafeteria across the way actually is good. I had a stereotype for my days at CDC what it government cafeteria was like which was basically trays of grits and sausage and colored with bacon and grease. But this is pretty good. Hopefully the Korean guy is here today with his Korean noodle plates, the rice bowl come unbelievable. You should look forward to that and if he's not there, complain about the scheduling. Use your microphones because we have people who will be on the web. I don't know whether you have Mike lowers ex officio and Kate Goodrich.

[Indiscernible - low volume]

First order of business you have minutes. I hope you reviewed them and I've gotten persnickety about minutes we hope you did review them and if some of your quoted that you are quoted accurately because these things are public record. But if there are no comments so are there any in corrections comments that anybody wants to bring up?

Okay. I will entertain a motion to approve the minutes. Somebody like to so move?

I.

Second

I

Thank you. For those of you in favor with approving the minutes, raise your hand. Thank you. Anybody opposed or indifferent? Great, the minutes are improved -- approved. It's now time and my great honor to introduce Gopal who I think you all know by now and I've gotten to know him really fairly well considering a short time of knowing each other and find him to be creative thinker who leans in and really listens. Marine visit Nonno, my CEO the first thing she said to me at the meeting was just sit back there in your chair looking professorial. That's really insulting, but she was right. Just leaned forward and look curious even if you are not. But Gopal is legitimate curious and I think that's a great thing. He comes from a background that's different from some of us which I think is a good thing, brings fresh perspective and wants to learn so you're going to give us a little overview and reports, right?

Introductions, thank you. Next time [Indiscernible]

Why don't we go around the table. Why don't you start?

Sure, I am Jimmy Zimmerman, designated management official for the trend to peer at AHRQ.

Justin Richards, Deputy Director for public health science at CDC.

Sherry Lynn, deputy chief medical officer centers for Medicare and Medicaid services.

Alice Bast, CEO of beyond celiac.

Chris Calamaro, senior nurse scientist at children's healthcare of Atlanta and associate professor at Emory University.

Sheila Burke, faculty of the Kennedy -- Harvard University and the head of the public affairs for Pickard Allis and.

Arbor Thain, executive director of the Betsy Lehman Center for patient safety which is Massachusetts state agency.

[Indiscernible - low volume]

-- Faculty member at UCLA.

Kathy Bradley, associate Dean for research at the Colorado school of public health.

Lucy Savitz, vice president for health research and director for Sutter health research and Kaiser Northwest another faculty of the OHS you PSU School of Public Health.

Jerry Penso President and CEO of AMG American medical group Association. We are trade association based here in the DC area representing the medium and large -sized medical groups and health systems.

Beth Daugherty, vice president of patient care services and chief nurse executive for Spiro Hospital.

Bob Davis, professor at Vanderbilt University, executive vice president for public health and healthcare and senior associate dean for population health sciences.

Tinhorn has Brassard, associate professor of biomedical informatics at Stanford University.

Will shrink from UPMC health plan, chief medical officer.

Monica Peake, associate professor of medicine at the University of Chicago and I do health services research, associate director for the Chicago -- East translation research.

Karen Amstutz, chief medical officer from Magellan healthcare.

Francis Chesley, serve as the acting deputy director and direct the office of extra research education priority populations and lead the office of minority health.

I didn't say where I'm from so I'm from -- Boston Children's Hospital Harvard. David, you want to introduce?

David Atkins, director of health services research at the VA.

I am Gopal Khanna, director of AHRQ.

Finally, your moment.

Thank you

Thank you for those kind words and once again I would like to welcome all of you and especially the new NAC members and I must admit that my colleagues are did one of the finest in the country that I've ever worked with and on behalf of them and all of us at AHRQ , it's my honor and pleasure to welcome all of you. And thank you so much for participating and being part of NAC. I would say also welcome to all the members were here from the public and other interest groups, welcome to AHRQ. NAC members, you join a committee that I really like upon, very heavily pick I've had the distinction of leading AHRQ for the last 14 months and I relish these opportunities to step outside our own frame of reference and hear from experts in the field. You all come from diverse backgrounds and represent diverse interests and expertise. But I'm confident that together we are united in one vision, one cause, one purpose. Our goal of course is to provide safer, evidence-based, data-driven care to the American people. And I know that you all feel passionately about that. Working together I believe that the possibilities for creating exponential impact on virtually unlimited -- are virtually unlimited. However, in order to improve the quality and safety of the US healthcare system we must start by considering the trends that are redefining the healthcare landscape and many of them. It's taken me a long time to go over them, but let me name a few that are nontraditional disruptive innovators were entering the healthcare marketplace. These include small startups and large technology companies like Amazon and Google and many others were waiting in the wings for the right time to emerge. We are seeing an increase in consolidation and integration of healthcare delivery systems. 2017 recorded one of the largest amount of mergers and acquisitions in our space. After that's, -- aging population the -- is not too far away. Of course, the most disruptive innovators of all, the digital revolution that will shape our entire landscape and industry. As a result of these trends and others the healthcare ecosystem is rapidly evolving at a furious space and by the way, -- will be more of it in the coming years ahead of us. This creates unique opportunities for AHRQ. The challenges of course but unique opportunities for AHRQ and that's what I want us to talk about. However, to capitalize on the opportunities we need to see the healthcare landscape through a digital lens and rethink how we do business differently. The bottom line is that we have to reinvent our enterprise doing things the way we have done them in the past is simply not an option. At all. And I have to admit that tinkering around the edges will not work either. However, I believe AHRQ's core competencies , unique core competencies in research, practice improvement and data analytics will position us to catalyze improvements in healthcare, delivery and wellness, provide data-driven insight for clinicians, policymakers and researchers and ensure that patients receive safe, high quality care. The question really before us is how do we get there? How do we leverage AHRQ's core competencies? This is why we have convened this committee . I need to hear your thoughts. I need your perspective, unique perspectives and I look forward to hearing from you today. But before we do that let me offer a few thoughts of my own because I have some ideas about complete actions we can take. First, I believe we must leverage and build on AHRQ's core competencies. We need treatment focus on what we are really good at Excel. Note that AHRQ's strengths will be increasingly -- necessary and valuable as healthcare transforms. AHRQ's research will help to capitalize the development of new knowledge. We will ensure the healthcare professionals can implement and operationalize new evidence in order to deliver the best possible care. Dissemination is not good enough going to go around and talk to the CEOs of large delivery systems they're saying they need research that can be operationalized. We must make data and insights available to stakeholders so they can be as efficient and effective as possible. Second, we must address current unmet needs and prepared to address future pinpoints. For

example, we are actively reaching out to the secretary's plan to adjust the opioid epidemic. In addition to that, the secretary has also made priorities as high up on his mind. They are value-based healthcare. Working to transform the system to one that pays for value what you heard him talk about health insurance reform. It's working to improve the availability and affordability of healthcare and the fourth one is drug pricing. Determined to lower the cost of prescription drugs for all Americans without discouraging innovation. So I come back for a moment as to how we can support the healthcare system in meeting not just these initials -- initiatives of the secretary but also needs -- [Captioner lost audio connection. Please stand by.]

Only took this the secretary has told upon the director to work with their teams to bring to the table any and all solutions we can identify. Secretary as ostomy and I'm asking you what can AHRQ do ? How can the agency help? And that the third aspect of our AHRQ , worked in the business is to focus also in the residence management agenda and it just reimagine initiative in improving our ability to deliver efficient, effective services. That will ensure that the organization as proficient as possible so that we can serve the American people in the future. All of these member as all of these are there before us we need to be sure that we as an agency nimble and Americans are counting on us to deliver and I believe that we are uniquely positioned to just do that. This is our moment I sincerely believe we are at the point where we can really fulfill a need in the marketplace. I could sit here and tell you a lot of things about what we are already doing, but that's not why we are here today. Instead of that let me pose a series of questions I would like you to think about over the course of this day. From your unique vantage points, what do you think are the pinpoints and unmet needs and what we need to do in the future? How should we respond to the arrival of disruptive innovations and disruptive innovators? How can we contribute to solving the major issues of today and anticipate major issues of tomorrow? Finally, what in your opinion is most important for us at AHRQ to do to position ourselves for the future? For the next five years? The trends help us with that. In a moment I'm going to turn to my colleague, the acting assistant deputy director of AHRQ . Will help you get a sense of AHRQ's work to date and update you on HHS departmental priorities and Francis will lead us in a conversation about HSR which you have heard me talk about in the past and how it relates to the C-Suite. As we move to the date please keep in mind those questions are posed to you today. You are on national advisory Council. We will be temping on you for your advice, your input and your expertise. With that, I offer my deepest thanks. I look forward to a series of conversations and I would like to turn the floor over to Francis. Thank you.

Thank you. I'm going to chat from here. He set the frame for today nicely and we are going to hear about AHRQ's work and how it relates to the secretary's priorities as we move through the agenda for today . I'm going to do three things I way of update. First I want to remind folks obviously you've gotten some background material was about the AHRQ if I 18 budget but as a reminder it is $334 million which is a $10 million million increase over last year's budget in the clear $6 million for an addition $600 were investigative research as well as $4 million increase for -- this typical AHRQ staff are equally and aggressively working hard to implement and execute a budget this year so I just by way of reminder, the second thing I wanted to do is link some operations activities inside the building to two point Gopal made. Embracing the digital reality of the world we live in where office of management services two divisions the division of contract management and information technologies have worked together to create a contract invoice system which is an electronic platform for us to move our activities as they relate to contracts. This may seem like a boring point to make, but we still in many cases live in a paper-based era when we are doing our work and that's quite inefficient so this activity led by your office of management services has really brought some of our processing activities on the contract side into the current century. It's important and also resonates directly with the secretary's requirement that we embrace the presidents management agenda as well

as reimagine the chest and is typical of the office of management services is actually executed a process an agreement with the treasury executive Institute to provide leadership and executive development offered to cultivate future leaders. Twin I talked about the importance of both our current AHRQ competencies and building on them so this is intended to grow or step competencies and is consistent with the OMB reform plan. Presidents management agenda and reimagine HHS. The third thing I want to mention that we are helping to take -- happy to take questions -- the indices important repository obviously clinical practice guidelines and it closed on Monday. This repository was first funded in 1998 as a resource to provide valuable resources to users of evidence-based information. However significant budget cuts several years ago especially to our contract budget required us to rethink how we funded the NGC. Beginning in July 2013 the guideline clearinghouse was funded with patient centered outcomes research trust fund dollars. For two reasons. Due to the direct alignment with the dissemination and implementation mandate of the trust fund and in recognition of unavailable appropriated dollars to support the NGC. We funded a four-year contract in 2013 and that contract expired on Monday. In anticipation of the contract expiring and with the knowledge also that there is a plan into the record trust fund in fiscal 2019, AHRQ has undertaken a project to actually look at sustainability of the clearinghouse and in particular to identify partnerships, public and private partnerships in particular, for maintaining this particular database. In fact, during the process of making this happen when gauge many stakeholders and have many offers and expressions of partnership from within the healthcare system there sector. We hope to launch our sustainability project soon and we will keep you posted on that. That should be within the next few weeks. It's important to note that during this transition AHRQ is maintaining the data that underpin the NGC so that we can work with others to continue that repository and stand it up at an appropriate time to go the data will not be lost but it has gone dark as of Monday as we work on our sustainability project. This is part of embracing Gopal's point about the digital era in which we live in and looking for digital partners part of a plan to continue our gait work in the evidence-based practice arena. I'm going to pause because those are three updates I wanted to share but Gopal will be happy to answer questions on trendlines comments or anything I shared in this brief update.

A quick look at your agenda we will show you that we are intentionally allowing a lot of time for discussion if we have until 9:32 react to what we've heard. I hope we will take a full advantage of the different perspectives people have. Before taking questions I was reflecting on what we just heard and have three challenges I would like to put out for people to begin to think about now. First of all, Gopal was talking about the essential core competencies of AHRQ and I think that is health services researchers we should think about what the core competencies, the key attributes are of health services research. What don't we want to lose in the rush to adapt to a rapidly changing environment be it digital or policy or whatever? Because those are our founding principles. On the other hand, where do we need to adapt transforming, I hate that word transform but whatever term you favor to broaden the field of HSR so that it's more receptive to the changes that we are starting to see and can react and inform them? What partnerships do we need to forge so that as we broaden we bring the expertise close to us so that our core values and principles can inform the work of those partners? That's one thing I would like to think about. What are the core competencies, what are the areas in which we need to broaden to be more agile and with whom should we be thinking about partnering? The second is this going to be a lot of talk about opioids today. I can go to a single meeting without focus on opioids and that's really important. It's a crisis in America. Today it's a crisis globally in different forms. That said, I would look upon for the purpose of this meeting as a lens for us to examine the work of AHRQ and digital services research around this particular problem but just as a lens. Think of any other thing you are passionate about beyond celiac. Whatever it is that you bring to the table that is your core concern about healthcare and health in America and use that as a lens. Let's not just talk only about opioids, but have a generalized discussion that it will trigger. The third thing I

would like to think about and I don't know if we set this out in advance but I was thinking all of us have at one time or another try to get funding for what we really wanted to do be it in the private sector, be it within our own healthcare delivery system or being from HHS. I don't know about you but I sit down and say I really would like to do that, they will never funded got the won't fund it because of X, Y, and Z. I would like you to think about what are those things you would like to have funded or have somebody give you money to do that you dream about but don't think under the current paradigm you would ever get funded. Because if we can think that way that will help with the research agenda of AHRQ to really think in new ways about what is the customers who need to use the evidence and fruits of research really want to do because those are that the drinks, what is HSR, what is the core, what do we want to compromise but how do we broaden the partner, use opioids as one learns to look at those issues and finally, what would you like to see funded that you currently cannot imagine getting funded? That's to stimulate thinking and now I would much rather hear from you. Remember Bob is a good guy, he put up his tent card that there are little precarious. I found in the past you need to do a little stretching of the plastic for it not to pull over so Bob, go ahead.

Thank you. Seems there's this -- seems to be a never ending debate about whatis and for those who not inside the field why does it exist and what does it do and why doesn't it just go to the NIH and doesn't the CDH really do everything you are doing. That debate never seemed to quite go away and it seems to me the conceptual frameworks that people carry were not in our fields don't really understand. To get frightened but does not but all the near misses you see. I was thinking before you mentioned there charts that fit in with what is going to take, take opioids as a lens, this would be an example to demonstrate the NIH is like you vestment likely to tackle effectiveness and develop drugs. Develop genetic based precision approaches to care and assume all is well want those things are developed. BCDC seems what addressed social and environmental determinants and behavioral determinants pleading in. Seems to me there's a great need for a AHRQ to both assimilate the drivers that make care happen. The processes of care taking all the information on a continuous basis at the cutting edge. The field of implementation science still very young, young enough that most people not in it don't even know what it is. Don't realize that they need it. Maybe this is an opportunity if we could draw conceptual map of here is what would need to happen to get to where we need to be in opioids and map out where NIH and where CDC and where AHRQ is likely to be you can help reveal to people who are very interested in this particular -- any topic as you mentioned, but since there's so much attention to opioids can we make that case? Can you then drive some of what we want to think about as ideas and new lenses and transformations which I have ideas but I won't bring them up yet, we will let everybody talk. So I would go out let's get this conceptual framework, let's be able to make the case that you delete AHRQ, you need these core competencies, you need the processes that implementation. You need effectiveness refined by factors that are beyond the bike illogic which is what AHRQ can do. Unit process measures, you need implementation -- I think we are well-positioned then seems to me that is a really strong, important political document that you can continue to sell this is why AHRQ is not only important but needs to be grown.

Thank you. Does an implicit recommendation that what we need is a conceptual model or rich picture if you will that shows the role of AHRQ among the agencies and perhaps the private sector and the data analytic firms where does it sit because that will clarify in some ways what that unique role is. That was really helpful, thank you, Bob. I think Monica, you were next.

One of the things that I think AHRQ excels at as mentioned is our capacity for managing data and analytics. Primarily within the space of the healthcare system and I think one of our advantages thinking about new partners and the future and where we are going is our ability to partner with nonhealth care sources of data to be able to get a bigger picture of health. If it's Amazon and Google

in ways that same ethical and patient privacy protecting, but also criminal justice records and education and other data around social determinants of health I think AHRQ would be a leader and has the capacity to handle these kinds of large data sets and to be able to be a per viewer for researchers who are interested in looking at important associations and drivers and how these different things are related. In a way that other organizations and agencies cannot I don't have a as part of their mission. Certainly the CDC is interested and these issues broadly, but seems more from a public health implementation perspective of unless from an exclusive data-driven scientific methods, expertise which is what AHRQ is doing best so I think that taking the expertise of looking at what we are doing in healthcare and how we can match that to what's happening outside of healthcare, that ridge, with the data underpinnings would make us uniquely set up to draw on our strengths but also reach forward into what's coming our way and still be a national leader in that capacity. Again, thinking about that with the lens of opioids go certainly there's so many things to think about. I think about, my work is in social justice, health equity and historical parallels between previous opioid crisis and the current opioid crisis and how we are dealing with it now versus then both from a medical, illegal -- a legal and different ways in which handling the populations and what lessons can be learned historically that we want to either avoid or take lessons from us we are dealing with the current opioid crisis. I think there are health outcomes we can track based on previous health outcomes from decades ago and what we are doing now. I think there's lots of different ways to think about research questions that are embedded in the opioid crisis.

Thank you. Fair warning, the next presentation in a few minutes will be from Joel Cohen and data and analytics and Chesley is here and I would challenge people thinking about where those data sets are as we move towards population health and away from just healthcare as we think about the state of the US health system. I think Lucy, your next.

Thank you. Great points Monica and I will reserve my comments on that topic in the next presentation but I wanted to segue off of what Bob was talking about. In full disclosure I chair the committee on advocacy public part of the state for can help and spent quite a bit of time on the hill try to differentiate largely for staff the difference between AHRQ , CDC, CMS and we need a smart not just a conceptual model. We need something that makes it very clear what we do that is different. Ever since the daily beast article came out I think it was on Friday my phone has been blowing up about the national guidelines clearinghouse. For those of us who have been advocating for health services research and AHRQ over the years, where were these people although Sears so I think we need to take names and we need to get people that are going to stand up with us when we are trying to argue to Congress why we need to exist, why we need to protect the funding I'm worried about the people trust fund and that that money goes way and what it does to the budget so I think that this is a great window of political opportunity to connect with those people and get them to stand with us as we are trying to communicate the value of AHRQ.

I noticed Andrew has arrived and you did not get to introduce yourself, I don't think so if you can briefly say hi to the crowd.

[Indiscernible - low volume]

Andrew Masica.

Karen, you are up next.

Taking what could -- what does AHRQ do and a slightly different direction I think there's a role for AHRQ in being a convener and thinking about when you think a little bit further about partnerships, there are a lot of 50 state Medicaid agencies plus Registry of Columbia who are giving direction to Medicaid managed care plans and other integrated delivery systems who need the guidance and potential evidence-based approaches for studying some of the things that are goals they have so they may have goals in terms of health services that they would like to see increase and if there's a need for more rigor and what they do. There may be a role to think about terms of being a convener and partner you can actually study a bigger environment. I might add as part of that one of the challenges is always the data integration and data use agreements that need to take place and that becomes a real on a private-sector side even partnering with the public to taste that becomes a huge barrier in terms of how do you find someone and get the ability to study something so you can actually publish it.

Thank you in and maybe we can bookmark that it's occurring to me that whose responsibility is it an HHS to prepare the soil to receive the evidence that AHRQ can generate through its funding, I happen to be aware of the background of state legislators who work on health and healthcare in the United States and its highly variable with many especially in the smaller rural estates having part-time jobs in government and really full-time jobs behind a tractor. If we can think about how we prepare the right kind of soil so that people notice what's happening here, that would be good and I don't know who that is but we can park that for later. David.

I think one of the challenges for AHRQ is that now so quality was put into AHRQ the last time they changed their name and the problem [Audio cutting out. Please stand by.]

-- Of her efforts to improve quality and I don't think any of the individual NIH institutes are going to be reliable voices for that. What does it mean to actually improve function and quality of life as opposed to hemoglobin A1c or blood pressure level.

I just wanted to -- thank you for that and also Lucy, thank you for your comments as well. I wanted as the patient representative on AHRQ , I too have gotten a lot of emails and questions on the closing of the NGC and when we are talking a little bit about the elevator speech, what I found in my circle of working with all the scientist and public health that they are very aware of AHRQ and what AHRQ does . But when I reach out to some of the scientist that are actually receiving NIH funding and are working on guideline development in the field of celiac disease and like diseases, they are not aware of AHRQ. I do think as we are talking about since I've been on the national advisory Council we've talked about really strengthening that what AHRQ does and I would say that I see that as a great need to go also the need for the patient voice to really improve the quality of life and quality of care. And as we look at this partnerships I think that's really important to know that we are the patients have to be at the center of what we do. Those are my comments. Thank you.

That is very helpful and there's a message in there as well that as long as PCORI money flowed into the portfolio that AHRQ's involved in the past -- the patient critical voice and those proposals was required. You cannot get past front door. Question is will that continue and will be a feature of all the work that AHRQ does in the same way we hope equity will be part of all the grant that AHRQ does . He has to be there Orwell's what are you doing. I think that is very helpful and we have now reached time. I'm sorry you might want to bring me and if I'm doing too much synthesizing of the comments but I want to ensure they end up in the minutes as actionable recommendations that AHRQ can take into consideration. I don't want to leave you the last person stated because payment I just want to echo on some of the statements that have been made and one of the things I've noticed is that in the past minutes and as we talked about AHRQ has funded a lot of work in this opioid epidemic because

there's a lot of grantees mentioned . We need a place to be able to show that off to the rest of these agencies so having some type of a go to place, here's AHRQ's work on the opioid epidemic, here's the publications that have come out. Here is the impactful research that we are doing in this area would be very helpful when we're talking about getting that word out about what AHRQ is doing uniquely in this area. That would be my comment.

That was great. I appreciate all the people puts up their tents and I'm afraid I'm going to call on people if you have not put up your tent before noon because there's too much wisdom in the room to not harvest some of it. It is my pleasure to introduce Joel Cohen who's the director for center -- and cost trends. I did not know that was the title of your department as it were. We can spend time just talking about what the title means, but we are going to hear an update on data analytics and what we are learning. I think that's what the insights mean, what are we learning from the data.

To point out if you look at the AHRQ budget a very large proportion of the budget goes to -- and maps. I was unaware of how large a piece of pie it is so pay close attention to what Joel has to say.

Thank you. -- When we did a reorganization of the agency my predecessor whose name was also Colin by the way they save money by putting me in the position because you had to change one name on the nameplate. But he basically thought it up and thought that it was acute title for the agency. I'm not sure there's a lot behind it other than it sounds good and it's about facts and financing so that's what we do. I think as both Gopal and Francis said earlier, this meeting is a little bit different in format from some of the previous or most of the previous NAC meetings that we have done in that typically I think what happens is somebody from the agency would come up here and describe something in great detail and do a fairly long presentation about something and we would leave a little bit of time for comments on that. I think we decided with this meeting that we would reverse that so that I'm only going to make a few comments about where we are and I think what we really want to hear is from you about where we should be going because we are in the process as said earlier, of rethinking what we are doing and what our strategy is and trying to figure out where things are going in the future and how the agency and position itself to be in a better spot to do useful and productive things. Based on the way IT is changing, data are changing, the healthcare system is changing and where are things going in the future and how do we get there and where do we want to be. Gopal charged us , he created what was called a data enterprise group and my colleague and I are co-leading this group and we pulled together a number of different people from the agency who have been around a long time, really know what is available, are familiar with the databases and that the analyses that the agency does. We are in the process of figuring out where we are going to go and what we are going to do so I think to have this meeting now is valuable because we are at the beginning of that process and we are a little bit in. We have ideas and we have some things we are doing, but I think in terms of the long-term five-year plan I think we are still working that out. To get your input -- I'm quite impressed with the breadth of experience in different organizations in different viewpoints represented with this group so I think it will be incredibly valuable for us to hear your input. We've left a lot of time for that input. What I'm going to do is set the stage a little bit talking about some of our, where we are now. Gopal talked earlier about our competencies and I think one of the things that we are most known for is our data platforms and our analytic expertise. In terms of data platforms we have several that are very long-standing. I think some of the most useful and solid data resources that the federal government has. We have administrative data, the healthcare cost and utilization Project which is done by the center that -- represents and their several people over here who can answer questions about it. Last night I think you all had at least the new members have an orientation into these different data resources and what they are so we would be happy to go into that further if people are interested but I'm not going to do that right now because I think the people have

been around for a while know what they are and there was the orientation last night, but if you have specific questions we have people who can answer in excruciating detail exactly what we have, how it's collected and what the response rates are for every different item in the survey. In any case, I'm not going to talk about that right now but just to mention we have these long-standing resources, administrative data, the -- collects data from states, it's administrative discharge data, they pull it together into an analytic database that's then useful for anyone who wants to look at things. It's been used I think David probably is going to have some examples of how the HCUP was used in the opioid crisis to provide information on what was happening there. it's got very detailed information from almost every state in the country. It's widely used it. survey data, the medical expenditure panel survey which is done by my group. It's been around for -- the name has changed several times. The survey itself has been going on since 1977 so it's been around a long time. Starting in 1996 it became an annual survey so we have a lot of data out there. It's widely used by both within and outside the government. We have the consumer assessment of healthcare providers systems, the CAHPS system that was developed by AHRQ. It is widely used throughout the country , used by CMS and insurance companies, etc. We have the part of our authorizing legislation was a mandate to do quality and disparities report that collects a lot of detailed information on what's going on in terms of quality and disparities are coupled administrative survey, it's collected from all around the government and reposted these state snapshots so that you can look exactly at your individual state and what is going on there and compare it to other states. We have this really solid data platform that is where we are right now. We have a lot of analytic expertise. My group for example has I think 15 to 20 PhD level economist, sociologist, statisticians, etc. There are other analytic resources with that kind of experience and background sprinkled throughout the different centers of the agency. We really provide a lot of assistance both in terms of producing our own reports and her own publications, etc., helping other parts of the federal government where they need assistance with something we work -- data users within the federal government my group does a lot of work with for example the CD oh because they use the MEPS data and we actually consult with them on a regular basis on the methodology that they use for doing those simulations. They are the group that's responsible for estimating what the impact of the legislative change is going to be on spending and federal spending, etc. In fact, the person who is in charge of the model used to work in a group. She was the head of our microsimulation groups we have good relationships. We work with other parts of the department with ASPI, secretary's office and I think David is going to talk about some stuff that he has done with his secretary's office. The different secretary's priorities, the four different groups, we are working within those, but basically there's a lot of users and we do what we can to provide both good research that a lot of parts of the federal government do quick and dirty kinds of things so you have a question you want to enter something, what's happening right this minute or what do you think is happening. We do some of that depending on what kind of analytic databases we have but we are more focused on doing good quality research that is solid and is not quick and dirty. Is peer-reviewed and disseminated and provides the background for the kinds of things that you would do with the quick and dirty research. Private sector we have a lot of contacts with the private sector. We work with insurance companies. We work with provider groups and just in general, we have a lot of contacts in terms of the different journals we work with them. We publish a lot. For MEPS come health affairs tells us that MEPS is the single largest source for publications within that journal. We are widely disseminated and in trying to work with both within and outside the federal government as much as we can. As I said, we are rethinking where we are going with outdated enterprise strategy so we put together this group to try to think about where we are going to go and how can we expand our data and analytic capacity.

We want to build on the current platform and identify gaps. There are areas where the federal government as a whole has a lot of data gaps and one thing that occurred with the opioid crisis actually is and I work with the HHS data Council which is a group within the department that looks at

data and tries to advise the secretary on issues related to data. But we were charged with pulling together some data for opioid dashboard so we are looking at measures and got a list -- there was a group, some -- summer else in the department that gave us a list of what they thought were important measures that you would want to look at in terms of what's going on with the opioid crisis and we put together a list of the databases both public and private that might be available to fill out the measures and put them on the dashboard. One thing that struck me when I looked at that list was that the overlap between what they thought were important measures and that the data we had to fill in the measures was there was a wide gap. This is just one issue, as was said opioids is just one issue, there's other issues as well. Are data resources in terms of -- we look at the -- MEPS is a demand-side database so we are looking at what individuals are using and what is paid for. There's a real issue on the supply side too. If you change the system what does that do to providers? What does it do to physicians and organization of provider groups? Frankly are data resources that there are not very good. With don't really know so when CBO is making an estimate of you changed -- -- what the impact on providers we do not have good data for making those kinds of estimates. There are those kinds of data gaps, those are a couple of examples but they do exist and I think what we might do is try to fill those in and MEPS is a supply site survey, there's a lot of room to put those together and to be able to the couple decides of the demand and supply equation. Data sharing and data governance is a huge issue. I know Don, you were talking about who's responsible for figuring out how to share data. The fact is there is no single place that's responsible for doing that. Different agencies and different organizations, they do it differently because they have different requirements. If you are trying to link data from MEPS to census data or from MEPS to HRS a data or CMS, they are all difference, all of the data governance is different, there's different legislation, different guidelines within each agency as to how that is done. One of the things we are looking at is within the agency how we can coordinate that because frankly even within our agency can be different depending on what group you are looking at. That's an area we want to address as well and one that really needs to be addressed departmental wide or governmental wide and there are some groups looking at that. There's the chief technology officer's office is taking a look at that. Right now it's an issue as to how you do these kinds of things. Another thing we want to do is develop and enhance AHRQ's analytic tools. We have certain things up on the web , but some of it's a little difficult to use. I know we have a feature that's called MEPS net, you are able to go in and do calculations yourself using the MEPS database. I personally think it's very clinically and hard to use, I have trouble using it so I think if I have trouble losing and the people on the outside are going to have more trouble. We have done some things to improve that but I think there's a real opportunity to improve, enhance and coordinate those kinds of tools across the agency in the future. One thing we are trying to do and Gopal is impressing on me is we need to talk to our customers and we need to know what they want and what their needs are. If we are doing what we think is good without talking to the people or using our data and figuring out what they need then it's not going to work. You need to be filling some kind of niche and answering some kind of a neat and doing something particularly as a federal agency, that's really why we are here. We want to engage customers and see what their needs are, what they would be interested in having us do. We cannot do everything, but within what we can do that's the direction we want to go. We want to develop a strategy for the future. We are trying to look at where things are going. There's a lot of changes in system, changes in technology. There's changes in people's looking at data and use of data and we want to be up-to-date and going where that's going and not be stuck in the 20th century when we are in the 21st century. With that, I think we have this set of questions which are really the questions that I talked about during my talk.

Basically, where do you think things are going? What are your needs? What would you like us to do? What information should we be looking at to collect? What should we be looking at to put together? What are some of the challenges that you face that we might be able to help with or that we face that

we need to think about and how can we as said earlier, things have to be to something. It has to be actionable to do a research paper that says you cannot do anything with it says this is related to that but there's nowhere to go with it. That's not particularly useful. That's not what we want to do. We want to do something that's going to inform the people who are making the policy and to be able to implement it to improve the system.

With that, I think I'm really interested and we are all interested in hearing what you have to say.

We leave those questions up because it's hard to keep them all in mind. I recommend that when you are addressing these really important questions, they are really well-crafted, for the purpose of AHRQ receiving your recommendations or thoughts , framed them in terms of what question you're entering and if it's general like data is a mess, then just a -- say I have a general comment. And I will give you in some spirit of how I would like to see us approach it if it's okay with you is if you talk about the challenges in obtaining data so -- national crisis called black women are dying during childbirth. There's a fair amount of money to try and make an impact on what is truly an embarrassing and shameful and tragic situation. You try and get data in real-time to address this problem in the implementation or dissemination project, just go try. So I don't think it's just an academic question for five years. I think it's a crisis right now so that's what I'm thinking and now lots of cards went up. [Indiscernible - low volume]

Just the first -- [Indiscernible - low volume]

I need implementation help. I first thought would be on the initial question, what future challenge and I think relates to AHRQ's mission and I think we all have the endpoint in mind of shifting to more of a value-based care system. But I don't think we necessarily know how to do that so I think AHRQ can be a champion in transforming not just care but the care delivery system as well in terms of its mission. The other in terms of how do we use these data come how to make a more actionable, I know many people use the AHRQ data sets for research. We find them useful for operational purposes and specifically one of the challenges we always have our benchmarks. Some of the HCUP data caused are extremely useful and having discussions and engage in a senior leadership, specific sample when we looked at the list of priority conditions it was conventional wisdom was other diagnoses were more prevalent in terms of what patients were, tour hospitals it became clear sepsis is now the number one patient diagnosis. That allowed us to rally the troops and implement and deploy a lot of resources working on sepsis over the next couple of years. That was something where the HCUP data really helped advance the conversation in terms of operationalizing.

We have a lot of time for this discussion so don't feel you have to hold back --

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[Audio/Webcast frozen. Please stand by.]

We feel like we are constantly pivoting the sort of methodical, rigorous approach doesn't serve the business world that will. Our decision makers very well. I feel like that's something that is missing here is how does AHRQ take this reasonable amount of funding and an incredible sources of data and real talent here to be able to better serve a rapidly changing environment? How do you change the culture around health services research instead of asking these really good questions that will get published well in good journals and improve people's understanding years down the road to being able to really focus energy, resources and talent on the most topical, most relevant questions? I think you guys are doing a lot of things right in that regard to the amount funding and learning help systems, fellowship trying to -- that's a cultural change. You are funding researchers, junior

researchers who learned the techniques and tactics amount and putting themselves in help systems. Embedding themselves in pairs, try to be part of the solution rather than an external objective researcher commenting on the solutions. But I think that's a -- something that is missing and these questions and I think it could help the discussion is to try to get more nimble, topical and fast dial with the key challenges, key issues that we are all dealing with in the real world.

Can you -- I think that's a good point. Can you expand a little bit on this? Can you -- a mechanism that would allow for that kind of agility changing direction in midcourse any real life partnership with an agency so that the team is brought. We are concerned about X and we have the resources to tackle that problem. It's the same as when you put in the K-12 application, it's not about the project you are going to do, it's about the resources you can bring but can you think of a framework that would work in the future? Payment of the top of my head I can think of three. One is AHRQ has been a leader in this regard was there was the decide network and activate network, action network where there's money set aside and contractors ready to be able to rapidly respond to key questions. I think that was -- that makes great sense. I love the idea that now it's something that when I was at CMM I we worked closely with folks at the NIH around creating a way to fund the pragmatic trials where and PCORI is doing this more as well, where the funder only funds the evaluation, but the payer or provider pays for the study. The idea is it's a scalable study, it's something that is answering a relevant business question. It is something that UPMC or United or partners would want to know the answer to and would pay for anyway, but it brings a different level of rigor and visibility to the work. Then I just had a third one in my head that escaped me. The -- some other thing that we did at the innovation center that I think was helpful was a really rapid turnaround Nero only one proposal, there wasn't a recurrent -- you keep resubmitting investigator initiated innovation set of awards where folks submitted cool ideas and CMS committed to deeply partnering and saying let's figure out if this works come how can we make it scalable immediately. It's a little bit of a hard thing for AHRQ because you don't have the mechanism to scale, in the same spirit as we are -- to some of these policy questions, I think that's a length that AHRQ can benefit from. How do you apply this -- rapid scalability length? Is it something that's tested in successful disability clear path to expanding too much larger groups of people.

Sorry to put you on the spot but I'm going to do that because we really want to get some help from these guys. Monica, we'll come back to. We will go around and come back. Tina?

[Indiscernible - low volume].

-- In the past was the ability to link patients across settings. When we think about where is healthcare going, what do we see the change in the next 10 years it's really changing to a patient focused healthcare system. I challenge you to think about when we are creating these data sources can we think about instead of hospital-based, ambulatory-based, emergency department based, think about the patient trajectory. Think about the patient in the continuum of care. The biggest piece missing I think is primary care setting. We see patients and opioid epidemic we can look at admissions for overdoses, for dentist, etc. Where do they start? Where was their first initiation with pain, with whatever it is that they are getting their prescriptions so can you think about developing some type of data source that's really looking patient focused. Was the continuum of care for the patient and think about the different places they interact in the healthcare setting, not just hospital Latorre, emergency department but think and how do we bring in the Americare piece that we spoke about this briefly yesterday, you are collecting a lot of these four primary care setting, five centers can you leverage that data to create a de-identified data set looking at primary care setting in the perspective of these other data sources.

That's really good. And told what I'm hearing is can you map that out? IHI funding is looking at age friendly systems and when you try to map this across the continuum it's almost impossible. Maybe take that as Tina's patient and Sweden they have a name, cannot remember the name of the woman, Esther where they map esters a process to the entire continuum of care and that's their touchstone. Map or you have and what you need to do that because that's a very good comment. Bob?

My comments are going to address probably each of the questions in a more different axis that will touch on them. A key theme that I will throw out is the word partnership and then I will explain. I think if AHRQ thinks it will be in the business of being the great data source and data is the big issue, that's a problem. In years past only the federal government had the resources to do the sorts of things and that is not the case anymore. Amazon and Google can throw more money at this in a second then you will ever have to do this and probably will. I think in terms of transforming where you need to go I think what about partnerships? You are going to run out of the physical capacity to probably even do the kind of artificial intelligence and algorithm holding and machine learning that people are going to want to do. You are not going to have the resources to compete if they decide to collect the same kind of data you want to collect. So having too many eggs in that basket might not be the best future the next decade. But you do have unique assets and resources and insights and capabilities both internally and externally in the community that they won't have and they are not going to buy internally but could partner with you. I would love to see you think about what the future could look like in partnership with big groups some of whom are delivery systems partnering with big data sources and what is your contribution to that. It seems to me that as we have then I'm going to move into this other partnership like NIH. We constructed a learning healthcare system through our -- pragmatic trials, the [Indiscernible] normal saline -- that we published that's different Nisleit defined that crystal voids are better than salt was an example of that, very low cost pragmatic trial. Weird dream many of those but I can tell you funded through UTSA and NIH the big push is still clinical effectiveness. It's not implementation. It still believe that once we get that answer and publish it all will be well and everybody will make that happen and the simple decision of which crystal voids were normal saline back to Hank, not such an implementation problem is I've got around the country people have made that switch quickly. On the other hand, we've demonstrated that with even more impact than that saving lives the bundle of care to deal with delivering them in the intensive care unit very impactful and yet 10 years out not implemented everywhere. When we tried to do studies on these learning healthcare systems we are missing data about the processes care. So often it's not about the what that's done, it's the how it's done and we developed these causal pathways that we think what you gave or what drug you gave at the impact on the outcome but is confounded by how you did it but you don't know it's confounded because you don't have the measures. It seems to me that AHRQ could own that space of developing the measures and metrics for the how and processes and in partnership with yourself and with academics but other big entities that are going to try to get at the heart of efficiency and quality and effectiveness of care. Then all of the sub stratification's are going to emerge from the precision medicine initiative which thinks about genomics but there's so many other factors including social and behavioral environmental and other patient based but not traditional biologic, genomic or epigenetic data. That's going to go missing and it goes missing because we don't know how to collect it and we don't know what to collect and people don't even have a conceptual framework that it needs to become the did and understand it can have impact. I would say you've got great data collection but I don't see in a decade that is your key thing. I think others will be doing that so how can you start building these partnerships and their sources of money. Leverage their money in some way that you -- we on this intellectual property, we can bring this up in and stimulate the field to start generating the new appropriate measures and raw political acting -- I like the notion of of being quick and nimble too.

There's a pattern. I'm going to try to get people to clarify the recommendation so let's say that Gopal negotiated a partnership with the mind or with Apple and research kit. Apple is trying to large simple trials for whatever and [Indiscernible] to learn whatever, what do you see as AHRQ's contribution? Why would they care white Gopal is knocking on your door?

What I see missing continually is how we deliver care and the health services component of culture of care. The methods of care, the way the nurses interact, the people attract, it's not a focus of which drug and which drug in which patient stratified by their elegy and genetics, that's all important, but we don't even -- things happen in the processes of care that the classic example I like to use is if you look at postoperative wound infections, have not historically been as low as they should be based on the clinical trials say two hours before decision you will play a certain drug and yet did they not order the drug? The order of the drug. Did they order the wrong drug? No, it's the right drug but nobody knows in two hours before the skin incision Dishman people are roaming around from this to that unit to holding unit doesn't have, it's all about the healthcare. We don't have a good set of measures if we want to edit those house of care. I think AHRQ thinking about how we deliver care , how we measure those variables is a possibility so it seems to me that Apple will collect our data systems, our claim systems even our EHR systems don't have those data. There is still patient based factor is based on theology and labs and things to do in systems that happen to people as they traverse Bybee somewhere in nurses notes and other places but not reliably universally collected. That's what I'm thinking that we can make the case to try to build out that piece of it as one part of an addition because they cannot do that because they don't know that and we don't know how to do that.

I'm going to --

I'm sorry, if you can identify yourself for people on the phone.

I am Lucy Savitz. I wanted to amplify two points made then make my main point. I agree with Will about the need especially in the morning how systems the grant review process is too long, it's unmarketable. But you do have action that has a long history and I know Dena is sitting over there started with the [Indiscernible] the problem we are talking about this last night is that actions not funded the kind of questions that are of real importance to health systems and for many of us would have to go back in time for what we are being asked to study to have some relevance. Trying to more closely linked the agendas of the learning help systems with important funding mechanism I think would be advisable. Than the point that Tina made I made a note I was saying how can we make the data patient center because we historically have done it in silos by the setting of care, not by how the patient moves across the continuum so it's very difficult for people when they're trying to link -- data systems to try and answer these important questions come up but getting back to the specific questions that you have been raising, Joel, round what are the challenges. I think in my own work and this was work I started at Intermountain. We are looking at the opioid crisis and we stumbled upon the fact that the data was being censored. I think we independently should not -- discovering that. I think AHRQ acting as a data steward in the Rowley's in this national committee for us to understand and to be more transparent about the data we have available to us and what is -- centered for compliance with regulations or whatever but letting us know because we were doing a lot of erroneous analyses not even realizing that people with substance abuse diagnosis were being excluded from the data. Now I know we fixed that problem but it's only been fixed moving forward from 2016. We lost that history. A lot of the analyses we are doing right now are problematic so that is one example of ways in which experts like yourself can be acting as data stewards and helping us understand what we have, what's missing and what are the gaps as we are dealing with these important issues.

Lucy, if I may, the action network has been brought up twice as a potential more agile topical process. I agree with you a lot of the action opportunities were off point for did not seem to be courts what we need to do. Since I asked you guys to think about grants you would like to write but you never get funded, what would be an example of an action question that would appeal do you think? How might they go about it differently?

That's a good question. My history and full disclosure I let one of the ideas are ans and I led an action one and now lead this month I delete an action three. I've seen the trajectory of the history and the kinds of things that would be good examples are the things that we are dealing with now as problems. One of the big problems that's facing my own region, Kaiser Northwest region, is trying to understand the interplay of social determinants with risk factors associated with readmissions and other outcomes that would be looking at. There's not really good science around social determinants right now and understanding done analysis and I know there's some important work that Andy's group has done that's been funded because we've spoke with them is understanding that people have multiple social determinants. Then which is the most pivotal and we are centering down on social isolation or loneliness as being one of the really key factors particularly in the aging population. To be able to study that ended no when should we act and how do we create the risk profiles and create usable predictive analytics around that, that would be an example I think that would be very useful for us to think about.

Apologies for putting people on the spot but trying to liven it up so Kathy, welcome to the NAC. I haven't written down any prepared questions because

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I appreciate that. Just a couple of points. You talk about the challenges and challenge with data is timeliness and being able to get it quickly. How do you get around the issue and one way may be with the simulation and being able to build the models that need to be billed and with the methods and rigor that AHRQ is known for when we cannot data what kind of simulation things can we put in and have a really credible model. Up on the points made earlier, the R groups were going to be able to collect data faster and with more breadth that doesn't mean they know how to use it and to use the inner incredible weight and put it together and I think that's another area of expertise that Gopal had -- AHRQ has. How to use the data that can answer meaningful questions in healthcare by people who don't necessarily do healthcare? What are the parameters they should be considering and how? And that could build of the simulation. The last point is around with the agency was renamed policy went away but all of these data and things that you collect and put together is to inform policy. That cannot be ignored. Because there are large policy questions that are not industry-specific or house system specific but still need to be answered on a national level. That is a unique role of AHRQ is to be able to inform policy in meaningful ways and to address those questions and that other people are not going to address.

Thank you. José?

I read Cathy's bio industry knows stuff that I absolutely know nothing about so I'm afraid to ask a question. I'm going to begin I think with a more general comment because it's pertinent to the date issue but also I think pertinent to the discussion that we've been having and addresses a question that you raised at the beginning which is what do we want to lose in HSR? It seems to me that personal opinion that what's really important not to lose is the breadth of health services. Its head historical breadth in the disciplines that contribute to it and the disciplinary perspectives, the way of looking into learning about the world. Breadth in the types of methods used and tremendous breadth in the types of topics addressed. I worried for a while, actually a number of years particularly when I was on

the Academy health board of direct or whatever it's called, that the rush of health services researchers, some, to try to respond quickly, to respond to needs in the realm of clinical care or running of health systems, etc.. Really ran the risk of marginalizing or perhaps even eliminating some of what I think has been the most fruitful type of health services research which is the longer-term, not immediately responsive to today's question type of health services research. It's my strong belief that everything we know about healthcare and we know a lot. You can have a conversation on the street with a knowledgeable person and all the things that we know about the way the help system works, actually that's all been learned from 50 years of health services research. Some of it led to the rapid response, most of it not. Most of it in an effort to learn about the way the agents and institutions in the healthcare system work come how they respond to incentives, how they respond to constraints, that's really taught us a great deal about the healthcare system and I think it would be tragic to lose that to go and I don't think it's going to happen, but I think it would be tragic to lose that. I believe HSR is not a discipline but HSR is a field has to embrace many disciplines, embrace many types of research. Many objects of study or subjects of study and has to be able to do rapid response research and has to be able to do projects that take a long time meant to understand the way that institutions and people respond in the context of and current context of these responses may change over time as the world changes because in social science I think as we know, behavior is contingent on context. That's a general statement. So that leads to a couple of more specific comments about data. I wanted to address a couple of the questions that you raised. I think this pertains more to the MEPS then HCUP. I think MEPS is an amazing resource. Abe used in many studies, I know lots of people use it and one of the tensions when you're doing this is always changing the survey in this case it's a survey, changing the survey to be responsive to the way the world is changing which you have to do, while at the same time keeping enough so you can maintain trends over time because so much what people are interested in is how are things changing over time. I don't know to what extent -- I'm sure that that is thought about to a great extent, but it really is one of the things that requires enormous focus and enormous attention as you do that and how to do that best, I have no idea. As a user I know how frustrating it can be that I can no longer track something that I was really interested in because those items have been eliminated from the survey. I don't have an answer, but obviously that is a key issue. The other thing is that wondered a great deal about is whether it is possible to do more just than you do. The MEPS is inherently linked to the [Indiscernible] because that's where does it sable but a couple of things that not understanding how things work in the government seem like low hanging fruit to me is why can't the MEPS be linked with interest data. Why can't the MEPS link to Medicare data for the senior components? Why can't they be linked to Medicaid administrative data? If you could get the Medicaid recipients on the MEPS and get there administrative data, there MEPS data, that would be phenomenal for researchers. Another iterative survey I think might be amenable to linkage with the MEPS would be in Haynes. For 5000 of your people every year, if somehow you could coordinate the sampling and I know the sampling is different for in Haynes and stuff so I don't know what the limitations are, but wouldn't it be great to have biologic data on your MEPS survey subjects. Anyway, I think it continues to explore linkages and explain them further would make MEPS even more useful and it probably would be the single most used data source not only in health affairs but in many [Indiscernible] because that's great. If I can ask we bookmarked the comments about integration and rationalization of data sources for deeper discussion because I think that's really important. I think AHRQ what I'm hearing is AHRQ going it alone with its traditional data sources is not going to meet the consumer or C-Suite need for that matter. May be at some other time you could maybe even off-line flush out for AHRQ leadership what you mean by these longer-term research projects that produce the wisdom and capability to make leaps. What I'm thinking is at Harvard College general education was very unpopular with the students what they decided they would reform it and they branded it in a marketing way literally that the general education course has to be relevant so that students would immediately be able to go out in the world and salt or get challenged by the

world's problems. That's all well and good but the guy who studies objects from medieval Europe said I can write something that will say that, but it's got nothing to do with the kind of learning that I'm trying to instill. Understanding what is the basic science what are we doing behind the scenes at the allows hepatitis only to be cured in 12 weeks, that did not happen because somebody said to hepatitis in 12 weeks, happened because a lot of basic science and long-term basic science had occurred as a substructure.

One second. What's the equivalent of this type of thing? We know a lot about how competition works and healthcare markets we know a lot about how payment different types of payment work and the consequences they have for utilization cost. We know about how important -- what happens with cost-sharing. Have the patient responded to cost sharing. Are the able to discern care that is really beneficial to them versus care that isn't? I know a great deal about how culture matters in institutions. All of these things, I could go on and on, we know a lot about health insurance and who has it and how they get it and how they don't. So there is this fundamental underpinnings about -- everybody here is an expert to some degree, to a great degree so we know a lot more than the layperson, but even laypeople certainly policymakers know a lot and they don't even know why they know what but they know a lot about the healthcare system and how it works. That's because there have been 50 years of this type of research so that's really the fundamental issue. It seems to me -- I think the key point is this idea that the field must embrace all types of research. To exclude I guess I will use the word rapid response or research that can actually help institutions do a better job, said, would be foolish. The flipside is to do with only that were to try to do only that would really suicidal in the long run because one of the key strengths of HSR is its ability to lead to understanding, I will repeat what I said, of how agents and institutions in this system works and how to respond to incentives, to constraints, etc. That's fundamental to go everything else is superimposed on the understanding. That's my belief anyway because payment that's really pretty profound, as part of the pitch maybe some of those core issues that you brought up and drawing the analogy with basic science where we don't trust fund the latest thing that we've got to respond to opioids or whatever but there's a basis of science that informs and allows a rapid deployment.

A quick comments. This is very rich but one of the things we would like to hear is how we haven't attribution link between the funding of such short -- rapid or long-term research and attribution back to AHRQ in terms of the impact of that investment because the environment we live in now that is actually where the payoff is so we cannot demonstrate that attribution and impact back to AHRQ then we've lost the opportunity to grow as an organization.

That's keep that in mind that they've got to put dinner on the table and preserve their mission. Serious. It could all evaporate if nothing comes back to AHRQ. On the other hand from the point of view of a patient, they don't give a care. The government along with private sector with foundations or whatever have solved my problem so how you do that through duality of messaging. I keep saying we don't need the attribution, we just want to save lives. Great. Except we have a bottom line and the Board of Trustees. That's a very good point. We are coming up to break time. I'm thinking we are doing really well here. We've got this side of the table than circling back then some fundamental issues. Is this a good time? When the chair is getting tired, it's time. Let's take a 15 minute break and thank you. This is exactly the kind of dialogue we hoped for.

[The event is on a 15 minute break.]

[Captioners transitioning]

I will call us back to order. People are wrapped in scarves and I am perfectly comfortable. So being an epidemiologist I am noting -- and we want to be agile -- so here is an observation. I have been noticing in very rapid time frames that men have abandoned their ties. They will wear a $3000 suit but no tie. And this is interesting that in the room, the only people wearing ties are people who have something to do in some way with the government or the VA or whatever. And me. Because I have adopted the persona. Which is a dangerous trend. So congratulations to all of you who are part of the new wave. [Laughter]

I think it is really good except I spend so much time time getting ties to go with this. So if I am not mistaken, we were about to get Barber online and then go around to catch others. And just a reminder that Joel presented the data and analytic issues so that thread will be important to keep our eye on. But if you have broader or more general comments in this first round, we definitely want to hear them. For example I thought some of the comments around agility and poor values of Hearst were important to hear. Barbara what do you have in your mind. Sioux --

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I'm trying to regain my train of thought. That's the challenge of coming in right after the break. What I would like to talk about is through the lens from where I sit. I want to focus on safety which in many ways has been the stepchild of the universe. In many ways safety is the doorway to quality improvement. But I digress already.

I want to talk about the challenge of the availability of data. Data you really need to support the framework that I agree with bob -- Bob. Not only on the front lines in the healthcare provider world, but also in the conversations we have and some of the work we are doing. Among policymakers. And the general public. People really don't know how to think about patient safety. It is not even a term people understand. So part of the issue and this is one part of the issue is that there are not a lot of terrific safety measures. There are problems with many of the measures that exists and I don't have the answers to those questions except to say that the metrics we have to answer the most obvious questions that people have or support any kind of narrative that you would want to deliver around what are the key challenges in safety. What are the trends. We know there is wide variability among providers and care institutions but we can't effectively talk about those. So we are reduced to using very small data sets which I think can be very useful. Signal data is real data but sometimes it is hard to -- with that limited data to engage people you need to get them to the table to talk about issues and to work on quality safety improvement initiative.

I can give you a very brief example in Massachusetts. A couple of years ago we piloted a process using adverse event data. We called them serious reportable events. [Indiscernible - low volume] and we had noticed and object in the number of events related to cat -- cataract surgery. We are talking about 10 adverse events. But they were serious. They involve blindness. And so we reached out to the professional society for the op of all this and the anesthesiologist to engage in the process. And we came to them with those data. Those 10 cases. In the initial reaction was what do you mean 10 cases? We do tens of thousands of cataract surgeries in a year. 10 cases. Wow. We should declare a victory. We are good.

But we continued the conversation and what we did is we reached out -- we went out to the various national registries and have little bits of data. And we gathered -- dater use agreements with them and get all the data that you cannot link together and is very incomplete. We even went to the practice carriers to the state and got some of that data point and compiled together enough to say basically say that we could keep going. If we look we will find. But there is a pattern here. Honestly, it was the narratives around the 10 cases, the actual stories of what had happened. Which is what got the

engagement and got the partnership staff forward. We did a very involved process that appears to have actually had an impact on practice in the state which is hard to do. So that is just one example. But we confront this every time that we want to engage around a safety issue that we are seeing. That we are detecting for signal data. I don't have the answer to this but we will at a state level convene a process this year to get together all the state elders to take a step back and say, let's not worry about the data we have or the data that we could link together if we could only agree to do it. But let's look at the questions. What would we want to answer in a perfect world if we were to start with a blank slate point what would we want to be measuring. Now we are measuring things that we probably don't need to be measuring and then we are not measuring a lot of the things we do. But I mentioned that because we are going to do that on a state level but that is a conversation -- and we are uniquely situated to do it on a state level -- but that's the kind of conversation that ARC is situated to do on a national level and if we had to do it we would build on what we are pursuing. So those kinds of deep strategy and planning discussions that then states as one of your I think key target audiences -- I know that you know that states are a big user of our resources. I would even add a slide or lump us into the government users of our resources. But that is something that it would be wonderful to see more of and I think the demand you would find that the demand is there.

Thank you. A quick question for AHRQ. When you talk to your constituents about quality and safety, a lot of AHRQ work is safety. How do you frame that? I find some confusion about this. People talk harm, harm all day long. So how do you -- if you don't mind --

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The question, how do we talk about safety?

For people who are here all day long and tell people that safety indicators -- it seems like AHRQ is very associated with that aspect of quality. How do you compare the data analytics and grants and how to do that.

First off I really like Barbara's comment about safety as a doorway to the rest of quality. Talk about an on-ramp to quality. And I think I can actually relate it to learning health system conceptual frame that some of the same -- most of the same competencies at the individual organizational and system level that we are applying with some success to safety are also very applicable to other quality problems. And so that is a pretty simple concept. I can actually connect that to the burden issue. I think one of the things clinicians are burdened by is quality and safety improvement. The joke that I have observed is that, you know, if you are frontline commission and you see the quality or safety person coming around the corner, you would duck into the nearest hallway that you can find. Because it probably means more work that you just cannot tolerate. And so we not only talk about that when we are doing our safety work but we tried to bake it into our research and solutions that we put out. I think there is not only receptivity in terms of awareness of the challenges that are really out there in the field, but these are practical considerations that we work into our project.

Also, let me add a few things on. In AHRQ it is a combination of quality measurement and improvement. So the depth of competency and knowledge on quality domain. The way we do that on the management side, is often in collaboration with other partners and especially CMS. I mention one example which is the pediatric quality management program which is a program that has been in two phases. We are in the second phase now in which the first challenge was to develop measures that would be relevant and useful in the Medicaid programs for improving quality care for children. During the program with CMS, we did a great job of developing measures and those measures were prime implementation so we are now in the second phase of that project in which we have a series of I believe seven grantees who will in collaboration with CMS are doing some demonstration projects

and implement and demonstrate some impact on those measures that were developed in the first phase. And the third thing I would say in addition to the measurement side, is that we do foster some quality activities through actual grant programs. A lot of them are demonstration projects but they cut across some of the domains of our streams of funding wether it be in the patient safety but cuts across some of the quality improvement cost that actually gets done in some of the other grant portfolios.

That is helpful. Go ahead.

And I want to add, so I love the quality measure. Jeff always speaks of this so well. Safety is our bedrock. Here at AHRQ. But we talked about it before and maybe will do it again at the next meeting. The learning health system is the concept we are using right now to move forward this idea of bringing together data and research and quality. In a culture, patient centered way. And putting them altogether. So often the way we tried to explain to people, safety is part of it, often it is an on-ramp for people. But how do you build systems that use information that they generate and the research that is out there and play that continuously anyway that tomorrow's patients will be cared for and have better outcomes because of the work that the health system did today. And so it is one of the ways we have tried to bring and do quality and safety together using addition to our data work and research work in our practice. And our practice is not being talked about in this meta-concept of moving the systems to be learning health systems.

And we will pick up on that when we talk about the future of health services this afternoon.

I have been reminded by Jamie that there are certain housekeeping I need to reiterate. Number one, there are people on the phone, what you say is part of the public record. I tend to talk extravagantly and get myself into trouble sometimes. And I don't want that to happen to you. So there are people on the phone which is a great thing. This is a public meeting. Secondly, don't forget, lunch time photos for the new people and transportation for anybody that is going to need it. Okay. Sheila.

This is Sheila work. Observing your comment about ties, I would also note that there is a certain East/West divide with a couple of exceptions that anyone from the West is aware of. In fact they have on long pants. Compelling.

I think the definition of west is the Potomac River, looking at Jerry.

A kid born and raised in Sam Cisco, I can honestly observe that. I want to go to the last question that has been asked, which is how to make data more actionable and address local state and national programs. A number of the comments that have been made today are useful on this point. The last note I thought was quite interesting. But it seemed to me that the first question we need to ask ourselves and answering that question is, who is the audience? Because the answer to that in terms of how we make something actionable, is really a function of to whom you are giving the information with what expectation in terms of response. And I think one of the challenges -- and I was struck yesterday in our orientation which was quite good about the discussion of evidence now. And the fact that you were working with very small practices and looking not the big multispecialty groups or the big learning health systems but rather very small practices. And it would seem to me that that question of the magnitude of the information that is collected, a question of what the burden of that is for the individual provider outside of a big organized system. I mean, for intermittent to collect information is not or pit to collect information is not a challenge. But the guy in Kansas, it's a real issue. What are we collecting and from whom? And we understand what the challenges in terms of the collection is. And also the magnitude of the data once received and then given that, do people know how to use it.

And Kathy made a point earlier. The question of once we have given it to them, what do they know about how to best to apply the information they have received. And I think one of the things in answer to that question for AHRQ is how do we think we are giving information to and how do we want them to use it. I think we cannot lose sight of people in those big specialty clinics who have people can organize it. Andrew has a whole system of people that presumably work with their physicians and nurses and others. But in many settings, practitioners or others, it's a much more challenging environment. To figure out how to help them use the information and how to apply the information. And essentially, how many metrics and how many of them are important in the practice they are involved in. So I think we need to keep those things in mind and I also think we can't lose sight of the fact that we are trying to move it to the patient. And that is to what extent are we also providing information in a forum that can be utilized by patients in making the decision. One of the principles of moving to a value-based system is one where the patient has a role in deciding what is important. In making decisions. And I think we can't think about this data and it is enormously important to state medical Medicaid directors to auditors. But at the end of the day it should be available to the physician or other primary providers in the settings. Because so much is moving out of the acute setting and setting in to a community-based setting. Also to the patient. How does the provider talk to the patient if the patient doesn't fully understand what the date is. Or how important that data is to them. So I think one of the ways to answer that question is infected think about who is the audience. How will they use the information. What kind of information will be important to them. And how do we help providers translate that in working with patients. So that they understand the full impact of the information we are gathering in the evaluations we are making about what best practices really are. So then going forward in that changing healthcare system, that will be enormously important. It will not all take place in a box or in a hospital. It will not all be driven by the doctor. It will be a multi-entered interdisciplinary team and nation has to be involved in all those elements of how we decide to use the information.

That's very helpful. And I won't be a secret from the people from AHRQ but I have also looked at some of the AHRQ displays and I'm sitting here trying to figure that out, imagine what a patient or primary care physician will do. I think that's really important that there's a whole science about that human designer -- center design concept. That might be a field where AHRQ should spend more time. I do have a question, I believe you are on the board of the come Walt fun. And Maureen sends her regards. And the fund deals with a lot of data. Your primary audience is probably policy. So how do places like the Commonwealth fund work with federal agencies around the kind of data you're collecting and target audience. For these guys what they do is policy relevant because you heard what Francis had to say. We have to attribute back. We have to make a compelling case. Always talking about the pitch. What can places like Commonwealth fund contribute to this dialogue.

I can make the observation. One thing on the Commonwealth fund but also the Kaiser family foundation board. A fair amount of exposure to Peterson into the Arnold foundation and others. The secret asset that is not so secret, is that Mark Miller is now at Arnold per day conversation about how he thinks having been on both sides having run MedPAC and now working with the Arnold family about how you use information. It would seem to me in the context of Commonwealth, there is a constant conversation that occurs between the agencies and the folks at Commonwealth. In terms of what they find. We find in terms of demonstrations. What we find in terms of the kind of research questions we are asking. We use the information from AHRQ and other agencies in terms of building the base. The conversation about essentially what HCUP and MEPS write to us is used extensively not only by health fairs but by the researchers that are on staff at Commonwealth. But also the folks we fund. We find a fair number of programs where Commonwealth is different from Kaiser in that respect. So there is a constant set of conversations about what is important. What are the questions

being asked. How can we demonstrate scaling point how can we demonstrate in place the kind of things that are occurring. And a number of the folks that work in both places came out of the agency. So they also know the folks with whom they should talk. So the information is critically important. Commonwealth is relatively small in terms of foundations. It is not our WJ. So they depend a great deal on information that they gather from the agencies and others. And it is enormously important. Again I think it is that constant conversation between our researchers, the folks who are paying to do the demonstrations and research, and that Commonwealth staff.

That is helpful. And I think worth making more broadly known. I don't think we have ever really talked about the relationship between foundations and the agency around data and measurement. And for example, I would love to hear about the relationship between R WJ and health and they are using all kinds of deity -- data. Maybe we could add that to the future agenda was some sort of map of how you leverage that. Thank you Sheila.

This is Christine. I have a, and then ask him a question for Joel about what kind of challenges you face. A follow-up question. I think tying it in a little of what Sheila said and a few conversations around this table as we talk about being more patient centric. Again, how are we disseminating so that information gets out. Can't they can afford your, point some practice on a small amount on Saturday mornings on a couple times a month. With patients idealize the clinical guidelines and I may explain to patients, but how can we make it more relevant so they understand where we are getting it. The brand AHRQ so that patients understand that that is an organization that is helping me to be better. And also I think patient centric is looking at other models of healthcare delivery and I want to think about force comments. I think of something very small that may be quite relevant is when I got to children's healthcare of Atlanta, they started in a more stringent way. Patient centered rounds that include at the bedside with the parents and the nurses delivering their report. And still to this day, if you look at the data, there is not great metrics around that. But we tied in some outcomes that we are measuring now that are really starting to see may be some qualitative work where parents chip in much more frankly now that they feel comfortable with the nurses. The nurses understand what is needed at discharge. They know what community organizations that they need to mention to the social worker to engage. There is better discharge planning which means potentially better remission rates. It's a very small thing but looking at the process of how nurses work, of how physicians work. How decisions are made, I think it really impacts patient quality and safety. And then that is my comment. I think we need to be a little more pride in what we look at. When I look at this list of AHRQ users. It's a great list. Procedures. They are very physician centric. We are publishing and physician journals which what we really need to think more broadly about, huge sector of healthcare with teammates who really to share about what HR Q can give them. I like what Losey -- Lucy said. We have a partnership with Georgia Tech and what has come up is data sharing. And I think it is very interesting that there's a case that has come up where Netflix had a contest -- I don't know if you know it's all that -- where they gave the identified data to six teams. Based on six movies, they were able to de-identify 99 percent of the users of the CIS data point so security officer see that and kind of panic that we are handing out big data. I think HR Q has worked for decades for handling big data. We are the experts when so many institutions are word. We are the experts in managing big data. And how do you do that without de-identifying the patient, I guess. I think that is the question. At least we give out data to our partnering institutions, there is a real worry about as we give it up, what are we filing. Who can de-identified that. You hand it to a graduate associate after a professor is looked at. That's on another computer. So I think that is a good way may be that we can brand AHRQ that we have been data stewards for so long. We are experts. Come to us. Partner with us on how to handle big data sets. Because I can tell you our institution would probably like to build a moat and wall around our data to protect our patients because we are worried about violations. If you think that is a challenge that you

think we can optimize with our network to say hey, come to us and talk to us about how to build your big data.

Yet. As I said earlier, the chief technology officer has been looking at this for the department. They've actually sent people ran to talk to different agencies as to how they handle things and they did come to us and we have a history of how we handle the data. They like the way we do it. As how to generalize that is is another question. It's an issue everyone is facing. Really with data these days, it is going in two different directions. We need to link everything and we need to put altogether and we need to get this data and that data and we have to do it at the person level. And then, but wait a minute, these are privacy concerns. And it is really critical that you not let my individual data out. And so they're working in opposite directions. They are trying to figure out how to deal with that. The way we have dealt with it is that we work with in CHF. So like with MEPS are simple comes off the national health interview survey. So we actually, when we put out a public use file, they have a disclosure review board. So we tell them every variable we will put on the public use file and they have a board that looks over it. And then they say yes or no to various things. And so we cannot put it out unless they say it is okay to put it out. Our definition for public use data is the data they have cleared to put out. And we put a live now. If you look on her website, we have tons of analytic files. People do all sorts of research just using the public use file. But the public use files do not have a lot of geographic information. You can't link anything to it. You can't link area resource files. So when we handle that is to have data center. We have a secure data center where we will if you want to link something, we will link it. You can use your file within the data center. You can't take out any individual data. So only --

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That is what we describe. That is what we are good at. Is doing that. That could be really highlighted.

And there are private organizations that do this kind of thing, too. United healthcare, we worked with him. They have what they call a sandbox so they have their own system you can go in there and do that. CMS, you know, you can get a license -- enclave is what they call point where you can go into their system. There are limitations on those. But this is what I am saying earlier about the data governance. Everybody does it differently. We have tried to work sometimes with the private organizations like United healthcare. One of the things, where tongue but data link which is, one of the things I was want to do is be able to link our people to private claims data point we know what insurance is using. We asked that question. I have never had any success in being able to actually link the MEPS data to private insurance data. It is because I cannot give -- because the weights collected and the laws and regulations under which we collect our data -- I cannot give personal identifiers to an insurance company and let them link it. I can't give them the data. From their perspective, they have the same thing. They cannot give me their data personally identified. So have never been able to do that. But these are issues that have to be worked through and you really do have to worry about it because one of the things we worry about with MEPS is all you need is one case of somebody's personal identifiable data to get out and your surveys done. They will participate anymore.

And citric, had a conversation with one of my patients that I work with. We had a conversation about, did I think that we would move to -- our system would move to Google or Amazon. And I'm thinking oh my gosh, you're kidding. I never even expected. But as we discussed -- diskette, that's where we live. But it's how we do. It said that Google and Amazon will be the ones who are the leaders yet AHRQ has done this for years but we are not positioning ourselves as a leader in this area. But my youngest -- young Hispanic male with a small child knew about Google and Amazon picking up on healthcare data. Which blew my mind. I think that told me that we need to talk about even it in a better way or some how capture our ability to be experts with big data.

Thank you. I'm afraid so, yes. [Laughter]. Because it is almost like I'm putting us on the spot. As I listen to the dialogue now, it occurs to me that acknowledging the couriers -- current data linkage and also the realities of maintaining confidentiality and safety of the data, not withstanding, it seems like we got to get to a point where we talk about what are the steps to solving this problem. And we all know it involves more than one step. We should talk about what the next steps are to get out some of the regulatory and other barriers that are real. But perhaps not insurmountable if we put our efforts to it.

It does seem like a critical priority. I don't know how well resourced or how much time you have to spearhead that.

And so, Joe sits in a critical point with the data counts. It's not just a AHRQ issue. In the department, we are all struggling with this. It's push us to tackle this issue. I think we have to generate some will across the department and also with our data partners to figure out where is the sweet spot where this can happen to demonstrate that it can be done in a very safe and thoughtful way. And then maybe develop some use cases to be able to broaden point

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The risk of course is that somebody else will solve it for you anyway you don't appreciate. And that probably won't take too long. By the way, just to end but who wants to spend some spare time really getting nervous is to read the piece on the New Yorker on AI in the most recent issue. My wife called up and wanted to know if I was AI or actually her husband. A scary piece. [Laughter]. I think we have gone around but we have a couple of -- Karen and Monica have some comments.

Thank you. This is Karen. Just one less point on the data stewardship issue. It's just to remember there's a whole patchwork of state regulations point some of which add to the confusion. And just short example related to mental health data, the jealous -- Magellan operates in the Medicaid business in Florida, we are required to get authorization and use disclosure agreements it from individuals in order to share any data with providers. So our ability to share meaningful data with providers is fairly limited. There is this patchwork that really is quite impactful. I wanted to comment on how to make data more actionable and address the critical issues is to really think about -- I concur with the comments about the HCUP data and making it more broad. But layer on analytic tools, metrics and going one step further saying DataViz relation standards -- that would be really helpful. We have problems we would love to benchmark. For example, patients with serious mental illness we really want to understand how blood pressure control or metabolic syndrome control gets some standards if we are actually making progress against national standards and that's an possible to do in the current context. A perfect application for arc in terms -- AHRQ in terms of increasing the tools and how you visualize it.

Thank you. I think Monica was next.

You had your card up first. [Laughter].'s I'm trying to be a little more --

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All right. This is Monica. I just wanted to move back onto a comment made in the earlier session. And drill down on the and to specifically address the first and last question up on the board around making data more actionable. In the future challenges and questions we see facing our healthcare system. Right now, what we are seeing are healthcare systems trying to incorporate training for determinants of health and practice. And the obvious follow-up of what we will do about things that we find out. So screening and then subsequently eventually addressing social determinants itself within the context of healthcare. Right now, we have a sense that these are important things to do. But there isn't the same

kind of academic and evidence-based rigor around some of these associations between the material needs and secure needs and some of the health outcomes for a range of chronic diseases. We are not even sure what the best measures to screen for our. CMS has been rolling out screening tools and so what we really need -- what a person really need but what we all really need -- are good sense of which tools work best validated from populations. Which kinds of material needs and security needs are most associated with the greatest magnitude of change for different kinds of chronic diseases. All of that requires study in data. But then helps us inform the actions of intervention. And so, I think that similar to the data integration, that is a big while we are bumping up against. Is trying to figure out how to track these and whether or not there are closed-loop systems wether they are going to social service agencies. And a whole team of versa and other systems being built up that are different. But not necessarily speaking to each other in a similar language. So I think there is a need for some consistency. Some validation in measurement. And for more evidence based to inform action around what's already happening in the healthcare system to try and fold in the screening and addressing of social determinants to help improve health and more populations. So that is something that I think AHRQ takes an important readership Rome point

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I'm sensing a duality here. Better specifications and guidance on how to measure in a valid way social determinants. And health well-being quality of life and so forth. And there are all kinds of issues there around sampling and who gets to answer the sample in terms of equity. But the other side of the coin is we're hearing a lot about learning health systems here. And very few learning health systems are even measuring these things and may not even if they had the AHRQ or someone's guidance on how to do it. I think the challenge is really parts of KP now measure well-being routinely but it is pretty spotty, right?

I think a lot of people are doing it but we are just absent clients. That is the problem.

I have just been to it a bunch of the social determinate discussions recently and that I think we as a payor have a social determinants of health registry. So we capture from a number of different sites health risk assessments, care manager conversations, information on every one of our members about a variety of social determinants. I don't think we are alone. I believe there are in particular places where they are payor/provider collaborations. Where the payer can capture information from clinical encounters. If there is more and more effort around capturing that data, and I do think this is a point really well taken. That this is sort of the wild West and there is a big opportunity to consolidate and create some standards and sort of gather and create a rising tide around this.

I think Jerry you were next. And then Andrew and then --

Jerry. I don't find it surprising that I find a lot of residence with the comments from my callings here from the delivery system side, be will or Andrew or bob or Lucy or Christina. What I see and what I'm hearing from medical groups in health systems, large metal -- metal medical grade systems. The future challenges he is to move to value. They seat in two different ways. One, may be the way we think about it as total cost of care. They will be accountable for the quality and the cost of care for an assigned or attributed population. So they're very interested in what are those cost drivers that are going to now or in the future affect their populations that they then can have impact on. But they also think of value as the operational cost. To get to those better outcomes. What are my internal costs and are there more efficient ways to get there. So where bob was going, I think a role for AHRQ is not just understanding the best processes to get to that care but how much are the cost. What are cost inputs and cost drivers of those different processes of care. They see a future world where their revenues are stagnant or going down. But they -- their inspectors are increasing. In reality they have

to look at expense reduction and what are they going to do to get to those better outcomes yet do it at a sustainable price point. I think that is a future world and future channels that our groups are facing that I think AHRQ could play pivotal role in helping them answer that question that they will need to answer in 10 years or they will be frankly they will be underwater and have severe financial challenges.

Let it be known that we have gotten into the third or whatever of our our and value has finally risen its head. [Laughter].

And one more point which goes to linkages. When it comes to those cost drivers, they are very interested in what they don't know. Which is the social determinate. Because they know we have been working with clients for years and years and they have gotten good at that. But they want to know what else is out there that will be driving their cost. Be it from electronic health record data point be from social determinants. Be it from Google location data. Other things that will help them again match that total cost of care and manage their internal cost point

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There is a subtext here. Bob kinda put this in my head about the data that we need to help us deal with things like value and implementation and measuring processes and so forth. As you probably know, we have backed away from process measures to using outcome measures because they're so difficult to collect and they are getting all kinds of pushback from their customers in healthcare about the burden of measurement. So this is an area I think for AHRQ to think about. I know you are very involved with electronic capture measures and that's an evolving field but we ain't there yet as best as I can tell with really measuring compliance with whatever it is you want to mention. So that is a good provocation. But we are not there yet electronically and we are moving way from it in the national measurement scene. So that's something to consider. I think we are now at -- do you like to be called Andy or Andrew?

So speaking to some of the data challenges, we heard about data sharing, transparency, data linkage and also integrating some of the cost information. And I think the openness of the two different committees. Data science and research committees are very open to that. They know that these things need to happen. Where there is a gap and who shares a differing view particularly at the organizational level is the legal compliance and regulatory community. So the vision of data sharing and what we need accessible and the transparency versus the realities of trying to do that at a system level, I think there's a gap there. But in terms of what AHRQ can do to help fix that I think specific initiatives that accelerate that data sharing can help close that gap. In two instances I can think of from our organization, we are part of NIH and all of us. The concept of collecting information ensuring that -- that accelerated the internal discussion about how you go through a process like that. And also the peak core net. We are also a site with P Cornett. Creating that aggregated data structure and the conversations that need to happen with information security, compliance, legal -- discussion that might have taken 10 years sort of evolving naturally. Those type of specific in the initiatives when you put them out there, it accelerates how we can close that gap in terms of the differing views of the communities.

I will keep right now because were running out of time and I want them or to speak.

Beth. I want to share that I see this from two different perspectives and I look at it from an operational perspective. We talk about data collection for the small private practices. I think at the state level, we have seen that happen from the pay orders because they're collecting the data from the office practices. We are putting the resources into collecting that data for the pay orders because they

provide us incentive when we give them that data. So it has been very beneficial to work with the payers to give them the data they need from an office practice any patient perspective to give them that continuity of care across Continuum. So that is one thing in a small rural area that is a benefit for us. The other thing is that the cost of the data. When you are small and rural, you have a lot of agencies that AHRQ interfaces with. Sheila did an excellent job of what Bob referred as an elevator conversation. She shared that very well on the Commonwealth. When you think about you met, most people don't. That are in the day-to-day operations of healthcare. They see all those agencies who use AHRQ. And that is where they see their data coming from. So I think Bob was spot on when he said AHRQ needs to develop their elevator conversation. Who was it? Lucy. Bob and Lucy both talked about. We have gone around so many times. But I think they were spot on. Because the users in healthcare across the continuum, do not recognize that AHRQ is the foundation for that data. They see CMS as that person. They see the CDC. They see those as the fundamental agencies that provide the data. So it is creating that elevator conversation.

What happened? Oh, okay. So, Tina point

I just want to make a comment in regards to Jerry's, in what you said. That is a lot of conversation to talk about the need for different measures that are really getting at what we care about. We talked about this merge and we have moved the DHR and big data and electronic data -- and the burden of getting these process measure. There is a big question if you years ago about these E measures. I'm not sure and I haven't followed it because they are very difficult to use. I want to question to you what sparks a stance on moving to E measures. Any progress in the area and is that something that can address some of these issues when we start carving out measures that matter and where we can get different pieces of data.

So in addition to working on data enterprise efforts, also leads -- lead AHRQ quality measurement initiative. So we have engaged with national quality forum for years on patient safety indicators. We worked with the CMS and there was an initiative where we took some of our indicators and tied it to a trend like them into others. That was very very difficult task. Part of the issue is that we need to really think about from a management side, we depend on there being standards on the data side. And until there are standards on the data side, particular with the HR's, I think we are little hamstrung. I think from a futuristic perspective, there is a lot of groundwork that needs to be done first before we can go into that space. But they HR does provide an opportunity to get a lot of really good Metro measurements going. I don't think there yet appeared internally at AHRQ we have had conversations about strategic thinking about quality measurement. What is AHRQ's role. We had the PQ MP. We have CAHPS as an initiative point quality indicators. We do a lot of -- in terms of DHR based measure specifically, I think we're still waiting for that standardization to happen. On the data side, we have that. So that's why the indicators exist. Because we have a standardization of administrative data available to us to work from. That when we do quality management, you know that when we build a specification, you can implement that with any data set. I don't have that available to us in the HR room.

Is this somewhere where AHRQ is interested in saying that in order to measure this patient or move this forward and a more efficient way, this is the standards we need to create this measure. Something like that.

I think at the department level we need to have that conversation because it is not just AHRQ. It's our colleagues that ONC as well. My colleagues at HAT team here at AHRQ are also working with their colleagues at ONC from a recent inflammation standpoint. We do have work happening. I do think we

are quite there yet. We continued to think about AHRQ's role in quality measurement, we need to have a conversation.

We are approaching the Corian rice bowl guy hour. -- Corian rice bowl.

To follow up on tenets, point measures I was thinking about were not necessarily measures we would impose on everyone. Or would be ultimate markers of quality. These are measures that help the systems get better. And that AHRQ might through investigator initiative research promote building of such a catalog so that if you are trying to improve care, you have a catalog of these that we would use an Anderson care and then get your processes and then might not continue collect them. So often we talk about patient recorded outcomes but we missed these covariates. Very important determined variable that if you do understand you missed the connections and attribute the wrong things to each other because you are not looking at that. So when you say, moved to the Zen of these, I'm not think about these as being the endpoints. But we don't know how to measure. We don't know what to measure to try to understand processes and that kind of work should be flushed out. Imposed -- not imposed universally but available when used for improve care.

Let's briefly José and then Alice and I will sum up and then we will have lunch.

I will try to be very quick. Having earlier made this argument for the breast and health services research. This conversation has been interesting. I would talk about four subjects that bring together the need for what we might call fundamental or basic research as well as very applied research. I will list them up. The first is we heard that there is movement from process measures of quality two outcome measures. What are the implications of that? One of the richest that have been touted for process measures for a while is that you don't have to do much adjustment. You also have to do huge adjustment for outcome measures. What are the implications of moving from process measures two outcome measures. That's number one. Number two, is we know that health systems are trying to get involved in social determinants. Many of them are things that play out over the life course. What is this scope for health systems to intervene in social determinants. How much can they review. Surely there are some things that come to mind that they are already doing but what are the limits of that. And to what extent is the health system saddled given the responsibility for curing things that just like the educational system has been giving the responsibility for dealing with social determinants of low educational achievement. So number three, is in talking about this value issue, we think there is waste in the healthcare system. As if that waste gets eliminated or even if not all of it gets eliminated, there is certainly providing higher quality is likely to cost more money. Where does society want to stop. What does the trade off the surname once you make on healthcare versus level of quality of care. And then finally, what exactly is providing patients center care. Patient centered care or patient centric approach. There is plenty of evidence that patients bring enormous cognitive distortions in decisions and making healthcare point a very fraught situation. And evidence about magnification of certain probabilities, myopia, short-term bias is huge. Is patient centered care a radical deference to patient preferences. And how do we do with the fact that we know that patients bring these cognitive distortions. How do we measure patients centered care in the context. I think those are all fascinating questions. And involve both things that are very applied in the end but that really require much more fundamental research and contributed by very different disciplines point

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Thank you. That is deep thinking exit. Thank you.

Alice. I want to echo what José said on his last point. Of really what, do we have a definite standardized definition of what patient centricity is. Is it well-defined. Because I think that is

important. I was on a committee looking at the standard definition of patient engagement and we found that it was all over the board. So I think that is important that when we use the word patient centricity that we use the same language and the same definition.

That is an excellent point. I have a AHRQ P 32 training grant. And every time there is an issue that has a word patient in it they want to use the patient activation measure. Which is the measure of one specific, component of aging -- a very useful point. We are now at the magic hour of lunch. I did jot down a couple of thoughts that will take me if you meant to get. If I were sitting here, I would say well, we asked for input from these really bright people from a multitude of perspectives. And we are a small agency. And they want us to solve world hunger and to bring together all the other agencies and make partnerships with Google for crying out loud. And with all these foundations. And come on, there we are. Look around the room. We are here. So you must be really appropriately activated but concern. So just a few things. Speak --

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The graded amount of innovations [Indiscernible - low volume]

I totally agree with you. You are agile. Like the rabbit in my garden. [Laughter]. You might eat my carrots so I chased the rabbit with a rabbit repellent spray. Cayenne pepper. And the wind blew back into my face. [Laughter].

Did you get that on video?

I wish I had. If you thoughts. This issue about the partnerships I think is really really key. It would be great for you to reflect on this and maybe come back with some strategy around which partners and at what level and what depth and for what purpose. So partnership in service and what and with whom by when I guess would be a way to think about that. A lot of talk about HCUP and MEPS as we mentioned earlier. A large part of your budget and remit from Congress actually. But there are other data needs and gaps. And this idea following the patient through the course across the continuum of care and where do HCUP and MEPS help and where are there additional needs. And what is realistic in that regard. And then this issue of big data. I don't know, I'm actually not sure that AHRQ has the experience to really understand and play in the new digital age yet. To what extent do you want to be really deeply knowledgeable about that. To be an equal player in this dialogue. And to what extent are you willing to move from hypothesis driven research, which is a feature seen in some of us discussing which every contract now. A big data is not hypothesis generated research. Positive generating research. That is a paradigm shift really. If that is a field where you want to be moving too, I think it changes your view of what health services research can be. Does it meet you exclude hypothesis generation. José would rise up and we did that. But something to think about. Then this agility and how do you observe the basic sciences as it were of health services research and or questions we must answer and keep in mind versus the agility to deal with a rapidly changing health system in a data-driven age. All this relates to data and choices will be made because you are a small agile agency. But you are small. And you can't be good at everything. IHI, we once had a debate about what we were good at and what we were really world-class. And we have not saw that yet. We think we are world-class and everything but we are not. And neither will you be world-class and everything. So it would be fun to have you reflect and come back and we can digest your strategic thinking about this and maybe get a second round of input. We still have other dialogue. We will use opioid as the lens. And we will talk about the leadership in healthcare delivery expect. Is that fair. I think it has been -- okay point thank you very much. I really appreciate your willingness to talk at such length and depth.

Don't forget. Pictures and transportation.

[Event on lunch break]

> I thought we had a stimulating morning. We have some interesting issues to tackle this afternoon. First up, David Myers. We are going to talk about opioids.

One year ago I was invited, and he said you should update NAC on this. We need to change that, given the tone of the conversation this morning. I would like you to think with us about what else we can be doing. What opportunities have we not identified yet, and our three areas? If I would have had more time I could help you see it, that is how AHRQ works. With that, what are we doing? All hands on deck support this department and the nation. We have a five point strategy, not based on a logic model, it is based on a practical model. What will be needed now? We are looking at a turnaround over the next three years. These five pillars are important to identify. We need better data to track and understand, we need better team management, and better prevention to help people not start on the path towards opioid addiction. Increased the availability of reversing drugs, and I was fascinated that the department recognized the need that what we are doing is not enough. AHRQ is part of all five of these. I will not go in detail, but I will show you what we have already done and what we are currently doing. This is linked so that you can go and trace this. If you go to our website, we have an information page that pulls all of our stuff to put it in one place. When we meet again, I would like to know what you think of this, we are actively working on a plan to make these resources more available. The area of treatment and recovery, we have collected tools and made them available with our focus on practice, and focused on treatment as far as how it is working and not working. We talked about this in our March meeting, at the development meeting, we are trying to create a uniform standard. This will and power many other things. We are taking the CDC guidelines and making them into reusable artifacts that anyone can put forward. There are other things listed there. I am going to take you on a deeper dive, we use HCUP and MEPS , and we want to make this data actionable for policymakers. This is what I will be showing you. This fall we should have a series of new data focusing on opioids in older adults. This is a sleeping giant now, and a problem we need to focus on. I have some of the data, and the rise of age 65 opioid -related problems, not overdosing, their memory albums are getting -- memory problems are getting worse. This may have something to do with multiple chronic diseases and chronic pain. If we do not get a handle on this, it is going to get worse moving forward. Here is a map of the United States, showing the treatment of opioid -related conditions. Look for the light green. These states did not get worse. You knew this, but it is pointing out the problem is country wide. If you look more deeply, it is not the same problem in all locations. We have the same map for emergency rooms, it looks different in different places. It used to be thought it was a young person's him. You can see that in Illinois, I hope I do not offend anyone, or California and Texas it is most likely the person to be hospitalized. All of that light blue is what I was mentioning there. This was captured in 2016. Is a test to your knowledge, are men or women are likely to be hospitalized? Does anyone say men? Does anyone say women? It is women, and it is women almost everywhere. This was not true 10 years ago. This is not a good thing. Moving forward, this is a reminder that we need to continue working. We need to move the data to the County level, and show the rate of hospitalization by County. In the same way, we do not see individual states. Moving forward, this is a reminder that while opioids have a lot of our attention, every County in the United States, alcohol is the number one substance that leads to problems. In Arkansas, it is significantly more likely. We show this data at the county level, we stayed with Arkansas, while alcohol is number one in both counties, you can see that opioids is number two in the northwestern part of this state. Cannabis comes in number three, and then followed by inhalant. We need to be different and how we prioritize in this County. This is how AHRQ takes the data and makes it more useful for policy team management. As I said earlier, it can be part of the prevention of the opioid epidemic. We recently completed a systematic evidence review, on treatment of chronic pain, to find

out what works to control pain before you reach for opioids. We have follow on this report, and they want to make sure they follow pain management. This was originally for rural care practices, and testing, but now helping practices understand the continuum of pain management. They need to see their role, this is one of the six building blocks we spoke about. In research, we use our budget for research funding, and grants, to fund projects specifically in this area. We have a specific targeted Congress, and the department asked us what we could do in primary care. We are working with,, North Carolina, Colorado, Oklahoma to make treatment available. Many people need the service, over half do not have access to it in urban centers where there are community-based treatment centers. This may mean expansion, it is unlikely in rural areas that it is possible. What can be done to empower them to take this on? We are two years in to that funding. That leads me to my final question for you, in that research space, where do you see the greatest gaps? Where do you see the greatest opportunity? I was answering some questions earlier, we'd like to try to think about the fundamental research questions, not what people are struggling with that they need answers for today, but what they need answers for in the future. What do we need to get those answers? We have answers and information to get that. What new ways and methods can we be exploring in this field? This may be the same that you tell us, but this area may have something special. If you have ideas to share, please do. We struggle with funding we have, in the future it will be limited. In the balance of pure research and dissemination and work. Thank you for listening.

How much time do we have?

We have 15 minutes.

Can you clarify one thing before you take Boston's? I thought dissemination monies had been cut?

In the presidential budget, they proposed eliminating this money, but they did not accept that recommendation. At the moment we have funding through a trust fund to implement that.

Why don't we start in the other direction, Lucy?

Sheila --

It was at an angle, I could not see.

In terms of new opportunities, have you been looking at training in regards to pain management? What are we looking at in terms of training and knowledge operations for practicing physicians and nurse practitioners, but are we taking a step back and beginning to rethink how we look at pain management?

I will answer, but first I am going to ask should someone be looking into this?

If you think of retirement, that is occurring, it would seem to me that those in the residency programs, we could incentivize them before they go into the core. There is a partnership there that could occur about what you know and what you could inform the teaching hospitals about how they think about what their training programs look like. It is not clear to me, and rather is this an audience we should be looking at?

I think that is important. You are saying to us, should we make that available to the people in charge of education. In general, we have others looking at that specific mission. HRSA is generally

departmental lead, in education. That said, it is a big space so this is one thing we should continue to think about. AHRQ continues to educate those already in practice. We are already there, and it may not be hard to try and pull that back.

My only addition is focusing on those in their residency or Masters level training programs, that they are in fact practicing. It is not a big disconnect.

Absolutely.

That is a new opportunity for the generation coming in.

Yes to make sure residence are already having that, as residents. Let's go in order.

Quickly, one of the things that I have been serving on in the last couple of years, is dentistry. This is mostly from my own personal experience, I have been in the dental office every month. I will tell you that I had a procedure done in December, and they would not let me leave without a bottle of medication. I recently had dental procedure, and this is the only office that wanted me to leave with 30 pills. There was an article that came out where they showed the Medicaid population, that there was an over prescription of this drug for dental procedures. This is one place we need to look, dentistry is a piece that we are missing. This is a gateway for other things. The other thing I want to comment on, is we need to help people rethink the culture of pain and what pain means. In the culture of how we think, this changed with the advent of these drugs becoming available. I was talking to one and he said in the 10 years he has been there, he has never prescribed anything other than Tylenol for pain management. Our country thinks differently about pain management. One developed study is that now we have so many states with medical marijuana, what about the use of CBD.

To what extent is AHRQ able to try and learn from evidence in other countries? We are a small agency, we try to learn from every where we can. Our evidence-based practice pogrom is famous for looking at -- program is famous for looking at research in the United States and other countries. What can we learn from Canada, and what can Canada learn from us? The environment from DC is sometimes more supportive than others. We believe that knowledge should cross borders. Karen, will, Barbara, and Christina.

I wanted to chime in on the first question, one of my suggestions, and one area that plays on other comments from earlier in the realm of medication does exactly what needs to be provided. What are the tasks and services in getting evidence-based around that?

Excellent.

I will build on that. Those are incredibly helpful comments. For those of us that come from systems that are involved in treating or managing folks, at my organization we spend more money managing patients with opioid problems, then our budget each year. We have an incredibly rich and robust portfolio of services that we are trying to deliver. We are doing our best to evaluate them as fast as we can, and learn from them. We went to know the right services to wraparound a member and there caregivers, and family. What information do we have about their family members and use of opioid? We are throwing good money after bad, at this problem. There is no way that we are managing these patients as efficiently as we can. It is not from lack of effort. I would encourage you to help synthesize what is out there, and help gather some comparative effectiveness research, based on what is being done on the field, rather than putting tests out there. We can learn a lot. The second thing, is

for us one thing that has been incredibly helpful, is when policies have been implemented. When the state of Pennsylvania had a Medicaid policy saying you cannot prescribe more than five pills for this set of diagnoses. They have provided additional cover with specific criteria about how much can be prescribed. That changed our leverage we are negotiating with, around commercial insurance. If we are doing it in Medicaid, we are doing it in Medicare. We can define a policy impact, and the impact of policies on prescribing can affect health and cost. This could lead to more rapid dissemination of policies, you can see fast turnaround and how patients are getting their medications.

That reminds me to ask a question, David. In terms of synthesizing their research, there were a lot of stakeholders involved in the playbook, as you look at that, does that leave gaps? Was it done in parallel? What is the level of need that remains?

I will reassure you that we have partnered with MQF, we are excited and we are building a website. This is in one place, so people can find resources. What we are seeing is duplication happening now, we are reading it to see where the gaps are. I will let you tell us what you think, but that is what we are looking at. I cannot say this helically, but I am with you on natural policy experiments that are happening now, we hear you.

Thank you.

The balance between research and implementation is a good question. Obviously, if there is research, that only you were doing, but is incredibly important. The dissemination and implementation is a relatively new area of focus. This uppers -- this allows us to test new models for implementation. Some elements of which would be applicable through all other amazing resources that you have here. There is so much sitting on the other side, compared to four years ago. When I started I was stunned when I finally found my way into the site, just how much is there that maybe underutilized. I was thinking about the target audience and how you develop communication strategies, that start with who am I, what am I trying to communicate, and how can I indicate this? This is a multifaceted approach. I think this could be an opportunity to dive into this in a way that helps spread the knowledge, and could be applied throughout the agency.

I can reassure you that we have an interagency worker, and this includes two from our office that understand social media. This is trying to push us in this field, for those reasons exactly. I love that kind of thinking, we want to build audiences and their interest in opioids. We want to show them data researchers, it is a win win. But is a great reminder for us, thank you.

It is important to remember how we got here, we were treating pain. Now we are stopping opioid prescribing, now we have patients come to Mike clinic with -- my clinic with chronic pain. We need to look at the patient's quality, and look at those patients who really need that medication versus focusing on policies coming out that are not evidence based. There are other things that have been suggested, that may not be appropriate for these other things. If you think about how we can put the patient's into this research perspective, and thinking about how we got here for patients being undertreated for pain. What is the correct way to treat pain? We need to start thinking about other aspects of the equations, and possible previous exposure. How many dying patients do we have in at -- this setting?

Great reminders on the patient perspective, and what we can bring to that. We are coordinating with our researchers, and partnered on important studies to get answers to these big questions. One of the

things we are trying to do, is ask what is not being done with others so that we can focus on the patient perspective. There was a second part to that, and I hope --

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I think it was thinking about a personalized approach.

Yes we will never talk about the opioid crisis without talking about the pain management, and remembering that pain management is the start of all of this.

Just a follow-up, when you are having these discussions, and something of a policy nature is brought up, do you then say, we can help you determine the impact of that using our research?

Yes. We are now at Christie.

David, you and I spoke about this, I still wonder if we need to look differently with pediatric patients. There were 90,000, it was a large sample who received narcotics after their surgery. It may not be the volume they are prescribed, what the length of time they may need to get back into their primary care doctors. Are there established systems at communication between the surgeon and primary care? I don't think it is the number of pills, I think it is the length of time. In rural Georgia, asking a family who does not have the means to come back to the hospital, is a burden on the family. Instead able prescribe medication again. I wonder if there is a way we can wrap our head around that.

Great reminders. We already brought up older adults, but you are reminding us we cannot forget the kids. This may be a smaller part of the problem today, but that does not mean it is not important. We also have a program looking at neonatal issues. All of these groups need their own focus, thank you for that.

Stepping back, I think this provides us a good opportunity to consider how he were able to respond to the opioid crisis. Now you are doing a self study and looking back, and how can we use this as an opportunity to be prepared for the next crisis? This will inevitably occur. We need to think through this, because there were warning signs, what is it that you wish you could tie in with your data group?

That raises a general question about how you use data to predict problems as opposed to reacting to problems. You need to determine if your data is current enough. When I was at the CDC, we did not have data set up in the right way. This is punchcard based. We had data, but we were not using it.

This is a tremendous set of questions. One part that resonates in are mostly, solutions that solve only this problem are not nearly as valuable as one that could hit underlying issues. This could set us up better for the next crisis, or avoid another crisis. I think we need to write this up, but AHRQ is one of the first national agencies using this data, and showed something is happening that is different. We testified in Congress, showing our data. We were in the early warning signs, we could have been even earlier, as you are reminding us.

If you had the data, out front, everyone should have known about that. What could you do?

We have to ask ourselves that question. Thank you.

Why are there three states not participating in the data?

Do you want to answer this, Jenny?

The data belongs to the state, one state has legislation saying they are not allowed to participate. The other states have various issues that make it inappropriate for them to participate on the national level.

The good news is it is now 98.9% of all military hospital discharges in the United States, are collected in HCUP . We are missing 1%, but for those thinking we used to do the sample. Computers can now handle that, so we are doing our research on the sample, now we are doing this on 90 percent -- 99% of those discharged.

We only have a couple of minutes left. I think Beth, you had your hand up?

I wanted to comment on Tina's comment, for the initial prescription. As we look at the state data, everyone has limited their plan as of this year. When are we going to be going back to turn the state green? What are we doing to look at the states who made a difference? That will be your answer to number one. That will help with limited funding because you have taste sites there. They address those pain management issues. They have a whole prescriptive issue to work through. There is an order, where participating pharmacies who have Narcan available immediately. Happily we will have a successful -- hopefully we will have a successful turnaround. I hear you. You can go on the AHRQ website. [Captioners Transitioning.]

Whatever the next is maybe we be that also maybe people can realize the value and in the partnership there are reasons that they are partnering with you because it is perceived to bring something that those other partners don't have and while people are thinking about this particular crisis I would encourage you to see that those are well are circulated and that you have elevator speeches for each of those different pieces and in terms of enhancing.

That is a great challenge so thank you.

So along those lines I would like to ask a question. I have always thought that the agency that dealt with national epidemics who will be? We are all in this list together. This is one of the most coordinated organized responses. You don't get to see this. Some of us do CDC as part of CMS which is part of FDA part of the NIH billion-dollar research for this and HRSA is doing things with the rural and underserved community and everybody is trying to think about everything they can bring not throwing it at thinking about it and what their roles are wear.

This is an opportunity for the elevator speech I was hoping you could give and probably are giving which is not the short elevator speech on what the data shows or whatever but how federal coordination and others as well, Google is actually pretty good at finding flu epidemics probably as good as CDC in some respects. Articulating who is doing what to be prepared for the next whatever would be very important and when we look at pandemic preparedness as far as I can tell the public still does not understand and most people in academia have no idea how this all works together so here is the opportunity to actually fund this work. I would point that out that public be assured that your government works for you and lay it out.

All right.

So I think in addition to the data piece which is critical I think one of the things that are good also help with has to do with what exactly is a big accomplished problem look like in this organizational level so there is a lot out there and we what we tend to do with the help system levels is a vein so at this case however at an executive level what people are thinking about is we have a complex problem

and what are the key interventions that we do first and what would a scorecard look like those types of things at an organizational level gets you to the how which again is where a higher level could be a sweet spot.

So this is the last question then which I am pretty sure you have not yet answered. You have some feed back from folks here at potential gaps that are uniquely due and as you have done that in your fantastic networking with all of your other agencies and entities where do you see the gaps that art has not yet fell but should sell or can fill. Are there any gaps and before I say it Sherry and Chesley I am giving you my cards before I leave I know how you you know how to find me but I want to get your feedback as well. My elevator speech on that is I think arc again has three capabilities and we need to move on all three of these and in health services research in practicing improvement AHRQ. You have given us more of the natural experience and policy that are happening and rapidly learning what is working and what is not and I would challenge us that some things we did not expect are going to happen so what are some of the unintended consequences. I probably will not go in to what does CBD do because I think that is an NIH question they will put money in and there may be some questions about policies and how do we make this sick sick I am personally worried that we don't understand what is happening with older adults and these are for people who are concerned to get system thinkers understanding this is so those are probably other health systems questions that practice improvement this will start with our help and safe management opioid prescribing and making it easier for them to do the right thing and I think it was Andy's system needs help to so we need to go back and think about what the playbook is missing and those are our sweet spot. Practical tools to make it easier for more of them to do the right thing and for primary care who often does not have a home for the information so the department is moving in all sorts of ways and we will continue to watch where the holes are and try to fill that in with our colleagues at CDC and elsewhere and while maximizing as you just witnessed which always reminds me of our question of that AHRQ status on national level is true but there is on top of that normal enormous potential to drive that data into the hands of state and local folks learning what they need and making sure that they get it. There are areas that AHRQ can work on in the future. Does your data tracking the evolution of the epidemic that goes from where it was initially for folks in certain income brackets towards a black people living in inner cities? Do you have a data?

I would challenge you that that may not personally be the way it goes. The data doesn't let us say because we should have so much of it so and it could be not everywhere where ERs are high and hospitals could be high and we know that we have the data and research to show it but who is dying of opioid overuse? It is not always the same and the natural thing is all of these track the same way and they don't there are communities where people are dying that are not using yards and then there are others where ERs are using a lot and people are not dying so let's understand that. The team right now is diving into that to understand understand what we can learn and they are planning to bring in social determinants of health in a much more robust way to see how those are factors that local communities can use and most excitingly they are trying to think about how we can model forward and how does the evolution of this epidemic allow us to use prediction hotspots in advance like to let communities know that they are starting to show warning signs and that something may be happening to them. That would be very exciting. It is very hard for those who are very much in it because how this epidemic at the heart of it this can change the epidemic in the U.S. which is now be changed by fentanyl and if we had tried to do our predictions without fentanyl we would have gotten it wrong. Modeling is great and we will do it and we have to be humble as we do it and that is our plan.

That is great. We are at time on this topic. Thank you very much that was extremely helpful and you have some good ideas to go forward on this amount of work that has been done and I am glad to hear

about the collaboration. We are now ready for Francis who is going to talk about where the C suite comes in and HSR and C suite. I have a certain allergy towards the C suite because I always imagine who these people are and I think you mean leadership or the board. How many people are here are in C suite?

The C suite is amply represented and it will look like everyone else.

Thank you for that introduction.

I can tease a bit we go back a ways. We go back over the years. We can have touched on this topic already and especially in the data presentation where we were talking about the intersection of data and making data in health services research perspective relevant to the C suite and we have heard some comment earlier about in particular the pace at which the service researches done and the lack of congruence with the reality of how the answers are needed in real time and what I would like to do today is queue up questions to talk about a component of future health services and it in this case it is health systems so what I would like to do is start as off is to share two examples of what is currently doing and then pose questions. Quickly I will just describe comparative health systems performance initiatives a project that was funded and began a few years ago to study how healthcare systems can improve outcomes and reduce cost and delivery of care and in the process have robust databases in terms of future work that will identify classify so we have recent accomplishments published a few years ago a compendium of U.S. health systems and we have three centers funded to do this work and their work is ongoing but again it is a health systems focus project which is in some way cataloguing health systems in developing a database database for future research. A project that is near and dear to my heart because my office does facilitate health services research training career development program and the project that we started of years ago by first recognizing that in order to have a companion focus in research training in which the goal was not necessarily to publish and ascend the academic ladder in the academic health services research center and that is fine and a component and outcome measure for some of our training programs but rather to embed researches and systems to produce research that is valuable and useful to system leaders in real time and we realize that we had the first think about competencies of researchers who do that work so we funded a project that built competencies for researchers and health systems and those competencies have been published and are available on our website and then we published a funding announcement in collaboration with the patient out come research Institute where we cofund a bunch of projects which will fund institutions to build partnerships and a requirement to use system data in context with the parser partnership and some of the grantees will be using those data and to commit to embedding these researchers to learn how to ask questions that are meaningful to system leaders and to continue to evolve as system researchers and system leaders and the output hold hopefully is for folks that are committed to working in systems and helping to answer quality improvement and operations and it is a five-year program and we are committing $40 million so this is two example of projects that are ongoing so the question is how do we check if you will this collaboration between AHRQ and the need that systems had for real-time data so I pulled a few questions and interestingly these are questions that we touched on a bit this morning. I am channeling Lucy and how do system leaders among staff so in your Academy health session I heard you talk about that and I am I think that is important and we have heard that in conversations that that is important we talked a bit about that this morning on this issue and we have a research paradigm that is a 3 to 5 year model of funding and grants that will produce valuable research that answers the question and I think in a session we convened at Academy health we ask the question how can health services be valuable to systems but how do systems embrace that opportunity and how does health services resources change in order to produce real-time value? What are some of the methodological changes and what research questions need to be answered? We can

talk about these but I would like to focus on these questions because they get at actually the tension that is in place as we think about traditional health services and research training where the incentives are to produce researchers who live in academic health centers for the most part and who produce research folks who will become academicians. This is counter to the public repair side of it and oftentimes those two issues are at odds. Is there in the competitive environment that exist is then an opportunity to help researchers deal with system learning and most importantly coming back to a comment made earlier this morning what are the metrics of success and how can we measure impact? For example is there a way that this resourcing system can admit is there value and exactly what would that be or return on investment and focus on quality improvement in systems and one other thing is I have think about is the P value issue which is what does it really mean to researchers general publishers and operations leaders that she issues a when do we know enough to ask the P values obviously we know what is a published as it relates to be values but when we have enough information from a system leaders perspective and when can that information so keeping with the theme of today I want to use these as a time for conversation and dialogue around the theme of health services research in health and development for important partners that relate to moving the needle in healthcare improvement and quality improvement thank you and first I would like to take a moment to complement the presenters today. I have seen many occasions where people promise and do all kinds of things that they are not going to show on the slides and the lead time for discussion and it was the first time in my life I've actually seen this happen. This is great. [Applause]

The truth in advertising gave me the part of this presentation precise but also the last meeting the incoming chair says that there are too many slides and we should have more discussion.

This is easy.

Anyway. We have some time now for discussion and are these new things? We will start with will and then Bob and then wait for others. I am sorry about making you put down your things. This might be a time where we would appreciate your [laughter]

I will try to a spot responded to two of the questions one is the P value and another is some of the methodologic questions that have been brought up. P value is a very salient topic because the business community makes a decision differently than the Journal of course and any business that waits to be 95 percent sure that something is true before acting will not long be a business. And finding that there is a temporal a disconnect between a research community and a business community and the business community of course want to be right. One little example that I think is illustrative was I did a project once with Aetna where we randomized people who had a heart attack to usual care together and the patients who got their drugs for free were meaningfully more adherent to their meds they had 11 percent fewer subsequent vascular events and on average Aetna saved about $1700 per patient but it was not sufficient and the New England Journal published it not as but a financially null finding and on the same day that article was published Aetna scaled the program with clear financial expectations budget and expectations and we are seeing a lot more expansion in insurance design particular around these very sick patients. If that is the case I think the research community held back or was slow to adapt to what was clearly an or a benefit for a business and for patients. I think that this is a very important and it will shine a light because you're finding research and as you are research interpreting research can have too much attention. [Indiscernible - low volume]

The other thing methodologically, one think that is very challenging and I think will be particularly challenging for the academic community is when we are testing things in the real world and we are testing a new clinical intervention and it is very rare that that information or payment model is either a

good eye or bad idea it is generally a good idea and the success or failure does not generally rely on some hack aspect of how it is being implemented and targeted and engaged. It, so the only way for these interventions to really work in the real world is to get real-time information real-time feedback, learn what is working and what is not working and made corrections to understand what does and does not work. It was a big issue as we rolled out payment models as part of the innovation center because most things did not work right off the bat and it wasn't necessarily because of aligning finances was a by the a bad idea but it is hard to make a necessary transformation in clinical track practice.

It forces us and I think it would be of great value if AHRQ had a position on this to make some decisions methodologically about how much rigor are you willing to give up to be able to make corrections? You do have to give up some rigor to say this is not going to be a perfectly controlled experiment. This is an experiment that by definition there is going to be some sort you will mess with scientific method in order to improve and in the absence of that kind of philosophy I don't think we will ever be successful in any clinical or payment intervention in this country. We will just be stuck with whatever we have. But, there is always pushback from an academic community and pushback and to the extent that you could help clarify what is reasonable to interpret and what are fair methods to use in this space of quality improvement where we make big course directions real-time investments that would be very helpful to those of us who do it day in and day out.

That is great. Clarifying around this P value academics, are you advocating for a Bayesian approach to this? Or do you want to get in an argument where you say you we ought to be use the P of .000 one before we sprint stuff that turns out to not be true?

Know I think it is more of an IH I philosophy. You have to think about the concepts. It is not as though there is not a number that is right. There is not a cut off that will be appropriate for all studies. You always have to think about the risks, benefits and when you are talking about not publishing but making a decision, it is about risks and benefits for the real population of business so I don't think there is a simple answer but I think any effort to come up with a simple answer is fraught conceptually.

There is no simple answer I would be happy if it was part of this work though and the specifications for how you make these judgments. At the time we went around saying about the diabetes prevention program why that was a scaled nationwide based on one randomized controlled trial and you made a compelling case for that and it was clear to me what CMS had in mind when we scaled that and you probably know more about this than I do but the considerations that went into that are an object lesson that has never been fully explored. Just to make my own editorial, this is fine as long as we are very clear why are we doing this and how to make the judgments. This is a follow-up comment. One of the things we are finding as part of the learning collaborative training program is our learning collaborative amongst the funded grantees in which we will pose these tough questions. Obviously harm and balancing arm is important as well as benefits but in order to get at this and in order to move the field forward in terms of how we can actually be relevant in health services research and in systems we have to actually confront these questions so that is what the part of the learning collaborative is in and I would like to come back to learning collaborative and hope maybe somebody will ask wasn't about what this will look like but if we don't get back, Bob you are up.

So as a epidemiologist clinician and decision analyst I have always felt comfortable moving in and out of this world and there is no question in C suite you are working on a Bayesian rule where you are trying to advance things and I see this as an and and not or and let me explain a few things. We were

worked very closely with our operations in a very learning healthcare system program. That includes all our CEO and CNL and COO and I were academics to on the one hand pragmatic clinical trials which are published and quickly and changed care not everything obviously is amenable to a pragmatic clinical trial as a decision analyst I get that early. But you don't have to give up rigor and it does not have to cost a lot. There is some very important meaningful projects relevant to leadership and you have to organize your self and try to identify. You can have that arm and that needs to be promulgated more across the country and more needs to be done because I do believe the rigor provides you evidence that others will want before you will be able to spread and as you said you have something more appropriate to spread. Is there a role for health service researchers? Sure there is and we do that all the time and we are trying to learn from each other. That just set not just success but related to understanding what your user and your client needs and is that is the chief medical officer or the chief of clinical service you just have to work closely together and one of the merits of these training programs that you are investing in thank you very much because we are the happy recipient to some of those but for 20 years we have trained people through the VA quality scholars program and we have 25 alums on faculty at Vanderbilt in both leadership and research roles and they all work closely together and they understand each other's paradigms and each other's perspectives on what they are trying to accomplish so I don't feel like you have to eliminate rigor but you have to understand the breadth of different study designs so wet the same time we have been developing this healthcare system of medic trials and clinical quality implementation research which works when all of the operations leaders and do it in a way that has rigor and can still be evaluated and that means the right measures and right metrics that have validity and reliability and you have a compare group and there are a variety of things that you need to mirror to pull that infrastructure together and if they want to go ahead like they did at our place with a different kind of soap that we were not sure it would work and they did and we showed them that they were wasting their money and they changed their mind and sometimes you use the natural experiments with rigor and sometimes you get prospectively through randomized controlled pragmatic clinical trials and sometimes you use other designs but you need the infrastructure and you have to build the culture so we had to put our runs around the operation people and bring them together to understand why this is important and why we can gather evidence, show them winning examples of how it impacts them and I think that is an example but not the only example and I think you just acknowledge yes that some people will use Bayesian thinking at what is the backs next best incremental thinking that you have at the time and that is how decision-making works.

Is very helpful and it sounds like you are in a way advocating for a core curriculum about design and evaluation for this K-12 award as part of the collaborative because I don't think you can assume that knowing how to do this research that you have been discussing is widely implemented around health systems in the U.S. and possibly the grants have very compelling information on this but I doubt it.

That is a good point and again part of the learning collaborative each of these grants was started with a core correctly him and there is much to learn about what a core curriculum looks like when upright applied and we expect that to evolve and part of this project to disseminate and implement those curricula in a settings beyond just this one program. To be frank having seen the RF fee and having responded to it as a member of the team it was easy to regurgitate competencies from the report and there seemed as I look to be a real gap between understanding what actually wanted to implement and evaluate as opposed to we have a course that's going to cover all these curriculum and in fact I think a lot of people thought these were grossly inadequate for the purposes we are talking about.

I would like remarks from the chair again. I think we are up to Monica now.

Thank you. This is Monica Beek and a brief comment about early dissemination and implementation. I think a lot of this work at nine national scientific meetings and abstracts would help tremendously of more journals were open to getting works in progress so it is not that it is inherently counter to publishing full manuscript it is just that there is a hesitance and you can do both but people would like to still finish products and so to the degree that AHRQ is able to support that philosophically or sponsoring journals in collaboration with other agencies that highlight progress in the field early works or what ever that get to this point of early dissemination and implementation of findings around a core content area you are interested and would help investigators be able to have everything they need for competent submissions.

All right. I was just doing a time check. Is a quick

So just a couple of comments the first is that people are good at doing what they like to do and what they know how to do and one of the things that has been missing is the capacity of the people who are actually knowledgeable about it and will skill that doing the kind of research that we have been talking about all morning such as rapid response flexible etc. and in a way I think this K-12 program has a possibility of showing a whole that exist now and that probably offers the best hope for training people who could do this research well and that will actually be useful to health systems and providers etc. It probably hopefully anyway if it is done well it could lead to a cohort of people able to make trade-offs between for example rigor where this peed this information should be rigorous and I understand but the trade-off between Wendy do you stop seeking more rigor as opposed to just getting information you can use and the trade-off between the degree of certainty that you need as captured by things with the P value versus I think we know enough at this point to move forward and do something. These trade-offs are very implicit in any effort to have research that is used that is very practical and applied ways and all of these trade-offs are required but I don't think that the standard researcher really knows how to make those trade-offs because they are trained in a particular way and to use language that Bobby used and I won't repeat myself but I think this is not either or it is actually both and so both types of research are necessary and both types are important but the second type of research has not had experts in it and if this were to be a successful effort I hope it would be one that would continue to grow because these folks will surely have a place in institutions and systems seeking to provide care. The final think I will say is that I hope this initiative is actually carefully evaluated because we don't know what is going to turn out so one of the key things that I believe you need to do is to as you train these folks really evaluate what they are doing and evaluate whether they are making a difference.

That will pose an interesting challenge right away on embedded research which is the degree to which the evaluators go to the firewall and say okay you failed or you didn't and I as opposed to working with institutions that are funded so they understand what the design is and what the evaluation will be and can harmonize so that the evaluation actually makes sense so that is part and parcel of the job and just a quick word on the plan and evaluation again using our learning collaborative and expertise that was required to be part of the grants we will put together a plan that evolved as the programs evolve to do the evaluation on the inside and to both learn that's not the only way to do an evaluation but that is within our resource constraints and we do hope to be able to identify metrics of success I think is a you are exactly right. We are not clear what those metrics are and how those metrics may vary based on our traditional training portals which by the way we are not abandoning and we have learned a lot about what success looks like in those and we will marry that knowledge as far as what the metrics are in these types of programs with Ayers focused specifically on success from the perspective of the system.

So I will talk about the first three and think you will for doing the first four pick first one is something I felt strongly about Chuck Friedman have been on searches dealing with this first issue and the extent to which we believe in these lending help systems that are with embedded research generating evidence that is not necessarily published. There is very timely evidence that exists there and so the extent to which he can find some kind of communication mechanism and Chuck talks about a standardized template for text and things like that there is way too much where we have data representation where we can synthesize what we know and gather it with the emerging evidence coming out and that is one way to make it more relevant and we haven't really thought that through. The second competitive environment and he and I have been involved in the high-value healthcare collaborative which is a collaborative delivery systems that came together because we believe that there are some issues that require larger issues of learning. Healthcare system network is the same thing and I think there are ways in which delivery systems can come together and the third one on the metrics I've been working for the last three years trying to develop metrics around impact for value and it is very important in speaking as an MBA person to get away from all lines because not everything is quantifiable and in some cases the value of the quality improvement can be perceived in interest and unless you are looking at it it in a more holistic way meaning that I am hoping that that is one of the things that comes out of this cooperative learning.

Great. I do believe those two collaboratives are good models and all I could add is innovation collaborative among 13 or 14 initially large healthcare systems designed to see whether or not you could task and then spread within those system innovations from other develop countries and what I think we have learned from that is having a really pretty firm structure in facilitation around it with a good advanced evaluation plan that is being evaluated from within just as you said that it turns out it is very tricky to keep people on track and to have evaluators in the organization working together in meaningful ways so it is definitely part of this you should be finding out what the learnings are from those three networks. There is a cut and paste way that learning systems are put into grants and contracts and somebody goes into Hello and pulls out something called the breakthrough series collaborative things and they plop it into an our people the people try to do it and that's not all but this is obviously this is an innovation learning system so that was a helpful comment and I see you shaking your head so I think now I have passed over Jerry inadvertently. Go ahead.

Just a quick comment. I think the focus on culture learning is great and when I talk to see sweet leaders what their current czar is that they have perhaps some great leaders at the top and as you start drilling down into the organization the amount of knowledge and experience is quite weak so I think having that curriculum but maybe having the curriculum that can be transferred to those lower levels even within large systems as they drill down to regional medical directors there is a huge gap in their ability to understand these concepts and then apply them so having, if you have thought of that as part of your charge I think that would be applicable to see sweet.

C suite.

[Indiscernible - speaker too far from the microphone.]

So I have a question. I will ask and hopefully my asking it will be helpful for my agency, research colleague at CMS we are very interested in improvement and improving outcomes and we are also very mindful of administrative burden as you may have heard so we are curious to know when we think about that word dissemination especially early dissemination and encouraging it thinking about what are the impediments that might be operational aspects and what does it take to implement? To what extent if that can be thought of I had of time maybe it is not for AHRQ to do but maybe in

partnership with others, does that factor into the calculus we have something that we want to implement early and yet evidence is emerging. What will it take to implement and what are the resources to implement and rounding with involving patients and what does it take to do that? So I am just curious about what people's thoughts are about that aspect and barriers and defer to Paul and Francis so there are folks on.

[Indiscernible - speaker too far from the microphone.]

Thank you. Karen. One comment and follow-up to Sherry as I think some standardized ways to think about estimating impact in the system would be helpful and with tools that can be applied by systems that may not have the same depth of certain expertise. I also wanted to ponder that maybe there is a need for a HRC to think about this being a research partner between academia and health systems it seems like we have talent in one place looking for a study situation and in another place when you are on the business side having access to sample agreements for data use and data collaboration and having that groundwork already laid out will give you a little cover and protection from someone who is actually done it before would be very valuable.

Great. So I think Sherry asked an important question and I would say absolute Lee and I think a challenge that we which is a new challenge for the daughter of electronic health records you cannot implement anything without effecting the workflow in the HR and if you are in most organizations you have great ideas you have your metrics and people lined up and then they say wait in line for 12 months while we fix the HR so that is a huge problem in terms of actually putting this out. More broadly I think that in terms of integrating the C suite thinking would help serve with research and we want I think a barrier that we have in thinking about health services research cannot be something that someone else does or funds. It has become a poor part of Sith of operation and the actions of these training programs is you don't necessarily find but it is by the number of people you have actually embedded in operational systems standing from these training programs would be an important outcome. Terminology can be important calling something research versus a delivery science and how that is perceived I think that is another aspect and ultimately you want to see this as day to day that this is something in health systems that needs to be done. In terms of what systems need for those implementation barriers, I think the potential impact of a locally generated evidence is huge. You can have the most beautifully divine design clinical trial but it can be hard to apply so simple studies could be replicated quickly to reinforce this just isn't happening in California and New England. This these numbers make sense in a net in our particular patient population that is usually hugely impactful and the other thing is evidence that allows contacts dural tailoring so rather than having a fixed tools kit and say implement this come up with a set of 10 best practices that you could potentially dial up and down according to the system environment what might work in 3 to 4 versus a large system with 50 hospitals but as you get to the precision medicine, what factors can you tailor to the individual patient? The critique is you are always given a set of tools that is too broad or cannot be applied to the matter at hand and I think all of those are the next horizon as I see it for what the systems are.

David.

David Atkins and I wanted to echo Bob's point out it being and I think that there are three things AHRQ can do and one is to build on the examples that Bob's side has done and the VA is also working on this about how to continue to do rigorous research but using natural experiment or more rapid designs so it is not a choice between a four-year project. The other though is to figure out how to make our QI methods more valuable or more reliable in rigorous and I remember when I was the one thing you can do is bring the QI world and health services research closer together and for all of

the researchers taking too long there is also plenty of lousy QI that is being implemented and we have to figure out where we can help if not telling people not to try something but at least helping them go back and test whether their assumptions are actually borne out and the third is the issue of creating incentives for people to do this live in both worlds where academic promotion is the tide to publication and I think the things that a HRC could do to help that for people who are living in world where publication in the world is to think about ways to measure the impact, create honorees or rewards to reward people like that and to create funding mechanisms where the other realm is funding so if you can get funding but to do stuff where the end goal is not necessarily publication but just an improvement or a training than those are two things that will attract people to live in a world where they no longer have to live by the standards of their journals.

[Indiscernible - low volume]

I wanted to respond and echo where Andrea was but with a few more comments back to Sherry. Number one, how projects get prioritized I found in most medical systems number one there usually has to be a champion. I would say often it is personality driven so figuring out who are those champions that you would need to touch and convince within those systems would be very important and the second part is IT. Most health systems IT systems are way overloaded and you have to give them or get into the queue to get a project approved so anything that you can do to make it easier on the IT folks to say yes and anything you can do on the measurement front the evaluation front serves it up to them so it is easier for them to implement as opposed to taking hours.

I have one last comment on the need to merge queue I and health services and there is an opportunity and the standards set for our health systems in getting those closer and potentially off so looking at it from a policy perspective actually written in law and to determine and regulation in different states that are then required by health systems to implement.

That is a valuable dialogue. I have a few comments of my own and synthesizing a lot of what you have heard already. This is really important experiment. This is novel, it is creating an infrastructure for something that I hope will grow and be a fabric of health service research in the future and a flagship. With that said there are four tracks I see for the K-12 what I call them? So here they are. First most organizations don't really have a clue how to use these people honestly I don't care but they are going to tend to do one or plug them into something already going on and that is not necessarily good learning. It is okay as a facet of their learning but that will be a temptation. We want to succeed we have this going on you go do that so they don't get to design create into all of that. Secondly we don't want to plug you win so you have to learn from developing your project so good luck with that and you try to build all of your relationships the time is limited and you have to do collecting known data find the data source and that is a threat on the other and and the third would be a lot of these are based upon data big emphasis on large data sets and on whatever it happens to be so you go to this relatively small and relatively non-strategic secondary analysis and we have learned something in health systems you learn from the data and finally it will be very hard to align projects and fellows with strategic goals of the organization. The organizations attend to force any old project into the strategic goals or the driver diagram or whatever it is they use without really respecting the fact that it is contribution to meeting goals is very minute so those are four things and there are two issues that are learning system wide. One is the spreading of the innovation piece. I think you are going to have to have a common curriculum about what are the attributes of a scalable model or an innovation and how do you go back to think about what is scalable and how it is scaled and I don't think that is probably a big feature of the proposals and I know in the Commonwealth funding everybody wants to spread to 6G let alone to the entire health system let alone to the countries of thinking about what that

means to scale up rapidly is a big issue for common curriculum and there ought to be a common curriculum. You don't want to leave it or you want democracy and all but there is probably a certain number of core curricular items that you don't want to leave to chance and you want to make sure that everybody participates in here is the same message and then finally some issues where I can read my own writing and this is about measurement and we face this in the fund grant and it is my true in most learning health systems how do you take diverse projects and diverse fellows and roll it up into some metrics up whether or not they were successful in the program and that is very hard that is a totally tough challenge and then how you would to demonstrate the added value of the collaboration. Everybody will give it a level I and we had a great time but did they really get added value? Did they learn and implement fast so think about that and again some of the fault might be able to help you so those are just observations based upon personal experience and they may not be the right ones but these folks were talking.

Me I react to that a bit? I think there is always a risk that any of these fellowships will or will not be perfect. I did one of these GIM health services research fellowships and I spent about 16 months meeting with people and looking for data set with almost no sense of what I was going to do. Not going to a meaningful meeting within a health system and learning how the businesses work thing or learning how programs are being implemented wandering around. I would say that you need good mentor ship. You need a good sense you need a good curriculum I would like you to participate in the act technical expert panel for the AHRQ solicitation so that I know there is a very clear set of expert nations around a curriculum that these fellows will have and a basic set of skills that they will be expected to learning classes and be expected to take the risk here is so much lower than the risk of just having a useless general scholarship where you by definition and you will be a part of something you will be even if it is not necessarily the most interesting program or project it is going to be yours and you will be a part of it following it from the beginning to the end and you will care about results and you will be connected to the patients and not just trying to write a paper about really focused on your contribution. I would think as I think about it this is really going to be a much lower risk scenario than any other existing health service research scholarship and for the public record I was not being negative at all I was just saying that these are things you can anticipate and mitigate so it will be the best possible experience. I don't know about the latter statement about P 32's. I think if they are properly constructed and men toward they are great things.

[laughter]

Okay. José you had your hand up?

One quick comment. I hope that will is right but I also want to to point out there is a certain irony because much of these things in many meetings that I have into their has been the lamentation about how conventional or traditional health service researchers want to do the type of research that can help health systems and over the last 10 minutes all that I have heard is the barriers that health systems face to using research even generated by people who are there internally and who have been trained to do that research so there is a tremendous irony in the lamenting that traditional academic researchers are not helping and I am hearing that perhaps there is an immunity to be in health.

Yes it is interesting just to give up blood for the RT 32 program of all of the hundred 40 or so people that have been trained in pediatric health services research, a rather large number of them are now actually embedded in healthcare delivery systems doing health services research often with a pragmatic twist but I think that depends on the kind of environment and culture and curriculum and if

you say there is nothing in there about implementation and dissemination and those types of things they will end up at RTI.

That is good by the way.

Okay so I think we have reached our time limit. There were no public comments apparently that were signed up for so without having public comments we are exactly yes?

I have been to a lot of these meetings and I have to say you did an excellent job at my expense the entire but time but thank you for your work here. [Applause]

Thank you very much. I actually think that dialogue like this are the reason why I keep so involved in coming to these meetings and the kudos really go to Paul and Janie who created it the expectation that this would be a vibrant meeting and challenged me to make it interesting and engage you all and I think everybody in this room except for poor Chesney any last words of Chesley?

[laughter]

Thank you for inviting me. [laughter]

I have known Chesley a long time he is one of the most collaborative and forward thinking innovative folks that I know and I am very glad you could attend so thank you all. There are a lot of work. We gave you a ton of work and we were not kidding because I think I am still a chair for a while and I will be asking accountability and all that stuff so we will have a really great meeting next time at which we get to sift through all of the decisions that you made and the work you have done. Thank you.

Thank you.

The next meeting is November 15 if it is not on your calendar.

[Event Concluded]
