BREAKOUT SESSION

Implementing New PCOR Evidence into Practice: AHRQ's Experience and Lessons Learned

Moderator:
Arlene Bierman, MD, MS

Speakers:
Katharine Bradley, MD, MPH
Deborah Cohen, PhD
Cynthia Klein, PhD

Discussant:
Therese Miller, DrPH

SESSION TRANSCRIPT

Post-Production FILE

CLIENT
PAM19-Breakout-Day-2-Implementing-New-PCOR-Evidence
SEPTEMBER 20, 2019

Transcription PROVIDED BY:
PostCAP, LLC
www.CaptionFamily.com

* * * * *

* * * * *

>> Good morning, everybody. Thanks so much for coming to this session on implementing new patient outcome, research, and the practice AHRQ's experience and lessons learned. I'm Arlene Bierman and I'm moderating the session. And I'm the director for the center for evidence and practice improvement at AHRQ that oversees the dissemination and implementation of our portfolio. So AHRQ is mandated in legislation. It says that AHRQ in consultation with NIH shall broadly disseminate the research findings that are published by PCORI and other government research relevant to comparative clinical effectiveness research. So that's a broad task with a very modest budget. So we needed to figure out, you know, how do we prioritize and what should we implement and how can we get the best value from our investments. So we developed a structured process with public nominations. So we have received nominations from PCORI, from other federal agencies NIH, CDC. We've gotten nominations from the public, from professional organizations, other researchers, so we've gotten a broad range of nominations. So we developed a 2-step process to determine what

we're going to fund, and for those of you -- I'm going to give a real broad overview of the process right now. For those who want more information, there's a reference here. We had a paper published in Medical Care this week that goes into detail about how the process works. So we received nominations, and the first thing we do is assess the strength of evidence for the thing we want to implement. So how strong is the evidence? What are the gaps in practice? And what is the potential population impact? So once a nomination kind of passes that basic cut, the next step is to assess the feasibility for dissemination and implementation into practice. And you know, when we first started, we assumed we would then get the evidence for implementation strategies, and we quickly learned that often it is missing, especially if it's newer evidence. So we had to come up with a way of different approaches to vetting the feasibility of implementation and the three projects you're going to hear this morning actually all represent different stages of that. And I'll give a quick, you know, overview. And then clearly, we fund the projects, but most importantly, we evaluate, and the other thing you're going to hear this morning is three different approaches to evaluation, because I think we all know the health system have been doing quality improvement for decades and there's still huge gaps in practices. So something is not working. So what our goal is to learn as we implement and really to integrate quality improvement with implementation science. You'll hear three different approaches to doing that. So the three projects you're going to hear about today all took different approaches, had different aims and are different stages of development. So the biggest one and the one that's complete is EvidenceNOW, which attempted to do cardiovascular risk reduction -- risk factor modification in small and medium-sized primary care practices. And basically what it was was improving cholesterol control, hypertension management, soaking sensation and using aspirin when appropriate. For this one, what was interesting was -- so there was strong evidence, right? We know there's evidence for all of these interventions. We know they're underused and can have a

big impact on population health if we improve performance on any of these measures. And there was also evidence on implementation in term of there were, you know, examples -- one of the most notable was Kaiser Permanente improving hypertension control. Both of them were in big integrated health systems, academic centers. There was very little, how do you do this out in the community. So EvidenceNOW consisted of seven small and medium-sized practices -- seven collaboratives, state and regional collaboratives of small and medium-sized practices and ended up enrolling close to 1,500 practices across the U.S. so Deb is going to talk about that, and just so people know, I think one of the things that EvidenceNOW has also done in terms of dissemination is produce a very valuable resource called tools for change which includes tools developed or used by the cooperatives, both for the implementation of the clinical evidence as well as for practice facilitation. So these resources are available to everybody. And a lot of learning about what does it take to provide the capacity to improve care in small practices. So TAKEheart is very different. It's the other end of the spectrum. And this was actually nominated by the CDC. Again it's linked to million hearts and Cynthia will tell you a little bit more about this. It's to increase the uptake of cardiac rehab nationally. And the goal of this one is to scale and spread evidence-based interventions across the country. So it's also a test of how do we scale and spread. And what was different about cardiac rehab is so there's strong evidence for cardiac rehab. It reduces mortality by 30% and readmissions. It's incredibly underused. There's huge disparities in who gets it. There was also really strong randomized control trial evidence on how to move the needle on this. It's automatic referral with a liaison from the hospital. So we had something concrete to implement. And on top of that, CDC had already developed a tool kit for improving cardiac rehab, so we didn't have to do that as part of this. So we could hit the ground running by implementing the tools already available from CDC. So Cynthia will talk about that one. And then finally, we're just about to embark on funding on Unhealthy Alcohol Use initiative which is aimed at getting small

and medium-sized practices to improve their screening, diagnose, and management of alcohol abuse in primary care. And this one was again very different in term of when we did our feasibility assessment. There's strong evidence for screening and brief intervention. There's strong evidence for medication and therapy in primary care to treat alcohol abuse. There's very little evidence on how you get practices to do this. Of the evidence that is out there was developed by Katharine Bradley who is on the panel who did the SPARC trial which was also funded by AHRQ where there were a lot of lessons learned. For this one, we're really trying to -- we have the hard evidence to implement. It's really about integrating behavioral health in primary care. And all of the six projects that will be announced shortly that we're funding are really taking a rigorous approach to testing their strategies for implementing this in practice. So our three presenters this morning are Deb Cohen who is a professor of family medicine at Oregon Health and Science University School of Medicine. And she's a PI for ESCALATES that did a rigorous mixed method evaluation independently of the EvidenceNOW cooperatives. Cynthia Klein is principal associate for Abt Associates which is the lead for our TAKEheart which is scaling and spreading cardiac rehab. And then I talked about Katharine Bradley and her SPARC trial who is going to do it just with -- notify she was funded to do one of our alcohol use grants, and she's a senior investigator and general internist at Kaiser Permanente Washington Health Research Institute. I'll turn it over to Deb.

>> Thank you. That was a great introduction and thank you. I appreciate having the opportunity to talk with you all. So I'm going to give you a brief orientation to EvidenceNOW. Arlene has already done a great job. And quickly walk through some of what we're finding. I want to say that while the EvidenceNOW initiative is over, our evaluation and analysis of these data are still in process. So some of what I'm showing you is sort of on the cutting edge of what we're learning. So as Arlene suggested, Evidence Now was an initiative that was looking at testing and learning and expanding this idea of the primary care extension. The primary

care extension was written into the Affordable Care Act but was an unfunded mandate. It's based on the idea of the agricultural extension. We apparently have a very not nice view of what farming was like, but the agricultural extension in the early 1900s transformed the farming industry in the United States. The way they did that was by putting boots on the ground. They developed a national network of agriculture extension agents who got out and worked shoulder to shoulder with farmers to transform for better or worse depending on who you talk to, our agricultural industry. It is one of the best ideas that apparently has been exported from the United States to other countries. And this is the idea that is being tested and expanded to primary care. So as Arlene told you, the focus was on building practice capacity and improving the ABCS. I'm not going to go into a lot more detail on that. But AHRQ funded seven regional cooperatives, and they span the United States. They were tasked with engaging over 200 primary care practices in their region. They needed to be smaller, less than ten clinicians practices for the most part and not have an internal source of quality improvement support. And here you can see that there were a range of single and multistate regions including the five boroughs of New York that were engaged. And each dot represents a ZIP Code in which there were some practices engaged in EvidenceNOW. So the cooperatives were largely successful at engaging their practices, and they got a nice distribution of urban practices, rural practices, medically underserved practices. They were largely solo and small practices, although there were a few larger, and there was a mix of clinician and hospital-owned practices as well as FQHCs and others. At baseline, the practices were assessed for their capacity for doing quality improvement as well as their adaptive reserve which is a measure of practice culture, but gives you a sense of the practice's ability to adapt to new challenges and changes. And this shows the baseline distribution on these measures. Both are sightly skewed to the right but there was good variation to the extent in which they practices were engaging in and using quality improvement strategies and the extent to which

they had adaptive capacity. In addition, it shows their baseline performance on the ABCS. You can see the mean was around 50% to 60%, although with fairly healthy standard deviations for some of these measures. So the idea of the primary care practice extension is to support practices. And a cornerstone of each of the cooperatives was to place a facilitator in touch with a practice. And they worked on several things. One was knowledge transferring training. So for example, they might talk with clinicians about how to handle the new blood pressure guidelines. There were efforts to train medical assistants in how to take an accurate blood pressure. They also helped with health information technology to the extent they helped practices get data out of their electronic health records and use that information to do data-informed quality improvement. And then they helped build motivation and resilience, and they also helped practices through essentially quality improvement cycle where is they were focused making improvements in area where is they had a gap in quality. They also worked on fostering connections between the community of practices and between practices in their communities. And they did this in a variety of ways. And they all did it in different types of ways. This is just our depiction of what a cooperative looks like. This happens to be Oklahoma. It gives you an idea of the kinds of partnerships a primary care extension might have to reach the practices in its region. So the university of Oklahoma was the prime. They had the facilitation work force more or less. They partnered with My Health and their regional extension which My Health was a health information exchange and the regional extension had worked with practices to help them implement EHRs and had folks that could help them now get data out of their EHRs as they were getting connected to the health information exchange. Then they worked with a number of other community partners and connectors to help connect practices in their communities with public health resources and other types of resource. This table gives you a view of what the practice facilitation work force looked like, how many were hired overall. There was almost 160 facilitators engaged in EvidenceNOW and each

cooperative was really quite different. Cooperatives needed to start with what they had already in their local resources, and you can see in one cooperative, they had organizations, too, that could provide all the facilitators that they need. In other regions they had to partner with 16 different organizations to build this facilitator work force. And there were political reasons for that. There are some real variations in that work force. I want to spend a minute talking about what facilitators do. So facilitators do a range of things. I mentioned that they were boots on the ground, in some cases to help practices with doing data-informed quality improvement. I'm not going to go into the data challenges, but suffice it to say, getting data out of your electronic health record, smaller than 12-month intervals to inform a QI process is challenging. They also helped motivate. Oftentimes they would bring together a quality improvement team to the practice and help them talk to each other to understand what they were motivated in changing and help them develop ideas for what they would try and change and improve. They worked through resistance and helped provide training and information. They helped support emergent leaders. Facilitators do an awful lot. They're a work force that's largely on the road. So if you've got folks that are covering regions, oftentimes they're spread throughout the state and never in a central office together. And we've got a paper we're working on revising and resubmitting that looks at some of the infrastructure that's actually needed to do this kind of large rapid dissemination and spread and support. Because these are folks that are often not in the office, facilitator tool kits are needed. Training is needed both in term of onboarding and ongoing training.

A lot of cooperatives that didn't have them developed support structures for the facilitators and those organizations that had done this before, where this wasn't their first rodeo had already had these kind of support structures, where they were bringing facilitators together for peer to peer learning, supervision. They did shadowing. These are folks, it's really hard to tell if they're delivering a quality product to their practices. That ended up being quite

important to building this kind of infrastructure. So one of the things that each of the cooperatives tracked -- and I am going to take a methods pause in the middle. It's a funny place for it. I wanted to try to get some of the interesting stuff going -- was their touches. How many times did a facilitator visit and how long did they spend? That was both a way of monitoring and for us and other, it's something we want to look at analytically. So we have some information both qualitatively and quantitatively about facilitation. What we were learning from the qualitative data which we were able to access first was the variations that happened with regard to facilitation. Some cooperatives proposed to meet practices weekly for three months and that interval was not something that practices could accommodate. It was too frequent. It was too much work. Other facilitators took the approach of really spending a half day in a practice, and we learned a lot about what they did while they were there. I'm going to talk a little bit about that later. We heard a lot that some practices would engage for a few sessions, and then they would go dark essentially. And then maybe reengage with a facilitator or not. We were starting to get a signal that seemed like this monthly facilitator meeting for about an hour may be a little bit more was about the right interval where you could get something done and you weren't overstressing the practice. Our first run at dealing with these touch data was actually to report means and standard deviations for each cooperative. That I'm not even going to show you, because it wasn't really all that helpful. But because we were learning about these data through a qualitative lens as well, it was clear we needed something like this. We needed to pool all of the practices, and we needed a dot on a graph that was able to show us what level of what amount of facilitation did the practice get. At the bottom you can see months with encounters, the X axis and Y axis is the total dose they received. By blending our qualitative and quantitative data, we were able to overlay, sort of our understanding of range from extreme low to extreme high dose. I'm going to show you in a minute how we're using some of these data. I want to say this is not

the be all and end all. We have 5 or 6 different ways that we can manage, that we can develop or operationalize the facilitation, dosage variable and we sometimes choose to do different ones.

We may also simplify some of these categories as we're learning more about how this dosage variable is operating. Let me take a quick methods interlude. I'm not quite sure what I was thinking by putting methods in the middle, but here we go. AHRQ did really invest in a robust mixed methods evaluation and our team was committed both to the field -- we are of this field -- and we were committed to working with grantees. We had a whole aim dedicated just to rapport building, and it's important to state how important that was to our work. There is an awful lot of quality improvement being done around the country and some of it isn't evaluated at all. Some of it isn't evaluated at all. Some of it has a modest impact and we don't know why, because we don't study it. When we came to be involved in EvidenceNOW, we saw it as a tremendous opportunity to really learn and understand what could be done and how to do large-scale quality improvement, and we wanted to make the most of that opportunity. So we had ABCS' data quarterly. That measure was harmonized across the cooperatives. We had survey data that assessed practice demographics at baseline and a follow-up point. We had adapter reserve and QI capacity also measured pre and post. Those three data sources were all largely harmonized across the seven cooperatives. We had facilitation touch data that wasn't. We have harmonized that on the back end, and we had a lot of qualitative data. Importantly, we were following along with these cooperatives perspectively. And I'm going to show you why that was important in a minute.

We understood their trials and tribulations during recruitment, during implementation. We were interacting with them in an online diary. We were conducting site visits each year. We were interviewing folks on the team. We had a precious opportunity of observing a lot of their facilitators doing their work in the field. That's become really important and informed

our work greatly. Final lite last piece as we drill down is we used our quantitative data to select a purposeful sample of practices that varied in outcome change, those that changed and those that didn't, and we interviewed those facilitators and their practices, and I'm going to show you a little about what we're finding. Not for the faint of heart, we have embarked on an analysis called configurative computational methods, CCM is a bullion approach. It's not using statistics. And what we wanted to identify was the combination of practice changes, practice-related characteristics, and implementation variables that have led to an improvement in ABCS. I'm going to talk you through why we've gone this route, and I'm going to talk to you today about smoking and blood pressure, and disclaimer, these findings are hot off the press. What CCM allows to you do is identify the difference-making configurations that really distinguish a successful practice from one that's less successful. And the way I like to think about it is first of all it's a mixed-methods approach, and second of all, it really veers more qualitative. So CCM allows you to see patterns and data through pile sorting that as a qualitative analyst would be very hard -- there's too many cases. It would be very hard to do. The thing to keep in mind is that these piles don't sort in a mutually exclusive way. So a practice can be in one pool and they can also be in another pool. But what it tells you is what are the difference-making characteristics so you can understand constellations of changes that produce the outcome. So we're working with a much smaller sample, and I'm going to show you a table of blood pressure, but suffice it to say, at this point when we look at smoking, we're dealing with 60 to 70 practices. We have interviewed either the facilitator or the practice for all of them. We specifically asked them, so what did you change for smoking? What practice changes did you make for blood pressure? And that's what I'm going to show you today. I'll also mention and I'll show you the blood pressure table which you won't be able to see that well. We had good representation across the EvidenceNOW sample. This is smoking and let me tell you why we got here. This is what smoking change looks like as a mean over time.

Very small change among the EvidenceNOW cohort. I should mention about 1,700 practices in that cohort, and it represents 12 states, and it has managed to touch about 8.1 million patients. But what we were learning from the qualitative data is that actually this mean didn't seem to represent what we were hearing was happening on the ground. We convinced the quantitative team to look at some outcome clusters and this is what they looked like. Some practices made really big changes. Some practices got worse. Each line represents a practice. The colors represent the cooperatives. You can just see that there are changes all over the place. We wanted to understand what was going on here in a slightly more nuanced way. So in came CCM. So we asked all the practices what changes they made. The orange ones are the difference-making changes. So these are the changes that turned out to be relevant in changing outcomes in our analysis. Let me define those for you. Documentation is simply evidence that someone in the practice learned they were not documenting smoking correctly and reported working with a vendor or practice facilitator to change documentation behavior. A process improvement are changes to practice work flows beyond documentation that might include working with the clinician to make sure they're doing brief counseling and changing work flow so that MAs do something different basically to ask and assist. A referral resource is when we heard a practice say they were now giving information about a quit line or other resources and staff education were efforts to educate staff in the practice about the importance of smoking cessation counseling. Let me walk you through these results. I'm going to more or less ignore paths 4 and 5 because paths 1, 2, and 3 explain the majority of our cases. On the left you can see there are three different categories of things. The top four are practice changes that we heard about. The middle one is a practice characteristic, and the third group has to do with facilitation dose. What you see is one combination is that if you are a practice that has autonomy over your quality improvement process, IE clinician owned with process improvement, you can get a 10% change. These are the same practices. If you

engage in at least one of the different-making process improvements that we identified and get 20 to 25 hours of facilitation, you're also able to make a 10% improvement in smoking. And the same is true with a little less facilitation if you're referring to a referral resource. Those are practices that are probably already asking and offering some counseling but have now formalized a referral out for their patients. Interesting the double Xs suggest tracking a referral to that resource, whether or not a patient follows through is not particularly productive. It turns out to not help. The negative solutions in CCM are also important. So practices that didn't achieve a 5-point gain didn't do any process improvement and had a smaller dose of facilitation, were hospital or health-system owned which I'm going to come back to after blood pressure and really had a higher starting point. We think there was a ceiling effect. Actually I'm going to talk about ownership right now. So I'm going to weave in some of our other qualitative data and this is the value of the prospective analysis. Health systems as they were recruited to this were often voluntold they had to participate. Someone higher up in the ranks told them they were going to participate in EvidenceNOW. That's not really a great way to get clinician engagement and quality improvement process. Facilitators did not always work with health system practices. Sometimes they worked with the leaders at the health system practices and then they were left out of the loop in working with the practices. Health systems, even if they were engaged, often didn't have control over the change process, which made the change process slower and more complicated. They struggled with getting the data they needed to inform QI as they were slow to get this from the system. They might be told what work flows to implement which could reduce engagement even among the engaged and when staff developed their own change plan, these needed system level approvals. So they really emerged as a really different type of more complicated change process, and we believe this is one of the reasons why we're starting to see a signal in how clinician-owned and health system-owned practices engaged in EvidenceNOW. Quick

run through on the blood pressure results. So again, a very small mean change. We expected that with blood pressure. Blood pressure is a much more difficult outcome to change. It requires a lot more clinical change and patient engagement. This is what the clusters looked like. Similar but not quite as dramatic as smoking. This is what the practices in the CCM looked like. They're pretty well distributed across size, ownership, cooperative, and regionality. This is what we heard from practices were the changes they made and the orange ones are the difference-making changes. Blood measurement training, patient education, subsequent blood pressure check, taking a second blood pressure and documentation. Let me tell you a couple of these that aren't self-explanatory. The difference between taking a second blood pressure and a second blood pressure check, taking a second blood pressure is when you do that at end of a visit after someone has had an elevated blood pressure, you give them a little time to relax. Subsequent blood pressure check is when you invite someone who has had two high blood pressures in that same visit to come back for a nurse visit to just get their blood pressure checked. Documentation is important and interesting. The documentation change for blood pressure is so different from smoking. So in your EHR, there's almost always been a place to discreetly put your blood pressure measurement. Once you start taking a second blood pressure, and it's different from the first, practices need to figure out where to put that. And they need to figure out where to put it so it gets counted in their CMS outcome measure. That's what this documentation change is. It assumes there was a second blood pressure taken which is going to become important. These are the paths for 5% blood pressure change. You can see here most of our cases are explained through the combination of measurement training, training in MA to take an accurate measurement and either taking a second blood pressure or being an urban practice. Other pathways which are important are taking a second blood pressure check, again having autonomy over the change process, being clinician owned, and getting a good dose of

facilitation and the combination of patient education and practice stability. So if you don't have turnover in your office manager and clinicians in the past year, this patient education pathway works. But these last two only explain a very small number of practices. A 10% blood pressure change was explained largely by clinician ownership, having autonomy over the QI process, and that documentation change I was telling you about. And measurement training in a solo practice. So again, small ownership of the QI process. Other paths, which did explain some changes in blood pressure are the combination again of measurement training and a good dose of facilitation and taking a second blood pressure and a good dose of facilitation. Let me tell what you different work. Fewer than five visits with a facilitator and not taking a second blood pressure, less than five hours of facilitation.

Still a relatively small dose of facilitation and no practice change, 10 to 25 hours of facilitation and no presence of a difference-making practice change. Again, 10 to 25 hours of facilitation and being in a rural area. That is a little bit hard to explain. And the last two are again, healthy doses of facilitation and either registering outreach which wasn't a difference-making practice change and a lot of facilitation and really the absence of any difference-making practice change. At a very high level, what you see is the combination of assistance from a facilitator and a practice change actually leads to improvement, and when that combination isn't present, change is less likely to happen. In addition, this idea of clinician ownership is really relevant. It's one we're going to explore in some of our other analyses as well. Autonomy and engagement and control of the QI process, at least in this sample is quite important. So just to wrap it up, we're able to do this big complicated evaluation because I stand on the shoulders of an incredibly large and talented team, and because AHRQ has invested in the work to really understand how quality improvement works up and can be scaled up to how it works. So there's much, much more to come. And please check out our website, because that's where we keep -- that's where we post all of our past and current

findings. So thank you.

[Applause]

>> Thanks, Deb. I think it's so exciting to finally be learning not just did a big complex intervention work but what worked and what didn't, and so that we could learn in the future how to make these interventions more effective. Cynthia.

>> Hey, good morning. Thank you so much for the opportunity to be here today. My name is Cynthia Klein. I'm from Abt Associates and I'm a project director for this work. I am here to talk with you about an exciting new project. It's AHRQ's TAKEheart initiative. The purpose of this project is to increase cardiac rehab referrals, enrollment, and retention. This is the story of how we have taken PCORI evidence and put it into practice. Hopefully you'll see some parallels in some of the work you're doing as well. Just to give you a little bit of information about cardiac rehab. It's a comprehensive secondary prevention program. It's used to prevent future cardiovascular events. It's a 36-session program that includes supervised exercise, some patient counseling and nutrition and lifestyle education. And the intervention that we're focused on for this project is called automated referral with care coordination support. What the research shows is under controlled conditions, there are 20% to 30% of eligible patients who are participating in cardiac rehab. If you add in automated referral, it jumps up 70%. Automated referral is embedding that referral in the EMR system as part of the discharge orders, and it jumps even more to 86% with coordinated care support which is what we're calling the liaison now, which is having somebody connect, right, that referral after discharge. There are some really good reasons to place somebody into cardiac rehab following a cardiovascular event. What the research has shown is it reduces the cardiovascular morbidity and mortality by 20% on average, up to 50% in some cases. It increases the medication adherence. Also helps with the management of other conditions, and it's listed as a class one recommendation for the AHA and the American college of

cardiologists. Despite this really great clinical evidence, cardiac rehab is not being utilized widely. Only about 20% to 30% of those eligible patients are ending up in cardiac rehab post discharge, and a Million Hearts has set a national goal to get that 20% to 30% up to 70%. So there's a pretty big gap there. And what they believe is with the 70% increase, it would save 25,000 lives annually and avoid 180,000 hospitalizations per year. So if the evidence is strong and widespread, you know, why is enrollment so low? There's a few reasons for this. One of the reasons is our outpatient cardio -- sorry, cardiac rehab programs, sustaining those programs from an inpatient referral can be very difficult. The second is you really have to have leadership support for this and give it all the priorities of hospital leadership. This doesn't tend to be one of those that bubbles up to the top. And then the third, this is a 36-session program, so there are patient issues that come into play. There's real-life issues. There's time, there's motivation. There's barriers related to finances, needing to take off work to participate as well. To help some of these leaders out wanting to adopt this, there is a relatively strong business case for cardiac rehabilitation. What some of the evidence show its saved in health care utilization expenditures on average about $5,000 to $9,000 per year of lives saved. It reduces the length of long-term rehospitalization, and it is covered by Medicare and most private insurance companies. Really where we stand is there has been this identified gap in the health care practices. So from that 20% to 30% to that new national goal of 70%. There is an evidence-based solution, so there is in the literature showing this auto referral with care coordination is the solution to this or one of the solutions to this. There's a decent business case to establish with those business leaders to justify the implementation. And as Arlene mentioned and I probably should have had a slide in here, the Million Hearts and a national organization called the AACVPR have developed a change package. They have developed a tool kit. So they've got the tools to help hospitals be able to get there. This all really lays the foundation for TAKEheart. TAKEheart is a 3-year project funded by AHRQ. It's

designed to save lived by increasing patient participation in cardiac rehab. It's seeking to engage hospitals to implement that intervention. So those two key strategies. Now, the approach we've taken to scale and spread this initiative might be different than you think, so we're not with this 3-year initiative trying to move that national needle from the 20% to 30% to the 70%. We're really looking to learn at all phases of the project and how best we can prepare this initiative to be implemented much more broadly in the future. So we have five kind of key tasks or pieces of the puzzle for the project, and we have this lens of learning for each of them. So we have a task of recruiting partner hospitals, of providing education, training and technical assistance, creating a website, actively engaging a technical expert panel, and then have that monitoring and evaluation woven throughout. Our approach to recruiting hospitals is really thinking about how we can have the greatest reach and really what kinds of hospitals might be out there. So we are currently in the process of recruiting hospitals, and we're look at hospitals as falling into two categories. So one of the categories is a partner hospital. And partner hospitals to us are those that are really ready, willing, and able to take on this initiative, to take on that intervention and implement the two strategies. We are looking to recruit about a hundred hospitals for this initiative, and keeping that lens of learning in mind, we're doing it in two sets of cohorts of about 50. So our idea is to bring in 50 hospitals for our first cohort, which is what we are recruiting for right now through October, learn what we can through that recruitment, which types of hospitals do we attract, which types do we engage, and use that to then be able to inform our recruitment efforts for the second cohort. And we are looking not for the hospitals that are going to be most successful, most likely to give us large numbers at the end, how likely are they able to refer or increasing those referral rates, we're looking for a diverse set of hospitals. We want to look at hospitals that vary by geographic location, by size, by the types of patients that they serve, even by the degree to which they have system integration. So those are our partner hospitals. Again,

they're implementing the intervention. We also wanted to make sure we could scale this out a little more broadly, so we recognize there are hospitals that aren't ready to implement this intervention. Or I talk to one a few days out there, there are many hospitals out there implementing both strategies of this intervention, but they're still working out the kinks even in year three of the implementation. We also know there's hospitals that are maybe just starting their journey to understanding a little bit more about cardiac rehab and just need some information about it along the way. So we are looking to have about 200 hospitals and the learning community, and the learning community will have a little bit of a different charge. They're going to get the information and be able to learn from each other as well. The sale to partner hospitals for us is we provide them with individualized coaching and technical support. We really get them connected to the action plan that's in the million hearts change package. So we give them support for that. We're developing a high impact, it's a 12-month training program to learn the how-to of getting those tools that sit within the change package implemented within their hospitals. So there's about ten sessions over 12 months. We're connecting them to cardiac rehab experts, so they're not doing it on their own. We have a network of experts we're connecting to the trainings. We have 2 to 3 experts who are developing and implementing each of those trainings. On top of that, they're available to do the technical assistance. So there will be affinity groups on specific topics to help hospitals through the things they're experiencing as well. There's also the layer of peer to peer knowledge sharing between similar hospitals and some of the coaching and tools that are available. The sale to the learning community is a little bit different. We're here to give them the cardiac rehab evidence. They get that information, the strategies that are available, and they do have some opportunity for the peer to peer learning. So the plan is to connect them through the affinity groups. If they're having trouble getting it into their her which we know is a huge problem, we can have a group of Epic users and have them work through

together how they've been able to do this. And again the undercurrent through all of this is we are supporting that Million Hearts AACVPR change package. This is just a quick slide of just the difference between what's being offered to the partner hospitals and the learn community hospitals, and again we're looking at this through the lens of learning. We'll create all of these materials. We'll try out all these technical assistance methods in the first cohort. We're analyzing it along the way. We want to see what's the engagement with hospitals for this. We also asked the softball questions. Did you like the training? Was it long enough? Was it short enough? Those sorts of things. We're also following up afterwards and say what did you do after this training? You've had a month now since the training. What steps have you taken, if any, based on this topic. So we're really trying to learn and understand what's going on within the hospital as well, and we'll revise all of those materials and that approach for the second cohort of hospitals and then do the same process and revise again before these materials are made more widely available. One of the big pieces we're doing is to get the word out nationally around cardiac rehab. We're creating a website. The website is out there to make the case for cardiac rehab. What are the essentials? What are the benefits? What's the business case? It will also be a repository for materials, so materials that we create throughout the training but also materials that we may uncover as we're talking to different hospitals. They found ways to do this. Let's make that more widely available to other hospitals. So it's got kind of a search function, and you'll be able to dig for the information and resources that you need. And it also has a private part of the work -- of the website for our work space for hospitals to be able to share ideas that maybe they don't want to make public along the way. You know, we are continuing with our learning theme. We didn't want to start from the beginning. So we have a really active TEP. We have TEP numbers that range in expertise from communications to EMR systems to having sully implementing a cardiac rehab program within their hospital, and they're helping us along the

way at every single step. So they are not only helping us develop recruitment materials. They're out there helping to fine the right hospitals to recruit into the initiative. They're very actively involved in the training and technical assistance, materials, and even giving us guidance on the evaluation as well. So we have the technical experts and a network of experts we're calling on for various parts of the project. So very actively using that tech panel.

And then really our last piece here is the evaluation of how we're disseminating and implementing the efforts. As I said a little bit earlier, we're not looking solely at that measure to move the needle to 20 to 30% to 70%. We are more interested in, you know, are they engaged in the websites and trainings. What are they doing as a result of those things that are provided to them? What's the difference between a partner hospital and some of the successes they have and maybe one that's just committed in the learning community? Is the learning community better for some hospitals?

We're going to look to see if they're able to get up and running, their referrals, auto referrals getting it into the EMR system and getting some baseline data, and we can look at characteristics of the hospitals that we've recruited and see who is most successful in doing that. Really the goal at the send to say large hospitals seem to have these barriers and these are the kinds of things we're able to do for them on top of it. Smaller hospitals have additional barriers and really try to meet those needs, and everything gets posted to a website, all of these materials, all of these trainings to hopefully help further spread with a little bit more knowledge and information the initiative nationwide much that's all I've got. Thank you.

Oh, let me add one more thing. If you're interested in finding out more, we are in the recruitment phase for hospitals. Here's the link. I tried this morning. If you Google AHRQ and TAKEheart you can get to this page. If you have hospitals that are interested or want to see a little bit more and track us along the way, this is the best way to get to us. Thank you.

>> So does anybody have a quick question of clarification for Cynthia?

>> Hi. Ilene Sealholzer from Cleveland Case Western and Metro Health. The variability of possible benefits in health systems who serve different community, it seems to me, would be wide. You talked about the number that might be improved in general. But we know from some numbers recently that came out of data from the electronic health clinic, your ZIP Code matters a lot. I wonder when you're talking about this to people, where you see the most potential benefit of getting people all the way through rehab might be?

>> That's probably a great question to answer. We are really trying to look at some of those health disparities. We'll be look at ZIP Code and mapping some of -- that's how we're going to figure out the population that's being served. It's one of the things we're really taking a look at. We want to look across all of the hospitals and really see at this point. Thanks.

>> So it's good knowing from both presentations, I'm really interested to know about what you're doing for IRB and getting permission to publish this kind of work in the future?

>> I know for us, we have our own internal IRB. We plan on going through all the IRB processes and be able to publish and present based on the project.

>> We have IRB as well. Each of the funded cooperatives have their own IRB and the data they share with us is deidentified, so there weren't IRB issues or barriers to publication. We also don't have patient-level data. All of our data is rolled up at the practice level. So there's no patient health information shared with us.

>> Hi. From Washington university. I have a quick question about the training module you had for 12 months. Did you -- you're implementing that training. But how did you do it? Did you already go through the whole process of role playing and stakeholder engagement beforehand for that model that you have already?

>> So a lot of that is done with us a little bit in the development of the change package. Right? We're really doing more of the how to at the implement. There's an action -- I don't know if this answers your question but there's an action plan within the change package, and

it's lining up training modules to make sure and making sure we organize the training modules to most important first to go through and implement.

>> So developing the training module itself is part of your project as well?

>> Yes.

>> Okay. So Katharine.

>> So thank you all for coming and thank you, Arlene for inviting me this morning. I'm going to be telling you about two studies and three studies in 15 minutes, so you're going to have bear with me. It's going to be a pretty high level. First I'll tell you about the SPARC trial, which recently completed, was funded by AHRQ and then I'll tell you about the Michigan SPARC trial which is the follow on and embedded in there is a decision aid that represented a third study. So it will be pretty high level. Then we can discuss. First I want to start by acknowledging all of this work was done by a huge team named there as well as multiple funding both from AHRQ and NIAAA. SPARC was a pragmatic implementation trial in Kaiser Permanente Washington, and we were implementing two evidence-based practices. One, preventive alcohol screening and brief intervention or brief counseling recommended by U.S. preventive task force services and treatment for alcohol use disorders, which there are multiple evidence-based practices, but most rigorously medications for alcohol use disorders. What's unique, it's really fun to be part of this panel. What is unique about this, this is actually not care that your average primary care doctor thinks is their responsibility. So it's very different than blood pressure and smoking. Now there's obviously huge variation in primary care, so that's interesting. Our specific aims in the SPARC trial were to increase the proportion of primary care patient who is had unhealthy alcohol use identified and had brief counseling offered and to increase the proportion of primary care patient who is had alcohol use disorders recognized and were engaged in treatment. So we were addressing both parts of the spectrum of this condition that is generally not owned by primary care, but in a single trial.

This work was built on about ten years of quality improvement experience in the VA that we brought over to Kaiser in this trial. We were trying to implement essentially five practices, evidence-based alcohol screening, preventive counseling, systematic assessment for alcohol use disorders, shared decision making around the options and then engagement in care. We used three strategies, her tools which mostly targeted medical assistants and social workers with one best practice alert for providers for initiating treatment. We used performance monitoring and feedback, and then we used practice facilitation, very much in line with what was described except our practice facilitators that we generally called coaches really targeted in the design of the study, targeted stigma. We had worked with patients and providers to develop tools. We'll show you briefly and also then improving knowledge and understanding of the whole primary care team from the front desk person back to the primary care provider. We had a handout and one element of the handout supported primary care providers offering brief counseling, but the handout explicitly addressed stereotypes and stigma and so was focused stigma reduction. We also developed a YouTube video. It's available if you type mike Evans and alcohol and health, and it's an 8-minute whiteboard video, very funny and entertaining. We designed it honestly for staff and providers, but we said it was for patients, and it really educated the whole clinic. We used it in an all-staff meeting. The trial had a 1-year pilot and seven waves of step wedged trial that were staggered by four months. And now I'm going to tell you what really happened. That's what we planned to do. And what happened and this is typical of primary care implementation research is the primary care leader who had partnered with us left. The mental health leader said yes, I'll do this with you, but you must implement all of behavioral health into primary care with your small it is AHRQ grant. We said of course, because that's how alcohol-related care should be integrated with other depression, anxiety, substance use. We were crazy, and we did it, and we had a 7-item screener that medical assistants handed out on paper. Then there were assessments that the

medical assistant was prompted to do, again on paper. We learned that in the VA, have the patient put it on paper, and then it went into the EHR before the patient had a visit. And we initially just had the pilot study approved by the organization. We were at that time group health cooperative. We were very stressed financially. They were laying off people. They were changing leaders. There was very low morale. No quality improvement practices in primary care at that time, and at the end of the pilot, we got acquired by Kaiser just to give you a sense of the rockiness, and at that point, the leaders wouldn't agree to the whole trial, but they agreed to the first year of the trial, and they gave us nine clinics. So we had to stratify randomization. And this is what each clinic's experience of this looked like. These clinics -- there were 22 in the trial after the pilot, and they were all voluntold as you heard earlier that they were going to be in this. There was a usual care before they knew about us. There was two months where we tried to engage a local implementation team or did engage in all sites and then four weeks of weekly practice facilitation, and different than cardiovascular, we couldn't have done this work without weekly scheduled practice facilitation. And then a sustainment phase that was owned by my partners in mental health. There was a randomization date for each clinic in between the second and third, and I'll be comparing briefly usual care to intervention that lumped those two sides. This was intensive practice coaching. I should say we did formative evaluations every week. That was not only to gather all that learning, but it was honestly to support the coaches who were going to battle every day against very resistant teams until each clinic would have its tipping point, and I'll tell you more about that. We used a video and a handout and the checklists were hugely helpful in terms of a platform for shared decision making. And one thing we learned early on is that there would be these stories -- there would be an event that a clinic experienced, and we would retell that positive story, and those created tipping points in clinics, really dramatic tipping points, and those stories we told outside. That allowed us to get permission for the

end of the trial. That's one of our techniques now. One of the costs of lumping it -- of being where we were in this organization at this time and lumping it behavioral health integration, we were given one hour of provider training time for the entire behavioral health intervention which included suicidal assessment, a systematic assessment of suicidal thoughts and new work in that area. This is what we encountered when we reached out to the clinics saying can we set up a meeting? They would say yeah. How about this month? No, not this month. How about never? Is never good for you? And that was literally, I could tell you story after story. Much of our training on alcohol happened on that one little panel in the getting started guide for behavioral health integration for clinicians. It educated them on key facts. We had EHR tools, but we never got partnership support for a prompt for brief counseling, and we never had a prompt for engagement after initiation. We did have a best practice alert, and we had screening and monitoring and assessment tools. Performance metrics, likewise, we developed a bunch of performance metrics we were never able to take to the field. There was an auto metric on brief counseling and we used NCQA's HEDIS measures which were updated quarterly and had some issues with them. So they were not very meaningful. But we had a strong partnership with mental health. That allowed social workers to be transitioned to mental health clinicians and warm hand-offs were a key part of this work, and even though the primary care providers, leaders, were not engaged, we did get permission for the end of the trial. So this is my one method slide for the whole trial, and I'm just going to tell you some high-level points that impacted the next trial. First of all, because of identification, our intervention changes who is identified. So we wouldn't want to assess the outcomes only in the people identified with unhealthy alcohol use or alcohol use disorders. All analyses are done in all primary care patients. Measures are all secondary data. We have a waiver of consent and HIPAA waiver. So the counseling one was identified with alcohol use disorders and had brief intervention over all patients, so per 10,000 patients and likewise the treatment

measure was had an alcohol use disorder newly identified and initiated and engaged in treatment over all samples. We did general linear mixed models. I'll present some descriptive statistics and all was consistent with consort pragmatic trials. So this is what we encountered when we went into clinics. This wasn't just the first visit. This was every visit with the local team until there was the tipping point. It was really rather remarkable, but we don't have enough time to do this. You're opening Pandora's box. This is a research that others committed to, and now we're being forced to prioritize it. They actually called it a science project which I thought was cute. In the end, and this is across all 22, 25 counting the pilot clinic, "I would never go back to providing the care we used to," and, "This is one of the best things that happened to my primary care practice." I always tear up in this. People were so demoralized. It gave them meaningful work until medical systems in particular. So it was very, very neat. And I tear up easily, so don't worry about me. This is what happened with screening. It just dramatically, you know, we had prompts, the medical assistants did as they were taught. This is the main outcome at the bottom of the slide, and we significantly increased brief counseling as well as screening and positive screenings and high positives. Here's the not so good news. This is the treatment cascade, and when you look at the proportion of patients with unhealthy alcohol use who had brief counseling document it, and we used natural language processing or the HEDIS, soon to be HEDIS V codes and Z codes, only 5% of patients who had unhealthy alcohol use had documented counseling. So huge way to go even though a significant increase. Alcohol use disorders treatment, we did not significantly increase, but we did increase new diagnoses and initiation of treatment. So coming back within 14 days to initiate care, but we didn't increase engagement. And these are the percentages there. I'm not going to waste time. So successful approaches -- one thing we learned, it's much more effective to implement alcohol-related care as part of whole-person care. Absolutely, wouldn't do it any other way if I had the choice. Weekly was

necessary for practice coaching, we think and the stories created tipping points. The challenge, we didn't have any performance feedback or her prompts for our main outcomes. That's not ideal if you have control, and we had inadequate primary care training still and provider comfort which we heard about and learned about in our decision aid study. I'll tell but in a minute. So AHRQ last fall came out with an RFA that said this. And I knew everything I just told you, I knew most of it last fall. They said okay, we want to you do this now in three years, and we want to you do the same thing in 125 practices with no integrated her and no screening in place and no colocated behavioral health clinicians in a high needs area and write the grant by January 4. So I called around Washington state and tried to find somebody who could get me 125 primary care practices, and they said oh, we might be able to, but probably not because they've been in EvidenceNOW, the first one, so the upshot is one day, my phone rang. I decided not to apply. I was called by these people I didn't know in Michigan at Altarum. It was an amazing quality improvement organization. Anya Day, Emily Erlich, Tom Taylor, and Christine Stanik. And they said we want to do this, but we need your expertise. It was really a -- they reached out partnership. They have coverage. They have over 500 clinics in Michigan. Most of them are onesies and twosies as we call them, not a lot of EHR support. But they have practice coaches. They have a system of using CME and maintenance of certification credits and aligning with pay for performance to get clinics engaged. And they've documented great quality improvement. So I said okay, let's do this. It's crazy. So we have a 3-year grant, 6-wave step-wedge trial with practice coaches where we'll only be able to afford two in-person visits and every other week telephonic visits. So a big leap of faith this might work. This is to remind me to stay we start the main trial three months into the pilot which would not have been my ideal, but we're going to use the same things from much of the same from our first SPARC trial except that we'll have only manually extracted data at three time points instead of weekly. We're giving an incentive and hoping to

get 40% of the sites to give us electronic data which would allow more frequent, and then we're doing a very fun thing. We're randomizing. It's a step wedge trial of the 125, but we're randomizing 50%. We'll get a decision aid we just developed with NIAAA.

Funding. This is a brief overview of the decision aid. We're excited about t it's called options for people who are thinking about their drinking. So it does not label itself for alcohol use disorder. And it basically uses stories to destigmatize and engage and has angst option grid at end. It's a big booklet that is meant to take to the provider and on the other side, it has the reasons you might want to change, what you might want to try if you did want to change, and questions you have now. And this is just an example. I'll probably tear up with this one too, of a woman who came in. These were people who engaged in our research visit with their primary care provider, and we knew they had an alcohol use disorder, but they didn't know. That's why we invited them. And the patient said this gave us a guideline. She actually said to her provider. You should have given this to me four years ago when you asked about my drinking. She Tuesday gave us a guideline. It's hard to negotiate this sticky subject, and it made it a lot easier. I think it would be a good thing to hand out t gives you a lot of options too. And the provider said this was the most comfortable appointment I've had ever talking to somebody about alcohol. She was driving the conversation. I felt set up for success. So half the clinics in our step wedge trial will get that, and this is just a summary that it increased comfort, awareness, efficiency, knowledge, built motivation. Four of the five patients left with a treatment plan from this research visit which was not our intent. So in summary, we had a lot of lessons from SPARC that successful implementation required addressing the whole spectrum, not just one end of the spectrum of alcohol-related care, integrating it with other care, the checklist help, shared decision making was important, stories were critical. We need -- we're going to need more, obviously, both provider training and performance measures to get better. And that was in the wrong place, sorry. That got -- and then new in Michigan

SPARC is trying to align EHR tools and performance metrics with pay for performance that CMS is starting to do, increasing training time by actually having online CME module, using the decision aids and then we'll have huge new challenges in terms of time line, telephonic coaching, manual extraction of metrics, and should I say this is manual extraction of something that's not usually in the EHR. There's issues there. And then linkage to community resources will be key. Thank you, and happy to take questions if I haven't run too far over.

[Applause]

>> Any specific questions for Katharine? And then we'll do -- yeah.

>> So my name is Jim Bush, and I'm with Wyoming's Medicaid, and my compliments on the Michigan SPARC, because what we did was two separate trainings of ESBIRT. We spent hundreds of thousands of dollars training people in ESBIRT. And we increased the reimbursement for ESBIRT up to almost $75 if they were doing it, and we got about 20 ESBIRT referrals and codes. So what you're accomplishing is really telling, and I think that shows the importance of, you know, the PCORI and AHRQ research, because just throwing money and having people come by for trainings and certification is -- we have proven twice inadequate.

I'd might like to chat with you at some other point.

>> Appreciate that. Thank you for that.

>> Hi. Ron Myers from Thomas Jefferson University in Philadelphia. Regarding the last presentation, there was a comment early on about an effort to ask patients to complete something and that information being placed in the EHR.

I wonder if you might be able to explain a little bit about what that was and how that was done. And I think the other observation seems to be that one of the most active ingredients in your presentation and some of the others is this opportunity to have frequent interactions with the practices. The frequency of the coaches, the interactions that take place seem to be the active ingredient here. I'm not quite sure if I have that right, but it seems like that's a theme.

>> So, yes, and sorry if I was way too speedy on that. We did two particular measures around alcohol. One is called the audit C. It's 3-item screen and gives you a scale that goes from about zero consumption up to about 18 drinks a day on average, we know from other research. The other is something totally new. The audit C has been extensively validated both inside the VA and outside the VA and inside this country and outside the country. The next thing was completely innovative, although it was a research measure. It was a list of the DSM-5 symptoms are if alcohol use disorders. We call it the alcohol symptom checklist, and patients would just check yes or no. Have they had that symptom in the past year, so then the provider could say -- first of all, they would know how many symptoms and two or more is an exactly use disorder. Four or more are moderate alcohol use disorders where medications are known to help. The provider could say well, you tried to cut down, and you've been unable. Could you tell me about that? We used that as an entree into a patient-centered discussion, but it was also a diagnostic tool, and they both got put in as numbers -- scales into the EHR's discreet data.

>> That was completed by the patient at the time of an office visit or set up prior to the visit?

>> Oh, thank you for that. That's a lot of what the practice coaching focused on in our case was the work flow. So each clinic was different. Sometimes we brought the front desk into the local implementation team if they would, and some places, they handed it out at the front desk. Sometimes the medical assistant gave it to the patient. The patient filled it out. If they screened positive at a high level, so a 7 on the audit C on the screen, the computer, when the medical assistant put that in before the provider saw the patient, the computer told the medical assistant oh, this patient needs a checklist. They would give them the other form. That too would be put in. So a provider would walk into the room knowing they were counseling for prevention or likely an alcohol use disorder. They knew what they were teed up for. They would get the brochure attached to their paperwork if the patient needed

preventive counseling. So that -- and in terms of the frequent practice coaching, there's a nice review by Baskerville about practice facilitation as an extraordinarily effective approach to improving primary care. I think weekly is unusual, and I think it reflects the lack of ownership and knowledge and skill and the same need as other quality improvement to change the work flow. Most quality improvement requires work flow. That's where the practice coaches are really key.

>> Hi. I'm Emily Godfrey, from the University of Washington, department of family medicine, and I'm also a researcher. I'm really kind of speaking as a family doc. This is not my area of expertise, but we do very good screening, and I also have to say we have great mental health support for primary care docs at the University of Washington. What I find in my practice, what's lacking is I may be aware that someone might have an alcohol use. That's often not why they're making the appointment. Right? We're also suffering from a lot of stress, similar, perhaps, to what group health had in seeing patients very very quickly, and so the notion of the motivational interviewing, you know, despite being evidence-based is really lack of time. And so I find myself referring patients to our mental health, and it really shocks me how many patients do not qualify for being seen at the University of Washington and are given mental health providers out in the community. And that's really where the gap is for many of these patients. My patients and I get so frustrated. When I see your study doesn't include pairs, you know, it kind of makes me feel like -- you can do all this behavioral change training with primary care providers, but if we can't change that 15-minute appointment, and we can't change my own system sends my patient to some therapist in the community and that's where my patients are like I don't want to see a therapist in the community. How can we sort of --

>> I love that question for many reasons. Thank you for that. And I think that is, you know, the one more thing. I'm a primary care internist so I have many years of practicing in primary care, so I appreciate it from that point of view. I want to tell you a couple of things that might

be helpful. Because the U.S. preventive services task force recommends screening and brief counseling, that brief intervention that can be done by a social worker or a mental health person in your clinic, you can do a warm hand-off for that, and the shared decision making, and that should be covered as an essential benefit under all health insurance currently until somebody revokes the ACA. Other thing that's come down and is in that niche, and we used warm hand-offs in that, and I worry about Michigan, because we don't have colocated people to hand off, and we trained up the social workers. As an interdisciplinary team, and they were receiving the patient in a nonjudgmental way was key. But the other thing is there's a new billing code for collaborative care, which the University of Washington pushed through, but they also push through a coordinated care option, and mental health workers could do that with somebody who is not ready for treatment, that they were managing an alcohol use disorder and doing motivational interviewing to my read of the law. So there are billing options coming, and I like the prompt that in Michigan, we'll try to engage the pairs Medicaid and Medicare being two of them. Thank you.

>> Do you have a question in.

>> Sure. I'm Carol Mangioni from UCLA. First of all, congratulations, and it's lovely to see your work, Katharine. I have two questions. One was answered by you as somebody who is a U.S. preventive services task force member and was on this working group. It is a covered benefit. I'm also a practicing primary care doctor and feel the pressure of the short visit, but I would strongly encourage people to bring patients back for this visit and have this be, you know, the brief behavioral intervention to be a visit in and of itself, and it is a covered benefit. The other important thing that I wanted to ask you about was whether you have used or thought about the idea of using YouTube training videos to really spread best practices for doing brief interventions. More and more, and I notice especially among our residents, you know, whether they need to tape a foot with plantar fascitis or anything else, the first thing

they do is get on YouTube and see how to do it. So it's a dissemination tool, I think, that a lot of people are using, and in our own practice, we're teaching about red-flag alerts with back pain. We produced a bunch of YouTube videos that are like two minutes long and very easy to access. So I wondered if you have thought about that platform or have implemented it.
>> Thank you. The YouTube video that is the whiteboard is on YouTube. It's mike Evans, and interestingly, even though that's meant as broad patient education, providers parrot it. It's fascinating. You show it to them, and then you have them do a role play, and they'll parrot the video. I think it's a great idea for Michigan to turn some of what I think are going to be webinars into short videos, especially the patient stories and patient facing engagement tools so get to get information out there. Thanks for that, Carol.
>> I think costs are going to require fewer touches, but again, among our physicians under 40, YouTube is a touch for them. There's no way around it. So congratulations on your work.
>> So I'm going to keep my remarks extremely brief, because we would like to hear your questions and concerns. I just wanted to highlight a couple of themes that I think I've heard across these three presentations. So I should also give you a disclaimer. I work at AHRQ, so some of this has been motivated by my work as well. First of all, all of them are trying to implement new patient-centered outcomes research. I can't stress enough the importance of starting with strong evidence for the clinical intervention and as much as possible finding an evidence-based for the implementation strategy itself. Clearly we need a lot more research in the implementation strategies, but I think all of these projects were based on evidence both for the clinical intervention and as much as possible for the implementation strategy. Secondly, as Arlene mentioned, and I think all have demonstrated, it is extremely important as much as you can study as you implement so that we can further the evidence base for implementation, and that idea of quality improvement and implementation science mixed so that we learn, you know, who does this work for? How does it work? It's really critical to the success of these

projects. I don't think you heard many people today talk about sustainability, but when you look at the work, they really are trying to create either an explicit infrastructure in an extension service for primary care, but sustainable work force in coaches or practice facilitation or sustainable practice behavior like integrating behavioral health and primary care so that you're not just improving on healthy alcohol use but perhaps other behavioral issues as well. So I think that we didn't talk about it explicitly, but I think sustainability should always be there. Fundamental to all this work, I think are relationships, and relationships, whether they be to create an extension service, between a coach and a practice, between peer to peer learners in a learning community. I think those are critical. They take time. It takes a lot of time to build trust. So don't underestimate -- you're going to have relationships all along the way that will take perhaps different techniques but also time. I think another fundamental characteristic of all this work is support. So everyone has talked about the importance ever training and tools and resources, but again fundamental, how does that tool actually work? How can someone use it? So it's critical to provide the support or technical assistance as well. I think across all our project, that's been a critical, fundamental piece. Again, how you do that, whether it's peer to peer, finding a peer who could be the liaison in cardiac rehab to help enrollment and retention might be the solution or having a coach to go work with primary care services and who can provide training for the coaches and support them, there might be unique models for that as well. That shoulder to shoulder support, I think, is critical. Finally, you know, none of these are really going to be as successful as they can deputy we don't have the health information technology to support them. We knew using EHR is to do quality improvement in primary care would be challenging. I think we underestimated the challenge and underestimated the time it would take, whether you're just doing QI or if you're doing QI and research, the time it would take to be able to get data to do QI and to do research out of EHR was a greater challenge, I think, when we entered evidence now than any of us imagined.

So again, allowing the time and having the support, technical support, to be able to either create new fields in EHRs or simply get timely reports out of EHRs is critical to the success of these projects. So with that, I'm going to open up the floor and we look forward to your questions and comments. And don't be shy.

>> Hi. Sue Flacky from Oregon Health and Sciences University. Deb, I had a question for you. You mentioned adaptive reserve and capacity. I was wondering if those elements or indicators for practices were important predictors of the outcomes.

>> Good question. First just to clarify, those are two different measures. The QI strategies was adapted from the CPCQ which is a measure developed by Leif Solberg and his colleagues. The part we adopted specifically asked about the QI strategies that were being used and adaptive reserve is more of a cultural measure. We haven't done all of the analytical work yes, but what we're seeing is practices in the top tenth percentile of the highest reserve scores seem to be engaging in more practice facilitation than everyone else, which would suggest that these practices with adaptive capacity are able to engage in a change process more than ones that are lower. We are not seeing pre/post change in adaptive reserve, but that kind of makes sense. It's a cultural aspect of practices that involve leadership and communication and team work, and it isn't A, what these cooperative are necessarily working on with them, and probably something wouldn't change very much in a 12-month period. We are seeing pre/post change in the CPCQ. That's probably going to be one of the our strongest indicators that when you're working with a facilitator and engaging in a change process, that they are reporting post they are implementing more QI strategies. An example of that would be engaging your MAs in a screening process, take something work off the physician's plate and having someone else on the team doing that, like a standing order type of change. We are starting to see some changes in those. Some of our baseline associations are suggesting those things are connected as well. So it's a great question, and there will be more on that as we get to

publish more of our work.

>> Hi. Patty Eaton from Johns Hopkins. This is from Dr. Cohen. I was struck by your results about the clinician owned versus the large health systems. Right? My question really has to do with are you looking within your large health systems those that might have behaved more like clinician owned and what factors contributed to that?

>> It's a great question. So we have variation on the extent that the health systems would engage with us. We do know -- we are going to explore this both with qualitative and quantitative data. I think we're still trying to figure out how much we'll be able to drill down and answer that question. Health systems aren't all alike. So we have some that were smaller and that -- and that there were smaller subset of those practices that were engaged, and they really did work with the facilitators -- not our facilitators -- the facilitators differently. We know that. We can actually look at those -- we have mapped for each cooperative the health system, how many practices were in it, what facilitator they worked with in a deidentified way and how they worked with that facilitator. We're hoping to tease this apart. It's going to be a very mixed-methods analysis, because there's going to be some gaps in our information on both the quantitative and the qualitative side, but I think this is a story that we have to figure out how to tell.

>> It's very much needed.

>> Yeah. These small clinician-controlled practices are really able to pivot and do some interesting things when they get some external support.

>> Hi. I'm Jenny Meadows. I'm officially here as a caregiver, but unofficially I work for the Mitre Corporation and we operate for funded research for the government. I'm in the health center. I'm just starting a project with the CDC with the MBD DDD national center for birth defects developmental disabilities on alcohol screening and brief intervention in the her. So my question is probably mostly to Katharine, but it covers everything that all of you talked

about especially, Dr. Miller you talked about would help IT. In your study, I know Kaiser Permanente is Epic and you mentioned you had done some work implementing some of the things that you were doing especially the alerts in Epic is can you elaborate? Is that shareable information? Will Epic kind of allow that to be shared across other health care organizations?
>> Yeah, I'm not going to speak for Epic, unfortunately, because you I don't actually know that. We have shared screen captures in presentations, and I'd be happy to get you screen captures of key things. There is an Epic library, and what you prompt me to want to do is figure out how we could share that stuff into the Epic library which I know they do allow. Evidently, I've been told that they don't like people sharing across computers, and so, but I'm not up-to-date. I think you prompt me to want to -- we have a tool kit that's not yet done for prime time but to get what we did into the Epic library. I will tell you just kind of truthfully, what happened in our bill is everybody thought it was a science project. We had a pilot study, and we built a lot of it in meetings with clinicians and adapted it, and it was iterative. It improved over the course, but it got built with groupers, they're called, from other people's work, and then they edit their grouper, it breaks your prompts. So in the end, we had something ridiculous like, you know, 30,000 lines of code, and we're going to rebuild it to make it not break so often. It's breaking all the time. So that's just a lesson learned from me that you if do these iterative builds, you have to communicate with your programmers not to be using things from other people's builds, and the fact that once we rebuild it, it would be very sleek and better to share in the library at that time. That's why I went on that tangent.
>> I want to quickly Meng another resource. AHRQ also funds -- it's done by Mitre corporation, CDS connect.
>> That was my last project. I was going to mention that.
>> Clinical decision support. For people who are not familiar with it, it's an online repository in the public domain of all kinds of artifacts for clinical decision support that is publicly

shareable. So people should feel free to post and actually the VA is posting their CDS artifacts on there as well as CDC. We would like to expand that. That's one mechanism to share clinical decision support. The other thing we have in CDS connect is they have developed an authoring tool to make it easier to go from like an evidence-based recommendation to clinical support, to facilitate that. So anyway, just wanted to make people aware of that resource.

>> Yeah. That was great. And we actually plan on putting whatever we develop into CDS connect.

>> Great.

>> It will be there hopefully in about -- we have a very short time line. Wish us luck, but in about 7 or 8 months, we should be something in CDS connect. Your presentation was very interesting.

>> Let me say the fast thing I can do is share all our instruments and it's all in Epic flow. It's not the main components, and then it's just a few prompts for the MAs is a lot of it. I can get you --

>> I'll share my business card.

>> Hi. Leah Carlisle from UC San Francisco. Great presentation. So impressive, because I've done a lot -- I'm a primary care internist and a research, and I've done a lot of QI work and some QI research but not at this scale. So to do it at this scale is tremendous. And hit many of what you're all appropriately presenting is positives and also I know are huge obstacles. For example what, you're talking about in terms of builds within EHRs, and of course they're great opportunities to both pull data and get data in through tools and then figuring out how those tools can work in people's real work flow and be able to do that against different practices is so hard. So kudos to all of you that you're able to study this at all. I wanted to just comment on one thing for Dr. Cohen, around the hypertension measurements, because it strikes me that the improvements that are being made are in fact in measurement, which is

important, because of course, clinically, we can only -- we act on measurements, and we act -- it's better to act on good measurements than bad measurement, but not so much actually changes in people's actual blood pressure. Did I understand that right?

>> That's accurate. We had practice-level data. We had a 12-month study time frame. The measure for CMS is the change in the blood pressure outcome measure. So the clinical guidelines as I understand them, and you can jump in, is that you need to have three elevated hypertension blood pressure measures before you're diagnosed, and so the challenge with blood pressure is accurate measurement and then getting three that are clearly high. And that is a clinical challenge, and so in a 12-month time line, when your look-back period, we've got a rolling average of 12 months, it isn't really surprising that these practices would start with measurement training, and also taking a second blood pressure. I have thought about this a lot. I find that I'm not that upset about that. As somebody that comes into the practice worked up with sometimes borderline high blood pressure where my practice refuses to take a second one because they don't have time, I actually think that building that -- baking that work flow into a practice where you're not overdiagnosing patients and treating them for hypertension isn't a bad thing, but your point is totally well taken. Then there are going to be a subset of patients who truly do have hypertension and then that involves clinical treatment. It's interesting here that most of the interventions as the facilitators were working with the practices, a lot of them didn't necessarily get into deeply working with the clinicians and looking at how they were then treating those patients. There were some cooperatives that had expert consultation built into their interventions where they were specifically working with the clinical teams. There were others that developed these really great videos that were directed towards the physicians around guidelines and guidance. So they touched on that. But it wasn't something that we heard about in the interviews, because a lot of the work was done with the larger clinical teams. It's a great point.

>> If I may touch on one other issue that seems to go across the studies is around the -- both supporting -- we've done a fair amount of work to say okay, it looks like if we can take things to the team and not have the doctor have to do everything. But it turns out our team is really stressed out too. A lot of you mentioned the MA. Our MAs are completely overloaded with all of the new fabulous systems improvements we're trying to do and get depression screening going and alcohol use screening going and making sure they're taking the blood pressure twice, and it's actually been a real -- a substantial issue. There's a lot talked about, and I would agree there's too much to do in a 15 or 20-minute visit as the doctor, but the MAs are now also pretty stressed out and struggling with burnout because of all the things that now we're expecting them to do. So I don't know how to solve that, but it seems to me it should also be part of what we're studying.

>> Yeah. One of the things that we are actually studying burnout, and one of the interesting things that we found about our burnout measure is that our solo and our clinician-owned businesses seem to have less of it, and it's that -- our theory is that that is probably connected to this idea of agency and autonomy. At practices that seem to be involved in more of these federal programs, also seem to have higher levels of burnout which again fits with this idea of autonomy and the agency and feeling the work you're being asked to do aligns with meaningful work. So there's a complexity there that's absolutely worth investigating. Clinical team members do have more burnout. Clinicians do have more burnout than clinical team members but we're seeing a certain amount of burnout in the clinical teams as well, so your points are really well taken.

>> I think I have just one little comment to that, and that is in our realm, this was very much empowering work to our MAs, and there was no question that it was an antiburnout to empower them so if a patient was suicidal and had a high risk, Columbia suicide risk score, they would be able to connect the patient right away with the social worker. And so they were

really involved in taking care of patients the way they wanted to when they came to medicine. So we were surprised that it went the other way, because it was empowering and meaningful to them.

>> So I notice we're a bit overtime. A quick last question.

>> I'm happy to be quick and I just want to return actually to the issue of work flow and the governance of that work flow usually is electronic and software-based. I want to return for a moment to the electronic software which most clinicians work and the biggest one being Epic and sonar. For other smaller systems like e-clinical works and all scripts, and I'm interested to hear about the public domain tools you have in CDS connect. One of the things that was very prominent on Tuesday when we had a dissemination and implementation group here from PCORI, the same struggle was exactly there, trying to get changes and work flow introduced into Epic in those instances in those systems as well. And it seems to me that organizations like AHRQ and PCORI and maybe others really have a common theme here to try to make these solutions to work flow interoperable across systems. Because I understand that there's a bit of reluctant to move a solution generated here to scale it up to across different practices. I think this is such a common theme for so many projects, not only in antification of eligible patients but introduction of a third-party tool of any sort. We're all struggling with this. I'm wondering if there's time for a higher-level implicational policy to try to get these things into place.

>> That's a great question. I can announce as of last night, our division of health information technology's name has changed to the division of digital health research, and that that's a huge priority for us, but one of the things that's come along for the techies in the audience is Fire, which is the standard that allows to you do apps with EHRs in a way that makes things accessible and interoperable. So I think as smart and smart and Fire apps are developed, it's going to be easier and easier to share, because I think the proprietary nature, the restrictions

on the her has been a big barrier to a lot of this work. AHRQ work closely with ONC, the Office of The National Coordinator on standards so that we can do this. So I think there's just a huge potential moving forward to start to get around some of these huge issues.

>> I want to take a moment to thank our speakers, both for your presentations but also all your hard work. Thank you so much.

[Applause]

>> And thank you all very much for your attention. Really appreciate.