Operator: Good day and welcome to this webinar regarding The History and Future of Rural Health Research: Celebrating 30 Years. Today's call is being recorded. And at this time, I would like to turn things over to Ms. Shawnda Schroeder. Please go ahead, ma'am.

Shawnda Schroeder: Thank you. Hello everyone. Thank you for joining us today. My name is Shawnda Schroeder, and I am a research assistant professor at the Center for Rural Health in North Dakota. I also serve as the principle investigator for the Rural Health Research Gateway.

I'm going to speak more to what Gateway is and what Gateway does in a minute, but essentially the purpose of Gateway, which is funded by the Federal Office of Rural Health Policy, is really to disseminate research products of the Rural Health Research Centers, which are also funded by the Federal Office of Rural Health Policy.

Today you are all joining us as we're celebrating 30 years of quality and essential rural health research that's been completed by our Rural Health Research Centers. You're going to hear today from Tom Morris, associate administrator for the Federal Office of Rural Health Policy. You're going to briefly learn a little bit more about Gateway. And then you're going to hear from our oldest Rural Health Research Center and one of our newest topic-specific centres.

At the end of the webinar today the slides and the archived recording are going to be available on our Rural Health Research Gateway website. That is ruralhealthresearch.org. I have also included the link on the left hand side of your screen today.

And we will also open for questions at the end of today's webinar. If you have a pressing question that just can't wait, feel free to type it into the chat box, and we can read them at the end of today's webinar as well. I'm now going to introduce all three of our presenters and then turn the presentation over.

Firstly, you will hear from Tom Morris, who serves as the associate administrator for the Federal Office of Rural Health Policy in the Health Resources and Services Administration of the U.S. Department of Health and Human Services.

In that role, Tom oversees the work of the Federal Office of Rural Health Policy, which is charged with advising the secretary on rural health issues. Tom also has an amazing track record of significant work in rural health, and I'd encourage you to learn more about him when you have time.

Eric Larson is a research associate professor in the Department of Family Medicine at the University of Washington. Eric grew up in Minneapolis and earned a BA in geography at the University of Minnesota, and an MS in medical geography at the University of Calgary. He completed his PhD in medical geography at the University of Washington in 1995.

He joined the UW's WWAMI Rural Health Research Center as a graduate research assistant in 1988, working with Gary Hart and Roger Rosenblatt, the founders of the WWAMI Rural Health Research Center. He was deputy director of the Center from ’98 until 2006 and was also a senior researcher at the UW Center for Health Work Force Studies. In 2006 he joined MedEx Northwest, the UW's physician assistant training program, as a researcher and instructor.

In 2012 he returned to the WWAMI RHRC as the director of the Center. He also continued to conduct research and to teach at MedEx. His major research interests are in rural health workforce analysis, the roles of PAs and NPs in the rural workforce, and access to care for rural and underserved populations. If you have more questions for Eric, you can reach him at ehlarson@uw.edu.

And last but not least you will hear today from Marcia M. Ward, a professor in the Department of Health Management and Policy in the College of Public Health at the University of Iowa. She is

director of the Center for Health Policy and Research and director of the HRSA-funded Rural Telehealth Research Center.

Her research focuses on rural health services research, rural telehealth, and patient care quality in Critical Access Hospitals. Dr. Ward has been funded on over 70 grants and contracts during her research career and has extensive experience directing research teams and conducting evaluations of health care implementation and quality improvement projects.

I am thrilled to be joining all of these presenters today and now want to turn things over to Tom Morris.

Tom Morris: Great. Thank you so much Shawnda. You know, 2018 really does mark an important milestone. It's hard to believe 30 years for the Rural Health Research Center Program. And you think, oh, that's three decades. The - all of the centers have really played a critical role I think in providing the analysis and the research, which has really helped inform the development of federal and state rural health policy.

Along with that, I'd like to note the important work done by the Rural Health Research Gateway. They've done a fantastic job promoting the work of the centers. It's hard to believe the time when we didn't have the Gateway as a focal point for coordinating all the studies and offering a one-stop to get access to all this great work. I really appreciate, Shawnda, your leadership in really making that a force.

You know, the Research Center Program was the first program actually created in the Federal Office of Rural Health Policy. And I have to take my hat off to the folks who created the office back in 1987, because I think they knew and understood inherently that in order to engage on policy issues you needed to have objective and academically credible rural health services research. And so I really credit folks like Jeff Human and Dina Pleskin and Pat Taylor for

knowing how important this program would be for the development and long-term future of the office.

And that was important back in 1988, and I think it's just as important today. When you think about it the work of the centres is really the backbone of our policy work. Over the years we've used their findings to make arguments on Medicare policy, on work force policy issues. We've been able to have an impact I think on the way that we think about rural quality measurement as a result of the research centers.

They've also been important for us in helping us understand public health and how public health looks different in rural communities. Over the years I think the Center's work has informed not just our office but -- think about it -- Congress. There are a number of health associations that cite their work, whether it's the National Health Association or the American Hospital Association and many others.

And if you think about it, each of the centers really has played a key role in helping to validate a lot of the policy concerns that we've had. We may identify an issue and have some concerns about it, but if we don't have detailed and objective analysis that really brings a point to it, it's harder to move an issue forward. And the research centers have done a great job of providing that to us.

We've also benefitted I think from having some great staff leading the program. I start off with Pat Taylor at the inception. She really got it going. And then that continued when Joe VanNoestren took over the program. And then you go on to Curt Mueller. And I think we're continuing to have a great staff now with Sarah Hepner and Amy Chamabudra and Jenny Burges.

I could probably spend the rest of the whole hour webinar talking about the studies that I think have made a big difference over the years, but we don't have time for that. I'm not sure people

want me to go through it. But I would like to just very quickly talk on, you know, just some of the areas where we have expertise as a result of the research centers.

Minnesota has been a leader on quality and quality measurement issues. North Carolina's work on hospital finance has been cited all over the healthcare landscape. WWAMI -- and Eric, who you'll hear from later -- they've been a real leader when it comes to rural health workforce issues.

The Rural Policy Research Institute has been a leading voice I think on insurance enrollment, both with the marketplace but with Medicare Advantage and other programs. And if you think about rural minority health, the University of South Carolina immediately comes to mind. The National Opinion Research Center has done a great job in terms of their work around public health.

Texas A and M has been a leader on looking at the healthy people mechanism but through a rural lens. Because that tends to take more of a national look, and A and M has been insistent and quite successful at getting people to think about it through a rural lens. We've relied very heavily in the past year on the work the University of Kentucky Research Center has done around opioids.

And then I can't tell you how many times I turn to the work of Southern Maine to better understand children's and health insurance issues. But also mental health. Now some of the centres -- like WWAMI and UNC -- they've been around since the very beginning of the program. But we've had other centers that are no longer part of the current funding cohort, but they really play an important role.

I mentioned one of them right now, that's NORC -- the National Opinion Research Center -- but the University of North Dakota was also part of the program at one point. As was the Western

Interstate Commission on Higher Education. And West Virginia. And all of them have provided important research findings along the way.

So over the years, you know, we've turned to the research centers time and again. Often we do that on short notice. You find yourself in a crunch, you ask for help in explaining the implications of a policy issue. And where research takes years, we often say, "Hey, can you get me something in three hours? Or a day." And thank God they're on the other end of the call when we ask that, but they always manage to meet the need.

And the other thing they've done a really good job was I think they've managed that role between being a researcher and being respected for being balanced and objective in that, but then bringing a special understanding to rural health without crossing a line to be an advocate. And because of that I think people greatly respect their work.

They bring a level of understanding and expertise to rural health issues that we often see missing when somehow services researchers jump in to rural issues without really understanding the context in which healthcare is provided in small, rural communities. And so there's just so many good things to say about the work they've done.

And so -- for this and for many reasons -- I just want to congratulate members past and present of the Rural Health Research Center Program and thank them for their work. And I look forward to many, many more years of working with them. So I'll turn it back over.

Shawnda Schroeder: Thank you so much, Tom. I'm going to talk now a little bit more about Gateway, also funded by the Federal Office of Rural Health Policy. And we work very closely with Tom and Jenny Burges and others that were mentioned in his discussion. And we work with all of the research centers as well.

Gateway, the purpose really is just to provide access to all of those research publications and projects. And as I mentioned, we are celebrating 30 years of rural health research and the Rural Health Research Center projects. And Tom mentioned how it seems hard to think about a time we were disseminating this work before Gateway.

But really Gateway came about later in - later after the research centers had been functioning for quite a while. When we decided there has to be a way to share this information in a streamlined effort so that individuals aren't having to visit each of the research centers to find all of the work that's being done around rural health. Gateway then is that one location that you can go to, to find all of the information you need about the Rural Health Research Center programs.

We include information about all of the different products, the research centers, and really we're trying to reach diverse audiences. So the website and all of the products that we've shared, they're not intended only for other rural health researchers. In fact, what we really want them to do is to reach rural health providers. We want them to reach students. We share our information with policymakers and we try to identify new ways of communicating that can reach other rural health professional organizations and associations. This would include groups like 3RNet or the National Organization of State Offices of Rural Health, the technical assistance centers. Really any group that would benefit from seeing that rural perspective of health services research.

When you use Gateway, you can use Gateway to search our different research centers if you know of the research center that you're looking for. You can look at all of our reports and journal publications. You can access fact sheets and policy briefs. You can reach about the research centers' current projects. And you can sign up for email alerts.

I will mention that -- with our email alerts -- we only send out notifications when we have a new product from one of our research centers. This means that you can go two months without receiving an alert because our research centers are busy conducting their research. But it also

means that there can be a month where a lot of the work is being completed and you may be notified three times a week with a new product that the research centers have shared.

This really is a great way to disseminate information, because in typical academic formats our researchers could complete work and then search for a journal that would be an appropriate source for publishing their work. And this could take anywhere from six months to a year to then share results of their research. But in all of the ways that Tom mentioned of using this research, that really isn't conducive to fast dissemination.

And so Gateway really is working with the research centers to disseminate their work efficiently and effectively. We also do free webinars -- like the one that you are all attending today -- but we do topic-specific webinars where we address some of those hot topics in rural health. When Tom mentioned the work of Minnesota and access to obstetric care, when that became a really interesting topic for members of Congress it became a webinar topic for us as well. And it was highly attended because we were able to work with the Federal Office and the research centers to identify pressing topics to share with all of you.

That said, we're really responsive to our users. So if you have webinar topic ideas that you think would be really valuable, please share those with at Gateway. You can also visit our website to access all of those experts. All of our researchers that are funded by the Federal Office of Rural Health Policy have their names and contact information listed on our website. And we also link to all of the products that they are authors of, so you can find their recent and past work.

This is a snapshot from our website of our current Rural Health Research Centers. These are the individuals that we are celebrating right now with our 30 years of rural health research. As well as all of those who have been research centres in the past. You can find that list on our website.

They have a national research agenda, so while they may be located in South Carolina or Washington or North Dakota or Maine or South Carolina, their focus is not solely on the work in their state. They take a national perspective of rural health issues.

To celebrate our 30 years of rural health research -- because Gateway's purpose is to share the work of all of those centers -- we are trying to spearhead a celebration and trying to draw attention to all of the work that they have been doing for the last 30 years. On our website we have a special tab now to celebrate the 30 years of rural health research. On our website you can find the map that shows all of the states that have housed a Rural Health Research Center in the last 30 years.

And you can also scroll down to the bottom of the page -- where what I think is really fun -- we have images of researchers dating back to the beginning of the Rural Health Research Center Program. But we also have images of graphs and figures and research topics dating back 30 years. It's been really fun, as a previous Rural Health Research Center and the PI of Gateway, to see how far we've come, not only as a research center program, but in the ability to disseminate information and the way that we share the results of our work. This is everything from journal publications 30 years ago to now a 150-character tweet to summarize your research in 2018. And watching the response of our research centers as they grow along with us and identify news modes of communication so that we can make sure that we're reaching diverse audiences with their work.

So you can all join us in our celebration. If you want to learn more about Gateway, please contact myself or our other partners on the Rural Health Research Gateway and we will be happy to share. But today we really want to highlight the work of our oldest and newest research centers.

Ways that you can celebrate 30 years with us is to attend our free Gateway webinars, which you are all already doing so thank you for joining us. You can subscribe to those research alerts that I

shared with you to see all of the new research that's being done by our research centers. You can follow us on Facebook or Twitter. And you can use and follow the hashtag #30YearsOfRuralResearch, where we'll be sharing pictures, graphs, and publications dating all the way back to 1998 that have been shared by our research centers. I am now going to turn over to Eric Larson with the WWAMI Rural Health Research Center.

Eric Larson: Hi, Shawnda. Thank you for that. And Tom and Jenny. Thanks for this opportunity. This is actually kind of a fun thing to do for me. Usually my presentations are a little bit more technical and specific to the findings of maybe one or two studies. But today's presentation is a chance to back off a bit from study details and reflect a little bit on the center that I've been involved with for so many years. And also on the FORHP program that has supported it. I need to of course say that -- although the FORHP supports our center under a cooperative agreement -- FORHP, HRSA, HHS, nor Shawnda, Tom, or Jenny specifically are responsible for any conclusions or opinions I express here. These are - those are of course mine and mine alone.

So at the 30,000-foot level, what has the FORHP RHRC program contributed? I think Tom has already addressed that pretty well, but just to get us started I'd like to say for 30 years the centers have provided timely, objective, policy-relevant research results to policymakers and the rural community as well and health educators and to the public.

I want to reiterate the word objective. As Tom mentioned, we don't take political positions on legislation or regulations. We try to support FORHP's mission and hope that our work is useful to policymakers of all stripes who have an interest in rural health issues.

Second -- and I don't know if this was intended or not, and Tom might want to weigh in on that at some point -- but over the 30 years since its inception, the RHRC program has fostered a - the long-term development of rural health services subject matter expertise in centers that are located all over the United States. Tom went through some of those, and I think the story is

similar for almost all of the longer-term centers, whether it's on quality or work force or mental health or whatever. In the time available here, I'll give you a couple of examples of how the WWAMI RHRC's research history can demonstrate this point.

And finally -- before I move on to the more substantive stuff -- I want to say that this is just one guy's take on the history of one RHRC. All of the centers -- the current ones and the past ones that Tom and Shawnda have referred to -- they all have stories to tell. And they all have a rich intellectual history and a rich programmatic history. And I hope that someday we can figure out a way to put that history together and see what we can learn from it.

So let's talk about the rural health research issue context that was ((inaudible)) in the late 1980s. There were two key issues that were particularly important to the research that was conducted at the WWAMI RHRC in its early years. These were of course - were by no means the only key rural health issues at the time, just the ones that were taken up by the WWAMI RHRC.

In 1983 -- trying to control rising hospital costs -- Congress required Medicare to use fixed hospital reimbursement rates for payment rather than cost-based reimbursement. This hit rural hospitals particularly hard, and over 10% of rural hospitals closed in the 1980s and early 1990s. This wave of closures became the basis for the first major research theme of WWAMI RHRC in the ’90s, which was rural hospitals.

The second major theme emerged from the persistence of a rural neonatal mortality penny - penalty, even in the context of an overall decline in neonatal mortality that was related primarily to technological and organizational change in neonatal care. Rural rates of neonatal mortality were and have remained higher than urban rates, so trying to understand those differences and how to eliminate those gaps was the second major research theme in the early years of our center.

Another key piece of course was leadership. These two men, Roger Rosenblatt and Gary Hart, led the center after its initial funding. Roger was the family physician in the UW's Department of Family Medicine with a deep interest and commitment to ensuring the equitable availability of care to residents of the rural Northwest. And a particular interest in rural obstetrics.

Gary Hart was a young health services researcher with a passionate interest in the geography of rural health services and a strong background in statistics and spatial analysis. These two guys really launched the center and formed its intellectual core for many years.

There's one more piece that I don't think that many people know about though, and that was sort of a proto-RHRC that existed before you know, we started the formal RHRC in 1988. And that was the Rural Hospital Project. This was a demonstration project funded by the Kellogg Foundation in the early ’80s. And you can see from the slide what the intent of the project was, which was to do a regionalized demonstration project designed to restructure the service configuration of a selected number of marginal rural hospitals in Washington, Alaska, Montana, and Idaho. Key participants in this project included many - people that many of you may know, including Bruce Admonson, Amy Egopian, Peter House, and of course Roger Rosenblatt and Gary Hart.

And there's a whole long story that goes with the Rural Hospital Project, but moving on to the outcomes of that project. First, they worked successfully with six struggling rural hospitals and most of them survived. Secondly, in the course of the Rural Hospital Project, they developed a community process that was sort of extended and developed further into a community health services development process that was deployed in over 60 communities across the WWAMI region in the ’90s and into the early ’00s.

Finally, there was an indirect outcome of the project, I think, which was the WWAMI Rural Health Research Center. That project provided lots of people with the knowledge and experience -- let's

say the chops -- that made it possible to convince FORHP to fund us when the opportunity arose. So there was a sort of intellectual core ready to go on this.

And it was not surprising maybe that the - that WWAMI RHRC working paper number one published in 1989 was titled Is there a Role for the Small Rural Hospital? And it was authored by Bruce Edmonson, Gary Hart, and Roger Rosenblatt. Okay. So enough on the deep background. Let's talk a little bit about the research work that we did in the first decade of the center.

Over 70% of our working papers and published work fell into either the obstetric streams - stream of work or the rural hospital stream of work. Most of our early work was specific to the WWAMI region. Later -- in response to changing FORHP needs -- our work had become more nationally-oriented. So let's just take a brief look at a couple of things from various streams here. So let's talk about rural hospital research at the WWAMI RHRC.

Our work on hospitals included work on outcomes, such as surgical and myocardial infarction outcomes, but it also included work on the effects of hospitals closures from various perspectives. For example, there was one study of the effects of hospital closure from the perspective of mayors. What was the effect of closure on towns?

We also looked at hospital boards and how to train hospital boards. And how extending the work of the rural hospital project into determining a proper scope of service for a hospital. Here are two specific examples. The first one was authored by Gil Welch. Yes, that's the same (Gil Welch) that wrote Overdiagnosed. It examined rural readmission rates for some common surgical procedures. Gil was with us at that time because he was an RWJ scholar and he worked with us on a couple of studies.

As for the second study mentioned on this slide, I have to confess that I chose it partially because I really love the title. It's a good study too, but I love the title. Rural Hospital In-Patient Volume,

Cutting Edge Service or Operating on the Margin? I mean that is just awesome. The staff study examined surgical volume versus complexity issues in rural hospitals. There was a lot of other work in hospitals - hospital stuff as well.

Moving on to OB access and outcomes. The rural obstetrics work proceeded along several sub-themes over the years. And you could see some of the issues here, such as just rural urban differences and rates of poor outcomes. The regionalization of perinatal care, declining participation in OB by rural family physicians. You can see some of the beginnings of our later work, for its emphasis there, impact of increasing costs of OB malpractice insurance and the role of varying level of obstetric technology in rural hospitals.

A study led by Tom Nesbit in the early 1990s examined the role of local OB services in facilitating access to the larger, regionalized system of perinatal care, especially for high-risk women and neonates. It showed that local OB care can act as an efficient portal to the larger system even if mom winds up delivering in a tertiary hospital. Poor local access was associated with higher newborn charges and some poor birth outcomes.

A few other studies, just to go through a few titles. The first is from a sub-theme that focused on the effects of the malpractice crisis as I mentioned earlier. There were several papers along those lines. Trends in perinatal care and infant health disparities between rural Indian, American Indians, Alaska Natives, and rural whites. Note the date there, that's a 2009 study.

And in another study by Laura May Baldwin -- published in 2013 -- about low birth weight rates among racial and ethnic groups in the rural United States. So this theme has continued off and on. It's not the main emphasis of our center the way it was back in the earlier days. But has main - has continued to be a theme through - going through some of our continuing work.

So after the ’90s some - we explored a lot of stuff. Looked at a lot of stuff. The research emphasis kind of moved on, reflecting policy changes -- for examples the Flex program addressed the rural hospital closure crisis in the - at the time -- and the regionalization of perinatal care helped to continue to close rural urban gaps in infant mortality. But it also reflected -- our topics also reflected -- shifting FORHP interests and the interests of our faculty and staff.

For example, Gary worked with the USDA's Economic Research Service on issues of defining rural, resulting in the development of the rural urban commuting area codes that are now widely used in rural health services analysis and research. Laura May Baldwin and others led work on rural access to specialty care and utilization of cancer services.

Mark Dozier, who took over from Gary as director when he left, he explored the rural urban dimensions of health behaviors documented in the BRFSS Data. But I think it's accurate to say that the work of the WWAMI RHRC increasingly focused on the rural health workforce. And you can see some of those topics in the lower part of the list, ranging from safety net to primary care provider supply, IMGs, the demo work force, the NP PA work force, et cetera.

So we've just jumped over to more or less the present. And let's look at what we're doing now, 30 years later. Here's a list of some of the current streams of research. Rural residency training programs, a lot of this work led by Davis Patterson. Work on physician assistant training for rural practice and the supply of behavioral health providers. And the supply of providers waivered to treat opioid addiction in rural America. And it's this last one that I'm going to sort of wind up my talk here with.

So most of you know the basic story. There's over 2 million people with opioid use disorder, using either prescription opioids and/or heroin. Forty-two thousand deaths in 2016 alone. And you know that there's a treatment option that can be used in an office setting that's particularly relevant to providing care in rural areas, namely buprenorphine.

Our work started in this area with Roger Rosenblatt noticing the emerging epidemic in rural Washington in around 2010 or 2011 or so. Interestingly, this began partly with him seeing the diaries that our medical students keep when they go out to do rural - brief rural clinics for about a month in their second or third year of medical school.

He began working on several fronts to get docs to take the training for a waiver and to prescribe buprenorphine and to convince rural doctors that they just might be part of the problem. Tom Morris I think saw Roger in action on that one at one of our regional health conferences in 2012. And I think it's fair to say that he was somewhat awestruck. Roger on fire was really something to see.

Then the rural health services researcher in Roger kind of kicked in. And he started asking national level questions about the supply of rural physicians with a buprenorphine waiver. You can't just prescribe this drug. You have to get a waiver from the DEA to be able to prescribe it. This led to an RHRC study that was published in the Annals of Family Medicine detailing the undersupply of waivered docs in rural America.

This in turn begat the projects you see listed here. And after Roger's death in 2015, these projects were primarily led by Holly Andrilla, an RHRC senior scientist. So as you can see, with FORHP's support we've been able to delve more and more deeply into this topic by virtue of the continuing funding and FORHP's support of building on strengths to produce a robust, rigorous, and useful rural health services literature that helps illuminate one of the most severe and (intractacle) (sic) - intractable -- excuse me -- public health crises of our time.

Not going to go through all of these, but I will tell you about a couple of them. The first one was just to identify. We updated our earliest work and compared the supply of physicians waivered to provide medically assisted treatment from 2012 to 2016. You can see the findings there.

There has been some increase in the number of waivered providers, but we still had 1,188 rural counties with no waivered providers in 2016. And that was down from 1,377 in 2012. This also mapped the change. Blue counties here had at least one provider in both time periods. Red colored counties had - were now zero after having at least one. Or in 2016 were zero after having at least one provider in 2012. White counties -- there are none now, none then. Yellow went from zero to at least one between 2012 and 2016.

The second one looks at the potential role of NPs and PAs in providing medically assisted treatment slots in rural counties. Under CARA, NPS - NPs and PAs are eligible for waivers if state law allows. And we are interested in estimating the possible effects of NPs and PAs on the waivered work force and the potential increase that that might bring in available treatment slots.

So, continuity change. Wait - oh boy. Oh my goodness. Sorry, got a little malfunction here on my end. Shawnda, let's - sorry. Shawnda asked me to say a few words about what's changed and what's remained - I guess I got the wrong thing here. Pardon me. Little malfunction on my end here.

So what's changed and what's remained the same? Who's - what's stayed the same, what's changed, what's next? What stayed the same is that rural, you know, we're still looking at a lot of the same things. We still have a lot of the, you know, the rural counties are -- rural places are still underserved. We still suffer from all sorts of workforce problems. But things have improved. In some ways. But we're still looking at those same kinds of questions.

What's changed? I think we've gotten a lot more sophisticated -- as have all the centers -- in terms of how we do things. And that's important. And of course, there's a much larger community to look at this issue. As for what's next? Well, I always like to go back to talking about Niels Bohr and his statement that prediction is very difficult, especially about the future.

But I do know that I don't know what's next for rural health research. And I don't know what the next rural issue is. But I do know where those issues will come from. They'll come from A, changes in the natural world. Never underestimate bacteria and viruses. New diseases, new disease geographies, climate change. Changes in technology will also be important. Drugs, laparoscopic surgery.

One of the early studies I worked on long ago was - is on rural surgery outcomes. It's completely irrelevant because it's been replaced by a completely different surgery technique. Telemedicine. New tools, et cetera. And then of course changes in politics. Policy. Culture. The socioeconomic milieu. And these are such as the ACA, CARA, CMS, and the role of PAs and NPs in prescribing opioids. Sorry, prescribing opioids. In prescribing opioid treatment.

Okay? So I think I have the wrong slide there. What I want to talk about was I wanted to go back to the very beginning. Which was that, you know, the main thing that the RHRCs have done over the years is provide policy-relevant - policy -- sorry -- policy-relevant research to policymakers in the rural health community and educators for the - for 30 years.

And second of all, we've published - we've also fostered the long-term development of rural health services subject matter expertise in centers located across the United States. And with that I think I'll wind up. That of course is the Rural Health Research Gateway. And that's me. And this -- just of mild interest -- might be a copy of our very first working paper, Is there a Role for the Small, Rural Hospital?

And one of our latest work -- Geographic Variation in the Supply of Selected Behavioral Health Providers -- recently published. And with that, I'll wind up. Thanks.

Shawnda Schroeder: Thank you, Eric. And now I'm going to invite Marcia to share with us about the Rural Telehealth Research Center.

Dr. Marcia Ward: Hi. This is definitely a pleasure. And I think it's very interesting, Tom gave an overview of all the Rural Health Research Centers. And mentioned some of their particular focus areas. And Eric really demonstrated that. WWAMI's really known for a number of areas of expertise, and he was able to give you the history of that.

We are one of the newest Rural Health Research Centers. And we are the only one that is very specifically at the get-go focused on a particular topic, and that happens to be telehealth. And within the Federal Office of Rural Health Policy there is OAT, the Office for the Advancement of Telehealth, and we work closely with them.

We are researchers that come out of actually three of the existing Rural Health Research Centers. RUPRI's here at the University of Iowa. There's the Rural Health Research Center at the University of North Carolina Chapel Hill. And also the University of Southern Maine. And when the announcement came out for this funding opportunity, we thought we would be stronger -- and it's true -- if we partnered together and pulled in resources from all three existing Rural Health Research Centers.

So, there's something else that's - hasn't been mentioned yet, but is really important background information, is sort of how we operate as Rural Health Research Centers. And we've all got cooperative agreements, which means that we work very closely with HRSA. We have meetings with them, they develop a wish list of topics, what they're hearing from Congress that they're being charged with. And there's a process of back and forth between the Rural Health Research Centers and FORHP to identify four research projects a year. And that's our usual MO, is that we do four research projects a year.

And when we -- the Rural Health Telehealth Research Center -- found out that we were funded we had an early meeting on with Tom Morris. And I remember this very clearly, him mapping out -- going to the board and mapping out -- a vision of how we could work particularly closely with HRSA, FORHP, and with OAT and help them and identify needs in the research arena where we could particularly contribute, where they saw a particular need.

And so my title slide, I said we are charged with helping to build the evidence base for telehealth. So that was what's in the funding announcement, and that's what we're definitely charged with. But the form of that turns out that we're a little different than the other Rural Health Research Centers where we I think are working even more closely with OAT. And it turns out that FORHP and OAT have been funding telehealth grants for quite a number of years. And what Tom Morris was able to vision was that we could really play a role in helping to evaluate those grantees in a way that would help to build that evidence base.

So we're now in our third year -- relatively new -- but we've had a set of projects that have been building to help work with OAT, to work closely with their grantees, together to help build this evidence base.

And so I want to give you an overview. And I - it says five projects here, but these are all sort of bundled together. They morph from one into the other. So it's not five distinct topics. But I'll go through a set of them. And the biggest number of our projects have focused on telehealth in the emergency room or emergency department.

And so telehealth is providing healthcare at a distance using information technology, telecommunications. And telehealth -- in the emergency department in particular -- rather than connecting a clinician with a patient -- which is a very common form of telehealth -- it is connecting two different clinicians. One that is in a rural hospital's emergency department, and

connecting them through live video to a hub, which is often an academic medical center or a large urban hospital that has a full roster of specialists.

And in the rural hospital -- especially the Critical Access Hospitals -- those tend to get staffed by family physicians, physician assistants, nurse practitioners, generalists. And so you can imagine if certain patients come into that rural hospital emergency department with a very specialized need -- like trauma cases, if there was an automobile accident or something and several patients arrived -- that being able to pull in live those specialists that can help partner and have a team approach to examining the patient, determining what the needs are and the care patterns, care that needs to be delivered, facilitating a transfer if that's what's really needed, and working together in that is seen to have an incredible benefit, especially to the rural providers. So that's what we have focused on for a number of our research projects with OAT.

So this actually started before we became RTRC. And we happened to be subcontractors to Mathematica Policy Research on a project they had funded through HRSA and FORHP. And it was to identify measures for tele-ED, tele-emergency department. And this fit again with Tom's vision. Which is how -- in working with these grantees -- could we come up with a core set of measures that a number of grantees could be assessing, collecting data on? And then if we were able to pool that across a number of grantees, then we would have enough statistical power to be able to really contribute to that evidence base.

So before we even knew that this Rural Telehealth Research Center was going to be, you know, the vision of that funding, we worked with Mathematica to identify measures for the field of tele-ED. And so what we did was conduct a systematic literature review, identified I think over 400 possible measures. None of them specifically were very specific to tele-emergency department, but there's a lot of measures out there that are quality measures that clinicians in the emergency department are used to reporting to CMS. Or the Joint Commission. And if you don't know about this resource -- it's a wonderful resource -- AHRQ has a National Quality Measure Clearinghouse.

And you can put in any topic and you can find existing measures. And part of the beauty of that clearinghouse is they've really reviewed these measures. They'll look at the evidence base for the measures, provide very clear definitions, who qualifies to be measured, what are inclusion exclusion criteria, and who are the organizations that are sponsoring these measures? And so -- for example -- if CMS is listing a particular measure as one of those quality metrics that they collect from hospitals, you can find all of that in that clearinghouse.

So we of course searched there, we searched the literature, and we eventually winnowed it down using criteria that was pretty similar to what NQF -- the National Quality Forum -- does. And identified a final set of 25 measures. And as I said, we were sort of doing this for the field of tele-ED. We didn't know at the time that there was going to be follow-up work.

But our follow-up work ended to be the first project when we were funded as the Rural Telehealth Research Center. Which was now, take these 25 measures and work with the grantees that FORHP was funded. And so the EB TNGP grantees -- what that stands for is Evidence-based Telehealth Network Grant Program -- and it's had several versions over the years. The one that was current when we started this was six grantees that were focused on tele-ED. So then we started working closely with those grantees. And said here's the 25 measures, will these work for you? Got a lot of feedback from them, did some tweaking. And part of what we had done with Mathematica was develop an Excel-based tool that was used to collect data on these measures. And so we pilot tested that, we did some adjustments and worked with them to figure out the feasibility of collecting this data. So that was our first project.

And this is a list of the grantees. And what's been interesting is these are the grantees funded by FORHP specifically because they offer tele-ED services to rural hospitals. So on the left is the hub, and then in the third column you see how many rural hospitals they are offering their services to. And they're in quite a number of states. But what was interesting to us is they're not all alike.

Three of them are pretty specialized. For example -- at the very bottom -- the University of Virginia is offering specifically tele-stroke services. And so they're working with a number of rural hospitals, and if somebody presents with stroke symptoms then they connect directly to neurologists and stroke specialists at the University of Virginia about those particular patients.

Union Hospital has something that is specialized also, tele-neurology. It's largely for stroke patients. They also have another large service, which is focused around behavioral health. University of California Davis has a very interesting, very specialized service, which is in 16 rural EDs in northern California. And it's for paediatric patients that are critically ill and -- in particular -- are candidates for transfer to the NICU or PICU -- the pediatric intensive care unit -- at the University of California Davis.

So those are very specialized. And then the other three grantees it's much broader. It's activate the cameras whenever you want some assistance from us. And so it's interesting from a research perspective to try to figure out how to work across the diversity of their tele-ED services.

So part of what we did was using a lot of what CMS had already put into place for reporting. We knew that we would face fewer barriers if we could already take those CMS measures, Critical Access Hospitals and other hospitals are used to reporting on those. And so we took those timeliness measures, disposition measures, quality of care measures, and pulled them directly from CMS into our measures tool and added a few other ones including a little bit of information on payments.

So some specifically - this is just examples of this particular CMS measures that some of them that we pulled in that are pertinent to emergency department. And pertinent to telehealth services in emergency departments. So where we are now is we've been collecting data from the six grantees for a two-year period. And what we did -- again, it's very important to work with them

and figure out how to work together and reduce the burden on them -- and so we collected data from them. And they would collect the data from their partner hospitals. It would become de-identified. It would be sent to us in a secure fashion. We go through and do management of the database and work with them if something's not quite in line. And so we've collected data on all of their tele-ED cases for a two-year period.

And we've also worked to try to figure out -- for those cases that were similar where tele-ED wasn't activated -- we've worked with them to sample a matched set of those so that we can do comparative of effectiveness. So what we're working on right now is identifying some manuscripts. And we're partnering with the grantees that are involved in this.

So for example, with pediatric, of course UC Davis is very involved in this. And it turns out that one of the other grantees -- Avera -- is broad, but they have enough hospitals. They have a large population in fact where tele-ED has been activated for pediatric cases that show up in the rural EDs. And so together we're working on describing the sorts of patients that they see.

And it's going to be comparing two different types of tele-ED services. And if you're working in the telehealth field, there's a lot of different approaches to delivering these services. And so we think it'll be interesting to do that sort of systems look at the way that tele-ED can be delivered. We're going to be doing the same thing in terms of mental health or behavioral health in Union Hospital, with their tele-behavioral health service. We'll be pulled into that one.

Several of the hospitals are collecting on stroke, and we'll pull them in. In our measures we identified four particular intervention areas. And as I said we've pulled the CMS measures for these. And these are serious conditions that -- when patients are in the emergency department in a rural hospital - Critical Access Hospital and they're presenting with stroke symptoms or chest pain, signs of maybe a heart attack or severe sepsis -- activating that tele-ED to get the specialist on board to help with that team approach to care is really important.

So we build into the measures set, process, and outcome measures that we pull from CMS that already existed related to these. And so most of the grantees are reporting data on that. And then we know a really important topic area in terms of telehealth is comparing costs between telehealth and cases where it's not used. And so we've got a little bit of data on that. In particular, where they're avoiding transfers because that's a particular big cost savings for patients.

So that's where we are with the tele-ED. We're in this fourth year. We're going to be working with the different grantees to write manuscripts using this repository now that we have - of data. Thousands of cases of tele-ED and matched comparisons. So I think Tom's vision of being able to pull in and across the grantees and find a way to work together to build that evidence base, I think we're going to see fruition from that one.

And our next one -- and again this fits with Tom's vision -- he said we've got another set of grantees with a different focus. And they have 21 grantees that are funded by FORHP to provide telehealth services in school. So we've taken a similar approach. Here's the 21 grantees that are funded by them. And we've taken a similar approach.

Last year we conducted a whole systematic literature review to identify measures that would be pertinent to school-based health clinics. And we've been able -- we got into the game earlier on this one -- we were able to work with those 21 grantees, get their feedback, really work to see how practical this was going to be. And so now we've got a set of 25 measures clearly defined that they'll be collecting.

So I want to thank the research team in particular on this work. And I want to thank HRSA. This has been so much fun to work on this. We've been - really loved this opportunity. And so now I'll turn it back to Shawnda.

Shawnda Schroeder: Thank you so much, Marcia. And Eric and Tom. Thank you to all of those that are joining us as well. We do have about five minutes, so I would like to ask the operator -- Jennifer -- if you would be willing to open the lines for questions.

Operator: Thank you. If you'd like to ask a question over the phone line, please signal by pressing star one on your telephone keypad. And if you're using speakerphone please make sure your mute function is turned off to allow your signal to reach our equipment.

A voice prompt on the phone line will indicate when your line is open. At that time please state your name before posing your question. Again, please press star one to ask a question. And we'll pause for just a moment to allow everyone an opportunity to signal for questions.

Shawnda Schroeder: Eric, if you are on the line would you like to just address quickly the question about what waivers are, just in case there are others who had a similar question?

Eric Larson: Oh, about waivers? Oh, well to get a buprenorphine waiver a physician has to take an eight-hour - eight hours of CME. And an NP or a PA now has to take 24 hours of CME training. The initial waiver is generally to treat - is for 30 - to treat 30 patients. That is extendable in - after a year to up to 100 per year.

And then there is - and that's just been changed under the CARA Act. And I'm sorry I'm blanking on the new numbers. But there are new numbers for physicians. Sort of a super waiver sort of thing. You have to have a DEA endorsement basically to prescribe buprenorphine. And those are the requirements for getting it.

Shawnda Schroeder: Thank you, Eric. We'll see if there are any calls on the line.

Operator: And there are no questions in the phone queue. But as a final reminder, it is star one if you would like to signal for a question.

Shawnda Schroeder: All right...

Operator: And at the moment there are no questions in queue.

Shawnda Schroeder: Okay, thank you, Jennifer. I do want to thank all of you for being on the call. And just to remind you, we are celebrating not just today but all year we will be celebrating the 30 years of Rural Health Research. You can follow the hashtag #30YearsOfRuralResearch.

Or to learn more about us and the Rural Health Research Center Programs, visit ruralhealthresearch.org. At the Gateway website you can access all of our research centers, all of the researchers, and all of the most recent products that have been shared. You can search by topic and you can even search by the most recent alerts that we have sent out. And if they look like they're of interest to you, please sign up for the research alert.

I want to thank Eric again and Marcia and both Jenny and Tom with the Federal Office of Rural Health Policy. And before we sign off I will just ask Jennifer from HRSA, are there any questions? Okay. It sounds like there are no questions...

Jennifer: There's not any one.

Shawnda Schroeder: ...and we're good. Thank you everybody for being on the call. Have a great rest of the week. And you can access this webinar and the recording on the Rural Health Research Gateway website. Thank you everybody.

Operator: And again, that does conclude our call. We would like the thank everyone for your participation. You may now disconnect.