

# Introducing the Rural Telehealth Toolkit – 6/5/19

**Kristine Sande:**

Hello everyone. I'm Kristine Sande, and I'm the program director of the Rural Health Information Hub, and I'd like to welcome you to today's webinar introducing the Rural Telehealth Toolkit. Before we begin, I'll run through a few quick housekeeping items. We do hope to have time for your questions at the end of today's webinar.

If you have questions for our presenters, please submit those at the end of the webinar using the Q&A section that will appear on the lower right-hand corner of the screen following the presentations. We've provided a PDF copy of the presentation on the RHlhub website, and that's accessible through the URL that's on your screen, and we have also just sent that link via the chat function in WebEx.

If you experience any technical issues during today's webinar, we ask that you please call WebEx support at 866-229-3239. Now, it is my pleasure to introduce our speakers for today's call. First, we'll hear from Luci Rocha, principal research analyst at the NORC Walsh Center for Rural Health Analysis, and she will introduce the Rural Telehealth Toolkit.

Her research focuses on the root causes of health inequities, the social determinants of health and rural healthcare access and delivery. Susan Maley, Susan managed the Rural Veterans Health Access Program from 2014 to 2018, during which the program expanded from telebehavioral health service delivery in southeast Alaska's remote rural villages to statewide telehealth piloting of an eight-week PTSD symptom reduction series of sessions using biofeedback techniques.

She has experience in rural health, having been the executive director of a rural health clinic, and mental health program experience for managing a SAMHSA-funded early intervention program. Dr. Maley also has extensive grant development and federally-funded program management experience in the area of disabilities and health, including six years as a researcher and administrator at Oregon Health Sciences University.

David Scott is a professor of pharmacy practice at The School of Pharmacy within the North Dakota State University College of Health Professions. Dr. Scott served as lead evaluator for the North Dakota Telepharmacy Project, and as director of the North Dakota Institute for Pharmaceutical Care. His mission as a pharmacy practice faculty member is to use his pharmacy and public health background to apply social science methods to the study of drug use problems.

Dr. Scott has published more than 110 peer-reviewed articles and book chapters in the areas of pharmacy education, pharmacy practice, telepharmacy, public health with emphasis on rural health, and applied health research. Danielle Louder is Program Director for the Northeast Telehealth Resource Center where she leads efforts focused on implementation and growth of telehealth programs throughout the NETRC region.

This includes collaborating with colleagues from the University of Vermont telemedicine program to carry out regional efforts, and with the National Consortium of Telehealth Resource Centers on nationwide efforts to advance the reach and impact of telehealth. Ms. Louder also serves as co-director of Medical Care Development's public health division.

With that, I will turn it over to Luci to hear more about the Rural Telehealth Toolkit.

**Luci Rocha:**

Thank you, Kristine, and thank you all for joining the webinar today. I'm happy to introduce the Rural Telehealth Toolkit. The toolkit was developed as part of the Rural Health Outreach Tracking and Evaluation Program, which is funded by the Federal Office of Rural Health Policy within the health resources and services administration.

The project is conducted by the NORC Walsh Center for Rural Health Analysis in partnership with the University of Minnesota Rural Health Research Center. NORC and the University of Minnesota are also working with the National Organization of State Offices of Rural Health and the National Rural Health Association to disseminate findings from the evaluation.

The Rural Health Outreach and Tracking Evaluation Program is designed to monitor and evaluate the effectiveness of programs funded under the Outreach Authority of Section 330-A of the Public Health Service Act. Outreach Authority grantees seek to expand rural healthcare access, coordinate resources, and improve quality of care.

For the Rural Telehealth Toolkit, we also looked at grant programs funded by the Office for the Advancement of Telehealth (OAT). OAT promotes the use of telehealth technologies for healthcare delivery, education, and health information services. A key focus of our work has been to establish a rural evidence base including evidence-based toolkits based on the experiences of grantees and other rural communities.

Evidence-based toolkits are an important step in disseminating successful programs. Our toolkits have three aims: to identify evidence-based and promising programs, to study the experiences of these programs to figure out what's working in rural communities and why, and to disseminate best practices from their experiences so future grantees and other rural communities can learn from these programs and replicate them.

Today, we're focusing on the Rural Telehealth Toolkit. Telehealth services can be a lifeline for rural communities that face persistent barriers to access to care, including workforce shortages, long travel distances, and confidentiality concerns. Rural communities have developed innovative and diverse telehealth programs to overcome challenges to service delivery and provide care for a range of health conditions.

In general, rural telehealth programs aim to improve workforce development, improve care delivery, and increase access to care among specific populations. In the Rural Telehealth Toolkit, we share these promising approaches and resources to help other rural communities implement, expand, and sustain their telehealth programs.

Next, I want to show you how to navigate through the toolkit. This is a snapshot of the main page of the toolkit. The toolkit is organized into different modules as shown on the menu on the left. Each module includes information and resources for planning, implementing, evaluating, sustaining, and disseminating programs in rural communities.

There's also Program Clearinghouse that contains information about promising rural programs. Today, I'll focus on module two, our telehealth program models. Module two describes evidence-based and promising program models implemented in rural communities. Next, I'll briefly describe each model. You can find more information on each model in the toolkit.

First, our models for improving workforce development. Models that promote workforce education and training use telehealth to help rural providers continue their professional development. Examples can include receiving face-to-face instruction or demonstrating acquired skills through a live video connection.

Providers can also receive tele-mentoring from specialists located elsewhere. Project ECHO is a well-known program that uses this approach. Models that promote workforce recruitment and retention use telehealth to implement alternative staffing models. For example, advanced practice clinicians can practice at the top of their license while receiving remote supervision from a physician.

Telehealth consultation services can also help alleviate the workload of rural providers, which can lead to less burnout. Next are models that broadly improve care delivery. Models that increase access to and engagement with care outside of healthcare settings can reach patients in non-traditional settings such as homes, workplaces, skilled nursing facilities, and correctional facilities.

These programs could involve remote patient monitoring, which helps providers track patient data from a distance and enables patients to manage their own health. Models that increase access to specialty care connect patients to specialized medical services that maybe otherwise unavailable in their community, including trauma care, oncology, and neurology.

These programs can also help rural providers consult with specialists, which can help them make diagnoses and create more informed care plans. Models that increase access to pharmacy services help rural communities retain, restore, or gain access to timely pharmaceutical services. Some telepharmacy programs can also include automated dispensing units that contain prepackaged doses of medications.

The last set of models focus on increasing access to care among specific populations. Models that increase access to care among children use telehealth to address common pediatric health issues, including developmental conditions and dental care. These programs often involve school-based health centers as key partners in delivering care.

Finally, models that increase access to behavioral and mental health treatment help alleviate the shortages of licensed mental health providers and lack of treatment facilities in rural areas. In particular, rural communities are increasingly relying on telehealth to help address opioid use disorder. Telehealth can be an important tool to expand access to medication-assisted treatment.

I want to conclude with some of the lessons that we learned. First, key barriers facing telehealth programs in rural areas involve maintaining updated licensing and credentialing and overcoming issues with connectivity. Licensing and credentialing can be time-consuming and burdensome for rural telehealth programs with limited resources, especially when telehealth is provided across state lines.

Lack of connectivity and limited access to high-speed broadband internet can also create challenges for telehealth. Dropped calls and delays in video feeds can interrupt care delivery and lead to patient dissatisfaction. Next, all telehealth programs have to address legal considerations, including informed consent and HIPAA compliance.

Some rural telehealth programs may have specific liability concerns. For example, rural programs that offer home-based telebehavioral counseling may have to consider longer distances from, or larger wait times for, emergency services when creating safety plans for patients. Another lesson learned is that early planning for sustainability can be critical to the continued success of a telehealth program.

Reimbursement rates can vary widely by state and by insurer type. Some rural communities are looking at alternative payment models and working directly with payers and policymakers to

change reimbursement policies for long-term sustainability. Many rural communities directly market telehealth programs to community members to promote participation.

Programs can use marketing materials to proactively address potential concerns with telehealth, including privacy and confidentiality. Lastly, rural telehealth programs often tailor telehealth services to meet the needs of different populations. The toolkit includes considerations for some different populations, including children, older adults, tribes, veterans, and people who are incarcerated.

Thank you for your time today, and we hope you will visit the toolkit. Next, Susan Maley will speak to us about the Alaska Veterans Telehealth and Biofeedback Services.

**Susan Maley:**

Thank you, Luci. I'm going to be talking about the Veterans Telehealth Biofeedback Services today, but I encourage you to think about the populations that you are serving in your particular areas because this short-term skill-building telehealth service can improve both physical and mental health for a wide range of rural populations.

With the integration of primary and behavioral health, I think it has some broad opportunities to be of use. The focus is the statewide pilot project for the second funding cycle from fiscal year '16-'18, and the challenges have been mentioned by Luci and they are specifically about the rate of mental health concerns for rural veterans, which are higher, higher suicide rates and the less access to services for the reasons that Luci mentioned, including fewer trained behavioral health providers, specifically for trauma-informed care and for effective modes of treatment for PTSD and related stress.

The confidentiality concerns are very deep in rural communities. I lived in a rural community for over a decade and I know the benefits of a rural life. Privacy is not one of them. The lack of transportation is an issue and then, in Alaska, we have a small population spread over a very large area with a limited road system.

Also of note is that only 50% of Alaska veterans are enrolled in the VA healthcare, and nationally that is a lower percent, I believe, between 30 and 40% from different data sources. This is just an illustration of the limited road network in Alaska, and also when you look at this area superimposed on the lower 48, there are several areas that still are without broadband.

Broadband is expanding but that also is an issue, so the concerns that veterans shared during the first two years of the project were the general stigma about mental illness, and that's shared in the general population. On top of that is military culture's emphasis on being strong, self-reliant, and able to be there, not needing something but being there for others.

There was a real aversion expressed specifically to me in outreach about quote "talk therapy." They either had bad experiences, they didn't know what it meant, they couldn't see any benefit in revisiting traumatic experiences, and they were wary of the professional repercussions of having a diagnosis. Our approach to this in designing the pilot project was to make services available to all rural veterans enrolled or unenrolled in the VA and to deliver a free statewide stress reduction skill-building series with one-hour sessions weekly with contracted licensed counselors.

Their time and training in biofeedback techniques was paid for by the project. We used Zoom HIPAA-compliant software and one of the advantages of this system was that it could be available from a number of different platforms. We also provided biofeedback devices at no cost and emphasized this was not free. They had already paid for it through their military services and that was something that was advised to us by a veteran.

The screening procedures were in alignment with the VA telehealth intake. In order to ensure safety, and there was a safety plan put into place and for outreach we had extensive use of social media sponsored posts which were highly effective and radio announcements by a veteran who was the first participant. All of our outreach was vetted by different veterans who were part of veteran reference groups, either among the state VA or the federal VA.

I can't emphasize enough how important this is, because within whatever culture you are presenting the services, the lived experience of what is successful outreach and language and phrases you might not know would make a difference. We strongly emphasized skill-building and physiological effects of stress to de-stigmatize the process. There was no diagnosis.

The focus was on symptoms that were consistent with the spectrum of PTSD and stress-related. We explain the neurobiology of stress to veterans and I won't go over the specifics of this that you can read, but how stress physically, chemically alters the brain, that the brain operates on patterns positive or negative, and then what we had was this image in the brochure with the four quadrants of body, emotion, mind, behavior.

The effects of prolonged stress so that someone could identify some specific behavior, and often it was a loved one or spouse that identified some behaviors. We're then moving to rebuilding healthy neural pathways by decreasing stress and there was a veteran who looked at this and said, "Oh, I see, this is like electrical or plumbing systems," and it was like, "Yes, this neurological system is stressed, there are blockages, and it can be repaired."

Building resilience works by using biofeedback tools and techniques through a number of different methods that are illustrated here. Biofeedback that we used did use heart rate variability. There is a lot of literature on the effectiveness of heart rate variability, biofeedback tools and techniques. These advantages with a reason that it was chosen as the mode.

It's non-invasive, it can be used with medications, it's low-cost and it can be used anywhere. The method chosen was HeartMath Institute's method it's based on their training experience with active military and veterans, their expertise in heart rate variability monitoring devices, and building resilience training. It had been recommended by a community mental health center partner who had used it.

They also are focused on veterans and offer veteran-focused services, they work with active military and first responders and they offered a discount on the biofeedback equipment. This is the equipment used. The inner balance on the left was used when there was connectivity via WiFi, and the computer-based was used in a few rural areas where there was not.

Now, here are the results. In the nine-month period of time that the program was active, it was at the end of that time so successful that we moved to the sustainability phase a year early and it was integrated into the contracted community mental health center's delivery system. The VA strongly supported referrals because they were seeing the results in the veterans within their system.

The home health program and the anywhere to anywhere telehealth initiative also opened up reimbursement options for rural health providers, and I would be happy to speak with someone after this presentation if there's any interest in those specifics. Within nine months, 15 veterans participated, so for a pilot project, this was a very satisfying number, to get that many people engaged and nine completed.

Other participants all had positive feedback, but had their own medical issues, spouses issues, move out of state, et cetera, and all completing had the top two of five ratings. I want to give

you just a little bit of feedback. A veteran who had multiple tours in Iraq, it decreased his chronic pain, improved his focus on his TBI, and also lowered his triggering for his PTSD.

Another veteran who didn't want sleep medication had a quote that was so striking to us, "I've been angry for 25 years, had 15 jobs, and now, after four sessions, I can sleep." She went on to be able to do deeper work in therapy because she was able to self-regulate having used her biofeedback skills and that meant that she could tolerate doing deeper work.

Another veteran who was self-medicating with marijuana had a lessening of physical pain, and, given the opioid crisis, having a non-medication tool to be used in conjunction for different populations is of value, so these were the benefits that he experienced so the challenges were that community mental health centers are dealing with crisis all the time continued to be the stigma and reluctance for veterans and the general population to seek services.

Effective outreach took time, and then the lack of sufficient bandwidth at times. The facilitators were that the community health clinicians experienced such an increase in their coping skills for the stresses and secondary caregiver traumas that that engaged them initially and then that deepened when they saw the veterans who participated make really significant gains.

We had strong support from the Alaska Veteran's Healthcare System (AVHS) director of rural health throughout the project, and from the AVHS director for the biofeedback program once the veterans began reporting such positive results and from this clinical psychologist who referred patients with positive results. I think as far as lessons learned, the first one is listening to veterans.

It could be listening to whoever you are going to be providing a telehealth program for. Telehealth is an extremely valuable mode of delivery that does expand healthcare, but what has to be delivered is something that fills a perceived need and is acceptable, accessible, and affordable. Having that input through focus groups, through informal inquiry, but getting involvement engagement is key.

Then, the partnerships were very important and I think the lesson learned is that a short-term biofeedback program can broaden the patient base of either a community mental health program or a primary care program where the majority of people with mental health issues are seen initially, if not on an ongoing basis, and that it provides alternatives.

I now am pleased to turn this over to David Scott to share with you the North Dakota Telepharmacy Project.

**David Scott:**

Thank you, Susan, for your excellent presentation. Good afternoon everyone. My name is David Scott and I will be presenting the North Dakota Telepharmacy Project. My slides are fairly long and what I plan on doing is presenting the community pharmacy setting perspective, but I've also included in two appendices of FYI.

If people are interested in hospital pharmacy or the medication error study, which both of those are included in the appendices for FYI. As far as the telepharmacy challenge in the state of North Dakota where this project is located, we have an overall population of about 750,000 people. North Dakota is a very rural state.

Much of the state is considered frontier or less than six people per square mile. It has been rumored that there's probably more cattle than people in North Dakota, but this presents a rural healthcare crisis and a pharmacy healthcare crisis. Why telehealth is necessary or why

telepharmacy is necessary in North Dakota is that when we began the project back in 2002, there were 26 rural community pharmacy closings throughout the state.

There were another 12 additional community pharmacies that were at risk of closing. North Dakota does have a pharmacist shortage due to retirements and trying to find replacements for pharmacists and that type of thing, so all of this together, these factors lead to a negative impact on rural health. The North Dakota Telepharmacy Project was funded from 2002 through 2012 by the US Department of Health and Human Services, the Office for the Advancement of Telehealth.

Partners in this project we commonly refer to as the ABCs of Pharmacy. The association, the board, and the college. In North Dakota, those groups, the college has very good relationships with the board. The North Dakota board is considered very progressive, probably one of the most progressive boards in the country and the North Dakota State Pharmaceutical Association is another partner of ours.

They were very supportive of the project and I certainly want to recognize the number of licensed rural community pharmacies throughout the state that participated in this project. The goals of the telepharmacy project, there were threesome: restore pharmacy services in rural communities that have lost their services, to retain pharmacy services in communities which were at risk of losing their services, and establish pharmacy services in rural communities, which have previously not had services.

This is the state of North Dakota that has a map of telepharmacy sites. It includes the community sites, both the central sites and the remote sites. The central sites are defined as the community pharmacies of which there's a licensed pharmacist. If you take a look at the western part of the state, in about the central/western area is Killdeer.

Jody Dole is the pharmacist there. Killdeer, there's a population of about 1,500 people. Jody also has two remote telepharmacy sites in which a pharmacy technician works by themselves. Two of his sites is Beach and New England, also located in the western part of the state. Beach is actually located on I-94 right at the border between North Dakota and Montana.

Then New England is about 75 miles south of Killdeer. Jody has actually three pharmacies, but two of those pharmacies, Beach and New England, have just a pharmacy technician working at them. This is a list over time. As I mentioned, the grant covered from 2002 to past 2012 and this shows ... You can see 72 total sites and that includes 24 central sites and 48 remote sites.

Again, the remote sites, it's where the pharmacy technician works and they're being supervised through telehealth audio-visual links from the central site, and you can see the number of retail sites and hospital sites, and we also have two interstate sites. Both of those are located in Minnesota. One is near Lake Otter Tail, and the other one is in Karlstad.

I'm going to skip over the pharmacy technician training requirements and responsibilities, but you have a slide that indicates the training requirements. The training requirements for the pharmacy technicians working in the telepharmacy sites meet or actually surpass those requirements by the North Dakota Board of Pharmacy.

Also, they go through significant training and most of them are nationally board certified, and you can see the responsibilities which they have. Pharmacist responsibilities include supervision. In most community pharmacies, the pharmacist is about three feet from the pharmacy technician, and oversees their work directly with the telepharmacy project.

There is a distance but this distance and the supervision is done through the use of telehealth, video conferencing, and that type of thing, which I'll get into in more detail in a minute or so. Let's talk about telepharmacy in a community pharmacy setting. I think these slides will better illustrate what I'm talking about.

Enderlin Pharmacy is a remote telepharmacy site located in southeast North Dakota. Elaine is the pharmacy technician behind the counter there. The remote sites have a very similar inventory to what you see in virtually any community pharmacy. It has non-prescription drugs and it also has a full list of prescription products, and those do include controlled substances.

This shows Elaine the pharmacy technician doing product selection, and you can see the vast array of various tablets, capsules, et cetera. Keep in mind the technology probably looks ancient, monitors have been updated and that type of thing, but these are pictures taken when this project was funded and going on. Elaine is in the process of filling a prescription and that black ... It almost looks like a light.

It's a document camera which the pharmacist can use to see virtually everything that she's doing, and the person on the monitor in the background, his name's Walter Speese. He's a pharmacist in LaMoure, North Dakota, which is about 50 miles from Elaine's remote site, so this shows a picture that was taken from the document camera.

It shows a prescription for ciprofloxacin, Cipro 500, and you can see the prescription blank, the prescription container of Cipro, the prescription label as well as the tablets and the document camera does allow the pharmacist to do close-ups, if that is needed, but everything is basically watched by cameras, interactive TV of such.

Then this shows one of the requirements ... Well, nationwide, I think anyone who has ever had a prescription filled at a pharmacy, there's an offer to consult made by the pharmacy technician or the pharmacist, which basically doesn't mandate that they counsel on every prescription, but if the patient does say, "Yes, I would like to talk to a pharmacist," then there is that interaction.

North Dakota, when the regulations were passed by the North Dakota Board of Pharmacy, it required that the pharmacist actually take a bigger quality improvement measure and that they must counsel on every prescription filled at a remote telepharmacy site. What you have in this picture is the patient and the person on the monitor is Jody Dole, at Killdeer once again.

This consultation occurs through the use of audio-visual links, very similar to what most of you do as far as Skyping. All of the telepharmacy sites are required to have a private consultation area, so the communication between the pharmacist and patient can't be heard by other customers or patients. The cost of the telepharmacy technology, as far as the grant, about 50% of the costs were covered because of the grant, and about 50% of the costs were covered by the North Dakota pharmacy owners.

On an average basis, about \$18,000 of grant money was spent on each site, and you can look through that, a PC computer, and you can see this is very ancient, very old. Computers today, you might get one for \$2,000, but you could spend a whole lot less than that for, actually, a much better computer. The document camera, the connectivity, every pharmacy had to have a firewall and then a higher improvement camera.

We used Polycom units at the time, and you can see the cost for that. Then, as far as equipment, installation/configuration was also included. As far as the telepharmacy project, I am a professor at North Dakota State and one of the major reasons I came to North Dakota State was to do research, and my research deals with patients and situations like this.



We did put an outcomes research-based, evidence-based approach onto this project, and you can see that we looked at economic outcomes, clinical outcomes, and humanistic outcomes. I have a listing of projects that have been done and completed in public, both presented and published, and those projects, if you want to look at the specific articles, if you have trouble sleeping, those are all referenced in the reference page, which is at the tail end of this presentation.

We've done cost studies. The last study we did was a sustainability study. We also looked at medication dispensing errors, especially early on in the project there were pharmacists in the state that were concerned that wouldn't the quality of care be less at the remote sites than at a regular community pharmacy?

We did a study on that and we basically showed that the error rates were approximately the same, and when compared to national studies the good news is that there's about a 2% national error rate, and in our study we had a less than 1% error rate, so doing much better than what is done on a national basis. We've also conducted patient satisfaction studies.

That, again, is included in the references. As I mentioned, we were concerned about sustainability and that's a concern for federal grants that, once the funding runs out, are these projects sustainable? Do they continue to operate or do they basically fold and go away? Well, we did a survey of all of the communities' sites participating.

We had over a 71% response rate, which is very good, and as you can see in the results and the conclusion, most of the respondents reported that the telepharmacy sites, especially the remote sites, generate small positive financial returns for the organization. Respondents also reported that if the pharmacy closed at the remote sites, which significantly harm the communities in which they serve.

The bottom line on it is that the North Dakota Telepharmacy Project has been successful in restoration and retention of pharmacy services, and certainly there's been a substantial investment and shared decision-making done with North Dakota pharmacy owners. The telepharmacy model is sustainable, even if it does not generate economic profit.

In looking back at ... I showed that slide earlier, 72 telepharmacy sites. Since the funding ended in 2012, we've only had one site that has gone out of business and I think that's a pretty significant success record. Lessons learned from the North Dakota Telepharmacy Project, it does maintain and improve access to pharmacy services in underserved rural areas.

It does provide pharmacist release staffing for covering routine hours, evenings, weekends, vacations, sick days, and any healthcare professional that works in a rural area knows how difficult it is to get weekend coverage. Often they end up doing it. It's very difficult to go on vacation or find someone for relief services, but the telepharmacy component can really improve upon that.

Some of the other things that needs to be put into place is that the ABCs, or again, the association, the board, and the colleges, a pharmacy need to be on the same page. We're very fortunate in North Dakota that the three groups are all very supportive of the efforts of the other groups, and this has really helped us in this project as well as other projects.

I do think that the telepharmacy project is certainly expandable and has been expanded. People use many different approaches, but I think in the Public Health Service, the Indian Health Service, there's a big role for telepharmacy, rural states, and virtually every state in the country has significant rural areas.

That certainly is a major part and then where high medical/pharmacy need areas occur. This is a list of the telepharmacy references and down at the bottom of the page is a site that will take you to gain more information if you're interested in more information on the North Dakota Telepharmacy Project. That concludes my presentation.

I'd like to introduce Danielle Louder, who's going to be talking about the National Telehealth Resource Centers.

**Danielle Louder:** Fantastic. Thank you David. Thanks for sharing that excellent use case of telepharmacy and all the wonderful outcomes that you're seeing. I think I'm going to have to flip through your presentation.

**David Scott:** Sorry about that.

**Danielle Louder:** That's okay. I can click buttons and talk, so as Kristine mentioned at the beginning, I am actually the Program Director for the Northeast Telehealth Resource Center, however, I'm really here today representing the entire National Consortium of Telehealth Resource Centers. This map as a nice depiction of the different regions.

Collectively, there are 12 regional telehealth resource centers, and we cover all 50 states and the Pacific Basin including the Marshall Islands and other and other parts of their islands in the Pacific Basin and there are also two national telehealth resource centers: the Telehealth Technology Assessment Center based out of Anchorage, Alaska, which is almost a consumer reports, if you will, which provides assessment and feedback on the vast amount of technology that's out there.

We often get a lot of different technical assistance request for assessing technology and finding the right fit for clinical needs. They are a huge help to all of us across the country and then the Center for Connected Health Policy is based out of Sacramento, California, and they specialize in the ever-evolving landscape of telehealth policy.

As Luci mentioned in her presentation, there's a lot of diversity from state to state, and then with Medicare policy particularly around reimbursement for telehealth, and certainly CCHP the Center for Connected Health Policy, and then each of the regional telehealth resource centers really dig into those differences in policy and provide a lot of technical assistance.

That's probably one of our most common questions that we get, is around legal, regulatory, and reimbursement policy for telehealth. This shows that map of all of the telehealth resource centers and where we're based I cover all six New England states, and David, I did not realize that there was a New England in North Dakota, so now I know something new.

We also cover all of New York and the northern part of Jersey, and as mentioned, our other colleagues cover the rest of the country. We are also funded through the Federal Office of Rural Health Policy under HRSA's Office for the Advancement of Telehealth, or OAT, as we refer to them as. Our mission is really, much like many of you working in rural and underserved communities, the majority of the technical assistance requests that we get around telehealth are from folks who serve rural and underserved populations.

We certainly are working with a lot of urban centers who provide specialty services, et cetera, to telehealth networks that reach out to rural and underserved areas, and we're also doing a lot more work with upstream types of requests.

For instance, trainings and integration of telehealth training into curriculums across multiple disciplines, whether it be physicians, nurses, OT, PT, et cetera, which is really exciting to us because we love to think that our students in a variety of clinical areas are going to be well-trained and prepared to use technology when they're starting new in their careers.

We get really jazzed up about that type of technical assistance as well, so our aim is really connecting those rural communities and helping them overcome geographic barriers to receive quality healthcare services. As each of the presenters mentioned, there are unique challenges and opportunities to rural planning and implementation of telehealth programs.

While I just have a few minutes here today, what I really wanted to get across is that the telehealth resource centers are here, we want to hear from you. We meet you where you're at, whether telehealth is completely new to you or whether you're a veteran in respect to telehealth and you want assistance with expanding your program, or maybe you want to dig into evaluation or some business planning.

That's what we're here for, so I really hope that you'll reach out to your telehealth resource center to chat through your specific needs and interests and how we can help. Just a highlight, I guess, of our services that we provide, again, we are funded through HRSA and their Office for Advancement of Telehealth to provide technical assistance.

We do a lot of resource development, whether that be e-training or online modules for health systems, providers, patients. We design and execute needs assessments, whether that's technology or workflow, et cetera, so it's really, again, about meeting folks where they're at. Business strategy, we are getting a lot more of those types of requests over the past few years.

To really look at telehealth, it's a tool in the toolbox, and it should be part of your global strategic planning. How are you going to integrate the technology and help increase access to services that are much needed across your communities based on your data and your community's needs? That looks like a lot of different things.

Again, its policy and legal and regulatory factors, telehealth protocols and workflows, that technology assessment, business and strategic planning, et cetera. I did want to mention a key resource is our newly revamped National Consortium of Telehealth Resource Centers website, and the link is down there, [www.TelehealthResourceCenter.org](http://www.TelehealthResourceCenter.org).

You can find a ton of great information on this website, and I'm going to go through just a few of those right here. We do have a number of fact sheets that we've developed collectively through the National Consortium, and we have an annual report that's available on the website. This is just a few of them, a smattering that I'm highlighting here.

We have telehealth policy issues, 15-step business model, fact sheet. We have technology assessment fact sheets, et cetera. If you're trying to build a business case, we have a framing telehealth fact sheet there as well, so I would encourage you to check out the website. There's also a whole section on research and resources that can help you research across a number of different focal areas in telehealth.

We do offer as well a monthly NCTRC webinar series available at no cost and we record each one of those webinars, and those are available on our YouTube page after each session. Those are every third Thursday of the month from 2:00 PM to 3:00 PM Eastern Standard Time, and the focus varies from month to month talking about policy, business models, clinical workflow.

A lot of times we have speakers who are experts in their field whether it be teleretinal screening, asynchronous use cases, tele-genetics, you name it, and we really try to hear from our stakeholders across the country what are their needs and then we base the content of those webinar series on the needs. I would encourage you to check those out as well.

We also have a number of TRCs that have regional conferences. In fact, ours is coming up just next week in Portland, Maine, for the Northeast. I would encourage anybody who wants to attend to check it out, but you can click on the link on the NCTRC webpage to see where regional conferences might be being held, what those dates are, and where they're being held in your region, so encourage you to check that out as well.

They're wonderful opportunities for hands-on trainings. That first picture is actually Jordan Berg, who's with TTAC, the Telehealth Technology Assessment Center doing some hands-on training and, of course, education and networking. Just very quick tips to get started. It's about finding champions. I think both of our speakers today shared some wonderful programs and outcomes.

Without the champions involved, certainly they would not have found that success. Think big, start small so that you can try things out, particularly with the technology, the workflows, et cetera, and again, telehealth resource centers are here to help you with any different number of templates and resources so please don't recreate the wheel.

Focus your time and effort on program development and a sustainable business model, and then choose the technology that fits your plan. It's really about the people. Again, keeping technology simple; David had mentioned that the technology, the pricing has come down significantly and that is so very true. There's so much competition out there.

Just like any other technology, the price has come down along with that. It's gotten smaller, more pliable, things that people are used to using in their day-to-day life. Leader support advocacy efforts, if you can, for your program development and policy growth within your state, and even at the federal level if you're able to.

Then, again, just really honing in on this again is reaching out to your telehealth resource center because we are here and we're funded to help you, so I hope that you will do that. This is contact information for the NCTRC. Of course, we have an online form that you can put in all of your contact information, the state and/or states that you're working in, and that automatically goes to the TRC that serves your region.

You can sign up for our newsletter. There's a live link there. Again, you can check out our YouTube channel to see videos or recorded webinars, and then we have both a Facebook and Twitter page, and then if you'd like to reach out to me, either because you're here in the northeast region or just because you'd like to chat, then I would love to hear from you.

I think that finishes up my section. I'm going to pass it back over to Kristine.

**Kristine Sande:**

Thanks so much, Danielle. That was really interesting. At this point, we are going to open up the webinar for just a few questions. We're coming towards the end of our time today, so you should see a Q&A box has appeared in the lower right-hand corner of your screen. That's where you can enter your questions if you have some for our presenters today.

I'll ask a question to start things off. Danielle, do you have any key tips for long-term sustainability, especially for grant-funded programs?

- Danielle Louder:** That's a great question and we certainly can help folks who are interested in business planning. What we're seeing a lot more of, Kristine, is, certainly, if your reimbursement could and should be a piece of your business plan and then, of course, if you're starting out with a grant and you have pilot funds for that, that reimbursement is a piece of it, but it's really just a piece.
- People are starting to look outside the box, work outside the box of traditional reimbursement. They're working with accountable care organizations to, for example, negotiate incentive payments if part of their business plan is to have telehealth help them reach additional populations. For example, we had a group in the Finger Lakes, New York.
- Their retinal screening for adult patients with diabetes was very low, they weren't reaching their quality metrics, and a lot of that was because they couldn't get folks to go to yet another office visit because it was additional time away from work, transportation, and all the costs associated with that. They were able to incorporate teleretinal screenings into their regular primary care visits.
- Of course, their metrics went through the roof because they were able to go from 45% to 90+ percent of adult patients with diabetes receiving that screening, so they actually were able to negotiate an incentive payment with their regional ACO because they were now meeting those quality metrics. That's just one example, but again, folks are looking outside the box for those types of things, especially if you're able to show a return on investment with your program that you're ...
- It's either preventable costs or savings, so again, real innovation in that respect, and there's a lot of other examples that I could share, but I want to make time for other questions if that's helpful just to think about.
- Kristine Sande:** Yeah, that's great. A couple of questions. Danielle, do you know are there any plans to expand resources to the US Virgin Islands?
- Danielle Louder:** That is a great question and one that I will follow up with our HRSA ... Our Office for Advancement of Telehealth project officer and I can follow back up with the team to make sure that whoever asked that question gets an answer.
- Kristine Sande:** Okay, great. Another question. What role do the panelists see for regional public universities in supporting the telehealth workforce when we don't have the faculty expertise? Any train-the-trainer type resources that you're aware of, or other ideas?
- Danielle Louder:** I can hop in quickly. I don't want to monopolize, but this is Danielle again. As I mentioned, we're getting a number of requests from folks who are either submitting workforce development grants and they've asked us to assist, if they are funded, to assist with development of the curriculum, and that's exactly ...
- We just worked with the University of New England here in the state of Maine to develop a proposal and should we be funded, that's exactly what we're going to do. We're going to develop a train-the-trainer model so that we come in and deliver the first one or two times, but then their faculty, their staff are able to then sustain it over time moving forward. Yeah.
- David Scott:** Yeah. This is Dave Scott. I also wanted to mention, Chuck Peterson, the Dean of the College of Health Professions, basically championed the North Dakota Telepharmacy Project, but when you look at academia there's there's a lot of people that are looking for scholarship and research opportunities and telehealth provides such a wonderful program and evaluation framework.

I think it is very important for people to reach out and bring in the academic side, especially early on in writing a project. You build in a real good evaluation component, and also look at the sustainability question, both short-term as well as long-term.

**Kristine Sande:** Thank you. Another question for David. Did you experience any challenges in getting pharmacist buy-in to participate in the telepharmacy program especially as it relates to liability issues?

**David Scott:** Well, not really. Like I mentioned early on, there were so many community pharmacies that had closed in North Dakota and the possibility of losing more of the North Dakota pharmacists, especially in community settings. We have a 51% ownership law, which is unique to North Dakota in that, for a community pharmacy to operate, the owner/manager has to show that they have 51% of the assets.

That's a big advantage for an independent community pharmacy and chain stores and the big-box stores absolutely hate it, but given that, because the state association and the board and the college work so closely together, we had a lot of pharmacists at both hospital settings and community settings that wanted to participate in the project because they could see that this would be something that would be mutually beneficial.

It would be a win-win, which it turned out to be.

**Kristine Sande:** All right, and one last question. Do any of you have specific examples of how to implement telehealth services for pediatric and adolescent mental health?

**Danielle Louder:** I'll hop in. There are many programs, again, across the United States that my colleagues in the other telehealth resource centers could talk about, but of course, I know the ones in the Northeast the best. One model is actually a group out of Athol, Massachusetts, and they're a very rural area, very underserved.

They were struggling to meet psychiatry needs, both children and adolescents, and they decided to pilot a program and they got initial grant funding from HRSA in a Rural Health Network development grant to implement a school-based telepsychiatry program and we helped them to develop a roadmap for that. I'd be happy to share that with the group if folks are interested in looking through that.

From that roadmap, they were able to expand funding to not only two, but in the past year, to four additional sites for that school-based telepsychiatry program. Again, happy to share resources from that if folks are interested.

**Luci Rocha:** I'll just add, this is Luci Rocha, but the Rural Telehealth Toolkit also has descriptions about eight programs that are specifically focused specifically on children and also has some considerations for implementing telehealth programs with children and with adolescents.

**Kristine Sande:** All right, well, thank you so much. I think at this point we will wrap up today's webinar. On behalf of RHIfhub, I'd like to thank our speakers today for the great information that you shared with us. Also, thank you to all of our participants for being with us today. A survey will open at the end of today's webinar.

We encourage you to complete that survey to provide us with your feedback. The slides used in today's webinar are currently available at the link listed on the slide. In addition, a recording and a transcript of the webinar will be sent to you by e-mail in the near future so that you can listen again, or share the presentation. Thank you again for joining us and have a great day.