HIV/AIDS in Rural America Transcript – 11/07/19

Kristine Sande: Hello everyone, I'm Kristine Sande and I'm the program director for the Rural Health Information Hub. I'd like to welcome you to today's webinar, HIV/AIDS in Rural America, and we have just a few housekeeping items that I'd like to go through before we get started. We do hope to have time for your questions at the end of the webinar. If you have questions for our presenters, please submit those at the end of the webinar using the Q and A section that will appear on the lower right hand corner of the screen following the presentations. We have provided a PDF copy of the presentation on the RHIhub website and that's available through the URL that's on your screen. We have also sent the link via the chat function. If you have technical issues during the webinar, please call WebEx support at 866-229-3239.

And at this point I'll turn things over to Diane Hall with the Centers for Disease Control and Prevention and she will introduce today's speakers. Diane?

Diane Hall: Good morning everyone. As Kristine said, my name is Diane Hall and I'm a Senior Scientist for Policy and Strategy at CDC in the Office of the Director. For the past two years I've had the pleasure and privilege of serving as CDC's point of contact and coordinator for our rural health work. If you'd like to learn more about that work please email ruralhealth@cdc.gov.

As CDC's rural coordinator I've also had the privilege of working with and getting to know staff in the Federal Office of Rural Health Policy. This is one of my favorite partnerships because working with the staff there has been productive but also enjoyable. Our partnership has really developed and grown over the last few years and it's definitely mutually beneficial. CDC is a scientific organization so we collect and analyze data, conduct research, and develop resources and tools on a variety of health topics. FORHP, with its wide networks and infrastructure, helps us get the information where it's needed. FORHP also helps connect us to rural stakeholders, which allows us to refine our work and make it more rural relevant. FORHP also connected us to the great folks at Rural Health Information Hub and they've just been wonderful about providing a platform for us and getting our work out also. Today's webinar on HIV and AIDS in rural America is a great example of these partnerships in action.

With that, I'd like to introduce our presenters today. I'll just read a quick bio. Dr. Kirk Henny is a senior epidemiologist at CDC in the Division of HIV/AIDS Prevention, which is located within the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. He earned his doctorate and master's degrees in medical sociology from Howard University and his bachelor's degree in sociology from James Madison University. Dr. Henny's CDC experience includes extensive work in the field of HIV prevention and care. Some of his projects have focused on housing, incarceration, risk reduction interventions, use of electronic and mass media, and services in primary clinical care settings.

We're also joined by Dr. Pamela Klein, who is a Health Scientist in the Division of Policy and Data in HRSA's HIV/AIDS Bureau. And she's worked in HIV prevention and care for over 10 years. She obtained her MSPH and PhD in epidemiology from the University of North Carolina Gillings School of Global Public Health and received post-doctoral training at the Medical College of Wisconsin Center for AIDS Intervention Research. Her work focuses on the evaluation of large scale HIV programs, including the Ryan White HIV/AIDS Program, translation and dissemination of Ryan White HIV/AIDS Program data, and data-informed decision making to improve health outcomes along the HIV care continuum.

We're also joined by Michael Murphree. A lifelong resident of Alabama, Mike is a graduate of Auburn University at Montgomery and the University of Alabama. He received his Master of Social Work degree and is a licensed and independent clinical social worker. He's currently the Chief Executive Officer for Medical Advocacy and Outreach, MAO, which is based in Montgomery, Alabama. Prior to joining MAO he served as the interim Executive Director of the Southern AIDS Coalition. Mike also worked at Montgomery AIDS Outreach, where his sensitivity to the specific needs and cultural differences that rural communities present was crucial to work as HIV-specific medical care expanded to rural communities in southeast and western portions of Alabama.

So with that, I'd like to turn things over to Dr. Kirk Henny.

Kirk Henny: Thank you Diane for that introduction.

My talk today is going to be focused on ending the HIV epidemic initiative and its implications for rural America. So HIV has cost us dearly in terms of lives. Over 700,000 persons have died since 1981. Over 28 billion dollars have been spent by the U.S. government for HIV prevention and care, and without intervention and substantial progress we can expect over 400,000 more persons that will get HIV over the next 10 years. The annual number of HIV cases has declined substantially since its peak in the 1980s, when we had nearly 130,000 cases per year, new cases per year. From 1985 to 2012, interventions have reduced incidences to under 50,000 new cases per year. But since 2013 to the present, annual HIV infections have effectively stalled to around 40,000 new cases per year.

HIV has disproportionately affected different groups. Regionally, the southern states represented 52% of 2017 HIV cases, even though the region only comprises 38% of the population. Among transmission routes, sexual contact via men who have sex with men, or MSM, make up about two-thirds of the 2017 HIV cases, followed by 24% via heterosexual contact, and the remaining portion via injection drug use or in combination with MSM contact. Among racial and ethnic groups, African Americans account for 44% of HIV diagnoses despite comprising only 13% of the population. Between 2012 and 2016, HIV diagnoses increased among younger, Hispanic Latino MSM and among American Indian and Alaskan Natives during that span.

So what is meant by rural? Well, characterizing an area or population can be done in a variety of ways. At CDC, we typically use metropolitan statistical areas, or MSA, as defined by the Office of Management and Budget, or OMB. OMB divides MSA into these broad categories. Populations of 500,000 or more, so this includes areas such as Atlanta, New York City, or Los Angeles. There's also a group of 50,000 to about 500,000 population. These are your midsize cities, so this would include cities such as Mobile, Alabama, Charleston, West Virginia, or Fort Wayne, Indiana. Then you have population centers less than 50,000 in population. These effectively as non-metropolitan areas or otherwise known as rural areas. We will use these classifications to compare HIV data for these area types in the following slides.

While the burden of HIV is concentrated in urban areas overall, we see a growing proportion of new cases occurring in smaller populated areas. Specifically, new HIV diagnoses in midsize or rural areas represent 21 and 23% of all cases in the Midwest and southern regions, respectively, which are high proportions compared to the northeast and the west, where you have more larger urban centers.

Recent increases in HIV cases in rural areas are partially driven by the opioid use among persons who inject drugs, or PWID. Part of the challenge in these areas is that HIV is increasing in areas such as these rural areas that historically have had low incidence of HIV until recently. Therefore

resources may not be adequate to address the changing local HIV landscape. Furthermore, the wider geographic dispersion compared to urban areas create challenges for services focused on HIV prevention and treatment and substance use disorder treatment, including medication assistance treatment.

Other HIV-related implications for persons who inject drugs include high risk practices such as sharing needles and syringes. Persons who inject drugs also may engage in risky sexual behavior and co-occurring HIV with other infections such as STIs or hepatitis C occur at higher rates among persons who inject drugs.

Looking at 2017, HIV diagnoses among males and adolescents across these areas, three area types, in 2017 we see that the proportion of HIV transmission through injection drug use was higher in rural, non-metropolitan or rural areas compared to the other area types. Regarding care continuum outcomes among persons living with HIV, we see that across the three area types, the percentage of individuals being engaged in HIV care and those virally suppressed were lower among non-metropolitan or rural areas, which are noted in yellow, compared to the other two area types.

Now, on this slide here illustrates various data really PrEP uptake. Without getting into the specifics here, the main take home point here is that PrEP has dramatically improved over the last few years overall. But when examining the use of PrEP uptake across specific locations or location types, we see that participants from rural areas reported the lowest PrEP use compared to the other specific locations or location types.

As many of you are familiar with, the ending of the HIV epidemic is a Federal initiative with the stated goal of reducing the number of new HIV infections in the United States by 75% within the next five years, and then by at least 90% within 10 years, for an estimated 250,000 total infections averted. When we say federal initiative, we mean multiple federal agencies under the Department of Health and Human Services with the CDC and HRSA taking the bulk of the heavy lifting. But this effort also includes non-HHS agencies across to address support services such as Housing and Urban Development and others.

The first five years of the initiative will target jurisdictions with the highest HIV burden. This includes seven states with substantial rural burden of HIV, including the states of Alabama, Arkansas, Kentucky, Mississippi, Missouri, Oklahoma, and South Carolina. The strategic practices that's part of the initiative will focus on four broad areas. Those areas are diagnose, treat, prevent, and respond.

Early diagnosis is critical because 80% of new HIV infections are from persons who don't know they have HIV or are not in HIV care. So for rural areas that have had historically low HIV prevalence until recently, effort that expands HIV screening will be crucial. For prevent activities, PrEP expansion will be needed. Increase in uptake will require efforts to expand both general awareness in rural areas to both individuals as well as providers in rural areas where access is more limited compared to the more populated jurisdictions.

Prevent activities may also involve the expansion of syringe services programs, which have been found to increase entry into substance use disorder treatment and reduce overdose deaths. But more importantly, SSPs have been found do not increase illegal drug use or crime, but they do reduce HIV risk. However, barriers such as stigma, community buy in, and quite frankly local laws, prevent challenges, particularly for many rural jurisdictions who may wish to add SSPs as part of their local jurisdictional prevention strategy.

As far as treatment goes, for persons living with HIV, HIV medications as prescribed and remaining virally suppressed keeps persons healthy and have effectively no risk of transmitting HIV to their negative partners. In rural communities where issues such as transportation and stigma may inhibit access to HIV care may need to be addressed to improve treatment in these jurisdictions.

Finally, being in a position to effectively respond to outbreaks are also needed as part of ending the HIV epidemic initiative. In particular, clusters that have been related to drug use using networks, especially with opium use as an example of how such activities can help contain such outbreaks and provide timely resources to those who need them the most quickly and efficiently as possible.

The success of this initiative will not rest on federal efforts alone. Collaborations and partnerships with community advocates and non-government organizations and concerned citizens will be needed to reach our goals, and now is the time. So that concludes my overview. I will now pass it on to Pamela. Thank you.

Pamela Klein: All right, thank you, Kirk. My name is Pamela Klein and I am a health scientist in the HRSA HIV/AIDS Bureau's Division of Policy and Data. Today, I will present HRSA's Ryan White HIV/AIDS program in rural areas of the United States.

The Health Resources and Services Administration, or HRSA, supports more than 90 programs that provide healthcare to people who are geographically isolated, economically or medically challenged. HRSA does this through grants or cooperative agreements to more than 3000 awardees, including community and faith-based organizations, colleges and universities, hospitals, state, local, and tribal governments, and private entities.

Every year, HRSA programs serve tens of millions of people, including people with HIV, pregnant women, mothers and their families, and those otherwise unable to access quality healthcare. HRSA's Ryan White HIV/AIDS Program provides a comprehensive system of HIV primary medical care, medications, and essential support services for low income people with HIV. More than half of people with diagnosed HIV in the United States, more than 500,000 people, receive care through the Ryan White Program. The Ryan White program funds grants to states, cities and counties, and local community-based organizations. These recipients determine service delivery and funding priorities based on local needs and planning processes.

Importantly, the Ryan White HIV/AIDS Program is the payer of last resort. This means that Ryan White Program funds may not be used for services if another state or federal payer is available. Part A of the Ryan White Program funds cities and counties, Part B funds states, Part C funds community-based organizations, and Part D funds community-based organizations for women, infants, children, and youth specifically. Services delivered by these parts include medical care, medications and laboratory services, clinical quality management and improvement, and support services, including case management, medical transportation, and other services.

Part F of the Ryan White Program funds clinician training, dental services, and dental provider training, as well as the development of innovative models of care to improve health outcomes and reduce HIV transmission among hard to reach populations. 85.9% of Ryan White clients were virally suppressed in 2017, exceeding the national average of 61.5% among all people with diagnosed HIV.

In 2017, the Ryan White HIV/AIDS Program served over 530,000 clients, which is more than half of all people with diagnosed HIV in the United States. Nearly three-quarters of Ryan White clients were racial or ethnic minorities, and approximately two-thirds were living at or below

100% of the Federal poverty level. Please note that these data points and all subsequent data that I will present do not include our Part B funded AIDS drug assistance programs, or ADAP.

Nationally, viral suppression within the Ryan White HIV/AIDS Program has increased from 69.5% in 2010 to 85.9% in 2017. Although viral suppression increased in all states, you'll see that there is still work to be done. I do want to briefly note here that within the Ryan White Program data, a client is considered virally suppressed if that client had at least one outpatient ambulatory health service visit or medical visit during the calendar year, and at least one reported viral load, with the last viral load test result being less than 200 copies per milliliter.

Kirk already provided a thorough introduction of the Ending the HIV Epidemic initiative, but I want to briefly talk about this initiative from the HRSA perspective. This would be a 10 year initiative beginning in fiscal year 2020 to achieve the important goal of reducing new HIV infections in the United States to less than 3000 per year by 2030. This level of reduction would essentially mean that HIV transmissions would be rare and meet the definition of ending the epidemic. There are four strategies or pillars, diagnosis, treat, prevent, and respond, that would be implemented across the entire U.S. within 10 years.

Through the Ryan White HIV/AIDS Program and the HRSA-funded health center program, HRSA would play a leading role in helping to diagnose, treat, prevent, and respond to end the HIV epidemic. In the first five years of this initiative, activities will be focused in 48 counties, Washington, D.C., and San Juan, Puerto Rico, where more than 50% of HIV diagnoses occurred in 2016 and 2017 and seven states with substantial rural HIV burden.

Under this initiative, the Ryan White HIV/AIDs Program would fund Part B grant recipients of these seven states to address their rural epidemics. This funding opportunity is for Ryan White HIV/AIDS Program to have a broader approach to addressing HIV in their communities than what exists in services authorized by the Ryan White HIV/AIDs Program legislation.

The Ending the HIV Epidemic initiative pays special attention to HIV in rural areas because of the barriers faced by rural communities in providing HIV treatment and prevention. Some of these barriers to care include stigma, lack of services or specialized service providers, transportation to services, behavioral health and substance use conditions, staffing, and lack of HIV education and awareness. These barriers may contribute to delays in HIV testing among rural people with HIV. Additionally, some evidence suggests that rural people with HIV are less likely to be retained in care, adhere to anti-retroviral medication, and reach viral suppression than people with HIV living in non-rural areas.

Nationally, 6.2% of Ryan White HIV/AIDs Program providers are located in rural areas. Rural areas are defined according to the Federal Office of Rural Health Policies' method for determining rural-designated areas for grant eligibility, and this is based on the rural urban commuting area codes. Please note that when I refer to Ryan White HIV/AIDs Program providers, I am referring to an organization funded by the Ryan White Program to deliver specific services to Ryan White-eligible clients. In Ryan White Program terminology, a provider is not an individual human being but an organization.

Over half of states and territories had a Ryan White provider that was in a rural area, and five states had more than one-quarter of their providers located in rural areas. These were Kentucky, Montana, South Dakota, Maine, and New Hampshire. Approximately 90% of rural providers received Public Health Service Act 330 funding, which suggests that Ryan White providers have the potential to leverage resources and expertise of the Federal Health Center program, and nearly half served less than 100 Ryan White clients, which is a relatively small number of clients.

Overall, Ryan White HIV/AIDs Program providers located in rural areas were funded to deliver a greater number of service categories per site than non-rural providers, so about 45% of rural providers were funded from five or more service categories compared to 35% funded from five or more service categories of non-rural providers. We examined the percentage of rural and non-rural providers funded for different Ryan White Program service categories. Compared to non-rural providers, a greater proportion of rural providers were funded for outpatient ambulatory health services or a standard medical visit, early intervention services, emergency financial assistance, food bank or home-delivered meals, medical case management, medical transportation, and mental health services, non-medical case management, and oral healthcare. In contrast, about 10% of rural providers were funded for outpatient substance use services while about 14% of non-rural providers were funded for that same service category.

Of the over 530,000 Ryan White clients in 2017, 2.3% visited only rural providers and .8% visited both rural and non-rural providers. The demographic characteristics of Ryan White clients who visited rural providers were similar to the overall demographic profile of Americans living in rural areas of the United States. Compared with Ryan White clients who visited only non-rural providers, they were older, less likely to be a member of a racial or ethnic minority, and more likely to be living at or below the federal poverty level. The identification of these sociodemographic differences may inform initiatives designed for certain key populations such as initiatives to meet the needs of older people with HIV who access care in rural areas.

Although studies have shown that rural people with HIV experience a multitude of barriers to accessing and remaining engaged in HIV care, only some studies found an association between virality and HIV clinical outcomes. Within the Ryan White HIV/AIDs Program, these barriers do not appear to negatively impact the HIV clinical outcomes of Ryan White clients. That is, rates of retention in HIV care and viral suppression among Ryan White clients visiting rural providers were comparable to clients who visited only non-rural providers.

Addressing the needs of people with HIV in rural communities means developing innovative approaches to ultimately retain clients in care and reach viral suppression, including transportation, alternative medical visits such as telemedicine, alternative case management models, and HIV education and awareness such as using community health workers. I specifically want to mention the Ryan White HIV/AIDs Program's AIDS Education and Training Centers, or AETCs, that work in many of these areas to train providers and increase capacity and skills. Specifically, they have a telehealth training center and a dedicated rural health committee.

HRSA and Ryan White HIV/AIDs Program recipients are undertaking activities to develop and implement such innovative approaches, and I want to talk briefly about two of these activities. In March of this year, the Ryan White HIV/AIDs Program Part C Rural Health and HIV Workgroup held a one-day technical assistance and networking event for HRSA recipients serving people with HIV in rural communities at Meharry Medical College in Nashville, Tennessee. In attendance were HRSA rural grant recipients from Region 4 and Region 6. Region 4 is Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee, and Region 6 participants included people from Arkansas and Louisiana.

This event was a collaboration between the HRSA HIV/AIDS Bureau, the Federal Office of Rural Health Policy, and the HRSA Office of Regional Operations and the HRSA Bureau of Primary Healthcare, which supports the HRSA-funded community health center program. This meeting brought together Ryan White Program recipients and providers to talk about how they are addressing the needs of their clients with HIV. Recipients prevented on substance abuse treatment, telehealth, recruiting and retaining staff, and community health workers. This peer

to peer technical assistance meeting was a success and HRSA is planning to replicate this collaborative cross-region and cross-HRSA model to other areas of the country.

Another project that I want to briefly highlight is the Ryan White HIV/AIDs Program end+disparities ECHO collaborative, which is a national quality improvement initiative focused on reducing HIV disparities by increasing viral suppression among MSM of color, black or African American and Latina women, transgender people, and youth. This project is grounded in the Project ECHO model, which is a tele-mentoring approach for the 18 month learning collaborative.

I want to briefly highlight the work of one rural recipient initiating quality improvement initiatives under the auspices of this project. Magnolia Medical Center in Greenwood, Mississippi focused their activities on improving clinical outcomes among youth. By leveraging their multidisciplinary team, increasing communication, and exploring their data, Magnolia Medical Center successfully increased viral suppression among youth from 80% to 88% in one single year.

In conclusion, Ryan White HIV/AIDs Program providers are a crucial component of HIV care delivery in the rural United States. Despite evidence of significant barriers to engagement and care for rural people with HIV, Ryan White HIV/AIDs Program clients who visited rural providers were just as likely to be retained in care and virally suppressed as their counterparts who visited non-rural providers. The Ryan White HIV/AIDs Program especially in partnership with rural health clinics and the HRSA-funded Community Health Center Program has the infrastructure and expertise necessary to work towards ending the HIV epidemic in rural America.

My contact information is here. Please feel free to reach out if you have any further questions after the conclusion of today's presentation and designated Q and A period. If you'd like more information about HRSA as an agency, please feel free to visit our website. I'm now going to turn the presentation over to Michael Murphree.

Michael Murphree: All right, thank you very much. I appreciate that, and actually think this is a good lead-in, because a lot of the topics you've already heard have been items that I'm going to talk about just in our experience. We are in Montgomery, Alabama. We also have two other sites, two hubs, one in the southeastern corner of the State of Alabama and one in the southwestern corner. Then we link together a group of satellite clinic sites. Right now 11, and we're about to go 12.

Our main point today, we are going to talk about rural Americans and HIV care delivery. I want to share with you a little bit about our experience at Medical Advocacy and Outreach and how we use telemedicine and telehealth in the process, and hopefully give you a little bit of an idea on how you might be able to utilize it. I'm going to go through the first parts of the slides rather rapidly and then focus a lot more on the latter part.

We do pretty much the whole Ryan White Care Act concept, which is put everything under one roof. That way your recipients of care don't have to travel out, don't have to divulge their status, and don't have to repeat their stories to 10,000 different people. We wound up increasing and adding on dental care. We have a pharmacy as well. We are also doing PrEP and nPEP, and the nPEP is primarily for individuals who have been sexually assaulted. We've initiated that project this year. But the PrEP program we're using also the telemedicine to operate our PrEP program, and then we're also an AIDS Education Training Center site for the southeast AETC, which is out of Vanderbilt, and we're one of the few nonprofit organizations to be a part of that.

Looking forward, we really do want to focus on diabetes care. In the Deep South especially, diabetes is a massive issue, so our goal is to really expand beyond just the HIV and the hep C care that we're doing and try to do more work with other healthcare issues. Then if you'll notice, we're talking civic engagement, and honestly what that is is we think we have to educate our rural people more and more about the issues that are impacting them, in particular on healthcare issues which are significant in rural communities.

Most of you have seen these slides before. The AIDSVu, wonderful group. They give such good detail. We are in the very heart of that belt of HIV. Certainly it's running right through the Deep South states, and we've been dealing with it now for quite some time. The agency itself was originated in 1987. If you look at our State of Alabama, our demographics look along these lines. The yellow hue are individuals who identify as white or Caucasian. The next largest would be African Americans or black communities, and then you have some Latino Hispanic, and then some multiracial communities as well.

If you looked at the HIV issue, it's almost like a flip. If I were looking, the reddish hue are about 64.2% of all the persons living with HIV in Alabama as of the end of 2017 were identifying as black or African American, and the next largest would be white or Caucasian. There's some reasons for that. If you look at the area on our map, the southern part of the state, the darker counties, the ones that have the darkest hue, are indications of counties with high rates of HIV infection. We still have certainly impact in Jefferson County, which is Birmingham MSA up in the northern part, and also Mobile down on the Gulf Coast, which are significant, but those counties in that southern central area are primarily very rural communities and this kind of goes along what you heard earlier, is that in many of the states that were designated, we are seeing HIV much more significant in rural and small towns, and I think that's where we've got to really ramp up our efforts, especially for those of us who are both interested in working with rural communities.

Or as myself, I live in a rural community. I was born and raised in rural Alabama and still live in rural Alabama, so it's a mission for me and for many of my staffers. Then if you wanted to look at what we're going into, our systems covering those areas have linked together all of these little satellites and hubs, and as you see by the symbols, those are the satellite centers as well. The hubs are linked by our telemed that we can utilize the technology to hopefully be able to better serve.

So got to make a mention of this. They've already been stated, and everybody was right on target. For us, transportation will always be, and I think for every rural community in the U.S. and probably the world, getting people to where they need to be is always going to be a barrier. So we acknowledge that and we're really trying to work with that process by providing transportation system within our organization. But we also are looking at three issues for our service area that are significant and that are impacting us.

I think poverty is real. As you saw earlier, the counties that had those high rates for HIV, it's probably not a surprise that those same counties are in that heavy poverty belt. We have not only some of the counties that are poorest in the State of Alabama, but also some of the poorest counties in the United States. So if you have poverty, that makes healthcare issues even greater and healthcare outcomes even harder to be able to deal with.

Then we are suffering a major primary healthcare professional shortage. You only have about four to five counties in Alabama that are adequately covered for just primary care of any type, and if you're talking specialty care you're under an even greater issue. So we're trying to deal with providing and finding doctors and nurse practitioners and others to be able to practice in our regions, and then we have limited parameters in which the nurse practitioners may practice,

so that makes it even more difficult. That really actually pushed us to do more models to use the technology.

I've always got to make a note of this. When people ask me why is this an issue, well, when I'm looking, and when we're talking about right now in the U.S. of really dealing with ending an epidemic, what we're doing now is going to impact our future of our children and our grandchildren, and we know that from our own experience in Alabama. What you're seeing on the map are based in 1860 what I call the plantation culture. Those areas that have the large dark blue hues are the areas that those are representing individuals who were designated as slaves. If you're looking at that, it is ironic. Those are the very same areas that the poverty rates today are still so significant, and all of the healthcare outcomes are being so negatively impacted. But it was because that economic system of the plantation culture was a doomed system economically, because it had just very wealthy and extreme poverty, and there was no middle class to stabilize. So to this day we're still dealing in these counties with those issues and it's making it harder for us to be able to provide care.

So real quick, hospital closings in Alabama. The Alabama Hospital Association indicates we're looking at between 12 and 18 more hospitals closing in the state for this year, next year, and the year after that. Most of those will be rural. We've chosen Alabama not to expand Medicaid and we are seeing that impact among our hospital closings right now. We have high rates of uninsured people in rural communities. Again, did not expand Medicaid. We're seeing the impact particularly on the poorest of the poor, who are often in rural America, and then we are seeing certainly a stigma in rural communities in the Deep South toward healthcare.

You all may see the same thing in your coverage areas, and that is that rural people tend not to do preventative healthcare. They go to the doctors or hospitals at the last minute, and it's just a part of the culture. I saw my grandparents do it, my parents do it. It's just for some reason we're all very independent, we think we can self-treat so we don't go out seeking the healthcare. So that's going to be an issue even in civic engagement, of convincing our rural brothers and sisters that they must do more preventative healthcare.

What we usually did with MAO, we'd have a doctor, nurse, social worker, and staffers to drive out in a van to our satellite counties and try to do the care face to face. What that meant was that we were driving sometimes two hours one way and two hours back, so that's four hours of no patient care, and all those professionals were still being paid, so you're really looking at an economic issue for a nonprofit like us who are trying to serve but also trying to function within a nonprofit realm.

We've wound up going toward a process called the Alabama eHealth model, and in that model we do something a little different. We do direct practice telemed. The ECHO model that was mentioned earlier is good if you have providers on both ends, but unfortunately as you all saw, we don't have medical providers out in these areas. So what we have are RNs who are in the rural communities who link to our doctors and nurse practitioners at one of the three hubs, and we're doing full-on medical practice through that.

We utilize equipment. We have a cart there. They could use the big screens that you saw. But they have a cart, they have Bluetooth stethoscopes that are mated so the nurse has one, the physician nurse practitioner has the other, so they're hearing the same thing. We do dermascopes, otoscopes. Everything is linked in to the electronic medical record system, and we're doing pretty much everything now, including social work services for our rural people that may not have had access to the medical social worker prior. We can link them in currently. We're doing psychotherapy and addictions counseling through it as well as the medical care and other peripheral services.

I want to make this last note. You got a few cost considerations, and I just throw this out as you're pondering whether you want to try to do this. You've got options. You can go hardware versus a software-based platform, and that hardware codecs is really a process where you're in control in your system. You have all the hardware in the systems at home. You could set it up probably at a good basic at about $4500 a year, but you're going to have about a one year maintenance and it depends on how much peripherals, which of those Bluetooth stethoscopes and others you would be adding to that. If you went on a full cart-based deployment, where you had everything pulled in, you'd probably expect to probably pay about $8500 for that whole system.

You could go now to a convene unit, which is just a desktop unit that we use for our mental health and social work services. You wouldn't have to attach peripherals to that and you could do that for $3800. But if you just wanted to do basic one on ones that you didn't need a whole lot of medical peripherals attached, you can do programs like Zoom and others who are going more HIPAA-compliant. They'll do a software codec that you can install on your computers, and that's much less cost and really worth it for smaller organizations that really just want to expand into rural communities and to do more work from there.

Results of our work. As of May 31, 2019, we really kicked off here about five to six years ago, we've conducted more than 4835 contacts, about 912 patients or clients who receive some part of their care through it. Just a note that we've had over 90% of our patients reporting being extremely satisfied with their service. The next highest was satisfied. There were no dissatisfied. The virologic suppression rate for those who are doing telemed only through these cumulative years has been over 95% virologic suppression rate for our telemed patients, and also over 94% retention rate in the care. So that's actually above national averages for even the face to face.

This economic benefit, we've really saved over 662,000 miles of driving by our patients over that five year period where they didn't have to come to the larger city areas, and we've saved at least $361,000 in driving expenses just for the organization because we're able to link and rather than sending a whole crew down back and forth, we're able to link to those satellite sites.

What I do want to note that every patient has a right to see their provider in person. We don't tell them they have to do telemed only, and we always like to see them that very first time in face to face to establish that relationship, which of course we all know is real important for rural people.

I'll say the last thing, collaborations, is an absolute. We are really blessed to have some good partners out in Alabama, including UAB Family Practice and Southeast Alabama Rural Health, which is an FQHC, and Health Services, Inc., which is an FQHC. We work with them. We provide the units. We do their HIV specialty care at those sites that they have. It works wonderfully. We appreciate them greatly, and as all of us who are rural know that's how we've always done it in rural areas. We work together, we help each other out.

That's all I got today. Thank you all so much for letting me share, so we'll now turn it back over to our host for questions.

Kristine Sande: All right, thanks so much. That was really interesting. I really appreciate you being with us today to share that information. At this point we will open it up to questions, so if you have a question you can enter that in the Q and A box that should have popped up on the lower right hand corner of your screen. As you enter those questions, if you could please select all panelists on your question so that we can make sure that we don't miss it.

Just a few notes while we wait to see if there are any questions. The Rural Health Information Hub does include information about HIV and AIDS. We do have a HIV/AIDS prevention and treatment toolkit that might be useful to rural communities in thinking through starting programs and how to implement those and evaluate and that sort of thing. We also have a chronic disease topic guide that includes information about HIV and AIDS, and you can always find resources from all kinds of organizations as well as funding opportunities, events, and that sort of thing in our online library, and if you browse by topic, HIV and AIDS is one of the topics.

I'll start with a question. Dr. Henny, you mentioned early diagnosis being really important. Do we know much about how rural areas do with that early diagnosis, and what are ways that rural communities can improve in that area?

Kirk Henny: Hi, thank you for that question. I don't have the gender-specific stats with me on hand, but in general late diagnoses occur more often in rural areas, and they're usually correlated with all the normal contextual factors associated with that. Many of them were mentioned here on the call, which is poverty, access to resources, stigma. Those other factors that are often characteristic of HIV landscape in rural areas are also correlated with other preventive measure, including screening and early diagnosis. As was mentioned, Michael mentioned during his talk in talking about Alabama, which is characteristic of many rural areas throughout America, that folks in rural areas tend to seek healthcare later and at that point in time, and that includes preventive measures such as screening. So a lot of times when they are screened, at times tend to be later in a diagnosis, and then of course those that have undiagnosed infections, along with those that are not virally suppressed, really make up the majority of those that transmit infections to others.

So all these, you get a broader picture of the need for not only additional screening to diagnose individuals earlier in the process but also to improve overall health outcomes among those living with HIV and also directly, and getting those under care virally suppressed in those regions will then also impact the number of cases that occurs each year, because those that are virally suppressed obviously do not transmit HIV compared to those that are not suppressed. So hope that answers your question.

Kristine Sande: Thank you very much. The next question is can you all speak to how to combat stigma and gain trust with the many vulnerable communities affected by HIV? How do we reconcile that with HIV criminalization and other aspects of the dark history of HIV treatment in the United States?

Michael Murphree: If I maybe start it off, this is Michael. One of the things, and it may kind of relay on this one, we try to go... we cover such a massive area of 28 counties. One of the things I'm very clear on is that I've got to get local folks involved right off the bat. Because in rural areas, especially in the Deep South, they want to know who you are and they want to know who your people are. So if they can get a good connection and they trust you, then it goes from there.

One of the prime examples on that one is we serve among our community, we're predominantly African American in our service group. We have 76% of the men, women, and young people we serve are African American. We really have no problem reaching them. We have no problem getting them into care. But one of the best pieces is that we really do have folks who take the effort to understand where a lot of our folks that we're serving are coming from and try to address it.

It's meant for us that we've been able to do PrEP at a much more successful level, because over half the folks that we serve on our PrEP program actually are African American or black. In many urban centers they can't reach that, so I think a lot of it is really just getting in and get to know the people you're trying to serve.

The criminalization piece, what you really have to do is address that right up front. Folks in the rural areas, you got to talk upfront with them. You got to tell them what the state has right now, what the law involves, and just be real clear whether it's your social worker, your peer navigator, whomever, and that's your first step with it and I'm telling you, will give you dividends from there.

Kristine Sande: Great. Another question for you, Michael. Besides RNs in the rural area, do you have community health workers too, so people who have those local groups. Do you use community health workers?

Michael Murphree: What we've started doing, we call them a navigator concept, and these are actually women and men living with HIV who are involved, but that's been a fairly recent thing for us, meaning we've been trying to develop it but in some cases the problem was more of the concern by our recipients, our people living with HIV, about other folks knowing that they were HIV positive themselves. We are still in an area, unfortunately, where a lot of folks still do discriminate against people with HIV. Whether it's legal or not they're still doing it even among their own family.

What I've been very proud about is that as the what I call the U=U movement come about and you're seeing more and more people living with HIV who want to be a part of this kind of epidemic solving, they now can come into the thing with real knowledge-based work to say, "Listen, we're living with HIV. We know what can work. Let us work with these communities." I think that's where it is going for us on a broader level now that we've got more people willing to do it. I'm an absolute supporter for community navigators and community health workers. I think they will do the work. I think they can be in those rural areas. I do believe they have to be trained, but I do not think they have to be master's level folks or any of the above. They just need to be good, common sense people who can go out there and reach their communities.

Kristine Sande: Okay, thank you.

Kirk Henny: Hi, this is Kirk, and I just wanted to kind of piggyback on Michael's comments. I think what he spoke to with peer navigators and such, I think that the larger, broader issue too is also to increase capacity to provide HIV care and prevention efforts in these regions, and definitely involves local peer navigators as well, folks from the community. And it's also important to once you've identified those individuals also to, and Michael alluded to the training, to really enhance their knowledge, their capacity, and not only among lay workers, per se, but also among professional staff in the area. There's definitely a strong need among providers, primary care providers, to increase their capacity to provide HIV-related care, whether it be prevention care or whatever the case may be. There's definitely a need there, particularly in rural areas where you do have fewer providers per capita. Being able to enhance overall capacity in regions, including community workers, is going to be critical in order to make improvements in the landscape, particularly in rural America.

Pamela Klein: This is Pamela. I'd like to just jump in and piggyback a little bit on what Kirk and Michael were saying, and just to make another plug for the AIDS Education Training Centers funded through the Ryan White Program that really are dedicated to increasing education, building capacity among various levels of HIV care professionals, so it's not just for direct medical care providers, MDs, NPs, but also for community health workers and all sorts of different organizations. So thinking of the earlier question about stigma, there's a lot of data to suggest that looking for innovative and nontraditional partners can be a really useful technique when working with stigma, and one such as faith-based partnerships. The AETC programs, those trainings are available and open regardless of someone's affiliation, so I would certainly recommend that as a resource for different partners for stigma as well as increasing education and capacity.

Kirk Henny: And also, hi, this is Kirk again. Just coincidentally, another plug or shameless plug it might be. A special issue of AIDS and Behavior publication was just issued a couple weeks ago, and it is focused on HIV in the South and obviously rural America, HIV in rural communities is a big part of that. There are definitely some articles there. I served as a special guest editor along with my colleague, Dr. Billy Jeffries, and there's definitely articles as part of that special issue focused on criminalization, focused on PrEP uptake in southern context in rural America. So I can provide a link to that special issue for those of you on the call that are interested to really read about articles and research that was just published a couple weeks ago that definitely speaks to several of these issues. Stigma, a couple articles on stigma in there as well. That's definitely appropriate for our topic here when we're speaking about HIV in rural America.

Kristine Sande: All right, thank you. Another question is due to the tendency of rural populations to seek medical care later, are there higher percentages of comorbidities with rural patients, and if so which are most common? Want to weigh in on that?

Michael Murphree: If I could, yeah. I'll start with it, and then I'd love the other folks to add too. For us, absolutely comorbidities. Something that we are running into and it was noted even earlier about the late folks coming in for their status and coming in for care, we right now are probably running about anywhere from 20 to 25 new patients per month, and sometimes they're "returned to care." They've had one visit maybe 15 years ago at someplace else and then now they're getting sick and they're coming in.

When they come in, they're exactly right, the individual's right. They're coming in with a myriad of issues, and in our area one of the most prevalent is diabetes, that they're coming in with just massive amounts of issues layered upon layered. Probably about 34% of our service community are also women that we're serving, so they're coming in with a myriad of healthcare issues that are more related to their gender and some things that we've got be paying special attention to, and we're also certainly serving pregnant women. We have several women every year who are pregnant who are living with HIV, so we need to make sure that they're taken care of too.

But I would say for our region it's that, and we have to watch very strongly on heart disease, because we're in a belt of Alabama of diabetes, cardiovascular disease, and stroke issues, so those are probably the most prevalent among our work.

Pamela Klein: From the Ryan White perspective, we haven't looked at this explicitly yet, but it's a really great idea, so thank you for the suggestion.

Kristine Sande: Thank you. I think this will probably be the last question, and it's for Michael. How does the process of monitoring viral suppression work among the telehealth patient group? Is that different and do you see increased viral load testing in the telehealth groups?

Michael Murphree: Right. We don't. We actually, it's been fairly easy because they are going to a site. We still maintain pretty much all of the systems that they would if they were coming to one of the three hub sites and that RN is working with them. So we're still seeing the exact same sort of time frame on that.

I'll tell you what that leads to, though, and I think for the future, is what I hope to do, and if we can get approval by the Medical Association of the State of Alabama, I believe that the potential right now for doing what we call suitcase unit work where we have actually a telemed unit that fits within a suitcase, that we could go to do at-home work. And with that, that's going to mean a little bit more on how that lab will do. It's going to be more labor intensive on our staffers to do that, but if we could do that, where we're taking it right to the home and doing care through the home setting for some things, when we know that they may find something, it's like, "Oh,

nope, we've got to get them to a clinic or to a hospital now." But if we could do that and figure that, how to get those labs done correctly and get them into the places in a timely manner, that could be a game changer on just the whole retention and the care. That would ramp up retention and the care in the U.S. massively and help us a lot on our healthcare outcomes.

I hope I answered that question sufficiently.

Kristine Sande: Yes, thank you. I think at this point since we are over our time we will wrap up the webinar. On behalf of the Rural Health Information Hub, I'd like to thank all of our speakers today. We really got great information and insights from you, and we really appreciate your time. I'd also like to thank our participants for joining us. A survey will automatically open at the end of today's webinar and we encourage you to complete the survey to provide us feedback that we can use for hosting future webinars.

The slides used in today's webinar are currently available at www.ruralhealthinfo.org/webinars and in addition, a recording and transcript of today's webinar will be made available on the RHIhub website, and we'll send that to you by email in the near future as well so that you can listen again or share the presentation. Thank you for joining us, and have a great day.