State of Telehealth: Removing Barriers to Access and Improving Patient Outcomes
Hearing of the Senate Committee on Commerce, Science & Transportation
Subcommittee on Communications, Media & Broadband
Thursday, October 7, 2021

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Chairman Lujan, Ranking Member Thune and Members of the Committee. My name is Sanjeev Arora. I'm here today both as a practicing liver disease specialist and as Director and Founder of Project ECHO at the University of New Mexico, Health Science Center.

Thank you for inviting me to testify at today's hearing focused on exploring the state of telehealth and removing barriers to access and improving patient outcomes, particularly in the context of COVID-19.

The pandemic exposed what we all knew instinctively long before the first COVID cases were diagnosed. We need to fundamentally reorient our healthcare system. Instead of placing the burden on patients to find us – the medical experts who can treat and cure them – we need to bring the care to them.

We need to enable patients to get the care they need, when they need it, where they live.

And technology can help us get there. It can't do it all – but, increasingly, it's a critical underpinning to our work.

In June of last year, I testified before the Senate HELP Committee at a hearing on telehealth, and I shared the story of one of my patients from almost 20 years ago.

A 43-year-old widow and mother of two small children, she had been diagnosed with hepatitis C eight years earlier. Yet she was just now seeking treatment for the first time.

When I asked her why she had waited so long, she said that her doctor told her that treatment would require her to make at least a dozen trips to Albuquerque over the course of a year – and she couldn't afford to take the time off work.

Now the pain was too much for her to bear. But it was too late to save her. She died five months later from advanced liver cancer.

We had the medicines and the expertise to treat her. But she didn't have the resources to get to us. And no doctor in her community had the knowledge to treat her disease.

That's why I started Project ECHO. We have the knowledge to reduce so much human suffering, but we need to move it out into communities where it's needed most.

Now flash forward two decades and imagine another rural patient diagnosed with COVID-19 last year. The first in her community. Was her local medical team ready? Did they have the knowledge they needed to treat her?

We need to leverage telehealth to quickly move new information and best practices from top experts at academic health centers to providers at the frontlines caring for patients in communities. The COVID-19 pandemic has only underscored the urgency with which we need to tackle this challenge.

To enable telehealth of all kinds, we need to ensure that providers and patients in rural and underserved communities have access to broadband and high-speed internet.

Improving broadband will support all three domains of telehealth – remote monitoring; telemedicine; and telementoring. And all three have the potential to expand access to best practice treatment and advance health equity in rural communities and urban underserved areas.

But telehealth is much more than technology.

Technology can help us bridge wide geographic divides in ways we wouldn't have imagined possible twenty years ago. But technology is simply a tool that enables essential human interaction.

For example, technology allows us to have the virtual hearing we're participating in today, but it's not the technology that makes this discussion valuable. What matters is what the technology enables – the discussion we're having, the expert testimony, the answers we provide to your questions, and, most importantly, how it all informs the decisions you make going forward. Likewise with telehealth, the technology enables us to interact in ways that ultimately improve health and save lives.

In the case of **remote monitoring**, technology gives us a unique window into the life of a patient. Picture an elderly woman wearing a wireless remote device that can alert us if her gate is unsteady and allows us to then intervene earlier and prevent a fall and a possible hip fracture.

In **telemedicine**, technology allows us to bridge a geographic divide and connect a specialist with a patient who would otherwise be forced to travel a long distance or go without care completely. The technology enables the communication to happen, creating the opportunity for a patient-physician relationship that might never have existed.

Both remote monitoring and telemedicine are critical and needed and will be significantly enhanced by ensuring broadband connectivity to every household in America.

But an additional constraint remains. In addition to the lack of specialists in rural areas, most urban areas also have an insufficient number of experts. Patients everywhere in the country have to wait weeks and sometimes months to see a specialist. Even if we can power up rural and underserved communities with high-quality, high-speed broadband or 5G, we're still woefully short of enough specialists to provide care, virtually, to patients in these communities. A workforce training and development solution is needed to enhance the capacity of the healthcare professionals.

And that's where **telementoring** models come in.

Efforts like Project ECHO leverage technology, including videoconferencing platforms such as Zoom, to ensure that clinicians already on the ground in communities have the latest best practices, mentoring and support they need to treat patients. They involve a specialist or team of specialists in a specific disease area connecting to many teams of community providers in an ongoing virtual learning community.

Again, each of these telehealth approaches is needed and valuable. But for the purpose of my testimony, I will be primarily focused on telementoring, which is the area I know best.

When I started Project ECHO to treat hepatitis C in my home state, I realized that in order to convince clinicians in rural clinics to treat this complicated disease, I needed to create something that mimicked the grand rounds experience of their residencies. We needed to bring the experts to these rural clinicians over video to share up-to-date best practices – and the clinicians needed to present their own cases and get ongoing guidance and mentorship from experts.

We launched 21 new centers of excellence to treat hepatitis C in rural communities across the state. Each center was run by a primary care clinician. We shared our treatment protocols with them, and they connected with us all together once a week on video to discuss cases. Soon they became experts and the wait in my clinic fell from 8 months to 2 weeks. Tens of thousands of patients got treatment. We knew we had an effective model, so we expanded it by training other academic health centers around the United States to deploy ECHO for a wide range of common and complex diseases and conditions.

The “all teach, all learn” ECHO model works like this:

Teams of experts at regional medical centers (called “hubs”) use one to many videoconferencing to engage with local healthcare providers (the “spokes”) in weekly ongoing knowledge-sharing, case-based learning, and telementoring.

Hub and spokes learn from each another, Everyone’s knowledge is constantly improving.

Based on the tremendous need, ECHO has grown from addressing a single disease in a single state to over 600 training centers addressing over 75 different health conditions with learners connecting in from more than 180 different countries around the world.

There are now ECHO projects at more than 250 organizations in all 50 states across the U.S. . alone, many of these at major academic health centers like the University of Washington, the University of Hawaii, MD Anderson, the University of Minnesota, and many more.

And we know the model works. A study published in the New England Journal of Medicine and funded by the Agency for Healthcare Quality and Research focusing on our hepatitis C work in New Mexico showed that patients treated by an ECHO-trained community provider got the same quality care they would get if they went to a specialist. There are now more 300 papers published on different aspects of the model, demonstrating that ECHO can help implement best practices at speed, scale, with fidelity, at substantially lower cost.

We had long believed that the ECHO model could be put to work in a meaningful way in a pandemic. And in 2020, it was put to the test.

Since the onset of COVID-19 we have deployed our entire national and global networks in response to the pandemic:

- Launched in October 2020, the National Nursing Home COVID-19 Action Network was the nation's most comprehensive effort to reduce and prevent the spread of COVID-19 in nursing homes. At the time, COVID-19 was surging across the country, disproportionately affecting people living and working in nursing homes – which accounted for nearly 40% of all deaths from COVID-19. Despite the terrible pressures under which they were operating, more than 9,000 of the nation's 15,000 nursing homes joined the Network, a partnership of the Agency for Healthcare Research and Quality (AHRQ), Project ECHO ,and the Institute for Healthcare Improvement. More than 30,000 healthcare workers were mentored as part of this initiative as part of one of 326 weekly virtual learning communities.

- We partnered with the Office of the Assistant Secretary for Preparedness and Response (ASPR) at HHS to run a national program serving extremely rural locations for EMS and other emergency frontline workers focused on COVID-19 that continues to this day. With new best practices emerging every week we used ECHO to get that knowledge into the hands of frontline health workers across the U.S. Every week, some 400 to 1,700 clinicians log on to navigate the challenges of COVID-19 together.

- Our ECHO networks active with the Indian Health Service, the CDC, and other federal agencies all shifted to get up-to-date, best-practice knowledge about COVID-19 into the hands of the health workers in rural and underserved communities who needed it most.

In addition, to underscore the interconnection of different telehealth approaches, multiple ECHO projects are now using the ECHO model to train providers on how to do telemedicine effectively. We need ongoing learning communities to ensure that the doctors, nurses and other health professionals who were thrown into a world of virtual medicine, almost overnight, get access to best practices and the guidance to implement them.

What does this all mean for going forward? How can lessons from COVID-19 and the experience of telehealth during this pandemic help us to reshape our healthcare system to move life-saving information more quickly and efficiently?

First, expanding access to high-quality, high-speed broadband connectivity is critical. It's a prerequisite for the success of any telehealth model in rural communities and urban underserved areas.

Broadband connectivity will help us address one of the biggest challenges in our healthcare system – that almost no one has access to a specialist on a timely basis regardless of whether they're being treated for COVID, cancer, or autism. And rural communities and urban underserved areas are at highest risk with either no access at all; long waits; or when they do get access, they have to travel long distances.

Second, the Federal Communications Commission should explore any additional opportunities under its jurisdiction to support telehealth to improve care in rural and underserved communities.

Steps that Congress and others have taken in areas like increasing broadband access in rural communities and expanding coverage for the virtual services clinicians can provide are critical – and we need to explore more pathways to making this happen quickly.

But we also need to continue to move beyond the emphasis on the technology part of telehealth to the health part. Again, like the hearing today, it's what's being virtually delivered across the medium—and--how that allows us to take action that will optimize health outcomes.

While mostly outside the jurisdiction of this Committee, I hope the Congress will commit to exploring longer-term changes to healthcare financing that would create sustainable and ongoing funding for effective telehealth approaches like telementoring that can bring much needed care to the people in communities who need it the most.

If not continued COVID-19, the lives of rural and urban underserved populations will be disproportionately affected by the opioid epidemic, cancer, HIV, diabetes, autism or many other diseases or conditions.

I am committed to working with you to help realize the promise of telehealth, and ultimately seeing the day when a mother's survival doesn't rest on her ability to take a five-hour car ride twelve times a year.

Thank you for providing me with the opportunity to testify before you today. I look forward to answering your questions.