

Broadband and Telehealth: Doing Well Financially by Doing Good for the Community

With demand for remote health care and mental health services on the rise, pursuing telehealth is a smart marketing strategy for broadband service providers.

By Craig Settles / *CJ Speaks*

A community broadband network can be just pipes that traffic data. Alternatively, it can support telehealth services to transform local health care. There's a lot of money for networks *and* communities in the transformation of health care.

Broadband is dismal in many places. Some communities treat broadband only as a problem to solve – and, in doing so, they likely shortchange the technology's value. Once a network buildout is done, innovative uses for the network become someone else's problem. But if broadband providers and the communities they serve work together to build something that hasn't been done before – I call this “creation orientation” – networks make money in the short and long term, communities are healthier and happier, and local economies improve.

Partnerships are at the heart of creation orientation. They are key to driving health care transformations through telehealth. For example, recently the Enterprise Center in Chattanooga, Tennessee, partnered with the city-owned gigabit network (EPB), a rural ISP, and telehealth provider Alleo Healthcare & Hospice, to apply for an FCC telehealth grant. The goal was to expand palliative care and grief services to a three-state rural service area.

“I believe that in telehealth and broadband, this idea that if you build it, people automatically will come is not the right approach,” says Geoff Millener, senior program and operations officer at the Enterprise Center. “Make sure you keep your focus on that end user and that access and infrastructure is meaningful. It's not just about community health outcomes; it's about being able to provision the right broadband services and to get paid for it.”

A MARKET WAITING TO BE TAPPED

The great thing about marketing is that it works. Telehealth is a market and a marketing (sales) opportunity for a network. Congress and federal agencies are ready to spend billions of dollars on telehealth. Broadband providers are part of the telehealth market – no broadband, no telehealth.

“You can impress the committees evaluating grant applications by offering turnkey health care service delivery

capabilities as opposed to ‘just plumbing’ for broadband,” says Mark Noble, senior vice president of business development for telehealth vendor ViTel Net.

For government loan providers, such as the U.S. Department of Agriculture, “impress them with the significant impact telehealth delivers to the network itself,” says Noble. “The municipalities and co-ops can offer higher-value, over-the-top services to care providers and patients, thus expanding their ARPU [average revenue per user], and make their bids for grant dollars more attractive.”

Even if the government billions don't impress broadband providers much, they shouldn't leave money on the table. Everybody gets sick or has to take care of others who get sick. Providers can proactively engage residents with telehealth. According to the Centers for Disease Control and Prevention (CDC), six of 10 people in the United States have one chronic disease, and four of 10 people have two. That's a significant target market for providers' partnerships with telehealth and local health care providers.

Analysis by the Kaiser Family Foundation shows that 28 percent of U.S. men and 17 percent of women don't have a personal doctor or health care provider. For minorities, the percentages are much higher: 33 percent for Hispanic women and 31 percent for African American men. One-third of people in the United States have high blood pressure (hypertension), according to the CDC. That figure spikes to 43 percent for African Americans. In partnership with city or county health departments, these are the markets providers should explore.

Mental health also is a significant problem. A 2019 report for the U.S. Department of Health and Human Services revealed that 20 percent of Americans deal with serious mental health issues. A sizable number of patients prefer to meet their therapists online rather than in the therapists' offices. This presents another opportunity for telehealth expansion.

ECONOMIC BENEFITS OF TELEHEALTH

Last year, the International Economic Development Council, a worldwide association of economic development professionals, asked its members about the potential

impact on local economies of six telehealth outcomes: drawing medical professionals to a community, slowing or reversing hospital closings, reducing unnecessary ER visits, attracting medical research grants, keeping more mental health services local, and keeping seniors living at home longer.

Fifty to 62 percent of members thought these activities could directly impact local economies or that they should be tested for their economic value. For example, 26 percent of members thought using telehealth to attract doctors and medical specialists would have a definite impact on local economies. Thirty-six percent weren't sure how significant this would be, but thought they should test the hypothesis. There are not enough specialists in certain health care professions, particularly in low-income, rural and urban areas.

Research from UnitedHealth Group found that in 2018, of the 27 million emergency department visits patients with private insurance made annually, two-thirds were "avoidable" and "not an actual emergency." The average cost of such visits for common conditions that could have been remedied through primary care topped \$2,000. In addition, hospitals have to consider the poor and uninsured people who regularly show up at ERs.

Across the United States, the closure or consolidation of hospitals is creating a health care and jobs crisis. Often, hospitals are the largest employers in rural towns and counties. In addition, the quality of health care has a direct impact on quality of life for residents. When broadband providers and communities work together to implement telehealth options, it allows people to reimagine what visiting a doctor's office or a hospital ward means.

The internet teems with information about medical research grants and city and county requests for proposals (RFPs) for broadband needs assessments. As communities carry out these RFPs, they should consider positioning their networks to compete for medical grants. Grants for millions of dollars could have a notable impact on local businesses and drive job creation.

"Sixty-five million people in the United States have diagnosable mental

health illnesses, but we have less than half of the psychiatric providers needed to meet that demand," says Encounter Telehealth CEO Jennifer Amis.

According to a Scientific American blog, depression in the United States costs society \$210 billion annually. For every dollar spent treating depression, \$4.70 is spent treating related illnesses and \$1.90 is spent for lost work productivity and suicide.

In addition to providing mental health and other medical services to more people, telehealth could enable seniors to stay in their homes longer or possibly to move to nearby senior facilities. This will keep communities' senior ecosystems active because seniors still can maintain social and economic roles.

TELEHEALTH, BROADBAND AND COVID-19

Telehealth is not just a video chat with a doctor. Under the covers, telehealth solutions are complex. Remember, no broadband, no telehealth. Fiber is the gold standard of broadband infrastructure, but fixed wireless is quick, secure, powerful infrastructure needed for telehealth in urban or rural areas that don't yet have permanent fiber.

When the pandemic hit, the only thing harder to find than toilet paper was wireless routers. Home broadband groaned under the strain of permanent telecommuting and full-time K-12 home schooling. Telehealth was newly "discovered" as people avoided doctors' offices like the plague. Adding to the distress was the public acknowledgment that millions of people have no broadband access at all.

The broadband industry stepped up with innovative solutions to enable the delivery of telehealth services.

"I can quickly deploy a long-term evolution (LTE) solution for emergency wireless access across neighborhoods using ruggedized setups based on our existing network technology and frequency access," says Casper Faust, field operations manager at Paladin Wireless in Georgia. "It's similar to how your smartphone can provide a personal, secure hot spot." But instead of getting a small hot spot, a person plugs a device straight into a home

Wi-Fi router that enables it to become a super-powerful router that's sped up by the network's LTE connection.

With this solution, urban and rural wireless internet service providers spend less time climbing towers. "[We say] here's a little piece of white plastic; go plug it in," says Faust. "It allows us to deploy networks much faster." The faster communities can deploy wireless infrastructure, the sooner they can capitalize on telehealth. This is particularly important for people at high risk for COVID-19, such as those suffering from chronic illness and seniors aging in place.

Brad Hine, product director of GIS and analytics solutions for ETI Software Solutions, says adding a network tool, such as ETI's Beamfly, allows one person to monitor and track dozens or hundreds of outdoor routers. "It also predicts some network glitches before they happen," Hine says.

In Vallejo, California, which built its own fiber network, the company GIS Planning offers mapping services to facilitate better telehealth. "For telehealth purposes, I can map out where physicians' offices are and add map layers, such as fiber access, that the offices can tap into," says Alissa Sklar, vice president of marketing at GIS Planning.

Sklar believes in the power of GIS. "Demographic data to place in a map can indicate populations with chronic illnesses or locations of environmental triggers for certain diseases, and we can layer the maps with constituents who have other health and broadband needs," she says. She adds that GIS tools can "help build out the hybrid infrastructure as well as manage both indoor and outdoor wireless routers."

As a member of the broadband industry, what's your telehealth strategy for doing well financially by doing good for your community? ♦

Telehealth saved Craig Settles from a stroke, and he pays it forward by uniting community broadband teams and health care stakeholders through telehealth initiatives. He's a community broadband analyst and consultant assisting communities with broadband and telehealth planning.