

Overview

One of 150 medical centers operated by the U.S. Department of Veterans Affairs (VA), the Martinsburg VA Medical Center in Martinsburg, W.Va., has been treating military veterans since 1944. In addition to its main facility, Martinsburg offers medical care through its seven community-based outpatient clinics that serve 22 counties in Western Maryland, West Virginia, South Central Pennsylvania, and Northwest Virginia.

Located 90 miles from Baltimore and Washington, D.C., Martinsburg is a relatively rural medical center. Several of its community outpatient clinics are situated in even more remote areas, located two hours from the main facility. Thus, to improve access to care, Martinsburg instituted a telemedicine program in 2004 that has evolved over the years.

The organization's initial foray into virtual health care was the creation of a home telehealth service. "Health buddies" visit veterans in their homes to administer and record simple diagnostic information and communicate it back to providers. In 2011, Martinsburg's program grew with the introduction of video telehealth used for retinal imaging. Although it is not a live diagnostic tool, tele-retinal technology records, stores, and transfers a digital image that can be examined later by a provider.

Soon after implementing the retinal program, Martinsburg entered the realm of "face-to-screen," real-time telehealth by adding tele-podiatry and tele-mental health services. Veterans living in rural or remote settings can visit their community-based clinic to connect with a Martinsburg specialist. Tele-podiatry clinicians participate in patients' virtual visits

by using video tools to highlight and visualize areas of concern for providers on the other side of the screen. Mental health appointments are conducted privately, where veterans access their provider through a video link, often using a larger screen to make the encounter seem more personal.

Currently, Martinsburg offers telehealth services in more than 45 medical specialties.

"We have added a 'tele-' in front of nearly every '-ology' you can imagine," says Timothy J. Cooke, medical director and chief executive officer of

Martinsburg.

The VA has also created a system-wide telehealth training program. Technicians are required to take 50 hours of training, which include core competencies related to proficient use of equipment as well as more nuanced skills, such as how to respond in an emergency.

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Timothy J. Cooke, medical director and chief executive officer, Martinsburg Veterans Affairs Medical Center

Impact

Martinsburg's telehealth program has developed dramatically over the past five to six years. In fact, between the years 2013 and 2017, Martinsburg saw tremendous growth in the number of telehealth visits in its most popular "tele-specialties," including:

- **Dermatology:** from 47 visits in 2013 to 409 visits in 2017
- **Mental health:** from 2,903 visits in 2013 to 4,859 visits in 2017
- **Retinal imaging:** from 1,952 visits in 2013 to 1,993 in 2017

Although increased access to care was an impetus for developing a telehealth program, Cooke notes that another positive impact has been

improved throughput and efficiency. “The convenience of the virtual space allows patients to conduct several appointments during their visit to the clinic, such as a face-to-face visit with a physician’s assistant on site and a tele-visit with a specialty provider who is located elsewhere,” Cooke says.

The telehealth program has also helped Martinsburg to continue offering the highest quality care, even if specialty providers are difficult to come by. “It can be challenging to recruit specialty providers in rural locations, and for a while, Martinsburg was nearly experiencing a shortage of psychiatrists,” says Cooke. “But we were able to tap into the VA’s entire network of providers, beyond the boundaries of our own organization and its clinics, which would not have been possible for our patients without the telehealth program.”

Lessons Learned

The first challenge the organization faced was the apprehension of the veterans, who did not always trust that a virtual visit could provide the same level of care offered by an in-person appointment. But Cooke says that concern rapidly faded. “Once we showed them how quickly and how close to home we could schedule an appointment with a specialty clinician, most patients were sold on the idea,” he says.

Providers were also initially skeptical about delivering medical care through an untraditional model. But they found that the technology often enhanced diagnostic tools. For example, the typical respiratory sounds captured through a stethoscope can be recorded so that physicians can refer to them if necessary.

Being situated in a rural locale, Martinsburg had to address bandwidth issues with its telehealth technology. “Not everything can be done via satellite or wireless,” says Cooke. “We had to partner with the local utility company so that large packages of data could be sent back and forth between patients and providers.”

Future Goals


Martinsburg recently saw its first patient in its newly implemented tele-stroke program. When a patient presents to one of the community-based clinics or the main facility with stroke-like symptoms, local clinicians can interact with VA neurologists 24 hours a day to determine which tests and medications to administer. Given that time is critical to stroke care, the quick connection to experts can increase the odds for positive outcomes.

“Telehealth is more natural than you can imagine,” Cooke says. “The fluid nature with which the technology and the care interact creates a great symbiotic relationship. I believe it won’t be long before providers realize that seeing a patient face-to-face has become a less common occurrence.”

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