

## Grant To Help Expand Rural Telemedicine

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ALBUQUERQUE, N.M. -- In rural areas, where accessing health care is often a challenge, the doctors and patients of the future will increasingly be linked by virtual interstates.

That's the vision of Dr. Dale Alverson, who predicts clinics, hospitals and private doctors' offices will routinely be hooked into a computerized network for telemedicine, allowing specialists to review records of faraway patients, analyze tests remotely and consult doctors elsewhere.

"I believe, in the end, telehealth will be part of doing business in the health field, just like we use the telephone," said Alverson, medical director of the Center for Telehealth at the University of New Mexico's Health Sciences Center. "It won't be looked at as something unique or special; it's just what we do. ... Just as for many of us now it's second nature to use the Internet and the Web for health information."

A \$15.5 million grant from the Federal Communications Commission to the Center for Telehealth and Cybermedicine Research at the Health Sciences Center will be used to design, build, operate and evaluate a Southwest Telehealth Access Grid, a broadband network largely serving rural areas that typically lack such technology.

The grant to increase the bandwidth will be a boon to New Mexico, said Gary Bauerschmidt, UNM's director for information technology services and co-chairman of the network design and modeling committee.

"There's a lot of sites that have no connectivity or very poor connectivity," he said. "Telehealth is such an advantage here. Doctors just can't travel around our state, and when you get to the reservations, it's even more challenging."

The grid of telehealth networks will support rural systems and connections to more than 500 sites, primarily in New Mexico and Arizona, along with several Indian Health Service sites in Colorado, California, Nevada, Texas and Utah.

"What this really means is a network of networks, a virtual electronic highway that allows you as a patient to access health care at a distance," Alverson said.

Eventually, telemedicine could make virtual house calls, he said. With an aging population and a related increase in chronic disease, “the shift is more to getting the care to the patient where they live,” Alverson said.

Telemedicine isn’t new. The Health Sciences Center has had programs for a dozen years and already connects to nearly 100 sites in 50 communities. It offers telemedicine services in behavioral health, substance abuse and developmental disabilities, among others.

But the grid offers a chance to expand.

“The idea with the FCC is not only to support our region, but eventually to connect these regions for a national telehealth network,” Alverson said. The Southwest initiative was one of 69 nationwide the FCC funded.

A grid would not only improve the network for patient care and training health professionals, it would also allow people to switch into emergency mode for disasters or emergencies such as a flu pandemic, he said.

Leonard Thomas, chief medical officer for the Albuquerque area Indian Health Service \_ which serves 86,000 largely rural residents from southern Colorado to El Paso, Texas \_ said the IHS is maxing out its current infrastructure for telemedicine.

A grid would let the Albuquerque area IHS offer more than the teleradiology, teleophthlamology and telepsychology it now has. There are about 60 telemedicine services the network could make available, Thomas said.

“There’s a whole array out there that our providers could definitely use,” he said.

Alverson expects demand to increase as people see the network’s value.

“Telehealth doesn’t replace the value of physical interaction,” he said. “It can’t do everything, but it goes a long way to augment” doctor-patient relationships.

Telemedicine offers virtual travel to bring the patient to specialized care, allowing doctors to spot problems earlier, make adjustments in the patient’s care and avoid trips to faraway specialists, Alverson said.

For example, specialized cameras can screen for eye diseases associated with chronic conditions such as diabetes. Screenings can detect problems early, allowing intervention to prevent blindness.

Through telemedicine, screenings done in rural areas can be reviewed by urban specialists. Patients who need additional care could travel for it, while those who don’t could avoid hours away from home and work, Alverson said.

“It’s not only keeping people healthier in their community, but it’s also keeping them in that community,” he said.