

Rural Rx

A program developed in New Mexico may change how health care is delivered in rural America.

BY JOSHUA EWING

About 51 million Americans live in rural areas of the country, where obtaining medical care often involves long drives, long waits and extra expense.

In most rural counties, there are so few primary care physicians that many patients can't obtain care as quickly as they want or need. Some 77 percent of rural counties face a serious shortage of health professionals—they're called health professional shortage areas—and it's estimated they need 4,000 more primary care physicians just to meet basic health care needs. Specialists are even scarcer, which means people must travel a long way to get that care, usually spending more money than people in a city.

Rural Americans are, on average, older, less educated and earn less money than people in metropolitan areas. They also are more likely to smoke, be obese and inactive. The result is a rural population that is in poorer health, has higher rates of death, disability and chronic disease, yet is less able to obtain health care.

Hope in New Mexico

Several years ago, lawmakers in New Mexico—where 33 percent of the population lives in rural areas—supported one doctor's novel idea.

Dr. Sanjeev Arora, a professor at the University of New Mexico Health Sciences Center, developed a program in 2003 to deal with the growing problem of Hepatitis C in rural parts of the state. Of the estimated 34,000 people with the disease—many of them living in frontier and rural areas—only 1,600 had received any treatment. Hepatitis C is a viral disease that affects the liver and is most often contracted by sharing IV drug paraphernalia.

Arora set out to fix this problem and, along the way, created a model that has been replicated throughout the country and the world.

"I hope," says Arora, "that this becomes the future of health care in rural and underserved areas."

Joshua Ewing tracks rural health issues and health information technology for NCSL.



Multiplying Expertise

Arora knew there weren't enough rural specialists trained to treat Hepatitis C. His patients often waited six months and drove up to 250 miles to his clinic. Many patients simply could not make the trip at all or afford the cost.

Arora turned to a telehealth—the delivery of health care using telecommunications technology—to bring treatment to the patients.

Most telehealth models pair a specialist in an urban area or at a university with a patient, using some type of videoconferencing software. The approach is still limited by the number of available doctors.

Arora's idea—which he calls Project Extension for Community Healthcare Outcomes (ECHO)—uses the same technology, but rather than connect one patient to one doctor, it connects the many rural primary care doctors with many disease experts at the University of New Mexico to present cases and seek advice about treatment options. The process is similar to medical rounds in a hospital. The ECHO "clinic" is broadcast securely over the Internet, allowing primary care clinicians statewide to watch and benefit from the expertise of a specialist or a team of specialists.

"Project ECHO promotes care in underserved areas, builds capacity for rural doctors and treats people where they live rather

Project ECHO By the Numbers

1,137

Telehealth clinics held

3,535

Patient consultations between
October 2009 and February 2012.

288

Primary care teams

697

Treatment sites

18,000

Hours of training at rural sites

than making them travel to the university in Albuquerque,” says New Mexico Representative Danice Picraux (D).

Expanded Reach, Growing Popularity

Lawmakers liked the idea and appropriated \$700,000 a year to support Project ECHO in 2006, which grew to about \$2.5 million before the recession hit in 2008. Since then, funding has been reduced to about \$840,000 a year, Arora says.

Today, the project’s clinics in New Mexico have expanded beyond Hepatitis C treatment. Weekly clinics now are conducted on asthma, chronic pain, diabetes, cardiovascular disease risk, high-risk pregnancy, HIV/AIDS, pediatric obesity, rheumatology, substance abuse disorders and mental illness.

“This is the answer to rural New Mexico having specialty care,” says Senator Sue Wilson Beffort (R). “It is a cost-effective way to manage complex diseases, while allowing people to remain at home with their families.”

A 2011 study by Arora and his colleagues, which was published in the *New England Journal of Medicine*, found the ECHO model managed complex diseases such as Hepatitis C as effectively as an academic medical center. This is good news for frontier and rural states. Arora believes establishing similar programs in states with large underserved populations may reduce costs and improve patients’ health with better management of chronic diseases.



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—Dr. Sanjeev Arora, University of New Mexico

Project ECHO Expands

In 2009, Project ECHO received a \$5 million award from by the Robert Wood Johnson Foundation to expand to more sites and focus on new diseases in New Mexico. The money also allowed the project to expand the treatment of Hepatitis C to Washington state.

Programs based on the ECHO model can be found at:

- ◆ University of Chicago, where providers are working to address hypertension in the African-American population.
- ◆ University of South Florida, where the focus is on treatment for HIV patients.
- ◆ University of Utah and Harvard, where Hepatitis C is the target.
- ◆ Veterans Administration, where efforts are focused on treating Hepatitis C, diabetes and chronic pain in veterans.

“It has opened up rural health care to first-class specialty care that simply wasn’t available before,” says Picraux.

The model also could be helpful to rural communities and states that are attempting to plan for the expansion of coverage under the Affordable Care Act. By 2019, an estimated 5 million more rural Americans will have health insurance coverage, either through a health insurance exchange or Medicaid.

Growth of Telehealth

Across the country, telehealth technology is growing in popularity and use. Today, 39 states provide some form of Medicaid reimbursement for telehealth services, and at least 12 require private insurance plans to cover such telehealth services. As use of health information technologies becomes more widespread, however, so do concerns about privacy and security of sensitive information.

In 2011, 11 states passed 16 bills related to privacy and security of health information, bringing to 23 the number of states that now have such laws.

Large amounts of data must be transmitted for video conferencing and file sharing, which means telehealth technologies such as ECHO require

broadband Internet access that may not be available in some frontier and rural areas. As a result, at least 12 legislatures have created task forces, commissions or authorities aimed at expanding broadband access.

Arora believes academic medical centers should be training medical providers throughout their careers. “Knowledge networks” like Project ECHO allow such centers to share new treatment regimens with doctors and other health professionals whose busy practices make it difficult for them to read the latest medical journals and keep up with the latest discoveries.

“We spend a lot of money—about \$2.5 trillion—on health care in this country,” Arora says. “By making small investments in knowledge networks, we can get a better return on that investment by reducing treatment and transportation costs, reducing costly medical errors, and by improving outcomes.”

“The thing state legislators across the country should know,” says Beffort, “is that this isn’t only a way to improve rural health care, this is a way to help the budget at a time when states are struggling. This is a program that the whole country will have someday.”