How “Project ECHO” Promotes Equal Access to High Quality Health Care – In New Mexico and around the World

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In 2003, Dr. Sanjeev Arora, a liver specialist at the University of New Mexico School of Medicine, faced a problem. His patients suffering from infections with the hepatitis C virus (HCV) had to wait about eight months to see him at his university clinic – and by the time he saw many of them, their conditions had worsened, sometimes terminally. Dr. Arora realized that he simply could not treat all of the patients who needed care, the majority of whom lived in rural areas of New Mexico, and he also knew that this situation was especially harmful to the state's most vulnerable residents, including the poor, immigrants, Native Americans, Latinos, African- Americans, and those incarcerated in the state's prisons. In a nutshell, Dr. Arora’s dilemma reflected and epitomized entrenched inequalities in the U.S. healthcare system.

Innovation Born of Necessity

Devising a radical approach to solve his problem, Dr. Arora launched Project ECHO (Extension for Community Healthcare Outcomes). He traveled across the state searching for primary care clinicians who were interested in establishing centers of excellence for HCV care in their areas. Those who signed on would join Dr. Arora and an interdisciplinary team including a pharmacist and a behavioral and mental health specialist for weekly video sessions to discuss patients' care and treatment. Project ECHO has four key features: it employs teleconferencing technology to bring dispersed members of the statewide team together remotely; it utilizes case-based learning by holding discussions of the cases of real patients; it promotes best practices; and finally, it fosters a community of practice in which everyone teaches and learns improved practices, thus spreading specialized knowledge to everyone. As the primary care clinicians across New Mexico gained more knowledge and began to treat HCV patients in their areas, Dr. Arora's waiting list steadily decreased, until a year into the new project it was just two weeks long.

A critical question, however, remained unanswered: Were primary care clinicians mentored through this new Project ECHO able to safely and effectively treat patients?

Did High Quality Care Result?

Although access to care spread, a critical question remained to be answered: Was Project ECHO able to spread high quality care to underserved populations, thus improving equality? Research found encouraging answers. A 2011, study published in the *New England Journal of Medicine* documented that primary care clinicians who participated in Project ECHO’s teleECHO clinic for one year achieved the same cure rates as doctors based at the university clinic. Data also revealed that the innovative ECHO model created new access to specialty care for patients who were disproportionately minorities, including African-Americans, Latinos, and Native Americans. Researchers attributed positive “ECHO effects” to a combination of key factors.

Patients trusted local clinicians who were able to provide culturally-appropriate care in their native languages; and local treatment reduced the economic and psychological stresses experienced by patients, who did not have to travel long distances for care. This made it easier for them to adhere to treatment regimens.

Spreading Knowledge

The ECHO model, as others have argued, is a disruptive innovation that could only emerge in a state like New Mexico that faces a crisis in healthcare access and delivery. Thirty-two out of thirty-three New Mexico counties are designated as medically underserved areas, and 14 have shortages of health professionals. In 2004, less than five percent of the 28,000 New Mexicans with HCV had received treatment – for a disease that is highly curable but is fatal once it progresses to liver cancer. Project ECHO ameliorated one of the U.S. healthcare system's most pernicious problems – lack of access to specialty care for patients in underserved communities. The most groundbreaking feature involves breaking the monopoly of expert knowledge about HCV treatment, spreading it to a wide array of health practitioners who can use the knowledge to benefit patients who need it the most. This approach has built-in multiplier effects, because as one specialty team mentors local primary care clinicians, those primary care clinicians in turn become reservoirs of knowledge and points of contact for many other caregivers across broad swaths of rural or underserved areas. Over time, the number of patients served grows exponentially.

Diffusing the ECHO Model

The ECHO model can help reduce health inequalities in many areas because it is readily replicable and scalable. As a simple, flexible model, this approach can be adapted to address more than 45 different complex health problems, ranging from chronic pain and diabetes to autism and palliative care. Because it can easily be adjusted to address local needs, it has diffused around the world – including to developing countries – as clinicians and others involved in health care discover its potential for tackling persistent and highly treatable diseases that wreak havoc in poor and marginalized communities. This model is being used to deliver care for HIV in Namibia, hepatitis B and C in India, and drug resistant tuberculosis in Haiti.

Not only is the ECHO model flexible and easy to spread; it is also cost-effective. By increasing efficiencies in care delivery and reducing travel costs, this approach saves significant amounts of money. In the United States various government agencies use this approach, including the Defense Health Agency, Indian Health Services, and the Center for Disease Control and Prevention. At present, there are 89 ECHO “hubs” and thousands of community clinics and clinician spokes in 15 countries using this model to address various diseases and health conditions – and the model is now being extended to educational problems as well.

Project ECHO has an additional strength that makes it readily scalable: it gives away resources and intellectual property without cost. Partners who participate in Project ECHO agree to share knowledge and pool key data. This stimulates the diffusion of best practices and allows the more than 200 global partners to collaborate and engage in research to measure outcomes and effectiveness. Project ECHO aspires to incorporate its model into existing healthcare structures and institutions across the United States and around the world, touching one billion lives by 2025 – and reducing inequalities in access to health care in the process.

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